

# An Early Medieval Cemetery of the Bijelo Brdo Culture: Vukovar - Lijevo Bara (10th-11th Centuries)

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Demo, Željko

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RANOSREDNJOVJEKOVNO GROBLJE BJELOBRDSKE KULTURE:

# VUKOVAR

## – Lijeva Bara

(X–XI. stoljeće)

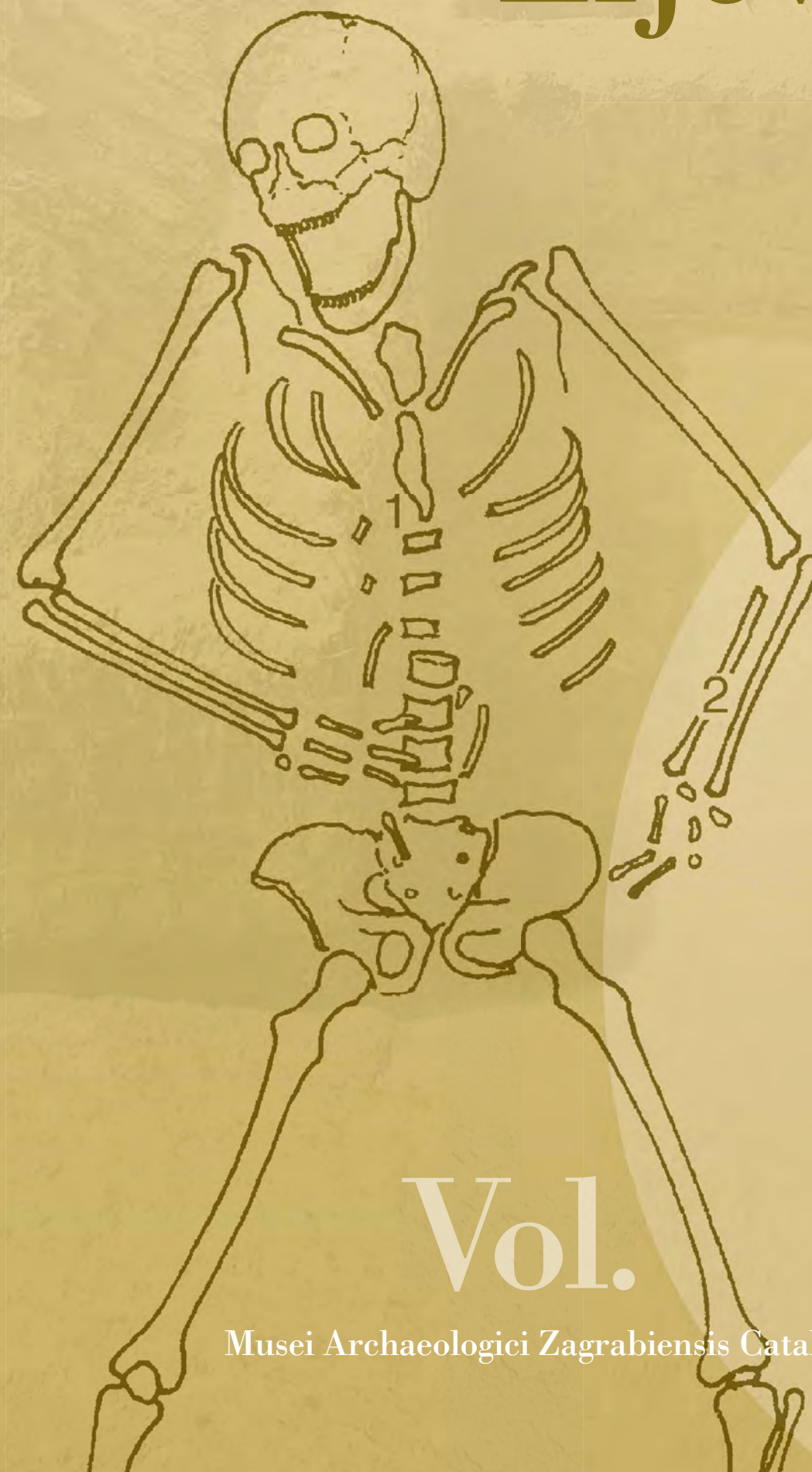
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**VUKOVAR**  
– Lijeva Bara (X–XI. stoljeće)

Ranosrednjovjekovno  
groblje bjelobrdske  
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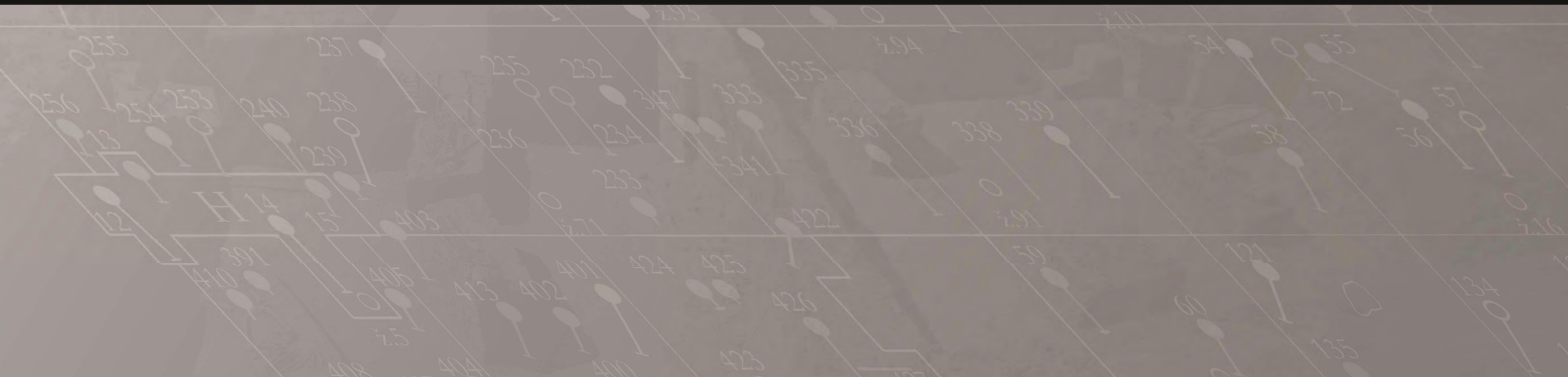
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*Željko Demo*

***Ranosrednjovjekovno groblje  
bjelobrdske kulture: Vukovar – Lijeva Bara  
(X–XI. stoljeće)***

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# CONTENTS

## Part 1

Foreword (Ante Rendić-Miočević)	9
Preface	11
Abbreviations	13
<b>1. THE SITE AND EXCAVATION OF THE MEDIEVAL CEMETERY</b>	<b>15</b>
1.1. The location and position of the site	15
1.2. The history of the site and the archaeological excavations	16
1.3. The location of the finds and the records	21
1.4. Publication	22
<b>2. CATALOGUE</b>	<b>23</b>
Notes to the catalogue	24
A) Description of the graves	24
1. Data about the grave: 1.1. The numbering of the graves [24]. – 1.2. The position of the grave in quadrant (or trench) [24]	
2. Data about the grave pit: 2.1. Dimensions of the grave pit [24]. – 2.2. Absolute depth [24]. – 2.3. Orientations ( <i>Azimuth</i> ) [25]. – 2.4. Grave equipment [25]	
3. Data about the deceased individual: 3.1. Archaeological data [25]. – 3.2. Anthropological data [25]. – 3.3. Biochemical data [26]	
4. Data about the finds (grave inventory): 4.1. The position of the finds in the grave [26]. – 4.2. Finds [26]	
B) Revision of the grave finds	27
1. Objects of everyday use: 1.1. Razor [27]	
2. Weapons and military equipment: 2.1. Arrow [28]. – 2.2. Buckles for suspending a quiver (a pair) [28]	
3. Jewellery / hand jewellery: 3.1. Bracelets [28]. – 3.2. Rings [29]	
C) Documentation	29
1.1. Drawings of the early medieval skeletons [29]. – 2.1. Photographs of the early medieval skeletons [30]. – 3.1. Plan of the cemetery (M 1:200) [30]	
D) The classification of beads	30
2.1. Test excavation in 1951 (graves I-III-1951)	32
2.2. Systematic excavation campaigns, 1951–1953	36
2.2.1. Excavations in 1951 (graves 1–32)	36
2.2.2. Excavations in 1952 (graves 33–205)	62
2.2.3. Excavations 1953 (graves 206–444)	190
2.2.4. Chance finds collected during the systematic excavations in 1952–1953 (9 items)	372
2.3. Chance finds from graves destroyed at Lijeva Bara prior to archaeological excavations	374
2.3.1. Artifacts purchased for the AMZ in 1931–1935 (31 items)	374
2.3.2. Chance finds from Vukovar 1880–1886 (donated by the noble Aleksandar Krajčović)	385

## Part 2

3. THE BURIAL RITE	387
3.1. Surface marking of the graves	387
3.2. Grave pits	387
3.2.1. Forms of grave pits	387
3.2.2. Measurement data	387
3.2.2.1. The length and width of the grave pits	387
3.2.2.2. The depth of the grave pits	388
3.2.3. Outfitting of the grave pits	389
3.2.3.1–2. The base and walls of the grave pits	389
3.3. The position of the deceased	389
3.3.1. General information	389
3.3.2. Position of the forearms	393
3.3.3. The orientation of the deceased	396
3.4. Graves with two or more deceased individuals	399
3.4.1. Double burials (graves)	399
3.5. Superimposed graves	400
3.6. Destroyed and disturbed graves	402
3.6.1. Deliberate disturbance of the body of the deceased (demolished graves, vampirism)	402
3.7. The burial of horses or horse bones	405
3.8. Burial rituals and beliefs	405
3.8.1. Finds in nonfunctional positions	405
4. OBJECTS FROM THE GRAVE INVENTORY	407
4.1. Objects of everyday use	408
4.1.1. Personal equipment	409
4.1.1.1. Knife	409
4.1.1.2–3. Steel and flint	413
4.1.2. Tools and implements	415
4.1.2.1. Spindle-whorl	415
4.1.2.2–4. Thatching needle, awl, and needle	417
4.1.2.5. Press (for an awl)	419
4.1.2.6. Tightener/loosener	419
4.1.2.7. Scraper	420
4.1.2.8. File	420
4.1.3. Hunting and fishing gear	420
4.1.3.1. Projectile (for a slingshot)	420
4.1.3.2. Hook	422
4.1.4. Cosmetic accessories	422
4.1.4.1. Razor	422
4.1.4.2. Pincers	423
4.2. Weapons and Military Equipment	424
4.2.1. Archery weapons and equipment	424
4.2.1.1. Composite (reflex) bow	424
4.2.2.2. Arrows (arrowheads)	428
4.2.2.3. Quiver	430
4.3. Jewellery	437
4.3.1. Jewellery for the head and hair	438
4.3.1.1. Circlets (open-ended)	438
4.3.1.1.1. Circlets without an ending	440
1. Circlets without an ending (without a pendant) [440]. – 2. Circlets without an ending with one or more pendants [444]. – 3. Pendants on circlets without an ending [445]	
4.3.1.1.2. Circlets with an ending	445
1. O-circlets [445]. – 2. S-circlets [447]. – 3. Circlets with a spiral ending [449]	

4.3.1.2. Earrings with a raceme pendant	452
4.3.1.2.1. Earrings with a raceme pendant with filigree and granulation	452
4.3.1.2.2. Cast earrings with a raceme pendant	456
4.3.2. Jewellery for the neck and chest	458
4.3.2.1. Torcs	458
4.3.2.1.1. Torcs that fasten	465
1. Torcs with a hook and eye formed from one or more wires of circular section with identical thickness [465]. – 2. Torcs with two hooks of circular section wire [468]	
4.3.2.1.2. Open-ended torcs	469
1. Torcs of circular section wire with ends in the shape of the letter "S" [469]	
4.3.2.2. Necklaces	471
1. Necklaces of beads [473]. – 2. Necklaces of beads and metal pendants [474]. – 3. Necklaces of metal pendants (pectorals, necklace-talismans or amulets) [475]	
4.3.2.3. Pendants (on necklaces and torcs)	476
4.3.2.3.1. Pendants of glass and amber	476
1. Beads	476
4.3.2.3.2. Metal pendants	479
1. Cross [479]. – 2. Lunula (crescent-shaped pendant) [481]. – 3. Globular bell-pendants [483]. – 4. Bell-shaped pendant (seal-amulet) [486]. – 5. Coinage [487]. – 6. Other pendants (on necklaces and torcs) [489]	
4.3.3 Jewellery for the hands	491
4.3.3.1. Bracelets	491
4.3.3.1.1. Open bracelets	494
1. A bracelet of banded section with spirally everted endings [494]. – 2. Bracelets of wire of circular, semicircular, or square section and pointed, tapered, or cut ends [494]. – 3. Bracelet of triangular section wire [497]. – 4. Bracelet with snake heads [497]	
4.3.3.1.2. Closed bracelets	498
1. Bracelet with animal heads [498]. – 2. Bracelets of twisted wires of different thickness [498]	
4.3.3.1.3. Bracelets that fasten	499
1. Bracelets of twisted wire with a hook and eye for fastening [499]	
4.3.3.2. Rings	500
4.3.3.2.1. Open rings	505
1. A ring with holes for a rivet [505]. – 2. Rings of banded section [506]. – 3. A ring of banded section with a hoop of filigree wire [508]. – 4. Rings of semicircular and triangular section [509]. – 5. Rings of arched section [510]. – 6. Rings of circular and oval section with cut or tapered ends [513]. – 7. A ring of oval section with overlapping ends (one halfway over another) [514]. – 8. Rings of rhomboid, square, and polygonal section [514]. – 9. A ring of silver twisted wire [515]	
4.3.3.2.2. Closed rings	516
1. 1. Rings of semicircular and triangular section [516]. – 2. A ring of semicircular section with transverse ribbing [517]. – 3. Rings of triangular section with a pattern of pseudo-twisted wire [517]. – 4. Rings with wart-like protrusions [518]	
4.3.3.2.3. Rings with a crown	518
1. Rings with a stepped crown [518]. – 2. Rings with a crown and hoop decorated with filigree wire [521]. – 3. Rings with an inset crown for a decorative element [523]. – 4. Rings with a crown of spirally coiled wire [528]. – 5. A ring with a crown of rhomboid form [530]	
4.4. Attire	531
4.4.1. Upper attire	531
4.4.1.1. Two-part pendants	532
4.4.1.2. Spangles (button-like appliqués)	536
4.4.1.3. Button-pendants	537
4.4.1.4. Cuff end	538
4.4.2. Belt elements	539
4.4.2.1. Buckles with a pin attached to the frame (D-shaped frame, circular frame)	540
4.4.2.2. Clasp with a hook for fastening (belt hook)	540
4.4.2.3. Belt mount	541
4.4.2.4. Strap ends	542
4.4.2.5. Cirlet (belt)	542
4.4.2.6. Belt chapes	543

4.4.2.7. Beads (belt)	543
4.5. Objects of cult character	544
4.5.1. Pottery (fragments of pottery vessels)	544
4.5.2. Osteological remains of provisions for the deceased (mammals, birds)	546
4.6. Object of unknown purpose	548
4.6.1. Wire	548
5. OTHER FINDS	549
5.1. Objects from previous cultural periods	549
6. THE CULTURAL AND HISTORICAL BACKGROUND TO THE ORIGIN AND UTILIZATION OF THE CEMETERY	552
6.1. The cultural and historical classification of the site	552
6.2. The period of the origin and utilization of the cemetery	552
6.2.1. Chronological determinants	552
6.2.2. The components and organization of the cemetery	554
6.2.3. The beliefs of the deceased	554
6.2.4. Signs of economic activities and trade	555
6.3. The cemetery in the medieval landscape of Vukovar (traces of settlement)	557
7. LIST OF OBJECTS	558
A) Objects from the grave inventories	558
B) Other finds	564
8. LIST OF ADDENDA, FIGURES, TABLES AND PLATES	565
A) List of addenda	565
B) List of figures	565
C) List of tables	570
D) List of plates	572
9. BIBLIOGRAPHY	574
A) Abbreviations of journals, series, and catalogues	574
B) Literature	577
10. AN EARLY MEDIEVAL CEMETERY OF THE BIJELO BRDO CULTURE: VUKOVAR – LIJEVA BARA (10 <sup>th</sup> –11 <sup>th</sup> CENTURIES) – Summary	602
11. PLATES	629

# FOREWORD

The Archaeological Museum in Zagreb marked the beginning of 1996 with the exhibition "Vukovar – Lijevo Bara: The History of an Archaeological Site (Relics, Research, Renown)", by Dr. Željko Demo, currently the head of the Medieval Department. With still vivid memories of this exhibition that was opened at the end of January 1996, but also other projects that the museum then brought to fruition, it should be noted that this was a jubilee year for the Archaeological Museum, marking the 150<sup>th</sup> anniversary of the founding of the National Museum in Zagreb, the institution from which the present-day Archaeological Museum evolved. Although from the very beginning the preparations for this exhibition dedicated to a famous archaeological site in Vukovar were approached in a very studious manner and with an emphasis on the highest professional criteria, the author nonetheless insisted on making the exhibition accessible and understandable for various types of visitors, and not merely a narrow circle of interested specialists, with highly creative solutions for its presentation. It is particularly important that the exhibition was then accompanied by an exhaustive catalogue, offering overviews of various aspects considered to be important for an integral understanding of this multilayered and complex archaeological site. Despite this, the exhibition nonetheless served as an announcement of a future, even more thorough, scientific assessment of the excavated site, and particularly its most prominent segment, the early medieval cemetery with finds from the Bijelo Brdo Culture, the largest such site in the Croatian part of the Danube basin, as well as in the broader regions of present-day Croatia.

The first finds from Lijevo Bara arrived in the Archaeological Museum in Zagreb in the far distant eighties of the 19<sup>th</sup> century. Only much later, after the Second World War, was the site in Vukovar visited by Marcel Gorenc, a curator of the museum in Zagreb, who offered his observations in a report. Not long afterwards, at the beginning of the fifties of the past century, archaeological excavations were carried out at the site in several campaigns by the author of the above report, along with his colleagues from the museum, Dr. Zdenko Vinski, Ksenija Vinski-Gasparini, and Slavenka Ercegović, as well as an entire series of experts of various profiles, and also several students, and on that occasion interesting traces were discovered of intensive occupation of this area during the prehistoric and early medieval periods. Due to various circumstances, the early medieval cemetery with finds from the Bijelo Brdo Culture had never been published in a suitable manner in the professional literature, with the exception of the previously mentioned exhibition catalogue. The finds that were discovered in the 1950s are to a large extent preserved today in the Archaeological Museum in Zagreb, along with the corresponding documentation, and they represent a precious source of data about various phases of life at this important site in Vukovar, and are also of exceptional importance in the context of a more complete knowledge of problems related to the early medieval archaeological heritage in this region.

This most recent two-volume text presenting the results of the excavation of the medieval Vukovar cemetery has been produced after many years of systematic study by the author of various questions related to this cemetery. The effort invested and the time involved – in fact a period longer than a decade – have culminated in a publication for which it can be stated without any dilemma that it meets the highest standards for scientific interpretation of research in the field and the corresponding finds. This edition, and I think that everyone will agree, satisfies even the most stringent criteria for the modern publication of archaeological material. When he began work on this monograph titled *An Early Medieval Cemetery of the Bijelo Brdo Culture: Vukovar-Lijevo Bara (10<sup>th</sup>-11<sup>th</sup> Centuries)*, probably even the author himself could not foresee the extent of the task that awaited him, or imagine the various problems that would multiply from day to day, or that a book many had expected much earlier has only now been declared ready for publication. It seems to me that the author was among the few who did not doubt in a happy outcome to this initiative and who believed that the publication of this monograph was merely a question of time. In such conditions, financing for the publication was always problematic, although this question was satisfactorily resolved with the decision to publish the work in the (relatively) new series of museum monographs and catalogues, for which it is no exaggeration to say that it has acquired an enviable reputation and has become an important segment of the publication activities of the Archaeological Museum.

Because of its scope, and particularly because of the exceptionally abundant documentation that needed to be tied to the textual section in a suitable manner, it proved necessary to divide the monograph into two parts, two separate and specific units. The possibility was even considered of publishing a third volume because of the pure mass of the material, but this "danger" was avoided, and the monograph is nonetheless being released as a two-book edition. In the period when the author began his work on the monograph, this museum series did not yet exist, rather a special publication was planned. The Archaeological Museum at that point in its publishing practices did not have anything approaching its present-day possibilities. In the end, it proved most appropriate for the monograph to be printed in the previously mentioned museum series *Catalogues and Monographs of the Archaeological Museum in Zagreb (Musei Archaeologici Zagrabiensis Catalogi et Monographiae)*.

In contrast to all of the previously published texts in this series, this monograph (volume 6) consists, as was emphasized above, of two parts, or two books. It features a systematic and thorough synthesis of all aspects of the Vukovar cemetery, or more pre-

cisely the finds from the early medieval Bijelo Brdo Culture found there. Once again I would like to emphasize that this monograph is the result of exceptionally studious and above all patient work on the part of the author, not merely in writing the text itself, but also as a photographer, and further as co-editor, as in fact he himself carried out most of the required technical preparations and layout for this exceptionally demanding publication.

Vukovar and its vicinity, and especially the nearby eponymous site of the famous Eneolithic Vučedol Culture, have marked the Vukovar region on Croatian and European archaeological maps, equally in scientific and cultural terms. Perhaps this is the reason why the other chronological horizons represented at excavated sites in Vukovar have been somewhat disregarded, overshadowed by the very phenomenon of Vučedol. It is necessary to note that the author of the monograph did not undertake a detailed analysis in this work of the prehistoric layers excavated at Lijevo Bara, such as the modest pit-dwelling settlement remains from the late Copper Age Kostolac Culture of the second half of the 4th millennium BC, or the grave finds of the Dalj Cultural group, from the period of the Late Bronze Age and Early Iron Age, after 1000 BC. Around a hundred excavated cremation graves and a smaller number of inhumation graves were found from this culture, which contained numerous pottery and less numerous metal grave goods. The same area – and this was also the case elsewhere throughout the entire region of Slavonia and Sirmia – was subject to considerable Illyrian influence in the mid 6th century BC. The La Tène, or Late Iron Age phase at Lijevo Bara was documented by discovered traces of a settlement of the Celtic-Pannonian Cornacates, where the finds included examples of fine burnished pottery made on the potter's wheel, as well as the usual pottery of coarse fabric, and in considerable lesser amounts the remains of metal weapons and jewellery. No traces were left at this site by remains from the Roman period, or finds from the Migration Period.

The author's attention in this monograph was focused on the early medieval cemetery at the site, with 438 graves of the Bijelo Brdo Culture, the largest of this kind in northern Croatia, and seemingly throughout the entire territory of Croatia. Carefully analyzing the available documentation, he established, for example, that out of this number, 191 graves contained finds, which he precisely expressed in the corresponding statistical percentages, establishing further, for example, that finds were more frequent in female graves than in male graves, and particularly child graves. His analyses confirmed that jewellery predominated among the finds, and he typologically classified it with statistical analyses, doing the same with the few examples of weapons that came from male graves. On this occasion I would like to cite a personal observation from the Preface published in the catalogue of the 1996 exhibition that was presented in the Archaeological Museum. Then I noted that the finds from the Vukovar cemetery "not merely supplement and enrich the knowledge about cemeteries of the Bijelo Brdo cultural complex, to which the cemetery belonged, but are also an important segment of the totality of Croatian early medieval archaeology." It is interesting to emphasize the observation that among the discovered grave goods, which come from a relatively brief chronological span and can be dated to the second half of the 10th century and the first quarter of the 11th century, in the period that in a historical context in Croatia was the age of the reign of Kings Mihajl Krešimir II, Stjepan Držislav, Svetoslav, and Krešimir III, there are finds with a clear Christian symbolism, such as the characteristic cross-pendants, but also, judging from other finds, apparently the old pagan customs were still very deeply ingrained.

It is superfluous to emphasize that the numerous and often very sophisticated analyses and correlations that the author applied in the treatment of the archaeological material have resulted in a series of interesting and very important conclusions, which I have no doubt will be of incalculable use to many, and particularly scholars in the field. The scope and thoroughness of the completed work is best shown by the fact that in the monograph, in addition to the numerous footnotes and citations in the text, there are also many figures, further accompanied by a full plan of the cemetery and as many as 434 drawings of the skeletons, with and without the positions of archaeological finds marked, as well as 191 drawings of the grave finds. The monograph includes more than 350 photographs of the skeletons, as well as the quadrants and trenches, and more than 100 tables related to various aspects of the determination and typological classification of the archaeological material, with more than 50 typological drawings and distribution maps of individual groups of archaeological material. It does not seem exaggerated to conclude that with this monograph we have acquired a significant work and contribution to the field the author studies in the monograph. There should be no doubt that it will represent an indispensable starting point for every future work that will be involved with aspects of the Bijelo Brdo Culture, not merely because of the insights and knowledge the author succeeded in expressing, but also because of the inimitable methodological approach applied in the analysis of the archaeological material.

It should be pointed out that this two-book monograph about the Vukovar cemetery, like most of the volumes in the same series, has been translated entirely into English (Barbara Smith-Demo), while only the volume on Greek vases was translated into French. In contrast to the previous volumes, because of the extensiveness of the text and the illustrative material, the translation could not be published in printed form side by side with the original Croatian, but is rather included in electronic form, i.e. as an accompanying CD. I must also mention that the monograph was reviewed by Dr. Zorko Marković and Dr. Tajana Sekelj-Ivančan, and that in addition to the extensive textual section it also contains a large number of photographs, drawings, figures, tables, plans, etc. Considerable contributions in terms of the drawings were made by Anđelka Fortuna and Miljenka Galić, along with earlier drawings by Franjo Matešić and Slavko Šohaj. Most of the photographs were taken by the present photographer of the Archaeological Museum, Igor Krajcar, but some were made by the author, while the considerably earlier photographs were the work of Jakov Pavelić. In addition to the author, Vesna Herak also participated in the preparation and editing of both parts of this monograph. All of those whose names have been cited, and especially the author of the monograph, Dr. Željko Demo, are due acknowledgement and congratulations for a job well done. In conclusion, it is quite clear that none of the above could have been achieved without financial support. Funding for this project was granted by the Municipal Office for Education, Culture, and Sport of the City of Zagreb, the Ministry of Culture of the Republic of Croatia, and the Ministry of Science and Technology of the Republic of Croatia. They are due sincere thanks for their support, as are those individuals who were able to recognize the importance of this publication and who aided in their own manner so that it would finally see the light of day after many years.

# PREFACE

Almost eighty years ago the first news arrived in the Archaeological-Historical National Museum, the predecessor to the present Archaeological Museum in Zagreb, about finds of early medieval objects discovered at Vukovar in a part of the city called Lije-va Bara. Soon after the news, the objects themselves arrived in the museum, at least some of them, and some fifteen years later they were to arouse the interest of several young archaeologists, then staff of the Archaeological Museum in Zagreb, and inspire them to begin systematic archaeological excavation at the site of Lije-va Bara. The excavations were carried out in three campaigns in 1951, 1952, and 1953 under the professional leadership of Marcel Gorenc, Zdenko Vinski, and Ksenija Vinski Gasparini, and the gathered material and field documentation is stored, inventoried, and housed in the Archaeological Museum in Zagreb. The excavation results were published in summary form by Zdenko Vinski, but the complete publication of the finds from this site, certainly an on-going project at the end of the nineteen-fifties, was never actually realized. Twenty years later, selected early medieval finds were presented to the public at a thematic exhibition in the Archaeological Museum in Zagreb in the summer of 1978, but without an accompanying catalogue or any other kind of printed material or publication. In the permanent exhibitions of the Archaeological Museum, as a rule only more luxurious individual finds or finds from interesting grave units at Lije-va Bara are on display.

When more than a quarter century ago an interesting find from northwestern Croatia inspired me to construct a typology of Bijelo Brdo two-part pendants discovered in what was then the former Yugoslavia, for the first time as a staff member of the Archaeological Museum in Zagreb I had the opportunity to hold in my hands some of the numerous early medieval objects found at Lije-va Bara, to browse through and look at the original field documentation and carefully stored yellowed newspaper clippings, and to immerse myself in the issues and problems related to this extraordinary archaeological site. However, I was only able to devote myself fully to this material and data in 1992, when conscious of the need for a fundamental revision of this part of the museum fundus, I tackled the first phase of digitalizing the inventory data and a considerable part of the field documentation, along with preparations for an exhibition on the theme of the archaeology of Vukovar and Lije-va Bara, as well as the writing, composition, and layout of the catalogue for the exhibition Vukovar – Lije-va Bara, the history of an archaeological site (relics, research, renown), displayed to the public in the Archaeological Museum at the beginning of 1996. The success of this exhibition was quite stimulating, as among other things the idea was set forth that the publications of the Archaeological Museum, at that time already fairly advanced, should be further enriched by the introduction of a new series of catalogues presenting elements of the museum collections, where a monographic publication dedicated to the early medieval finds from Lije-va Bara was intended to appear as the first, or at least one of the first in such an intended series. This did not occur, for various reasons, although this new museum series did become a reality in 2004, and several books have already been published, with others soon to follow.

It should definitely not be forgotten that the cemetery at Lije-va Bara, from the moment when excavation was completed and continuing up to the present day, was at that point and still today remains the largest systematically excavated cemetery of the Bijelo Brdo cultural complex in Croatia, as well as one of the largest known medieval cemeteries in Croatia as a whole. If it is added that the number of early medieval graves discovered and excavated at Lije-va Bara still constitutes at least half of all the archaeologically investigated graves of the Bijelo Brdo cultural complex in Croatia, it can easily be realized where these merely general statistical indicators lead us and what they indicate. Other than the above, it is also necessary to draw attention to the fact that the Bijelo Brdo cemetery at Lije-va Bara is at present the earliest example of this cultural manifestation on the territory of Croatia, and finds and material similar to those gathered there have not yet been discovered in other parts of Croatia. Along with the large amounts of finds and their variety, all of this would definitely be entirely sufficient for the early medieval segment of the site to be emphasized and highlighted, placing the necessity of publishing the gathered material in the center stage. This was in fact pointed out in the comprehensive study by Željko Tomičić printed at the beginning of the nineties of the past century, in the period of the greatest dangers during the Homeland War. The post-war years, and particularly those after the year 2000, were altogether much more peaceful and suitable for thorough scientific analysis.

Today, considerably later, when this extensive and comprehensive work has finally been concluded, I cannot help but remember all of those who more or less creatively, as part of their official duties or in some other way, contributed to the "survival" of the archaeological site at Lije-va Bara, whether through the systematic archaeological excavations and the rescue of the gathered ar-

archaeological material, or through the conservation, restoration, documentation, and preservation of this material. These remembrances extend back to the time of the museum director Viktor Hoffiller, the ardent "protector" of everything related to the site and the first finds from Lijeva Bara, and to the already mentioned curator-archaeologists, the leaders of the excavations at Lijeva Bara, who organized and directed all of the field work, setting up complicated tasks for their young excavation team, and carried out the excavations systematically and functionally, in a completely modern manner for that time. This masterful approach led to the creation of abundant field documentation – written, photographed, and drawn – which offered me, their humble heir, almost everything necessary for a thorough study of the site and the archaeological material, along with various analyses with a revisory character. Everything that was photographed, drawn, and mapped at the time definitely represents a permanent and valuable contribution by the museum photographer Jakov Pavelić, the museum illustrator (and painter) Slavko Šohaj, and the surveyors Ivan Reiser and Mihajlo Šćurov, while in the more recent period distinct traces in the form of contributions involving conservation, illustration, or documentation, often equally important, have been further made by current and former museum staff: Damir Doračić, Josip Fluksi, Sonja Krpan, Miljenka Galić, Nenad Kobasić, and Igor Krajcar. In addition to them, I am also grateful to those very few but expert individuals involved outside the confines of the museum: the archaeologist Anđelka Fortuna (Novo Mesto, Slovenia) and the artist Franjo Matešin (Bojana, Croatia).

In the various phases of the research leading to the creation of this monograph, valuable data and observations in relation to the skeletal remains and the archaeological material made of bone and horn were made available to me, aiding greatly in this work, by Dr. Mario Šlaus of the Department of Archaeology, Institute for Historical and Social Sciences, Croatian Academy of Science and Art (HAZU), Dr. Vesna Malez of the Institute of Paleontology and Quaternary Geology (HAZU), Jakov Radovčić, M.A., head of the Geological-Paleontological Department of the Croatian Natural History Museum in Zagreb, and the recently deceased Dr. Maja Paunović (Institute of Paleontology and Quaternary Geology, HAZU) and Dr. Mario Jurišić (Department of Archaeology, State Institution for the Protection of the Cultural and Natural Heritage). Particularly useful and of great help in this work were the numerous conversations, exchanges of opinions, and thought-provoking discussions shared with my colleague Dubravka Balen-Letunić, head of the Prehistoric Department of the Archaeological Museum in Zagreb.

No small amount of thanks are also due to the administration and management of the Archaeological Museum in Zagreb, headed by the director Ante Rendić-Miočević, who recognized the value and significance of this research and the full importance of its integral scientific publication. I am also grateful to all who granted funding for the publication of this monograph, and particularly the Office of Culture, Education, and Sport of the City of Zagreb, the Ministry of Science, Education, and Sport of the Republic of Croatia, the Ministry of Culture of the Republic of Croatia, and the Municipal Museum of Vukovar.

Finally, I owe much to Barbara, who all this time has patiently encouraged and supported me in my efforts to see that this complicated research project, started so long ago and extending throughout the years, be finally, and hopefully successfully, brought to an end.

Zagreb, September 2008



# ABBREVIATIONS IN THE CATALOGUE

▼	height above mean sea level (absolute depths in parantheses)	d	desni = right
%	percentage	d <sub>1</sub>	diameter exterior (e.g. cylindrical beads, ribbed beads)
∞	approximate	d <sub>2</sub>	diameter interior (e.g. cylindrical beads, ribbed beads)
∅	diameter	d.	relative depth
∅1	diameter of the rim (vessel)	De.	De. (= Demo) – citation mark for arrows, torc, bracelets, and rings based on research presented in the textual part of this work
∅2	diameter of the neck (vessel)	Dek.	see DEKÓWNA 1979, 145-164
∅3	diameter of the body (vessel)	des.	desni = right
∅4	diameter of the base (vessel)	dif.	different
*GRAVE	a star before the word grave = prehistoric inhumation grave	dim.	dimensions
I	I-1951 (only on the plan of the cemetery = Addendum I)	din.	dinar
II	II-1951 (only on the plan of the cemetery = Addendum I)	Dr.	doctor
III	III-1951 (only on the plan of the cemetery = Addendum I)	E	East
3*	a star after the number of a grave find = object(s) without data about the position and place of the find in the grave	Ed.	Editor
[3]	number of a grave find in square brackets = object(s) not preserved	e.g.	for example
A	Austria (= Österreich)	engl.	engleski = English
Abb.	Abbildung(en) = Figure	ex.	example
ábra	Figure	fasc.	Fascicle
AE	bronze	f	female
Akad.	academician	f?	probably female
ALU	Akademija likovnih umjetnosti / Academy of Fine Arts, Zagreb	Fe	iron
AMZ	Arheološki muzej u Zagrebu / Archaeological Museum in Zagreb, Croatia	Fig.	figure
AMZd	Arheološki muzej / Archaeological Museum, Zadar	FilFakZd	Filozofski fakultet / Faculty of Arts, Zadar
ant	antoninianus	fol	follis
AR	silver	franc.	francuski = French
ArhInstBgd	Arheološki institut / Archaeological Institute, Beograd	g	gram
AV	gold	G.	see GIESLER 1981, Taf. 1-4, 53
Bg	Bulgaria (= Bulgaria)	Gl-inv.AMZ	Glavni inventar AMZ / Main inventory AMZ
B.	see BÁLINT 1991, 123-124	GMSo	Gradski muzej / Municipal Museum, Sombor
Bd.	Band/Vol.	GMVu	Gradski muzej / Municipal Museum, Vukovar
Be.	see BECKMANN 1969, 34	god.	godina = year
Bez.	Bezirk = district	gr.	grave
BiH	Bosnia and Herzegovina (= Bosna i Hercegovina)	Gu.	see GUIRAUD 1989, 193-194
c.	caput = chapter	H	Hungary (= Magyarország)
ca.	circa	H.	see HANULIAK 1994 (Obr. 29, 31, 33, 40-41, 43, 46, 51-53)
cen	centenionalis	h.	height
cent.	century	h.1	height of body (for pottery)
ch	child	HAZU	Hrvatska akademija znanosti i umjetnosti / Croatian Academy of Science and Art, Zagreb
cm	centimetar	Hr	Croatia (= Hrvatska)
Com.	comitatus (= Komitat)	I	Italy (= Italia)
com.	comune = district	I/E	istok / East
Cons	Constantinopolis	InstHistZd	Institut za historijske nauke / Institute for Historical Sciences, Zadar
češ.	češki = Czech	Inv.AMZ	Inventar Arheološkog muzeja u Zagrebu / Inventory AMZ, Zagreb
D.	see DEMO 1983, 288-290	Inv.PMP	Inventar Pokrajinskog muzeja Ptuj / Inventory of the Regional Museum, Ptuj
		iskop.	iskopavanje = excavation
		ist.	Istorijski = historical
		J/S	jug / South

JAZU	Jugoslavenska akademija znanosti i umjetnosti / Yugoslav Academy of Science and Art, Zagreb (today HAZU)	PMH	Povijesni muzej Hrvatske / Historical Museum of Croatia, Zagreb
jud.	judež = county	PMP	Pokrajinski muzej Ptuj / Regional Museum, Ptuj
K.	see KOVÁCS 1994 (Abb. 30-31)	pos. izd.	posebna izdanja = special edition
knj.	knjiga = book	Prl.	prilog / prilozii = addendum / addenda
Kom.	Komitat (= county)	quad.	Quadrant
Ks	example(s)	r	right
l	left	reg.	region
l.	length	Ro	Romania (= România)
lit.	literature	Rom	Roma, Rome
M	scale	rsv	rani srednji vijek = Early Middle Ages
M.	see MESTERHÁZY 1991, 166-167	rus.	Russian
m	male	S	South
m?	probably male	S-AMZ	Inventory of the Archaeological Museum in Zagreb, Medieval Department
m <sup>2</sup>	square meter	SANU	Srpska akademija nauka i umetnosti / Serbian Academy of Science and Art, Beograd
mađ.	mađarski = Hungarian	sc.	scilicet
Mat.	Materijal(i)	ser.	series
max.	maximum	Sk	Slovakia (= Slovensko)
MBP	Muzej brodskog Posavlja / Museum of the Sava Basin, Slavonski Brod	Sl./sl.	slika = figure
Md	Moldavia (= Moldova)	Slo	Slovenia (= Slovenija)
med.	medium	slov.	Slovene
MGVi	Muzej grada / Municipal Museum, Vinkovci	slovk.	Slovakian
min.	minimum	Srb	Serbia (= Srbija)
ml.	mlađi = younger	SPA	Spätawarisch = Late Avaric
mm	millimeter	S-w.	width of S-ending (for S-circlets)
MSO	Muzej Slavonije / Museum of Slavonia, Osijek	Str.	Strasse = street
N	North	Sv.	svezak = volume
n.	footnote	w.	width
nep.	nepoznat(o) = unknown	T./t.	tabla, tábla = plate
no.	number	Tab/Tabl.	tabla, tabulka = plate
nom	nomisma	táb.	tábla = plate
NSK	Nacionalna i sveučilišna knjižnica / National and University Library, Zagreb (former NSB)	Taf.	Tafel = plate
njem.	njemački = German	tal.	Italian
Ger.	German	th.	thickness
o.	orientation	wt.	weight
obj.	object	To.	see TOMIČIĆ 1992a, 115-117
obl.	oblast = region	Ua	Ukraine (= Ukraina)
Obr/obr.	obraz = Fig.	Ul./ul.	ulica = street
odel. ist. nauka	odelelenje istorijskih nauka = department of historical sciences	ured.	Editor
okr.	okres = district	v.	vidi = see
obč	občina = district	V.	see VÁŇA 1954, 57, 59, 67, 69, 71, 73, 75, 77 (= Tab. I/1-VIII/17)
opć	općina = district	v.1-25	Variant 1 to 25 of forearm positions
opšt.	opština = district	vel.	veličina = size
os.	osovina = axis	Vol	Volumen (= volume)
Ost	Ostia	vol.	volume / spatial (m <sup>3</sup> )
O-w.	width of an O-ending (for O-circlet)	W	West
p.	page	ZMS	Zemaljski muzej u Sarajevu / State Museum, Sarajevo
p.	prehistoric skeleton grave (only on the plan of the cemetery = Prilog I)	Ž	cremation grave
P-AMZ	Inventory of the Archaeological Museum in Zagreb, Prehistoric Department	ž.	cremation grave (only on the plan of the cemetery = Prilog I)
Pl.	Plate	žup.	county

# 1. THE SITE AND EXCAVATION OF THE MEDIEVAL CEMETERY

## 1.1. The location and position of the site

Vukovar, situated on the left bank of the Danube River at the mouth of the Vuka River, at the transitional point from the alluvial plains of the lower Drava River to the elevated loess plateau of the Danube, and at the easternmost point of the flat lands of eastern Croatia, is the administrative center of Vukovar-Srijem County, and one of only two urban settlements in the present-day Croatian Danube basin region. The city developed on the loess heights south of the influx of the Vuka into the Danube, and only in the 18th century did it cross the Vuka, expanding towards the north (Novi [New] Vukovar), so that even today it does not give the impression of a consistent and compact urban entity, but rather a several mile long belt of settlement right up against the Danube River (**Fig. 1**).

Vukovar was also the seat of a territorial unit equivalent to a county in the Middle Ages, mentioned for the first time in 1220 (*in comitatu de Wolkou*).<sup>1</sup> The name of Thomas, son of Macharius (*Thoma de Wolkou*),<sup>2</sup> the first known count (*iupanus*) of Vukovar was cited in 1221, and in 1231 – thus an entire decade later – the Slavic name of the town was written for the first time in historical sources, i.e. the fortress of Vuk, Vuko, or Vukovo (*castrum Valkow*).<sup>3</sup> The present-day Hun-



**Fig. 1** The position of Vukovar and the County of Vukovar-Srijem.

<sup>1</sup> CD III, 183 (no. 157).

<sup>2</sup> CD III, 204 (no. 177).

<sup>3</sup> CD III, 346 (no. 304).

garicized term of Vukovar (*Wolkouar*) only appeared in the 14th century.<sup>4</sup> Vukovar in this period had two churches (St. George and St. Lambert), two parishes, and it was the see of an archdeaconate.<sup>5</sup> Weekly fairs were held in the town from the early 14th century (1345), and it was later declared a market town (1398).<sup>6</sup> From 1526 to 1687, it was under Turkish occupation, and from the 18th century, it was part of the Kingdom of Croatia and Slavonia (within the Habsburg Empire), and from 1745 the administrative center of the County of Syrmia (Srijem). It was officially declared a town in 1919, and in 1991, during the Homeland War for the independence of the Republic of Croatia, it suffered enormous destruction, with most of its population expelled or resettled.

Archaeological evidence has proven that the city area was settled in continuity from the Neolithic period (*the Starčevo Culture*).<sup>7</sup> Archaeological finds from Vukovar, most often individual and chance finds from the prehistoric cultures of the Eneolithic and early Bronze Ages (such as the *Vučedol* and *Vinkovci Cultures*),<sup>8</sup> the Middle and Late Bronze Ages (the Slavonic variants of the *Vatin* and *Belegiš Cultural groups*),<sup>9</sup> the early Iron Age (the *Urnfield Culture*, and the *Dalj Cultural group*),<sup>10</sup> and various periods of the late Iron Age, are already quite well known,<sup>11</sup> and many such finds have frequently been published in professional texts. Evidence for the Roman period inhabitants of Vukovar, however, is known only from a few isolated finds,<sup>12</sup> or from the rare hoards of late Republican silver coins,<sup>13</sup> or late Imperial bronze coins.<sup>14</sup> Similarly rare are archaeological traces of the final stages of the Migration Period (the Avaro-Slavic period, 8th century),<sup>15</sup> while the somewhat later early mediaeval finds of the 9th century are represented merely by the occasional artifact, as is also true for the quite sporadically collected later mediaeval finds of the 12th/13th–15th centuries from Vukovar.<sup>16</sup> The most numerous and so far best known finds are those of the *Bijelo Brdo Culture* from the second half of the 10th century and the 11th, thanks primarily to the systematic archaeological excavations undertaken in 1951–1953 by the Archaeological Museum in Zagreb at the site known as Lijeva Bara,<sup>17</sup> at that time located on the outskirts of the town (Pl. 1:1–3; Fig. 2).

## 1.2. The history of the site and the archaeological excavations

At the time of the archaeological excavations, the site at Lijeva Bara had already been known in the professional literature for almost half a century under the name "Gradac" or "Janković-Gradac" – not as an early mediaeval site, but instead as a prehistoric one, because of finds that were attributed to the *Vučedol Culture* of the Eneolithic.<sup>18</sup> The existence of early mediaeval finds as well as objects from several prehistoric periods remained unknown up to the 1930s, when what was then the National Archaeological and Historical Museum (today the Archaeological Museum in Zagreb) came into possession (both through purchase and through confiscation by the police) of a large quantity of prehistoric artifacts, but also various forms of jewellery from what is known as the *Bijelo Brdo Culture* (e.g. circlets and S-shaped circlets, torques, two-part pendants, bracelets, rings, etc.). However, it was the finds gathered in March 1951 during rescue excavations led by the museum curator Marcel Gorenc that were decisive for beginning archaeological investigation at Lijeva Bara. They did not

<sup>4</sup> CD IX, 154 (no. 129), the citation refers to the year 1323.

<sup>5</sup> PAVIČIĆ 1940, 44–48.

<sup>6</sup> PAVIČIĆ 1944, 43.

<sup>7</sup> DIMITRIJEVIĆ 1969, 12, Pl. I:5.

<sup>8</sup> BRUNŠMID 1902, 39 (Fig. 1:1–2), 56, 60–65.

<sup>9</sup> VINSKI 1958, 1, 4–34, Pl. VII, VIII, X:3–5.

<sup>10</sup> BRUNŠMID 1902, 59 (Fig. 18:1), 60; VINSKI-GASPARINI 1973, 187, 221, Pl. 6:9–10, 7:1–4.

<sup>11</sup> MAJNARIĆ-PANDŽIĆ 1970, 50–52, 99–100, Pl. XLIX–LI, LI:2–5, 9–12, LII:2–5, 7–10.

<sup>12</sup> BRUKNER 1981, 42, 105–106 no. 75, 107 no. 10, 158, 160, Pl. 16:75 (type 14), Pl. 119:103 (type 21); MAJNARIĆ-PANDŽIĆ 1970, 100, Pl. LII:1; DEMO 1996, 15, 69 (nos. 2–3), 110. – Individual finds of Roman weaponry, including an apparently late Imperial spearhead (*ango*), most probably come from a site in the immediate or more distant vicinity of Vukovar. For the spear, see HOFFILLER 1912, 97 Fig. 35.

<sup>13</sup> BRUNŠMID 1912, 260–271; CRAWFORD 1974, 100 no. 276. – A brief report about another hoard of silver coinage from *Apollonia* and *Dyr-rhachium* excavated in 1961 in the garden of the house at 25 J.J. Strossmayer Street (formerly 25 Moše Pijada Street) does not seem at all convincing (supposedly 14 coins), see *NumVijesti* 17/18, 1962, 51.

<sup>14</sup> DORN 1969, 35.

<sup>15</sup> VINSKI 1962, 103 nos. 2–3; KARAMANSKI 1975, 5, T. XXXXI:1–12; DEMO 1996, 15, 68–69 (nos. 7.1–4), 110.

<sup>16</sup> DEMO 1996, 17–18, 59–63, 93–96 (nos. 58–66), 110–111, 117–119. For the hoard of Aquileian *denarii* from the 15th century, see MIRNIK 1994, 85–123.

<sup>17</sup> Archaeological excavations were rare in the urban area of Vukovar, and when they were nonetheless undertaken, their extent was extremely limited, they were mainly rescue in character, and they were poorly documented if they were ever published later (see, for example, DORN 1960, 35–36; DORN 1980, 203–214).

<sup>18</sup> HOERNES 1903, 227, where the site was mentioned for the first time and the finds were compared to previously known finds of the *Vučedol Culture* discovered at nearby Sarvaš. The data are taken from the travel report of J. Brušmid, director of what was then the National Museum, Archives of the AMZ, "Vukovar" file, document no. 455/11896 of 3 Oct. 1896 = DEMO 1996, 18.

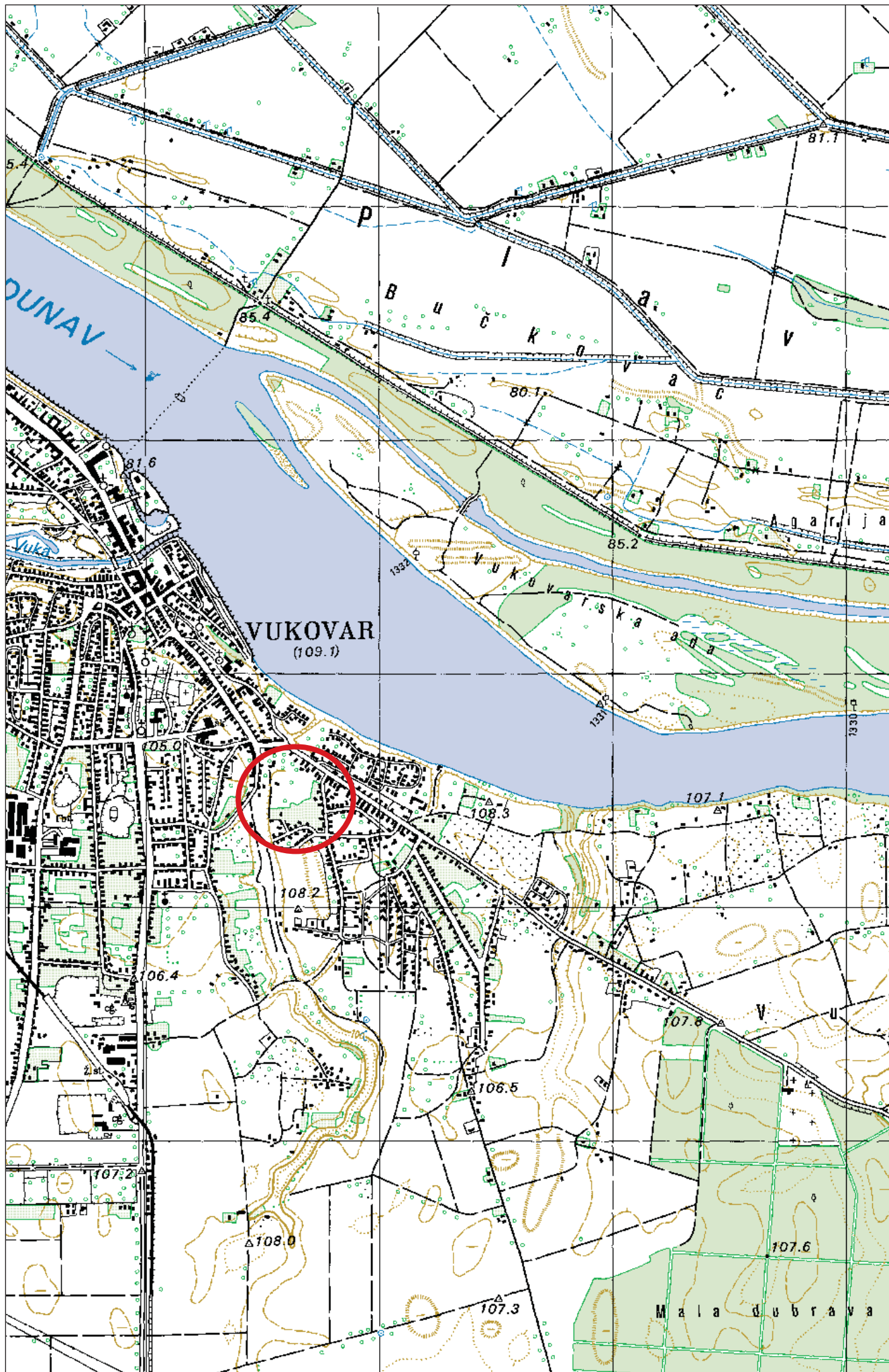


Fig. 2. The map of Vukovar with the location of the archaeological site of Lijeva Bara (N 45°20'32–34" / E 19°00'36–39").

merely confirm the existence of a cemetery of the *Bijelo Brdo Culture* (graves I–III/1951), but the noted "*prehistoric strata of the Dalj Culture... the settlement of some other culture... and the remains of another as yet unknown culture*" pointed to an exceptional cultural significance and a scientifically interesting multilayered site.<sup>19</sup> Test excavations were followed by systematic field work at Lijeva Bara by the Archaeological Museum in Zagreb, beginning with the small segment uncovered in 1951, continuing with a greater surface area of trenches in 1952, and concluding with the major excavations of 1953 – all undertaken under the mutual leadership of Dr. Zdenko Vinski, Marcel Gorenc, and Ksenija Vinski-Gasparini (**Fig. 3; Pl. 3:2,6**).<sup>20</sup>

The excavation took place on the former land of the Janković family – at this point it already belonged to several owners<sup>21</sup> – mainly on the land registry parcels 3806, 3807, and 3808, and also 3810 and 3811.<sup>22</sup> Excavation began with the placement of a large number of test trenches, usually 6 x 1.5 meters in size (trenches A–J from 1951, trenches L, M and N from 1952, trenches K, O and P from 1953),<sup>23</sup> meant to establish the extent of the site and verify the edges of the early mediaeval cemetery, so as to save any already endangered graves. Excavation was then continued by setting up a network of 5 x 5 meter quadrants with an interior division into four equal fields (a–d). Earthen partition walls 25 cm thick were left between the quadrants during excavation for drawing profiles and measuring the relative and absolute depths of the finds and graves, and were only removed when necessary (**Pl. 3:1,3–5**).<sup>24</sup>

**Table 1**

The basic parameters of the three year archaeological campaign at Lijeva Bara

Period of excavation ( <i>Diary</i> , 1951–1953)	type of excavation	days in the field	excavated area (ca. m <sup>2</sup> )	skeleton graves	mediaeval (no.)	prehistoric (no.)
1. 1951, 17–19/3	rescue	3	7,5	I–III/1951	3	–
2. 1951, 31/8–19/9	test, systematic	16	120	1–32	32	–
3. 1952, 10/8–23/9	systematic	44	1300	33–205	171	1
4. 1953, 7/8–4/9	systematic	29	1622,5	206–444	230	8
<i>Total:</i>		92	3050 m <sup>2</sup>	447	438	9

During the three year campaign of archaeological excavation – with 92 days in the field and almost 1,150,000 Dinars spent – an area of no less than 3050 m<sup>2</sup> was investigated (**Table 1**).<sup>25</sup> Discoveries included 438 early mediaeval inhumation graves belonging to the *Bijelo Brdo Culture*, 9 prehistoric inhumation graves,<sup>26</sup> and 101 prehistoric cremation graves

<sup>19</sup> DEMO 1996, 18–23, 111–112; DEMO 2003, 351.

<sup>20</sup> VINSKI 1953, 23; DEMO 1996, 23–26. – The professional team, other than the three directors, occasionally included the archaeologists Branka Vikić-Belančić (AMZ, 1947–1982) and Ružica Dreksler-Bižić (ZMS, 1950–1952; AMZ, 1952–1986). Archaeology students, later mostly prominent in the field, also participated in the excavations: for all three years Slavenka Ercegović (AMZ, 1955–1965; ArhInstBgd, 1965–1993), and one year each Vera Vejvoda (AMZ, 1950–1976), Valerija Damevski (AMZ, 1957–1990), Šime Batović (AMZd, 1953–1997; FilFakZd 1966–1997), Boris Ilakovac (InstHistZd, 1955–1962; AMZd, 1962–1983), and Aleksandar Stipčević (NSK, 1957–1974; JAZU, 1974–1983, etc.), as well as Ivanka Jovanović and Milorad Nikolić. A few then active or future archaeologists, historians, and museum staff from Slavonia also participated, gained experience, or aided in the work of the team, such as Josip Korda (MGVi, 1952–1962), Katarina Petrović (MBP, 1947–1972), Mirko Bulat (MSO, 1956–1991), Emil Spajić (MSO, 1951–1976) and Vlado Horvat (GMVu, 1971–1986), and Željka Lapaine. The technical staff of the team consisted of the geodetic surveyors Ivan Reizer (1951) and Mihajlo Šćurov (1952 and 1953), the illustrators Zvonimir Pirš, Leonard Šurina, Nikša Čiko (all Polytechnic students) and Jakša Nemeth (Art Academy student), the laboratory technician Nikola Kasun, and the photographer and technician Jakov Pavelić, who were present at the excavations all three years (the latter two being employees of the AMZ).

<sup>21</sup> The following are cited as the owners of the majority of the excavated land: Ana Srnić, Ivan and Anica Asodi, Albina Lorenc, Katarina Kovačević, and Elza Kovač. Smaller segments were excavated on the land of the Reis and Kolarić families; only trenches C and D were placed and excavated on the land of the latter.

<sup>22</sup> The renumbered land designations for the land registry parcels 1682/1, 1682/2, 1682/4, 1654/1, and 1654/2, as was noted in the first publication by VINSKI 1955, 232.

<sup>23</sup> Only a few trenches did not correspond to these dimensions: trench B (9 x 1.5 m), trench G (6.5 x 1.5 m), trench J (5 x 1.5 m) and trench P (ca. 4 x 1.8 m).

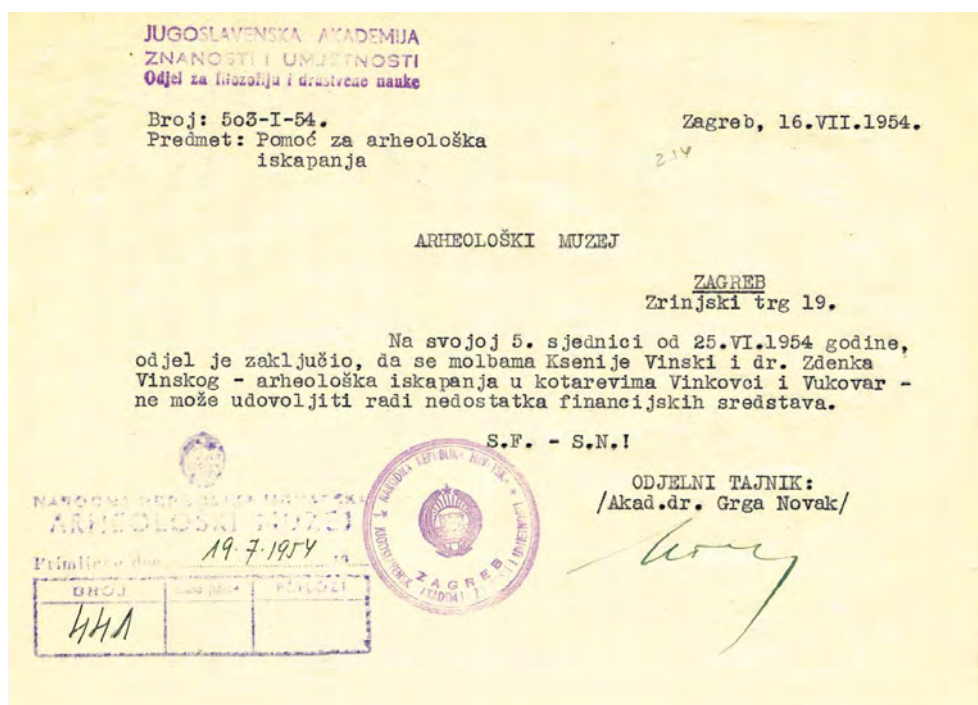
<sup>24</sup> VINSKI 1955, 233; VINSKI 1959, 99; DEMO 1996, 24.

<sup>25</sup> The excavated area was definitely larger than what is usually cited because of the great number of added trenches and segments. – The excavations were performed using funding by the Archaeological Museum in Zagreb (ca. 404,096 Din) and Division I for Philosophy and the Social Sciences of the Yugoslav Academy of Sciences and Arts (345,000 Din), who were joined in the last excavation season by a large donation from the Borovo Factory of Tires and Footwear (400,000 Din). Other than the large professional team, 6–8 workers were present at the excavations daily in 1951 (not including the aid given by students of the Vukovar High School), while there were usually 18–23 workers in 1952, and at the end of the season 29–35 workers, while in 1953 there were rarely fewer than 37–43 workers. In 1951 and 1952, excavation frequently continued even on Sundays.

<sup>26</sup> Graves 202, 206, 210, 269, 308, 320, 407, 427, 428.



Fig. 3. The site of Ljeva Bara with the area of archaeological excavations (the situation according to the plan from 1956; the names of the streets correspond to current usage; original scale 1:1000)



**Fig. 4.** The document from the Department of Philosophy and Social Sciences of the Yugoslav Academy of Science and Art in which the Archaeological Museum in Zagreb is denied funding for archaeological excavations in 1954.

of the Dalj cultural group of the late Bronze and early Iron Ages (1000–550 BC). Today it is known that the site at Lijeva Bara in Vukovar served as the location, in addition to these two cemeteries, first for a settlement of members of the Eneolithic period *Kostolac Culture* (from the second half of the 4th millennium BC), and later, at the end of the late Iron Age, as a settlement of the Pannonian-Celtic *Cornacates* (the 1st cent. BC to the early 1st cent. AD).<sup>27</sup>

The ratio of the documented early medieval graves and the excavated area exhibits a density of only 0.14 (ca. 1 grave per each 7m<sup>2</sup> of excavated area), while the density of the prehistoric cremation graves is more than four times less.<sup>28</sup>

This site has unfortunately not been excavated in entirety (**Fig. 4**),<sup>29</sup> and thus neither the true extent of the early mediaeval cemetery nor the entire period of its use are known. It can be hypothesized that the cemetery ended in the north around trench F (not a single skeleton was excavated there) although the researchers did come across the occasional animal or human bone in this trench, along with a fair amount of prehistoric pottery fragments in an ashy soil "from *Hallstatt cremation graves*".<sup>30</sup> The southern boundary of the cemetery could not be established, as a vineyard extended in this section along the entire length of the excavated land, but just in this area, and particularly in its southwestern part, the boundary of the cemetery could be shifted some 50 meters further to the south. The western edge of the cemetery, as is shown by the entirely sterile trench K, was up against a steep slope where the land descends to an almost 10 meter lower height above sea level.<sup>31</sup> To the east, the cemetery certainly extended towards the gardens of the houses in Croatian Independence Street/ Ul. Hrvatske nezavisnosti (formerly 12 April 1945 Street), as both trenches extended in this direction (M and N) contained two or three early mediaeval inhumation graves (115/f and 116/f; 118/ch, 119/?, and 137/?), and one prehistoric cremation grave each (Ž<sub>28</sub>; Ž<sub>32</sub>). To the southeast in trench C, just like in trench A located somewhat to the north of it, the only finds were fragments of *La Tène* pottery and more or less apparent remains of the occasional cremation grave (such as Ž<sub>2</sub>).<sup>32</sup> Thus the actual area of the cemetery of the *Bijelo Brdo culture* at Lijeva Bara could be twice as large as what was excavated archaeologically, and the number of ca. 1000 once hypothesized early mediaeval burials is very probable.<sup>33</sup>

<sup>27</sup> DEMO 1996, 28–32 (with cit.), 112–114; BALEN-LETUNIĆ 1996, 32–33, 91–92 (nos. 54–57).

<sup>28</sup> Measuring around 1:30 (grave per m<sup>2</sup>).

<sup>29</sup> The archives of the AMZ, file "Vukovar", doc. no. 441/54 from 19 July 1954 shows that in 1954, one of the main contributors up to that point, the Yugoslav Academy of Sciences and Arts, responded that the requests for funding from the experts of the Archaeological Museum (Ksenija Vinski and Dr. Zdenko Vinski) could not be met "because of a lack of financial funds" (signed: Akad. Dr. Grga Novak). After this, the archaeological excavations at Lijeva Bara were never continued.

<sup>30</sup> *Diary*, ad 6 Sept. 1951.

<sup>31</sup> *Diary*, ad 1 Sept. 1953. The position of trench K is identical to blocks II/11 and II/12.

<sup>32</sup> *Diary*, ad 4 and 5 Sept. 1951.

<sup>33</sup> VINSKI 1956, 251; VINSKI 1959, 108; VINSKI 1970, 71 n. 139. – The cemetery of the early Iron Age seems to have covered a somewhat greater area than that of the cemetery of the *Bijelo Brdo culture*, while the settlement of the late Iron Age seems to have occupied an even greater surface area.



Through a fortuitous series of events, the position of the archaeological site at Lijevo Bara has remained preserved even to the present. Today it is a rather large grass-covered area of polygonal form, bordered on the north, west, and south by Vatikanska ulica (Vatican Street), and on the east by ulica Hrvatske nezavisnosti (Croatian Independence Street), on the far sides of which rows of dwellings are located, mostly two-story family houses with yards and gardens. The archaeologically excavated section was located in the northwestern part of this area on land that corresponds to the land registry plots of the owners of the dwelling structures with addresses at 40–43 Vatican Street, Vatican Street itself, and to the east of this an approximately equally extensive grassy zone owned by the City of Vukovar (Pl. 2:1–2).

### 1.3. The location of the finds and the records

The archaeological finds from Lijevo Bara gathered during the 1951–1953 excavations are kept by the Archaeological Museum in Zagreb. Artifacts from the archaeologically investigated early mediaeval cemetery are kept in the Mediaeval Department under inv. nos. S-2421–2428, 2430–2432, 2435–2440, 2443, 2445–2492, 2494–2569, 2571–2581/5, 2583–2602, 2604–2439, 2641–2651, 2653–2701, 2703–2706, 2708–2729, 2731–2798, 2800–2818, 2820–2842, 2844–2898, 2900, 2903–2905, 2922, 3288 (= 2406), 3356, 3458–3459, 3469, 3816–3819, 4048, and the objects from graves destroyed in the 1930s are noted with inv. nos. S-2389–2404, 2406–2408, 2410/1–2416/11, 2418–2419.<sup>34</sup>

Little is known of the fate of the osteological material, although it is known that the better preserved osteological remains were gathered during excavation and suitably placed in bags prepared for their storage.<sup>35</sup> It is also known that at the end of the first excavation season 11 skeletons were collected and separated,<sup>36</sup> and that at the end of the second season "four packed trunks with bones and urns were taken to the Vukovar Museum" and were later transferred to Zagreb.<sup>37</sup> In 1953, after excavation was completed, the entire collected osteological material was located in storage in the Archaeological Museum in Zagreb,<sup>38</sup> but as early as 1955, with the permission of the Yugoslav Academy of Sciences and Arts (today the Croatian Academy of Sciences and Arts), the remains were taken to the Anthropological Institute of the Medical Faculty of the University of Zagreb, so that they "could be conserved, reconstructed, and bio-statistically analyzed".<sup>39</sup> Thirty years later, it could be concluded that the collected osteological material from Lijevo Bara consisted of at least 101 male and 57 female skeleton remains, primarily from early mediaeval graves (rarely and very fragmentarily from the few prehistoric inhumation graves).<sup>40</sup>

The original field documentation possessed by the Mediaeval Department of the AMZ consists of: field diaries from 1951 and 1952, the field diary from 1953 (= *Diary/Dnevnik*; Pl. 4), grave records (= *Record/Zapisnik*) with orthogonal drawings of the majority of the total of 438 early mediaeval graves (M 1:20),<sup>41</sup> vertical profiles of the trenches and quadrants excavated in 1952 and 1953, the plan of the coordinate system with the quadrant network and test trenches (M 1:500), the geodetic plan of the position at Lijevo Bara with the area of archaeological excavations drawn in (M 1:1000), and the general plan of the cemetery made to two different scales (M 1:100 and M 1:200),<sup>42</sup> and photographs of the quadrants and a large number of individual graves.<sup>43</sup>

<sup>34</sup> The museum purchased archaeological finds from several antiquity collectors in Vukovar on several occasions in 1931 and 1935, which included several medieval items. The main protagonists of these purchases were the Vukovar residents Gustav Doriath (inn-keeper) and Stjepan Srnić (merchant), from whom metal, glass, and pottery objects found in Vukovar were acquired, *Gl-Inv. AMZ*, 5–6 (nos. 25–26), 41–42 (no. 148). The circumstances in which one of these purchases took place (with police intervention) led to the discovery of the Bijelo Brdo Culture cemetery at Lijevo Bara, DEMO 1996, 21.

<sup>35</sup> VINSKI 1955, 234.

<sup>36</sup> *Diary* 1951, ad 15 Sept. 1951.

<sup>37</sup> *Diary* 1952, ad 10 Sept. 1952; archives of the AMZ, file "Vukovar", doc. no. 659/52 from 1 Dec. 1952.

<sup>38</sup> "Travel report about the excavations at Lijevo Bara in 1953", submitted to the Yugoslav Academy of Sciences and Arts, and its Division I for Philosophy and the Social Sciences on 1 Oct. 1953 (signed: Dr. Zdenko Vinski). The report does not discuss the quantity of this material.

<sup>39</sup> The archives of the AMZ, file "Vukovar", doc. no. 184/1955 from 1 April 1955 (signed: Prof. Dr. Z. Lorković).

<sup>40</sup> PILARIĆ – SHWIDETZKY 1988, 3–5.

<sup>41</sup> The majority of grave reports were made on A-3 format paper, folded over so as to create four usable pages of A-4 format. Each page had fields for filling in information on 20–22 groups of data, and most often an orthogonal drawing of the skeleton was added (Pl. 5). Drawings of the skeletons are missing for only four early mediaeval graves (0.91%): 8, 117, 133, 144.

<sup>42</sup> Drawn up by the geodetic surveyor Mihajlo Šćurov.

<sup>43</sup> The negatives, taken on site by Jakov Pavelić, the photographer of the AMZ, were photographed mostly on glass plates: on 13 x 18 cm and 10 x 15 cm plates all of the trenches and quadrants were filmed, and on plates of 9 x 12 and 10 x 15 cm, and on 6x6 cm films individual graves were photographed, or the rare details of certain grave situations. Of 438 early mediaeval graves, individual photographs exist for 310 of them (somewhat more than 70%), 70 graves are more or less visible only on the pictures of entire trenches or quadrants (more than 15%), while no photographic record whatsoever are available today for 58 graves (13.24%, i.e. graves: 8, 52, 70, 96, 99, 105, 117–8, 124, 129–30, 138, 149, 158, 162–5, 169, 194–5, 197, 203–5, 220, 248, 270, 281, 301, 334, 337, 343, 348, 390–1, 393–4, 396–8, 400, 403, 411–3, 418–9, 423–5, 429–31, 433, 437–8).

## 1.4. Publication

Reports referring to the excavation of the early mediaeval cemetery with more or less detailed data about the finds and results of the excavations were published on several occasions between 1952 and 1959,<sup>44</sup> and subsequently in 1992,<sup>45</sup> and 1996.<sup>46</sup> Anthropological aspects presenting exclusively the metrical measurements of adult individuals were reported only once, and in an extremely summary form.<sup>47</sup>

The archaeological finds from the prehistoric periods are mostly still unpublished.<sup>48</sup>

**Addendum 1** – The plan of the cemetery.

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<sup>44</sup> VINSKI 1952, 13–14; VINSKI 1953, 21–23; VINSKI 1955, 231–255; VINSKI 1959, 99–109.

<sup>45</sup> TOMIČIĆ 1992, 111–189.

<sup>46</sup> DEMO 1996.

<sup>47</sup> PILARIĆ – SHWIDETZKY 1988, 1–15.

<sup>48</sup> VINSKI 1955, 235–238, 248–253; VINSKI 1959, 100–102, 107–108; VINSKI-VINSKI-GASPARINI 1962, 271, 274–275, 290–292, Tab. III–IV; MAJNARIĆ-PANDŽIĆ 1970, 59–60; VINSKI-GASPARINI 1971, 106–108; VINSKI-GASPARINI 1973, 187, 222, Tab. 125; VINSKI-GASPARINI 1978, 135–137, 147; VINSKI-GASPARINI 1983, 599–617; ŠIMIĆ 1984, 107–115; BALEN-LETUNIĆ 1996, 32–33, 91–92 (br. 54–57); BALEN 2002, 153–157, 162–164, 166; DEMO 2003, 351–365; ŠIMIĆ 2004, 50–55, 58–59, 62–63, 66–67; MIHELIĆ 2004, 262 br. 8, 267 br. 14, 271–273 br. 28–31.



# NOTES TO THE CATALOGUE

## A. Description of the graves

### 1. Data about the grave (basic information about the grave)

#### 1.1. The numbering of the graves (*Addendum I*)

The numbering of the graves found in the field documentation (*Dnevnik, Zapisnik*) has been fully respected, so that all of the early medieval graves (435) and all of the prehistoric skeleton graves (9) are arranged in the same uninterrupted series of numbers. The list of the skeleton graves ending with the number 444 is preceded by 3 separately numbered early medieval graves excavated in rescue excavations in March 1951 (gr. I–III/1951), so that at Lijeva Bara a total of 447 graves was archaeologically established, 438 of them early medieval graves. The number of early medieval skeletons (439) is not identical to the number of early medieval graves (438), as the same number was used to designate the skeletons in grave 208 (double grave), where a mother (gr. 208–1/f) and child (gr. 208–2/ch) were buried next to one another.

#### 1.2. The position of the grave in a quadrant (or trench)

As was the case for the numbering of the graves, the numbering of the quadrants and trenches as noted in the field records was fully retained.

### 2. Data about the grave pit

#### 2.1. Dimensions of the grave pit

The data for measuring the dimensions of the grave pit were not gathered systematically (length, width, depth/relative depth), as data noted about the approximately measured length and width of the grave pit are available only for grave 97/m?. In contrast, the depth/relative depth was measured and recorded for all skeleton graves, with the exception of 3 early medieval graves (gr. 312/m, 393/ch, and III-1951/?) and 1 prehistoric skeleton grave (gr. 427).

#### 2.2. Absolute depth (*mSL*)<sup>1</sup>

According to the measured height above sea level in the grave documentation, the absolute depth was recorded for only 86 early medieval graves (79, 94, 104–105, 115, 116, 118–119, 121–132, 134–143, 145–146, 148–156, 158–191, 194–201, 203–205) and 1 prehistoric skeleton grave (gr. 202), i.e. for somewhat less than 20% of all excavated skeleton graves. Such a small amount of recorded data means the absolute depths did not achieve a statistically valid level. Most of the graves with a recorded absolute depth were excavated during the second campaign (exclusively graves excavated from 12 September to 19 September 1952).

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<sup>1</sup> Mean sea level.

## 2.3. Orientation (*Azimuth*)<sup>2</sup>

The field records and drawings for gr. I–III/1951 and gr. 1–32 excavated in 1951 offer no data about orientation, but an approximate value for the orientation was reconstructed thanks to the recorded positions of north on drawings of the trenches sketched in the grave records. The orientations of gr. 34–205 and gr. 393–444, excavated in the 1952 and 1953 campaigns, were all measured and recorded in the original field documentation as a deviation from north to the west, while the orientations of gr. 206–392, excavated in 1953, with the exception of the prehistoric graves, were measured and recorded in the field documentation as a deviation from north to the east. No comment on such a variation in methodology is preserved in any of the field records, and hence it cannot be explained today. – No data about orientation were recorded and no possibilities existed to establish orientation for 18 medieval graves (gr. 1, 6, 8, 79, 81, 117, 124, 129, 133, 134, 144, 192, 244, 251, 337, and gr. I-1951, II-1951 and III-1951) and 1 prehistoric grave (gr. 428).

## 2.4. Grave equipment

All of the grave records are unanimous in noting that at Lijevo Bara the deceased were placed directly in the earth without any traces of grave equipment, such as planks, pit linings, coffins, or various forms of grave structures.

# 3. Data about the deceased individual

## 3.1. Archaeological data

### 3.1.1. Skeleton burial

Four categories of data are noted: a) the position of the skeleton; b) the position of the head; c) the position of the legs; and d) the position of the forearms.

### 3.1.2. State of preservation

Four categories of preservation of the skeleton are noted: a) well preserved (not specifically listed in the description); b) damaged; c) poorly preserved; d) destroyed.

## 3.2. Anthropological data

### 3.2.1. Sex of the deceased

The determination of the sex of individual skeletons was taken from the notes written in the field documentation (*Zapisnik*). The data about the sex of the skeletons was classified there into three, or rather six groups: male/m, female/f and child/ch, along with m? (= probably male), f? (= probably female), and? (= sex unknown).

*Note:*

*Independently, on the basis of the preserved photographic records, an attempt was made by Dr. Mario Šlaus to determine the sex (and the age) of the skeletons. For the analysis, the photographs were studied of 304 skeletons (297 early medieval and 7 prehistoric), where the sex (m, m?, f, f?, ch) could be determined for 288 early medieval and 7 prehistoric skeletons (while the sex of another 9 early medieval skeletons could not be determined).*

### 3.2.2. Age of the deceased

In the field documentation (*Zapisnik*), data about the age were noted for only 64 medieval graves (gr. 8, 29–30, 57, 77, 79, 205–207, 242, 252, 287, 304–305, 318, 321–323, 328, 332, 347–349, 353–355, 359, 361, 368, 372–373, 378, 380–383, 387–388, 390–391, 393, 397, 402, 404–406, 408–412, 418–419, 422–425, 429–432, 436, 438, 442) and 3 prehistoric skeletons (gr. 308, 407, and 428), i.e. for somewhat less than 15% of all excavated inhumation burials. Notes of this kind were quite rare and scarce among the material documenting the archaeological campaigns that took place in 1951 and 1952 (7 skeletons), while considerably more frequent notes containing more extensive data were recorded during the excavations in 1953 (60 skeletons). They all refer exclusively to graves with skeletons of children who died in a range from newborns and children only several months old to young individuals who died at an age around 15 years old.

<sup>2</sup> The azimuth is the horizontal component of direction (compass direction), measured around the horizon from the north point toward the east, i.e. clockwise. It is usually measured in degrees. (N = 0° or 360°; E = 90°; S = 180°; W = 270°).

Note:

Independently of the above data, Dr. Mario Šlaus attempted to establish the age (and sex) of the skeletons on the basis of the preserved photographs. The photographic records were utilized for 304 skeletons (297 early medieval and 7 prehistoric), but the age could be established only for 231 skeletons, i.e. for 226 early medieval and 5 prehistoric skeletons. The age could not be determined for 73 skeletons (32.44%), specifically 71 early medieval and 2 prehistoric skeletons.

### 3.2.3. Metrical data

The only available metrical data was the length of the skeleton.

### 3.2.4–5. Pathology and individual features

The only notes of this type in the field documentation (e.g. *Zapisnik*) refer to grave 416/m ("on the right forearm... a fracture that had knitted together during life..."), gr. 426/f ("Nordic type; dolichocephalic skull – markedly long limbs"), and gr. 441/m ("dolichocephalic skull and dolichoskeletal extremities, Nordic type").

Note:

Independently of this, on the basis of the preserved photographic records Dr. Mario Šlaus attempted to establish the pathology and individual features of the skeletons. The analysis encompassed the photographs of 304 skeletons (297 early medieval and 7 prehistoric), but pathological or specific features could be established for only 15 skeletons (all early medieval).<sup>3</sup>

## 3.3. Biochemical data

Analysis was not performed.

## 4. Data about the finds (grave inventory)

### 4.1. The position of finds in the grave

The right and left sides in the graves and the position of the finds are all considered according to the position of the deceased. – For most of the graves excavated in 1951 and 1952 the position of the finds was determined on the basis of comparison of the photographs of the grave in question and the data recorded in certain field documents (*Dnevnik*, *Zapisnik*). To determine the position of finds in graves excavated in 1953, existing field sketches marking the position of grave finds (*Zapisnik*) were utilized, and if necessary photographs and the remaining field documentation (*Dnevnik*).

### 4.2. Finds

#### 4.2.1. Finds (contemporary to the burial)

The finds are designated by Roman numerals from 1 onwards. After the number follows: 1a. – Name of the object; 1b. – Description of the object; 1c. – Measurements; 1d. – State of preservation; 1e. – Inventory number specifying the collection in the Archaeological Museum in Zagreb (e.g. S-2000; P-2000); 1f. – Reference marker with an identification number in parentheses (e.g. G. 21).

Note:

An asterisk \* after the number designates an object without information or exact information about the position in the grave (for example, gr. 48. no. 3\*).

Brackets [ ] enclosing a number designate an object whose existence is noted in one of the field documents (*Dnevnik*, *Zapisnik*) or the object is recognizable on the photograph of the grave but it was later lost or for some other reason disappeared so that at present it no longer exists (for example, gr. 336 no. [2]).

The reference marker as a rule contains one and if necessary several abbreviations for reference literature with a corresponding identification number for the object or group of objects (e.g. G. 21 or G. 36; H. 56). The abbreviation *dif.* written after the identification number of the reference marker indicates a partial concordance between the identification number and the object or group of objects with which the comparison is made (e.g. G. 21 *dif.*). Supplements to the identification number refer to the further classification of a given object (for example, the reference marker G.13 common for Bijelo Brdo open circlets is supplemented with the measurement markers characteristic for S-circlets, e.g. G. 13-II,4/3).

<sup>3</sup> Graves: 3/m, 33/f, 62/m, 78/m, 87/m, 89/m, 92/m, 115/f, 122/f, 125/f, 357/m, 376/f, 395/f, 414/m, and 441/m.

The basic reference marker for objects of the Bijelo Brdo cultural circles is the abbreviation G. (=GIESLER 1981), and as such, it is most often utilized in this work. For objects unspecified or unrepresented in the reference work G., the reference marker used is To. (=TOMIČIĆ 1992), as it represents a supplemental classification list of objects discovered at Bijelo Brdo sites in the area between the Sava and Drava Rivers. For objects of everyday life, weapons, cult related objects, and individual types of jewellery, the reference marker H. was used (= HANULIAK 1994), and as necessary the reference marker V. (VÁŇA 1954). For jewellery groups where a more precise classification system was formed or exists, the relevant literature was utilized, designated by the corresponding reference markers (D. = DEMO 1983, B. = BÁLINT 1991: two-part pendants; K. = KOVÁCS 1994: bracelets). Further reference markers were used only for specific or rare types of rings and earrings (Be. = BECKMANN 1969; Gu. = GUIRAUD 1989; M. = MESTERHÁZY 1991; Dek. = DEKÓWNA 1979).

As final reference markers in the Catalogue for the classification of torcs, bracelets, and rings the typological identification markers are used that resulted from the research described in the second part of this publication (De.).

#### 4.2.2. Other objects in the grave (finds from other archaeological periods)

Objects from the inventory S-AMZ are described according to the model used for finds contemporary to the excavations but without typological markers in parentheses (some objects also lack measurement data). Objects from P-AMZ contain only the name of the object and its classification (for objects of unknown purpose, also other information if it exists and the state of preservation).

*Note:*

*The description of each individual find ends in the prefix S- and the inventory number of the Medieval Department of the AMZ = S-AMZ (composed in 1974–1977 by rewriting from the previously common inventory for objects of both the prehistoric and medieval departments of the AMZ = P-AMZ).*

Other than medieval objects, 21 early medieval graves also contained as the only find objects from the prehistoric period (14 graves) or they were found together with medieval objects (7 graves): gr. 10/f (P), 13/ch (S+P), 19/? (S+P), 21/f (P), 55/? (P), 56/m (P), 67/m (P), 94/m (S+P), 121/m (S+P), 136/f (P), 163/ch (P), 222/f (S+P), 226/? (P), 231/f (P), 238/m / (S+P), 296/f? (P), 303/f (P), 310/m (P), 318/ch (P), 382/ch (S+P), 396/m? (P).

The group of other objects consists of: a fibula (gr. 94/m), a decorative pin with beads (gr. 13/ch); prehistoric vessels, entire (gr. 19/?, 55/?, 136/f, 226/?), fragments of prehistoric vessels (gr. 67/m, 396/m?); a spindle-whorl (gr. 296/f?), nails (gr. 10/f, 56/m, 136/f, 238/m?), an antler tine (gr. 10/f), an animal tooth (gr. 231/f, 310/m), a shell fragment (gr. 163/ch), a fragment of bronze sheet metal (gr. 21/f), a clump of stone/ore (gr. 19/?), a nugget of metal (gr. 318/ch, 382/ch), slag (gr. 121/m), graphite (gr. 303/f), objects of unknown purpose (gr. 19/?, 222/f).

## B. Revision of the grave finds

### 1. Objects of everyday use

#### 1.1 Razor

##### 1.1.1. Grave 232/m

*Razor* (H. –); S-3819 – Attributed to the skeleton from gr. 232 (by the leg) on the basis of the field photo documentation (Photo archives AMZ, 1823-III-131; 1825-II-837).<sup>4</sup>

<sup>4</sup> It was listed in S-AMZ among a group of iron objects of unknown purpose attributed to gr. 127/? (all objects with the same inv. no. S-2581).

## 2. Weapons and military equipment

### 2.1. Arrow

#### 2.1.1. Grave 92/m

*Arrowhead* (G. A; H. 8a; To. A3; De.1.1; Rutt. B3/Med. 52?); not preserved – The claim of finds of "three arrows", as is noted in the field documentation (*Dnevnik*, ad 4.IX.1952; *Zapisnik*, no. 92/6.IX.1952) and the first publications based on this (VINSKI 1957, 244; VINSKI 1959, 105), were first reduced to two examples in the new S-AMZ inventory, and this information was definitively revised in the conservation and restoration undertaken in 1995, after which it was possible to identify among the preserved iron objects from grave 92 the fragments of two iron knives, one more complete and better preserved (S-2534, S-2536) and the other incomplete and poorly preserved (S-2535).<sup>5</sup> The only "arrowhead, iron, damaged" discovered in the grave, but incomplete, as it was "missing part of the shank", has not been preserved and no longer exist today, although it is listed in the old P-AMZ inventory (P-18114), and it can also be recognized among the grave finds shown on both preserved field photographs (Photo archives AMZ, 1700-IV-535, 1792-II-805) (**Table 2**).

**Table 2**

Data from the earlier P-AMZ and later S-AMZ inventories referring to the finds of three, or two, arrows in gr. 92/m.

No. object	P-AMZ	Description of the objects (P-18108–18116 and S-2530–2536)	S-AMZ	No. object
1	18108	<i>Bracelet, bronze, circular section, the ends don't touch.</i> Bracelet, bronze...circular section, separated ends.	2530	1
2	18109	<i>Bronze cirlet whose ends overlap.</i> Bronze cirlet...ends that overlap.	2531	2
3	18110	<i>Small bronze cirlet, whose ends don't touch.</i> Bronze cirlet... separated ends.	2532	3
4	18111	<i>Small cirlet with a hemispherical section, fragmentary.</i> Ring of bronze sheet metal...broken into two parts.	2533	4
5	18112	<i>Small knife, iron, corroded, consists of two parts.</i> Small knife, iron, the tang... broken off, quite corroded. 1 piece.	2534	5
6	18113	<i>Arrowhead, iron, the tip damaged.</i> Iron arrowhead, willow leaf shaped...tip of the arrow broken off...corroded.	2535	6
7	18114	<i>Arrowhead, iron, damaged – missing part of the shank.</i>		
8	18115	<i>Fragment of iron, probably part of an arrowhead.</i> Part of the tip of an iron arrow, the rest missing, corroded. 1 piece.	2536	7
9	18116	<i>Bone fragments that served as reinforcement for a reflex bow.</i> Fragments of the bone reinforcement of a reflex bow...with a hole and rounded ends.	2537	8
<i>Total arrowheads (P-AMZ): 3</i>			<i>Total arrowheads (S-AMZ): 2</i>	

### 2.2. Buckles for suspending a quiver (a pair)

#### 2.2.1. Grave 237/m

*Buckles, 2* (G. –); S-3817, 3818 – They are attributed to gr. 237 on the basis of the photographic documentation (Photo archives AMZ, 1827-II-838). They were listed in the S-AMZ inventory among the finds from gr. 232, and they are cited as such in certain recent publications (TOMIČIĆ 1992, 129 Pl. VII).

## 3. Jewellery / hand jewellery

### 3.1 Bracelets

#### 3.1.1. Grave 31/f?

*Bracelet* (G.4; De. 1.2a); S-2893 – It is attributed to the damaged skeleton in gr. 31 on the basis of data about the site of discovery (quad. X/8) recorded in part of the field documentation (*Dnevnik*, ad 12.IX.1951).

<sup>5</sup> DEMO 1996, 73–74 nos. 5–6; DEMO 2005, 78, 89.



### 3.1.2. Grave 208-2/ch

*Bracelet* (G. 4; De. 1.2b); S-2903 – It is attributed to the damaged child skeleton in gr. 208 on the basis of data about the site of discovery (quad. XVIII/15c) recorded in part of the field documentation (*Dnevnik*, ad 7.VIII. and 11.VIII.1953).

### 3.1.3. Grave 374/f?

*Bracelet* (V. II/11; K. 2b; De. 2.1); S-2881 – It is attributed to gr. 374 on the basis of field photo documentation (Photo archives AMZ, 1899-II-896), which is confirmed by data from the first publications (VINSKI 1955, 253, fig. 27; VINSKI 1959, pl. XXXVIII:27). The bracelet is listed in the S-AMZ inventory as a find from gr. 444, and is mentioned as such in some recent publications (DEMO 1996, 52 fig. 34/right).

### 3.1.4. Grave 444/f

*Bracelet* (G. 8 dif.; K. 1a dif.; De. 1.4); S-2789 – It is attributed to gr. 444 on the basis of field photo documentation (Photo archives AMZ, 3783-II-1070), which is confirmed by data from the first publications (VINSKI 1955, 253, fig. 26; VINSKI 1959, pl. XXXVIII: 26). The bracelet is listed in the S-AMZ inventory as a find from gr. 374 and is cited as such in certain recent publications (TOMIČIĆ, 1992, 145, pl. XIII:1; DEMO 1996, 52 fig. 34/left).

## 3.2. Rings

### 3.2.1. Grave 298/f

*Ring* (G. 24; De. 1.5b); S-2877 – It is attributed to gr. 298 on the basis of field photo documentation (Photo archives AMZ, 1860-II-863) and data in the field documentation (*Dnevnik*, ad 19.VIII.1953). The ring is listed in the S-AMZ inventory among the finds from gr. 444, which in fact contained another silver ring (see no. 4 here).

### 3.2.2. Grave 313/f?

*Ring* (G. 31; H. 52b); S-2741 – It is attributed to gr. 313 on the basis of field photo documentation (Photo archives AMZ, 1866-II-868). It is listed among the finds discovered in gr. 326 in the S-AMZ inventory.

### 3.2.3. Grave 326/f

*Ring* (V. III/33; H. 55b); S-2849 – It is attributed to gr. 326 on the basis of field photo documentation of gr. 326 as one of two rings hanging from a torc (Photo archives AMZ, 1874-III-144). It was listed in the S-AMZ inventory among the finds from gr. 422, and is cited as such in certain recent publications (TOMIČIĆ 1992, 145, 152,169).<sup>6</sup>

### 3.2.4. Grave 444/f

*Ring* (G. 29); S-2795 – It is attributed to gr. 444 on the basis of field photo documentation (Photo archives AMZ, 3783-II-1070). It was listed in the S-AMZ inventory among the objects found in gr. 379, and is cited as such in certain recent publications (TOMIČIĆ 1992, 156, 160–161, 169; DEMO 1996, 90 no. 52:7).<sup>7</sup>

## C. Documentation

### 1.1. Drawings of the early medieval skeletons (Scale 1:20)

The skeletons in four graves lack drawings: 8, 117, 133, 144.

<sup>6</sup> According to the field documentation (*Dnevnik*, ad 1 Sept. 1953; *Zapisnik*, no. 422/2 Sept. 1953), gr. 422 contained only one bronze ring (G. 22; D. 1.4b).

<sup>7</sup> According to the field documentation (*Dnevnik*, ad 27 Aug. 1953; *Zapisnik*, no. 379/29 Aug. 1953), gr. 379 contained only one silver ring (G. 38a; M. 16a; De. 3.15).

## 2.1. Photographs of the early medieval skeletons

No photographs whatsoever are available for the skeletons in 58 graves: 8, 52, 70, 96, 99, 105, 117-8, 124, 129-30, 138, 149, 158, 162-5, 169, 194-5, 197, 203-5, 220, 248, 270, 281, 301, 334, 337, 343, 348, 390-1, 393-4, 396-8, 400, 403, 411-3, 418-9, 423-5, 429-31, 433, 437-8.

No individual photographs but views of entire quadrants are available for 70 graves: 1, 9, 16, 75, 79, 82-3, 90-1, 95, 101-2, 113-4, 126, 133, 141, 143-5, 151-7, 166-8, 170-82, 184-93, 196, 198-201, 212, 222, 359-61, 368, 372-3, 401-2, 410, 436.

## 3.1. Plan of the cemetery (1:200)

A new and revised master plan at a scale of 1:200 was drawn for this publication in 2008 and 2009 by the archaeologist Anđelka Fortuna Saje of the conservation department of the Institute for the Protection of the Cultural Heritage in Novo Mesto (Slovenia). The master plan needed to be redrawn for various reasons, but primarily because of various problems, missing items, and even inaccuracies noted during the analysis when utilizing the two previously existing master plans of the cemetery drawn as part of the documentation of the excavations by the Medieval Department of the AMZ before or ca. 1956 (by Mihajlo Šćurov, surveying engineer).

# D. The classification of beads

The classification system and categorization of beads are a combination of the parameters established in the works of N. Venclová (1990) and K. Szilágyi (1994), with occasional alterations and additions adapted to the beads found at Lijeva Bara. In the category of material, codes for beads of amber and bone were added (02, 03). Codes were added to the forms for distinguishing single, double, and quadruple segmented beads (011, 012, 014), and parameters for the simpler metrological separation of cylindrical (05-06) and rod-shaped (08) beads, and the flattened globular (03) and the often similar annular (11) beads. The term grits-shaped (14) encompasses various forms of beads of very small dimensions (0.2-0.4 cm). A category of worked/unworked (01, 02) was established for bone beads (02), and in the category of decoration the methods applied in the production of beads to create an additional decorative effect were added for beads of all three materials (03-04). Glass beads for the most part were decorated by the impression of a glass mass into a heated glass base (01) or the application of a glass mass to a more or less cooled glass base (02), and the range of decoration encompasses several variants of circular and linear decoration and only one combination of these two decorative patterns. Dot (101) is the term used for an insertion of more or less circular form and different color, flat with the surface or gently protruding (ca. 1 mm), and eye (102) is used for a dot within a circle or a circle of different color. The scale of colors belongs to the category of subjective observation, and in a great number of cases this is merely at the level of an attempt to interpret the current state (Venclová 1990).

The code numbers encompass two levels of data. The first level consists of description of the material, the form, the transparency (for glass beads) or working (for amber and bone beads), and the color of the bead. The second level, divided from the first level by a slanted line (/), consists of the description of the decoration and the decorative variants, the manner of decoration, and the color of the decorative pattern. At the second level of data, glass beads decorated with gold or silver coatings, and amber beads and bone beads merely have a code designation for the manner of decoration.

[NB: The categories in italic script designate those not represented at Lijeva Bara.]

### Materials:

01 glass bead

02 amber bead (gr. 108)

03 bone bead (gr. 84 i 263; 367)

### Forms ( $D=d_2$ , $d=d_2$ ):

- |  |  |
|--|--|
| 01 segmented   | 08 rod-shaped ( $h > 2 \varnothing$ )  |
| 011 single   | 09 biconical   |
| 012 double   | 10 rectangular prismatic;  |
| 014 quadruple  | 11 (small) annular ( $\varnothing > h$ , $\varnothing \leq 1.4 \text{ cm}$ ) |
| 02 globular ( $\varnothing = h$ )                                    | 12 oval;   |
| 03 flattened globular ( $\varnothing \leq h$ )                       | 13 cylindrical with a pinched end  |
| 04 flattened globular, vertically ribbed                             | 14 grits-shaped  |
| 05 low cylindrical ( $h \leq \varnothing$ ; $h \leq 2 \varnothing$ ) | 15 polygonal-irregular (= amber bead: gr. 108)                               |
| 06 high cylindrical ( $h > \varnothing$ ; $h > 2 \varnothing$ )      | 16 unknown   |
| 07 cylindrical, vertically ribbed                                    |  |

### Transparency (glass):

- 1 translucent glass
- 2 opaque glass
- 3 *faience*
- 4 unspecified glass mass, i.e. corroded, devitrified

### Bone

- 1 worked (gr. 84 and 263)
- 2 unworked (gr. 367 – fish vertebra)

### Decoration:

- |   |   |
|---|---|
| 1 Circular decoration                                 | 2 Linear decoration   |
| 101 dots  | 201 wavy line   |
| 10101 1 dot   | 20101 uninterrupted (gr. 326 – prehistoric bead)                            |
| 10102 2 opposite dots                                 | 20111 broken (gr. 124, 252)   |
| 10112 2 irregularly arranged dots                     | 20102 two thrice intersecting wavy lines                                    |
| 10103 3 dots in regular intervals on the perimeter    | 202 irregular line  |
| 10113 3 irregularly arranged dots                     | 20201 intermittent, multiple (gr. 52, flattened globular; gr. 227, annular) |
| 10104 4 dots in regular intervals on the perimeter    | 3 Combined circular – linear decoration)                                    |
| 10114 4 irregularly arranged dots                     | 301 dots and wavy lines   |
| 10105 5 dots in regular intervals on the perimeter    | 30101 dots in three fields of two intersecting wavy lines                   |
| 10115 5 irregularly arranged dots                     |   |
| 102 stratified eyes: (dot within one or more circles) |   |
| 10201 4 eyes in two layers                            |   |

### Manner of decoration:

- |  |  |
|--|--|
| 01 impressed   | 04 silver coating between two glass layers (gr. 326, 409, inv. 2410) |
| 02 applied   | 05 carved (amber bead, gr. 108)                                      |
| 03 golden coating between two glass layers (gr. 115) | 06 polished (bone beads perle, gr. 84 and 263)                       |

### Colour:

- |                                  |                              |                       |                      |
|----------------------------------|------------------------------|-----------------------|----------------------|
| 00 unknown                       | 30 red:                      | 50 green:             | 70 black             |
| 10 white:                        | 30 unspecified red           | 50 unspecified green  | 71 black             |
| 10 unspecified white             | 31 <i>bright red</i>         | 51 <i>moss-green</i>  | 72 grey              |
| 11 milky white                   | 32 terracotta (= amber bead) | 52 <i>grass green</i> | 80 colourless glass: |
| 12 yellowish white               | 33 violet                    | 53 light green        | 81 colourless        |
| 20 yellow:                       | 40 blue:                     | 54 dark green         | 82 yellowish         |
| 20 unspecified yellow            | 40 unspecified blue          | 55 yellowish green    |                      |
| 21 pale yellow (to lemon-yellow) | 41 <i>light blue</i>         | 60 brown:             |                      |
| 22 ochre                         | 42 turquoise                 | 60 unspecified brown  |                      |
| 23 <i>orange</i>                 | 43 cobalt blue               | 61 honey brown        |                      |
| 24 golden yellow                 |                              | 62 light brown        |                      |

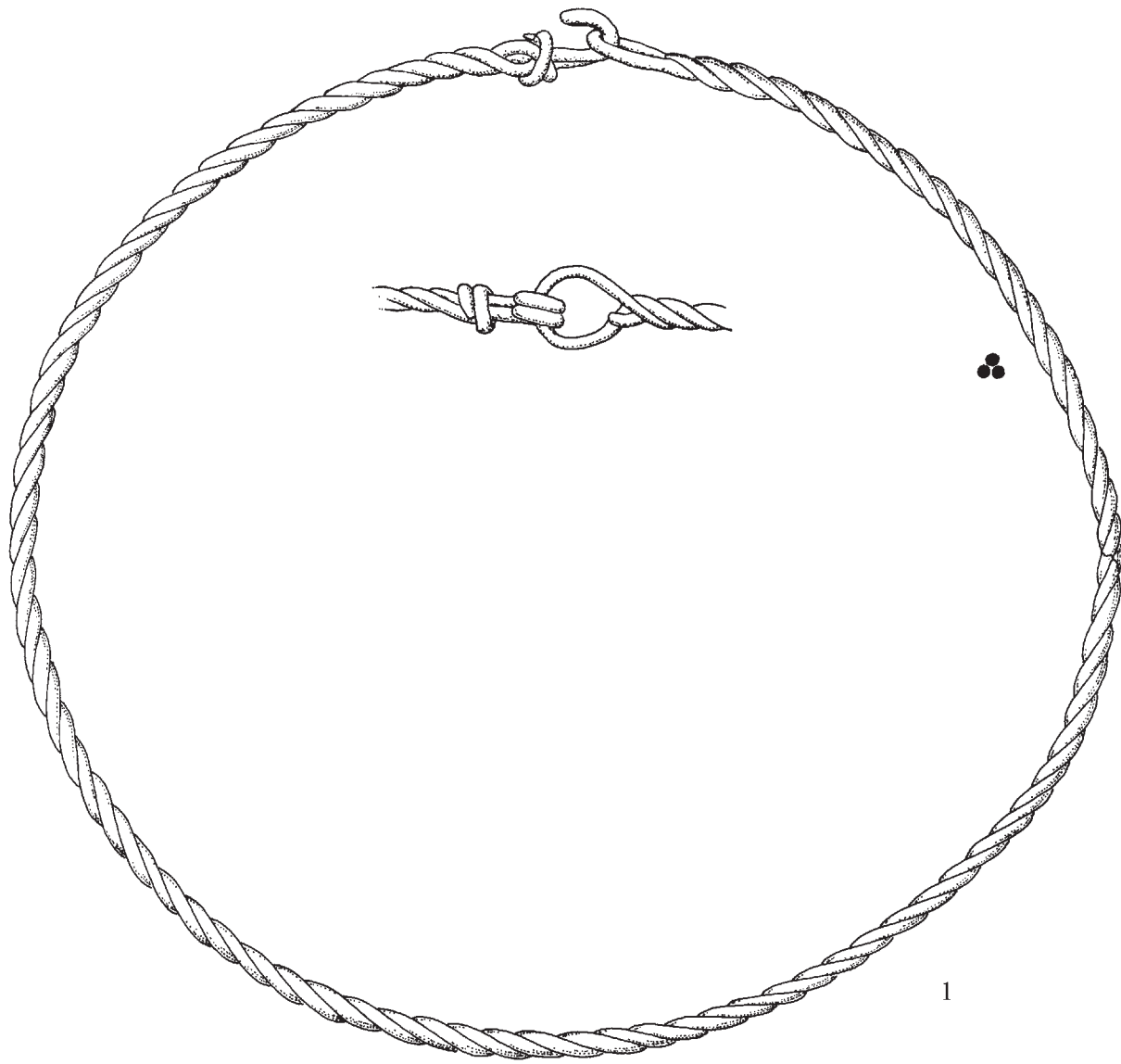
## 2.1. TEST EXCAVATION IN 1951 (GRAVES I–III-1951)

**GRAVE I-1951**, quad. VII/10b.<sup>8</sup> – A grave in an earthen pit; depth ca. 0.90 m; ▼ –; or. –. – Damaged skeleton (the forearms, the lower part of the trunk and the legs missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Sex?; length?

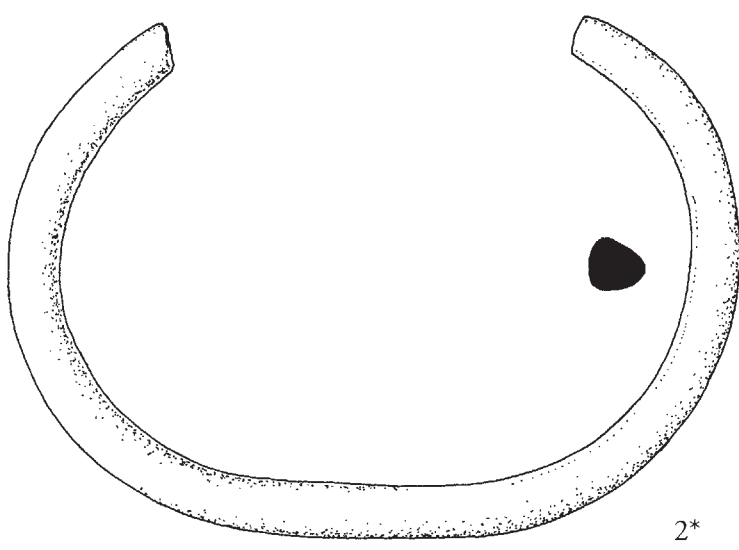
*Finds:* A *torc* around the neck (1), a *ring* at the transition from the chest to the abdominal cavity (4), the position of the *bracelets* unknown (2\*,3\*); [Pl. 6:1–3, 7:1–4].

1. *Torc* – bronze, with a hook and eye for fastening, twisted from one single and one doubly bent wire of circular section; the cut ends of the doubly bent wire form the hook, one end of the single wire is cut, the other is wound around the neck of the hook (2 coils); damaged (broken into two parts); Ø 15.40/14.10 cm (fastened); Ø twisted wires 0.37 cm; Ø wires 0.22 cm; wt. 35.324 g; S-2882 (G. 1b = De. 1.1.1.2b/nk); [Tab. 6:1];
- 2.\* *Bracelet* – bronze, open ended, rounded triangular section, separated ends; Ø 9.64/7.10 cm; Ø wire 0.70–0.67 cm; wt. 69.099 g; S-2883 (G. 7 dif.); [Pl. 6:2/right];
- 3.\* *Bracelet* – bronze, open ended, circular section, with separated and cut ends, damaged (broken into two parts); Ø 7.60/6.88 cm; Ø wire 0.50 cm; wt. 33.301 g; S-2884 (G. 4; De. 1.2a); [Pl. 6:2/left];
4. *Ring with a crown* – silver, two-part; a two-layered hoop of banded section, with separated and hammered ends; a filigree decoration soldered onto a sheet metal backing: a three-ribbon braid of three rows of smooth wire between a single row of smooth wire and a double row of twisted wire; a circular crown, dome-shaped, with a sheet metal base wrapped around by smooth wire, and with a filigree decoration soldered onto the sides of the sheet metal dome, consisting of twisted wire in the form of four arcades, with droplet like patterns in the center of each of them, and on the top a grain wrapped in a smooth wire; damaged (on the walls of the crown); h. 2.95 cm; hoop: Ø 2.24 cm, w. 0.96 cm, th. 0.14 cm; crown: Ø 1.30 cm, h. 0.95 cm; wt. 4.107 g; S-2885 (G. 38a; M. 16a); [Pl. 6:3, 7:1–4].

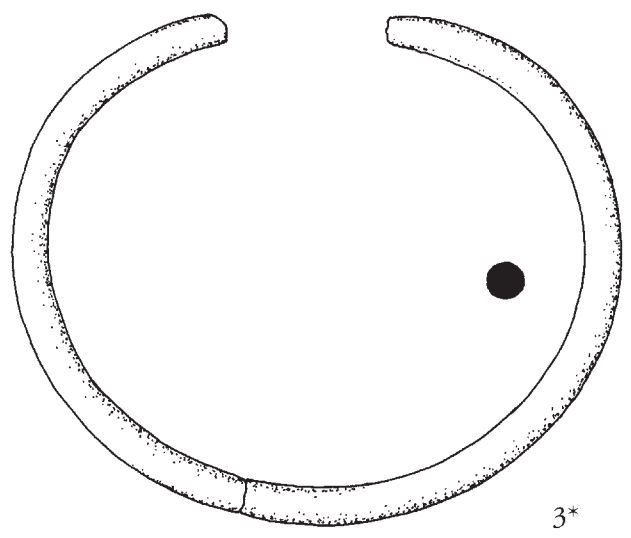
<sup>8</sup> *Putni izv. ["Travel report"] 159/51*, p. 1: "... Additionally, I noticed dislocated human bones in a pit and was told that they had just been dug out that day from a small pit of some 2 m<sup>2</sup> at a depth of around 90 cm. The same workers announced that they had found two metal hoops, and after asking to see them, I was able to confirm that they were Bijelo Brdo **bracelets**. Along with this find, in the profile I could see bones that had remained *in situ* after the workers had finished their digging. According to the size of the cut, I calculated that the skeleton had been damaged approximately to breast height, and with the same workers I opened a trench, which truly at the depth of 90 cm brought to light the damaged skeleton, the rib cage, and the head with preserved upper arms. In the area of the transition from the rib cage to the abdomen, and towards its center and the remains of the spine I found a fine filigree work silver **ring**, and around the neck of the skeleton I found a typical spirally twisted Bijelo Brdi **necklace**."



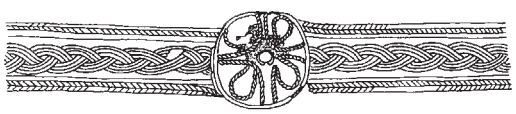
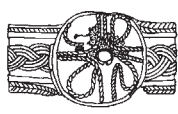
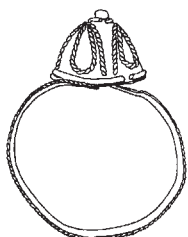
1



2\*



3\*



4

**GRAVE II-1951**, quad. VII/11d.<sup>9</sup> – A grave in an earthen pit; depth 0.90 m; ▼ –; or. –. – Damaged skeleton (the lower part of the trunk and legs missing); lying on the back, legs extended, head position undetermined; the forearms folded horizontally across the stomach: right above, left below (v.13b). – Sex?; length?.

*Finds:* One *circlet* on each side of the head (1,2), a *bracelet* on the right forearm (3), a *flint* by the toes (4).

1. *Circlet* – silver, open-ended, circular section, separated ends; Ø 2.17–1.97 cm (= 6.49 cm); Ø wire 0.17 cm; wt. 1.317 g; S-2887/1 (G. 13-I,6/2);
2. *Circlet* – silver, open-ended, circular section, separated ends, one cut, the other pointed; Ø 2.14–1.90 cm (= 6.34 cm); Ø wire 0.16 cm; wt. 1.126 g; S-2887/2 (G. 13-I,6/2);
3. *Bracelet* – silver, open ended, semicircular section, separated, cut, and tapered ends; Ø 7.50/6.77 cm; Ø wire 0.59/0.48–0.51/0.38 cm; wt. 35.156 g; S-2886 (G. 4; De. 1.2b);
4. *Flint* – stone – flint; reddish-brown; l. 4.31 cm; w. 2.98 cm; th. 1.66 cm; wt. 13.765 g; S-2888 (H. 3).

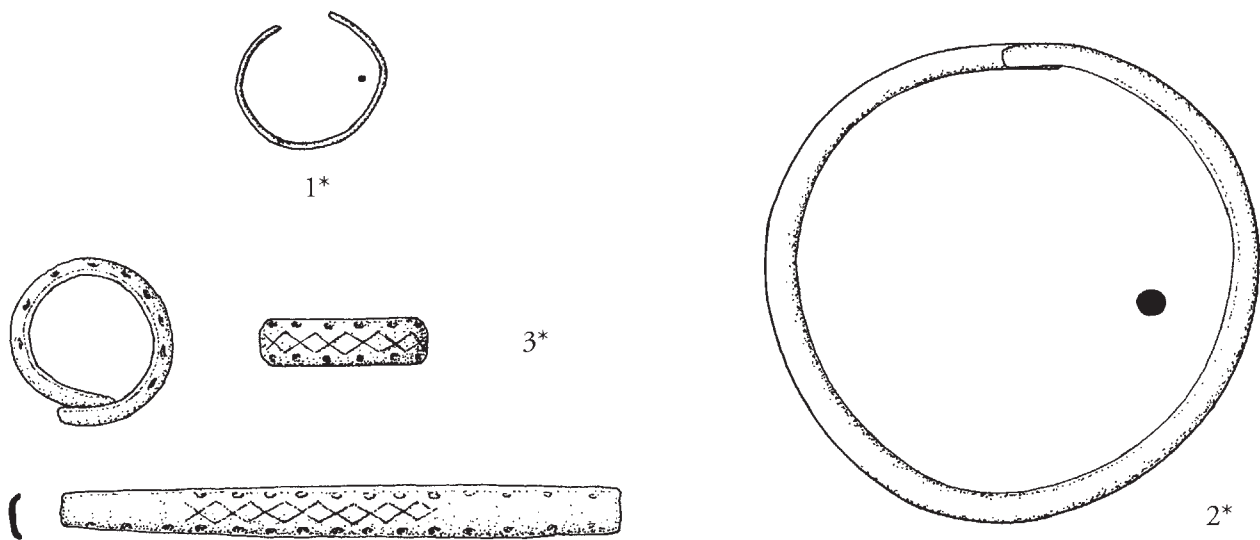
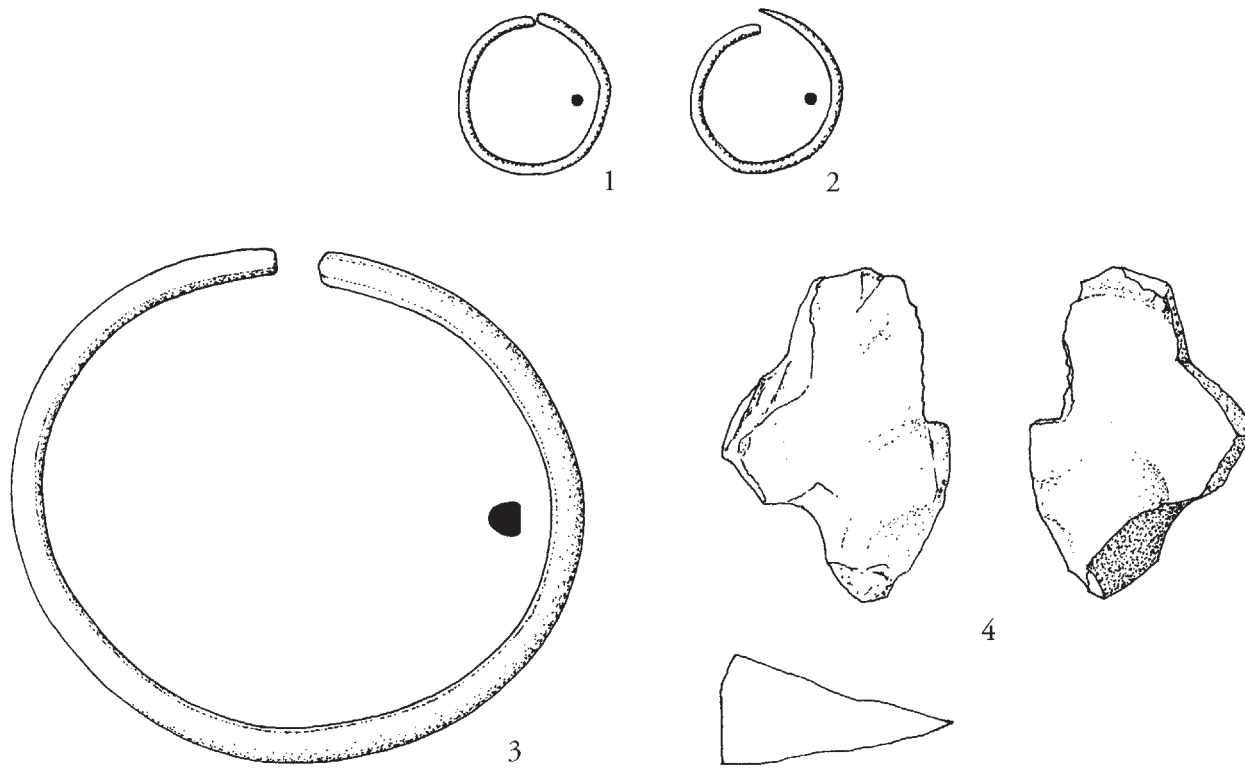
**GRAVE III-1951**, quad. VII/11b–d.<sup>10</sup> – A grave in an earthen pit; depth –; ▼ –; or. –. – Skeleton destroyed. – Sex?; length?.

*Finds:* The circumstances of the discovery of the *circlet*, *bracelet*, and *ring* are unknown (1–3\*).

- 1.\* *Circlet*, fragment – silver, open-ended, circular section, damaged (a quarter missing); Ø 1.92 cm (= 5.06 cm); Ø wire 0.10 cm; wt. 0.342 g; S-2891 (G. 13-I,5/1);
- 2.\* *Bracelet* – bronze, open ended, circular section, with separated and tapered overlapping ends; Ø 6.30/6.27 cm; Ø wire 0.38–0.30 cm; wt. 17.895 g; S-2889 (G. 4; De. 1.2a);
- 3.\* *Ring* – bronze, with open ends, arched section, cut ends of different widths; the hoop decorated along the entire length: with a net-like pattern between two rows of hemispherical depressions; Ø 2.16/2.02 cm; w. 0.67 cm; th. 0.22 cm; wt. 4.151 gr; 2890 (G. 24; H. 46b; De. 1.5b).

<sup>9</sup> *Putni izvij. AMZ* ["Travel report"] 159/51, p. 2: ".....At a depth of 90 cm, at the same level as in grave 1, lay a skeleton where the workers had dislocated a leg (right) before my arrival, while the skeleton otherwise lay exceptionally straight and untouched in a west-east direction, with the arms crossed on the chest, the right arm over the left, with a Bijelo Brdo **bracelet** on the right forearm, which had also left a greenish trace of patina on the bones of the wrist of the left arm. In the area of the head, at a distance of 5 cm from the left and right sides, 2 silver circlets or **earrings** were found, pendants of the simplest form, while a **flint for striking steel** was found by the toes. After photographs and measurements, I took charge of the cultural inventory, and the skeleton was left as undisturbed as possible, with the understanding that both graves would again be covered over."

<sup>10</sup> The finds are noted in the S-AMZ, but without any further data.



## 2.2. SYSTEMATIC EXCAVATION CAMPAIGNS, 1951–1953

### 2.2.1. Excavations in 1951 (graves 1–32)

**GRAVE 1**, quadrant V/5c (= trench B). – A grave in an earthen pit; depth 0.48 m; ▼ –; or –. – Skeleton destroyed (some bones of the skull and trunk remained). – Child; length?.

*No finds.*



**GRAVE 2**, quadrant V/5c (= trench B). – A grave in an earthen pit; depth 0.80 m; ▼ –; or. 273°. – Lying on the back, legs extended, head turned to the right (south); the right forearm angled downwards across the stomach, the left across the abdomen (v.7a). – Child; length 1.02 m.

*Finds:* A necklace with metal pendants at the neck, with a *ring-pendant* at the height of the rib cage above a dislocated vertebra (1) and a perforated gold coin below the upper cervical vertebrae (3),<sup>11</sup> and a *button-pendant* among the ribs at the height of the right collarbone (2); [Pl. 7:5–8].

1. *Ring*, pendant on a necklace (secondary use; early medieval) – silver, open-ended; a double-layered hoop of banded section, with separated and cut ends that overlap; a filigree decoration soldered onto a sheet metal backing; a lengthwise rib of smooth wire between a double row of twisted wire and a single row of smooth wire on each side; damaged (the filigree decoration of the hoop is partly missing); Ø 1.71/1.65 cm; w. 0.77 cm; th. 0.14 cm; wt. 2.870 g; S-2421 (G. 21 dif.; De. 1.3); [Pl. 7:5–6];
2. *Button-pendant* – bronze, lenticular, solid, with a circular loop for attachment; damaged (deformed, part missing); h. 1.47 cm; Ø 0.93 cm; wt. 1.334 g; S-2422 (G. 11b; H. 58c);
3. *Coin*, pendant on a necklace (secondary use; early medieval) – gold, *nomisma*; Byzantine: Constantine VII Porphyrogenetus (913–959), in the name of Constantine VII and Romanus II, 945–959, Constantinople (BNP 15–23); damaged (perforated in three places, broken off, clipped, worn); Ø 18/17 mm; wt. 3.33 g; S-2423 (To. 44a); [Pl. 7:7–8].



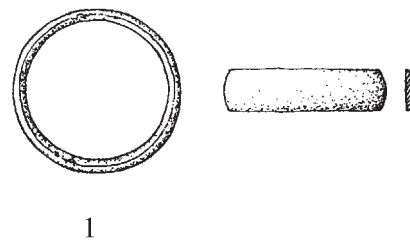
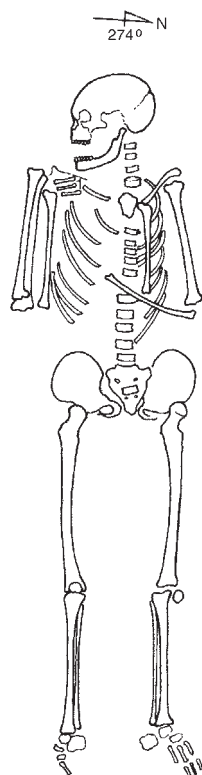
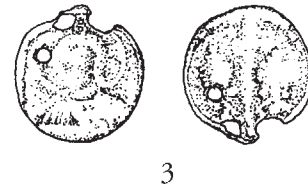
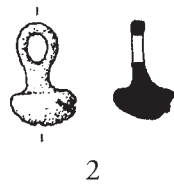
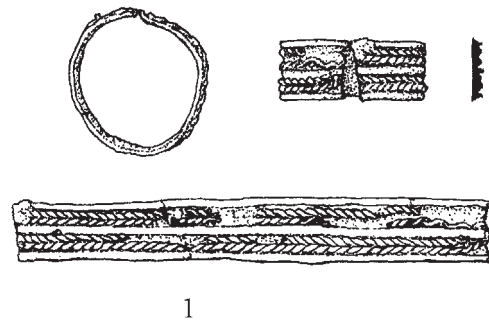
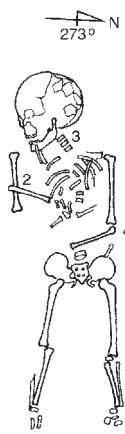
**GRAVE 3**, quadrant IV/5–V/5a (= trench B). – A grave in an earthen pit; depth 0.95 m; ▼ –; or. 274°. – Lying on the back, legs extended, head turned to the right (southeast); the right forearm bent upwards with the hand on the shoulder, the left angled upwards across the chest (v.20). – Male; length 1.80 m.

*Find:* A *ring* on the middle finger of the right hand.

1. *Ring* – silver, closed hoop, with a semicircular section; Ø 2.21/2.20 cm; w. 0.66–0.50 cm; th. 0.20–0.18 cm; wt. 3.901 g; S-2424 (G. 31; H. 52b).

<sup>11</sup> Discovered during removal of the skeleton, *Zapisnik*, no. 2/12 Sept. 1951.







**GRAVE 4**, quadrant IV/6d–V/6c (= trench B). – A grave in an earthen pit; depth 0.80 m; ▼ –; or. 276°. – Lying on the back, legs extended, head turned to the left (east); the forearms folded straight upwards with the hands on the shoulders (v.25). – Female; length 1.48 m.

*Find:* A circlet on the right side of the occipit.<sup>12</sup>

1. *Circlet* – silver, open-ended, circular section, one end cut and the other tapered, overlapping ends; Ø 0.74–0.58 cm (= 2.07 cm); Ø wire 0.19–0.12 cm; wt. 0.866 g; S-2425 (G. 13-II,4/3).



**GRAVE 5**, quadrant XIII/10a–b (= trench E). – A grave in an earthen pit; depth 0.50 m; ▼ –; or. 265°. – Lying on the back, legs extended, head turned to the left; the forearms crossed horizontally across the abdomen: right below, left above (v.13a). – Female?; length 1.64 m.

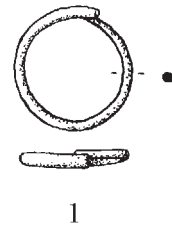
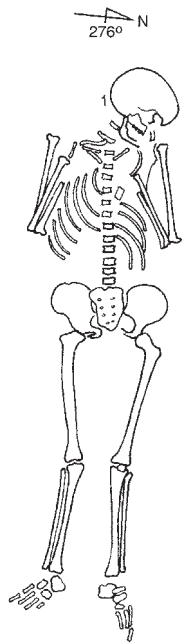
*No finds.*



**GRAVE 6**, quadrant XIII/10a–b–XIII/11c–d (= trench E). – A grave in an earthen pit; depth 0.64 m; ▼ –; or. 267°. – Damaged skeleton (the skull crushed, the upper part of the trunk disarranged); lying on the back, legs extended, head turned to the left; the right forearm angled downwards across the abdomen, the left extended along the body (v.2). – Male; length 1.75 m.

*No finds.*

<sup>12</sup> Discovered during removal of the skeleton, *Zapisnik*, no. 4/12 Sept. 1951; *Dnevnik*, ad 15 Sept. 1951.





**GRAVE 7**, quadrant XIII/11c–d (= trench E). – A grave in an earthen pit; depth 0.48 m; ▼ –; or. 272°. – Damaged skeleton (the right leg disarranged); lying on the back, legs extended, head straight; the right forearm folded upwards with the hand on the shoulder, the left forearm angled upwards across the chest (v.20). – Sex?; length 1.58 m.

*Finds:* Two *rings* on the fingers of the right hand (1,2), one *ring* on a finger of the left hand (3), a fragment of an early medieval *pottery vessel* near the skeleton (4).<sup>13</sup>

1. *Ring* – bronze, closed hoop, with a banded section; Ø 2.45/2.35 cm; w. 0.56–0.48 cm; th. 0.34 cm; wt. 5.744 g; S-2427 (G. 31; H.52a);
2. *Ring* – bronze, closed hoop, with a semicircular section; the edges of the hoop are decorated with perpendicular, short, shallowly incised lines; Ø 2.18/2.16 cm; w. 0.50–0.45 cm; th. 0.23 cm; wt. 4.036 g; S-2428 (G. 31; H. 52b);
3. *Ring* – bronze, with open ends, a banded section, with cut ends of equal width; the hoop is decorated with a single zig-zag band formed from transverse, short, shallowly incised lines; damaged (broken into two parts; the decoration partly visible); Ø 2 cm; w. 0.76 cm; th. 0.1 cm; wt. 1.827 g; S-2426 (G. 21; H. 45a);

4. *Pot, fragment of the body* – pottery, pale grey-brown, section black; the fragment is decorated with double grooved horizontal lines; damaged (most missing); dim. 5.45 x 5.40 cm; th. 0.59 cm; S-3356 (H. 70 dif.).

**GRAVE 8**, quadrant XVI/13d (= trench G). – A grave in an earthen pit; depth 0.60 m; ▼ –; or. –. – Skeleton destroyed (some bones of the skull and trunk remaining). – Child (dead newborn?); length?.

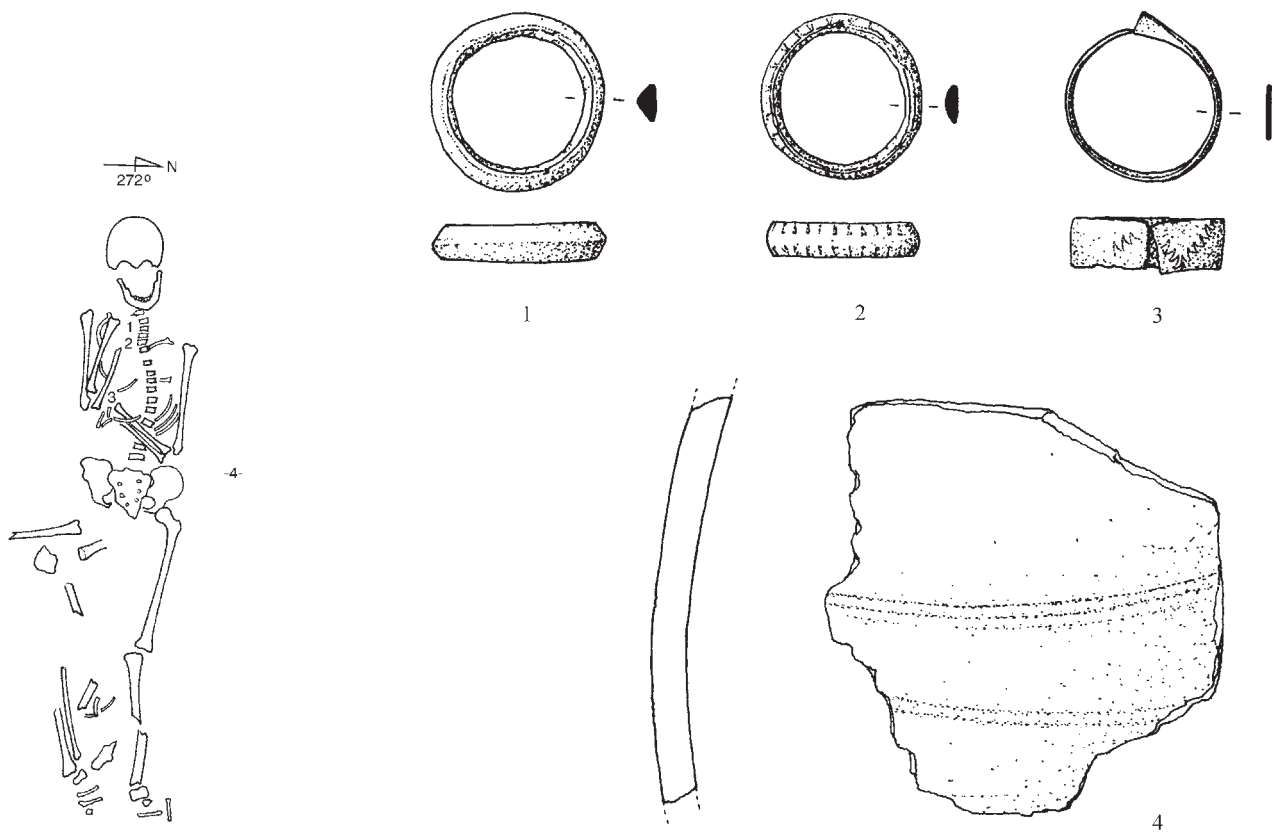
*No finds.*



**GRAVE 9**, quadrant XVI/13b–XVII/13a (= trench G). – A grave in an earthen pit; depth 0.57 m; ▼ –; or. 273°. – Skeleton destroyed (skull crushed, the hands and legs disarranged, some bones of the trunk remained). – Child?; length 0.62 m.

*No finds.*

<sup>13</sup> The Diary or *Dnevnik*, ad 6 Sept. 1951, noted that in the vicinity of the skeleton from grave 7 had been found "...a fragment of early medieval pottery with a decoration of straight lines". In S-AMZ, this fragment was placed among the finds from grave 2.



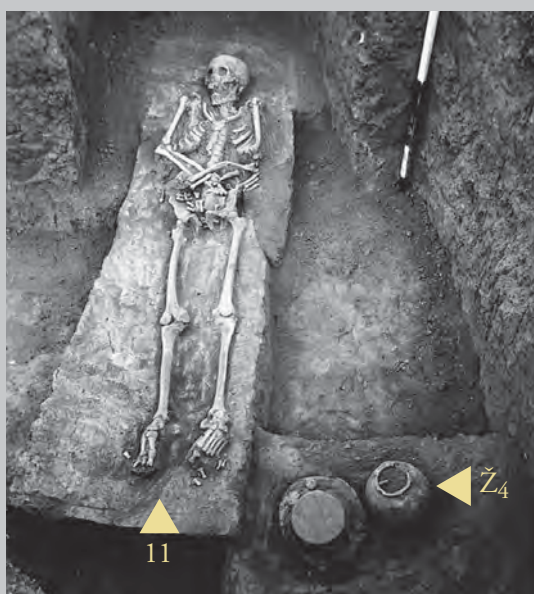


**GRAVE 10**, quadrant XVI/14d–XVII/14c (= trench G). – A grave in an earthen pit; depth 0.91 m; ▼ –; or. 274°. – Lying on the back, legs extended, head straight; the forearms extended straight along the body (v.1). – Female; length 1.51 m

*No finds.*

*Other objects in the grave:* An antler tine by the left shin.<sup>14</sup>

1. *Antler*, fragment – horn, antler; horned animal (cervine); damaged (part missing); l. 1.64 cm; Ø1.00 cm; wt. 1.069 g; S-2429; (Fig. 56:1).



**GRAVE 11**, quadrant XVI/14c–d (= trench G). – A grave in an earthen pit; depth 0.82 m; ▼ –; or. 279°. – Lying on the back, legs extended, head turned to the right; the forearms angled downwards and crossed on the stomach (v.7b). – Female; length 1.60 m.

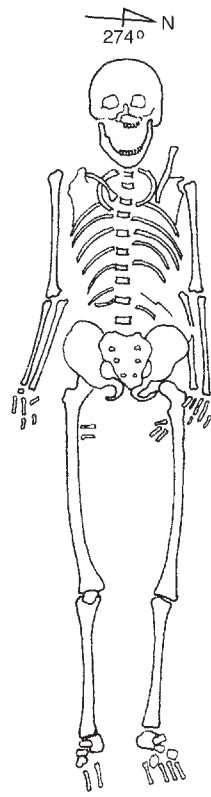
*No finds.*



**GRAVE 12**, quadrant XIII/2b–XIV/2a (= trench H). – A grave in an earthen pit; depth 0.83 m; ▼ –; or. 263°. – Lying on the back, legs extended, the head turned to the left (towards the north); the right forearm angled downwards across the abdomen, the left extended straight alongside the body (v.2). – Male; length 1.72 m.

*No finds.*

<sup>14</sup> *Zapisnik*, no. 10/13 Sept. 1951.





**GRAVE 13**, quadrant XIII/3d (= trench H). – A grave in an earthen pit; depth 0.59 m; ▼ –; or. 275°. – Lying on the back, legs extended, the head turned to the left (towards the north); the forearms angled downwards across the abdomen (v.7a). – Child (female?); length 0.95 m.

*Finds:* One *bracelet* on the right forearm (1), another *bracelet* on the left forearm (2), a *ring* by the right ear (3).<sup>15</sup>

1. *Bracelet* – bronze, open ended, circular section, separated and pointed ends; Ø 6.55/6.23 cm; Ø wire 0.39–0.15 cm; wt. 12.113 g; S-2431 (G. 4; De. 1.2a);
2. *Bracelet* – bronze, open ended, circular section, separated and pointed ends; Ø 7.52/6.27 cm; Ø wire 0.33/0.15 cm; wt. 10.882 g; S-2432 (G. 4; De. 1.2a);
3. *Ring* – bronze, with open ends, banded section; the cut ends of equal width overlap; Ø 1.50 cm; w. 0.64 cm; th. 0.10 cm; wt. 1.601 g; S-2430 (G. 21; H. 45a);

*Other objects in the grave:* A *nail* above the head (4), two prehistoric *pins* on the right side of the head by the occiput and below the lower jaw on the left side of the head (5–6).<sup>16</sup>

4. *Nail* – iron, forged, square section, circular head hammered flat; damaged (corroded, bent at a right angle, head chipped, tip broken off); l. ca. 6.7 cm, w. 0.40 cm; wt. 5.030 g; S-2434; (**Fig. 56:4**).

5–6. *Pins*, fragments, 2 pieces (prehistoric, Early Iron Age) – iron, circular section; decorated with glass paste beads of varied size and color (9); damaged (corroded; incomplete, broken into several pieces); S-2433.



**GRAVE 14**, quadrant XIII/3b–XIV/3a (= trench H). – A grave in an earthen pit; depth 1.10 m; ▼ –; or. 267°. – Lying on the back, legs extended, head turned to the right (towards the southeast); the right forearm angled upwards across the chest, the left downwards across the abdomen (v.9). – Male; length 1.82 m.

*Finds:* A *ring* was found next to the fingers of the left hand near the pelvis (1), and an *arrowhead* on the right side of the skull (2).<sup>17</sup>

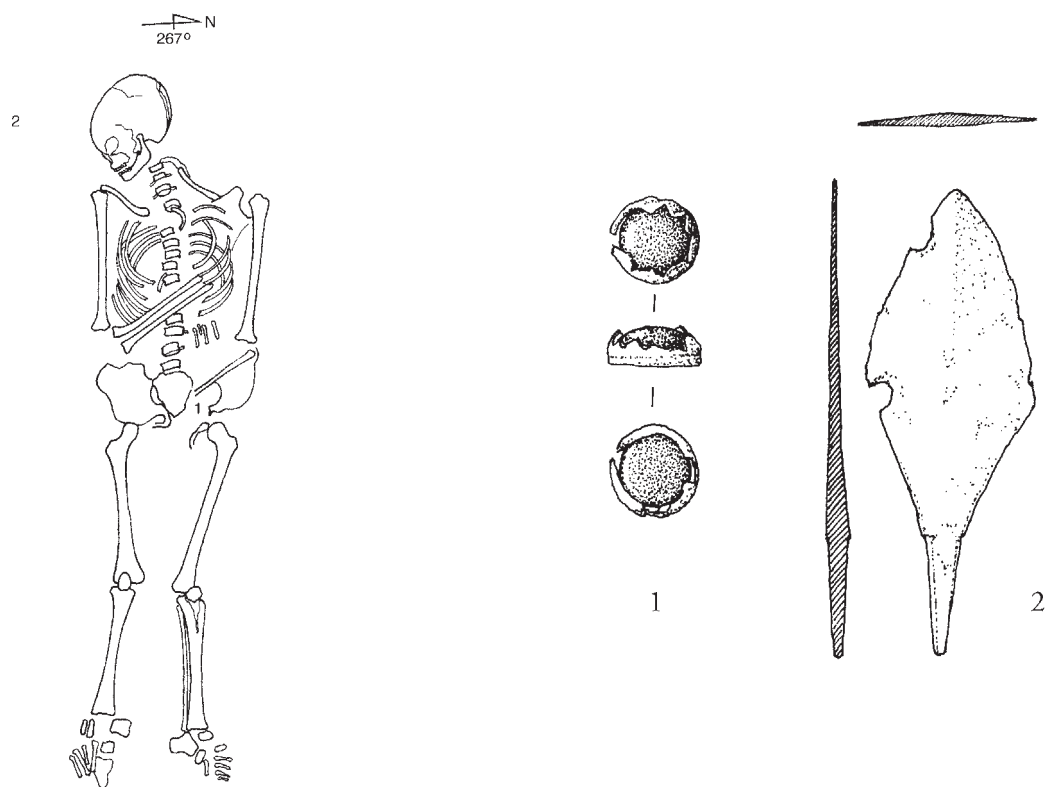
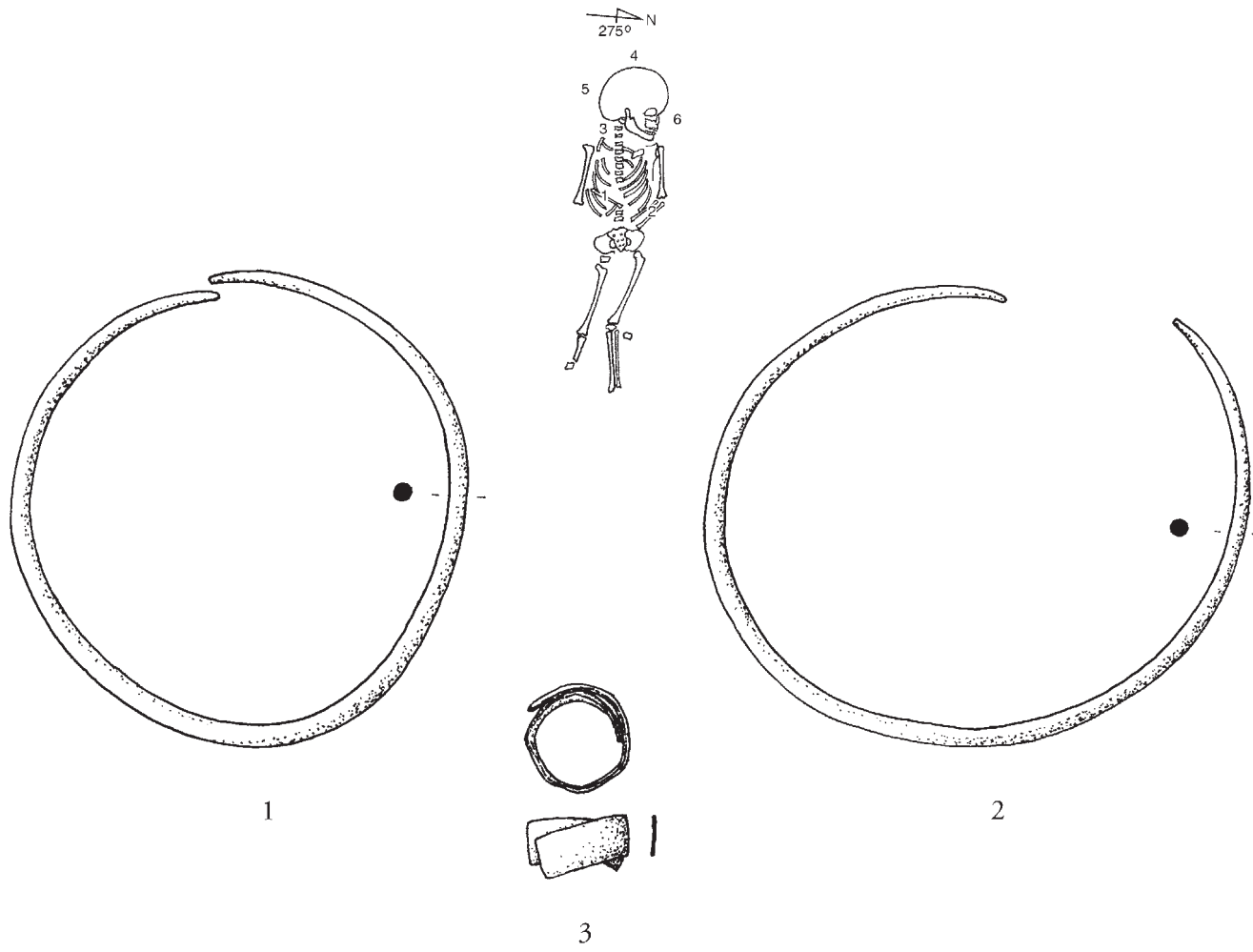
1. *Ring with a crown* – bronze, two-part; the crown is circular, made of sheet-metal cut in a petal pattern and wound with wire, with an inset hemispherically rounded stone of dark (or dark blue) opaque glass paste; damaged (the wire encircling the crown damaged; hoop missing); h. –; hoop/ring: –; crown: Ø 1.21 cm; h. 0.53 cm; wt. crown 1.363 g; S-2435 (G. 38b; M. 16b);
2. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the lower half of the head, sides of the head rounded; damaged (corroded, head chipped); l. 6.15 cm; head: l. 4.54 cm, w. 2.20 cm, th. 0.26 cm; tang: l. 1.61 cm; wt. 7,032 g; S-2436 (G. A; To. A3; H. 8a; De. 1.3; Rutt. B2a/Med. 51).

<sup>15</sup> In the field documentation it was considered a bronze circlet (*Dnevnik*, ad 8 Sept. 1951) made of "bronze sheet metal", *Zapisnik*, no. 13/12 Sept. 1951.

<sup>16</sup> The finds from gr. 13 are mentioned several times in the Diary (*Dnevnik*), first noting the find of an iron nail (ad 7 Sept. 1951), and then "...two bron. bracelets, 1 bron. circlet, 3 decorative pins, 1 iron nail". (ad 8 Sept. 1951), all ending with a note about the discovery of a "decorative bead of a decorative pin" discovered after removal of the skeleton (ad 15 Sept. 1951). – The supposed secondary use of these prehistoric decorative pins was suggested on the occasion of their first publications, VINSKI 1955, 240, 253, fig. 24–25; VINSKI 1959, 103, pl. XXXVIII:24–25.

<sup>17</sup> It was found 0.85 m distant from the head at a depth of 0.74 m, *Zapisnik*, no. 14/12 Sept. 1951; *Dnevnik*, 7 Sept. 1951.

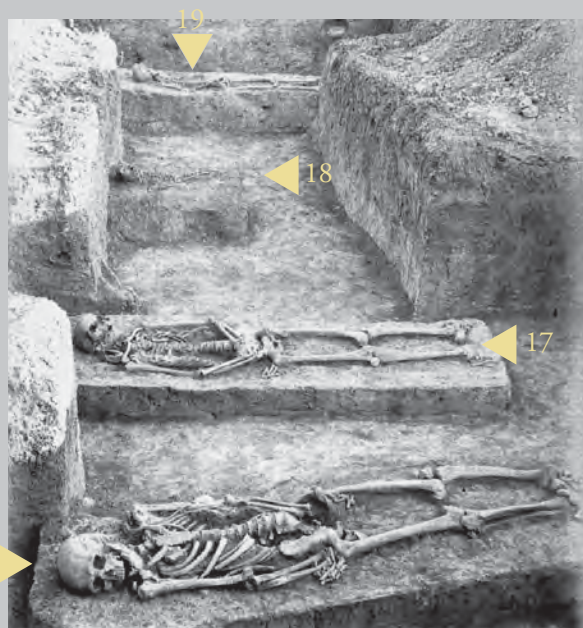






**GRAVE 15**, quadrant XIII/3b–XIII/4d (= trench H). – A grave in an earthen pit; depth 0.63 m; ▼ –; or. 287°. – Damaged skeleton (the upper section of the trunk and the calves were disarranged); lying on the back, legs extended, the head turned to the left (east/north–east); the forearms extended straight alongside the body (v.1). – Child; length 0.98 m.

*No finds.*



**GRAVE 16**, quadrant VII/11a–b (= trench I). – A grave in an earthen pit; depth 0.60 m; ▼ –; or. 261°. – Lying on the back, legs extended, the head turned to the right (east/south–east); the right forearm extended straight along the body, the left angled downwards across the abdomen (v.6). – Male; l. 1,60 m;

*No finds.*



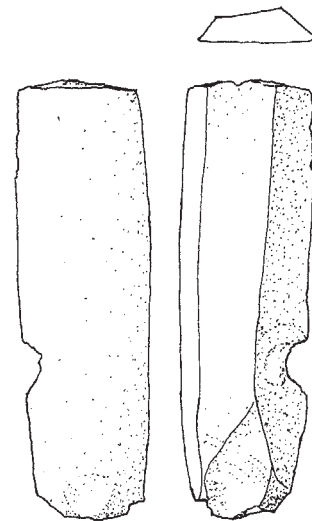
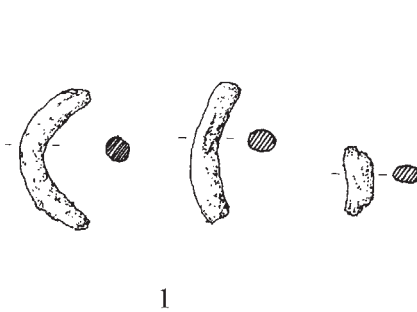
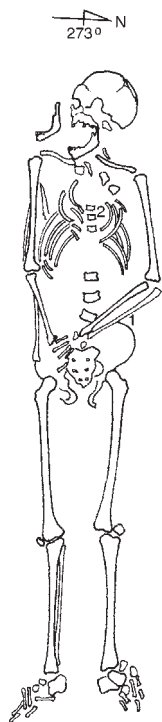
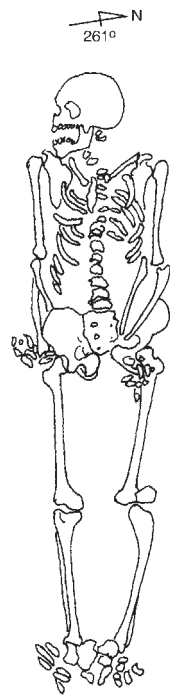
**GRAVE 17**, quadrant VII/12c–d (= trench I). – A grave in an earthen pit; depth 0.67 m; ▼ –; or. 273°. – Damaged skeleton (the skull had fallen backwards); lying on the back, legs extended, the head position undetermined; the right forearm extended straight alongside the body, the left angled downwards across the abdomen (v.6). – Male?; length 1.63 m.

*Finds:* A *belt circlet* below the left forearm (1),<sup>18</sup> a *flint* on the left side of the rib cage near the spine (2).<sup>19</sup>

1. *Circlet*, from a belt set, fragment – lead, circular, circular section; damaged (corroded; broken into three parts); Ø ca. 2.50 cm; Ø wire 0.50 cm; wt. 2.966 g; S-2438 (G. –);
2. *Flint* (secondary use, prehistoric blade; Paleolithic in the Mesolithic tradition) – stone: flint, reddish-brown, retouched, *en coche*; l. 5.71 cm; w. 1.81 cm; th. 0.62 cm; wt. 8.444 g; S-2437 (H. 3).

<sup>18</sup> This is according to the *Dnevnik*, ad 10 Sept. 1951, while the *Zapisnik*, no. 17/13 Sept. 1951 notes the information that on the "dislocated fingers of the left and right hands and also on the right forearm" were traces of a "green bronze patina".

<sup>19</sup> In the *Zapisnik*, no. 17/13 Sept. 1951, it was considered that the flint had arrived in the grave during the filling of the grave pit. Such an idea was also suggested later, see VINSKI 1955, 241; VINSKI 1959, 103.





**GRAVE 18**, quadrant VII/12a–b (= trench I). – A grave in an earthen pit; depth 0.55 m; ▼ –; or. 252°. – Poorly preserved skeleton (skull crushed, and the trunk, pelvis, and legs disarranged); lying on the back, legs extended, head straight (towards the east); the forearm positions could not be determined. – Child; length 0.62 m.

*Finds:* A bracelet on the left forearm.<sup>20</sup>

1. *Bracelet* – bronze, open ended, circular section, separated ends, one cut, the other tapered; Ø 3.77/3.53 cm; Ø wire 0.30–0.25 cm; wt. 5.429 g; S-2439 (G. 4; De. 1.2a).



**GRAVE 19**, quadrant VII/12a–b. (= trench I). – A grave in an earthen pit; depth 0.54 m; ▼ –; or. 275°. – Damaged skeleton (crushed skull); lying on the back/supine, legs extended, head straight (east); the forearms extended straight along the body (v.1). – Sex?; length 1.53 m.

*Finds:* A belt clasp on the pelvis (1).<sup>21</sup>

1. *Clasp with a hook for fastening*, fragment – iron, one part, flat body, leaf-shaped; elongated hook of square section; damaged (corroded; half of the body and loop missing); l. 2.93 cm; w. 1.74 cm; th. 0.26 cm; wt. 3.597 g; S-2440; (G. –).

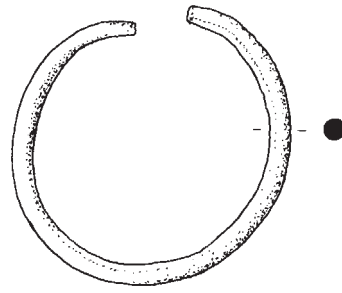
*Other objects in the grave:* A clump of pale grey stone (2) by the right upper arm, an object of unknown purpose similar to a flattened bead [3] by the left lower leg, a fragment of a pottery vessel (5) by the leg,<sup>22</sup> fragments of a bone object of unknown purpose (4\*) at an unknown position in the grave.

2. *Clump of stone, ore?* – stone, pale grey; S-2441;
- [3.] *Object of unknown purpose* – similar to a flattened bead, brown; missing;
- 4.\* *Object of unknown purpose* – bone, worked, grey-brown; damaged (fragments); S-2442; (Fig. 56:7);
5. *Vessel*, prehistoric, Early Iron Age.

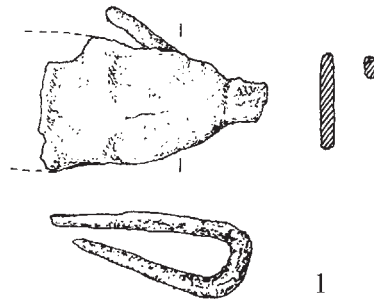
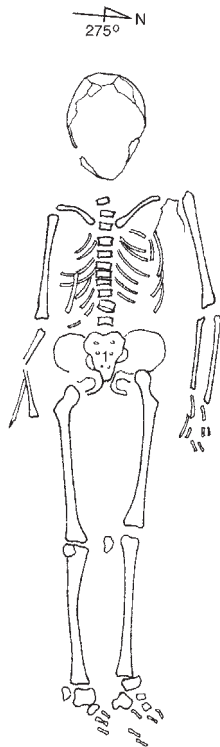
<sup>20</sup> In the *Dnevnik*, ad 9 Sept. 1951 and *Zapisnik*, no. 18/13 Sept. 1951 it was called a bracelet. It was entered into the S-AMZ as a circlet.

<sup>21</sup> *Dnevnik*, ad 10 Sept. 1951, *Zapisnik*, no. 19/13 Sept. 1951, and S-AMZ considered it an iron arrowhead.

<sup>22</sup> In the description of the grave it was noted that "the grave pit cut into and disturbed the prehistoric cultural layer, which contained traces of ash and burnt remains, as well as fragments of prehistoric pottery" (*Zapisnik*, no. 19/13 Sept. 1951), while "next to the leg of the skeleton, at the second shovel depth" as a find was mentioned a "bellied spherical vessel" (*Dnevnik*, ad 10 Sept. 1951).



1



1



**GRAVE 20**, quadrant IX/9d (= quadrant I/1951). – A grave in an earthen pit; depth 0.72 m; ▼ –; or. 279°. – Lying on the back/supine, legs extended, head turned to the right (southeast); the forearms folded horizontally across the stomach: right above, left below (v.13b).<sup>23</sup> – Female; length 1.53 m.

*Find:* A ring on the middle finger of the right hand.

1. *Ring* – bronze, open-ended, arched section, cut ends of different widths; the hoop decorated along the entire length: a net-like pattern between single rows of hemispherical depressions; Ø 2.88 cm; w. 0.67 cm; th. 0.21 cm; wt. 4.505 g; S-2443 (G. 24; H. 46b; De. 1.5b).

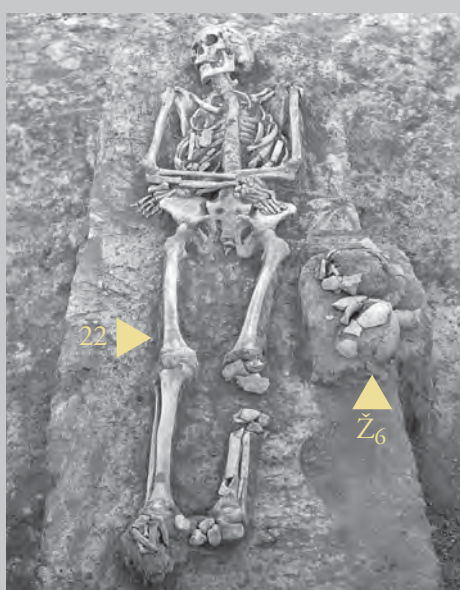


**GRAVE 21**, quadrant VIII/9b–IX/9a (= quadrant I/1951). – A grave in an earthen pit; depth 0.79 m; ▼ –; or. 274°. – Lying on the back/supine, legs extended, head straight (towards the east); the right forearm folded horizontally across the stomach, the left bent upwards with the hand on the shoulder (v.23). – Female; length 1.52 m.

*No finds.*

*Other objects in the grave:* A fragment of a *platelet* of bronze sheet metal (old break).<sup>24</sup>

1. *Platelet*, fragment – bronze (brass), irregular shape; damaged (part broken off); l. 1.04, w. 0.74 cm, th. 0.99 cm; wt. 0.407 g; S-2444; (**Fig. 56:9**).



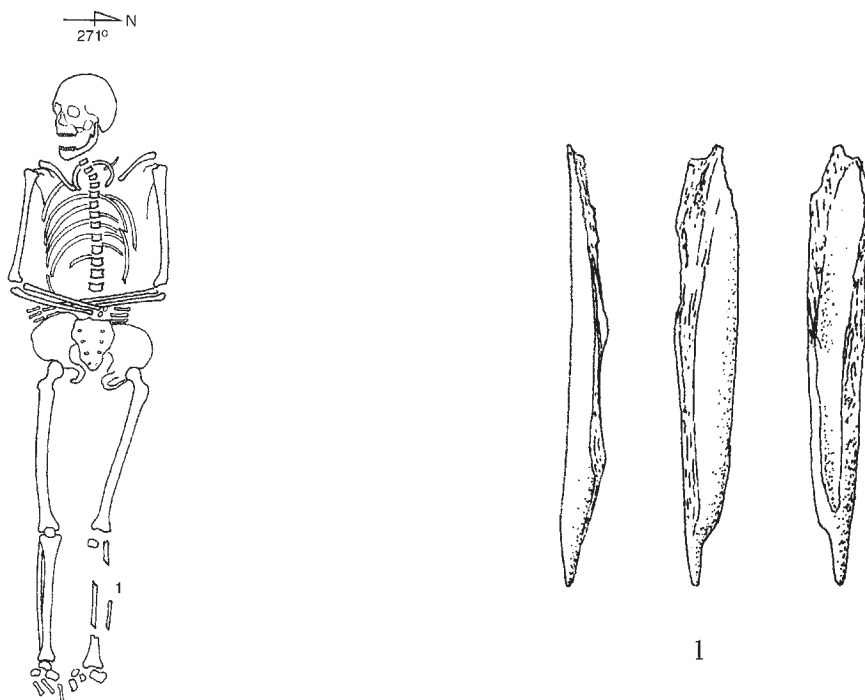
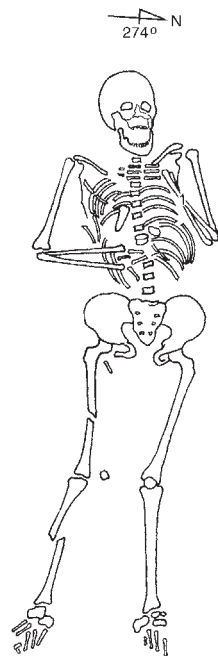
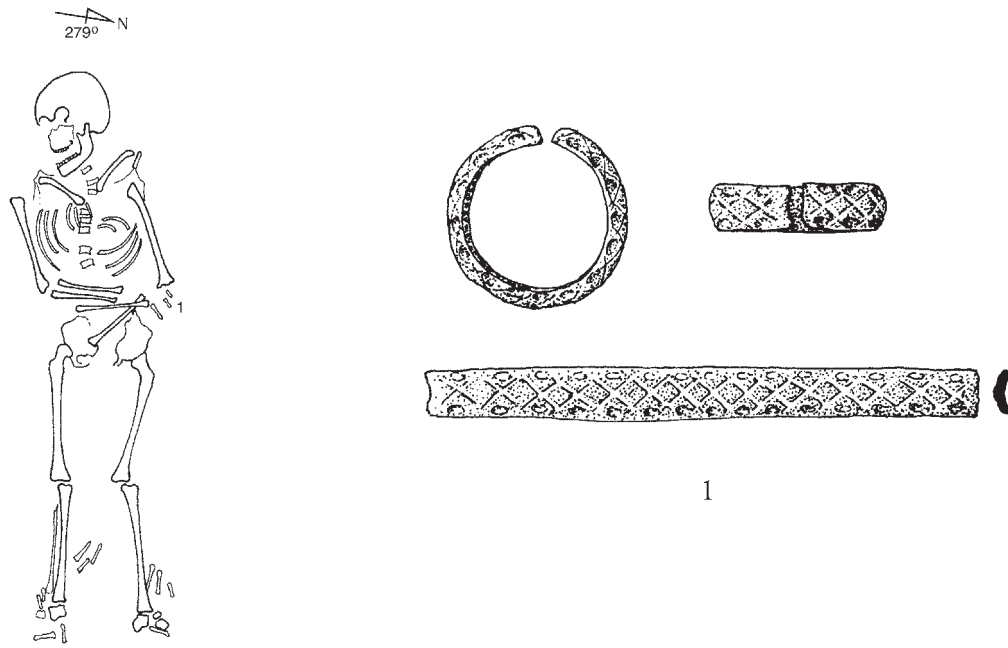
**GRAVE 22**, quadrant IX/9b (= quadrant I/1951). – A grave in an earthen pit; depth 0.60 m; ▼ –; or. 271°. – Lying on the back/supine, legs extended, head turned to the right (southeast); the forearms angled downwards and crossed on the stomach (v.7b). – Male; length 1.63 m.

*Find:* An *awl* next to the left shin.

1. *Awl* – bone (animal bone, tubular, shin?), grey-brown, the cut top cylindrically polished; l. 5.82 cm; w. 0.90 cm; th. 0.50; wt. 1.690 g; S-2445 (H. –).

<sup>23</sup> The forearm positions are determined on the basis of the photograph.

<sup>24</sup> The *Dnevnik*, ad 17 Sept. 1951, describes the object as a "small piece of gold sheet metal of undetermined function with an old break".

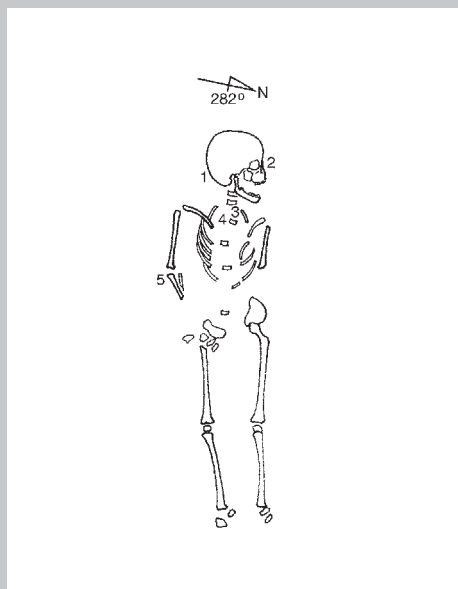




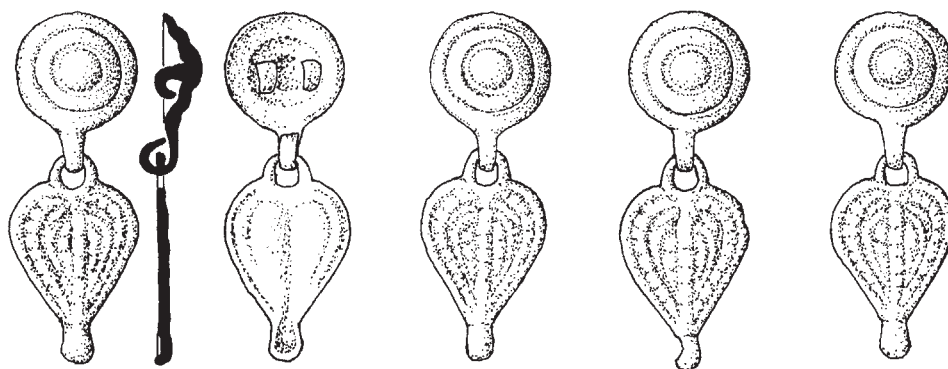
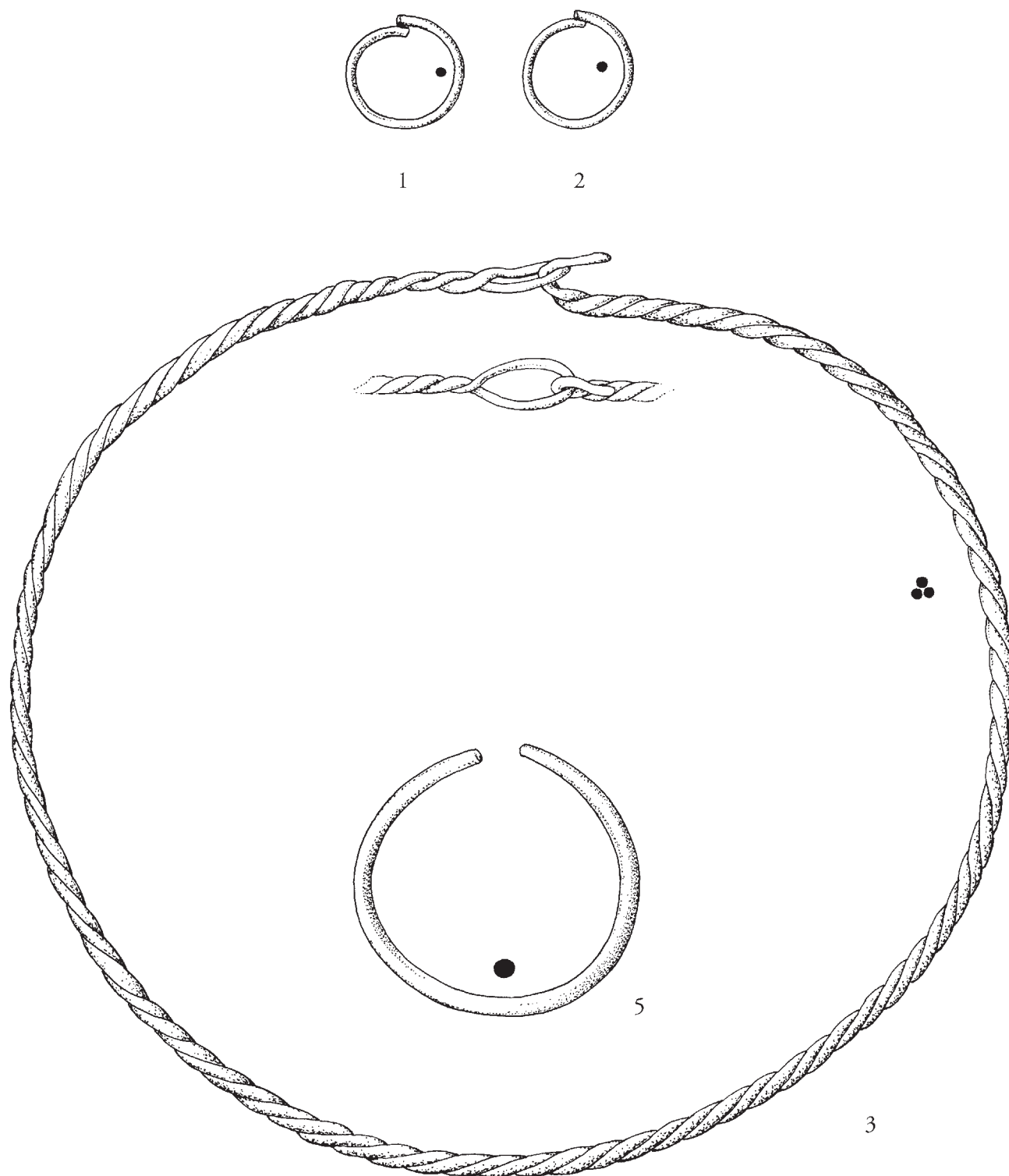
**GRAVE 23**, quadrant IX/9b (= quadrant I/1951). – A grave in an earthen pit; depth 0.68 m; ▼ –; or. 282°. – Poorly preserved skeleton (arms missing); lying on the back/supine, legs extended, head turned to the left (northeast); the forearm positions could not be determined. – Child; length 1.08 m.

*Finds:* One *circlet* on the left and another on the right below the skull (1,2), a *torc* in the neck area (3), by the neck vertebrae two, and lower on the chest another two *two-part pendants* (4), a *bracelet* on the right forearm (5); [Pl. 8:1–4].

1. *Circlet* – silver, open-ended, circular section, overlapping cut ends; Ø 1.98–1.82 cm (= 5.97 cm); Ø wire 0.18–0.17 cm; wt. 1.337 g; S-2449/1 (G. 13-II,5/2); [Pl. 8:1/desno];
2. *Circlet* – silver, open-ended, circular section, overlapping cut ends; Ø 1.93–1.85 cm (= 5.93 cm); Ø wire 0.18–0.17 cm; wt. 1.375 g; S-2449/2 (G. 13-II,5/2); [Pl. 8:1/lijevo];
3. *Torc* – bronze, with a hook and eye for fastening, twisted from one single and one doubly bent wire of circular section; one end of the single wire cut and bent into a hook, the other end of the single wire and the ends of the doubly bent wires cut; Ø 16.60/15.02 cm (fastened); Ø twisted wires 0.36 cm; Ø wires 0.19 cm; wt. 33.428 g; S-2446 (G. 1b; De. 1.1.1.2b/nn); [Pl. 8:2];
4. *Two-part pendants*, 4 examples – *upper part*: bronze, circular, domed platelet with an elongated, banded, semicircularly bent hook in the lower part; the platelet has a profiled edge and a smooth banded zone around the central convex protrusion; the reverse has two soldered hooks for attachment by sewing, horizontally arranged, oppositely turned, semicircularly bent, and thinned towards the ends; l. 2.23–2.12; w. 1.68–1.61 cm; ht.<sup>1</sup> 0.50–0.48 cm; ht.<sup>2</sup> 0.60–0.56 cm; *lower part*: bronze, heart-shaped plate with profiled edges, with a teardrop-shaped terminal in the lower section and a raised semicircular hoop for hanging in the upper section; in the center of the plate, an upright row of egg-and-darts enclosed by three rows of rounded egg-and-dart patterns; l. 2.92–2.90 cm; w. 1.77–1.73 cm; h. 0.18–0.15 cm; wt. two-part pendants 3.595–3.912 gr (total wt. 15.194 gr); 2448 (G. 9b; D. 13; B. I/a); [Pl. 8:3];
5. *Bracelet* – bronze, open ended, circular section, with separated, cut and tapered ends; Ø 4.80/4.58 cm; Ø wire 0.43–0.36 cm; wt. 12.037 g; S-2447 (G. 4; De. 1.2a); [Pl. 8:4].







4.1-4



**GRAVE 24**, quadrant IX/8d (= quadrant II/1951). – A grave in an earthen pit; depth 0.51 m; ▼ –; or. 269°. – Damaged skeleton (skull fallen backwards); lying on the back, legs extended, the head position undetermined; the right forearm angled downwards across the abdomen, the left bent upwards with the hand on the shoulder (v.22). – Female?; length 1.56 m.

*Find:* A ring on the middle finger of the right hand (1).

1. *Ring* – bronze, with open ends, arched section, overlapping ends, one cut, the other trapezoidal; the profiled hoop decorated along the entire length: a raised lengthwise rib between single rows of pseudo-twisted wires; Ø 2.1/1.97 cm; w. 0.63 cm; th. 0.2 cm; wt. 2.842 g; S-2450 (G. 24; De. 1.5b).



**GRAVE 25**, quadrant VIII/8b–IX/8c (= quadrant II/1951). – A grave in an earthen pit; depth 0.40 m; ▼ –; or. 280°. – Lying on the back, the legs contracted and placed on the soil to the right, the head turned to the right (southeast); the forearms angled downwards across the abdomen (v.7a). – Sex?; length 1.55 m.

*No finds.*

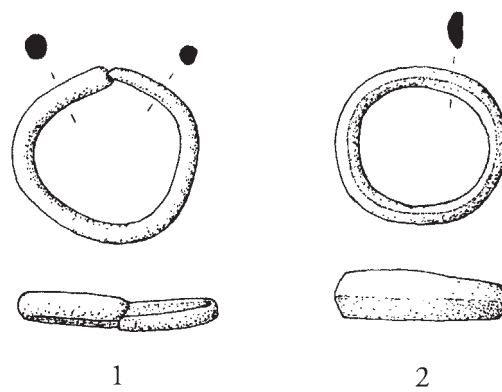
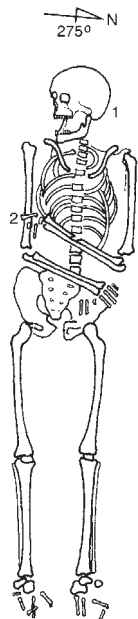
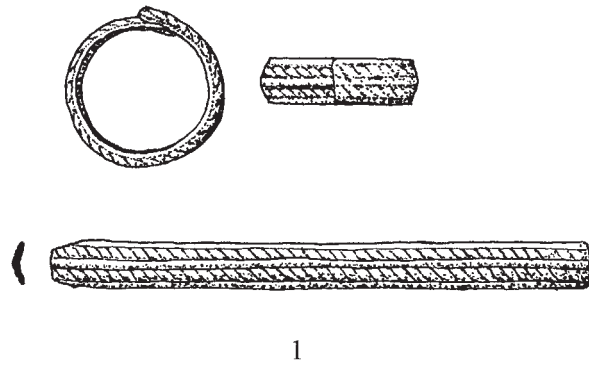
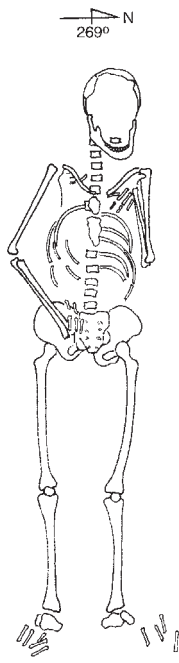


**GRAVE 26**, quadrant IX/8c (= quadrant II/1951). – A grave in an earthen pit; depth 0.72 m; ▼ –; or. 275°. – Lying on the back, legs extended, head turned to the right (southeast); the right forearm angled downwards across the abdomen, the left upwards across the chest (v.17). – Female; length 1.45 m.

*Finds:* A circlet next to the left side of the head (1), a ring on the ring-finger of the left hand (2).

1. *Circlet* – bronze, open-ended, circular section, one end cut, the other tapered; Ø 2.49–2.32 cm (= 7.60 cm); Ø wire 0.35–0.24 cm; wt. 4.003 g; S-2452 (G. 13-I,7/6);

2. *Ring* – bronze, closed hoop, semicircular section; Ø 2.24/2.05 cm; w. 0.62–0.45 cm; th. 0.27/0.24 cm; wt. 5.129 g; S-2451 (G. 31; H. 52b).





**GRAVE 27**, quadrant X/8c (= quadrant III/1951). – A grave in an earthen pit; depth 0.57 m; ▼ –; or. 269°. – Lying on the back, legs extended, the head turned to the left (northeast); the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Male; length 1.63 m.

*No finds.*



**GRAVE 28**, quadrant X/8d (= quadrant III/1951). – A grave in an earthen pit; depth 0.40 m; ▼ –; or. 248°. – Poorly preserved skeleton (skull crushed, part of the trunk and the calves disarranged, the right forearm missing); lying on the back, legs extended, head turned to the right; the forearm position cannot be determined (the left forearm angled downwards across the abdomen). – Child; length 0.54 m.

*Finds:* Bone (shoulderblade of an animal) near the left shin.<sup>25</sup>

[1.] Bone – mammal, shoulderblade; missing (H. 72).



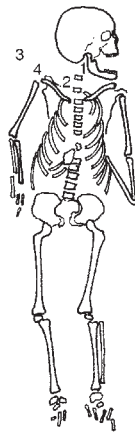
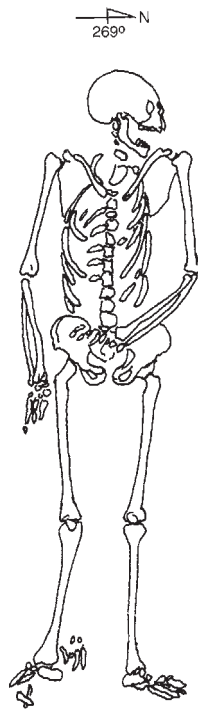
**GRAVE 29**, quadrant X/8c (= quadrant III/1951). – A grave in an earthen pit; depth 0.61 m; ▼ –; or. 275°. – Lying on the back, legs extended, head turned to the left (north); the forearms extended along the body (v.1). – Child; length 1.08 m.

*Finds:* An S-circlet next to the neck on the right side of the head (1), by the right shoulder a decorative green bead (2)<sup>26</sup> and a file (4),<sup>27</sup> a little further from them a thatching needle on the right side of the head (3), a necklace of beads by the neck vertebrae (2).

<sup>25</sup> *Dnevnik*, ad 13 Sept. 1951. The osteological material was not preserved (?).

<sup>26</sup> One of six beads discovered in the grave.

<sup>27</sup> Described as an "iron object with remains of wood of undetermined function (awl?)", *Dnevnik*, ad 13 Sept. 1951 and *Zapisnik*, no. 29/14 Sept. 1951.



1. *S-circllet* – bronze, circular section, cut end; h. 1.94 cm; Ø 1.72/1.55 cm; Ø wire 0.165 cm; S-w. 0.44 cm; wt. 0.827 g; S-2453 (G. II,5/2);
2. *Necklace of beads* – *glass beads* (6): grits-shaped, unspecified, grey (6); 3 beads missing; S-2456 (01/14 4 72);
3. *Thatching needle* – bone, rabbit (*Lepus europaeus*, Pallus), lower part of the foreleg (*humerus*), one joint broken off, cut into a point, burnished on the sides; l. 3.24 cm; w. 1.34 cm; th. 1.00 cm; wt. 1.88 g; S-2455 (H. –);<sup>28</sup>
4. *File*, fragment – iron, flat body, with a cut tang for the handle, body and tang of rectangular section; traces of wooden coating on the body; damaged (corroded; incomplete; fragment broken into several pieces); l. ca. 10 cm; w. ca. 0.8 cm; th. ca. 0.32 cm; wt. > 5.223 g; S-2454 (H. –).



**GRAVE 30**, quadrant X/8b–XI/8a (= quadrant III/1951). – A grave in an earthen pit; depth 0.55 m; ▼ –; or. 262°. – Lying on the back, legs extended, head straight (east/southeast); the forearms extended along the body (v.1). – Child; length 1.32 m.

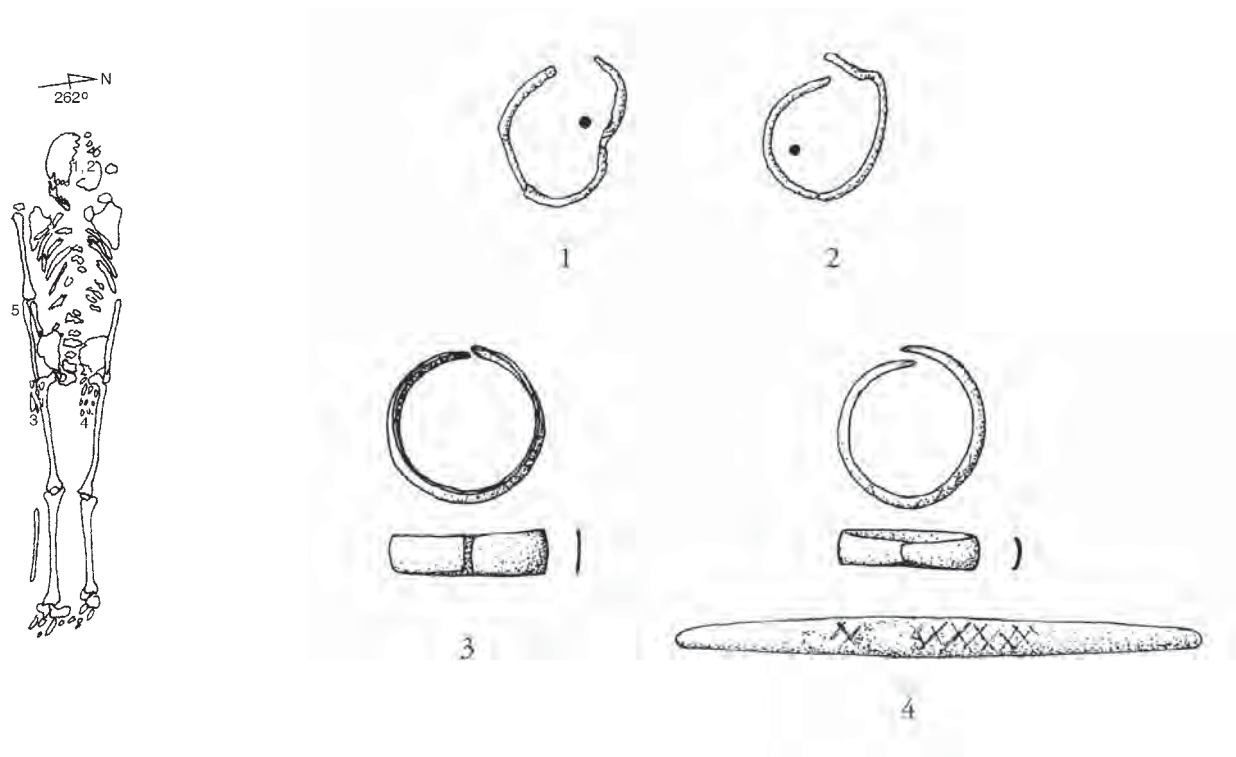
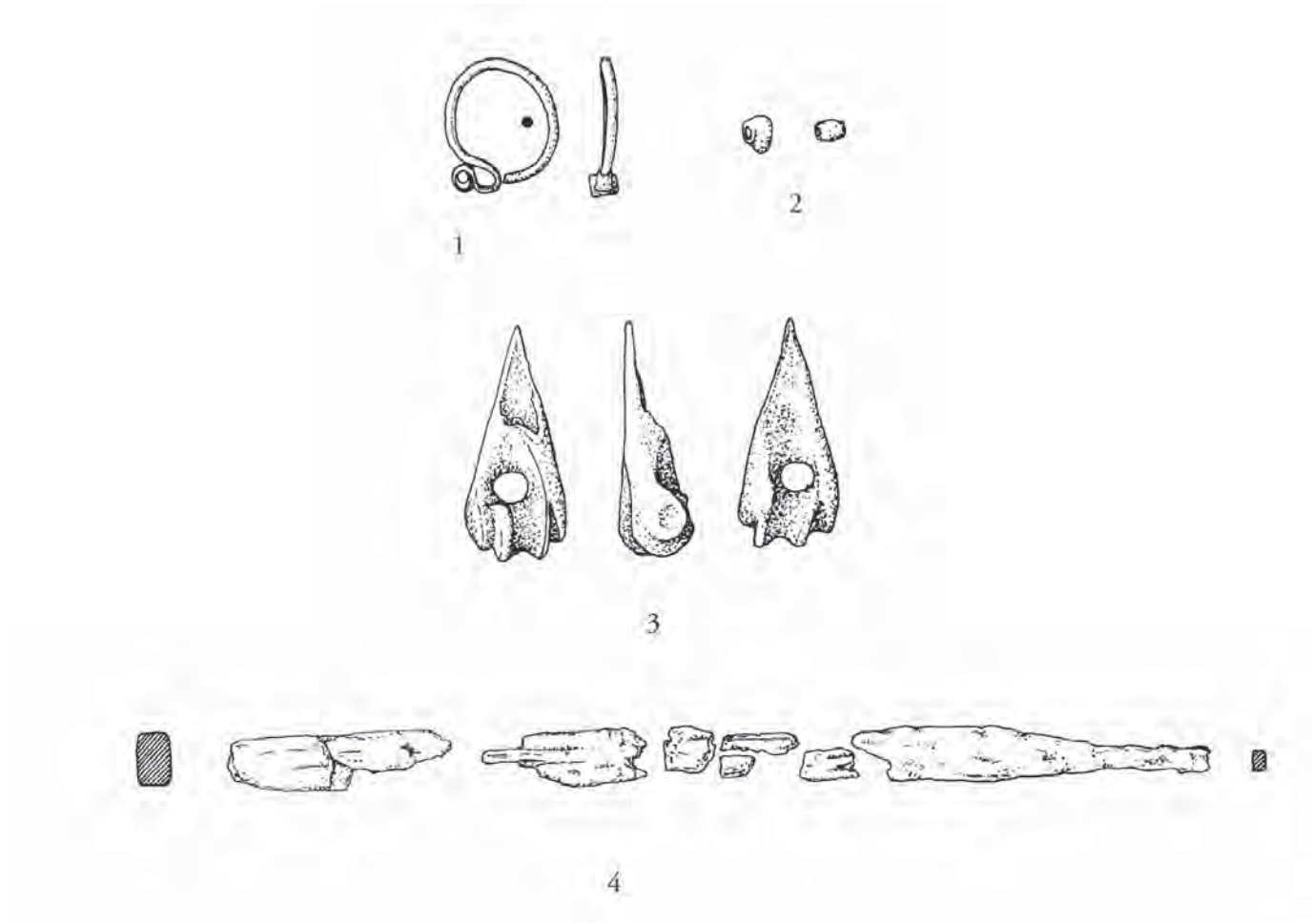
*Finds:*   *Circllets*  behind the head (1,2),<sup>29</sup> one  *ring*  each on the ringfinger of the right (3) and left hand (4), tiny animal  *bones*  [5 (bird?)] next to the right elbow and forearm.<sup>30</sup>

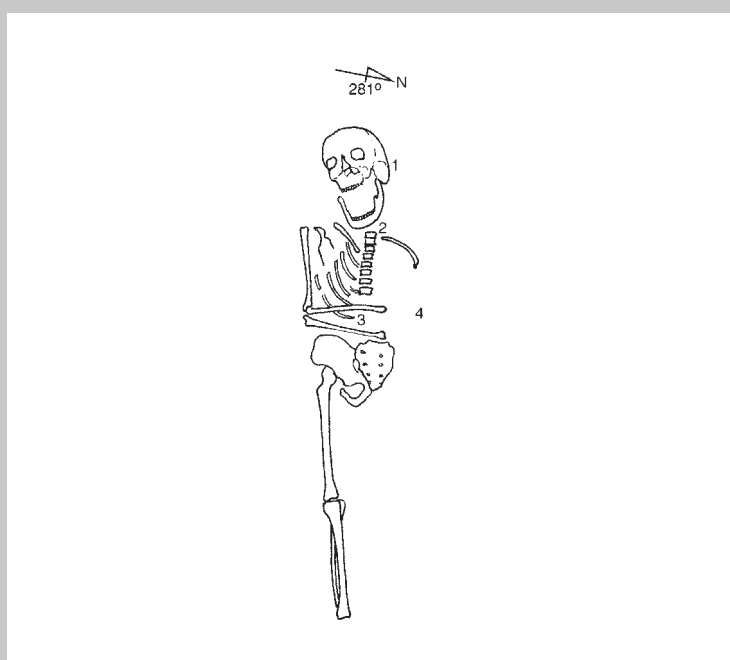
1.  *Circllet*  – bronze, open-ended, circular section, cut ends; damaged (deformed, corroded); Ø 1.99–1.69 cm (= 5.78 cm); Ø wire 0.14 cm; wt. 0.59 g; S-2459 (G. 13-II,5/1);
  2.  *Circllet*  – bronze, open-ended, circular section, cut ends; damaged (deformed, broken in two, corroded); Ø 1.65–0.90 cm (= 4.25 cm); Ø wire 0.14 cm; 0.365 g; S-2460 (G. 13-II,4/1);
  3.  *Ring*  – bronze, with open ends, banded section, cut ends of different widths; Ø 2.05/2.00 cm; w. 0.64–0.50 cm; th. 0.12 cm; wt. 2.289 g; S-2458 (G. 21; H. 45a);
  4.  *Ring*  – bronze, with open ends, arched section, the tapered and rounded ends overlap; half the hoop decorated with a net-like pattern; Ø 2.97/1.92 cm; w. 0.55–0.30 cm; th. 0.14 cm; wt. 2.004 g; S-2457 (G. 24; H. 46b; De. 1.5b);
- [5.]  *Bones*  – bird (?); missing (H. 72).

<sup>28</sup> The osteological identification was performed by Dr. Vesna Malez of the Institute of Paleontology and Quaternary Geology of the Croatian Academy of Science and Art, whom I would again like to thank.

<sup>29</sup> The  *Dnevnik* , ad 13 Sept. 1951, and  *Zapisnik* , no. 30/14 Sept. 1951, mention only the find of one circllet, emphasizing that it was found "  *behind the back part of the skull...* ", and "  *behind the head...* ", respectively.

<sup>30</sup>  *Dnevnik* , ad 13 Sept. 1951;  *Zapisnik* , no. 30/14 Sept. 1951. The osteological material was not preserved (?).





**GRAVE 31**, quadrant X/8a–b (= quadrant X/8). – A grave in an earthen pit; depth 0.68 m; ▼ –; or. 281°. – Damaged skeleton (the left side of the skeleton was missing).<sup>31</sup> The skeleton was lying on the back, legs extended, head straight (towards the east); the forearm position could not be determined (the right forearm horizontally across the stomach). – Female?; length 1.35 m.

*Finds:* A circlet on the left side of the head (1),<sup>32</sup> a torc around the neck (2), a bracelet on the right forearm (3); a dislocated find of a bracelet belonging to the destroyed left hand (4).<sup>33</sup>

1. *Circlet* – bronze, open-ended, circular section, the cut ends touch; Ø 2.64–2.33 cm (= 7.8 cm); Ø wire 0.18–0.17 cm; wt. 1.579 g; S-2463 (G. 13-I,7/2);
2. *Torc* – bronze, with a hook and eye for fastening, twisted from two doubly bent wires of circular section with one inserted opposite to the other; one end of each wire is cut, the other end is wound around the necks of the hook and eye (6+6 coils); Ø 15.24 cm (fastened); Ø twisted wires 0.44 cm; Ø wires 0.19 cm; wt. 40.359 g; S-2461 (G. 1b; De. 1.1.1.2a/no);
3. *Bracelet* – bronze, open ended, circular section, with separated, cut and tapered ends; Ø 7.03/6.70 cm; Ø wire 0.39–0.25 cm; wt. 16.929 g; S-2462 (G. 4; De. 1.2a);
4. *Bracelet* – bronze, open ended, circular section, with separated, cut and tapered ends, one of the ends pointed; damaged (deformed); Ø 6.60/6.39 cm; Ø wire 0.45–0.25 cm; wt. 19.934 g; S-2893 (G. 4; De. 1.2a).



**GRAVE 32**, quadrant II/9d–III/8a (= auxiliary trench J). – A grave in an earthen pit; depth 0.58 m; ▼ –; or. 280. – Lying on the back/supine, legs extended, head straight (towards the east); the forearms extended along the body (v.1). – Male; length 1.68 m.

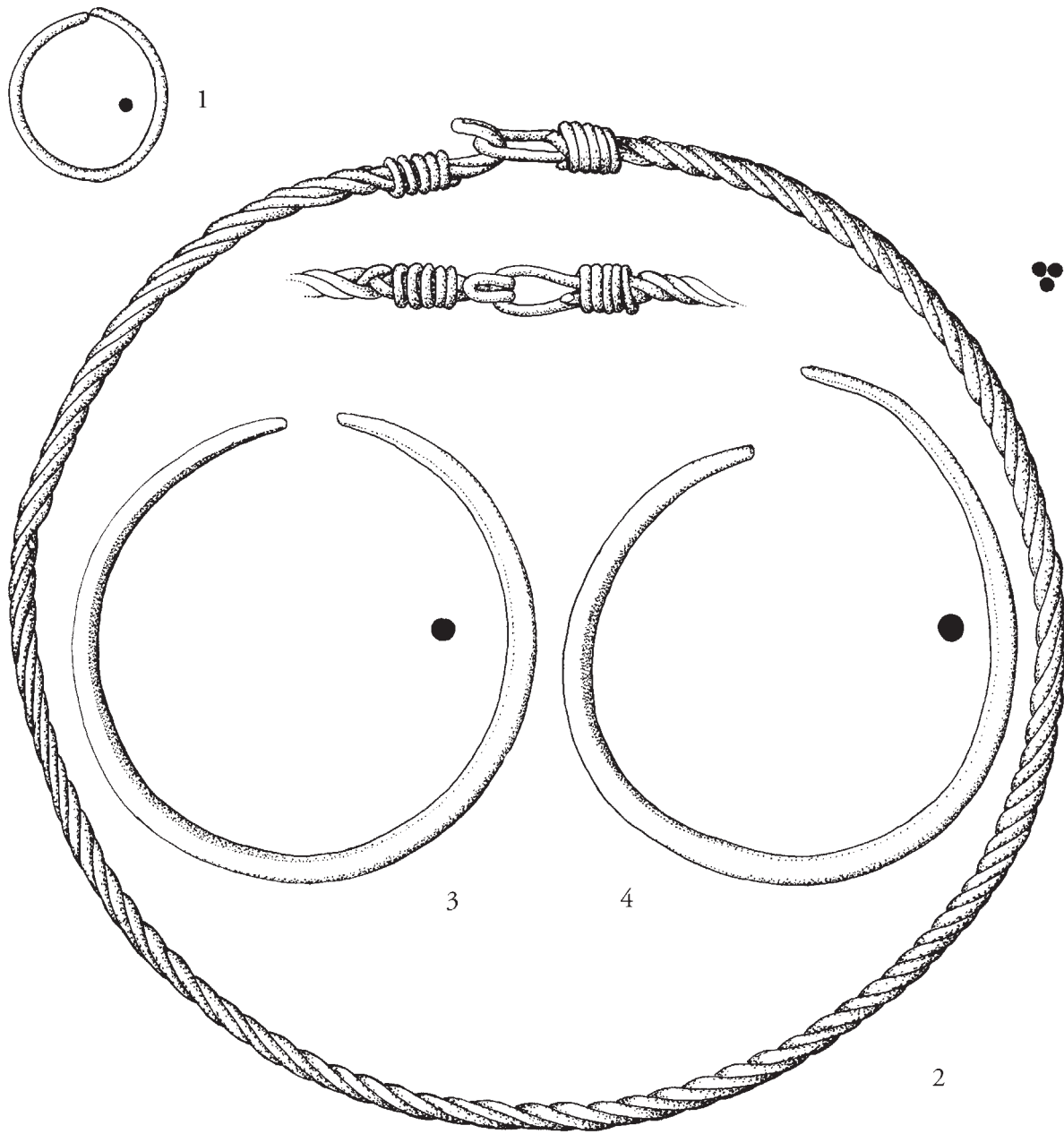
*No finds.*

<sup>31</sup> The skeleton was damaged by a recently dug ditch leading from the Lorinc-Janković house through trenches IX/9, X/8–9, XI/8 and XII/8 (see Fig. 1751-IV-551).

<sup>32</sup> The photograph of gr. 31 does not display the authentic arrangement of the grave (mixed finds from gr. 29 and 31 – sic!) because of which the position of the finds was reconstructed according to the data in the *Dnevnik*, ad 14 Sept. 1951 and *Zapisnik*, no. 31/14 Sept. 1951.

<sup>33</sup> The find of a bracelet in quad. X/8 "in the third excavation level at a position 0.60 m. from the northern edge and 1.70 from the eastern at a depth of 0.40...", is noted in the *Dnevnik*, ad 12 Sept. 1951.





## 2.2.2. Excavations in 1952 (graves 33–205)



**GRAVE 33**, quadrant X/9d. – A grave in an earthen pit; depth 0.80 m; ▼ 106.00/105.87 m; or. 275° (85° deviation from north). – Lying on the back/supine, legs extended, head turned to the left (northeast); the right forearm was bent upwards with the hand on the shoulder, the left angled upwards across the chest (v.24). – Female; length 1.63 m.

*Finds:* A *circlet* on the right side of the head (1), two *circlets* on the left side, one with a *bead* (2,3–3.1),<sup>34</sup> a *bracelet* on the right forearm (4/5), and one *ring* each on the right (5/6) and left hand (6/7).

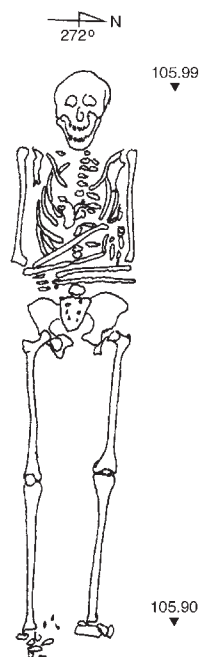
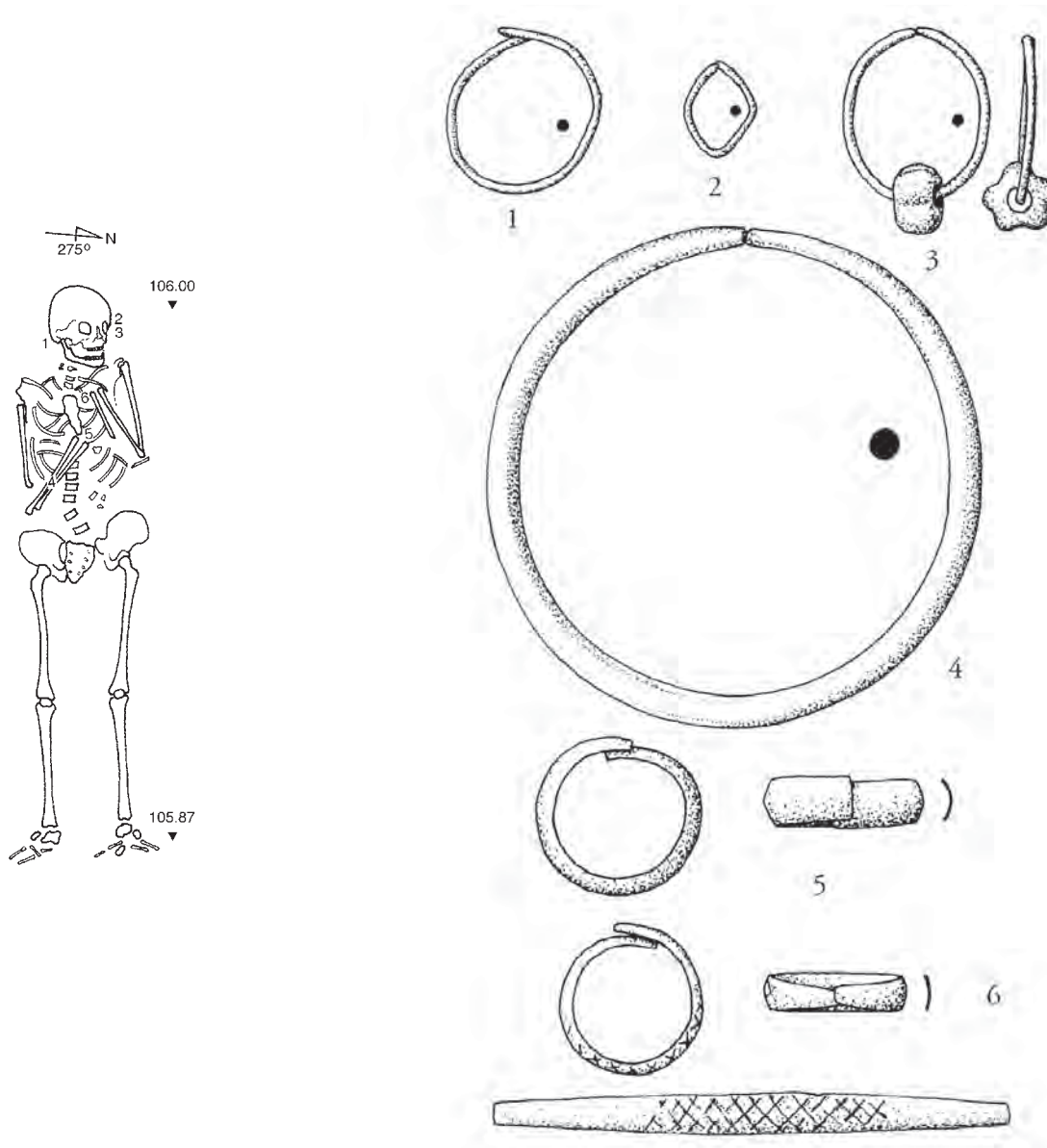
1. *Circlet* – bronze, open-ended, circular section, overlapping cut ends; Ø 2.28–2.05 cm (= 6.80 cm); Ø wire 0.14 cm; wt. 0.915 g; S-2466 (G. 13-I,6/1);
2. *Circlet* – bronze, open-ended, circular section, overlapping cut ends; Ø 1.28–0.97 cm (= 3.53 cm); Ø wire 0.13 cm; wt. 0.287 g; S-2469 (G. 13-II,4/1);
3. *Circlet with a bead – circlet*: bronze, open-ended, circular section, overlapping cut ends; a glass bead is threaded on the circlet: Ø 2.49–2.05 cm (= 7,13); Ø wire 0.19–0.16 cm; wt. 2.718 g; wt. without bead 1.39 g; S-2465/1 (G. 13 dif. = 1,7/3 with bead; H. 18d); – *bead* (1): see no. 3.1 (H. 27 dif.);
  - 3.1. *Bead*, pendant on a circlet – glass, globular-flattened, perpendicularly ribbed, opaque, yellowish grey-brown; d<sub>1</sub> 0.95/0.76 cm; d<sub>2</sub> 0.45 cm; vis. 0.75 cm; wt. 1.328 g; S-2465/2 (01/04 2 61);
4. *Bracelet* – bronze, open ended, circular section, the cut and tapered ends overlap; Ø 6.98/6.71 cm; Ø wire 0.50–0.33 cm; wt. 26.248 g; S-2464 (G. 4; De. 1.2a);
5. *Ring* – bronze, with open ends, arched section, the cut ends overlap; Ø 2.23/2.14 cm; w. 0.70 cm; th. 0.19 cm; wt. 1.862 g; S-2468 (G. 24; De. 1.5a);
6. *Ring* – bronze, arched section, the cut and tapered ends overlap; half the hoop decorated with a net-like pattern; Ø 2.07/1.95 cm; w. 0.59–0.40 cm; th. 0.17; wt. 2.267 g; S-2467 (G. 24; H. 46b; De. 1.5b).



**GRAVE 34**, quadrant X/9d–XI/9c. – A grave in an earthen pit; depth 0.74 m; ▼ 105.99/105.90 m; or. 272° (88° deviation from north). – Lying on the back, legs extended, head straight (towards the east); the forearms were crossed horizontally across the abdomen: the right above, the left below (v.13b). – Female; length 1.64 m.

*No finds.*

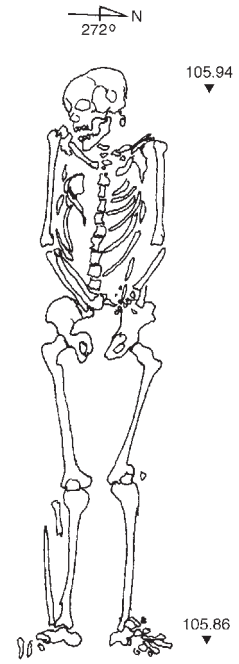
<sup>34</sup> Found during removal of the skeleton, *Dnevnik*, ad 3 Sept. 1952.





**GRAVE 35**, quadrant X/9b–XI/9a. – A grave in an earthen pit; depth 0.75 m; ▼ 105.94/105.86 m; or. 272° (88° deviation from north). – Lying on the back, legs extended, head turned to the right (southeast); the forearms were angled downwards across the abdomen. – Female; length 1.61 m.

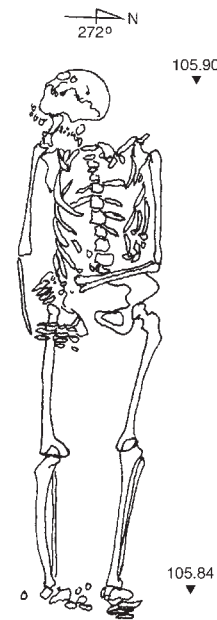
*No finds.*





**GRAVE 36**, quadrant XI/10d. – A grave in an earthen pit; depth 0.80 m; ▼ 105.90/105.84 m; or. 272° (88° deviation from north). – Damaged skeleton (the skull crushed); lying on the back, legs extended, head turned to the right (south-east); the right forearm extended along the body (the hand across the right thigh bone), the left bent horizontally across the abdomen (v.11). – Sex?; length 1.50 m.

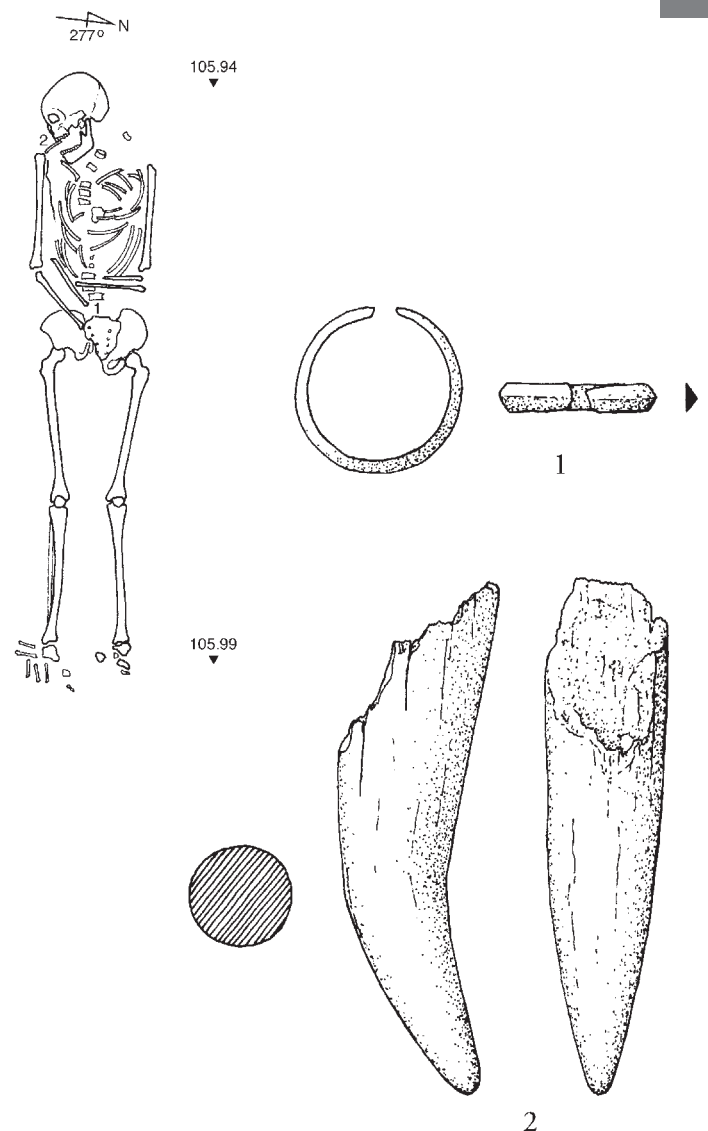
*No finds.*



**GRAVE 37**, quadrant XI/c–d. – A grave in an earthen pit; depth 0.80 m; ▼ 105.94/105.99 m; or. 277° (83° deviation from north). – Lying on the back, legs extended, head turned to the right (southeast); the right forearm angled downwards across the abdomen, the left bent horizontally across the stomach (v.12). – Male; length 1.65 m.

*Finds:* Below the nose a *tightener/loosener* (2), on the right hand a *ring* (1).<sup>35</sup>

1. *Ring* – bronze, with open ends, banded section, separated and cut ends; Ø 2.14/2.11 cm; w. 0.42; th. 0.15 mm; wt. 1.592 g; S-2470 (G. 22; H. 48b; De. 1.4b)<
2. *Tightener/loosener*, fragment – bone, antler tine; deer; damaged (part broken); l. 6.68 cm; Ø 1.68 cm; wt. 12.298 g; S-2471 (H. –).



<sup>35</sup> The position of the find is noted in the *Zapiski*, no. 37/22 Aug. 1952.



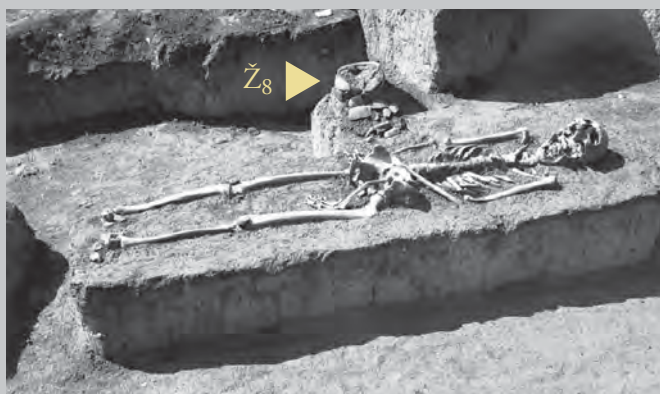
**GRAVE 38**, quadrant XI/8b. – A grave in an earthen pit; depth 0.50 m; ▼ 106.03/105.95 m; or. 285° (75° deviation from north). – Lying on the back, legs extended, head tilted towards the left (east); the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Child; length ca. 0.70 m.

*No finds.*



**GRAVE 39**, quadrant XI/8b. – A grave in an earthen pit; depth 0.80 m; ▼ 105.91/105.88 m; or. 290° (70° deviation from north). – Lying on the back, legs extended, head turned to the left (northeast); the right forearm bent horizontally across the stomach, the left folded upwards with the hand on the shoulder. (v.23). – Male; length 1.69 m.

*No finds.*



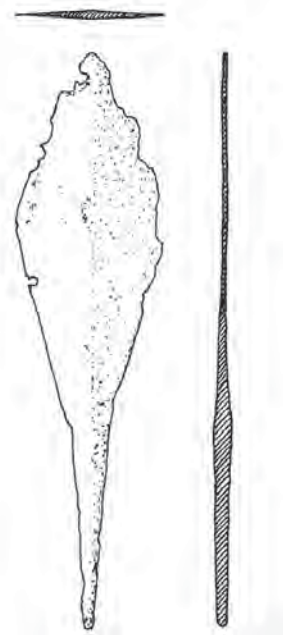
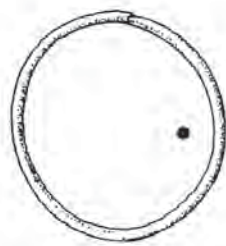
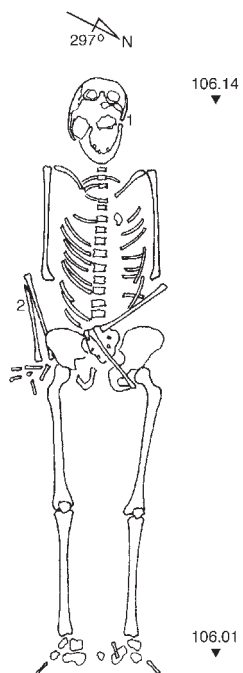
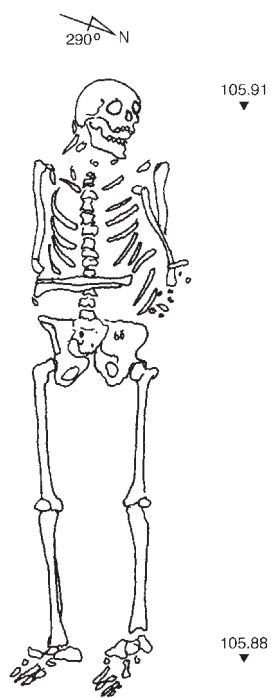
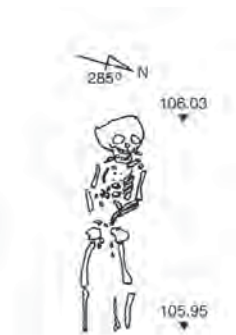
**GRAVE 40**, quadrant XI/8c–d. – A grave in an earthen pit; depth 0.54 m; ▼ 106.14/106.01 m; or. 297° (63° deviation from north). – Lying on the back, legs extended, head straight; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Male; length 1.67 m.

*Finds:* A *circlet* on the left side of the head (1), an *arrowhead* by the disturbed bones of the hand (2).<sup>36</sup>

1. *Circlet* – bronze, open-ended, circular section, the cut ends touch; Ø 3.02–2.77 cm (= 9.70 cm); Ø wire 0.17 cm; wt. 1.520 g; S-2472 (G. 13-I, 9/2);

2. *Arrowhead* – iron, laurel-leaf shaped head with a central rib, tang without a groove; widest span in the upper half of the head; damaged (corroded, chipped); l. 7.63 cm; head: l. 4.92 cm, w. 1.9 cm, th. 0.20 cm; tang: l. 2.71 cm; wt. 6.086 g; S-2922 (G. A; H. 8b; To. A3; De. 2.1; Rutt. B1a/Med. 63).

<sup>36</sup> The find of the arrowhead in quad. XI/8d was recorded by the *Dnevnik*, ad. 19 Aug. 1952, as follows: "In quadrant **XI/8** in the third excavation level.... In field **d**) in the vicinity of the dislocated bones of the arm an iron arrow of the nomadic type was found."





**GRAVE 41**, quadrant XI/7b–XI/8d–XII/7a. – A grave in an earthen pit; depth 0.66 m; ▼ 105.93/105.78 m; or. 285° (75° deviation from north). – Lying on the back/supine, legs extended, head straight (east); the right forearm was extended along the body, the left angled downwards across the abdomen (v.6). – Female; length 1.64 m.

*Finds:* Two *button-pendants* found during removal of the skeleton.<sup>37</sup>

1. *Button-pendant* – bronze, spherical, solid, with a circular loop for attachment; h. 1.48 cm; Ø 0.86/0.80 cm; wt. 2.526 g; S-2473 (G. 11a);
2. *Button-pendant* – bronze, spherical, solid, with a circular loop for attachment; h. 1.47 cm; Ø 0.85/0.82 cm; wt. 2.526 g; S-2474 (G. 11a);



**GRAVE 42**, quadrant XII/9a. – A grave in an earthen pit; depth 0.54 m; ▼ 105.91/105.80 m; or. 288° (72° deviation from north). – Lying on the back, legs extended, head turned to the right (south); the forearms bent upwards and crossed across the chest (v.19). – Child; length 0.84 m.

*Finds:* A *necklace of beads* found to the left of the neck below the ear (2 pieces) and on the right side of the head (3 pieces) during removal of the skeleton.<sup>38</sup>

1. *Necklace of beads* – *glass beads* (5): globular-flattened, unspecified, milky white (1), brown (1) and honey brown (1); globular-flattened, unspecified, brown / dots in three fields of two intersecting wavy lines, impressed, dots of pale green, lines of milky white (1); annular, unspecified, yellowish white (1); 2475 (01/03 4 11, 01/03 2 60, 01/03 4 61; 01/03 4 60/30101 01 53 11; 01/11 4 12).



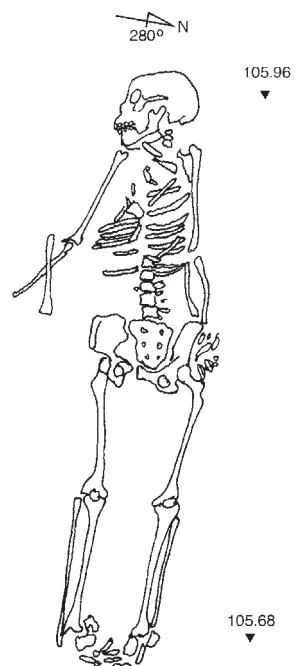
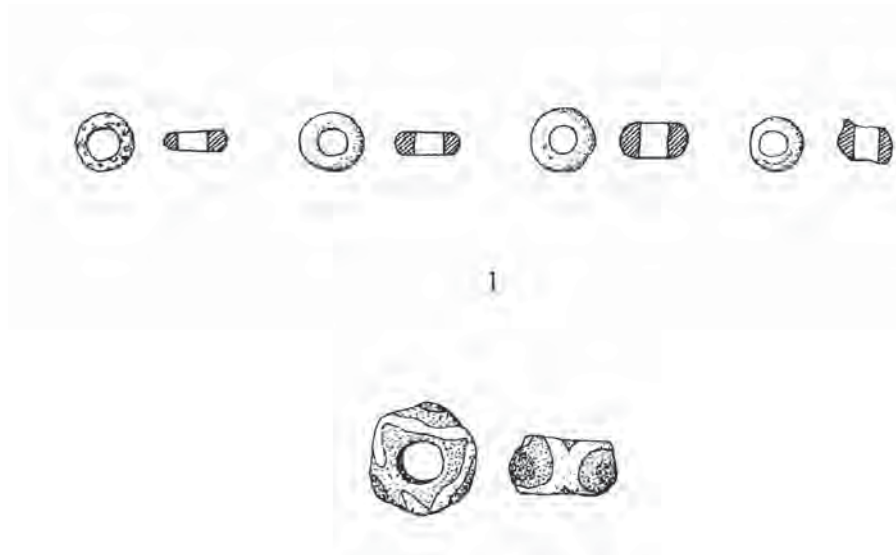
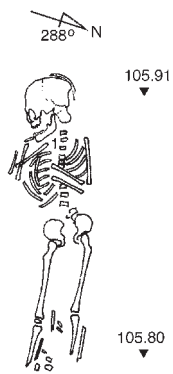
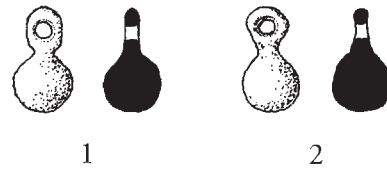
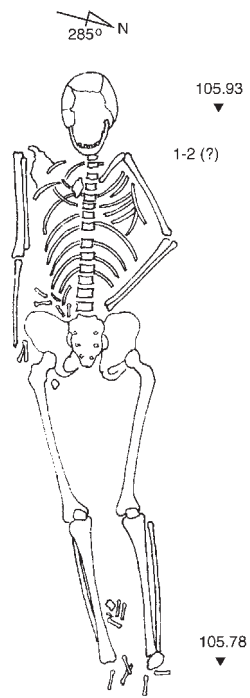
**GRAVE 43**, quadrant XII/9c–XII/8a. – A grave in an earthen pit; depth 0.65 m; ▼ 105.96/105.68 m; or. 280° (80° deviation from north). – Lying on the right flank, legs extended, head turned to the right (south); the forearms were extended along the body (the right displaced). – Female; length 1.55 m.

*No finds.*

<sup>37</sup> *Dnevnik*, ad 4 Sept. 1952.

<sup>38</sup> *Zapisnik*, no. 42/26 Aug. 1952.







**GRAVE 44**, quadrant XII/9d. – A grave in an earthen pit; depth 0.70 m; ▼ 105.85/105.77 m; or. 285° (75° deviation from north). – Lying on the back, legs bent and spread outward, head turned to the right (south); the elbows were extended outwards from the body, the forearms angled downwards across the stomach and abdomen (v.7c). – Female; length 1.60 m.

*Finds:* One *bracelet* on the left forearm (2), the other *bracelet* broken on the chest above the spine (1).<sup>39</sup>

1. *Bracelet* – bronze, open ended, circular section, with separated, cut and tapered ends; damaged (broken into two parts); Ø 6.89 cm; Ø wire 0.48–0.28; wt. 25.296 g; S-2477 (G. 4; De. 1.2a);

2. *Bracelet* – bronze, open ended, circular section, separated and pointed ends; Ø 6.73/6.68 cm; Ø wire 0.38–0.10 cm; wt. 13.472 g; S-2476 (G. 4; De. 1.2a).

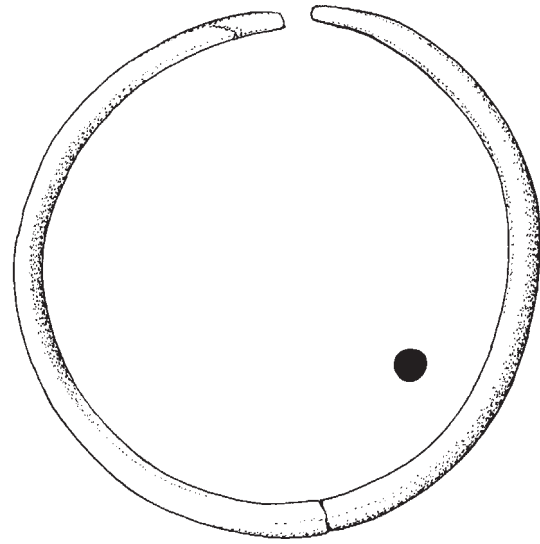
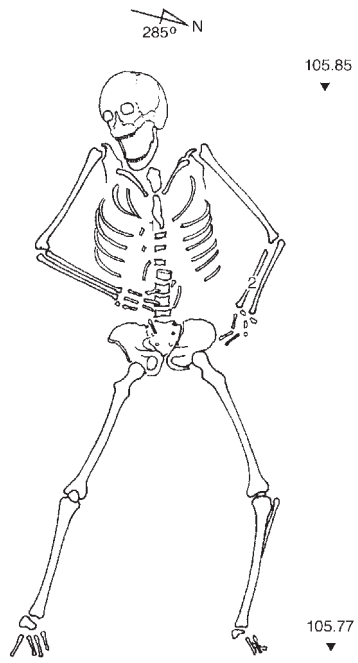


**GRAVE 45**, quadrant XII/9b. – A grave in an earthen pit; depth 0.43 m; ▼ 105.79/105.78 m; or. 290° (70° deviation from north). – Poorly preserved skeleton; lying on the back, legs extended, head turned to the left (east/northeast); the forearm positions could not be determined (the right forearm extended along the body). – Child; length 0.78 m.

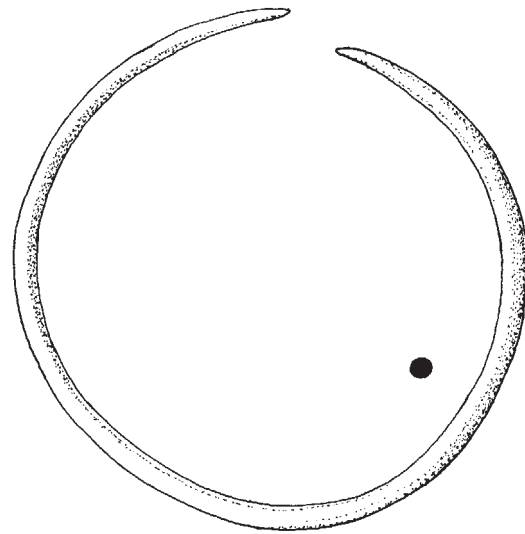
*Finds:* A *circlet* on the right side of the head.

1. *Circlet* – bronze, open-ended, circular section, overlapping ends, one cut, the other pointed; Ø 2.55–2.38 cm (= 7.72 cm); Ø wire 2.01 cm; wt. 1.919 g; S-2478 (G. 13-I,7/3).

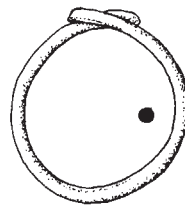
<sup>39</sup> The position of the find is noted in the *Zapisek*, no. 44/26 Aug. 1953.



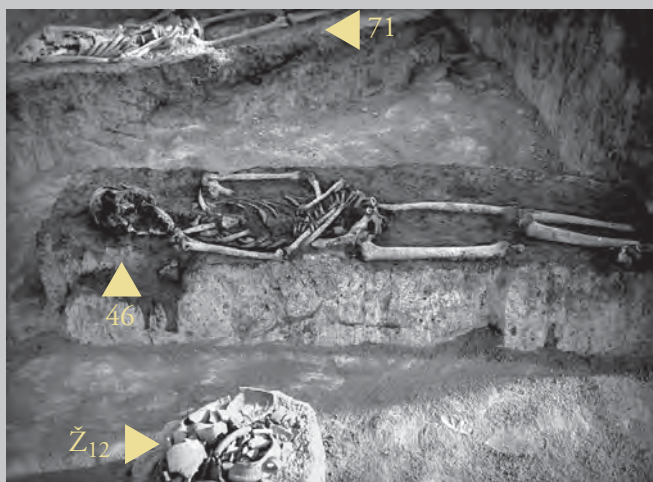
1



2



1



**GRAVE 46**, quadrant XII/9a–XII/10d. – A grave in an earthen pit; depth 0.53 m; ▼ 105.97/105.83 m; or. 283° (77° deviation from north). – Lying on the back, legs extended, head turned to the right (south); the forearms angled downwards and crossed on the stomach (v.7b). – Child; length 1.66 m.

*No finds.*



**GRAVE 47**, quadrant XVI/6c. – A grave in an earthen pit; depth 0.68 m; ▼ 105.39/105.26 m; or. 275° (85° deviation from north). – Damaged skeleton (the feet were missing); lying on the back, legs extended, head straight (east/southeast); the forearms angled downwards across the abdomen (v.7a). – Child; length ca. 0.96 m.

*No finds.*

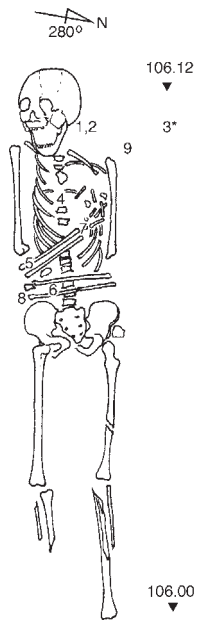
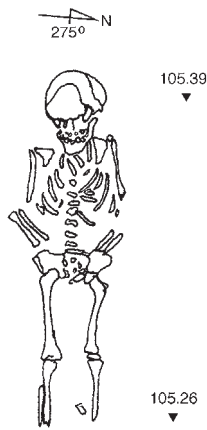
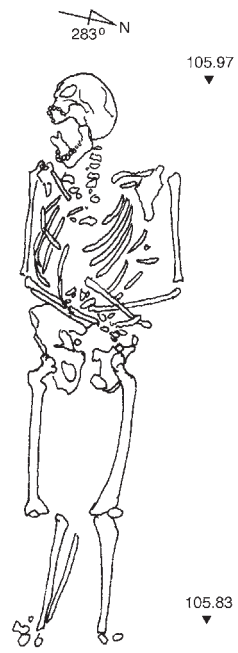


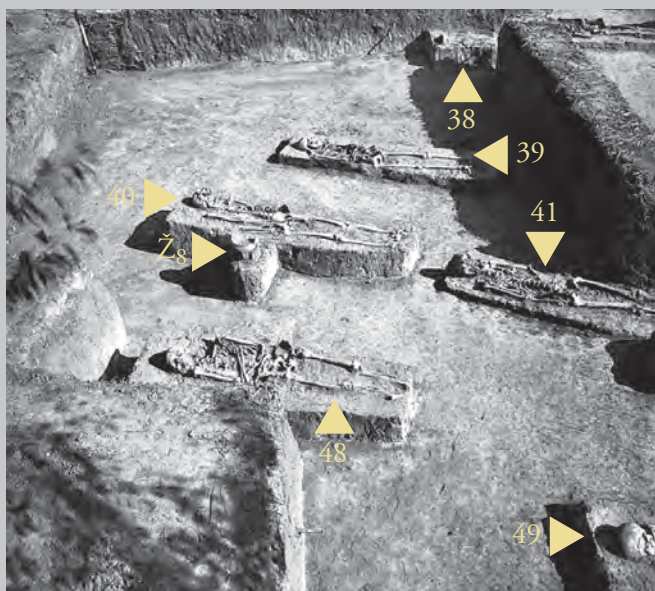
**GRAVE 48**, quadrant XI/7b–c. – A grave in an earthen pit; depth 0.61 m; ▼ 106.12/106.00 m; or. 280° (80° deviation from north). – Damaged skeleton (part of the left calf and foot were missing); lying on the back, legs extended, head turned to the right (south/southeast); the right forearm angled upwards across the chest, the left bent horizontally across the stomach (v.14). – Female; length 1.51 m.

*Finds:* Iron *circlets* beneath the head (1,2), a *bead* on the chest (4), a *bracelet* on the right forearm (5), another *bracelet* on the left forearm (6), one *ring* each on the right hand (7) and left hand (8); no data about the circumstance and site of discovery of the bronze *circlet* (3\*);<sup>40</sup> animal *bones*, most probably from a cow, above the left shoulder [9].<sup>41</sup>

<sup>40</sup> The finds from gr. 48 are discussed in the *Dnevnik* twice: as the first finds are cited "two bronze bracelets and one ring on a finger of the left hand" (ad 25 Aug. 1952), and after removal of the skeleton additional finds were noted "2 bronze earrings, 1 ring decorated with filigree, and 1 glass paste bead" (ad 4 Sept. 1952). Other than these seven objects, the *Zapisnik* mentions one more circlet, which was later noted without accompanying information about the circumstances of discovery (no. 48/27 Aug. 1952).

<sup>41</sup> *Zapisnik*, no. 48/27 Aug. 195. The osteological material was not preserved (?).





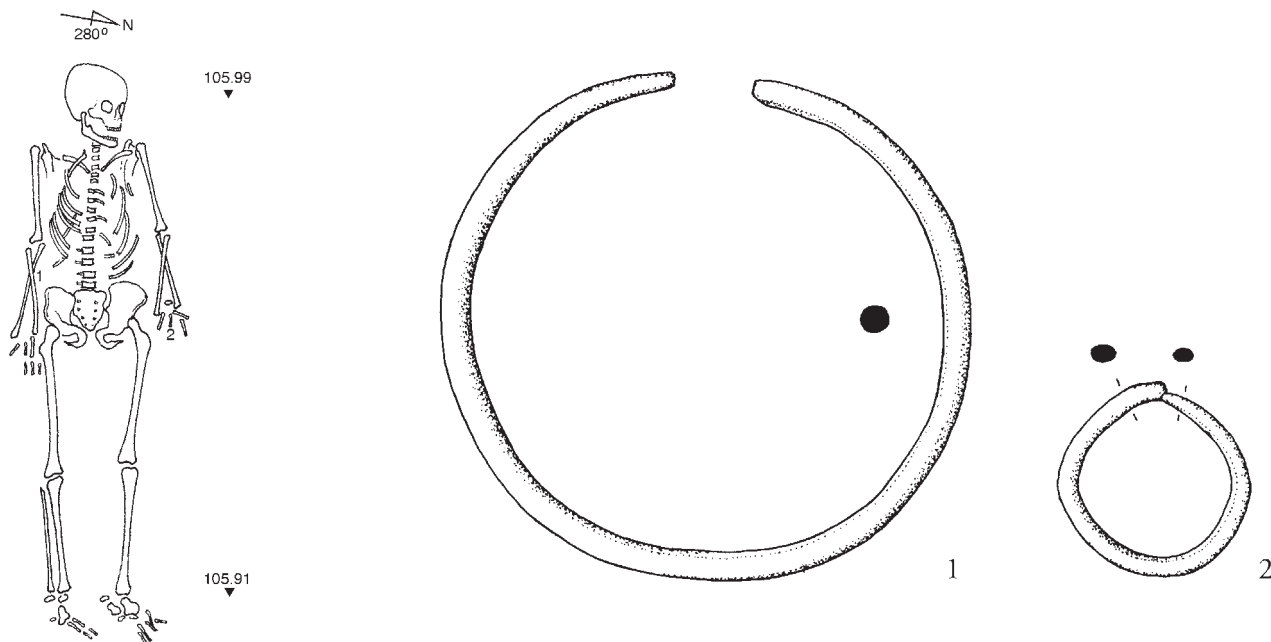
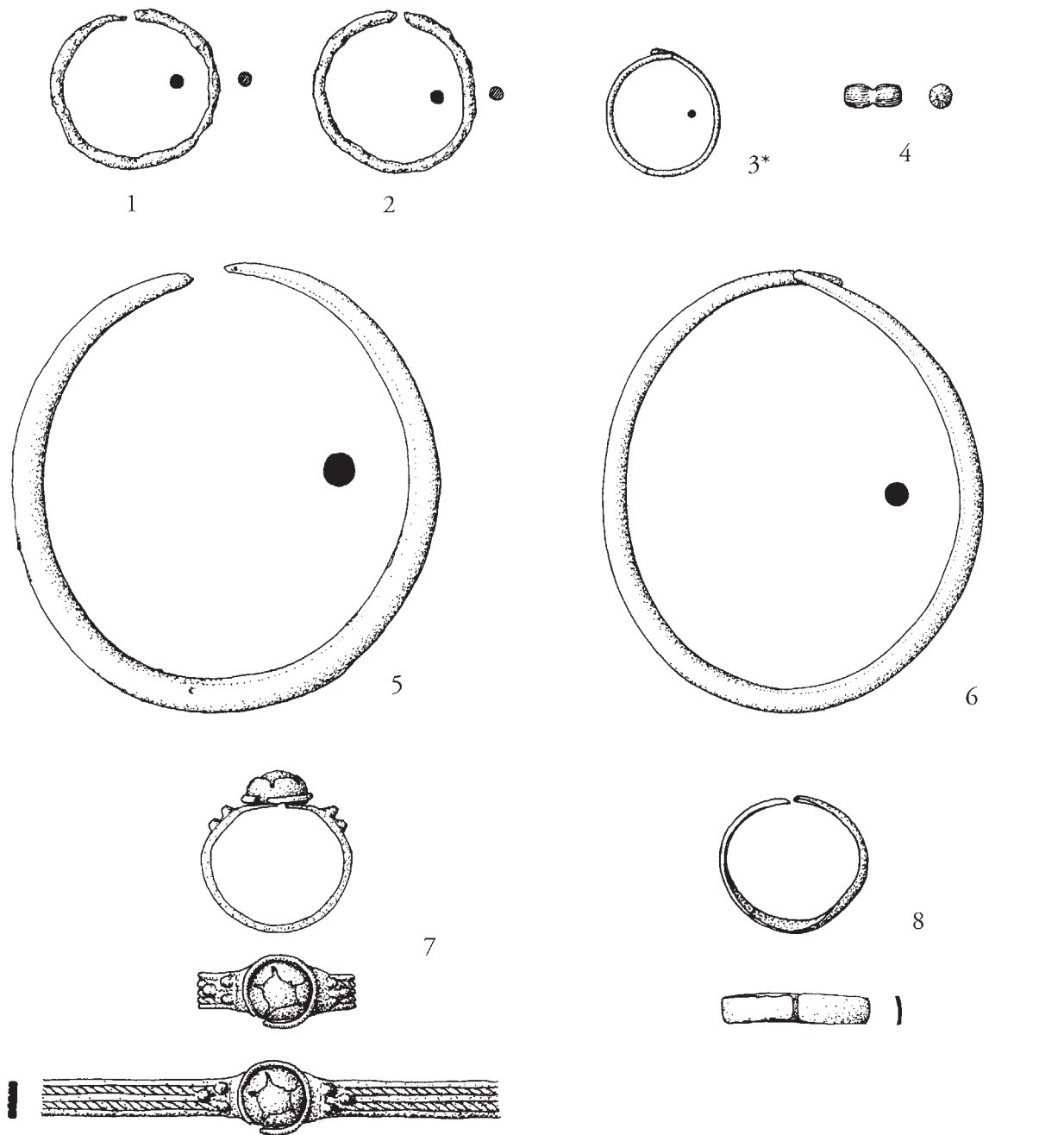
1. *Circlet* – iron, open-ended, circular section, cut ends; damaged (partly corroded);  $\varnothing$  2.60–2.47 cm (= 7.94 cm);  $\varnothing$  wire ca. 0.20 cm; wt. 1.249 g; S-2483/1 (G. 13-I,7/3);
2. *Circlet* – iron, open-ended, circular section, cut ends; damaged (partly corroded);  $\varnothing$  2.58–2.48 cm (= 7.94 cm);  $\varnothing$  wire ca. 0.20 cm; wt. 1.374 g; S-2483/2 (G. 13-I,7/3);
- 3.\* *Circlet* – bronze, open-ended, circular section, overlapping cut ends;  $\varnothing$  1.97–1.76 cm (= 5.86 cm);  $\varnothing$  wire 0.12 cm; wt. 0.570; 2484 (G. 13-II, 5/1);
4. *Necklace with a bead* – glass bead (1): segmented, double, translucent, dark blue;  $\varnothing$  0.42 cm; d –; h. 0.91 cm; wt. 0.193 g; S-4048 (01/012 1 44);
5. *Bracelet* – bronze, open ended, circular section, with separated, cut and tapered ends;  $\varnothing$  6.95/6.54 cm;  $\varnothing$  wire 0.51–0.28 cm; wt. 29.605 g; S-2480 (G. 4; De. 1.2a);
6. *Bracelet* – bronze, open ended, circular section, with separated, cut and tapered overlapping ends;  $\varnothing$  6.81/5.78 cm;  $\varnothing$  wire 0.39–0.26 cm; wt. 17.649 g; S-2479 (G. 4; De. 1.2a);
7. *Ring with a crown* – bronze, two-part; a profiled hoop of banded profile, with separated and hammered ends, decorated with a lengthwise rib between single rows of pseudo-twisted wire, on the shoulders on each side of the crown three triangularly arranged granules; the crown is circular, made of sheet-metal cut in a petal pattern and wound with wire, with an inset hemispherically rounded stone of dark green opaque glass paste; h. 2.5 cm; hoop:  $\varnothing$  2.25 cm,  $\varnothing$  w. 0.54 cm, th. 0.19 cm; w. bezel 0.92 cm; crown:  $\varnothing$  1.12 cm; wt. 4.380 g; S-2481 (G. 38b; M. 16b);
8. *Ring* – bronze, with open ends, banded section, the cut ends of different widths overlap; damaged (broken into two parts);  $\varnothing$  2.00 cm; w. 0.52–0.44 cm; th. 0.1 cm; wt. 1.721 g; S-2482 (G. 21; H. 45a);
- [9.] *Bones* – cattle (?); not preserved (H. 72).



**GRAVE 49**, quadrant XI/7b–XII/7a. – A grave in an earthen pit; depth 0.71 m;  $\blacktriangledown$  105.99/105.91 m; or. 280° (80° deviation from north). – Lying on the back, legs extended, head turned to the left (north); the forearms extended along the body (v.1). – Female; length 1.56 m.

*Finds:* On the right forearm a *bracelet* (1), next to the left hand a *ring* (2).

1. *Bracelet* – bronze, open ended, circular section, the separated ends touch, one cut, the other tapered;  $\varnothing$  6.92/6.74 cm;  $\varnothing$  wire 0.40–0.33 cm; wt. 19.231 g; S-2485 ((G. 4; De. 1.2a);
2. *Ring* – bronze, with open ends, oval section; the separated ends touch, one end cut and the other tapered;  $\varnothing$  2.50/2.33 cm; w. 0.34 cm; th. 0.20 cm; wt. 3.866 g; S-2486 (G. 25/26 dif.).





**GRAVE 50**, quadrant XII/7a. – A grave in an earthen pit; depth 0.54 m; ▼ 106.02/105.92 m; or. 282° (78° deviation from north). – Poorly preserved skeleton (part of the pelvis, the left calf and foot were missing); lying on the back, legs extended, head turned to the left (north); the forearms extended along the body (v.1). – Child; length ca. 1.07 m.

*No finds.*



**GRAVE 51**, quadrant XII/7a. – A grave in an earthen pit; depth 0.66 m; ▼ 105.95/105.88 m; or. 282° (78° deviation from north). – Lying on the back, legs extended, head straight (towards the east); the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Male; length 1.67 m.

*No finds.*

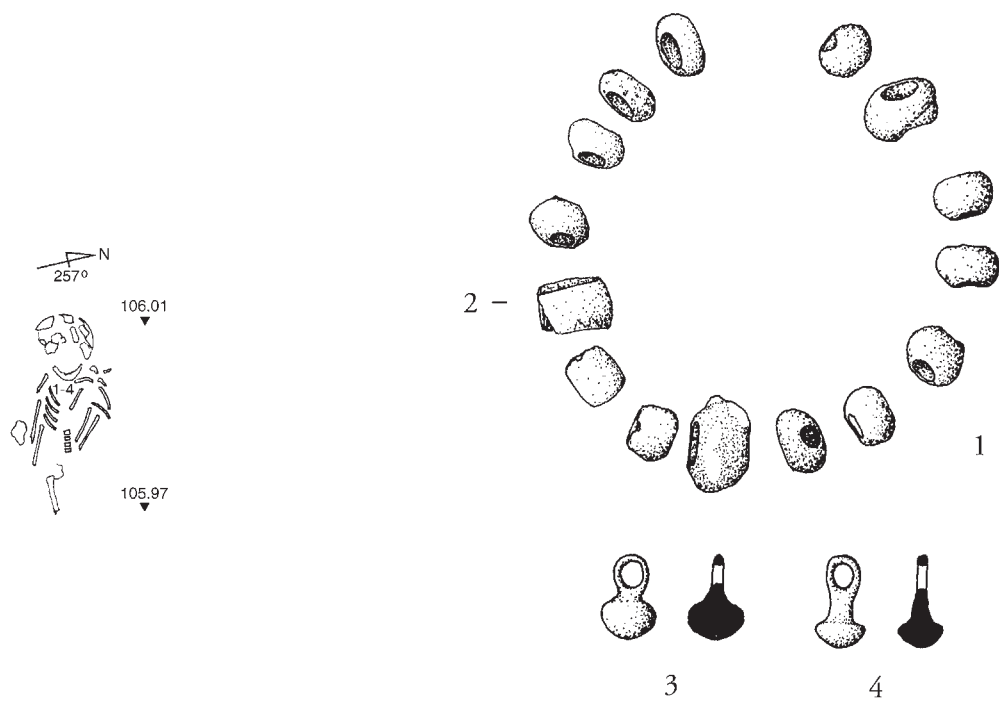
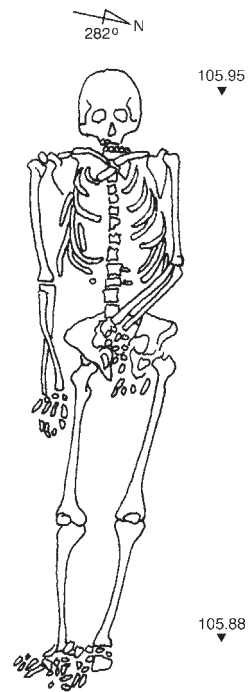
**GRAVE 52**, quadrant XII/7a. – A grave in an earthen pit; depth 0.51 m; ▼ 106.01/105.97 m; or. 257° (103° deviation from north). – Poorly preserved skeleton (the skull and trunk crushed; the pelvis and legs missing); lying on the back, legs extended, head straight; the position of the forearms could not be determined. – Child; length ca. 0.70 m.

*Finds:* During removal of the skeleton, a *necklace of beads* (1) with a *circlet metal pendant* (2), and two *button-pendants* (3–4) were noted.<sup>42</sup>

1. *Necklace of beads and a metal pendant* (15) – *glass beads* (14): globular-flattened, unspecified, yellowish white (1), pale green (5) and brown (6); globular-flattened, unspecified, dark brown / irregular line, intermittent, impressed, yellowish white (1); low cylindrical, unspecified, pale green (1); S-2487 (01/03 4 12, 01/03 4 53, 01/03 4 60; 01/03 4 63/20201 01 12; 01/05 4 53); – *metal pendant* (1): see no. 2 (*circlet*);
2. *Circlet*, pendant on a necklace – bronze, smooth, open-ended, oval form, arched section, the cut ends touch; h. 1.12 cm; w. 0.65 cm; th. 0.15 cm; wt. 0.983 g; S-2490 (G. –);
3. *Button-pendant* – bronze, lenticular, solid, with a circular loop for attachment; h. 1.17 cm; Ø 0.80 cm; wt. 1.904 g; S-2488 (G. 11b; H. 58c);
4. *Button-pendant* – bronze, mushroom-shaped, solid, with an elongated loop for attachment; h. 1.22 cm; Ø 0.70/0.68 cm; wt. 1.213 g; S-2489 (G. 11b dif.; H. 58d).

<sup>42</sup> The find of the beads and three bronze pendants during removal of the skeleton was noted in the *Zapisnik*, no. 52/27 Aug. 1952, and for the same grave the *Dnevnik* noted the find of "15 glass paste beads, 2 pear-shaped bronze pendants" (ad 4 Sept. 1952). After cleaning and conservation, the present state of finds was established.







**GRAVE 53**, quadrant XII/7a–b–XII/8c–d. – A grave in an earthen pit; depth 0.54 m; ▼ 105.96/105.91 m; or. 272° (88° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm was angled downwards across the abdomen, the left extended along the body (v.2). – Male; length 1.68 m.

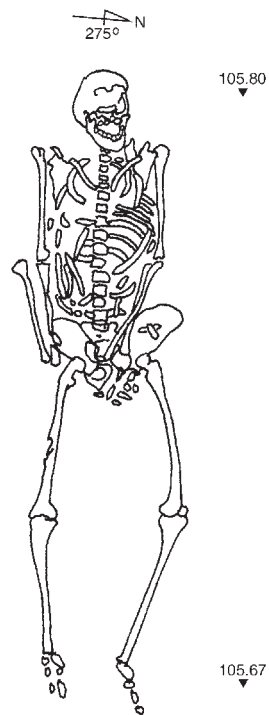
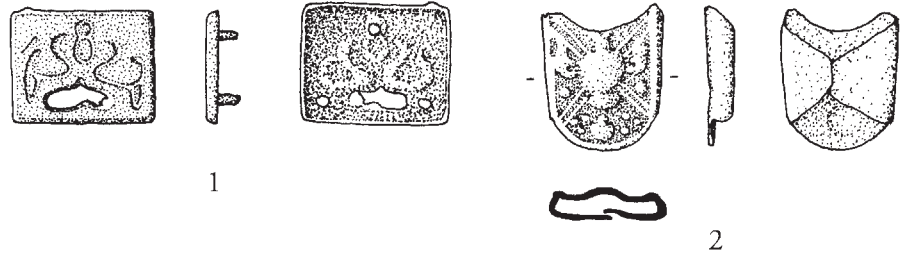
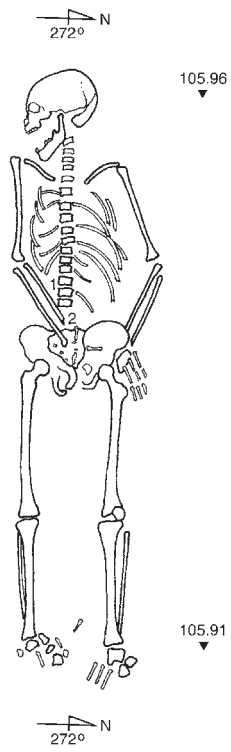
*Finds:* A *belt mount* on the right side of the chest (1), a *strap-end* on the left side of the skeleton above the abdomen (2); [Pl. 9:1–2].

1. *Belt mount*, for the strap of a belt (secondarily use, part of a nomadic belt set; early medieval, the late 9th to the beginning of 10th century) – bronze, cast, rectangular with a heart-shaped perforation in the lower part; incised decoration, three small rivets for attachment on the rear side; l. 1.99 cm; w. 1.64 cm; th. (with the rivets) 0.45 cm; wt. 2.552 g; S-2491 (To. A6); [Pl. 9:1];
2. *Strap-end*, a mount for the end of a strap of a horse harness, incomplete (secondarily use, part of an early Hungarian harness; early medieval, first half of the 10th century) – bronze, gilded, parallel sides, one end concave, the other rounded; relief decoration on the upper side; triangular shaped banded folded-over elements for attachment; damaged (reshaped and reduced for reuse); l. 1.84 cm; w. 1.58 cm; th. 0.44 cm; wt. 2.033 g; S-2492 (To. A6); [Pl. 9:2].



**GRAVE 54**, quadrant XIII/8a–XIII/9c. – A grave in an earthen pit; depth 0.66 m; ▼ 105.80/105.67 m; or. 275° (85° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Male; length 1.68 m.

*No finds.*





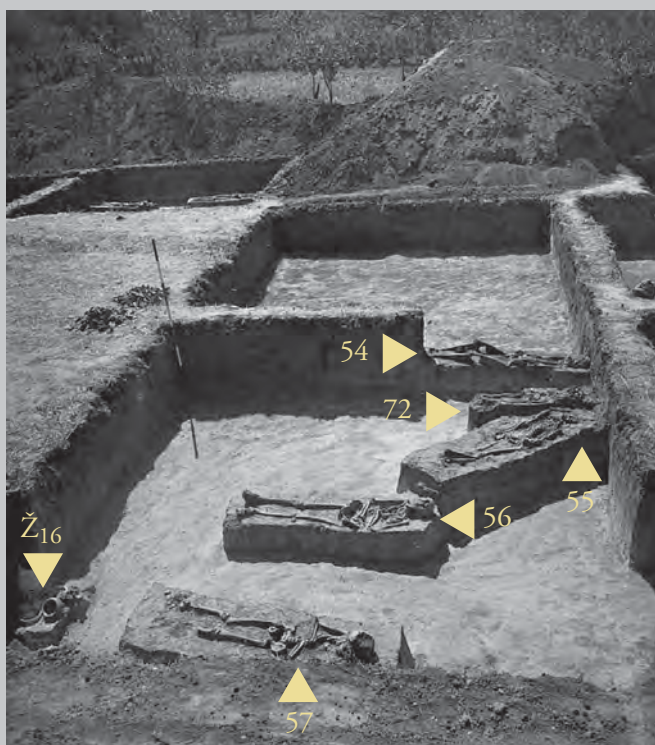
**GRAVE 55**, quadrant XIII/9c. – A grave in an earthen pit; depth 0.48 m; ▼ 105.83/105.87 m; or. 225° (135° deviation from north). – Damaged skeleton (skull crushed); lying on the back, legs crossed at the ankles (Szabó, type I.2), the head position could not be determined; the forearms extended along the body (v.1). – Sex?; length ca. 1.42 m.

*No finds.*



*Other objects in the grave: A bowl with a handle by the right hip.<sup>43</sup>*

1. *Bowl with a handle; pre-historic, Early Iron Age.*



**GRAVE 56**, quadrant XIII/9a–b. – A grave in an earthen pit; depth 0.62 m; ▼ 105.70/105.59 m; or. 270° (90° deviation from north). – Lying on the back, legs extended, head straight (towards the east); the right forearm bent horizontally across the abdomen, the left angled upwards across the chest (v.18). – Male; length 1.55 m.

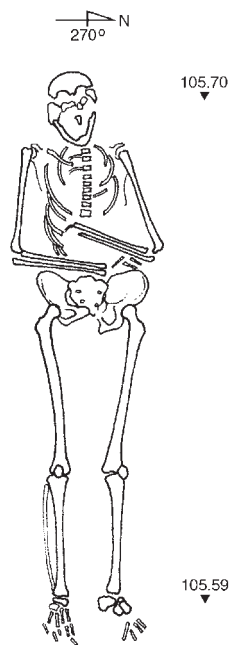
*No finds.*

*Other objects: A nail on the surface of the grave.<sup>44</sup>*

1. *Nail – iron, forged, rectangular section, the shank widened at the head, the head rectangular with oval flanges dropping down; damaged (corroded, bent in a curve, part of the head broken off, flange missing); l. 9.30 cm, w. 0.42/0.32 cm; wt. 5.916 g; S-2493; (Fig. 56:11).*

<sup>43</sup> The *Dnevnik*, ad 21 Aug. 1952, noted that during excavation they found "by the grave...a small shallow bowl of the Hallstatt type". This find was also recorded in the *Zapisnik*, no. 55/28. Aug. 1952, where in the section about special observations it was noted that a "small Hallstatt bowl with a handle" had been found "by the right hip".

<sup>44</sup> *Dnevnik*, ad 27 Aug. 1952; *Zapisnik*, no. 56/28 Aug. 1952.





**GRAVE 57**, quadrant XIII/9a–b. – A grave in an earthen pit; depth 0.64 m; ▼ 105.76/105.68 m; or. 282° (78° deviation from north). – Damaged skeleton (the left calf and foot were missing); lying on the back, legs extended, head straight; the forearms horizontally crossed the stomach: right above, left below (v.13b). – Male? (a young individual); length 1.33 m.

*Finds:* A *knife* next to the left thigh.

1. *Knife* – iron, single-edged, with a tang for the handle, straight back; damaged (corroded; blade chipped); l. 9.60 cm; blade: w. 0.90 cm, th. 0.27/0.19 cm; wt. 6.789 g; S-2494 (To. A4; H. 5).



**GRAVE 58**, quadrant XIII/8b. – A grave in an earthen pit; depth 0.58 m; ▼ 105.86/105.67 m; or. 282° (72° deviation from north). – Lying on the back, legs extended, the head tilted to the right; the right forearm angled horizontally across the abdomen, the left extended along the body (v.3). – Female; length 1.50 m.

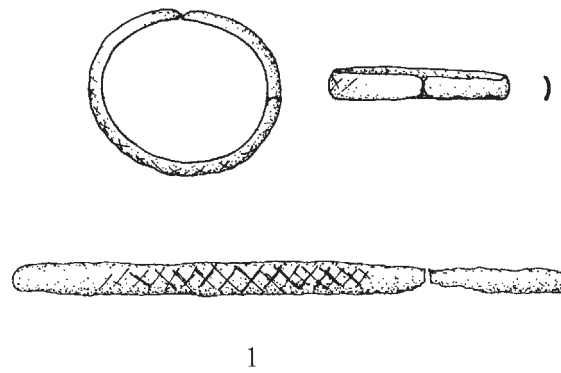
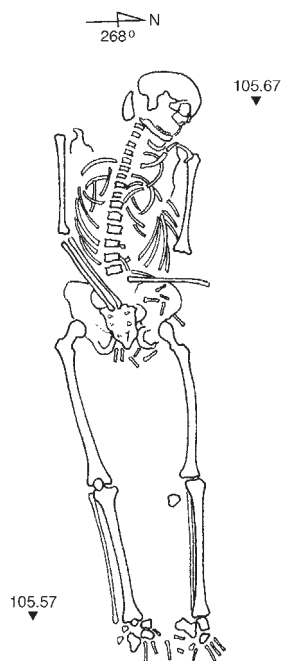
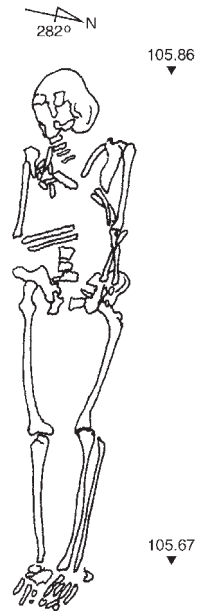
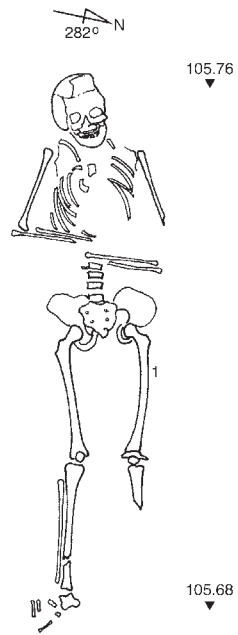
*No finds.*



**GRAVE 59**, quadrant XIV/7c. – A grave in an earthen pit; depth 0.75 m; ▼ 105.67/105.57 m; or. 268° (92° deviation from north). – Lying on the back, legs extended, the head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Female; length 1.57 m.

*Finds:* A *ring* on the right hand.

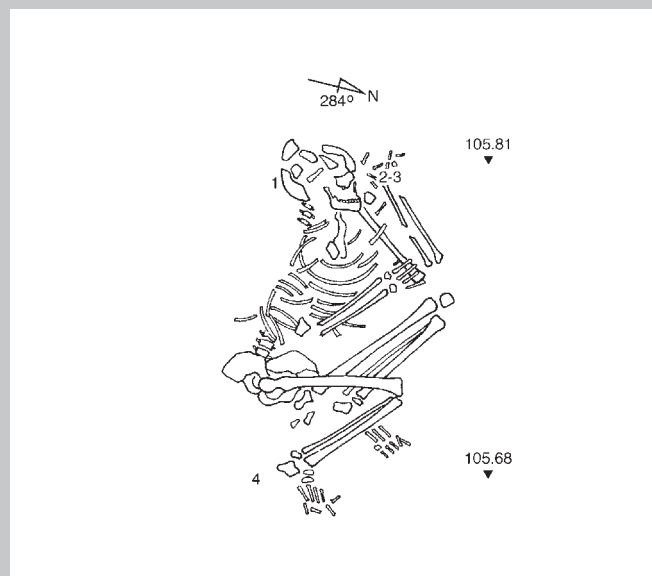
1. *Ring* – bronze, with open ends, arched section, the tapered and rounded ends overlap; two thirds of the hoop decorated with an incised net-like pattern; damaged (broken into two parts); Ø 2.50/2.15 cm; w. 0.50–0.38 cm; th. 0.19 cm; wt. 1.524 gr; 2495 (G. 24; H. 46b; De. 1.5b).



**GRAVE 60**, quadrant XIV/7a–b. – A grave in an earthen pit; depth 0.56 m; ▼ 105.81/105.68 m; or. 284° (76° deviation from north). – Damaged skeleton (skull crushed); lying on the left flank, legs contracted, head turned to the left (towards the north); the left forearm bent upwards with the hand beneath the mouth, the right bent upwards with the hand on the left upper arm. – Female; length ca. 1.38 m / contracted 0.91 m.

*Finds:* A *circlet* under the head on the left side during removal of the skeleton (1), one *ring* each on the left and right hand (2,3),<sup>45</sup> in the lower part of the grave behind the leg fragments of a medieval *pottery vessel* (4).<sup>46</sup>

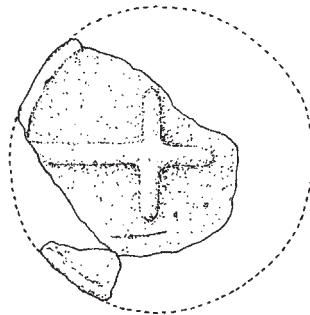
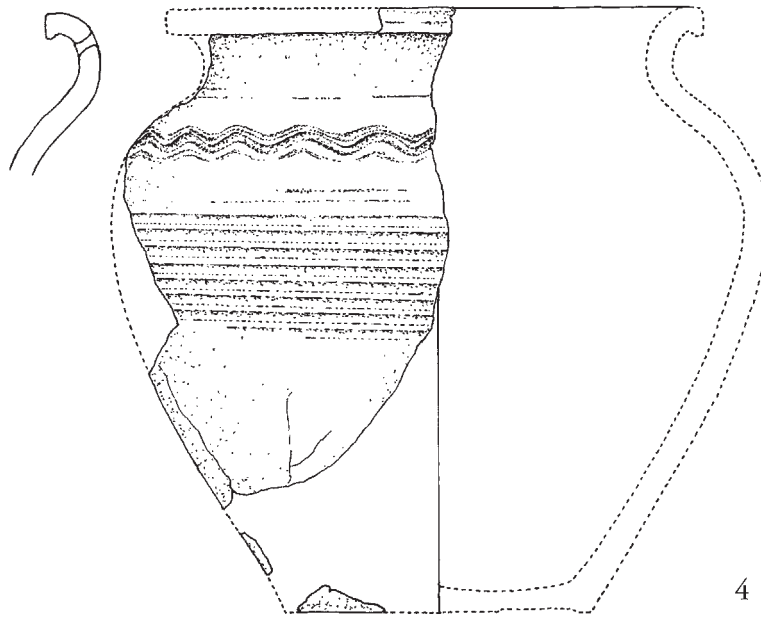
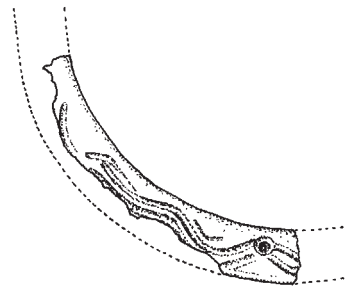
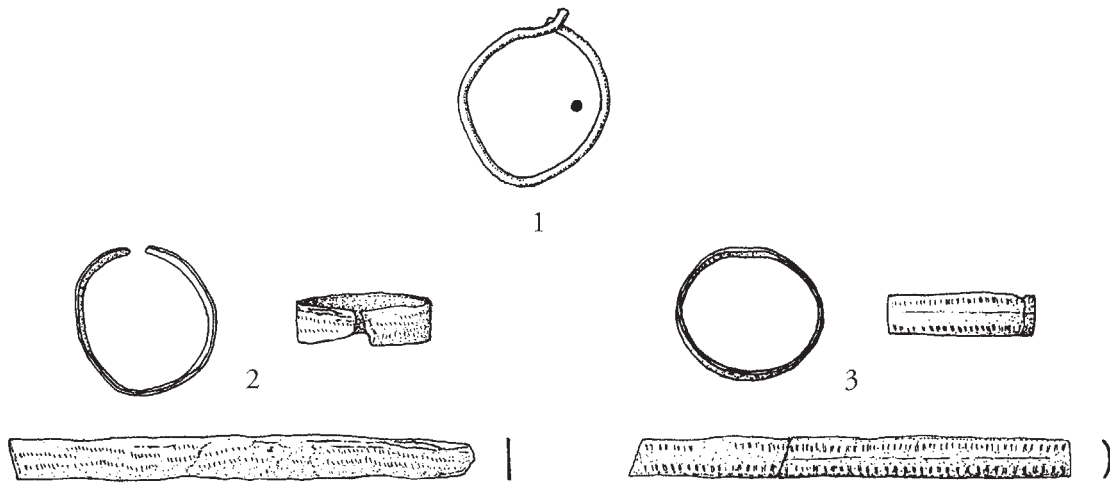
1. *Circlet* – bronze, open-ended, circular section, overlapping cut ends; Ø 2.06–1.93 cm (= 6.26 cm); Ø wire 0.15 cm; wt. 0.746 g; S-2498 (G. 13-I,6/2);
2. *Ring* – bronze, with open ends, banded section, ends of different widths, one end cut and the other tapered and rounded; the hoop decorated with a wavy double line of oblique, short, shallowly incised lines; Ø 2.00/1.77 cm; w. 0.59 cm; th. 0.09 cm; wt. 1.967 g; S-2496 (G. 21; H. 45b);
3. *Ring* – bronze, with open ends, arched section, the cut ends overlap; the hoop decorated along its entire length: a thin lengthwise line between single rows of oblique, short, and shallowly incised lines on the edges of the hoop.; Ø 1.70 cm; w. 0.57 cm; th. 0.08 cm; wt. 1.064 g; S-2497 (G. 24; De. 1.5b);
4. *Vessel*, fragments of the neck, body, and base – pottery, pale grey-brown, the rim everted and horizontally splayed, with a hole for suspension perforated from the inside out, the neck short and curved, the body irregular, the base flat with a low and narrow edge and a relief cross in the center; the upper part of the body and the interior side of the rim decorated with shallow wavy lines, the lower part of the body with shallow grooved horizontal lines; damaged (fragments of the neck, body and base missing; reconstructed); dim. reconstructed vessel: h. 15.4/14.9 cm; h./1 10.8 cm; Ø1 rim 14.33 cm; Ø2 neck 11.9 cm; Ø3 body 16.1 cm; Ø4 base 7.96 cm; th. 0.51 cm; S-3469 (H. dif. 70; To. 50 dif.); [Pl. 21:1–3].



<sup>45</sup> The data in the field documentation (*Dnevnik*, ad. 3 Sept. 1952; *Zapisnik*, no. 60/29 Aug. 1952) do not permit establishing with security which of the two discovered rings belonged to which hand.

<sup>46</sup> The *Dnevnik*, ad. 30 Aug. 1952, noted fragments of medieval pottery as finds from cremation grave 25 (*Ž25*), located just next to the leg of the early medieval skeleton from gr. 60.







**GRAVE 61**, quadrant XIV/7d. – A grave in an earthen pit; depth 0.72 m; ▼ 105.45/105.40 m; or. 282° (78° deviation from north). – Lying on the back, legs extended, head straight; the forearms angled downwards across the abdomen (v.7a). – Male; length 1.52 m.  
*No finds.*

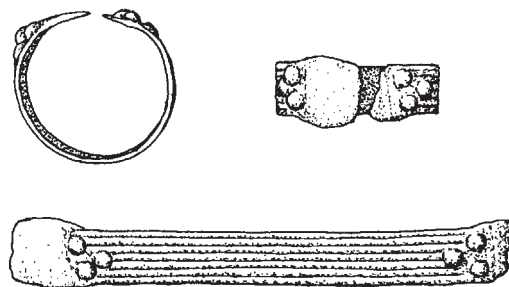
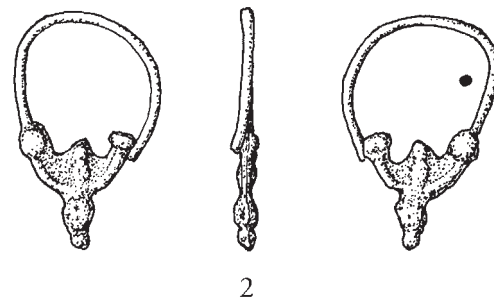
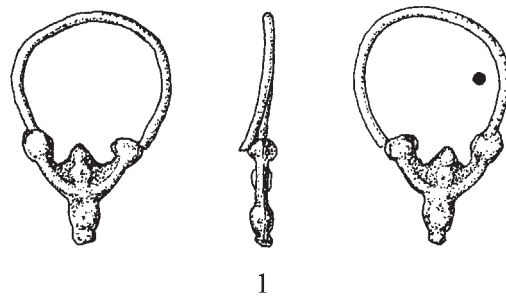
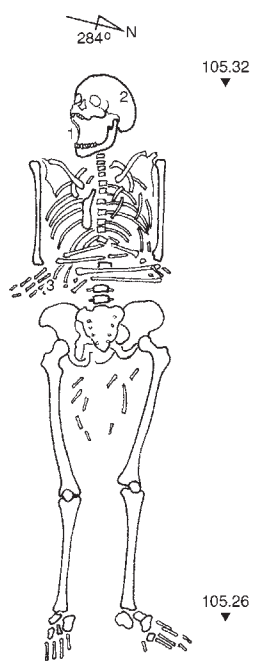
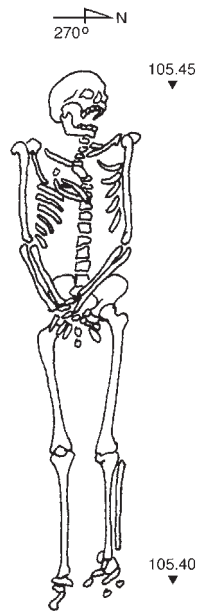


**GRAVE 62**, quadrant XV/7b. – A grave in an earthen pit; depth 0.70 m; ▼ 105.32/105.26 m; or. 284° (76° deviation from north). – Lying on the back, legs extended, head turned to the right; the forearms folded horizontally across the stomach: right above, left below (v.13b). – Female; length 1.53 m.

*Finds:* One *raceme earring* on the right side of the neck (1), another on the left temple (2), a bronze *ring* on the left hand (3).

1. *Earring* with a raceme pendant and a pair of joints – bronze, cast, with a smooth open-ended cirlet of circular section and the decorated section composed of the raceme pendant and the pair of joints; h. 3.10 cm; w. 2.12 cm; Ø wire 0.17 cm; decorated part: h. 1.55 cm; w. 1.53; pendant: h. 1.9 cm, w. 0.43 cm; wt. 2.084 g; S-2501 (G. 14b); **[Pl. 15:1/left]**;

2. *Earring* with a raceme pendant and a pair of joints – bronze, cast, with a smooth open-ended cirlet of circular section and the decorated section composed of the raceme pendant and the pairs of joints; h. 3.08 cm; w. 2.12 cm; Ø wire 0.17 cm; decorated part: h. 1.47 cm, w. 1.56 cm; pendant: h. 1.72 cm, w. 0.43 cm; wt. 2.163 g; S-2500 (G. 14b); **[Pl. 15:1/right]**;
3. *Ring with a crown* – bronze, two-part; a profiled hoop of banded profile, separated and hammered ends; decorated with five rows of lengthwise ribs, on the shoulders on each side of the crown three triangularly arranged granules; damaged (crown missing); h. –; hoop: Ø 2.10/2.05 cm, w. 0.69 cm, th. 0.14 cm; w. bezel 0.94 cm; crown: –; wt. hoop 3.581 g; S-2499 (G. 38b; M. 16b).





**GRAVE 63**, quadrant XV/8d–XVI/8c. – A grave in an earthen pit; depth 0.80 m; ▼ 105.17/104.96 m; or. 268° (92° deviation from north). – Damaged skeleton (the feet were missing); lying on the back, legs extended, head turned to the right; the forearms extended along the body (v.1). – Child; length ca. 1.00 m.

*No finds.*



**GRAVE 64**, quadrant XVI/8d–XVII/8c. – A grave in an earthen pit; depth 0.75 m; ▼ 104.90/104.78 m; or. 280° (80° deviation from north). – Damaged skeleton (the calves were missing);<sup>47</sup> lying on the back, legs extended, head turned to the left; the forearms folded horizontally across the stomach: right below, left above (v.13a). – Male; length ca. 1.45 m.

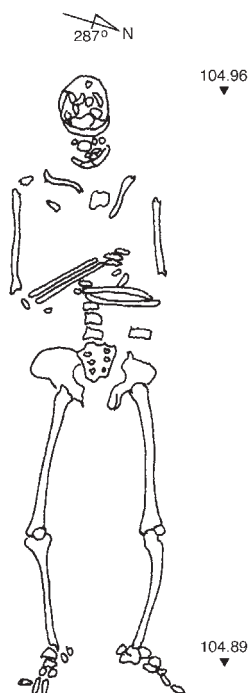
*No finds.*

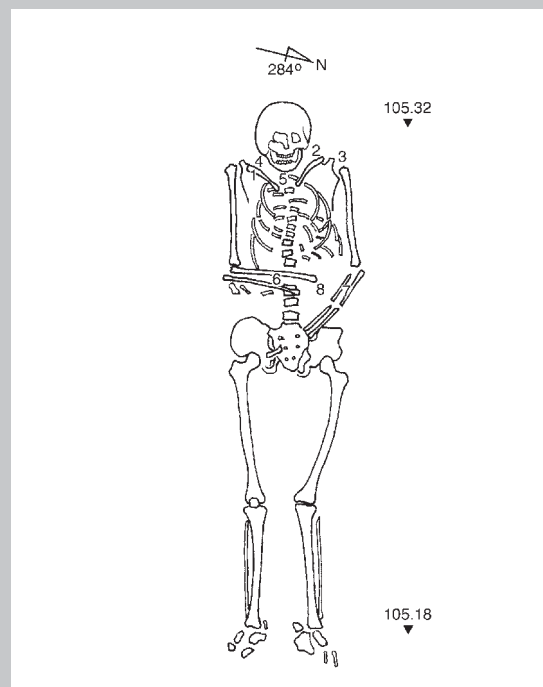


**GRAVE 65**, quadrant XVI/8b–XVI/9c–d. – A grave in an earthen pit; depth 0.95 m; ▼ 104.96/104.89 m; or. 287° (73° deviation from north). – Damaged skeleton (the skull fallen backwards, the upper part of the trunk crushed); lying on the back, legs extended, head position undetermined; the right forearm angled upwards across the chest, the left horizontal across the stomach (v.14). – Male?; length 1.60 m.

*No finds.*

<sup>47</sup> The skeleton was damaged while digging an addition to the excavation trench.





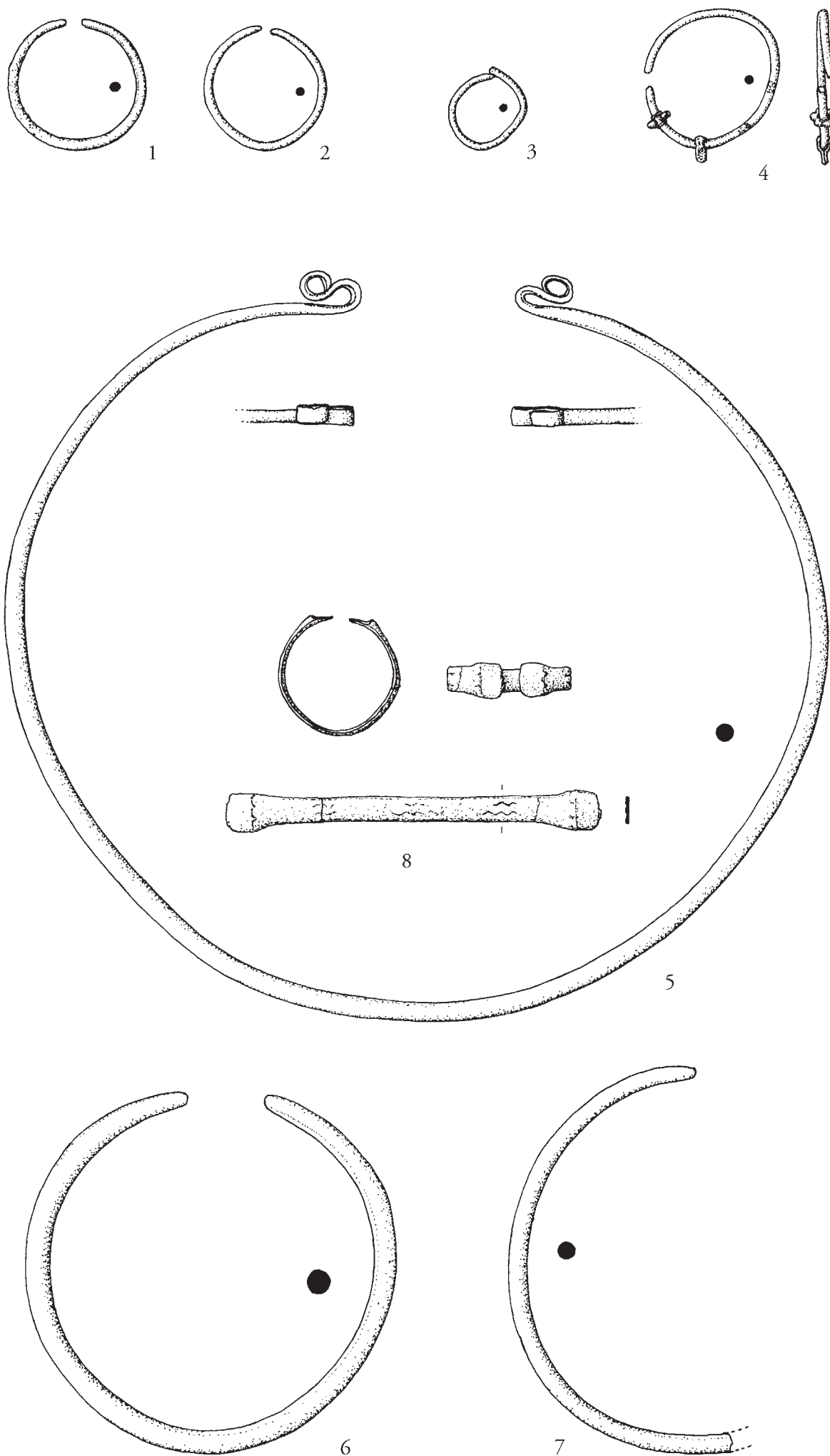
**GRAVE 66**, quadrant XVI/9a. – A grave in an earthen pit; depth 0.70 m; ▼ 105.32/105.18 m; or. 284° (76° deviation from north). – Lying on the back/supine, legs extended, head straight (east); the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Female; length 1.55 m.

*Finds:* On the right side of the head an *earring with joints* (4) and a *circlet* (1), on the left two *circlets* (2,3), around the neck a *torc* (5), on the right forearm a *bracelet* (6) and a *ring with a crown* (8),<sup>48</sup> on the left forearm half a *bracelet* (7).

1. *Circlet* – silver, open-ended, circular section, one end cut, the other tapered; Ø 2.55–2.45 cm (= 7.85 cm); Ø wire 0.20–0.14 cm; wt. 2.017 g; S-2509 (G. 13-I,7/3);
2. *Circlet* – silver, open-ended, circular section, one end cut, the other pointed; Ø 2.26–2.24 cm (= 7.06 cm); Ø wire 0.16–0.12 cm; wt. 1.241 g; S-2507 (G. 13-I,7/2);
3. *Circlet* – silver,<sup>49</sup> open-ended, circular section, overlapping cut ends; Ø 1.54–1.31 cm (= 4.47 cm); Ø wire 0.16 cm; wt. 1.241 g; S-2508 (G. 13-II,4/2);
4. *Earring with a raceme pendant and two pairs of joints*, fragment – silver, filigree and granulation; a circlet of circular section with joints and part of the attachment for a raceme pendant; between two smooth wires of circular section are joints composed of six circular flattened granules; damaged (missing the raceme pendant, three joints, and one granule on a joint); h. –; w. 2.72/2.45 cm; Ø wire 0.18 cm; joints: Ø 0.48 cm; wt. 1.997 g; S-2505 (G. 17a);
5. *Torc* – bronze, open ended, of circular sectioned wire, tapering toward the ends, the ends hammered and everted outwards in an S-shape; Ø 15.23/13.62 cm; Ø wire 0.38–0.24 cm; wt. 31.541 g; S-2502 (G./H./To. –; De. 2.1.1.2);
6. *Bracelet* – bronze, open ended, circular section, separated, cut and tapered ends; Ø 6.96/6.89 cm; Ø wire 0.50–0.42 cm; wt. 28.167 g; S-2503 (G. 4; De. 1.2a);
7. *Bracelet*, fragment – bronze, open ended, circular section, separated, cut and tapered ends; damaged (partially preserved, half missing); Ø ca. 7.30 cm; Ø wire 0.40–0.27 cm; wt. 10.420 g; S-2504 (G. 4; De. 1.2a);
8. *Ring with a crown* – bronze, two-part; a hoop of banded profile, separated and hammered ends, decorated with a lengthwise rib between single rows of pseudo-twisted wire; the shoulders thickened and widened with a circular decoration in the center (a stylized flower?); damaged (broken; crown missing); h. –; hoop: Ø 2.31 cm, h. 0.74–0.42 cm, th. 0.15 cm; w. bezel 0.74 cm; crown: –; wt. hoop 2.480 g; S-2506 (G. 38b; M. 16b).

<sup>48</sup> The ring with a crown of glass paste was mentioned in both field documents (*Dnevnik*, ad 2 Sept. 1952); *Zapisek*, no. 66/2 Sept. 1952).

<sup>49</sup> Listed in S-AMZ as a circlet of bronze wire.





**GRAVE 67**, quadrant XV/9d. – A grave in an earthen pit; depth 0.85 m; ▼ 105.05/104.89 m; or. 261° (99° deviation from north). Lying on the back/supine, legs extended, head turned to the left (north); the right forearm folded horizontally across the stomach, the left extended along the body (v.2). – Male; length 1.70 m.

*No finds.*

*Other objects in the grave:* A fragment of a prehistoric urn by the left elbow.<sup>50</sup>

1. *Urn*, body fragment; prehistoric, Early Iron Age.



**GRAVE 68**, quadrant XVI/9b–XVI/10c. – A grave in an earthen pit; depth 1.00 m; ▼ 104.98/104.94 m; or. 290° (70° deviation from north). – Damaged skeleton (the skull crushed, the right foot missing); lying on the back/supine, legs extended, head turned to the right (south); the forearms angled downwards and crossed on the stomach (v.7b). – Female; length 1.55 m.

*No finds.*



**GRAVE 69**, quadrant XVI/8c–d. – A grave in an earthen pit; depth 1.14 m; ▼ 104.79/104.67 m; or. 283° (77° deviation from north). Damaged skeleton (the skull fallen backwards); lying on the back, legs extended, head position undetermined; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Female; length 1.48 m.

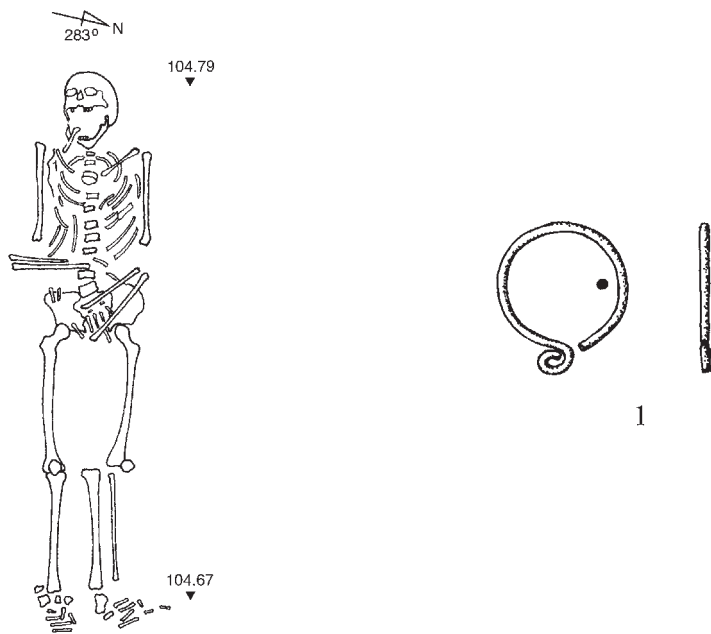
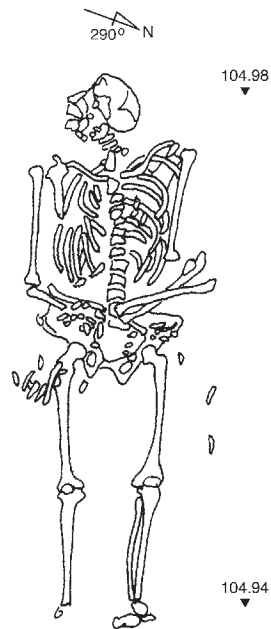
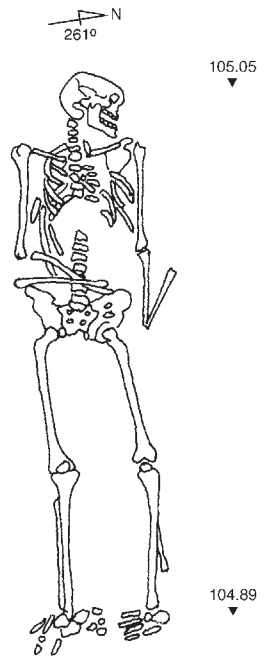
*Finds:* An *O-circlet* below the right collarbone.<sup>51</sup>

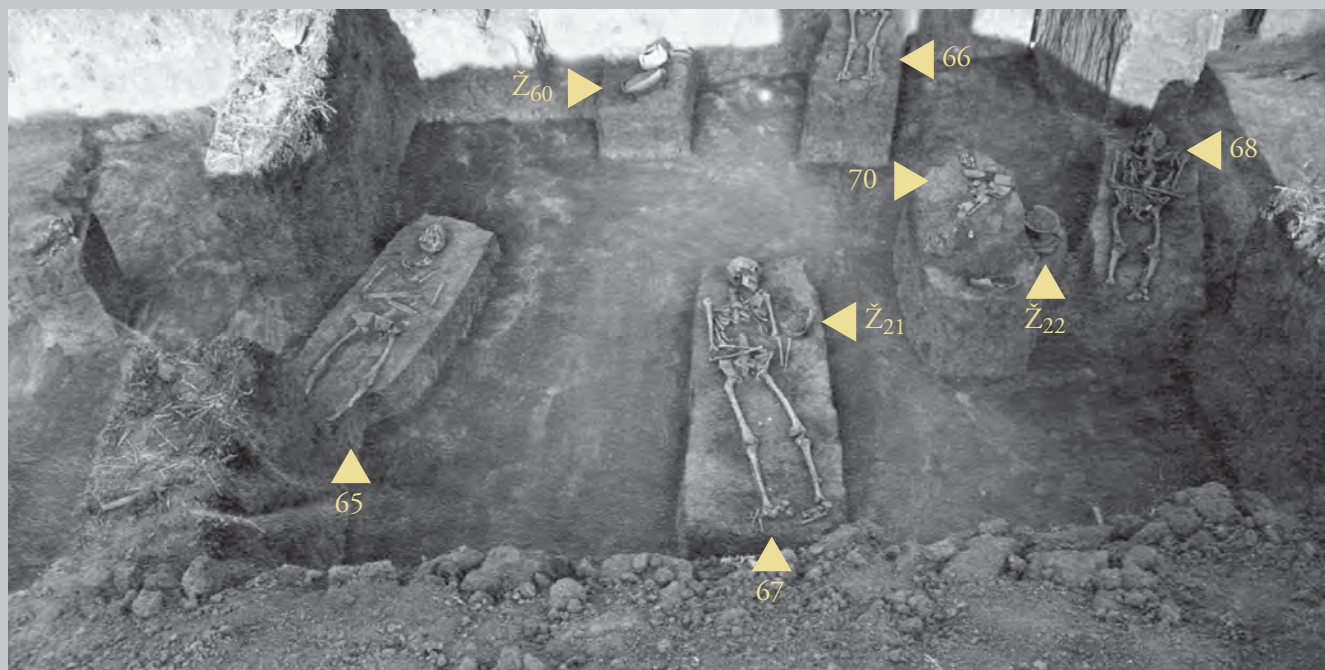
1. *O-circlet* – bronze, circular section, end cut, O-shaped end unhammered; h. 2.05 cm; Ø 1.69 cm; Ø wire 0.15 cm; O-w. 0.15 cm; wt. 0.813 g; S-2510 (V. IV/5; H.12a-II,5/2).

<sup>50</sup> The *Zapisnik*, no. 67/3 Sept. 1952; *Dnevniku* ad 25 Aug. 1952. The vessel should belong to cremation gr. 21 (Ž<sub>21</sub>).

<sup>51</sup> The *Zapisnik*, no. 69/30 Aug. 1952, noted that the circlet was "found on the chest in the center".







**GRAVE 70**, quadrant XVI/9a–b. – A grave in an earthen pit; depth 0.50 m; ▼ 105.30/105.21 m; or. 273° (87° deviation from north). Poorly preserved skeleton (the skull crushed, the upper part of the trunk and arms disarranged, the calves and feet missing); lying on the back, legs extended, head turned to the right; the forearm positions could not be determined. – Child; length ca. 0.80 m.

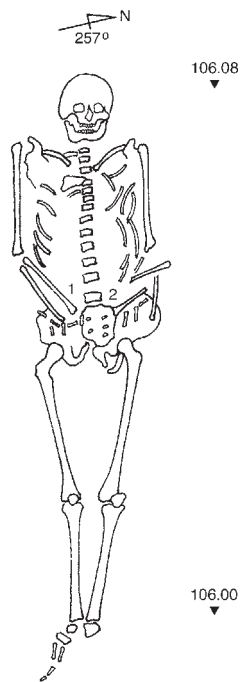
*No finds.*



**GRAVE 71**, quadrant XII/10c. – A grave in an earthen pit; depth 0.43 m; ▼ 106.08/106.00 m; or. 257° (103° deviation from north). Damaged skeleton (the left foot missing); lying on the back, legs crossed at the ankles (Szabó, type I.2), head straight; the forearms angled downwards across the abdomen (v.7a). – Male; length 1.58 m.

*Finds:* A *belt mount* on the right side of the abdomen (1), a *strap-end* on the left side (2); [Pl. 9:3–4].

1. *Belt mount with a pendant*, incomplete (secondarily use, part of an Avar belt set; Migration Period: late Avaric period) – bronze, cast, perforated technique, platelet shaped; decorated with the depiction of a griffon; damaged (upper part of the platelet broken; pendant missing); l. 2.28 cm; w. 2.57 cm; th. 0.24 cm; wt. 4.488 g; S-2511 (To. A6); [Pl. 9:3];
2. *Strap-end*, subsidiary, incomplete (secondarily use, part of an Avar belt set; Migration Period: late Avaric period) – bronze, cast, two-part, parallel sides, end rounded, section for attachment straightened, holes for rivets in the upper section; undecorated, smooth; damaged (half of the strap-end missing); l. 3.14 cm; w. 1.95 cm; th. (greatest) 0.35 cm; wt. 5.788 g; S-2512 (To. A6); [Pl. 9:4].



1



2



**GRAVE 72**, quadrant XIII/9c. – A grave in an earthen pit; depth 0.39 m; ▼ 105.93/105.83 m; or. 272° (88° deviation from north). Damaged skeleton (the skull crushed, the feet missing); lying on the back, legs extended, head straight; the forearms extended along the body (v.1). – Child; length ca. 0.99 m.

*No finds.*



**GRAVE 73**, quadrant XVI/7a–b. – A grave in an earthen pit; depth 1.07 m; ▼ 104.81/104.71 m; or. 284° (76° deviation from north). Damaged skeleton (the skull crushed); lying on the back, legs extended, head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Male?; length 1.66 m.

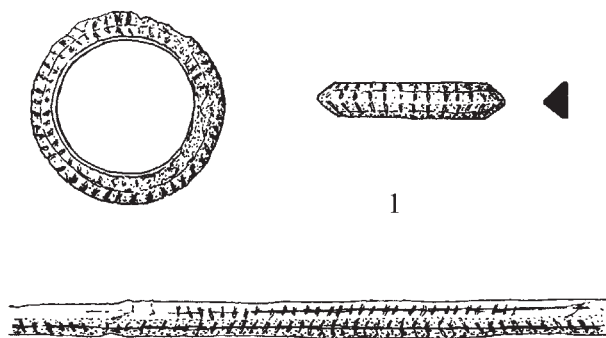
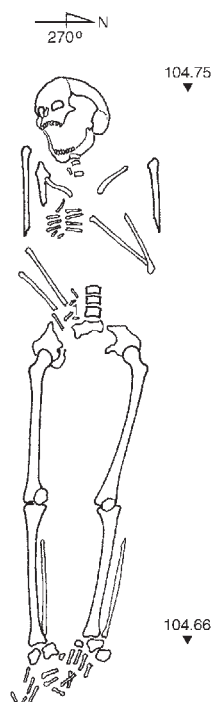
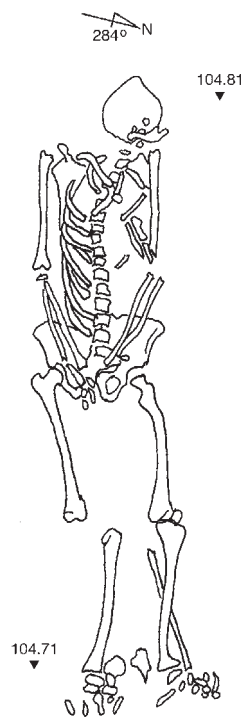
*No finds.*



**GRAVE 74**, quadrant XVI/7b–XVII/7a. – A grave in an earthen pit; depth 1.07 m; ▼ 104.75/104.66 m; or. 270° (90° deviation from north). Lying on the back, legs extended, head turned to the left; the right forearm angled downwards across the abdomen, the left upwards across the chest (v.17). – Male; length 1.56 m.

*Finds:* A ring on a finger of the right hand.

1. Ring – silver (poor quality silver), closed hoop, triangular section; decorated with a motif of three rows of lengthwise pseudo-twisted wire; damaged (part of the hoop chipped); Ø 2.58/2.53 cm; h. 0.52 cm; th. 0.37 cm; wt. 6.389 g; S-2513 (V. III/17).



1



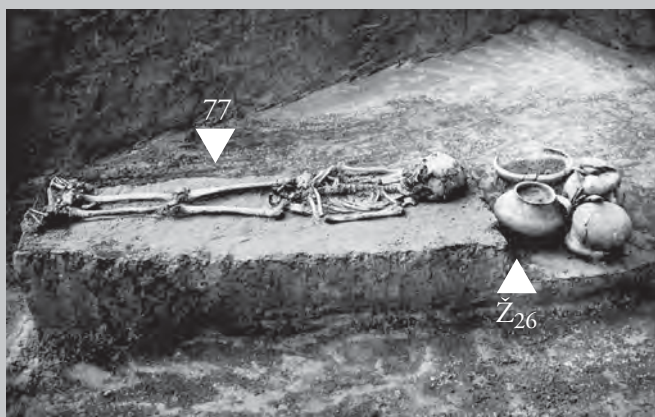
**GRAVE 75**, quadrant XV/10b–XVI/10a. – A grave in an earthen pit; depth 0.60 m; ▼ 105.33/105.17 m; or. 302° (58° deviation from north). Damaged skeleton (the right arm missing);<sup>52</sup> lying on the back, legs extended, head turned to the left; forearm positions undetermined (the left folded horizontally across the stomach). – Male; length 1.50 m.

*No finds.*



**GRAVE 76**, quadrant XVI/10a. – A grave in an earthen pit; depth 0.70 m; ▼ 105.29/105.21 m; or. 295° (65° deviation from north). Lying on the back, legs extended, head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Male; length 1.60 m.

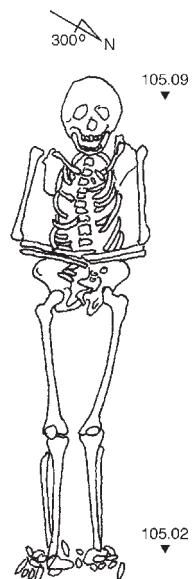
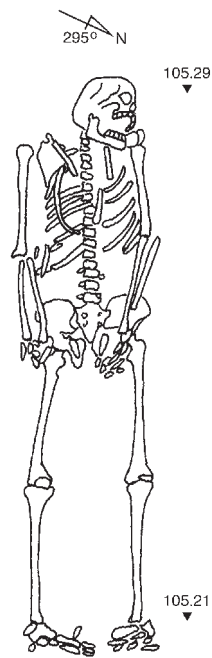
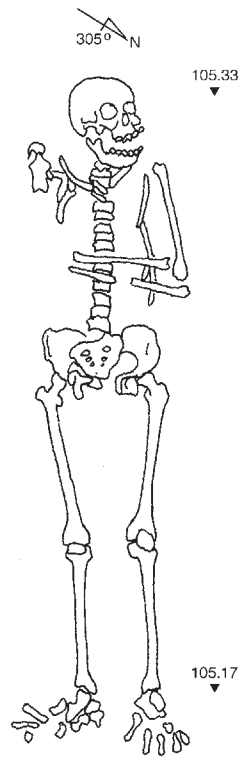
*No finds.*

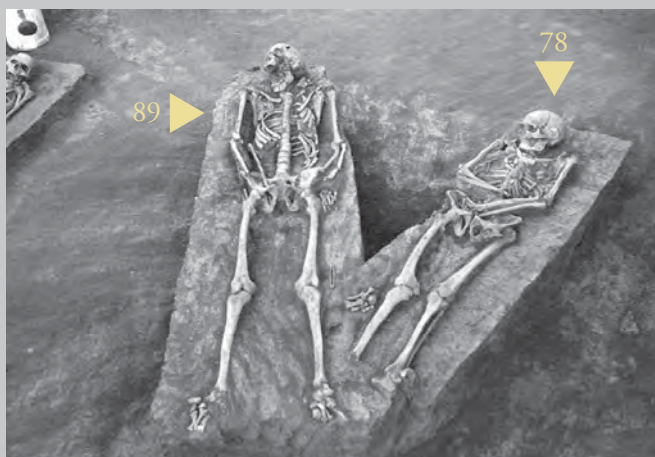


**GRAVE 77**, quadrant XVI/10c–d. – A grave in an earthen pit; depth 0.90 m; ▼ 105.09/105.02 m; or. 300° (60° deviation from north). Lying on the back, legs extended, head straight; the forearms angled downwards and crossed on the stomach (v.7b). – Sex?; length 1.35 m.

*No finds.*

<sup>52</sup> The skeleton was damaged during removal of a trench dividing wall.





**GRAVE 78**, quadrant XVII/10a–b. – A grave in an earthen pit; depth 0.68 m; ▼ 105.92/104.92 m; or. 281° (79° deviation from north). – Damaged skeleton (the right foot missing); lying on the back, legs extended, head turned to the right; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Male; length 1.59 m.

*No finds.*



**GRAVE 79**, quadrant XV/11b–XVI/11c. – A grave in an earthen pit; depth 0.70 m; ▼ 105.32/105.15 m; or. – (deviation from north unknown). – Damaged skeleton (the feet missing); lying on the back, legs extended, head straight; the right forearm angled downwards across the abdomen, the left extended along the body (v.2). – Sex?; length 1.45 m.

*No finds.*



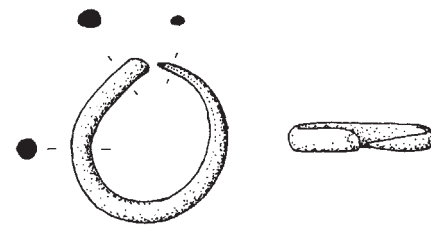
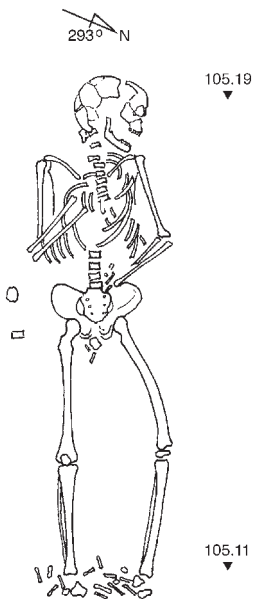
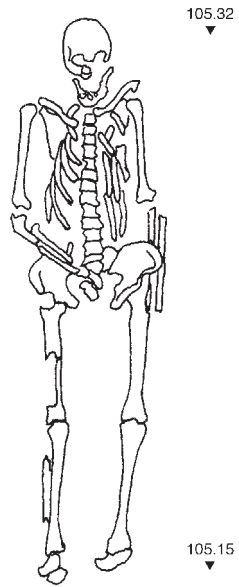
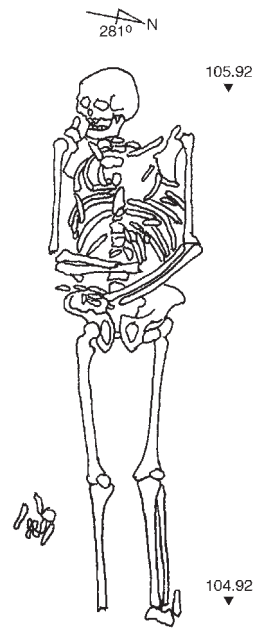
**GRAVE 80**, quadrant XVI/11c–d. – A grave in an earthen pit; depth 0.65 m; ▼ 105.9/105.11 m; or. 293° (67° deviation from north). – Lying on the back/supine, legs extended, head turned to the left; the right forearm angled upwards across the chest, the left bent downwards across the abdomen (v.9). – Female; length 1.45 m.

*Finds:* A ring on a finger of the right hand.<sup>53</sup>

1. *Ring* – bronze, circular section, separated ends, one cut, the other pointed; Ø 2.20/2.03 cm; Ø wire 0.35–0.16 cm; wt. 3.688 g; S-2514 (G. 25/26 dif.).

<sup>53</sup> The *Dnevnik*, ad 1 Sept. 1952, specifies that the ring was found on a finger of the right hand.







**GRAVE 81**, quadrant XVI/11b. – A grave in an earthen pit; depth 1.10 m; ▼ 104.82/104.78 m; or. 290° (70° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm extended along the body, the left folded horizontally across the stomach (v.11). – Male; length 1.77 m.

*Finds:* A *knife* on the left side of the pelvis (1), and on the lower side while removing the skeleton a *steel* (2), one *arrowhead* each along the inner and outer sides of the right thigh (3,4);<sup>54</sup> [Tab. 9:5–8].

1. *Knife* – iron, single-edged, with a tang for the handle, straight back; damaged (corroded; tip of the point missing, blade chipped); l. 11.88 cm; blade: w. 1.22 cm, th. 0.36 cm; wt. 14.513 g; S-2515 (To. A4); [Pl. 9:5];
2. *Steel for tinder* – iron, lyre-shaped; the base convex, the body of rectangular section with a central triangular reinforcement; the arms bent back and raised at an angle, the ends of the arms separated and curved outwards; damaged (triangular reinforcement incomplete; part of an arm with the end missing); l. 7.13 cm; h. 3.18 cm; th. 0.40 cm; wt. 17.626 g; S-2518 (H. 4; To. A5); [Pl. 9:6];
3. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half of the head; damaged (corroded); l. 7.90 cm; head: l. 5.58 cm, w. 2.26 cm, th. 0.26 cm; tang: l. 2.32 cm; wt. 7.806 g; S-2516 (G. A; H. 8a; To. A3; De. 1.1; Rutt. B3/Med. 52); [Pl. 9:7];
4. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half of the head; damaged (corroded, head incomplete); l. 7.67 cm; head: l. 4.87 cm; w. 1.49 cm, th. – cm; tang: l. 2.80 cm; wt. 5.016 g; S-2517 (G. A; H. 8a; To. A3; De. 1.1; Rutt. B3/Med. 52); [Pl. 9:8].

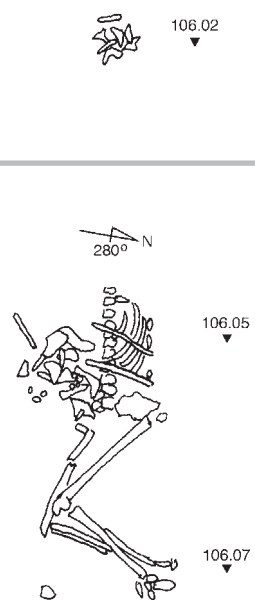
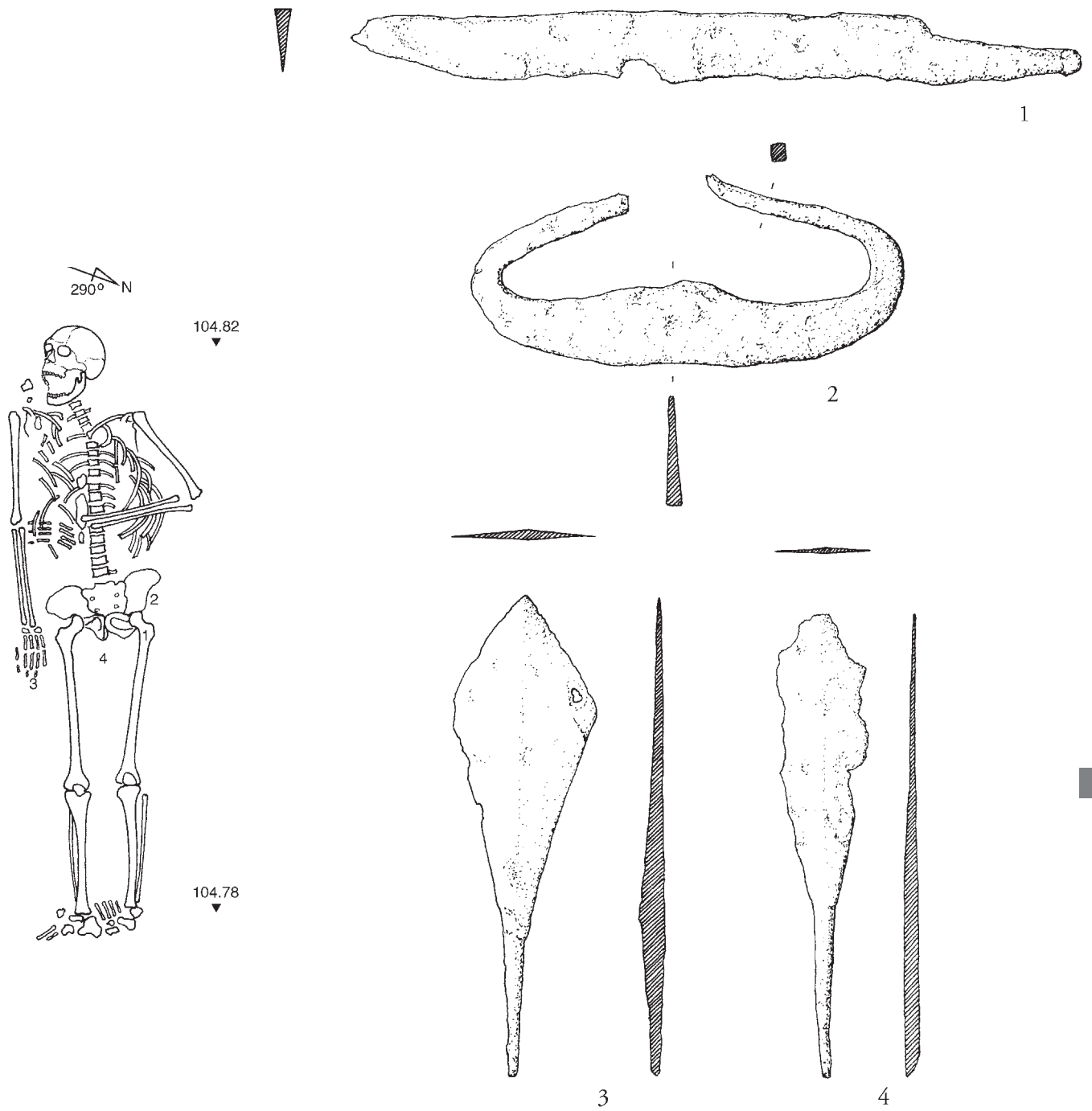
**GRAVE 82**, quadrant V/13a. – A grave in an earthen pit; depth 0.40 m; ▼ 106.02 m; or. – (deviation from north unknown). Skeleton destroyed (some bones from the skull and trunk remained). – Child; length?.

*No finds.*

**GRAVE 83**, quadrant V/13a–b. – A grave in an earthen pit; depth 0.65 m; ▼ 106.05/106.07 m; or. 280° (80° deviation from north). Poorly preserved skeleton (the skull and upper section of the trunk disarranged); lying on the back, legs contracted and placed on the right, head turned to the right (towards the south); the forearm positions could not be determined. – Sex?; length ca. 1.30 m (contracted ca. 0.90 m).

*No finds.*

<sup>54</sup> The positions of the arrows in the grave were established on the basis of the photographic documentation.

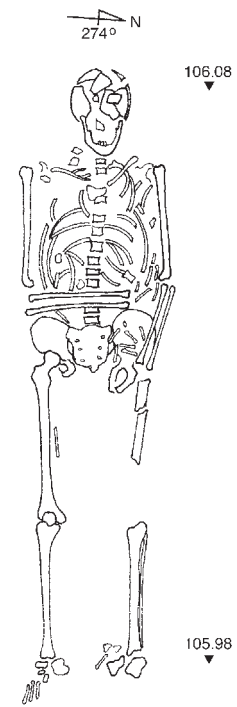




**GRAVE 84**, quadrant V/13c–VI/13d. – A grave in an earthen pit; depth 0.66 m; ▼ 106.08/105.98 m; or. 274° (86° deviation from north). Damaged skeleton (crushed skull); lying on the back, legs extended, head straight; the right forearm folded horizontally across the stomach, the left extended along the body (v.3). – Male?; length 1.72 m.

*Find:* A bead on the right forearm.

1. *Bead* – bone, cylindrical, long, worked, yellowish-white / polished; d<sub>1</sub> 0.77 cm; d<sub>2</sub> 0.38 cm; h. 1.00 cm; wt. 0.925 g; S-2519 (03/06 1 12/06).



1



**GRAVE 85**, quadrant VI/13a–b. – A grave in an earthen pit; depth 0.60 m; ▼ 106.10/106.02 m; or. 273° (87° deviation from north). Damaged skeleton (the thighs were missing);<sup>55</sup> lying on the right flank, legs extended, head turned to the right; the forearms extended along the body (v.1). – Male; length 1.62 m.

*No finds.*



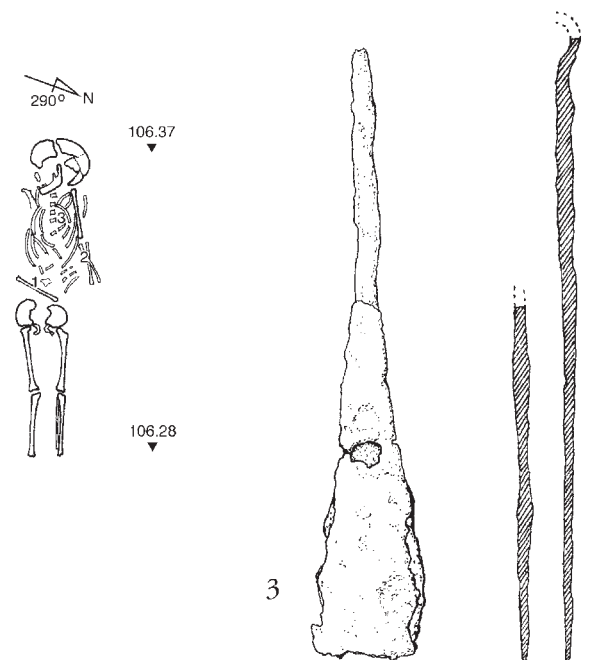
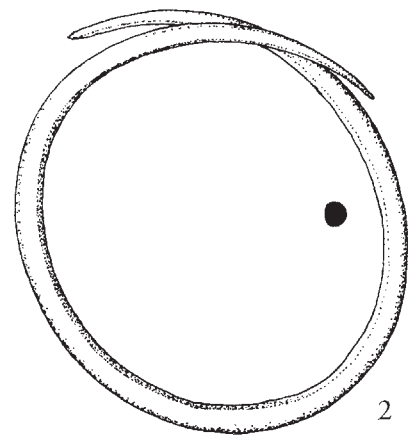
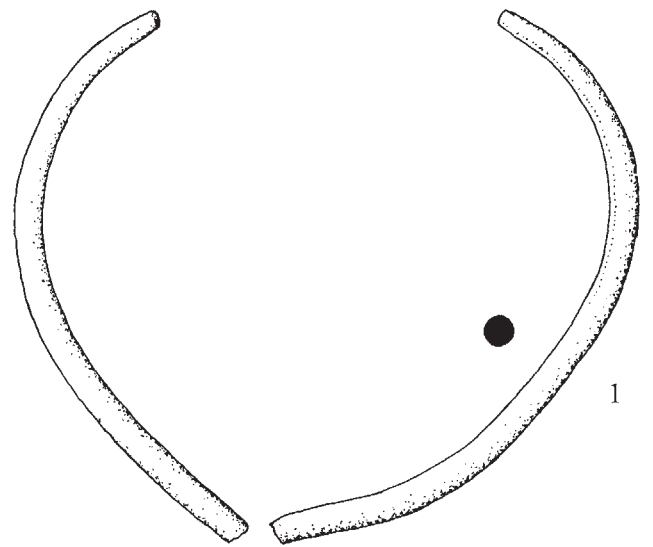
<sup>55</sup> The grave was cut into by a modern period trench that destroyed the thigh bones. The same trench partially damaged the skeleton in grave 93 (Fig. 12:2).



**GRAVE 86**, quadrant VII/13a. – A grave in an earthen pit; depth 0.40 m; ▼ 106.37/106.28 m; or. 290° (70° deviation from north). Damaged skeleton (the skull crushed, feet missing); lying on the back, legs extended, head turned to the right; the right forearm angled downwards across the abdomen, the left extended along the body (v.2). – Child; length 0.85 m.

*Finds:* A broken *bracelet* on the right forearm (1), an entire *bracelet* on the left (2), *pincers* on the left side in the upper part of the chest (3).<sup>56</sup>

1. *Bracelet* – bronze, open ended, circular section, separated, cut and tapered ends; damaged (broken into two parts, bent); Ø undetermined; Ø wire 0.40–0.30 cm; wt. 18.903 g; S-2521 (G. 4; De. 1.2a);
2. *Bracelet* – bronze, open ended, circular section, separated and pointed overlapping ends; Ø 5.53/5.00 cm; Ø wire 0.41–0.10 cm; wt. 13.123 g; S-2520 (G. 4; De. 1.2a);
3. *Pincers*, fragments – iron; handles rod-shaped of hemispherical section, in the upper part a loop for attachment; the pincers flattened, with an elongated trapezoidal shape; damaged (corroded, broken; the loop, parts of the handles, and pincers incomplete); h. > 9.00 cm (8.00/4.82 cm); pincers: w. > 1.5 cm (1.50/1.45); wt. > 6.123 gr (3.3487 + 2.776 gr); S-2522 (H. –).



<sup>56</sup> *Dnevnik*, ad 5 Sept. 1952; *Zapisnik*, no. 86/6 Sept. 1952. Both field documents call this object a female implement or tweezers, emphasizing that at its discovery it was already broken into four parts, of which only two have been preserved to the present. (In the S-AMZ it is described as "an arrow, iron, very long, in the shape of a willow leaf; with a long tang for insertion, corroded, broken into two pieces").



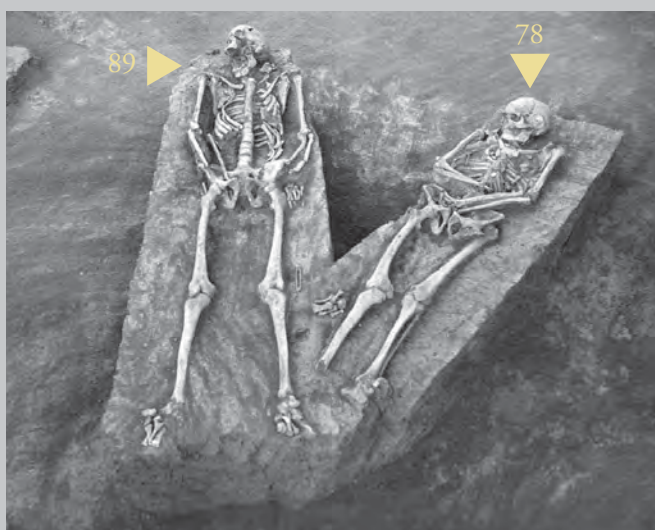
**GRAVE 87**, quadrant VII/13b–d. – A grave in an earthen pit; depth 0.50 m; ▼ 105.64/106.26 m; or. 275° (85° deviation from north). Damaged skeleton (crushed skull); lying on the back, legs extended, head turned to the right; the forearms folded horizontally across the stomach: the right above, the left below (v.13b). – Male; length 1.68 m.

*No finds.*



**GRAVE 88**, quadrant XI/10d. – A grave in an earthen pit; depth 0.48 m; ▼ 106.29/106.16 m; or. 274° (86° deviation from north). Damaged skeleton (crushed skull, feet missing); lying on the back, legs extended, head position undetermined; the forearms extended along the body (v.1). – Child; length 0.73 m.

*No finds.*



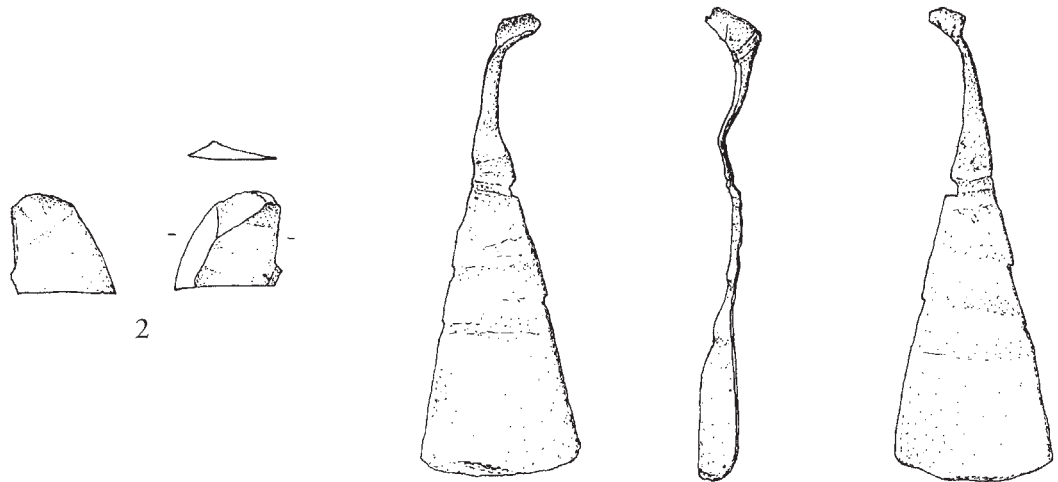
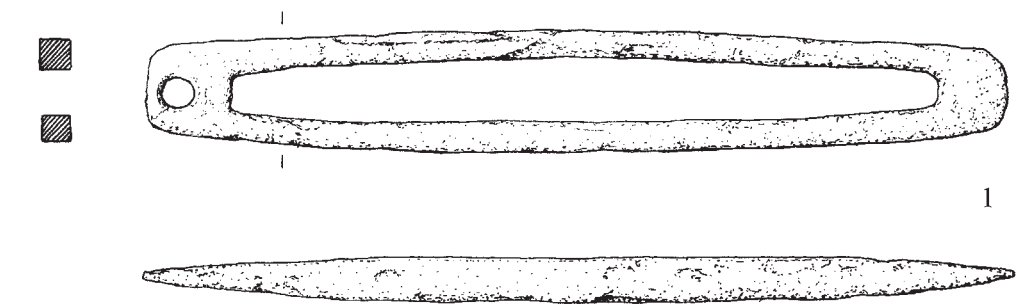
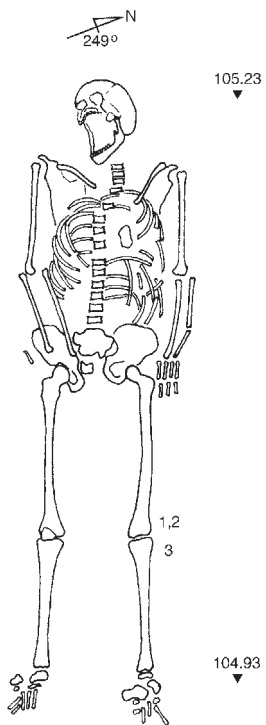
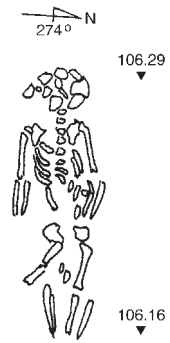
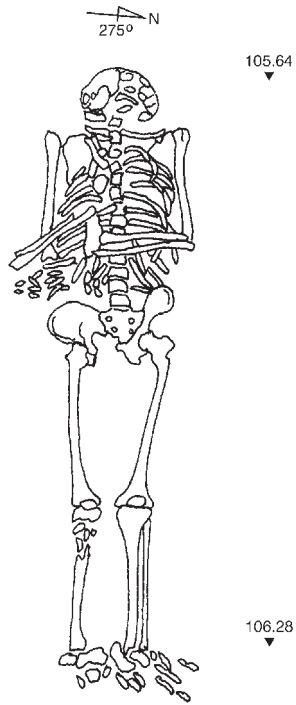
**GRAVE 89**, quadrant XVI/10d–XVII/10a. – A grave in an earthen pit; depth 0.54 m; ▼ 105.23/104.93 m; or. 249° (111° deviation from north). Lying on the back, legs extended, head turned to the right; the right forearm angled downwards across the abdomen, the left extended along the body (v.2). – Male; length 1.74 m.

*Finds:* A *steel* (1) and *flint* (2) along the outside of the left knee,<sup>57</sup> and a *scraper* (3) somewhat below, next to the upper part of the left shin.

1. *Steel for tinder* – iron, ellipsoid-rectangular shape; composed of two elliptically separated bars of rectangular section, the ends of the bars are joined by rectangular platelets of triangular section, the exterior side of the platelets gently rounded, with a circular hole for fastening in one platelet; l. 11.47 cm; h. 1.62–1.15 cm; th. 0.6–0.15 cm; wt. 23.823 g; S-2523 (V. VII:20 dif.); [Pl. 12:1];

2. *Flint* (secondary use, prehistoric flake; Paleolithic) – stone – flint, reddish-brown; l. 1.42 cm; w. 1.25 cm; th. 0.40 cm; wt. 0.556 g; S-2586 (H. 3);
3. *Scraper*, fragment (secondary use, prehistoric fibula with a hammered leaf-like bow; late Bronze Age) – silver, triangular, with a short bent handle, the blade surface convex, pyramidally tapered towards the top; h. 6.24 cm; w. 2.06 cm; th. 0.09 cm; wt. 3.907 g; S-2524 (H. –).

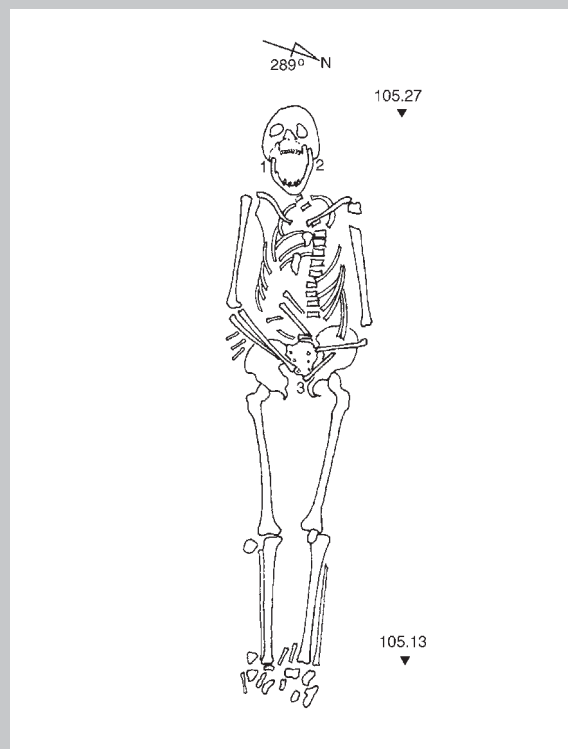
<sup>57</sup> The *Dnevnik*, ad 2 Sept. 1952, notes the find of a small red flint ("...1 steel of large dimensions and a small red flint, along with a piece of silver sheet metal of undetermined function..."). In the S-AMZ this flint, without any explanation, was placed among the finds from gr. 137 (!).



**GRAVE 90**, quadrant XV/10d–XVI/10c. – A grave in an earthen pit; depth 0.74 m; ▼ 105.27/105.13 m; or. 289° (71° deviation from north). Lying on the back, legs extended, head straight; the forearms angled downwards across the abdomen (v.7a). – Male; length 1.57 m.

*Finds:* One *circlet* each on the left and right sides of the head (1,2), a *ring* on a finger of the left hand (3).<sup>58</sup>

1. *Circlet* – bronze, open-ended, circular section, overlapping cut ends; Ø 2.87–2.48 cm (= 8.40 cm); Ø wire 0.19 cm; wt. 1.662 g; S-2529 (G. 13-I,8/3);
2. *O-circlet* – bronze, circular section, the cut end overlaps itself; h. 3.30 cm; Ø 3.15/2.85 cm; Ø wire 0.21 cm; O-w. 0.275 cm; wt. 2.802 g; S-2525 (V. IV/5; H. 12a-I,9/3);
3. *Ring* – bronze, with open ends, oval section, the separated and cut ends meet; Ø 2.59/2.35 cm; w. 0.44 cm; th. 0.28 cm; wt. 5.460 g; S-2528 (G. 25 dif.).



**GRAVE 91**, quadrant XV/13b. – A grave in an earthen pit; depth 0.50 m; ▼ 108.13 m; or. 280° (80° deviation from north). Skeleton destroyed (some bones from the skull and trunk remained). – Child; length?.

*No finds.*



**GRAVE 92**, quadrant V/13b–VI/13a. – A grave in an earthen pit; depth 1.05 m; ▼ 105.71/105.59 m; or. 270° (90° deviation from north). Lying on the back, legs extended, head turned to the right; the right forearm angled upwards across the chest, the left bent upwards with the hand on the shoulder (v.24). – Male; length 1.62 m.

*Finds:* One *circlet* on the head by the left ear and another *circlet* below the left ear while removing the skeleton (1,2), a *bracelet* on the right forearm (3), a *ring* on a finger of the right hand (4),<sup>59</sup> two *knives* (5,6) and an *arrowhead* [8] by the right thigh,<sup>60</sup> and bone laths of a reflex *bow* (7) on the right side of the rib cage to the height of the right hip.

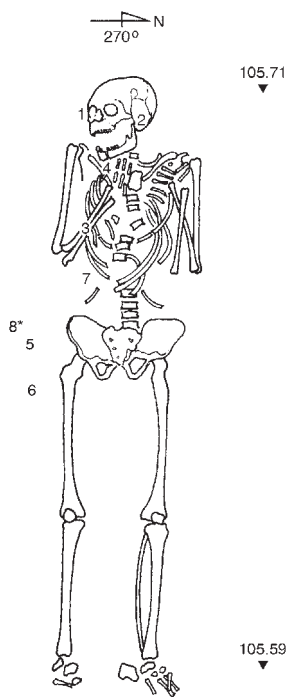
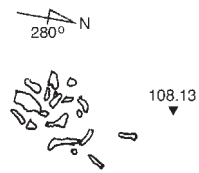
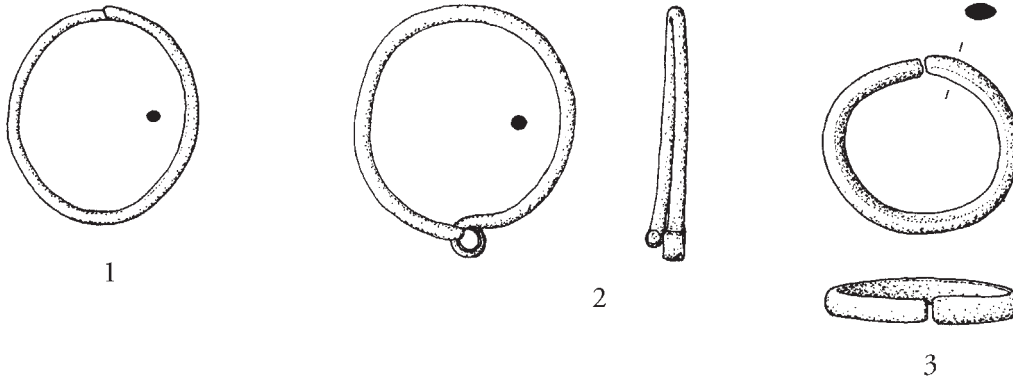
1. *Circlet* – bronze, open-ended, circular section, overlapping cut ends; Ø 2.90–2.55 cm (= 8.45 cm); Ø wire 0.22 cm; wt. 2.142 g; S-2531 (G. 13-I,8/3);

<sup>58</sup> For details about the circumstances of the finds, *Dnevnik*, ad 16 Sept. 1952; *Zapisnik*, no. 90/18 Sept. 1952.

<sup>59</sup> The *Zapisnik*, no. 92/6 Sept. 1952, noted that the ring was found upon discovery to be broken into two parts.

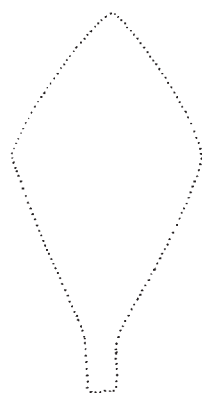
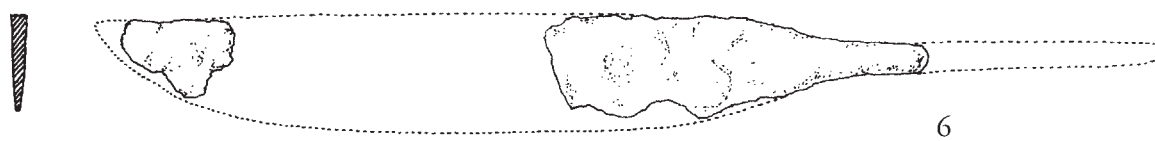
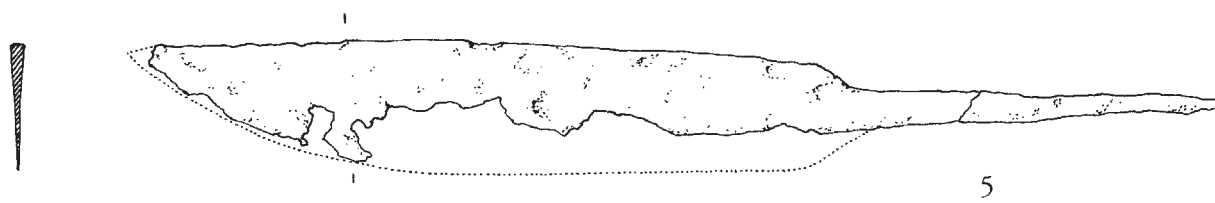
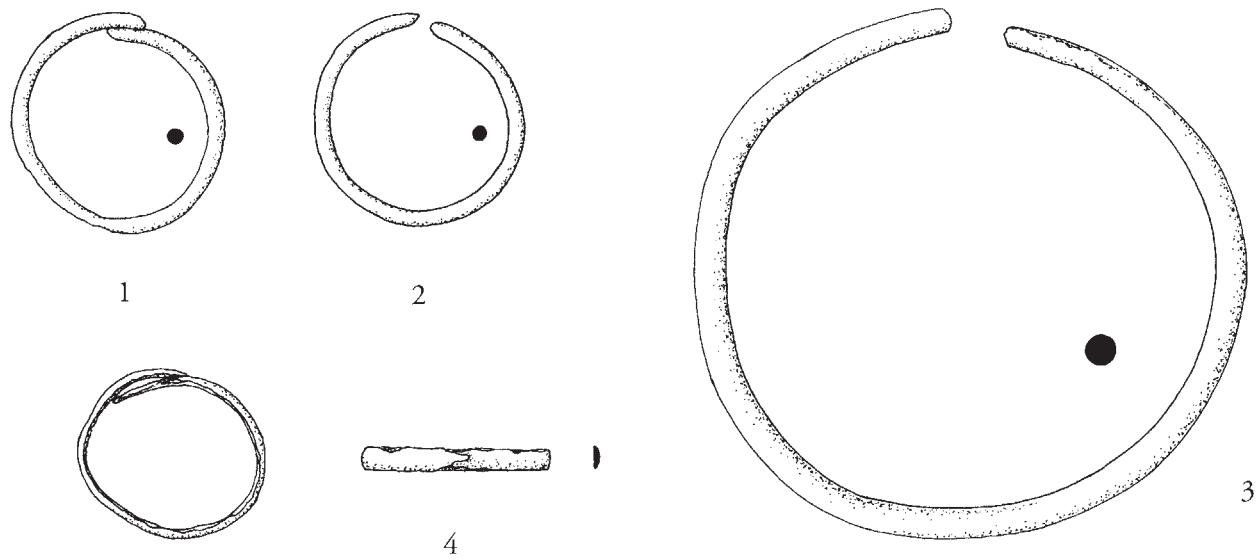
<sup>60</sup> According to the field documentation (*Zapisnik*, no. 92/6 Sept. 1952; *Dnevnik*, ad 4. Sept. 1952), the old P-AMZ inventory book of the medieval department (P-18113–18115), and the first publications (VINSKI 1955, 244; VINSKI 1959, 105), three arrows would have been found in gr. 92. The data in the more recent inventory S-AMZ assign only two arrows to gr. 92 (S-2535, 2536), of which one supposed point of an arrowhead (S-2536) is the broken tip of the knife found by the right thigh of the skeleton (S-2534), and two fragments of a supposed arrowhead (S-2535) also exhibit characteristics of a knife (with a rounded spine) because of their triangular section. In addition to these finds, in the photographs of gr. 92 one more object is visible – today non-existent and probably permanently lost – in appearance entirely identical to an arrowhead of rhomboid form, displayed in various positions (!) along the flank or the thigh of the deceased, in one case as an unbroken object, and in another example broken into two separate fragments. For further details, see DEMO 2005, 77–89.





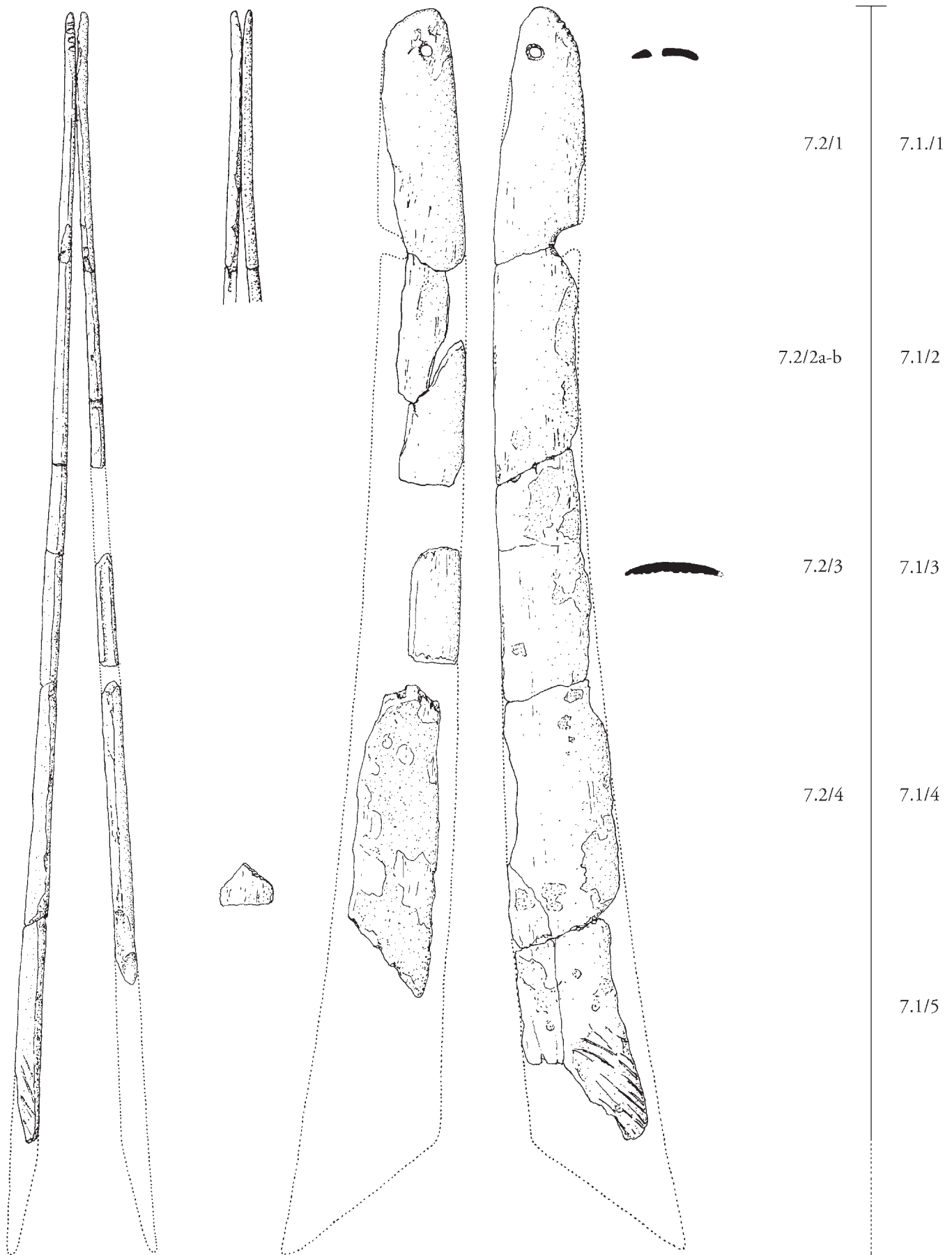
2. *Circlet* – bronze, open-ended, circular section, cut ends;  $\varnothing$  2.85–2.64 cm (= 8.61 cm);  $\varnothing$  wire 0.22 cm; wt. 2.069 g; S-2532 (G. 13-I,8/3);
3. *Bracelet* – bronze, open ended, circular section, separated ends, one cut, the other tapered;  $\varnothing$  7.18/7.15 cm;  $\varnothing$  wire 0.43/0.38 cm; wt. 19.878 g; S-2530 (G. 4; De. 1.2a);
4. *Ring* – bronze, with open ends, semicircular section, tapered and pointed ends overlap; damaged (broken into two parts, the hoop chipped in several places);  $\varnothing$  2.44/2.11 cm; w. 0.40 cm; th. 0.13 cm; wt. 1.276 g; S-2533 (G. 22; H. 48a; De. 1.4a);
5. *Knife* – iron, single-edged, with a tang for the handle, straight back curved downwards at the tip; damaged (corroded; broken into three sections; tip of the point missing, blade chipped); l. 14.07 cm; blade: w. 1.5 cm, th. 0.30/0.16 cm; wt. 8.374 g; S-2534, S-2536 (To. A4; H. 5);
6. *Knife, fragments* – iron, single-edged, with a tang for the handle, curved back; damaged (corroded; two fragments; tip of the point and most of the blade missing); l. fragments 5+1.5 cm; blade: w. 1.42 cm, th. 0.29 cm; wt. 6.823 g (5.879+0.944 g); S-2535 (To. A4; H. 5);





7. *Bow*, composite (reflex), fragments of sections – *covering platelets or laths*, fragments (11 pieces), upper pair of laths, fragments (9 pieces; damaged, incomplete); grip-laths, fragments (2 pieces; incomplete, lost); the lower pair of laths missing; S-2537/1–2 (G. A; To. A1; H. 7); [Pl. 13];
- 7.1 – *Upper laths*, fragments (5 pieces) – bone, the laths are slightly tapered from the base to the notch (nock) and the tip; on the upper exterior edge of the tip of the lath a row of four shallow transverse grooves; the nock for drawing the bow 4.7 cm below the tip; the hole for the rivet 1 cm below the tip, the hole for the rivet drilled from the exterior to the interior; damaged (broken, incomplete); l. 23.52 cm; dim. of the fragments (= l./w./th.): 1/1 – 5.06/1.75/0.33 cm; 1/2 – 4.08/1.77/0.35 cm; 1/3 – 4.66/1.94/0.37 cm; 1/4 – 5.1/2.28/0.38 cm; 1/5 – 4.62/2.25/0.33 cm; nock: th. ca. 0.46 cm, w. ca. 0.35 cm; rivet hole: Ø exterior 0.28 cm, Ø interior 0.24 cm; S-2537/1.1–5;
- 7.2 – *Upper laths*, fragments (4 pieces) – bone, the laths are slightly tapered from the base to the nock and the tip; the nock 4.7 cm below the tip; the rivet hole 1 cm below the tip, the hole for the rivet drilled from the exterior to the interior; damaged (broken, incomplete); l. 19 cm; dim. of the fragments (= l./w./th.): 2/1 – 5.06/1.54/0.25 cm; 2/2 (broken into two parts) – 4.50/1.54/0.28 cm; 2/3 – 2.94/1.06/0.33 cm; 2/4 – 6.50/1.76/0.40 cm; nock: th. ca. 0.46 cm, w. ca. 0.35 cm; rivet hole: Ø exterior 0.28 cm, Ø interior 0.24 cm; S-2537/2.1–4;
- [7.3–4] – *Grip-laths*, fragments (2 pieces) – bone; damaged (incomplete); not preserved;
- [7.5–6] – *Lower laths*, – bone; undiscovered (not preserved);
- [8.] *Arrowhead*, fragment – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half of the head; missing (G. A; To. A3; H. 8a; De. 1.1; Rutt. B3/Med. 52?).







**GRAVE 93**, quadrant VI/13a–d. – A grave in an earthen pit; depth 0.75 m; ▼ 106.01/105.92 m; or. 284° (76° deviation from north). Damaged skeleton (part of the thighs and calves missing);<sup>61</sup> lying on the back, legs extended, head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Female; length 1.45 m.

*Finds:* One  *circlet*  each on the right and left sides of the head (1, 2),<sup>62</sup> one  *bracelet*  on the right forearm (3), another  *bracelet*  on the left forearm (4), four  *rings*  on the fingers of the right hand (5–8).<sup>63</sup>

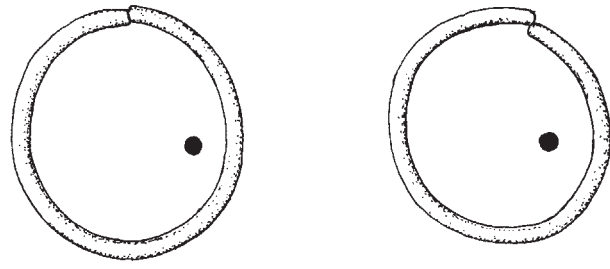
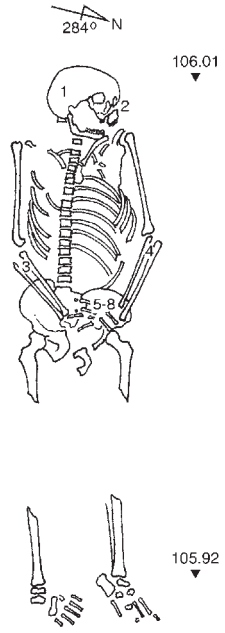
1.  *Circlet*  – bronze, open-ended, circular section, overlapping cut ends; Ø 3.27–3.03 cm (= 9.89 cm); Ø wire 0.29–0.25 cm; wt. 4.241 g; S-2526 (G. 13-I,9/5);
2.  *Circlet*  – bronze, open-ended, circular section, overlapping cut ends; Ø 3.16–2.85 cm (= 9.43 cm); Ø wire 0.27–0.21 cm; wt. 3.320 g; S-2527 (G. 13-I,9/5);
3.  *Bracelet*  – bronze, open ended, circular section, with separated, cut and tapered ends; the upper side of each end is decorated with seven shallow transverse incisions; Ø 7.61/7.39 cm; Ø wire 0.51–0.30 cm; wt. 30.244 g; S-2538 (G. 4; De. 1.2a.1);
4.  *Bracelet*  – bronze, open ended, circular section, with separated and pointed ends; Ø 7.27/6.89 cm; Ø wire 0.38–0.12 cm; wt. 17.406 g; S-2539 (G. 4; De. 1.2c);
5.  *Ring*  – bronze, with open ends, arched section, cut ends of equal width; the hoop decorated along the entire length: four rows of oblique, short, and shallowly incised lines; Ø 2.36/1.89 cm; w. 0.68 cm; th. 0.13 cm; wt. 1.293 g; S-2540 (G. 24; H. 46a; De. 1.5a);
6.  *Ring*  – bronze, with open ends, and a semicircular section, each separated cut end has a hole for a rivet; Ø 2.55/2.04 cm; w. 0.34 cm; th. 0.12 cm; wt. 1.536 g; S-2541 (G. 20; De. 1.1);
7.  *Ring with a crown*  – bronze, two-part; a hoop of semicircular section, separated ends, one of them hammered, the shoulders widened and thickened; damaged (crown missing); h. –; hoop: Ø 2.06/1.83 cm, w. 0.30–0.28 cm, th. 0.12–0.09 cm; w. bezel 0.68 cm; crown: –; wt. hoop 1.232 g; S-2542 (G. 38b; M. 16b);
8.  *Ring*  – bronze, with open ends, banded section, the tapered and rounded ends overlap; Ø 2.04/2.01 cm; w. 3.32–2.23 cm; th. 0.19–0.15 cm; wt. 1.849 g; S-2543 (G. 21; H. 45a).



<sup>61</sup> The grave was cut into by a modern period trench that destroyed part of the thigh and calf bones. The skeleton in grave 85 was also partly damaged by this same trench (see here p. 104 n. 55).

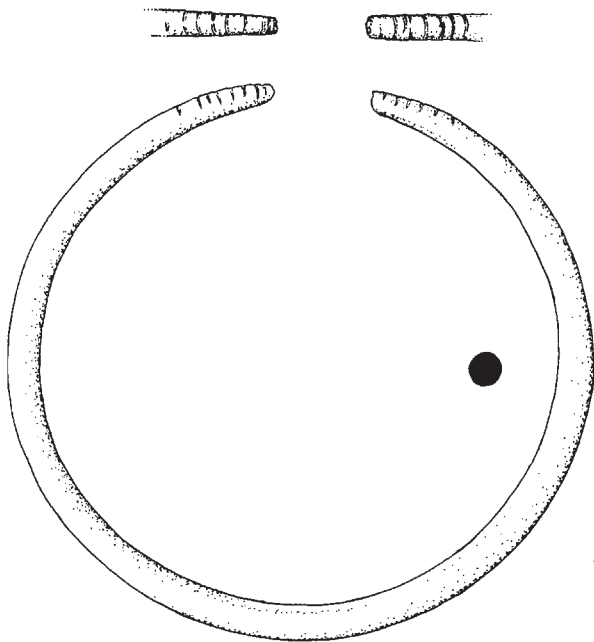
<sup>62</sup> The  *Dneunik* , ad 30.8.1952, noted as the finds from gr. 93 "4 rings, 2 bracelets, and one temple-ring, all of bronze", and when the skeleton was removed, another item was added, "a bronze circlet found on the left side of the head" ( *Zapisnik* , no. 93/6 Sept. 1952). In the S-AMZ inventory, both circlets (S-2526, 2527) were placed among the finds from gr. 90 (!).

<sup>63</sup> The attribution of the rings exclusively to the fingers of the right hand is noted in the  *Zapisnik* , no. 93/6 Sept. 1952.

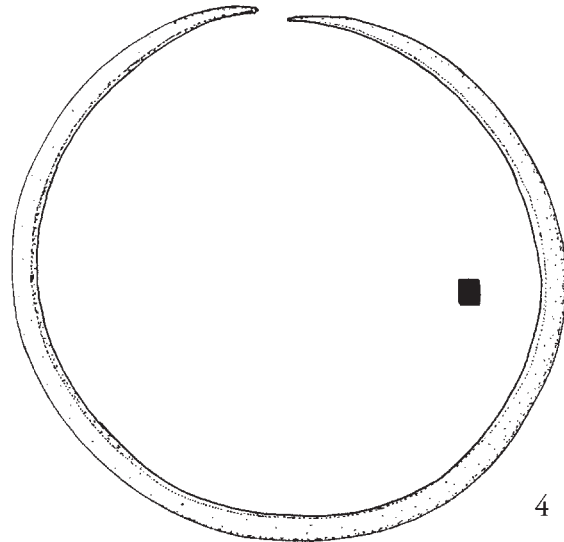


1

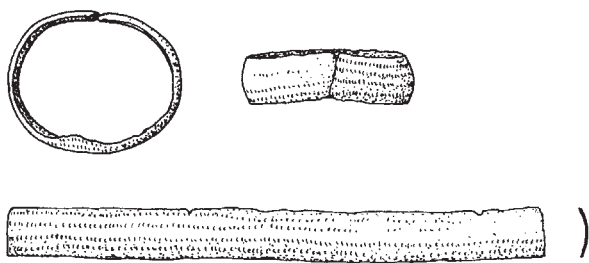
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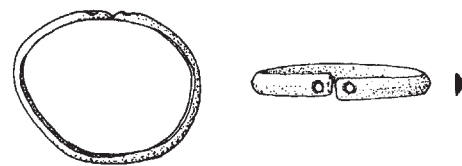
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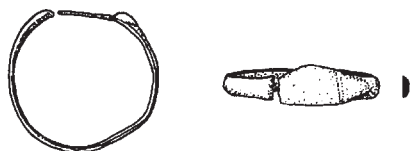
4



5



6



7



8



**GRAVE 94**, quadrant XVI/8b–XVII/8a. – A grave in an earthen pit; depth 0.50 m; ▼ 105.27/105.14 m; or. 275° (85° deviation from north). Damaged skeleton (the calves missing);<sup>64</sup> lying on the back, legs extended, head tilted to the right; the forearms extended along the body (v.1). – Male; length ca. 1.65 m; Male; length ca. 1.65 m.

*Finds:* During removal of the skeleton, a  *ring* below the right hand (1), a  *knife* on the right side of the pelvis (2).

1.  *Ring* – bronze, with open ends, semicircular section, separated ends, one cut and the other rounded; Ø 2.24/2.00 cm; w. 0.30 cm; th. 0.13 cm; wt. 1.250 g; S-2545 (G. 22; H. 48a; De. 1.4a);

2.  *Knife* – iron, single-edged, with a tang for the handle, straight back curved downwards at the tip; damaged (corroded; blade chipped); l. 11.04 cm; blade: w. 1.14 cm, th. 0.31/0.24 cm; wt. 11.511 g; S-2544 (To. A4; H. 5).

*Other objects in the grave:* A damaged prehistoric  *fibula* in the area of the abdomen (3).<sup>65</sup>

3.  *Fibula*; prehistoric, early iron Age.

**GRAVE 95**, quadrant XVI/8a. – A grave in an earthen pit; depth 0.65 m; ▼ 105.24 m; or. 305° (55° deviation from north). – Skeleton destroyed (some bones from the skull and trunk remained). – Child; length?

*No finds.*

**GRAVE 96**, quadrant XVII/10a. – A grave in an earthen pit; depth 0.50 m; ▼ 105.13 m; or. 278° (82° deviation from north). – Skeleton destroyed (some bones from the skull and trunk remained). – Child; length?

*No finds.*



**GRAVE 97**, quadrant V/13c. – A grave in an earthen pit; l. ca. 1.60 m, w. 0.60 m, depth 0.80 m, vol. ca. 0.768 m<sup>3</sup>; ▼ 105.55/105.60 m; or. 282° (78° deviation from north). – Damaged skeleton (the skull crushed, the right calf and feet missing);<sup>66</sup> lying on the back, legs extended, head position undetermined; the forearms folded horizontally across the stomach: right below, left above (v.13a). – Male?; length 1.60 m.

*Finds:* A  *ring* on a finger of the left hand (1), during removal of the skeleton, a  *knife* below the pelvis (2).<sup>67</sup>

1.  *Ring* – bronze, circular section, with separated ends, one cut the other tapered; Ø 2.16/2.07 cm; Ø wire 0.35–0.26 cm; wt. 3.367 g; S-2547 (G. 25/26 dif.);

2.  *Knife* – iron, single-edged, with a tang for the handle, straight back; damaged (corroded, tip of the point missing, blade chipped); l. 10.33 cm; blade: w. 0.87 cm, th. 0.40/0.28 cm; wt. 7.344g; S-2546 (To. A4; H. 5).

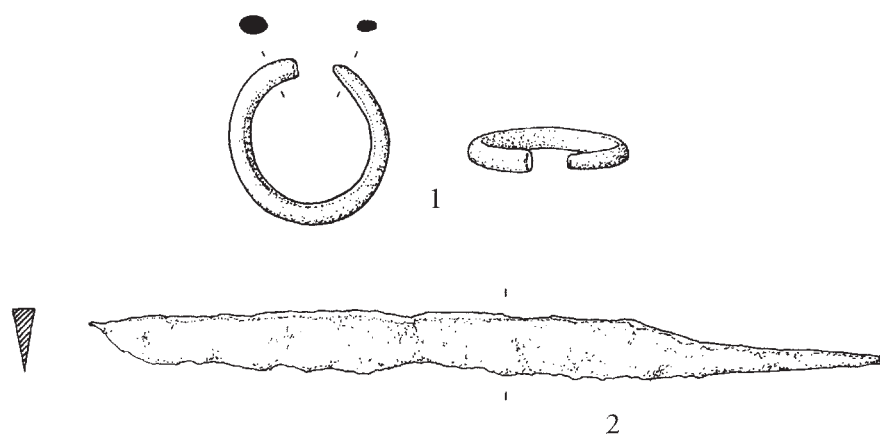
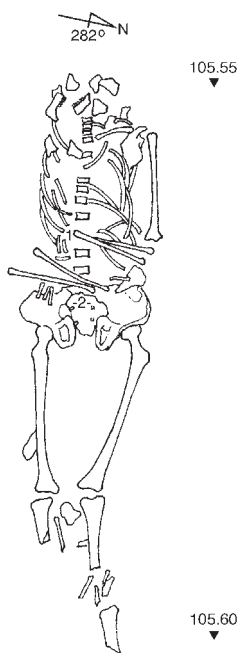
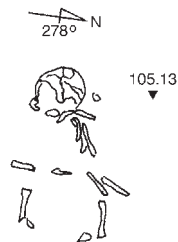
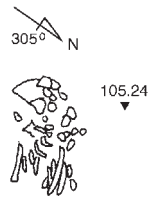
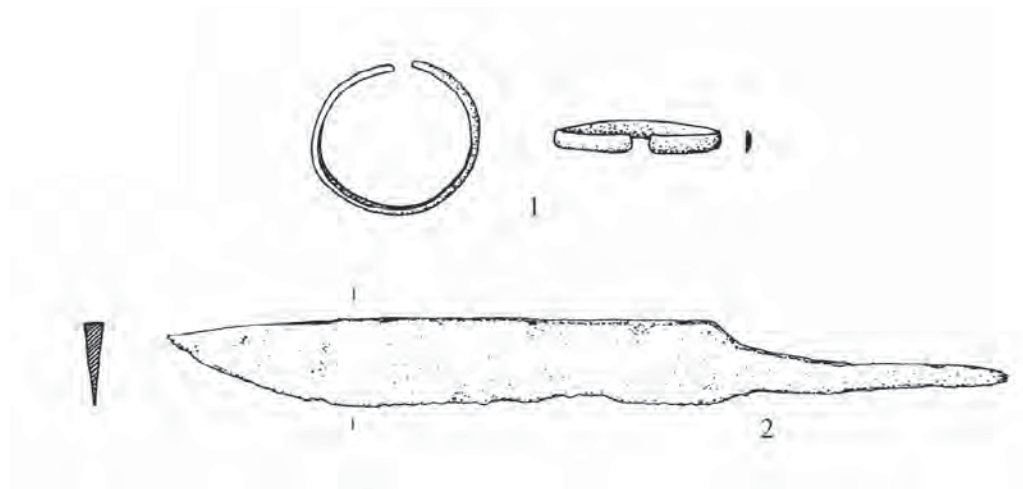
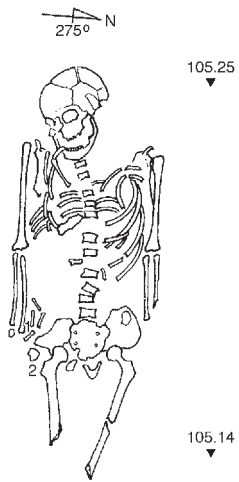
<sup>64</sup> The skeleton was damaged while digging an addition to the excavation trench.

<sup>65</sup> It was first claimed for the iron fibula found "in the abdominal region of the skeleton" that it "undoubtedly belonged to the burial inventory, although it typologically corresponds to the end of the 1<sup>st</sup> Iron Age (Ha C)",  *Dnevnik*, ad 30 Aug, 1952. This claim was evidently later abandoned, as the fibula was not included in the new S-AMZ inventory. For this double-looped fibula, see VINSKI 1955, 240; VINSKI 1959, 103.

<sup>66</sup> The skeleton was damaged while digging an addition to the excavation trench.

<sup>67</sup> It was not noted on which side of the pelvis the knife was actually found.







**GRAVE 98**, quadrant VIII/13a–b. – A grave in an earthen pit; depth 0.46 m; ▼ 106.47/106.35 m; or. 270° (90° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm bent upwards with the hand on the shoulder, the left angled downwards across the abdomen (v.10). – Sex?; length 1.57 m.

*No finds.*

**GRAVE 99**, quadrant VIII/13c. – A grave in an earthen pit; depth 0.34 m; ▼ 105.70 m; or. 270° (90° deviation from north). – Skeleton destroyed (some bones from the skull and trunk remained). – Child; length?.

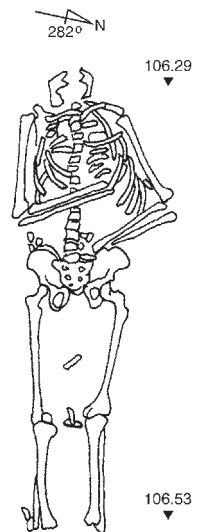
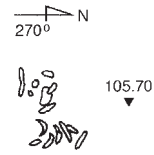
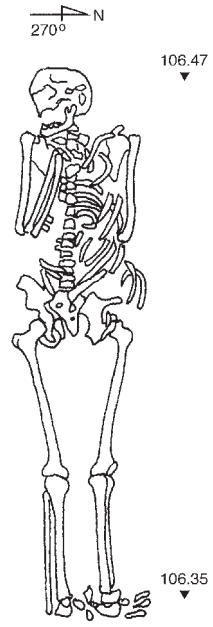
*No finds.*



**GRAVE 100**, quadrant VIII/13d–IX/13c. – A grave in an earthen pit; depth 0.45 m; ▼ 106.29/106.53 m; or. 282° (78° deviation from north). – Damaged skeleton (skull crushed, feet missing);<sup>68</sup> lying on the back, legs extended, head position undetermined; the right forearm angled upwards across the chest, the left downwards across the abdomen (v.9). – Female?; length 1.77 m.

*No finds.*

<sup>68</sup> The skeleton was damaged while digging an addition to the excavation trench.



**GRAVE 101**, quadrant VIII/12a–b. – A grave in an earthen pit; depth 0.43 m; ▼ 106.31/106.35 m; or. 287° (73° deviation from north). – Damaged skeleton (the skull crushed, the left side of the skeleton missing);<sup>69</sup> lying on the back, legs extended, head position undetermined; the forearm positions could not be determined. – Sex?; length 1.70 m.

*Finds:* A steel for striking flint was found next to the grave;<sup>70</sup> [Pl. 12:2].

1. *Steel for tinder* – iron, with one bent backwards arm; the body of polygonal shape and triangular section; the arm bent backwards in the shape of the letter "S", of rectangular section, tapered towards the end, at the beginning of the arm a hole with a link for attachment; the link circular, with a square section and overlapping ends; l. 4.91; h. 3.03 cm; th. 0.55 cm; link: Ø 1.14 cm; wt. (with the link) 23.006 g; S-2548 (V./To./H./ –); [Pl. 12:1].

**GRAVE 102**, quadrant VIII/12a–b. – A grave in an earthen pit; depth 0.50 m; ▼ 106.28/106.28 m; or. 291° (69° deviation from north). – Poorly preserved skeleton (the skull crushed, the forearms, right calf and foot missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length 0.80 m.

*Finds:* A circlet with pendants on the left side of the head (1/2–3) and a necklace of beads (2/4).<sup>71</sup>

1. *Circlet with pendants* – circlet: bronze, open-ended, circular section, one end cut, the other tapered; two metal pendants threaded on the circlet; Ø 1.85/1.83 cm; Ø wire 0.19–0.15 cm; wt. 1.498 g; wt. without pendants 0.956 g; S-2549/1; (G. 13 dif. = II,5/3 hoops/metal pendants; H. 18 dif.); – hoops, metal pendants (2): see nos. 1.1–2;
  - 1.1. *Hoop*, pendant on the circlet – bronze, open-ended, circular section, cut ends; Ø 1.1/1.07 cm, Ø wire 0.16 cm; wt. 0.327 g; S-2549/2 (H. –);
  - 1.2. *Hoop*, pendant on the circlet – bronze, open-ended, circular form, banded section, cut ends; Ø 0.50 cm; w. 0.35 cm; th. 0.14 cm; wt. 0.215 g; S-2549/3 (H. 37a);
2. *Necklace of beads* – glass beads (3): annular, unspecified, pale brown (1); grits-shaped, unspecified, pale brown (2); S-2550 (01/11 4 62; 01/14 4 62).



**GRAVE 103**, quadrant VIII/12c–d. – A grave in an earthen pit; depth 0.70 m; ▼ 106.23/106.12 m; or. 288° (72° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm bent upwards with the hand on the shoulder, the left angled upwards across the chest (v.20). – Female?; length 1,54 m.

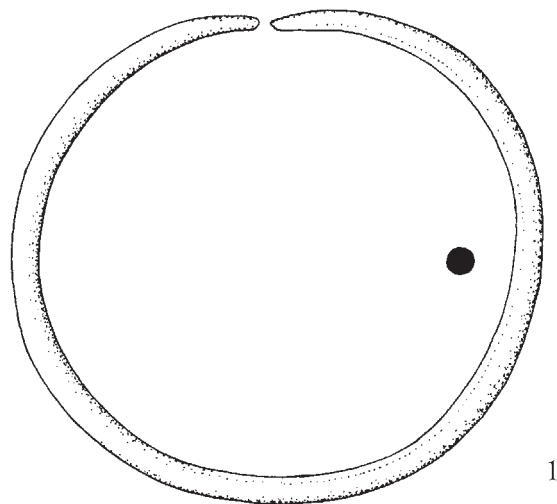
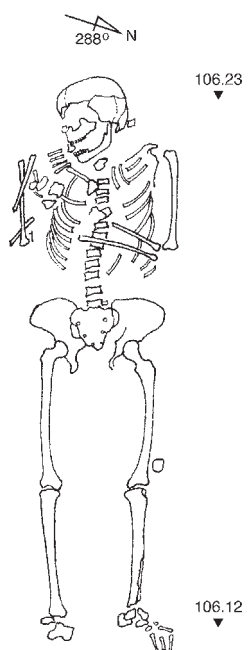
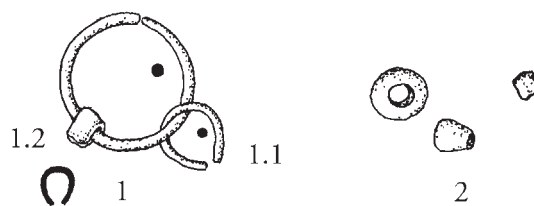
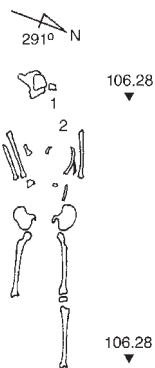
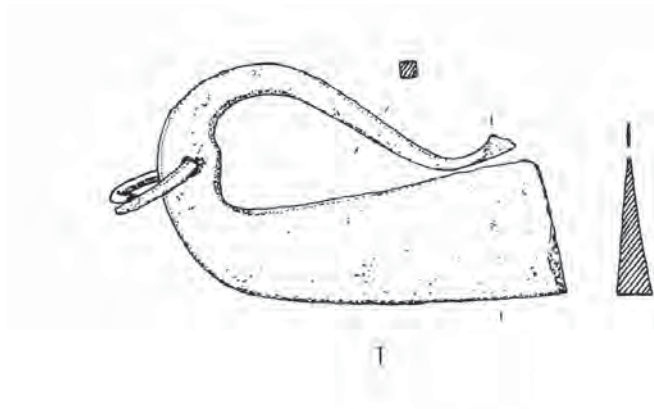
*Find:* A bracelet on the right arm.

1. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered ends; Ø 7.0/6.50 cm; Ø wire 0.40–0.27 cm; wt. 20.679 g; S-2551 (G. 4; De. 1.2a).

<sup>69</sup> The skeleton was damaged during removal of a trench dividing wall.

<sup>70</sup> The note about the discovery of this steel, first described as a "piece of iron of unknown function", was recorded in the *Zapisek*, no. 101/10 Sept. 1952.

<sup>71</sup> *Dnevnik*, ad 5 Sept. 1952.





**GRAVE 104**, quadrant XVIII/15b (= trench L). – A grave in an earthen pit; depth 0.65 m; ▼ 104.45/104.32 m; or. 270° (90° deviation from north). – Lying on the back, legs extended, head turned to the right (south); the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Female?; length 1.62 m.

*No finds.*

**GRAVE 105**, quadrant XVIII/15d–XIX/15c (= trench L). – A grave in an earthen pit; depth 0.66 m; ▼ 104.21/104.06 m; or. 301° (59° deviation from north). – Damaged skeleton (the skull, the upper part of the trunk, the calves and feet missing);<sup>72</sup> lying on the back, legs extended, head position undetermined; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Sex?; length 1.08 m (preserved section).

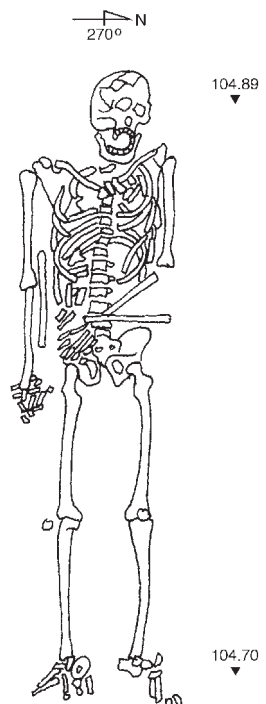
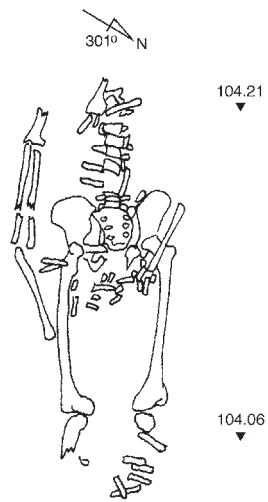
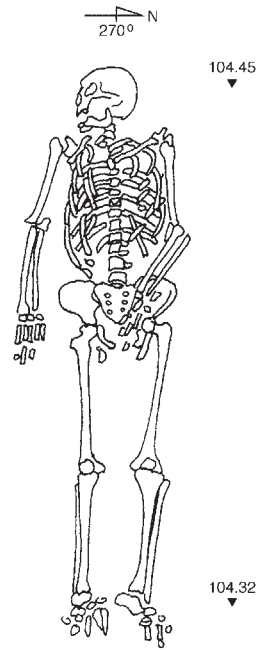
*No finds.*

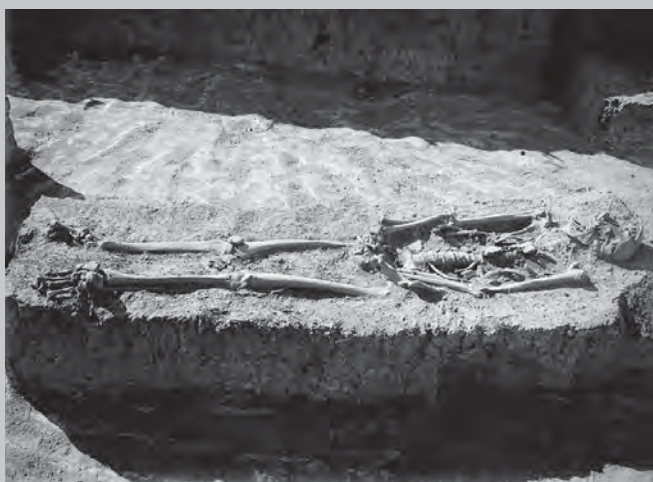


**GRAVE 106**, quadrant XVI/10d–XVII/10c. – A grave in an earthen pit; depth 0.94 m; ▼ 104.89/104.70 m; or. 270° (90° deviation from north). – Lying on the back, legs extended, head tilted to the left; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Male; length 1.67 m.

*No finds.*

<sup>72</sup> The damage to the skull and the upper sections of the trunk were most probably caused by some transverse ditch whose existence was indicated by the damage to the skeleton in the somewhat more northwesterly grave 212. The damage to the lower sections of the skeleton could have occurred during the archaeological excavations themselves.





**GRAVE 107**, quadrant IX/12c–d. – A grave in an earthen pit; depth 0.60 m; ▼ 106.34/106.31 m; or. 245° (115° deviation from north). – Lying on the back, legs extended, head straight; the forearms angled downwards across the abdomen (v.7a). – Male; length 1.62 m.

*Find:* A steel for striking flint found between the knees.<sup>73</sup>

1. *Steel for tinder* – iron, lyre-shaped; the base flat, the body of square section with a central triangular reinforcement; the arms bent back and raised at an angle, the ends of the arms curved outwards and touching; damaged (triangular reinforcement incomplete; part of the arm with the end missing); l. 6.18 cm; h. 2.52 cm; th. 0.46 cm; wt. 10.898 g; S-2552 (H. 4; To. A5).



**GRAVE 108**, quadrant VI/12c–d. – A grave in an earthen pit; depth 0.82 m; ▼ 105.83/105.76 m; or. 277° (83° deviation from north). – Damaged skeleton (skull crushed); lying on the back, legs extended, head turned to the right; the right forearm bent upwards with the hand on the shoulder, the left horizontally across the stomach (v.15). – Female?; length 1.53 m.

*Find:* A necklace of beads under the neck on the right side (1), a bracelet on the right upper arm (2), a ring on a finger of the right hand (3).

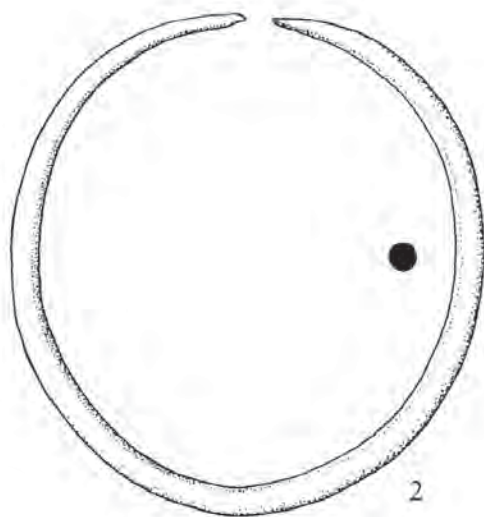
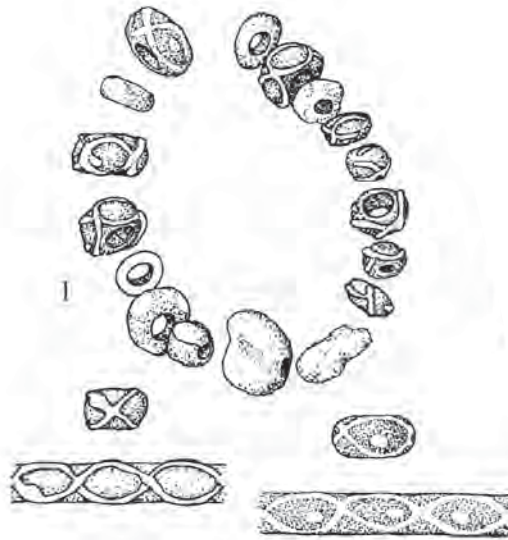
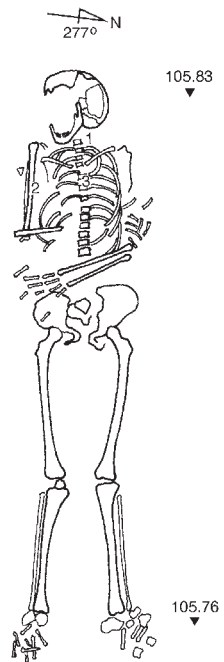
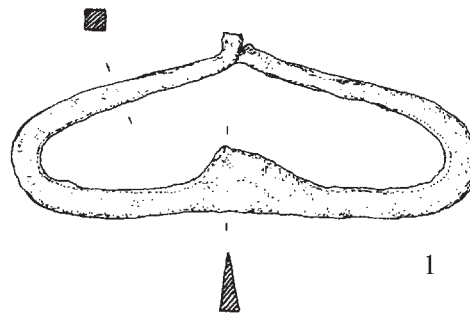
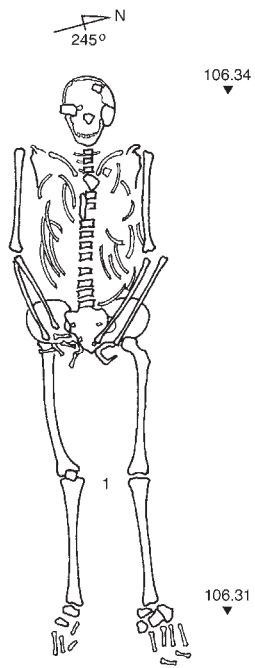
1. *Necklace of beads* (17) – glass beads (16): segmented, double, unspecified, honey brown (1); globular-flattened, unspecified, honey brown (1); globular-flattened, unspecified, brown / three dots in regular intervals, impressed, yellowish white (1);

globular-flattened, unspecified, brown / dots in three fields of two intersecting wavy lines, dots and lines yellowish white (1); globular-flattened, unspecified, brown / two thrice intersecting wavy lines, applied, yellowish white (8); globular-flattened, ribbed, opaque, turquoise (1); annular, unspecified, yellowish green (1), brown (1) and honey brown (2); *amber bead* (1): polygonal irregular, opaque, brick-red / carved, polished; damaged (1); S-2555 (glass: 01/012 4 61; 01/03 4 61; 01/03 4 60/10103 01 12; 01/03 4 60/30101 01 12; 01/03 4 60/20102 02 12; 01/04 2 42; 01/11 4 55, 01/11 4 60; amber: 02/15 2 32/05–06);

2. *Bracelet* – bronze, open ended, circular section, with separated and pointed ends; Ø 6.57/6.16 cm; Ø wire 0.41–0.10 cm; wt. 17.384 g; S-2553 (G. 4; De. 1.2a);
3. *Ring* – bronze, with open ends, square section with the outer side rounded, separated and cut ends, one tapered; Ø 2.63/2.39 cm; w. 0.32–0.22 cm; th. 0.30 cm; wt. 4.260 g; S-2554 (G. 27 dif.).

<sup>73</sup> "The only iron steel found by the legs" of the deceased was mentioned in the *Zapisek*, no. 107/10 Sept. 1952. The position of the find in the grave was identified on the basis of the photographs taken in the field.







**GRAVE 109**, quadrant VIII/12d–IX/12c. – A grave in an earthen pit; depth 0.60 m; ▼ 106.38/106.25 m; or. 280° (80° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm angled downwards across the abdomen, the left horizontally across the stomach (v.12). – Female; length 1.54 m.

*Finds:* *Circlet* (1,2) and *O-circlet* (3,4) on each side of the head.<sup>74</sup>

1. *Circlet* – bronze, open-ended, circular section, overlapping cut ends; Ø 2.16–1.90 cm (= 6.37 cm); Ø wire 0.16 cm; wt. 0.856 g; S-2557/1 (G. 13-I, 6/2);

2. *Circlet* – bronze, open-ended, circular section, overlapping ends, one cut, the other pointed; Ø 2.10–1.94 cm (= 6.34 cm); Ø wire 0.16 cm; wt. 0.867 g; S-2557/2 (G. 13-I,6/2);

3. *O-circlet* – bronze, circular section, cut end; h. 3.53 cm; Ø 3.16/3.14 cm; Ø wire 0.25 cm; O-w. 0.40 cm; wt. 3.759 g; S-2556/1 (V. IV/5; H. 12a-I,9/4);

4. *O-circlet* – bronze, circular section, cut end; damaged (o-terminal); h. 3.30 cm; Ø 3.12/2.90 cm; Ø wire 0.25 cm; O-w. 0.43 cm; wt. 3.396 g; S-2556/2 (V. IV/5; H. 12a-I,9/4).



**GRAVE 110**, quadrant VIII/12d–IX/12c. – A grave in an earthen pit; depth 0.75 m; ▼ 106.02/106.04 m; or. 277° (83° deviation from north). – Damaged skeleton (skull crushed); lying on the back, legs extended, head straight; the forearms folded horizontally across the stomach: right above, left below (v. 13b). – Sex?; length 1.53 m.

*Finds:* A *ring* on the right hand.

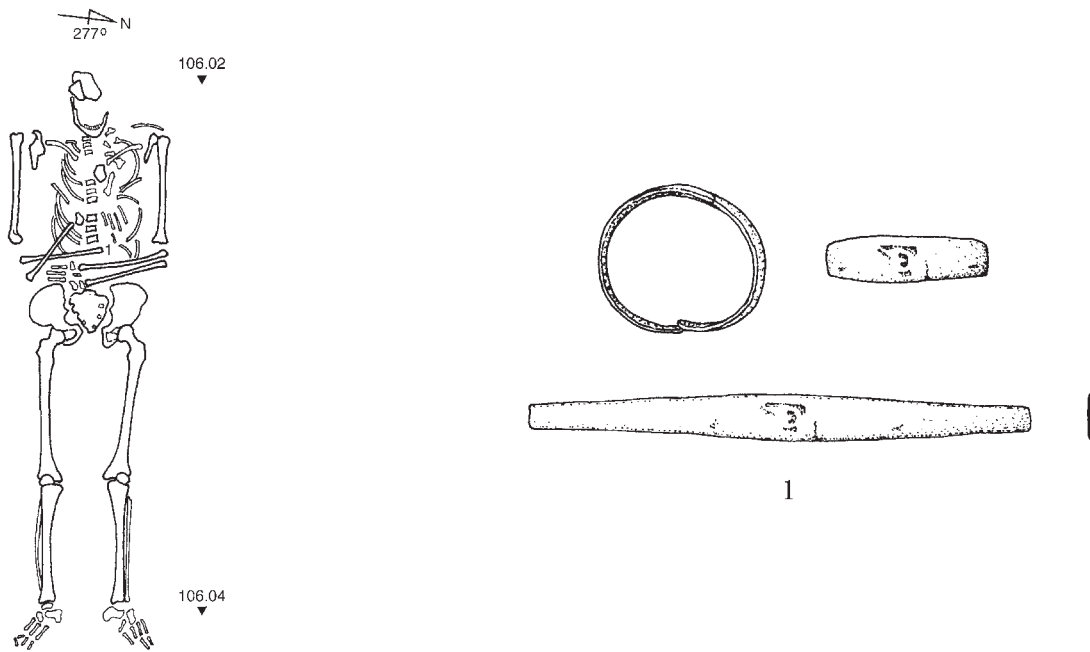
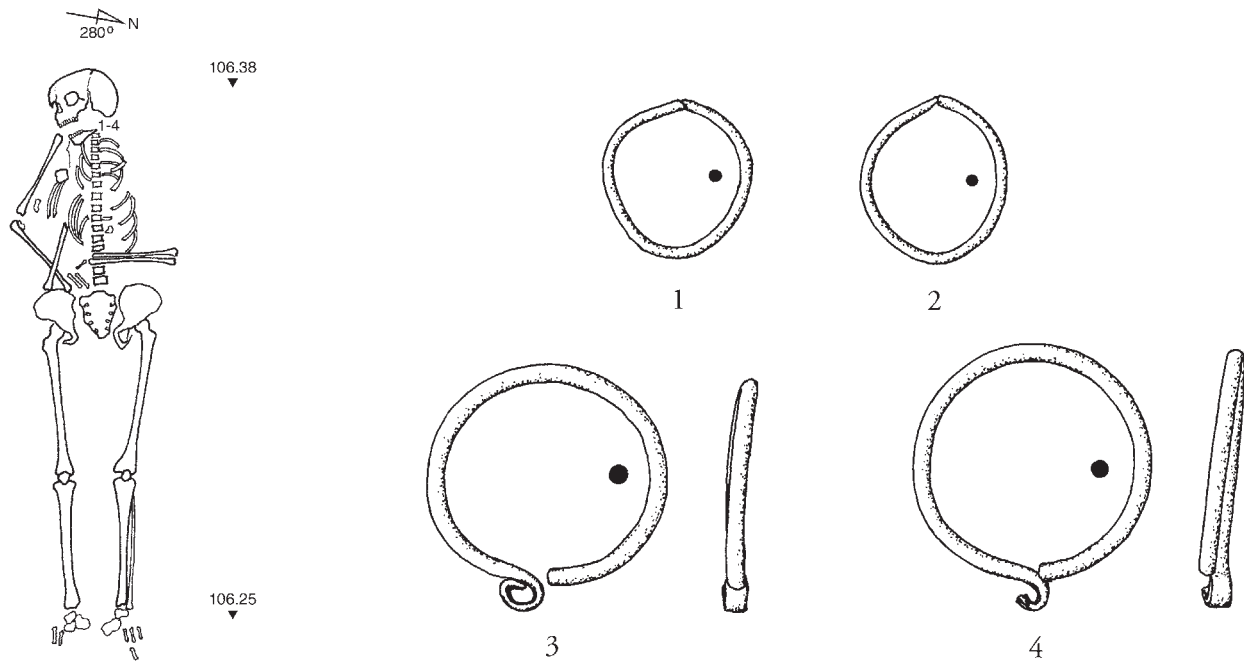
1. *Ring* – bronze, with open ends, arched section, cut and tapered ends; Ø 2.20/1.96 cm; w. 0.65–0.42 cm; th. 0.12 cm; wt. 2.261 g; S-2558 (G. 24; H. 46a; De. 1.5a).



**GRAVE 111**, quadrant IX/12d. – A grave in an earthen pit; depth 0.38 m; ▼ 106.52/106.48 m; or. 297° (63° deviation from north). – Lying on the back, legs extended, head turned to the right; forearms extended along the body (v.1). – Child; length 0.97 m.

*No finds.*

<sup>74</sup> The circumstances, distribution, and number of finds is noted by the *Zapisnik*, no. 109/10 Sept. 1952.





**GRAVE 112**, quadrant IX/12a–b. – A grave in an earthen pit; depth 0.60 m; ▼ 106.42/106.29 m; or. 262° (98° deviation from north). – Damaged skeleton (the head crushed); lying on the back, legs extended, head straight; the right forearm angled downwards across the abdomen, the left extended along the body (v.2). – Child; length 1.06 m.

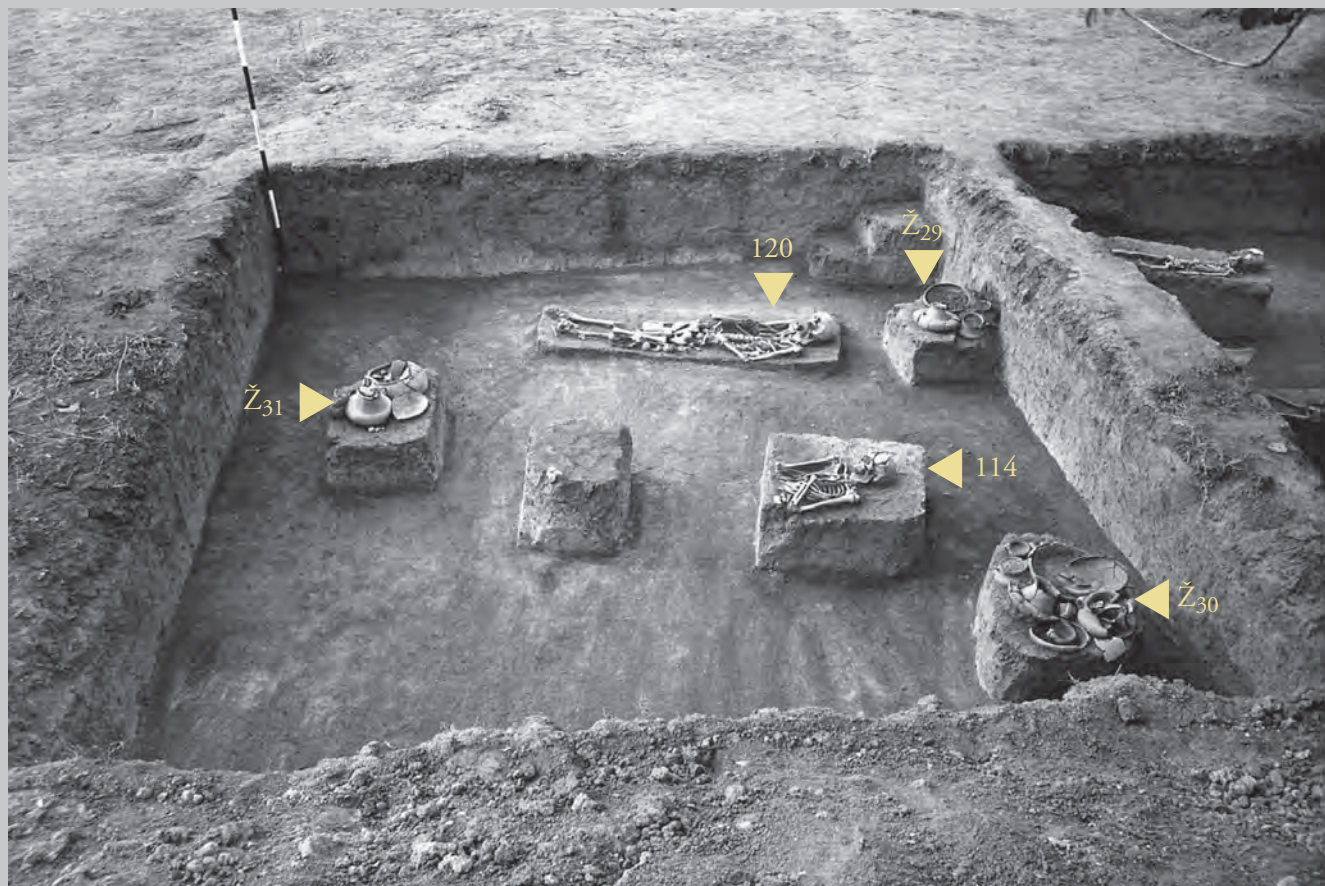
*Finds:* One *circlet* by the right ear, another on the neck (1,2).

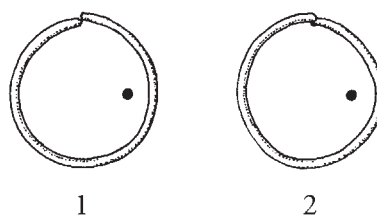
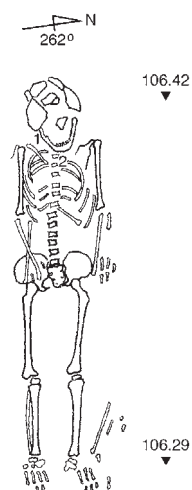
1. *Circlet* – bronze, open-ended, circular section, touching cut ends; Ø 2.06–1.93 cm (= 6.26 cm); Ø wire 0.14 cm; wt. 0.735 g; S-2559/1 (G. 13-I,6/1));

2. *Circlet* – bronze, open-ended, circular section, touching cut ends; Ø 2.10–1.89 cm (= 6.26 cm); Ø wire 0.14 cm; wt. 0.798 g; S-2559/2 (G. 13-I,6/1).

**GRAVE 113**, quadrant IX/12b. – A grave in an earthen pit; depth 0.38 m; ▼ 106.49/106.41 m; or. 271° (89° deviation from north). – Damaged skeleton (head crushed, left forearm, calves and feet missing); lying on the back, legs extended, head position undetermined; the forearm positions could not be determined (the right extended along the body). – Child; length 0.81 m.

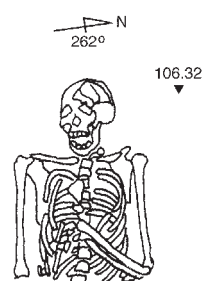
*No finds.*



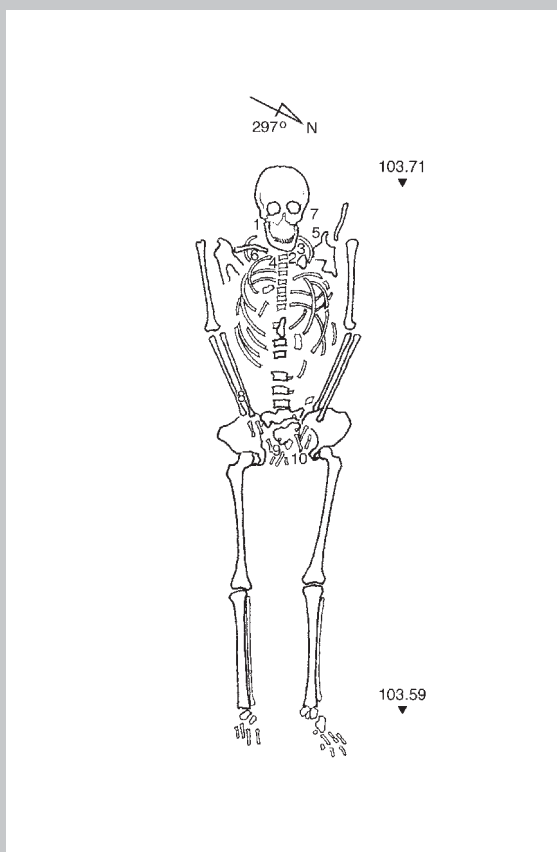


**GRAVE 114**, quadrant X/12a–b. – A grave in an earthen pit; depth 0.50 m; ▼ 106.32/106.26 m; or. 262° (98° deviation from north). – Poorly preserved skeleton (the right forearm, pelvis, and legs missing);<sup>75</sup> lying on the back, legs extended, head straight; the forearm positions could not be determined (the left angled upwards across the chest). – Female; length 1.62 m.

*No finds.*



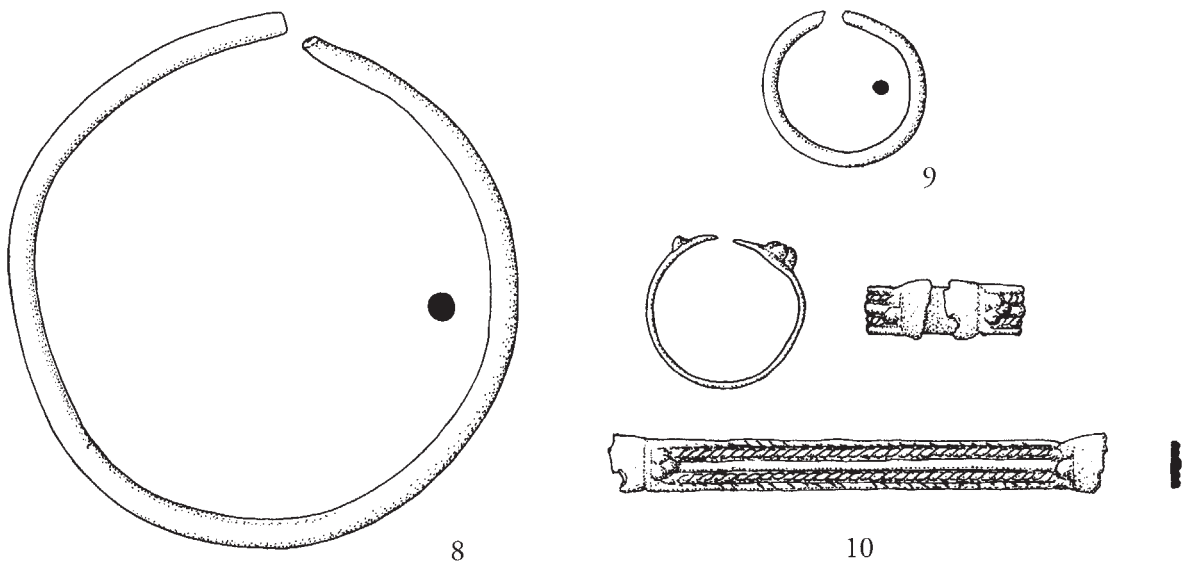
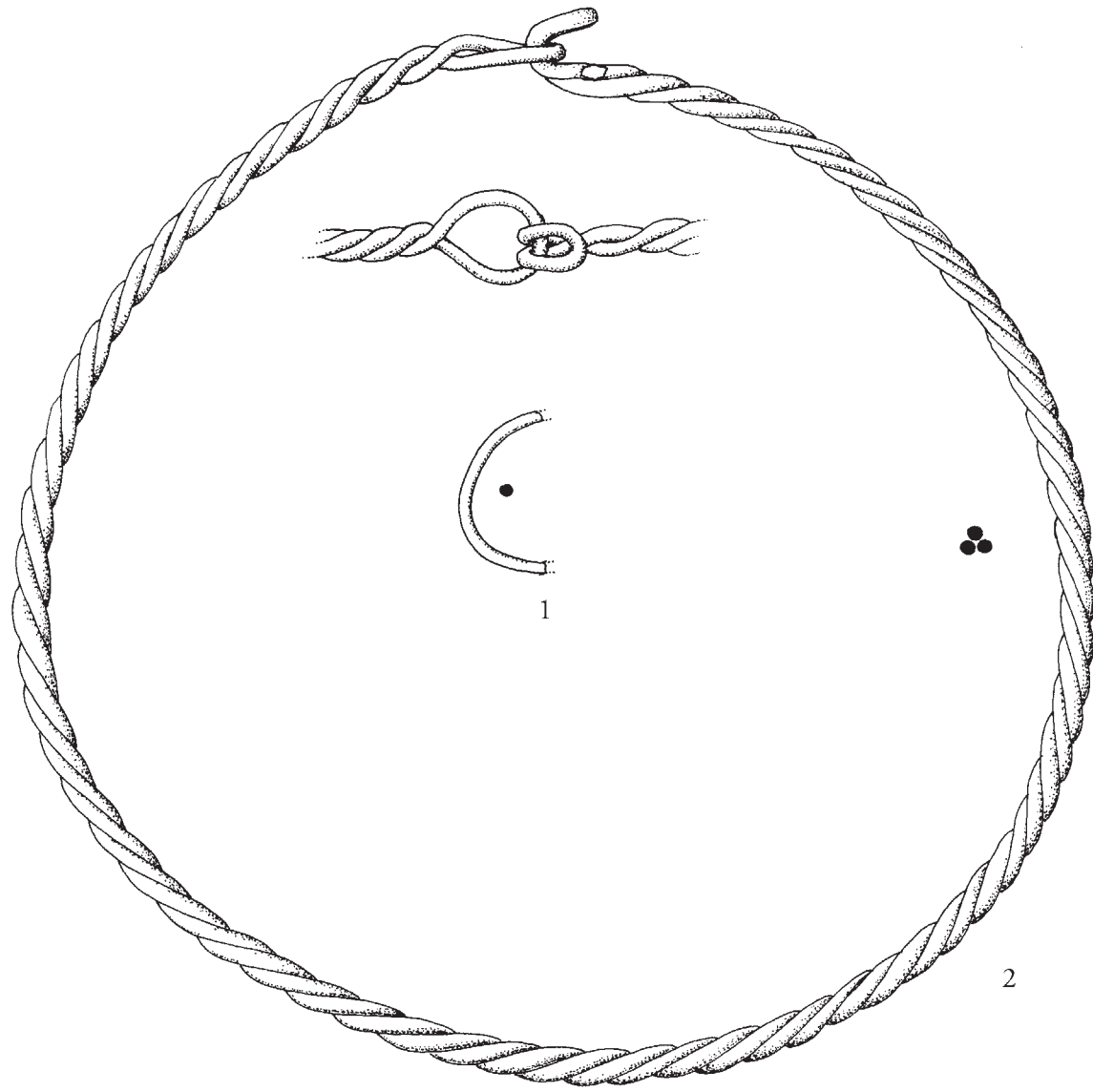
<sup>75</sup> The grave was cut into by some modern period ditch, and the skeleton was destroyed from the lower section of the chest to the right heel (*Zapiski*, no. 114/11 Sept. 1952). The skeleton in grave 120 was also partly damaged by the same ditch.



**GRAVE 115**, quadrant XXI/13c–d (= trench M). – A grave in an earthen pit; depth 0.68 m; ▼ 103.71/103.59 m; or. 297° (63° deviation from north). – Lying on the back, legs extended, head straight; the forearms angled downwards across the abdomen (v.7a). – Female; length 1.51 m.

*Finds:* On the right side of the head half of a *circlet* (1), a *torc* (2) and a *necklace of beads and metal pendants* around the neck (3), with one globular *button-pendant* found on the spine (4), a two-part *button-pendant* above the left collarbone (5), a *bell-pendant* by the left ear (7) and a *bell-pendant* on the right side of the head (6), on the right forearm a *bracelet* (8), a *ring* on a finger of the right hand (9), and a *ring* on a finger of the left hand (10).

1. *Circlet*, fragment – bronze, open-ended, circular section, damaged (half preserved); Ø ca. 2.22 cm (= ca. 6.97 cm); Ø wire 0.16 cm; wt. 0.541 g; S-2568 (G. 13-I,6/2);
2. *Torc* – bronze, with a hook and eye for fastening, twisted from one triply bent wire of circular section, the ends of the wire cut; Ø 14.56/13.81 cm (fastened); Ø twisted wire 0.47–0.45 cm; Ø wire 0.23 cm; wt. 45.009 g; S-2560 (G. 1b; De. 1.1.1.1a/nn);
3. *Necklace of beads and metal pendants* (116) – *glass beads* (114): segmented, single, translucent, colorless / golden coating between two glass layers (30); segmented, double, translucent, colorless / golden coating between two glass layers (2); globular-flattened, translucent, pale yellow (2); low cylindrical, opaque, pale green (1); rod-shaped, opaque, yellowish white (1); oval, opaque, yellowish white (1); cylindrical with a pinched end, opaque, black (1); grits-shaped, opaque, ochre (76); S-2562 (01/011 1 81/03; 01/012 1 81/03; 01/03 1 21; 01/05 2 53; 01/08 2 12; 01/12 2 12; 01/13 2 71; 01/14 2 22); – *metal pendants, bell pendants* (2): see. nos. 6–7 (bell pendants);
4. *Button-pendant* – bronze, mushroom-shaped, solid, with a raised loop for attachment; damaged (corroded); h. 1.05 cm; Ø 0.67 cm; wt. 0.720 g; S-2561 (G. 11b dif.; H. 58d);
5. *Button-pendant* – bronze, spherical, hollow, two-part, with a circular loop for attachment, identical halves divided vertically; damaged (halves separated, part of the loop broken on one half); h. 1.72 cm; Ø 1.15/1.09 cm; wt. 1.989 g; S-2569 (H. 59);
6. *Globular bell-pendant*, fragment, pendant on a necklace (secondary use; early medieval) – bronze, two-part, pear-shaped, with a circular loop for suspension, identical halves perpendicularly divided, the lower part of the bell circular in plan; on the base of one half an elongated transverse incision between two smaller triangular incisions; on the walls a horizontal row with eight rectangular fields below a thin incised horizontal line; damaged (the lower part of one half broken; the other half missing); h. 2.42 cm; l. 1.80 cm; w. 0.93/– cm; wt. 3.690 g; S-2565 (G. 10; To. 10a);
7. *Globular bell-pendant*, fragment, pendant on a necklace (secondary use; early medieval) – bronze, two-part, pear-shaped, with a circular loop for suspension, identical halves divided along the perpendicular, the lower part of the bell rhomboid in plan; on the base of the half an elongated transverse incision; undecorated; damaged (half missing); h. 2.31 cm; l. 1.50 cm; w. 0.68/– cm; wt. 2.207 g; S-2566 (G. 10; To. 10a);



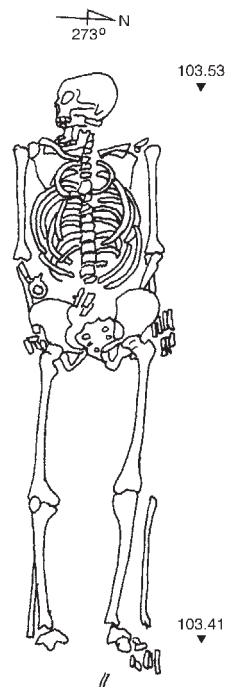
8. *Bracelet* – bronze, open ended, circular section, with separated and cut ends;  $\varnothing$  6.68/6.53 cm;  $\varnothing$  wire 0.40 cm; wt. 19.076 g; S-2563 (G. 4; De. 1.2a);
9. *Ring* – bronze, with open ends, circular section, separated and cut ends;  $\varnothing$  2.20/2.04 cm;  $\varnothing$  wire 0.21 cm; wt. 1.831 g; S-2567 (G. 25);
10. *Ring with a crown* – bronze, two-part; a hoop of banded section with open and hammered ends, decorated with a lengthwise rib between double rows of pseudo-twisted wire, on the shoulders on each side of the crown three triangularly arranged granules; damaged (crown missing); h. –; hoop:  $\varnothing$  2.10/2.00 cm, w. 0.56 cm, th. 0.15 cm; w. bezel 0.76 cm; crown: –; wt. hoop 3.312 g; S-2564 (G. 38b; M. 16b).



**GRAVE 116**, quadrant XXI/13a–b (= trench M). – A grave in an earthen pit; depth 0.78 m;  $\blacktriangledown$  103.53/103.41 m; or. 273° (87° deviation from north). – Lying on the back, legs extended, head turned to the right; the forearms extended along the body (v.1). – Female; length 1.59 m.

*No finds.*





**GRAVE 117**, quadrant XI/8d–XII/8c. – A grave in an earthen pit; depth 0,40 m; ▼ –; or. – (deviation from north unknown). – Skeleton destroyed. – Sex?; length?.

*No finds.*

**GRAVE 118**, quadrant XXI/8b–XXII/8a (= trench N). – A grave in an earthen pit; depth 0.95 m; ▼ 103.75/103.66 m; or. 275° (85° deviation from north). – Damaged skeleton (left forearm, thigh and foot missing); lying on the back, legs extended, head straight; forearm positions could not be determined (the right forearm extended along the body). – Child; length 0.67 m.

*No finds.*



**GRAVE 119**, quadrant XXI/7d–XXII/7c (= trench N). – A grave in an earthen pit; depth 1.10 m; ▼ 103.48/103.42 m; or. 274° (86° deviation from north). – Poorly preserved skeleton (skull crushed); lying on the back, legs extended, head straight; the forearms extended along the body (v.1). – Sex?; length 1.65 m.

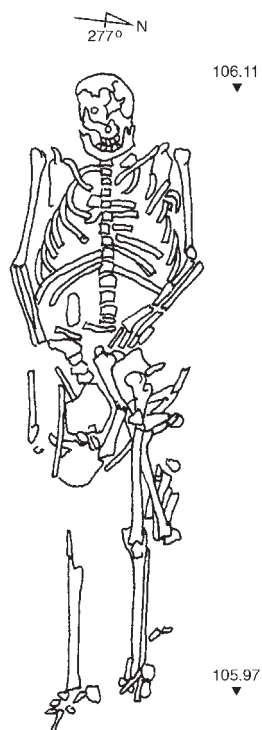
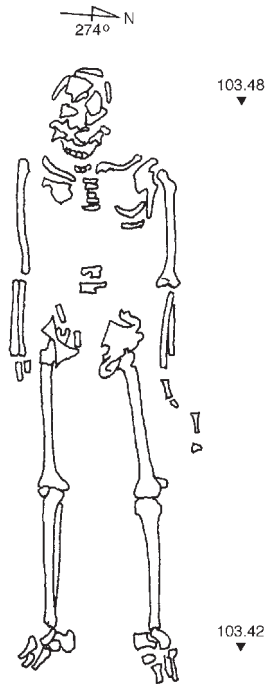
*No finds.*



**GRAVE 120**, quadrant X/12c–d. – A grave in an earthen pit; depth 0.83 m; ▼ 106.11/105.97 m; or. 277° (83° deviation from north). – Damaged skeleton (the pelvis and right thigh disarranged);<sup>76</sup> lying on the back, legs extended, head straight; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Male; length 1.81 m.

*No finds.*

<sup>76</sup> The grave was damaged to a small extent by the same ditch that damaged the skeleton in the somewhat more northerly grave 114. In grave 120 "dislocated human and animal bones were later buried... thrown in right above the skeleton", *Zapiski*, no. 120/11 Sept. 1952.





**GRAVE 121**, quadrant XIV/8c. – A grave in an earthen pit; depth 0.95 m; ▼ 105.57/105.46 m; or. 297° (63° deviation from north). – Damaged skeleton (right calf missing); lying on the back, legs extended, head turned to the left; the right forearm extended along the body (under the pelvis), the left folded horizontally across the stomach (v.11). – Male; length 1.55 m.

*Finds:* The position of the *needle* in the grave is unknown (1\*).

- 1.\* *Needle*, fragment – iron, body of circular section; damaged (corroded, incomplete; two fragments, larger part missing); l. 2.50 cm; Ø 0.22 cm; wt. 0.241 g; S-2571 (H. –).

*Other objects in the grave:* Pieces of *slag* near the left thigh (2).<sup>77</sup>

2. *Slag* (15 pieces) – of various dimensions; S-2570.



**GRAVE 122**, quadrant XIV/9d. – A grave in an earthen pit; depth 0.58 m; ▼ 105.64/105.29 m; or. 305° (55° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms folded horizontally across the stomach: right below, left above (v.13a). – Female; length 1.66 m.

*Finds:* A *bracelet* on the right arm (1), a *ring* on a finger of the left hand (2), a *spindle-whorl* by the grave (3).<sup>78</sup>

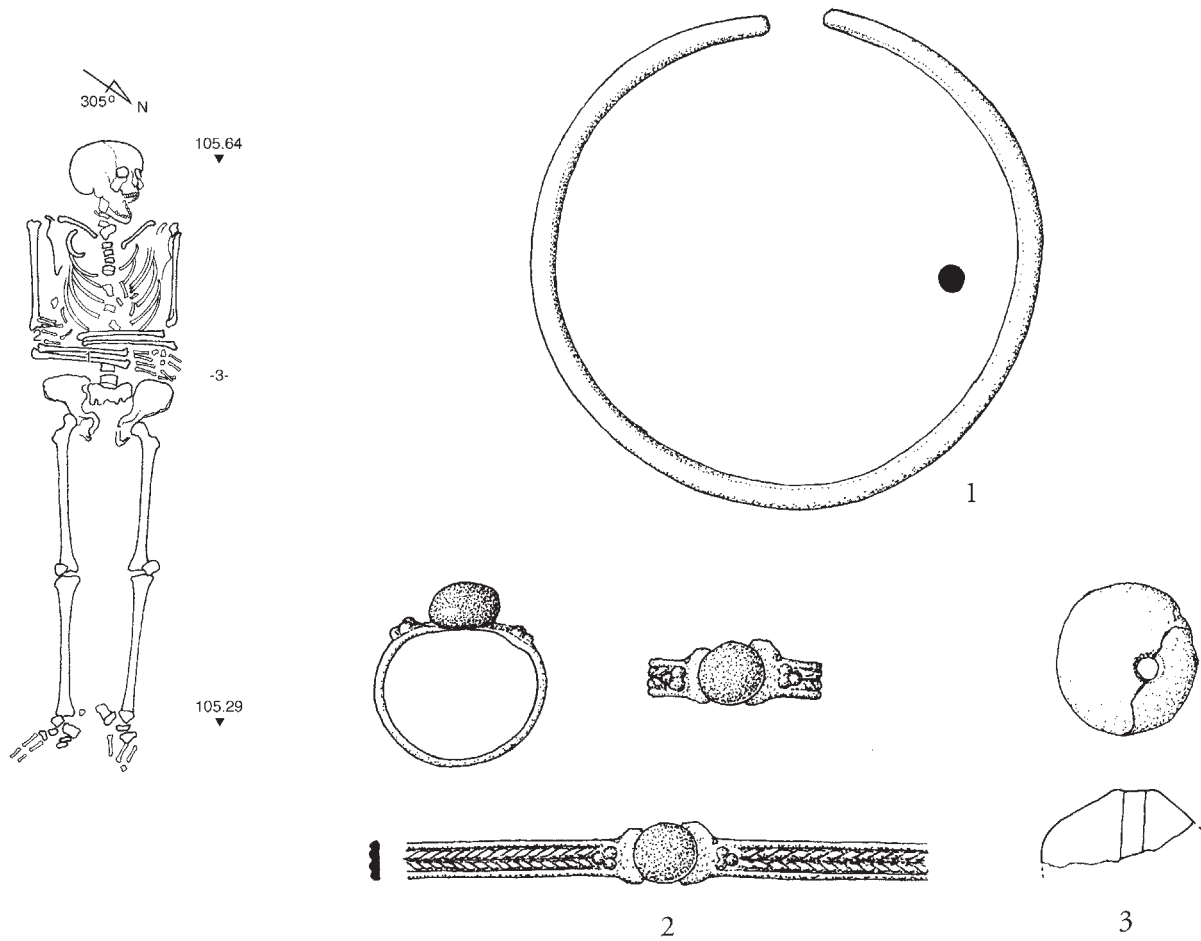
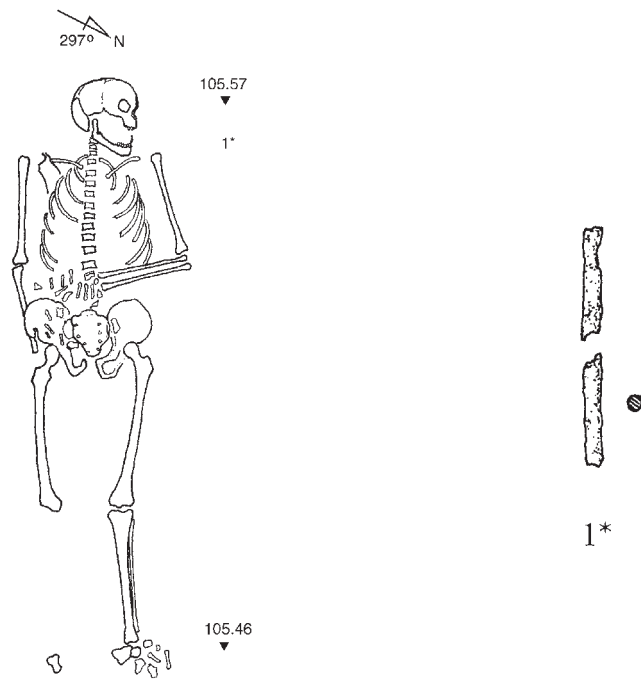
1. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered ends; Ø 6.68/6.53cm; Ø wire 0.38 cm; wt. 15.348 g; S-2572 (G. 4; De. 1.2a);
2. *Ring with a crown* – bronze, two-part; a profiled hoop of banded section, with separated and hammered ends; decorated with two rows of hori-

zontal pseudo-twisted wires, on the shoulders on each side of the crown three triangularly arranged granules; a crown with a hemispherically rounded stone of opaque blue glass paste; damaged (part of the bezel broken off; the petal-like trimmed sheet metal of the crown missing); h. 2.48 cm; hoop: Ø 2.22/2.03 cm, w. 0.54 cm, th. 0.14 cm; w. bezel 0.88 cm; crown: Ø 0.85 cm; wt. 3.334 g; S-2573 (G. 38b; M. 16b);

3. *Spindle-whorl*, fragment – clay, pale brown (Munsell 10YR 6/3), circular, biconical, different halves, with a circular hole for the spindle; damaged (chipped; half missing); Ø 2.00 cm; h. > 1,24cm; Ø hole 0.38 cm; wt. 3.345 g; S-2574 (V. VII/26; H. 6).

<sup>77</sup> *Zapiski*, no. 121/12 Sept. 1952.

<sup>78</sup> The remark that the spindle-whorl had been found "by the grave" is noted in the *Zapiski*, no. 122/15 Sept. 1952.





**GRAVE 123**, quadrant XIV/9b–XV/9c. – A grave in an earthen pit; depth 0.71 m; ▼ 105.54/105.37 m; or. 297° (63° deviation from north). – Lying on the back, legs extended, head tilted to the right; the right forearm angled downwards, the left crossed horizontally across the abdomen (v.12). – Female; length 1.64 m.

*No finds.*

**GRAVE 124**, quadrant XIV/9b. – A grave in an earthen pit; depth 0.50 m; ▼ 105.64 m (at the head); or. – (deviation from north unknown). – Destroyed skeleton (a few bones of the skull and trunk remained). – Sex?; length?.

*Finds:* Around the head and neck a *necklace of beads* (1) and a *metal pendant* (2).

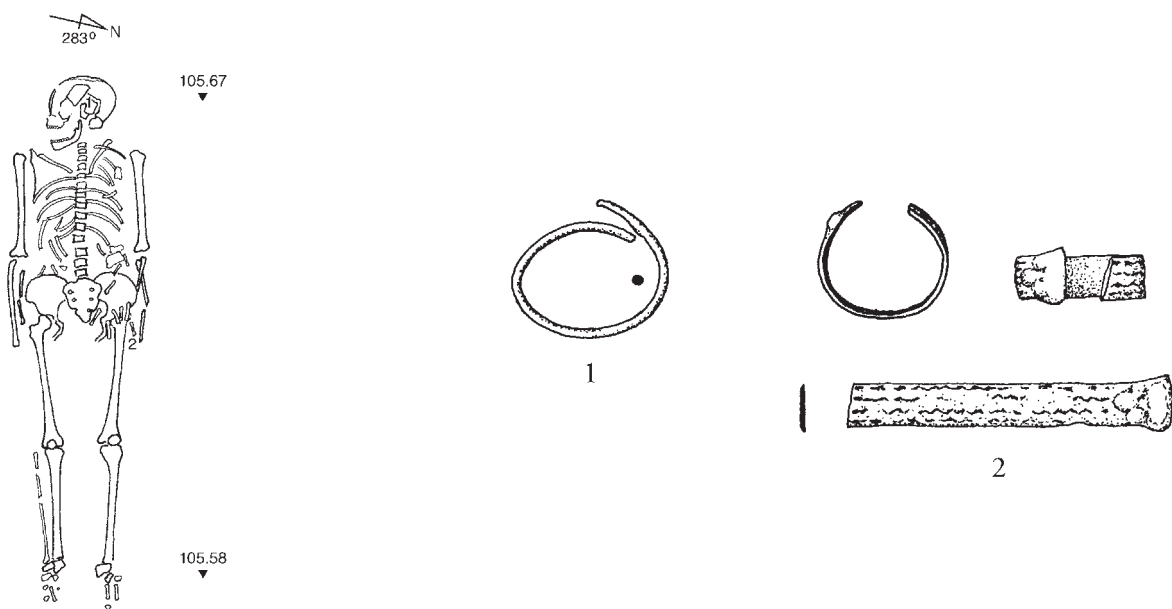
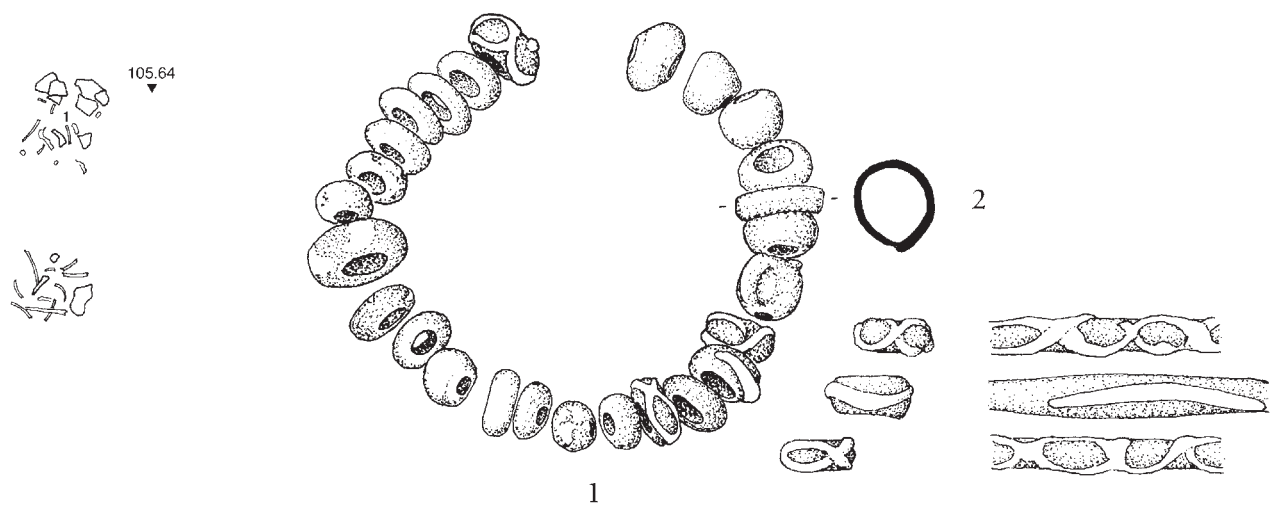
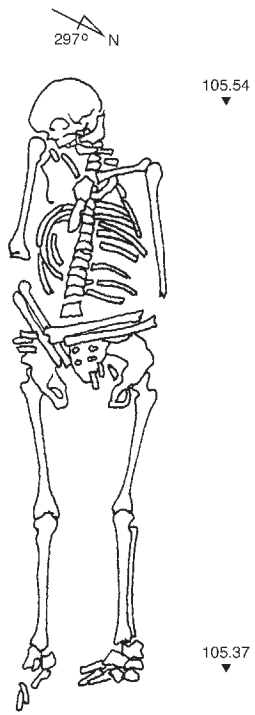
1. *Necklace of beads* and a *metal pendant* (26) – *glass beads* (25): globular-flattened, unspecified, yellowish white (1), brown (9) and honey brown (3); globular-flattened, unspecified, brown / wavy line, broken, impressed, yellowish white (1); globular-flattened, unspecified, brown / three irregularly arranged dots, impressed, yellowish white (2); globular-flattened, unspecified, brown / dots in three fields of two intersecting wavy lines, impressed, dots and lines yellowish white (5); globular-flattened, ribbed, unspecified, honey brown (1); low cylindrical, oblique, turquoise (1); annular, unspecified, brown (1) and honey brown (1); S-2575 (01/03 4 12, 01/03 4 60, 01/03 4 61; 01/03 4 60/20111 01 12; 01/03 4 60/10133 01 12; 01/03 4 60/30101 01 12/12; 01/04 4 61; 01/05 2 42; 01/11 4 60, 01/11 4 61); – *metal pendant* (1): see no. 2 (hoop);
2. *Hoop*, pendant on a necklace – bronze, smooth, open-ended, circular, triangular section, the cut ends overlap; h. 1.12 cm; Ø1.10 cm; w. 0.39 cm; th. 0.14 cm; wt. 0.951 g; S-2575 (G. –).



**GRAVE 125**, quadrant XIV/9a. – A grave in an earthen pit; depth 0.67 m; ▼ 105.67/105.58 m; or. 283° (77° deviation from north). – Lying on the back, legs extended, head turned to the right; the forearms extended along the body (v.1). – Female; length 1.40 m.

*Finds:* On the left side of the head a *circlet* (1), on a finger of the left hand a *ring* (2).

1. *Circlet* – bronze, open-ended, circular section, overlapping cut ends; Ø 2.10–1.54 cm (= 5.71 cm); Ø wire 0.13 cm; wt. 0.638 g; S-2577 (G. 13-II, 5/1);
2. *Ring* (secondary use; early medieval) – bronze, banded section, with separated and cut ends; the profiled hoop was decorated with a triple row of lengthwise pseudo-twisted wire and three triangularly arranged grains; refashioned from a ring with a crown; Ø 1.70/1.58 cm; w. 0.55 cm; th. 0.17 cm; wt. 2.512 g; S-2576 (G. 21 dif.; De. 1.2c).





**GRAVE 127**, quadrant XIV/10c. – A grave in an earthen pit; depth 0.70 m; ▼ 105.46/105.37 m; or. 269° (91° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm extended along the body, the left folded horizontally across the stomach (v.11). – Male?; length 1.57 m.

*Finds:* One iron *knife* was found on the chest (1), another *knife* on the right side below the pelvis (2), with remains of a *quiver* (3) and an *arrowhead* (4) on the chest.<sup>79</sup>

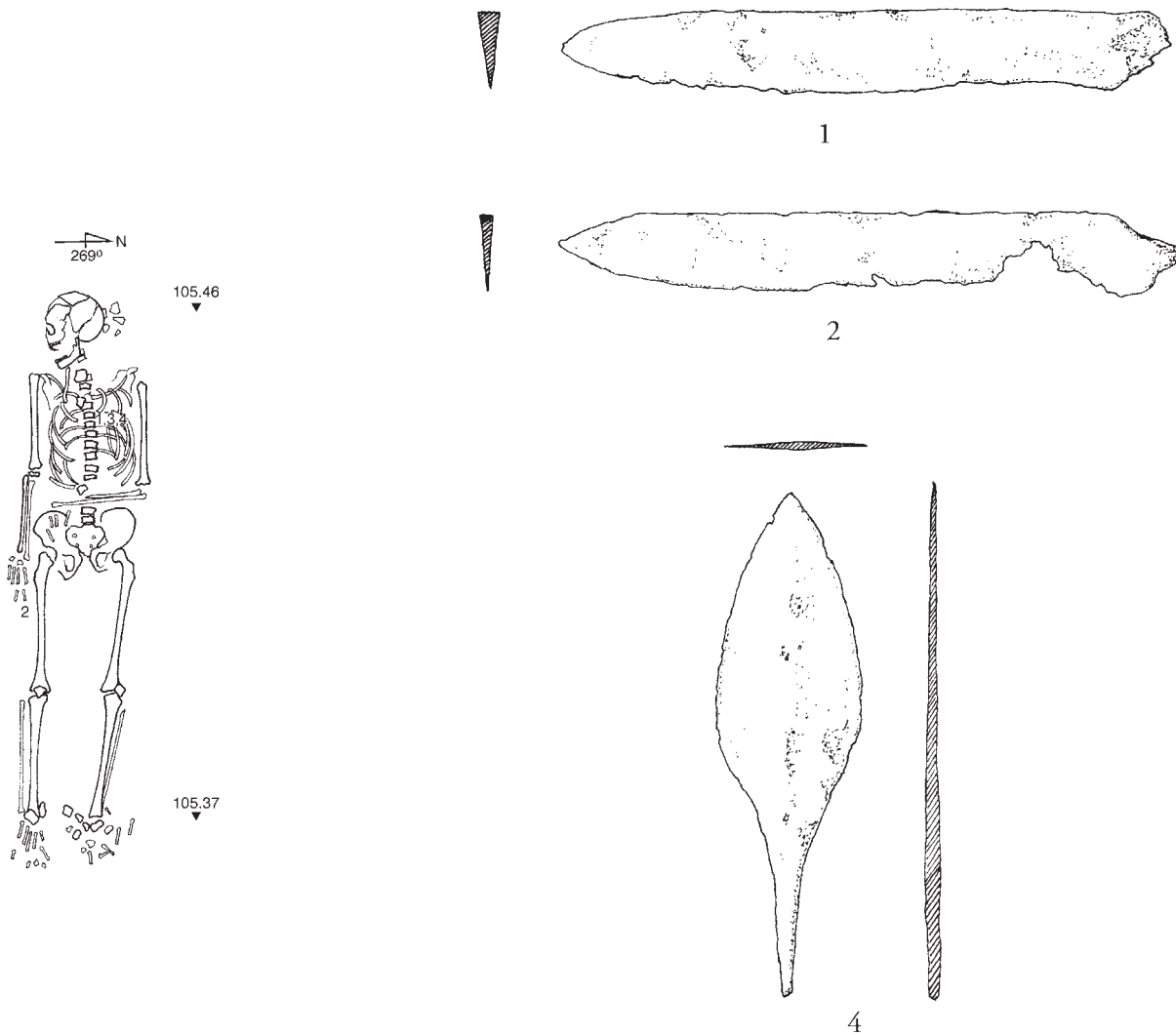
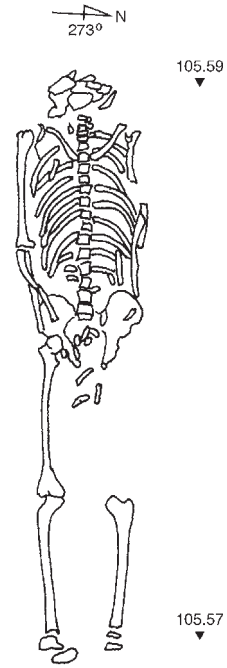
1. *Knife*, fragment – iron, single-edged, with a tang for the handle, straight back curved downwards at the tip; damaged (corroded; tip of 105th the point, part of the blade, and the tang missing); l. 8.19 cm; blade: w. 1.11 cm, th. 0.40/0.26 cm; wt. 9.189 g; S-2579 (To. A4; H. 5);
2. *Knife*, fragment – iron, single-edged, with a tang for the handle, straight back curved downwards at the tip; damaged (corroded; blade chipped, most of the tang missing); l. 8.32 cm; blade: w. 1.18 cm, th. 0.25/0.22 cm; wt. 6.640 g; S-2580 (To. A4; H. 5);
3. *Quiver*, parts, fragments – *reinforcing rods*, iron, fragments (5 pieces): upright, upper, lateral, arched (1 piece); upright, upper, lateral, straight (1 piece); upright, lower, short (3 pieces); AMZ 2581/1–5 (G. –; To. A2; H. 10);
  - 3.1. *Rod: upright, upper, lateral, arched*, fragment – iron, a rod of banded section with two rhomboid widenings for rivets on the perpendicular sides; damaged (corroded; incomplete, the arched elevated section with the rhomboid widening and the upper part of the rod are missing); l. 10.94 cm (ca. 20 cm), w. 0.25 cm, th. 0.15 cm; w./1 0.86 cm; w./2 –; w./3 –; S-2581/1;

<sup>79</sup> *Zapiski*, no. 127/15 Sept. 1952.



**GRAVE 126**, quadrant XIV/10d–XV/10c. – A grave in an earthen pit; depth 0.54 m; ▼ 105.59/105.57 m; or. 273° (87° deviation from north). – Damaged skeleton (the skull crushed, the left calf missing); lying on the back, legs extended, head position undetermined; the forearms extended along the body (v.1). – Sex?; length 1.60 m.

*No finds.*

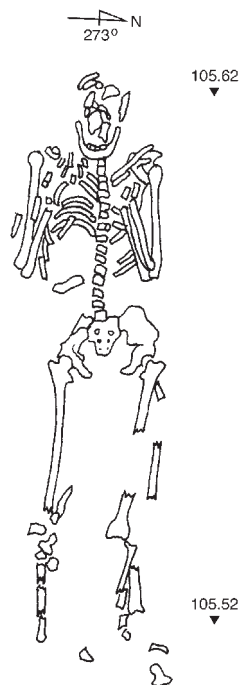
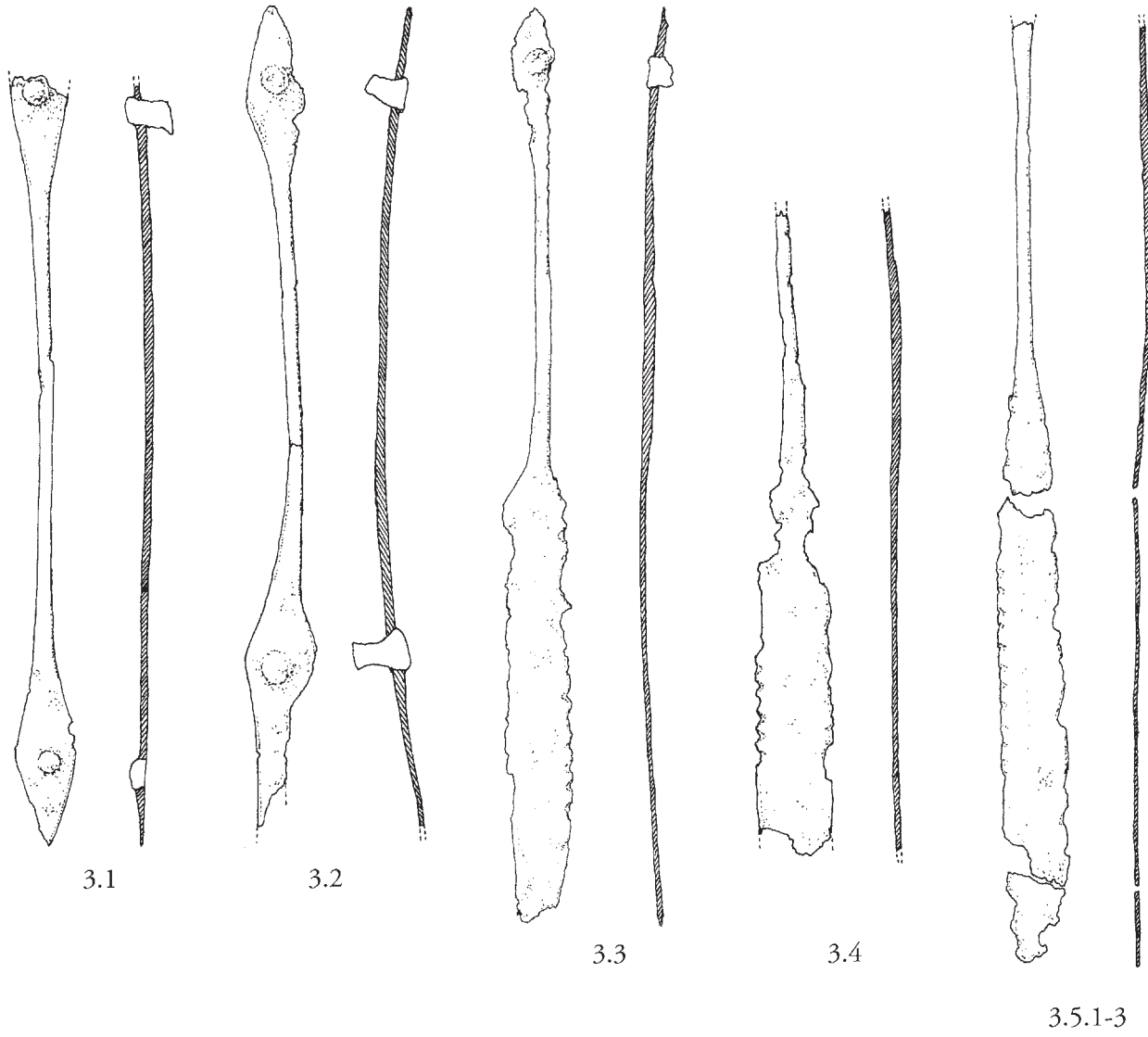


- 3.2. *Rod: upright, upper, lateral, straight*, fragment – iron, a rod of banded section with two rhomboid widenings for rivets on the perpendicular sides; damaged (corroded; incomplete, the lower part of the rod missing); rod: l. 11.26 cm (ca. 20 cm), w. 0.27 cm, th. 0.20 cm; w./2 0.98 cm; w./3 0.75 cm; rivet: h. 1.02 cm; S-2581/2;
- 3.3. *Rod: upright, lower*; fragment – iron, a rod of banded section, the upper end with a rivet rhomboid, the lower end elongated and broadened flatly; the walls of the lower widening serrated; damaged (corroded; incomplete, the upper end damaged, the lower end broken off); l. 13.07 cm, w. 0.28 cm, th. 0.20 cm; w./1 –; w./2 1.00 cm, th./2 0.12 cm; S-2581/3;
- 3.4. *Rod: upright, lower*; fragment – iron, a rod of banded section, the upper end with a rivet rhomboid, the lower end elongated and broadened flatly; the walls of the lower widening serrated; damaged (corroded; incomplete, the upper end missing, the lower end broken off); l. 9.21 cm, w. 0.24 cm, th. 0.15 cm; w./1 –; w./2 1.12 cm, th./2 0.12 cm; S-2581/4;
- 3.5. *Rod: upright, lower*; fragments (3 pieces) – iron, a rod of hemispherical section, the upper end with a rivet rhomboid, the lower end elongated and broadened flatly; the walls of the lower widening serrated; damaged (corroded; incomplete, broken into three parts, the upper end missing, the lower end broken off); l. fragment: 13.06 cm (6.69+5.58+1.23 cm); w. 0.24 cm, th. 0.14 cm; w./1 –; w./2 1.00 cm, th./2 0.13 cm; S2581-15.1–3;
4. *Arrowhead* – iron, laurel-leaf shaped head with a central rib, tang without a groove; widest span in the lower half of the head; damaged (corroded, part of the tang missing); l. 6.73 cm; head: l. 5.25 cm, w. 1.92 cm, th. 0.23 cm; tang: l. 1.48 cm; wt. 6.943 g; S-2578 (G. A; H. 8b; To. A3; De. 2.3; Rutt. B1a/Med 63).



**GRAVE 128**, quadrant XIV/10a–b. – A grave in an earthen pit; depth 0.60 m; ▼ 105.62/105.52 m; or. 273° (87° deviation from north). – Damaged skeleton (the skull crushed, the legs disarranged); lying on the back, legs extended, head straight; the forearms bent upwards with the hands on the shoulders (v.25). – Sex?; length ca. 1.45 m.

*No finds.*



**GRAVE 129**, quadrant XIV/11a–d. – A grave in an earthen pit; depth 0.50 m; ▼ 105.70 m (at the head); or. – (deviation from north unknown). Damaged skeleton (the skull and trunk with arms disarranged, the legs missing);<sup>80</sup> lying on the back, legs extended, head position undetermined; the forearm positions could not be determined. – Sex?; length 0.59 m (preserved part).

*No finds.*

**GRAVE 130**, quadrant XIV/11a–b. – A grave in an earthen pit; depth 0.33 m; ▼ 105.70 m (at the head); or. 281° (79° deviation from north). – Damaged skeleton (the skull and trunk with arms disarranged, the legs missing);<sup>81</sup> lying on the back, legs extended, head position undetermined; the forearm positions could not be determined. – Sex?; length 0.52 (preserved part).

*No finds.*



**GRAVE 131**, quadrant XVI/12c. – A grave in an earthen pit; depth 0.90 m; ▼ 106.00/105.96 m; or. 257° (103° deviation from north). – Lying on the back, the legs bent at the knees and raised at an angle on the right, head tilted to the right; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Female; length 1.65 m (in a contracted position: 1.45 m).

*No finds.*



**GRAVE 132**, quadrant XVI/12d. – A grave in an earthen pit; depth 0.85 m; ▼ 105.10/104.97 m; or. 276° (84° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms extended along the body (v.1). – Male?; length ca. 1.68 m.

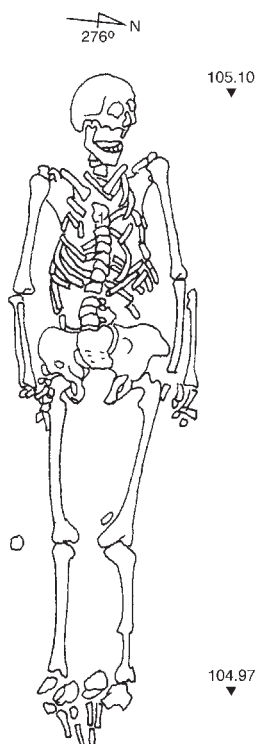
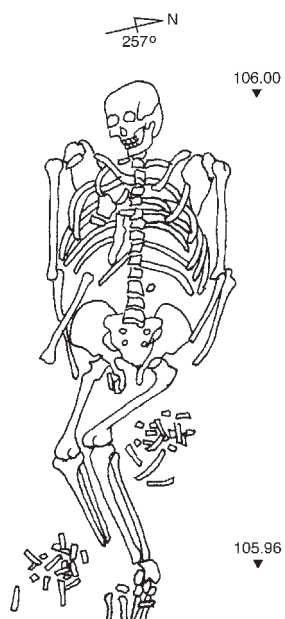
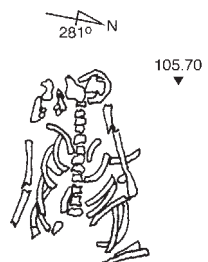
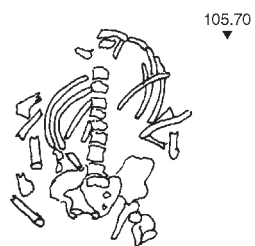
*Finds:* Bird bones on the chest.<sup>82</sup>

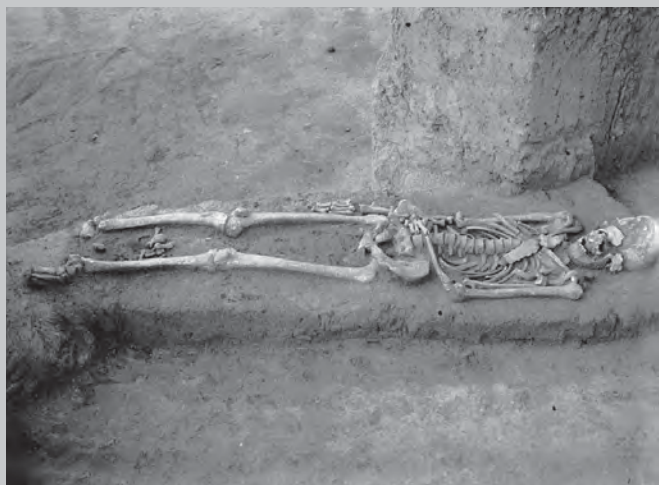
[1.] *Bones* – bird (?); missing (H. 72).

<sup>80</sup> Most likely damaged by the roots of the tree that also damaged grave 226.

<sup>81</sup> Most likely damaged by the roots of the tree that also damaged grave 226.

<sup>82</sup> Data about the find are noted in the *Zapisnik*, no. 132/19 Sept. 1952. The osteological material was not preserved (?).





**GRAVE 134**, quadrant XIV/8b–XIV/9c. – A grave in an earthen pit; depth 0.75 m; ▼ 105.56/105.64 m; or. – (deviation from north unknown). – Lying on the back, legs extended, head straight; the right forearm extended along the body, the left angled downwards across the stomach (v.11). – Male?; length 1.64 m.

*No finds.*

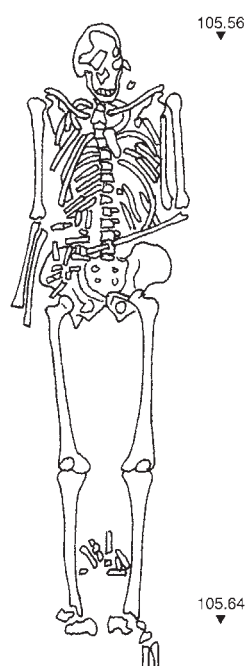


**GRAVE 135**, quadrant XIV/8d. – A grave in an earthen pit; depth 1.00 m; ▼ 105.48/105.37 m; or. 298° (62° deviation from north). – Damaged skeleton (the skull crushed, the upper part of the trunk disarranged); lying on the back, legs extended, head turned to the left; the right forearm bent upwards with the hand on the shoulder, the left angled upwards across the chest (v.20). – Sex?; length 1.63 m.

*No finds.*

**GRAVE 133**, quadrant XVI/12b. – A grave in an earthen pit; depth 0.56 m; ▼ –; or. – (deviation from north unknown).  
– Poorly preserved skeleton (the skull crushed, the trunk disarranged, the arms and feet missing); lying on the back, legs extended, head position undetermined; the forearm positions could not be determined. – Child; length ca. 0.70 m.

*No finds.*





**GRAVE 136**, quadrant XIV/8b–XV/8a. – A grave in an earthen pit; depth 0.90 m; ▼ 105.39/105.39 m; or. 282° (78° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.12). – Female; length 1.68 m.

*No finds.*

*Other objects in the grave:* A *nail* by the pelvis on the left side.<sup>83</sup>

1. *Nail* – iron, square section; damaged (corroded; bent at a right angle, the upper part of the shank and the head are missing); l. ca. 4.73 cm, w. 4.00/3.20 cm, wt. 1.780 g; S-2582; (**Fig. 56:15**).



**GRAVE 137**, quadrant XXII/8a–b (= trench N). – A grave in an earthen pit; depth 1.03 m; ▼ –; or. 270° (90° deviation from north). – Damaged skeleton (the skull missing);<sup>84</sup> lying on the back, legs extended, head position undetermined; the right forearm extended along the body, the left folded horizontally across the stomach (v.11). – Sex?; length 1.40 m.

*Finds:* One *S-circlet* on each side of the head (1,2), a *ring* on a finger of the left hand (3).<sup>85</sup>

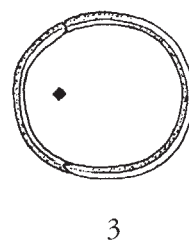
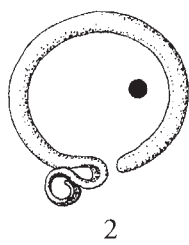
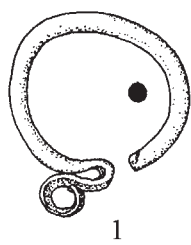
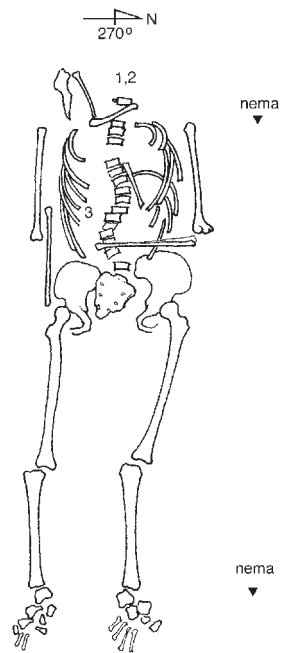
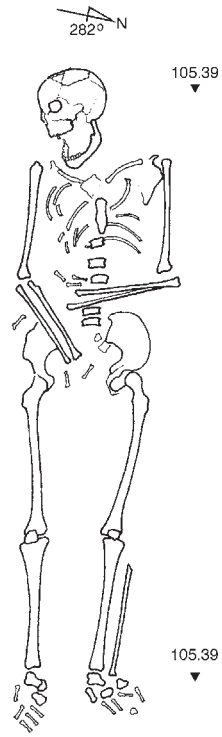
1. *S-circlet* – silver, circular section, cut end; h. 2.72 cm; Ø 2.44/2.20 cm; Ø wire 0.27 cm; S-w. 0.66 cm; wt. 4.374 g; S-2583 (G. I,7/5);
2. *S-circlet* – silver, circular section, cut end; h. 2.63 cm; Ø 2.35/2.20 cm; Ø wire 0.27 cm; S-w. 0.64 cm; wt. 4.121 g; S-2584 (G. I,7/5);
3. *Ring* – bronze, rhomboid section, the separated and pointed ends overlap; damaged (broken); Ø 2.20 cm; w. 0.20 cm, th. 0.20 cm; wt. 1.325 g; S-2585 (G. 27).

<sup>83</sup> *Zapisek*, no. 136/16 Sept. 1952.

<sup>84</sup> The head, the existence of which the *Dnevnik* noted at the same time as the find of the nearby prehistoric gr. Ž32 (ad 9 Sept. 1952), must have been destroyed during digging of an additional niche or the excavation of this prehistoric grave.

<sup>85</sup> The *Zapisek*, no. 137/16 Sept. 1952, noted the find of "two silver *S-circlets* found beneath the head of the skeleton", and a ring that was noted as a "bronze circlet found on the chest". Other than these, in the S-AMZ to the finds from gr. 137 was also attributed a "small fragment of flint of a red-dish color" (S-2586), which belongs to gr. 89, as it is placed there and described by the *Dnevnik*, ad 2 Sept. 1952.

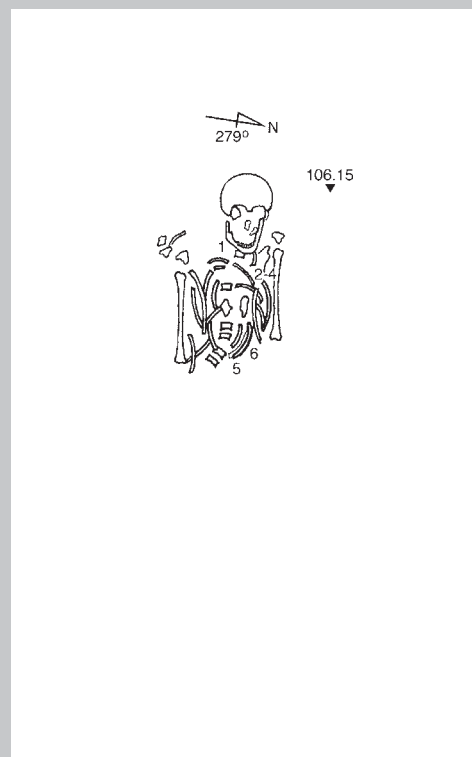




**GRAVE 138**, quadrant IX/10a. – A grave in an earthen pit; depth 0.70 m; ▼ 104.16 m (at the head); or. 279° (81° deviation from north). – Damaged skeleton (the forearms, pelvis and legs were missing);<sup>86</sup> lying on the back, legs extended, head straight; the forearm positions could not be determined. – Female; length?.

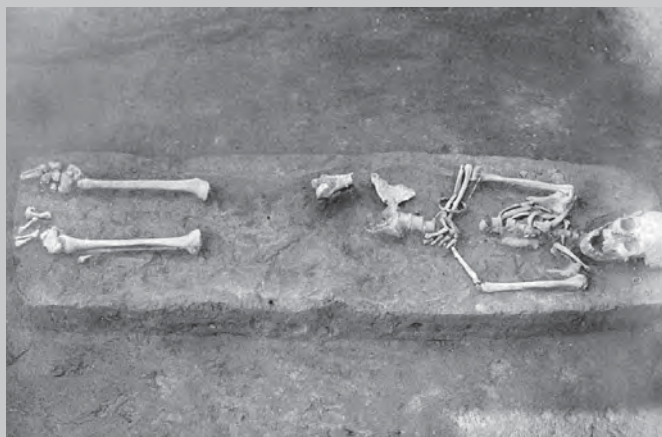
*Finds:* A *torc* around the neck (1), a *necklace of beads* around the neck and on the chest (2), two *button-pendants* on the chest (3,4) and two *rings* (5,6).

1. *Torc* – bronze, with a hook and eye for fastening, twisted from one triply bent wire of circular section, the ends of the wire cut; Ø 15.65/14.71 cm (fastened); Ø twisted wire 0.35 cm; Ø wire 0.18 cm; wt. 27.011 g; S-2587 (G. 1a; De. 1.1.1.1a/nn);
2. *Necklace of beads* – *glass beads* (37): globular-flattened, unspecified, yellowish white (2), honey brown (29) and brown (3); annular, unspecified, brown (2) i honey brown (1); S-2588 (01/03 4 12, 01/03 4 60, 01/03 4 61; 01/11 4 60, 01/11 4 61);
3. *Button-pendant* – bronze, spherical, solid, with an annular relief below the circular loop for attachment; h. 1.54 cm; Ø 0.99 cm; wt. 2.614 g; S-2591 (H. 58a);
4. *Button-pendant* – bronze, spherical, solid, with a circular loop for attachment; h. 1.62 cm; Ø 0.72 cm; wt. 3.869 g; S-2592 (G. 11a);
5. *Ring with a crown* – bronze, two-part; a hoop of semicircular section, with separated and hammered ends, the shoulders thickened and broadening to the sides with a circular decoration in the center (a stylized flower?); damaged (crown missing); h. –; hoop: Ø 2.13/1.76 cm, w. 0.41 cm, th. 0.10 cm; w. bezel 0.61 cm; crown: –; wt. hoop 2.109 g; S-2589 (G. 38b; M. 16b);
6. *Ring* – bronze, with open ends, banded section, the cut ends of equal width overlap; Ø 1.82/1.64 cm; w. 0.53 cm; th. 0.10 cm; wt. 1.574 g; S-2590 (G. 21; H. 45a).



<sup>86</sup> The skeleton was damaged by digging of the land in the recent period (see here p. 403, **Fig. 12:1**).





**GRAVE 139**, quadrant IX/10c. – A grave in an earthen pit; depth 0.78 m; ▼ 106.04/105.97 m; or. 282° (78° deviation from north). – Damaged skeleton (the right side of the pelvis and the calves are missing);<sup>87</sup> lying on the back, legs extended, head turned to the left; the forearms angled downwards and crossed on the stomach (v.7b). – Female; length 1.68 m.

*Finds:* A silver *circlet* below the left ear (1), a *bracelet* on the right forearm (2), an *awl* on the right side of the rib cage below the right elbow (3).<sup>88</sup>

1. *Circlet* – silver, open-ended, circular section, overlapping cut ends; Ø 2.19–1.91 cm (= 6.44 cm); Ø wire 0.18 cm; wt. 1.417 g; S-2594 (G. 13-I, 6/2);
2. *Bracelet* – bronze, closed, made of six twisted wires of varied sections (two thick and four thin wires), the ends of the thick wires in tapered form continue into a series of coils arranged into four groups (5+5+4+6); Ø 7.97/7.64 cm; Ø wire 0.61 cm; Ø thick wire 0.39–0.33 cm; wt. 48.662 g; S-2593 (V. I/6 dif.); [Pl. 18:1];
3. *Awl*, fragment – iron, circular section, tang for insertion with remains of wooden plating; damaged (corroded; incomplete; point broken, missing); l. 1.57 cm; Ø 0.22 cm; wt. 0.268 g; S-2595 (H.).

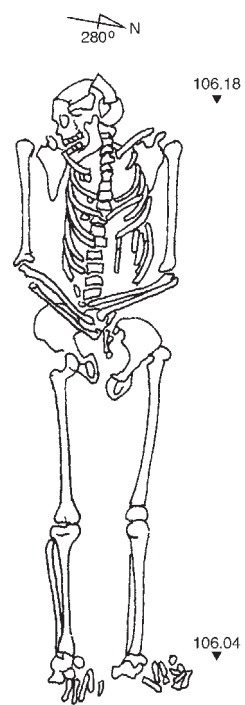
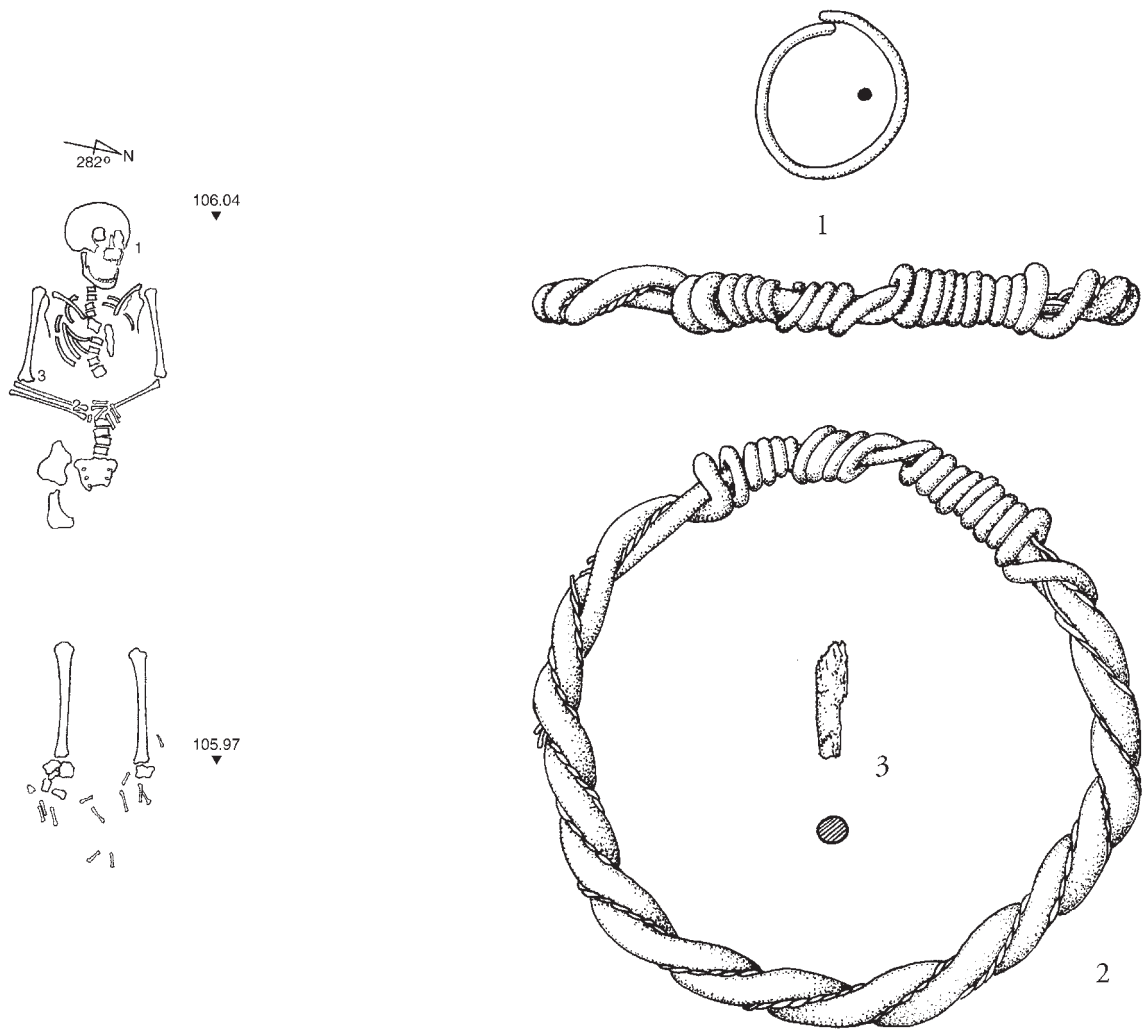


**GRAVE 140**, quadrant IX/10b–X/10a. – A grave in an earthen pit; depth 0.70 m; ▼ 106.8/106.04 m; or. 280° (80° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm angled downwards across the abdomen, the left horizontally across the stomach (v.12). – Male?; length 1.60 m.

*No finds.*

<sup>87</sup> The skeleton was damaged by digging of the land in the recent period (see n. 86 for gr. 138).

<sup>88</sup> From an iron awl around 10 cm long, described in the field documentation (*Dnevnik*, ad 15 Sept. 1952; *Zapishnik*, no. 139/15 Sept. 1952) and quite visible in the photograph of the grave, only a small fragment remained inventoried in the S-AMZ.



**GRAVE 141**, quadrant X/10a. – A grave in an earthen pit; depth 0.52 m; ▼ 106.26/106.09 m; or. 278° (82° deviation from north). – Lying on the back, legs extended, head straight; the forearms angled downwards and crossing on the stomach (v.7b). – Child (?); length 0.96 m.

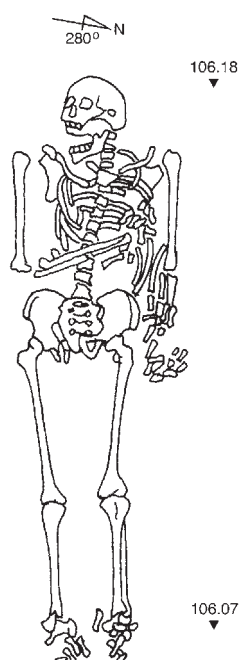
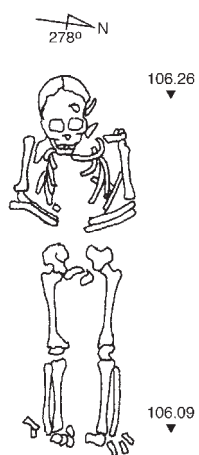
*No finds.*



**GRAVE 142**, quadrant X/10a–d. – A grave in an earthen pit; depth 0.75 m; ▼ 106.18/106.07 m; or. 280° (80° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm angled upwards across the chest, the left extended along the body (v.4). – Male; length 1.56 m.

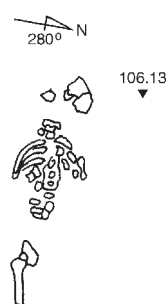
*No finds.*





**GRAVE 143**, quadrant X/10b. – A grave in an earthen pit; depth 0.46 m; ▼ 106.13 m (at the head); or. 280° (80° deviation from north). – Poorly preserved skeleton (the skull crushed, hands and feet missing); lying on the back, legs extended, head position undetermined; the forearm positions could not be determined. – Child; length?

*No finds.*



**GRAVE 144**, quadrant X/10b. – A grave in an earthen pit; depth 0.42 m; ▼ –; or. – (deviation from north unknown). – Poorly preserved skeleton (skull crushed, trunk disarranged); lying on the back, legs extended, head position undetermined; the forearm positions could not be determined. – Child; length?.

*No finds.*

**GRAVE 145**, quadrant XI/10c. – A grave in an earthen pit; depth 0.50 m; ▼ 106.23/106.11 m; or. 260° (100° deviation from north). – Poorly preserved skeleton (skull crushed, arms missing, legs disarranged); lying on the back, legs extended, head straight; the forearm positions could not be determined. – Child; length?.

*No finds.*



**GRAVE 146**, quadrant XII/10b. – A grave in an earthen pit; depth 0.58 m; ▼ 105.92/105.71 m; or. 250° (110° deviation from north). – Damaged skeleton (skull fallen backwards, right calf and foot missing); lying on the back, legs extended, head position undetermined; the right forearm angled downwards across the abdomen, the left horizontally across the stomach (v.12). – Male?; length ca. 1.65 m.

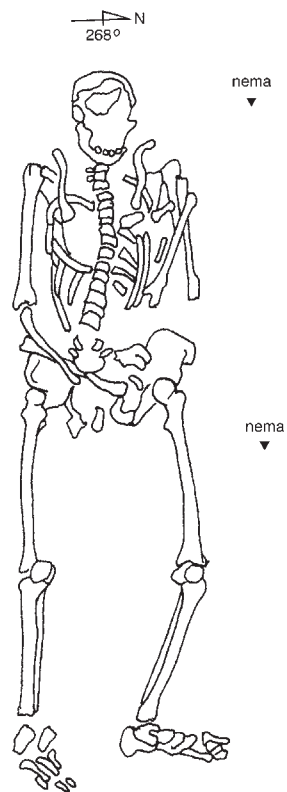
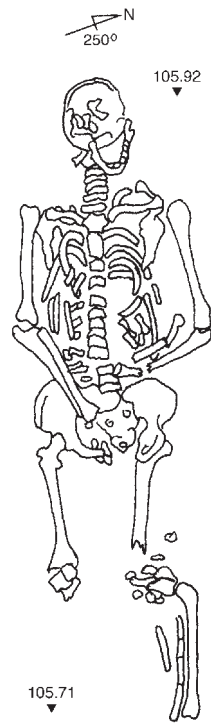
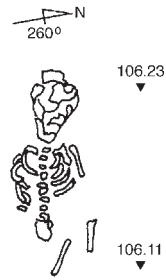
*No finds.*



**GRAVE 147**, quadrant XII/10d–XIII/10c. – A grave in an earthen pit; depth 0.60 m; ▼ –; or. 268° (92° deviation from north). – Damaged skeleton (skull crushed); lying on the back, legs extended, head straight; the right forearm angled downwards across the pelvis, the left bent upwards with the hand on the shoulder (v.22). – Female?; length 1.74 m.

*No finds.*







**GRAVE 148**, quadrant X/10d–XI/10c. – A grave in an earthen pit; depth 0.76 m; ▼ 106.03/105.92 m; or. 283° (77° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm angled upwards across the chest, the left bent upwards with the hand on the shoulder (v.24). – Male?; length 1.66 m.

*Find:* A *flint* on the chest.<sup>89</sup>

1. *Flint* (secondarily used prehistoric flake; Paleolithic) – stone: flint, reddish-brown; l. 1.48 cm; w. 1.34 cm; th. 0.48 cm; wt. 1.068 g; 2596 (H.3).

**GRAVE 149**, quadrant XI/10c. – A grave in an earthen pit; depth 0.52 m; ▼ 106.10/106.08 m; or. 267° (93° deviation from north). – Damaged skeleton (skull crushed, feet missing); lying on the back, legs extended, head position undetermined; the forearms extended along the body (v.1). – Child; length ca. 0.63 m.

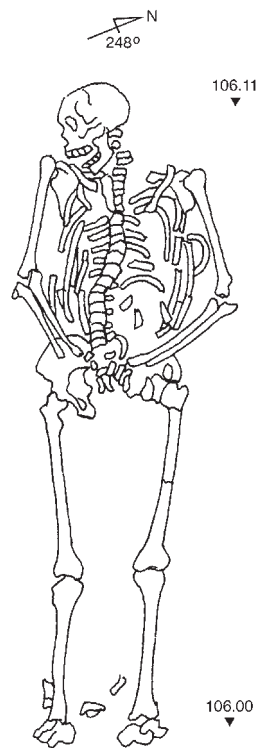
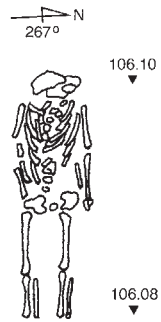
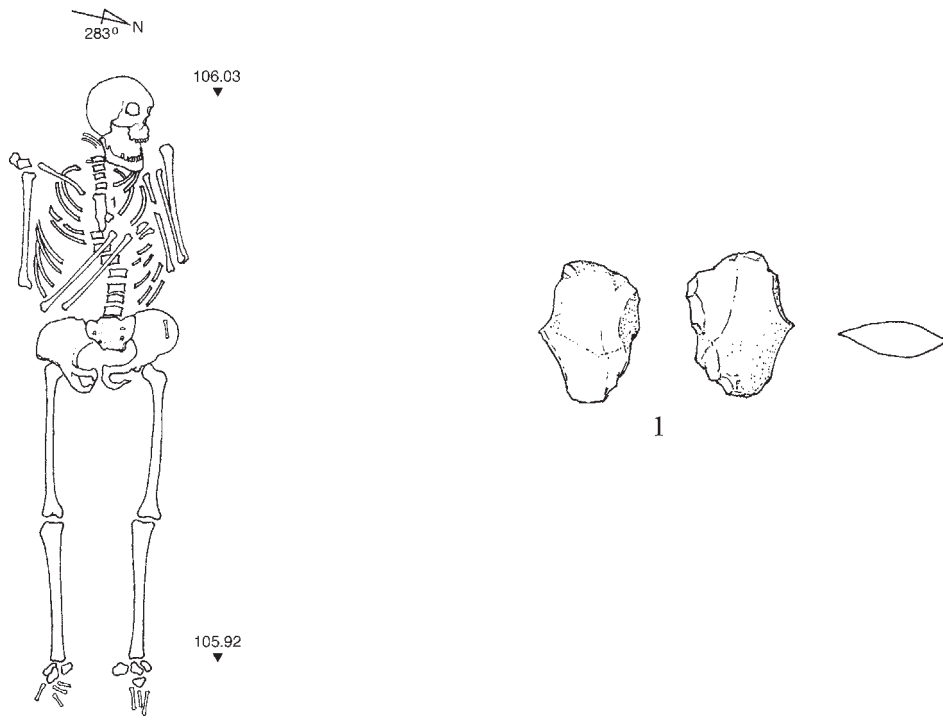
*No finds.*



**GRAVE 150**, quadrant XI/10a–b. – A grave in an earthen pit; depth 0.55 m; ▼ 106.11/106.00 m; or. 248° (112° deviation from north). – Lying on the back, legs extended, head turned to the right; the forearms angled downwards across the abdomen (v.7a). – Male; length 1.65 m.

*No finds.*

<sup>89</sup> The position of the find is noted in the *Zapisek*, no. 148/15 Sept. 1952.

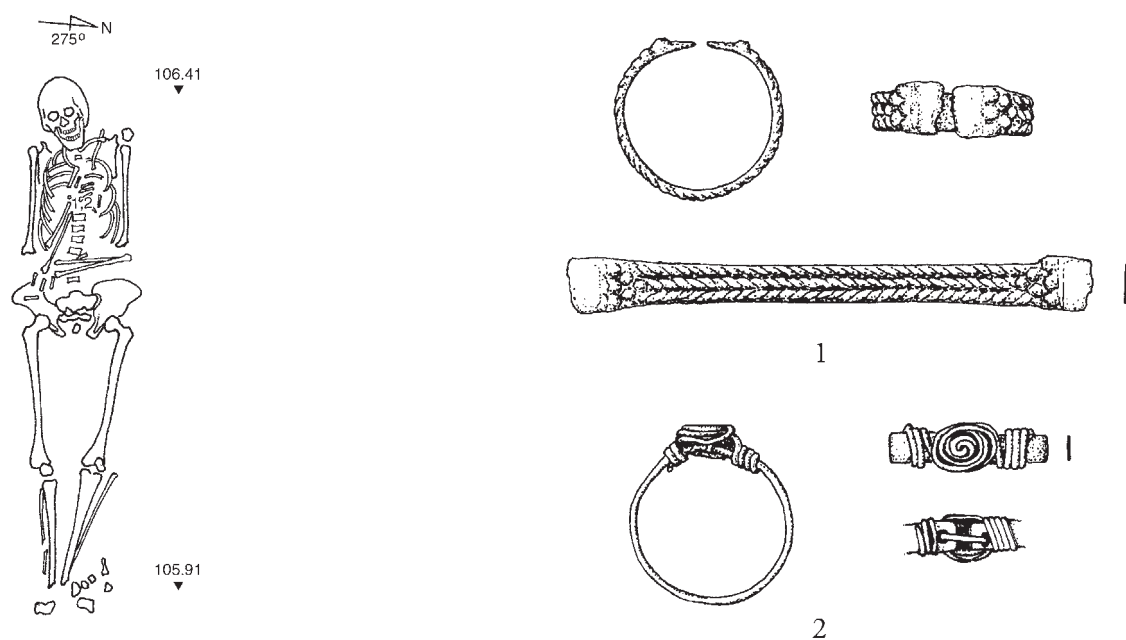


**GRAVE 151**, quadrant XI/13b. – A grave in an earthen pit; depth 0.48 m; ▼ 106.04/105.91 m; or. 275° (85° deviation from north). – Lying on the back, legs extended, head straight; the right forearm angled upwards across the chest, the left folded horizontally across the stomach (v.14). – Female; length 1.51 m.

*Finds:* Two rings on the fingers of the right hand (1–2).

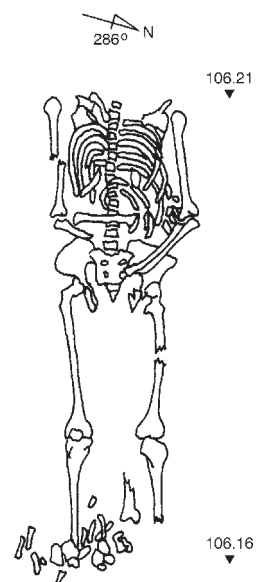
1.  *Ring with a crown* – bronze, two-part; a hoop of banded section, open and hammered ends; decorated with three rows of lengthwise pseudo-twisted wire, on the shoulders on each side of the crown three triangularly arranged granules; damaged (crown missing); h. –; hoop: Ø 2.25/2.00 cm, w. 0.51 cm, th. 0.17 cm; w. bezel 0.72 cm; crown: –; wt. hoop 3.262 g; S-2597 (G. 38b; M. 16b);
2.  *Ring with a crown* – bronze, two-part; a hoop of banded section, separated and cut ends with holes and a wire chain for attachment; a crown of ellipse shape of spirally wound wire, attached to the hoop with transverse coils; h. 2.35 cm; hoop: Ø 2.13 cm, w. 0.39 cm, th. 0.10 cm; crown: Ø 0.85/0.65 cm, h. 0.28 cm, Ø wire 0.08 cm; wt. 2.127 g; S-2598 (G. –; Be. IV/16; Gu. 6d); [Pl. 19:1].





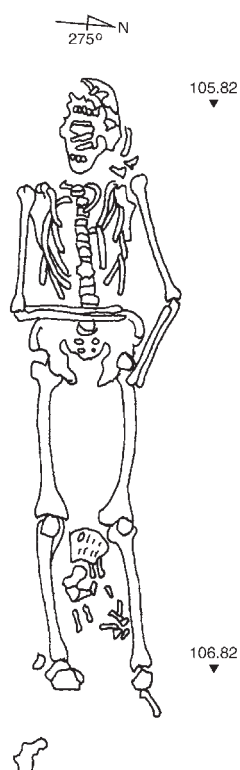
**GRAVE 152**, quadrant XI/13a. – A grave in an earthen pit; depth 0.31 m; ▼ 106.21/106.16 m; or. 286° (74° deviation from north). – Damaged skeleton (skull destroyed, the left calf disarranged);<sup>90</sup> lying on the back, legs extended, head position undetermined; the right forearm folded horizontally across the stomach, the left angled downward across the abdomen (v.8). – Sex?; length ca 1.42 m.

*No finds.*



**GRAVE 153**, quadrant XI/13b–d. – A grave in an earthen pit; depth 0.50 m; ▼ 105.82/106.82 m; or. 275° (85° deviation from north). – Lying on the back, legs extended, head straight; the right forearm folded horizontally across the stomach, the left bent at the elbow and extended along the body (v.3). – Male; length 1.59 m.

*No finds.*



<sup>90</sup> The skeleton was damaged during excavations by the digging of an auxiliary trench.

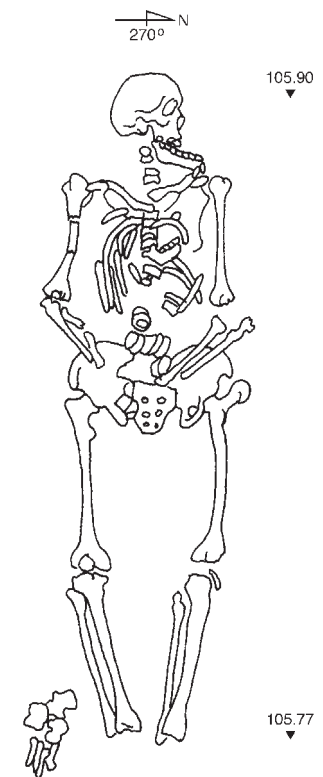
**GRAVE 154**, quadrant XI/13d. – A grave in an earthen pit; depth 0.42 m; ▼ 106.19 m (at the head); or. 282° (78° deviation from north). – Poorly preserved skeleton (the skull and trunk with the arms disarranged, the pelvis and legs missing); lying on the back, legs extended, head position undetermined; the forearm positions could not be determined. – Sex?; length?.

*No finds.*



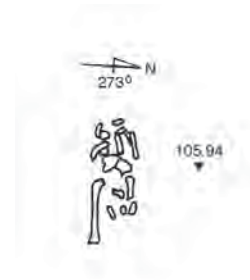
**GRAVE 155**, quadrant XII/13a. – A grave in an earthen pit; depth 0.62 m; ▼ 105.90/105.77 m; or. 270° (90° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Male; length 1.66 m.

*No finds.*



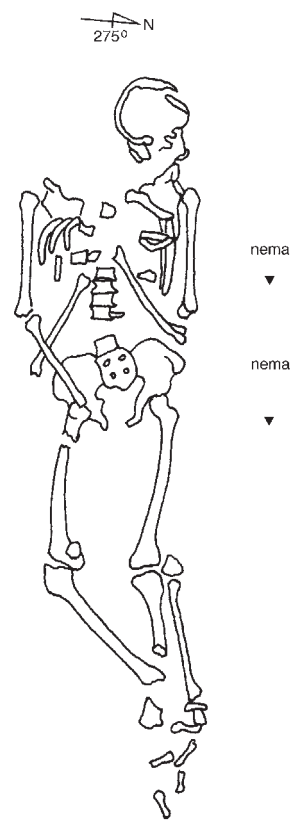
**GRAVE 156**, quadrant XII/13a–c. – A grave in an earthen pit; depth 0.35 m; ▼ 105.94 m (middle of the skeleton); or. 273° (87° deviation from north). – Poorly preserved skeleton (the skull and trunk with the arms disarranged, calves missing); lying on the back, legs extended, head position undetermined; the forearm positions could not be determined. – Child; length 0.32 m.

*No finds.*



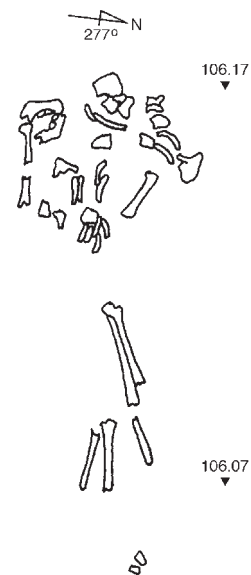
**GRAVE 157**, quadrant XII/13b–XIII/13a. – A grave in an earthen pit; depth 0.52 m; ▼ –; or. 275° (85° deviation from north). – Damaged skeleton (skull crushed); lying on the back, the right leg contracted and the left extended, head turned to the left; the right forearm angled downwards across the abdomen, the left upwards across the chest (v.17). – Sex?; length 1.61 m.

*No finds.*

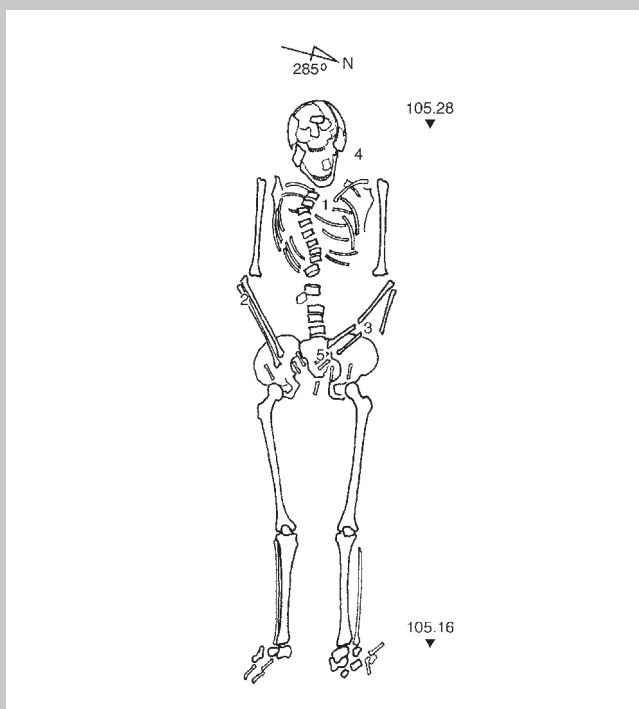


**GRAVE 158**, quadrant XI/12d. – A grave in an earthen pit; depth 0.42 m; ▼ 106.17/106.07 m; or. 277° (83° deviation from north). – Poorly preserved and damaged skeleton (disarranged);<sup>91</sup> lying on the back, legs extended, head position undetermined; the forearm positions could not be determined. – Child; length ca. 0.67 m.

*No finds.*



<sup>91</sup> The skeleton was damaged during removal of a trench wall division.



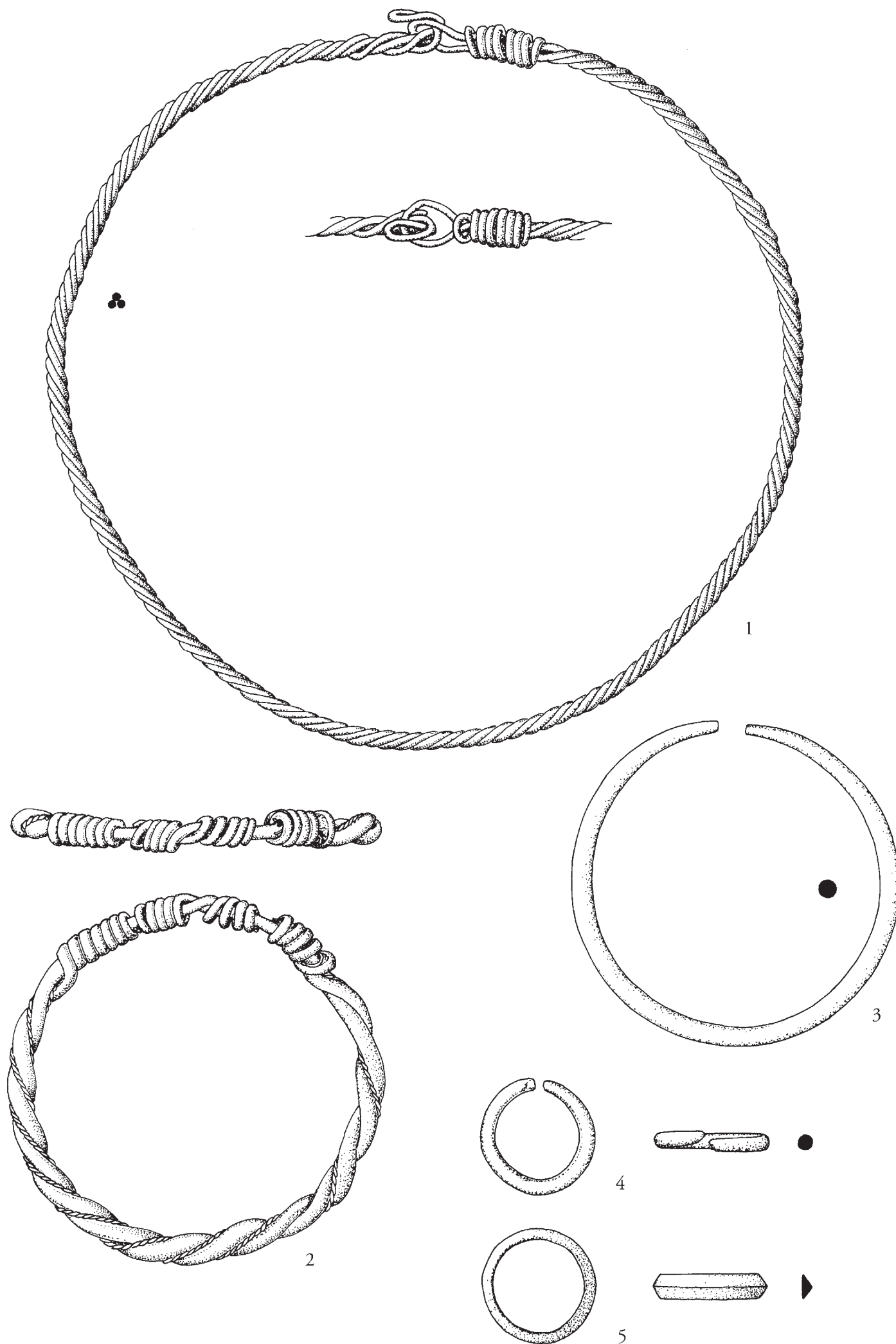
**GRAVE 159**, quadrant XV/8c–d. – A grave in an earthen pit; depth 1.02 m; ▼ 105.28/105.16 m; or. 285° (75° deviation from north). – Lying on the back, legs extended, head straight; the forearms angled downwards across the abdomen (v.7a). – Female; length 1.53 m.

*Finds:* A *torc* around the neck (1), a *ring* by the left ear (4),<sup>92</sup> a *bracelet* of braided wire on the right arm (2), a smooth-surfaced *bracelet* on the left arm (3), a *ring* on a finger of the left hand (5); [Pl. 10:1–3].

1. *Torc* – bronze, with a hook and eye for fastening, twisted from two doubly bent wires of circular section with one inserted opposite to the other; one of the wire ends was bent and wound around the neck of the eye (8 coils); Ø 15.06/14.70 cm (fastened); Ø twisted wires 0.33 cm; Ø wires 0.15 cm; wt. 31.503 g; S-18181 (G. 1a; De. 1.1.1.2a/nu); [Pl. 10:1];
2. *Bracelet* – bronze, closed, made of six twisted wires of varied sections (two thick and four thin wires), the ends of the thick wires in tapered form continue into a series of coils arranged into four groups (5+5+5+7); Ø 7.45/7.37 cm; Ø wire 0.53 cm; Ø thick wire 0.35–0.32 cm; wt. 34.624 g; S-2599 (V. I/6 dif.); [Pl. 10:2/right];
3. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered ends; Ø 6.69/6.63 cm; Ø wire 0.40–0.25 cm; wt. 18.653 g; S-2600 (G. 4; De. 1.2a); [Pl. 10:2/left];
4. *Ring* – bronze, with open ends, circular section, separated and obliquely cut ends; Ø 2.40/2.35 cm; Ø wire 0.35–0.30 cm; wt. 4.318 g; S-2601 (G. 25); [Pl. 10:3/left];
5. *Ring* – bronze, closed hoop, triangular section; Ø 2.30 cm; w. 0.57–0.54 cm; th. 0.20 cm; wt. 3.410 g; S-2602 (G. 31; H. 52a); [Pl. 10:3/right];

<sup>92</sup> At the time of discovery, the find was considered a circlet (*Dnevnik*, 15 Sept. 1952; *Zapisek*, no. 159/16 Sept. 1952).







**GRAVE 160**, quadrant XV/8b–d. – A grave in an earthen pit; depth 0.98 m;  $\blacktriangledown$  105.10/104,84 m; or. 273° (87° deviation from north). – Lying on the back, legs extended, head straight; the forearms bent upwards with the hands on the shoulders (v.25). – Male; length 1.57 m.

*No finds.*

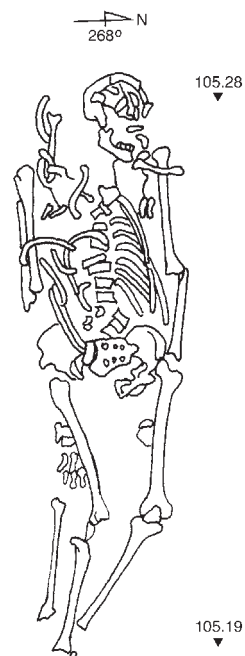
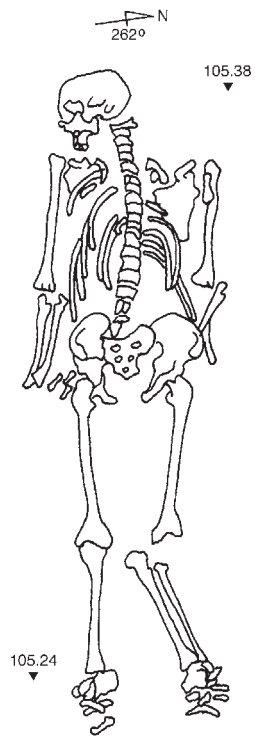
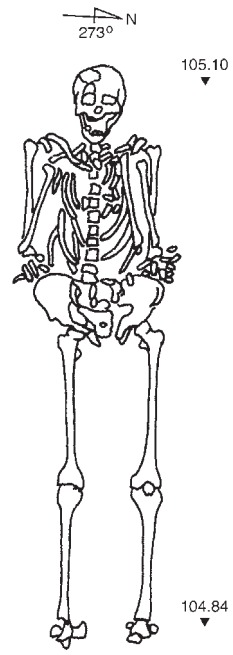


**GRAVE 161**, quadrant XV/8b. – A grave in an earthen pit; depth 0.70 m;  $\blacktriangledown$  105.38/105.24 m; or. 262° (98° deviation from north). – Lying on the back, legs extended, head turned to the right; the forearms extended along the body (v.1). – Male?; length 1.56 m.

*No finds.*

**GRAVE 162**, quadrant XV/9d. – A grave in an earthen pit; depth 0.81 m;  $\blacktriangledown$  105.28/105.19 m; or. 268° (92° deviation from north). – Damaged skeleton (skull crushed, the trunk and calves disarranged); lying on the back, legs extended, head turned to the left; the forearms extended along the body (v.1). – Sex?; length ca. 1.57 m.

*No finds.*



**GRAVE 163**, quadrant XV/9b–d. – A grave in an earthen pit; depth 0.69 m; ▼ 105.27 m (mid skeleton); or. 266° (94° deviation from north). – Poorly preserved skeleton (disarranged); lying on the back, legs extended, head position undetermined; the forearm positions could not be determined. – Child; length?.

*No finds.*

*Other objects in the grave.* A fragment of a *shell* found by the leg.<sup>93</sup>

1. *Shell*, fragment – an *unio* shell, worked (?), grey-white, irregular rectangular shape; l. 2.27 cm; w. 1.75 cm; th. 0.27 cm; wt. 1.273 g; S-2603.

**GRAVE 164**, quadrant XV/9a–b. – A grave in an earthen pit; depth 0.91 m; ▼ 105.28/105.14 m; or. 290° (70° deviation from north). – Lying on the back, legs extended, head turned to the right; the forearms angled upwards across the chest (v.19). – Female; length 1.52 m.

*Finds:* Two *circlets* found below the skull during removal (1,2), a *ring* on a finger of the right hand (3).

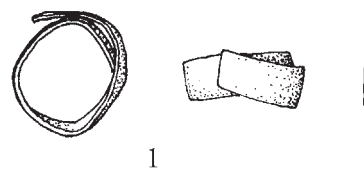
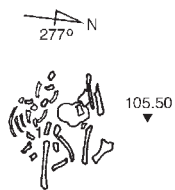
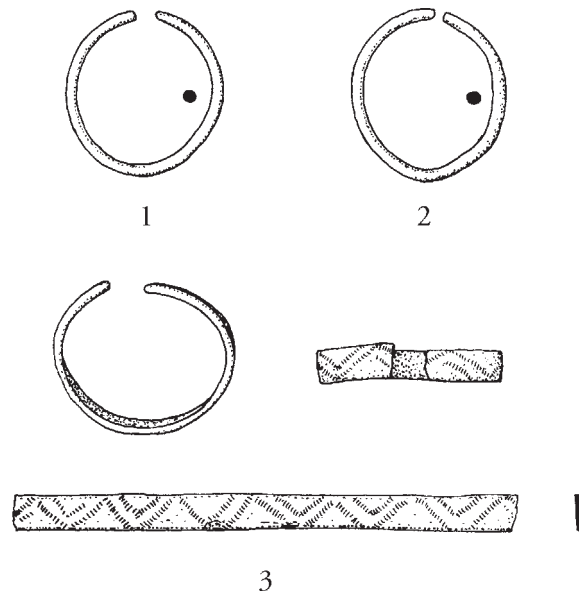
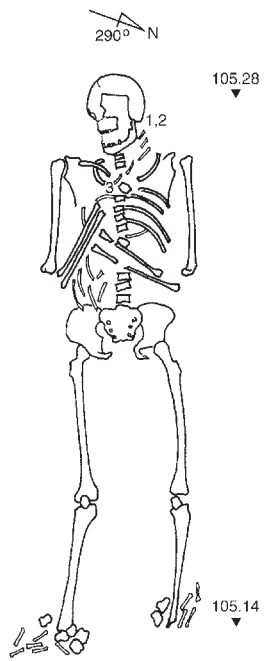
1. *Circlet* – bronze, open-ended, circular section, cut ends; Ø 2.30–2.04 cm (= 6.81 cm); Ø wire 0.19 cm; wt. 1.122 g; S-2604 (G. 13-I,6/3);
2. *Circlet* – bronze, open-ended, circular section, cut ends; Ø 2.23–2.05 cm (= 6.72); Ø wire 0.18 cm; wt. 1.051 g; S-2605 (G. 13-I,6/2);
3. *Ring* – bronze, with open ends, banded section, cut ends of equal width; the hoop is decorated with a double row of zig-zag bands formed from transverse, short, shallowly incised lines; Ø 2.41/2.01 cm; w. 0.47 cm; th. 0.12 cm; wt. 2.743 g; S-2606 (G. 21; H. 45b).

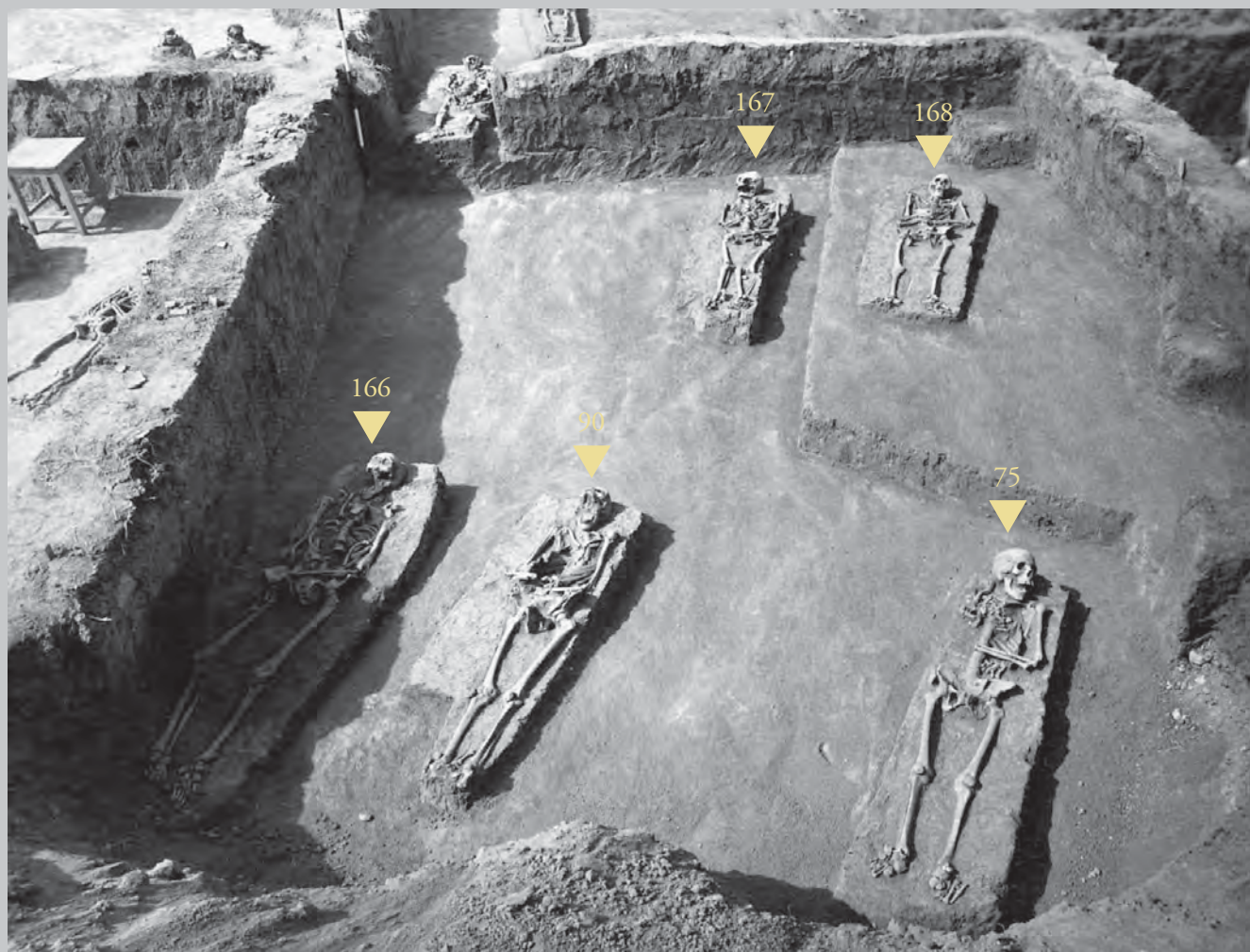
**GRAVE 165**, quadrant XV/9a. – A grave in an earthen pit; depth 0.59 m; ▼ 105.50 m (at the pelvis); or. 277° (83° deviation from north). – Poorly preserved skeleton (disarranged); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length?.

*Finds:* A *ring* on the ribs and collarbone.

1. *Ring* – bronze, with open ends, banded section; the cut ends of equal width overlap; Ø 1.60/1.40 cm; w. 0.58 cm; th. 0.09 cm; wt. 1.521 g; S-2607 (G. 21; H. 45a).

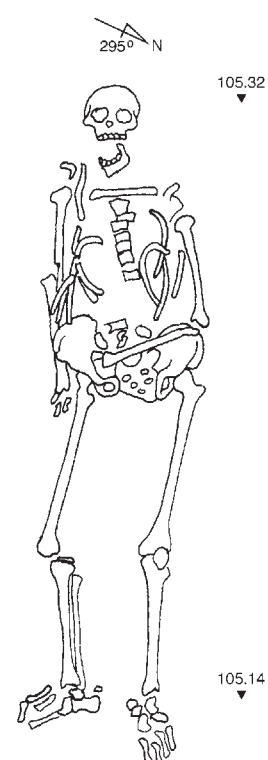
<sup>93</sup> The find is noted in the *Zapiski*, no. 163/17 Sept. 1952.





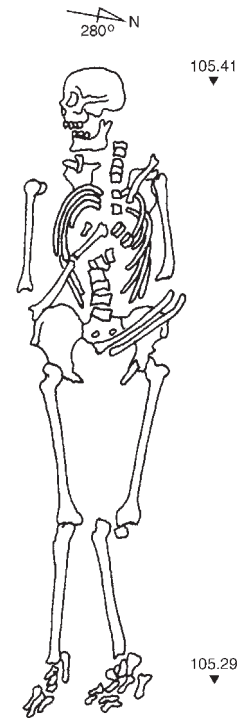
**GRAVE 166**, quadrant XV/10d–XVI/10c. – A grave in an earthen pit; depth 0.76 m; ▼ 105.32/105.14 m; or. 295° (65° deviation from north). – Lying on the back, legs extended, head straight; the right forearm extended along the body, the left angled downward across the abdomen (v.6). – Male; length ca. 1.70 m.

*No finds.*



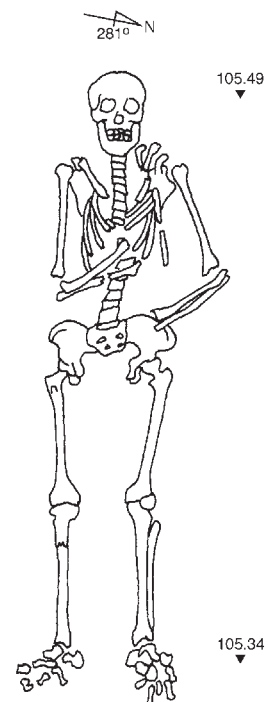
**GRAVE 167**, quadrant XV/10a–c. – A grave in an earthen pit; depth 0.60 m; ▼ 105.41/105.29 m; or. 280° (80° deviation from north). – Lying on the back, legs extended, head turned to the right (south); the right forearm angled upwards across the chest, the left downwards across the abdomen (v.9). – Male; length ca. 1.65 m.

*No finds.*



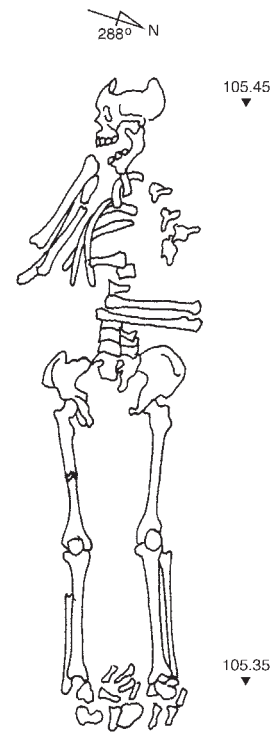
**GRAVE 168**, quadrant XV/10a–b. – A grave in an earthen pit; depth 0.60 m; ▼ 105.49/105.34 m; or. 281° (79° deviation from north). – Lying on the back, legs extended, head straight; the right forearm angled upwards across the chest, the left downwards across the abdomen (v.9). – Male; length ca. 1.47 m.

*No finds.*



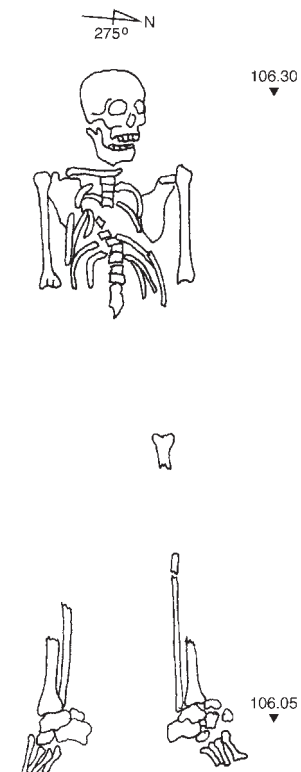
**GRAVE 169**, quadrant XV/10b–XV/11c. – A grave in an earthen pit; depth 0.60 m; ▼ 105.45/105.35 m; or. 288° (72° deviation from north). – Damaged skeleton (the left side of the trunk and upper arms are missing); lying on the back, legs extended, head turned to the right; the right forearm bent upwards with the hand on the shoulder, the left folded horizontally across the stomach (v.15). – Female; length 1.60 m.

*No finds.*



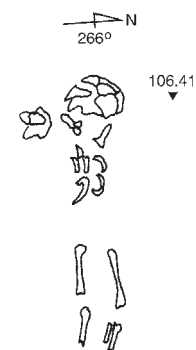
**GRAVE 170**, quadrant IX/11c–d. – A grave in an earthen pit; depth 0.65 m; ▼ 106.30/106.05 m; or. 275° (85° deviation from north). – Damaged skeleton (the lower part of the trunk, the forearms, pelvis, and thighs are missing);<sup>94</sup> Lying on the back, legs extended, head tilted to the left; the forearm position could not be determined. – Male?; length ca. 1.73 m.

*No finds.*



**GRAVE 171**, quadrant IX/11d. – A grave in an earthen pit; depth 0.34 m; ▼ 106.41 m (at the head); or. 266° (94° deviation from north). – Poorly preserved skeleton (skull crushed, the arms and pelvis missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length?.

*No finds.*



<sup>94</sup> The skeleton was damaged by digging of the land in the modern period (see here p. 150 n. 86).



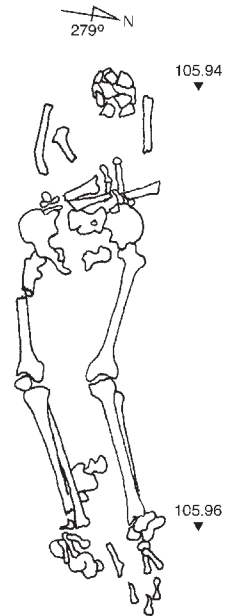
**GRAVE 172**, quadrant IX/11d–X/11c. – A grave in an earthen pit; depth 0.38 m; ▼ 106.26 m (at the head); or. 268° (92° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk, arms, pelvis, and feet missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length?.

*No finds.*



**GRAVE 173**, quadrant IX/11a–b. – A grave in an earthen pit; depth 0.90 m; ▼ 105.94/105.96 m; or. 279° (81° deviation from north). – Damaged skeleton (skull crushed);<sup>95</sup> lying on the back, legs extended, head turned to the right; the forearms folded horizontally across the stomach: right below, left above (v.13a). – Sex?; length ca. 1.53 m.

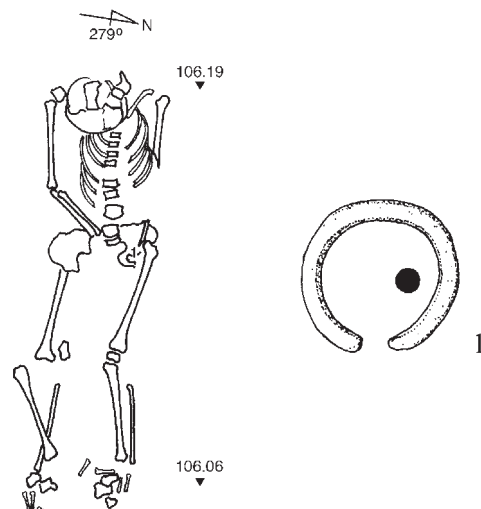
*No finds.*



**GRAVE 174**, quadrant IX/11b. – A grave in an earthen pit; depth 0.68 m; ▼ 106.19/106.06 m; or. 279° (81° deviation from north). – Damaged skeleton (skull fell forward); lying on the back, legs extended, head position undetermined; the right forearm angled downwards across the abdomen, the left extended along the body (v.2). – Sex?; length ca. 1.13 m.

*Finds:* A ring on the left hand.

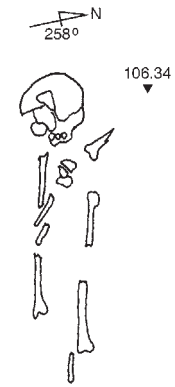
1. *Ring* – bronze, with open ends, circular section, separated and obliquely cut ends; Ø 2.05/2.03 cm; Ø wire 0.34–0.27 cm; wt. 3.155 g; S–2608 (G. 25).



<sup>95</sup> The skeleton was damaged by digging of the land in the modern period (see here p. 150 n. 86).

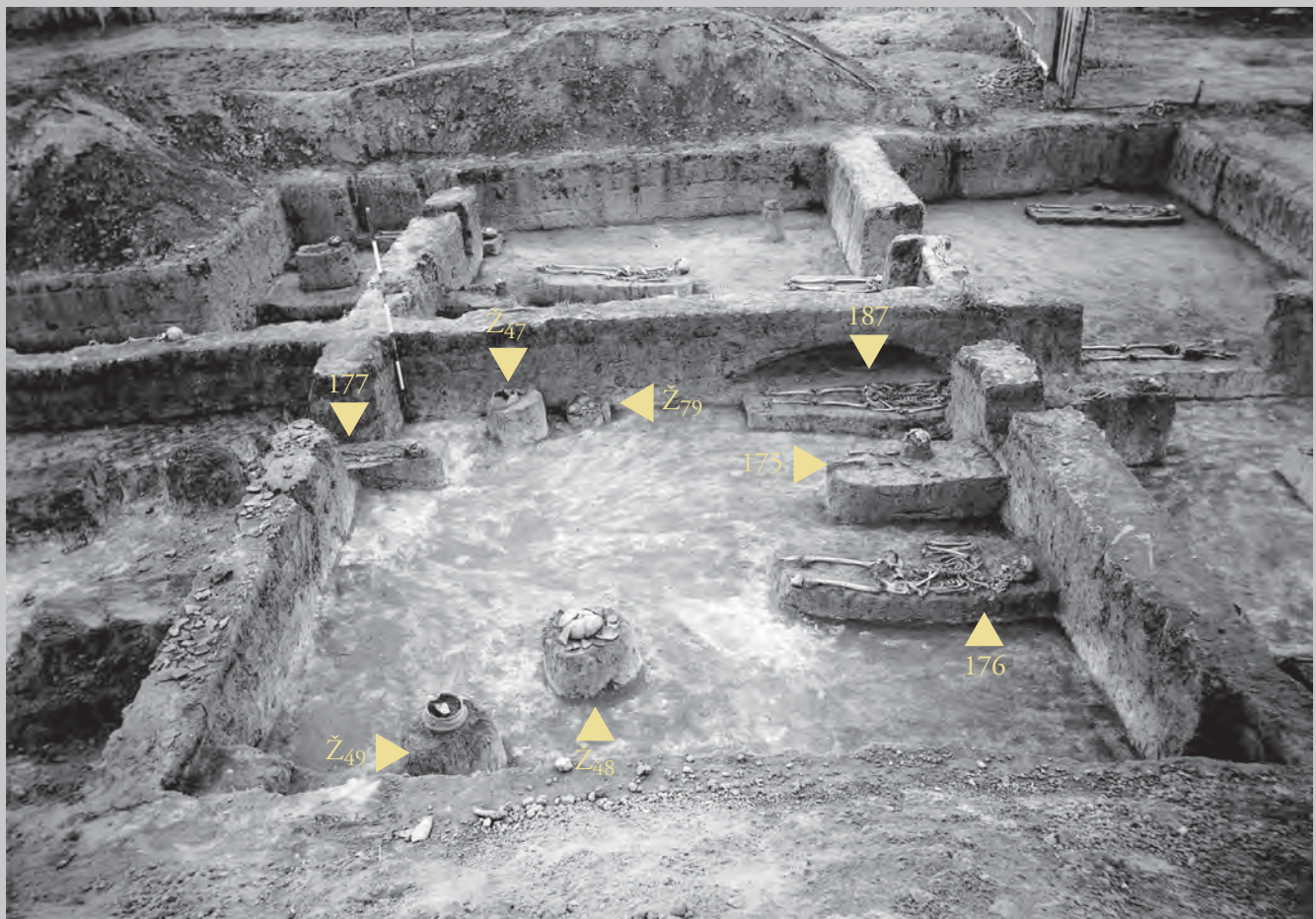
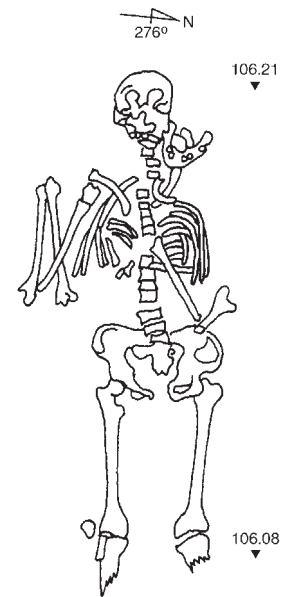
**GRAVE 175**, quadrant X/11c. – A grave in an earthen pit; depth 0.50 m; ▼ 106.34 m (at the head); or. 258° (102° deviation from north). – Poorly preserved skeleton (skull crushed; the forearms, pelvis, and shins missing); lying on the back, legs extended, head straight; the forearm position could not be determined. – Child; length 0.78 m.

*No finds.*



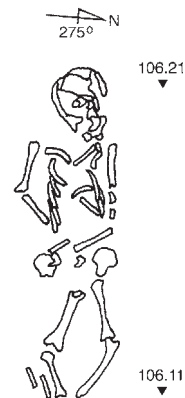
**GRAVE 176**, quadrant X/11a. – A grave in an earthen pit; depth 0.60 m; ▼ 106.21/106.08 m; or. 276° (84° deviation from north). – Damaged skeleton (the upper part of the trunk and the left arm disarranged; the calves missing); lying on the back, legs extended, head straight; the forearm position could not be determined (the right forearm bent upwards with the hand on the shoulder). – Male; length ca. 1.75 m.

*No finds.*



**GRAVE 177**, quadrant X/11d. – A grave in an earthen pit; depth 0.55 m; ▼ 106.21/106.11 m; or. 275° (85° deviation from north). – Damaged skeleton (skull crushed, the trunk and legs disarranged); lying on the back, legs extended, head position undetermined; the forearms angled downwards across the abdomen (v.7a). – Child; length 0.82 m.

*No finds.*



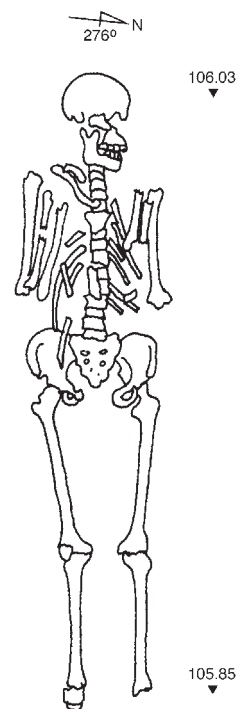
**GRAVE 178**, quadrant XII/12a–b. – A grave in an earthen pit; depth 0.45 m; ▼ 106.02/106.02 m; or. 268° (92° deviation from north). – Damaged skeleton (skull missing, the upper part of the trunk disarranged); lying on the back, legs extended, head position undetermined; the arms bent upwards with the hands on the shoulders (v.25). – Sex?; length ca. 1.45 m.

*No finds.*



**GRAVE 179**, quadrant XII/11d–XIII/12a. – A grave in an earthen pit; depth 0.40 m; ▼ 106.03/105.85 m; or. 276° (84° deviation from north). – Damaged skeleton (the feet missing); lying on the back, legs extended, head turned to the left; the forearms bent upwards with the hands on the shoulders (v.25). – Male; length 1.77 m.

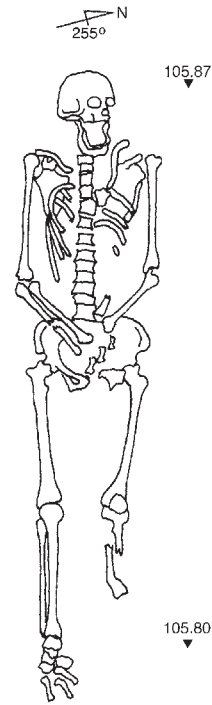
*No finds.*





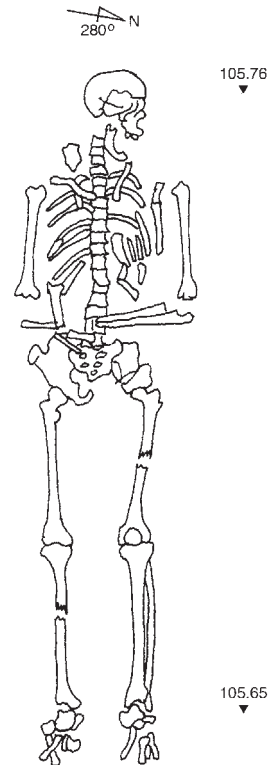
**GRAVE 180**, quadrant XIII/12a–b. – A grave in an earthen pit; depth 0.55 m; ▼ 105.87/105.80 m; or. 255° (105° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Female; length ca. 1.63 m.

*No finds.*



**GRAVE 181**, quadrant XIV/12a. – A grave in an earthen pit; depth 0.48 m; ▼ 105.76/105.65 m; or. 280° (80° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms folded horizontally across the abdomen: right below, left above (v.13b). – Female; length 1.65 m.

*No finds.*



**GRAVE 182**, quadrant XIV/12c–d. – A grave in an earthen pit; depth 0.30 m; ▼ 105.66/105.61 m; or. 261° (99° deviation from north). – Damaged skeleton (skull crushed, trunk disarranged, feet missing); lying on the back, legs extended, head position undetermined; the right forearm angled downwards across the stomach, the left downwards across the abdomen (v.7a). – Sex?; length ca. 1.45 m.

*No finds.*





**GRAVE 183**, quadrant XV/12c. – A grave in an earthen pit; depth 0.55 m; ▼ 105.55/105.41 m; or. 255° (105° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm angled downwards across the abdomen, the left folded horizontally across the stomach (v.12). – Female; length 1.65 m.

*Finds:* One *circlet* each on the right and left side of the head (1,2), a *bracelet* each on the right (3) and left forearm (4).<sup>96</sup>

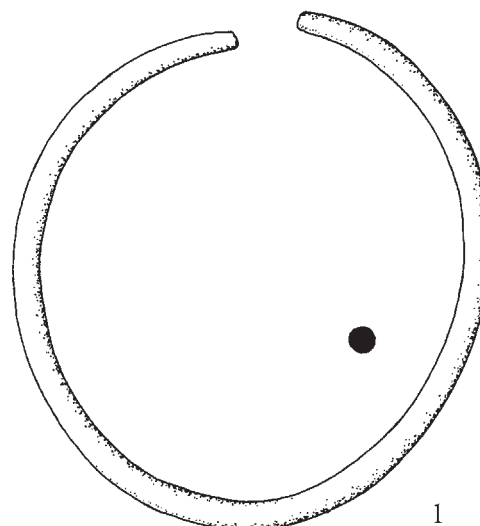
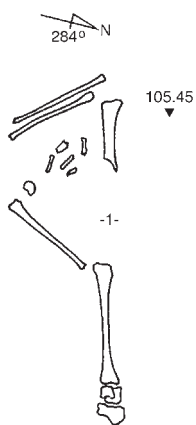
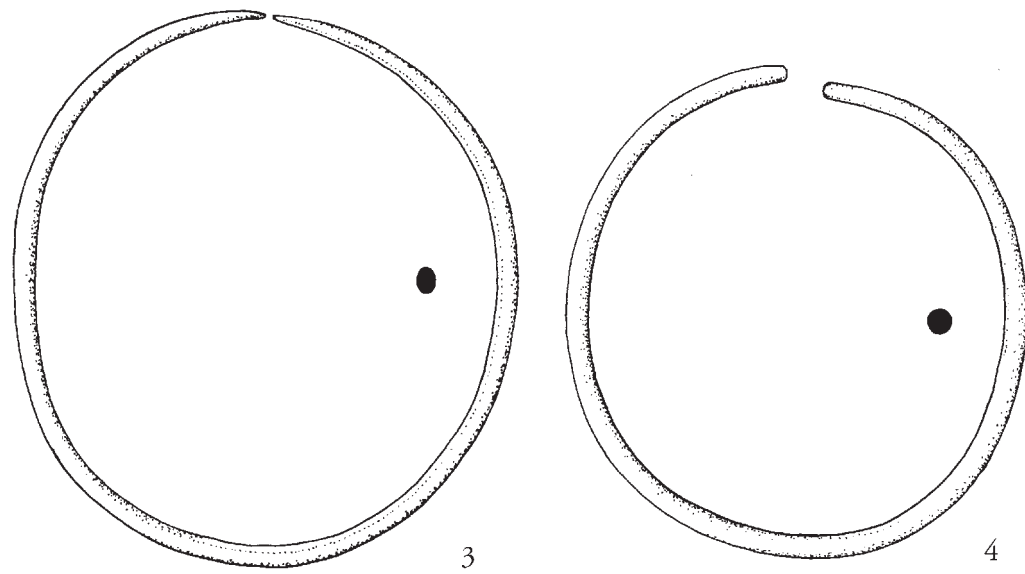
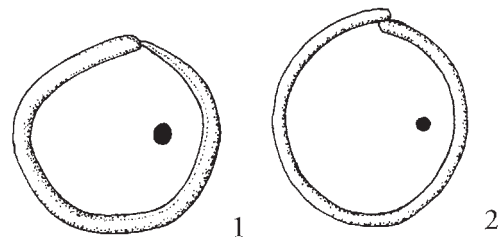
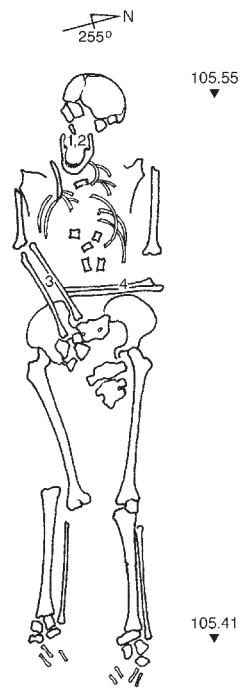
1. *Circlet* – bronze, open-ended, semicircular section, one end cut, the other pointed; Ø 2.68–2.51 cm (= 8.14 cm); Ø wire 0.36–0.23 cm; wt. 4.194; 2611 (G. 13-I,8/6);
2. *Circlet* – bronze, open-ended, circular section, overlapping cut ends; Ø 2.85–2.54 cm (= 8.45); Ø wire 0.16 cm; wt. 1.527 g; S-2612 (G. 13-I,8/2);
3. *Bracelet* – bronze, open ended, oval section, with separated and pointed ends; Ø 7.24/6.53 cm; Ø wire 0.42–0.10 cm; wt. 14.598 g; S-2609 (G. 4; De. 1.2a);
4. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered ends; Ø 6.55/5.97 cm; Ø wire 0.38–0.25 cm; wt. 12.172 g; S-2610 (G. 4; De. 1.2a).

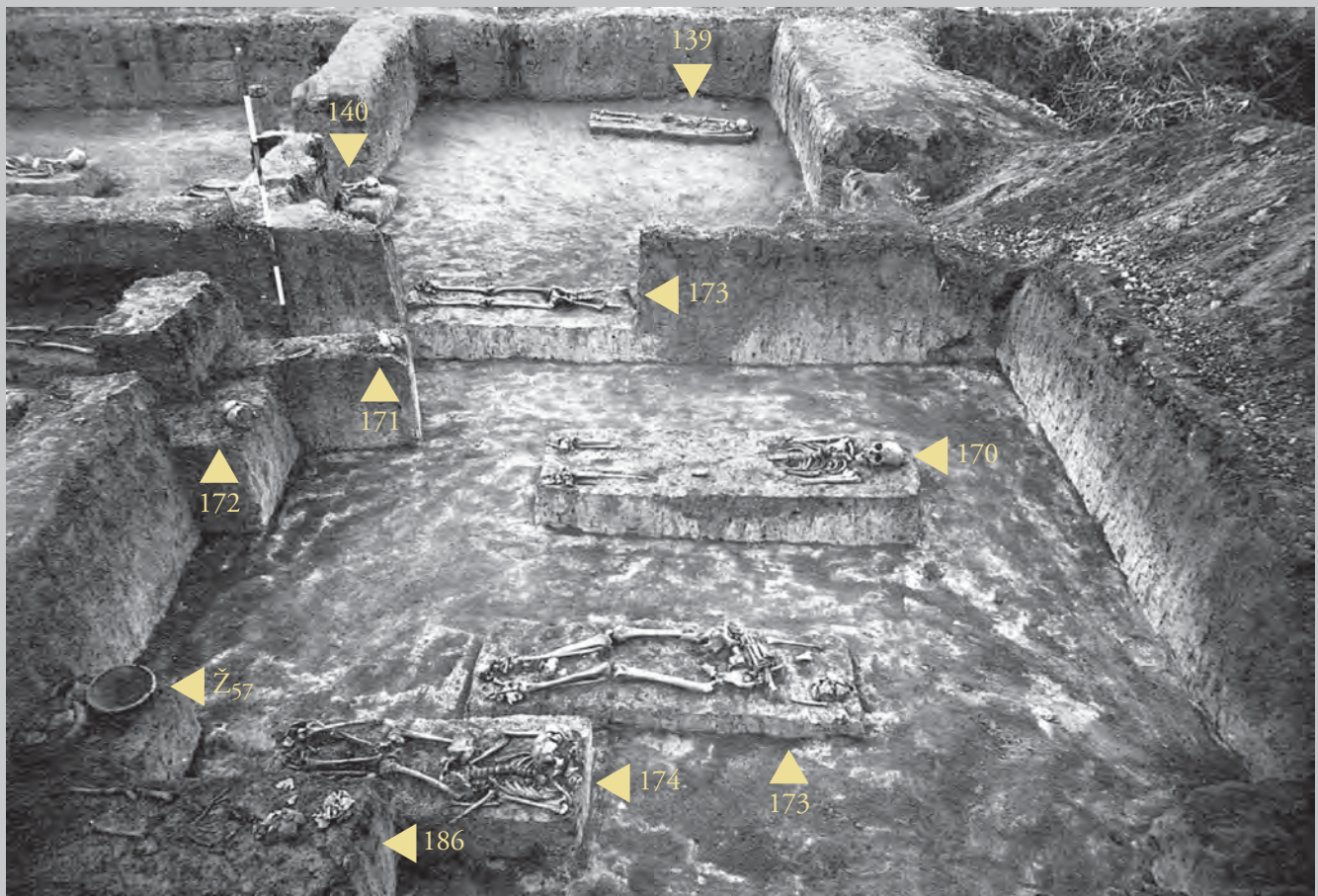
**GRAVE 184**, quadrant XV/12a. – A grave in an earthen pit; depth 0.50 m; ▼ 105.45 m (at the left thigh); or. 284° (76° deviation from north). – Destroyed skeleton (a few bones of the trunk and a leg remained). – Sex?; length?.

*Find:* A *bracelet* with no information as to position.

1. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered ends; Ø 6.86/6.17 cm; Ø wire 0.40–0.29 cm; wt. 17.082 g; S-2613 (G. 4; De. 1.2a).

<sup>96</sup> Data about the find of two bracelets and two circlets are noted in the *Zapiski*, no. 183/19 Sept. 1952.

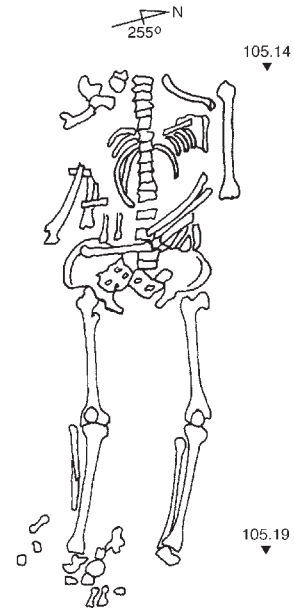






**GRAVE 185**, quadrant XV/12b. – A grave in an earthen pit; depth 0.70 m; ▼ 105.14/105.19 m; or. 255° (105° deviation from north). – Damaged skeleton (skull missing, the right side of the trunk disarranged); lying on the back, legs extended, head position undetermined; the right forearm was folded horizontally across the stomach, the left angled downwards across the stomach (v.8). – Sex?; length ca. 1.70 m.

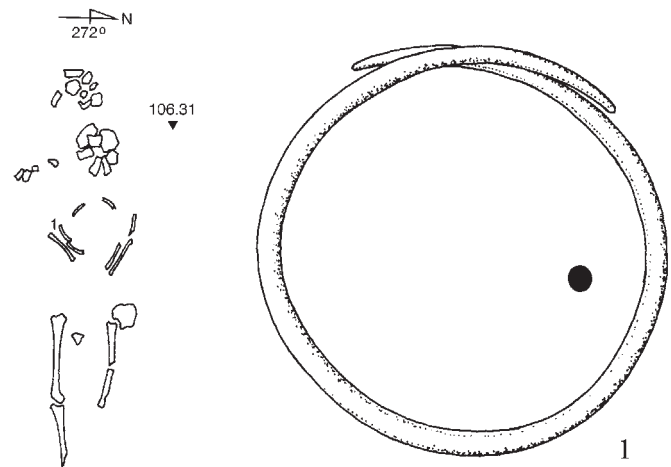
*No finds.*



**GRAVE 186**, quadrant IX/11b. – A grave in an earthen pit; depth 0.45 m; ▼ 106.31 m (at the head); or. 272° (88° deviation from north). – Poorly preserved skeleton (skull crushed, the arms, pelvis, and calves missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length ca. 0.70 m.

*Find:* A bracelet on the right forearm.

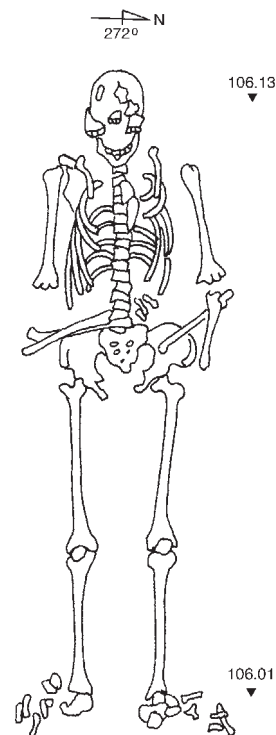
1. *Bracelet* – bronze, open ended, circular section, with separated and pointed overlapping ends; Ø 5.43/5.40 cm; Ø wire 0.42–0.12 cm; wt. 14.083 g; S-2614 (G. 4; De. 1.2a).

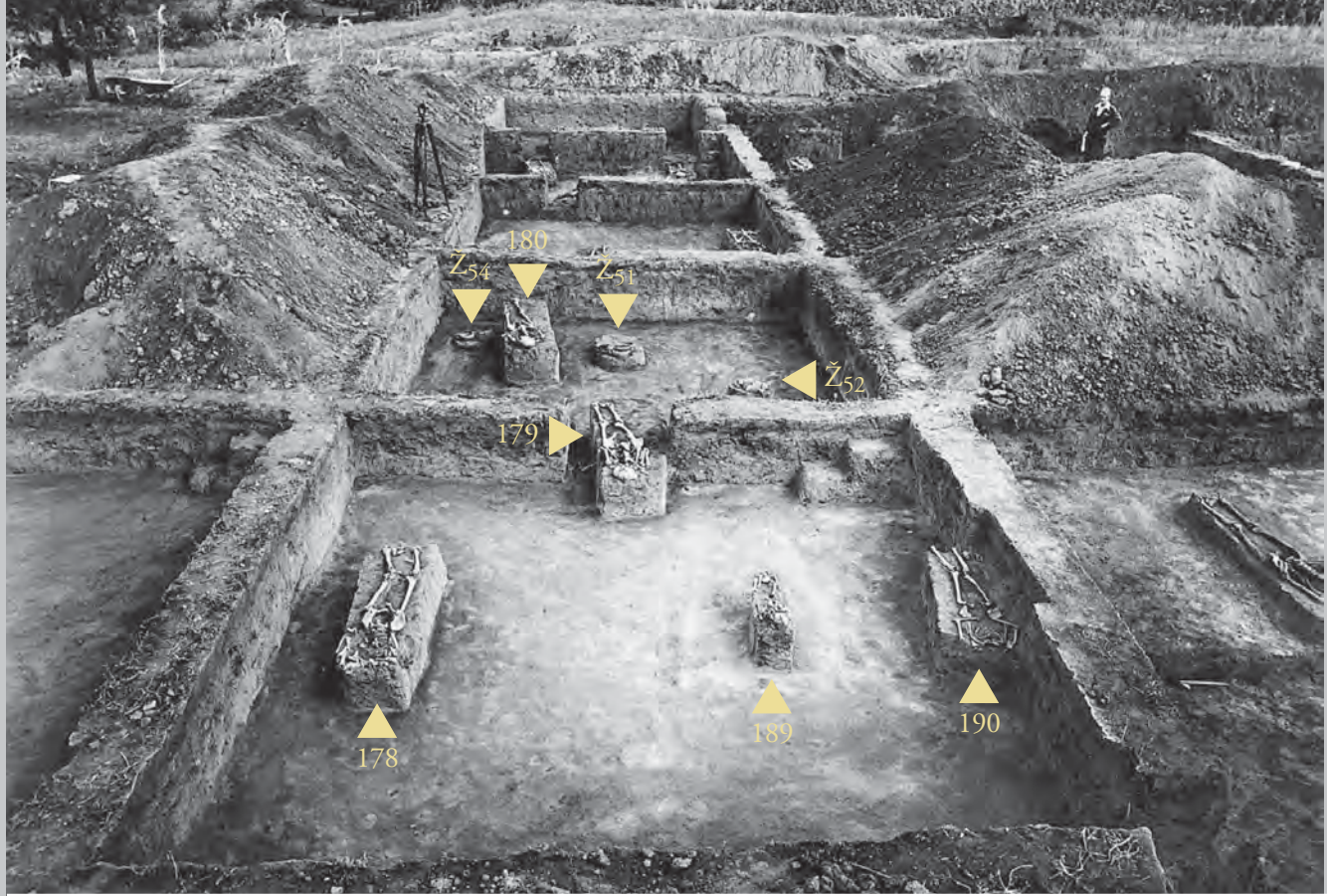


181

**GRAVE 187**, quadrant X/11c. – A grave in an earthen pit; depth 0.76 m; ▼ 106.13/105.9 m; or. 272° (88° deviation from north). – Lying on the back, legs extended, head straight; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Male; length 1,60 m.

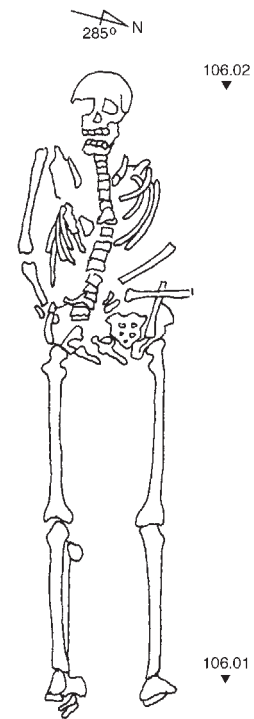
*No finds.*





**GRAVE 188**, quadrant X/11a. – A grave in an earthen pit; depth 0,75 m; ▼ 106.02/106.01 m; or. 285° (75° deviation from north). – Damaged skeleton (the left upper arm missing); lying on the back, legs extended, head straight; the right forearm angled downwards across the abdomen, the left horizontally across the stomach (v.12). – Female?; length ca. 1.74 m.

*No finds.*



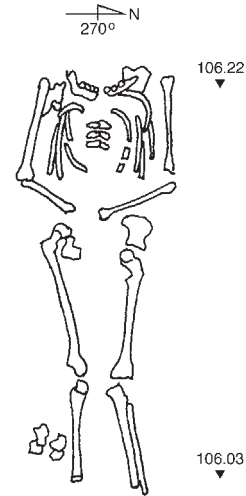
**GRAVE 189**, quadrant XII/12c–d. – A grave in an earthen pit; depth 0.36 m; ▼ 106.10/105.99 m; or. 265° (95° deviation from north). – Poorly preserved skeleton (skull crushed, trunk disarranged, arms, calves, and feet missing); lying on the back, legs extended, head straight; the forearm position could not be determined. – Child; length 0.70 m.

*No finds.*



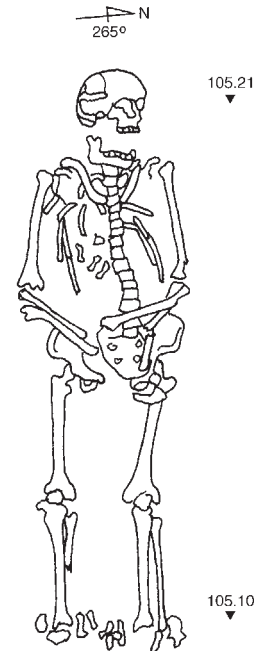
**GRAVE 190**, quadrant XII/12c–d. – A grave in an earthen pit; depth 0.38 m; ▼ 106.22/106.03 m; or. 270° (90° deviation from north). – Damaged skeleton (skull disarranged, feet missing);<sup>97</sup> lying on the back, legs extended, head position undetermined; the forearms angled downwards and crossed on the stomach (v.7b). – Sex?; length 1.10 m (preserved part).

*No finds.*



**GRAVE 191**, quadrant XV/12d–XVI/12c. – A grave in an earthen pit; depth 0.70 m; ▼ 105.21/105.10 m; or. 265° (95° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Male; length 1.55 m.

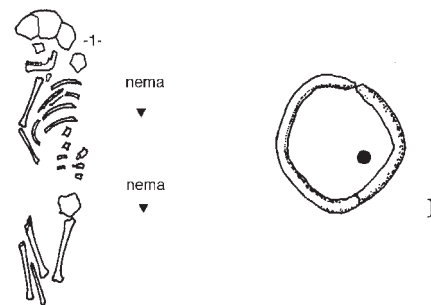
*No finds.*



**GRAVE 192**, quadrant XII/13b–XIII/13a. – A grave in an earthen pit; depth 0.53 m; ▼ –; or. – (deviation from north unknown). – Poorly preserved skeleton (skull crushed, the left arm, and the calves and feet missing); lying on the back, legs extended, head straight; the forearm position could not be determined (the right forearm angled downwards across the abdomen). – Child; length 0.82 m.

*Find:* A circlet below the head.<sup>98</sup>

1. *O-circlet* – bronze, open-ended, circular section, overlapping cut ends; damaged (broken into two parts); Ø 1.84–1.48 cm (= 5.21); Ø wire 0.20 cm; wt. 0.838 g; S-2615 (G. 13-II,5/3).

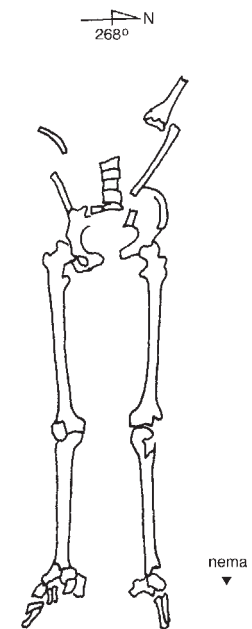


<sup>97</sup> The skeleton was damaged by digging of the land in the modern period (see here p. 150 n. 86).

<sup>98</sup> *Zapiski*, no. 192/19 Sept. 1952.

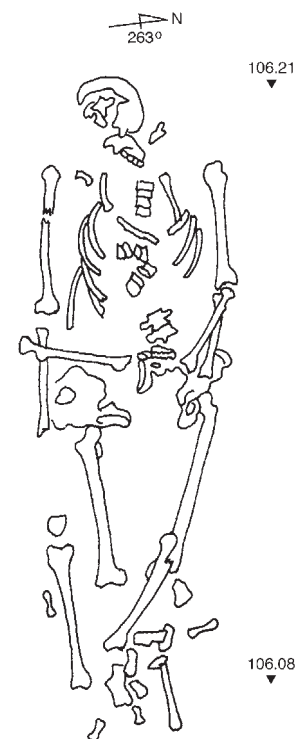
**GRAVE 193**, quadrant IX/10a–b–IX/11c–d. – A grave in an earthen pit; depth 0.70 m; ▼ –; or. 268° (92° deviation from north). – Poorly preserved skeleton (the skull and part of the trunk and the arms missing); lying on the back, legs extended, head missing; S-the forearm position could not be determined. – Male?; length 1,45 m (preserved part).

*No finds.*



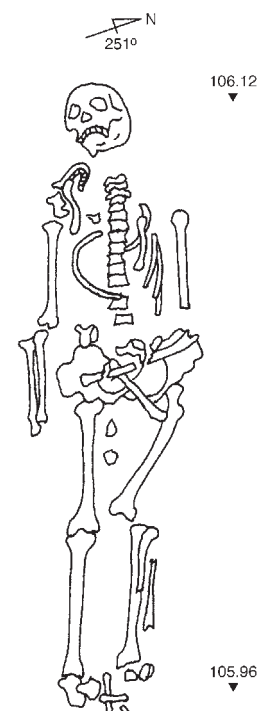
**GRAVE 194**, quadrant XI/11a. – A grave in an earthen pit; depth 0,60 m; ▼ 106.21/106.08 m; or. 263° (97° deviation from north). – Poorly preserved skeleton (disarranged); lying on the back, legs extended, head position undetermined; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Male; length 1.55 m.

*No finds.*



**GRAVE 195**, quadrant XI/11c–d. – A grave in an earthen pit; depth 0.50 m; ▼ 106.12/105.96 m; or. 251° (109° deviation from north). – Damaged skeleton (the skull fallen backwards); lying on the back, legs extended, head position undetermined; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Female; length 1.58 m.

*No finds.*

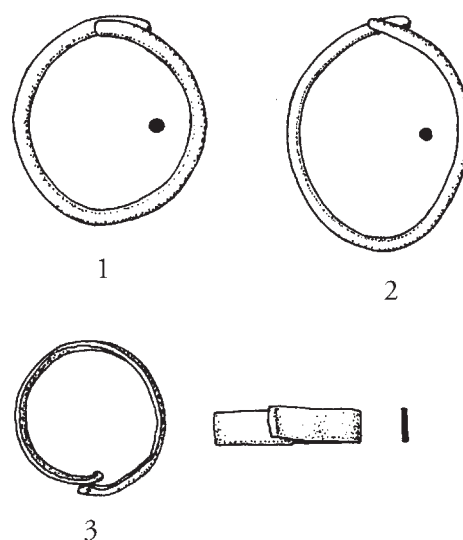
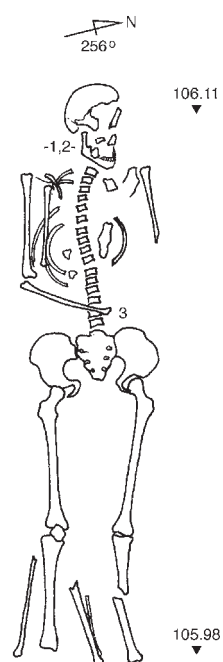




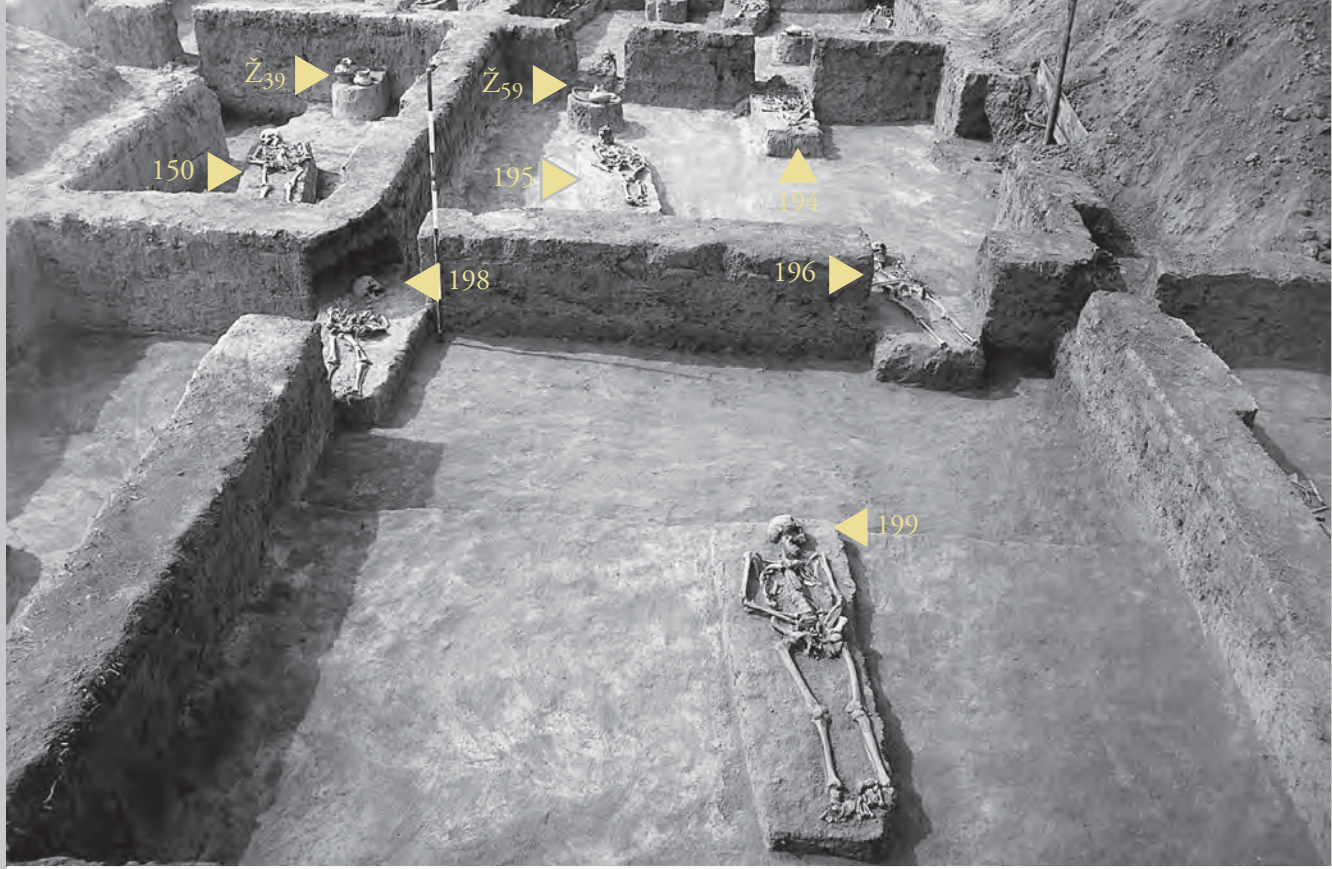
**GRAVE 196**, quadrant XI/11b–XII/11a. – A grave in an earthen pit; depth 0.50 m; ▼ 106.11/105.98 m; or. 256° (104° deviation from north). – Damaged skeleton (the left forearm and foot missing); lying on the back, legs extended, head turned to the left; the forearm positions could not be determined (the right forearm angled downwards across the stomach). – Sex?; length 1.50 m.

*Finds:* One *circlet* each on the right side of the head and on the left side below the head (1,2), a *ring* on the right hand (3).<sup>99</sup>

1. *Circlet* – bronze, open-ended, oval section, overlapping cut ends; Ø 2.83–2.53 cm (= 8.41 cm); Ø wire 0.23/0.20 cm; wt. 2.329 g; S-2617 (G. 13-I, 8/4);
2. *Circlet* – bronze, open-ended, circular section, overlapping cut ends; Ø 3.08–2.40 cm (= 8.60 cm); Ø wire 0.15 cm; wt. 1.340 g; S-2618 (G. 13-I, 8/2);
3. *Ring* – bronze, with open ends, banded section; the cut ends of different widths overlap; Ø 2.00/1.86 cm; w. 0.50–0.46 cm; th. 0.08 cm; wt. 1.873 g; S-2616 (G. 21; H. 45a).

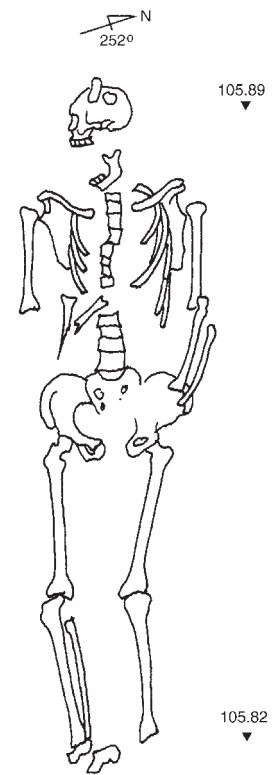


<sup>99</sup> *Zapiski*, no. 196/19 Sept. 1952.



**GRAVE 197**, quadrant XI/11a–b. – A grave in an earthen pit; depth 0.75 m; ▼ 105.89/105.82 m; or. 252° (108° deviation from north). – Damaged skeleton (skull crushed, the right forearm and foot missing); lying on the back, legs extended, head turned to the right; the forearm positions could not be determined (the left extended along the body). – Male; length ca. 1.68 m.

*No finds.*



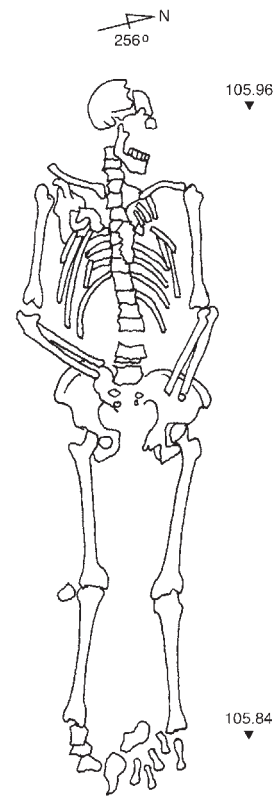
**GRAVE 198**, quadrant XII/11c. – A grave in an earthen pit; depth 0.60 m; ▼ 105.96/105.82 m; or. 256° (104° deviation from north). – Damaged skeleton (the upper section of the trunk disarranged, the forearms missing); lying on the back, legs extended, head turned to the left; the forearm positions could not be determined. – Male; length 1.45 m.

*No finds.*



**GRAVE 199**, quadrant XII/11a–b. – A grave in an earthen pit; depth 0.50 m; ▼ 105.96/105.84 m; or. 256° (104° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Male; length 1.70 m.

*No finds.*



**GRAVE 200**, quadrant XV/11a. – A grave in an earthen pit; depth 0.40 m; ▼ 105.56 m (at the hand); or. 273° (87° deviation from north). – Poorly preserved skeleton (the trunk and arms disarranged, the pelvis and legs missing); lying on the back, legs extended, head straight; the forearm positions could not be determined. – Sex?; length?.

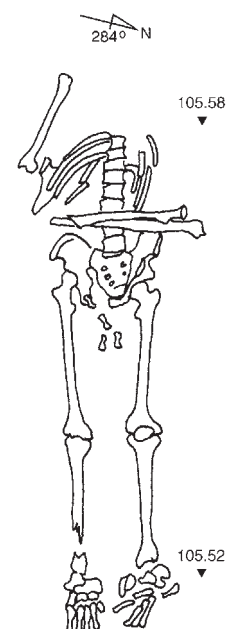
*Finds:* A necklace of beads below the neck and on the shoulders.

1. *Necklace of beads* – glass beads (6): globular-flattened, unspecified, honey brown (4); globular-flattened, unspecified, honey brown / two thrice intersecting wavy lines, unspecified, yellowish white (1); annular, unspecified, honey brown / two thrice intersecting wavy lines, applied, yellowish white (1); 2619 (01/03 4 61; 01/03 4 61/20102 02 12; 01/11 4 61/20102 02 12).



**GRAVE 201**, quadrant XIV/11b–d–XV/11a–c. – A grave in an earthen pit; depth 0.33 m; ▼ 105.58/105.52 m; or. 284° (76° deviation from north). – Damaged skeleton (the skull, part of the trunk, and sections of the arms are missing);<sup>100</sup> Lying on the back, legs extended, head position undetermined; the forearm positions could not be determined. – Sex?; length ca. 1.58 m.

*No finds.*



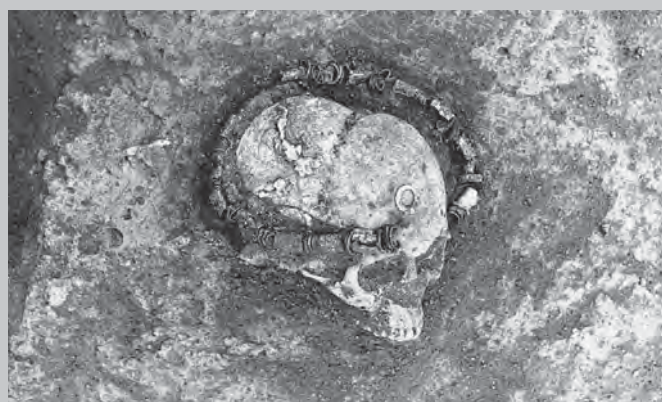
<sup>100</sup> Most probably damaged by the roots of the tree that also damaged grave 226.



\***GRAVE 202/prehistoric**, quadrant XV/12b. – A grave in an earthen pit (south – north, head/feet); depth 0.93 m; ▼ 104.90/104.80 m; or. 188° (8° deviation from south). – Damaged skeleton (the chest, arms, calves, and feet missing); lying on the back, legs extended, head turned to the left (west); the forearms were extended along the body (v.1). – Female; length ca. 1.50 m (preserved section: 1.36 m).

*Finds:* diadem (AR), spectacle fibula (AE), ring? (AE, not preserved).<sup>101</sup>

*Bibliography:* VINSKI 1955, 237, 252, Fig. 12; VINSKI 1959, 101, Pl. XXXVI:12; VINSKI-GASPARINI 1962, Pl. IV: 56–57; VINSKI-GASPARINI 1973, 169, 187, 222, Pl. 125:11–12; VINSKI-GASPARINI 1983, 608, 612, 614; DEMO 1996, 29; ŠIMIĆ 2004, 50 Fig. 12–13; MIHELIĆ 2004, 262 no. 4.

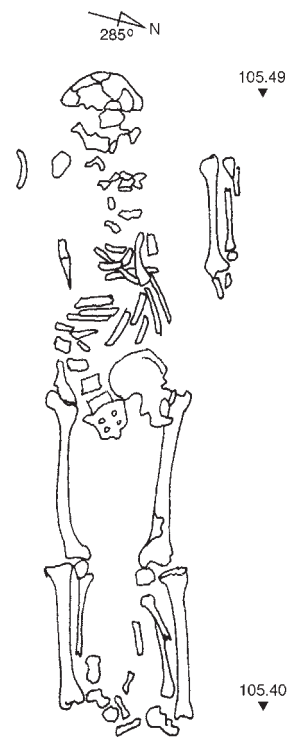


<sup>101</sup> The *Dnevnik*, ad 19 Sept. 1952, in a final observation noted: "Grave 202 was uncovered, and it was established that this was an Illyrian grave with a female skeleton, and other than the head, in situ were preserved parts of the pelvis, the hands, and the legs. The skeleton was oriented to the north. It had a diadem of silver on the head. Earlier, digging above grave 202, a bronze spectacle fibula had been found, which probably belonged to this grave. While cleaning grave 202 traces of a bronze patina were established on one finger, but so far nothing has been found." Similar information, but without the note about the ring, is contained in the *Zapisek*, no. 202/19 Sept. 1952.



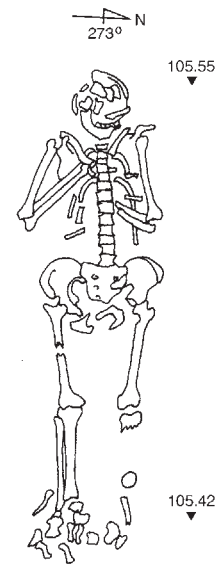
**GRAVE 203**, quadrant XV/11d. – A grave in an earthen pit; depth 0.90 m; ▼ 105.49/105.40 m; or. 285° (75° deviation from north). – Damaged skeleton (the skull and the upper part of the trunk with the arms disarranged); lying on the back, legs extended, head turned to the left (north); the forearm positions could not be determined. – Sex?; length 1.59 m.

*No finds.*



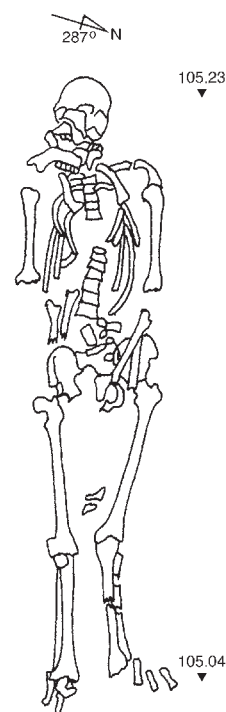
**GRAVE 204**, quadrant XV/11b. – A grave in an earthen pit; depth 0.50 m; ▼ 105.55/105.42 m; or. 273° (87° deviation from north). – Damaged skeleton (skull crushed, the left calf missing); lying on the back, legs extended, head turned to the left; the right forearm bent upwards with the hand on the shoulder, the left angled upwards across the chest (v.20). – Sex?; length 1.52 m.

*No finds.*



**GRAVE 205**, quadrant XV/11b. – A grave in an earthen pit; depth 0.80 m; ▼ 105.23/105.04 m; or. 287° (73° deviation from north). – Damaged skeleton (skull crushed); lying on the back, legs extended, head straight; the forearms angled downwards across the abdomen (v.7a). – Male (young); length 1.57 m.

*No finds.*

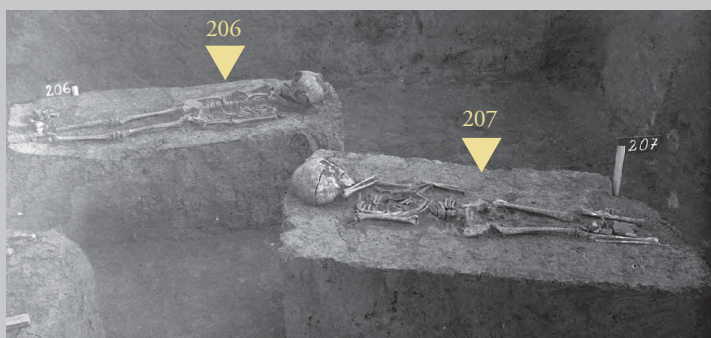


### 2.2.3. Excavations in 1953 (graves 206–444)

\***GRAVE 206/prehistoric**, quadrant XVIII/15a. – A grave in an earthen pit (east – west, head/feet); depth 0.80 m; or. 90° (90° deviation from north). – The skeleton lying on the back, legs extended, head straight; the forearms were extended along the body (v.1). – Child (ca. 10–12 years old); length 1.08 m.

*No finds.*<sup>102</sup>

*Bibliography:* VINSKI 1955, 237; VINSKI 1959, 101; DEMO 1996, 29.



**GRAVE 207**, quadrant XVIII/15a–b. – A grave in an earthen pit; depth 0.73 m; ▼ 104.52/104.39 m; or. 290° (110° deviation from north). – Damaged skeleton (the right forearm disarranged, the feet missing);<sup>103</sup> Lying on the back, legs extended, head turned to the left; the forearm positions could not be determined (the left extended along the body). – Child (ca. 10–12 years old); length 1.08 m.

*No finds.*



**GRAVE 208/1–2**, (mother + child), quadrant XVII/15b–XVIII/15a. – A grave in an earthen pit; depth 0.72 m; ▼ 104.10/104.46 m; or. 288° (108° deviation from north). – **208-1:** Lying on the back, legs extended, head turned to the right; the forearms extended along the body (v.1); 10 cm above and 20 cm to the right at the height of the right elbow and right hand were the poorly preserved remains of the skeleton of a small child. – Female; length 1.51 m. – **208-2:** Poorly preserved skeleton (skull crushed, the trunk and limbs incomplete); lying on the back, legs extended, head straight; the forearm positions could not be determined. – Child; length 0.30 m.

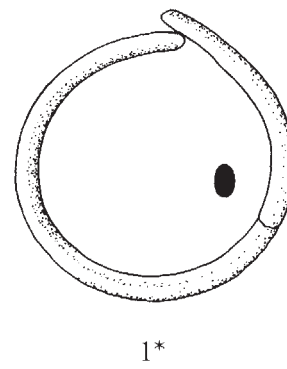
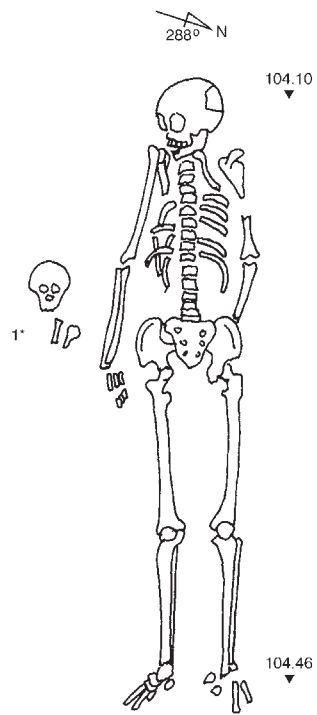
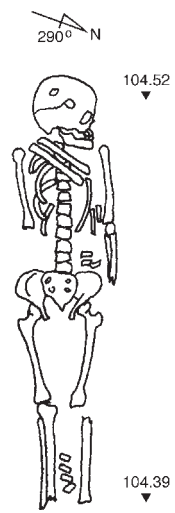
*Finds:* The female skeleton without grave goods; a *bracelet* found by the child skeleton.<sup>104</sup>

1.\* *Bracelet* – bronze, open ended, oval section, with separated, cut, and tapered ends; damaged (broken into two parts); Ø 3.50 cm; Ø wire 0.58–0.25 cm; wt. 7.76 g; S-2903 (G. 4; De. 1.2b).

<sup>102</sup> *Dnevnik*, ad 11 Aug. 1953; *Zapisnik* no. 206/14 Aug. 1953.

<sup>103</sup> Most probably damaged by the tree roots that also damaged grave 226.

<sup>104</sup> "In quadrant XVIII/15.....in field c) along the western edge of the quad. Between both skeletons whose legs are isolated, a jumbled child skeleton was found along with one small bronze bracelet", *Dnevnik*, ad 7.VIII.1953. The remains of the jumbled child skeleton and the remains of the female skeleton in whose immediate vicinity it was found create a single grave unit, and even in the field documentation it was interpreted as a **double** grave, i.e. a grave with the burial of a mother and child (*Zapisnik*, no. 208/4 Aug. 1953; *Dnevnik*, ad 11 Aug. 1953).





**GRAVE 209**, quadrant XVII/15d–XVIII/15c. – A grave in an earthen pit; depth 0.72 m; ▼ 104.71/104.59 m; or. 300° (120° deviation from north). – Damaged skeleton (skull crushed, the upper section of the trunk disarranged);<sup>105</sup> Lying on the back, legs extended, head turned to the left, the feet moved together; the forearms extended along the body (v.1). – Male; length 1.43 m.

*No finds.*



**\*GRAVE 210/prehistoric**, quadrant XVII/14a–XVIII/14d. – A grave in an earthen pit (northeast – southwest, head/feet); depth 0.57 m; or. 149° (31° deviation from north). – Skeleton lying on the back (head missing, upper part of the trunk disturbed, the left forearm and both lower legs missing); legs extended, head position unknown; one forearm extended along the body (v.1?). – Male?; length 1.02 m (preserved part).

*Finds:* spearhead (Fe), double-loop fibula (AE), knife? (Fe).<sup>106</sup>

*Bibliography:* VINSKI 1955, 237; VINSKI 1959, 101; VINSKI-GASPARINI 1962, Pl. IV: 54–55; VINSKI-GASPARINI 1973, 169, 222, Pl. 125:5–6; VINSKI-GASPARINI 1983, 608, 611–612; DEMO 1996, 29.



**GRAVE 211**, quadrant XVIII/14a–b. – A grave in an earthen pit; depth 0.80 m; ▼ 104.45/104.25 m; or. 280° (100° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm angled downwards across the abdomen, the left extended along the body (v.2). – Female; length 1.51 m.

*Finds:* One *bracelet* on the right forearm (1) and another *bracelet* on the left (2), one *ring* on a finger of the right hand (3) and another *ring* on a finger of the left (4).

1. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered ends; Ø 7.00/6.60 cm; Ø wire 0.42/0.27 cm; wt. 19.445 g; S-2621 (G. 4; De. 1.2a);

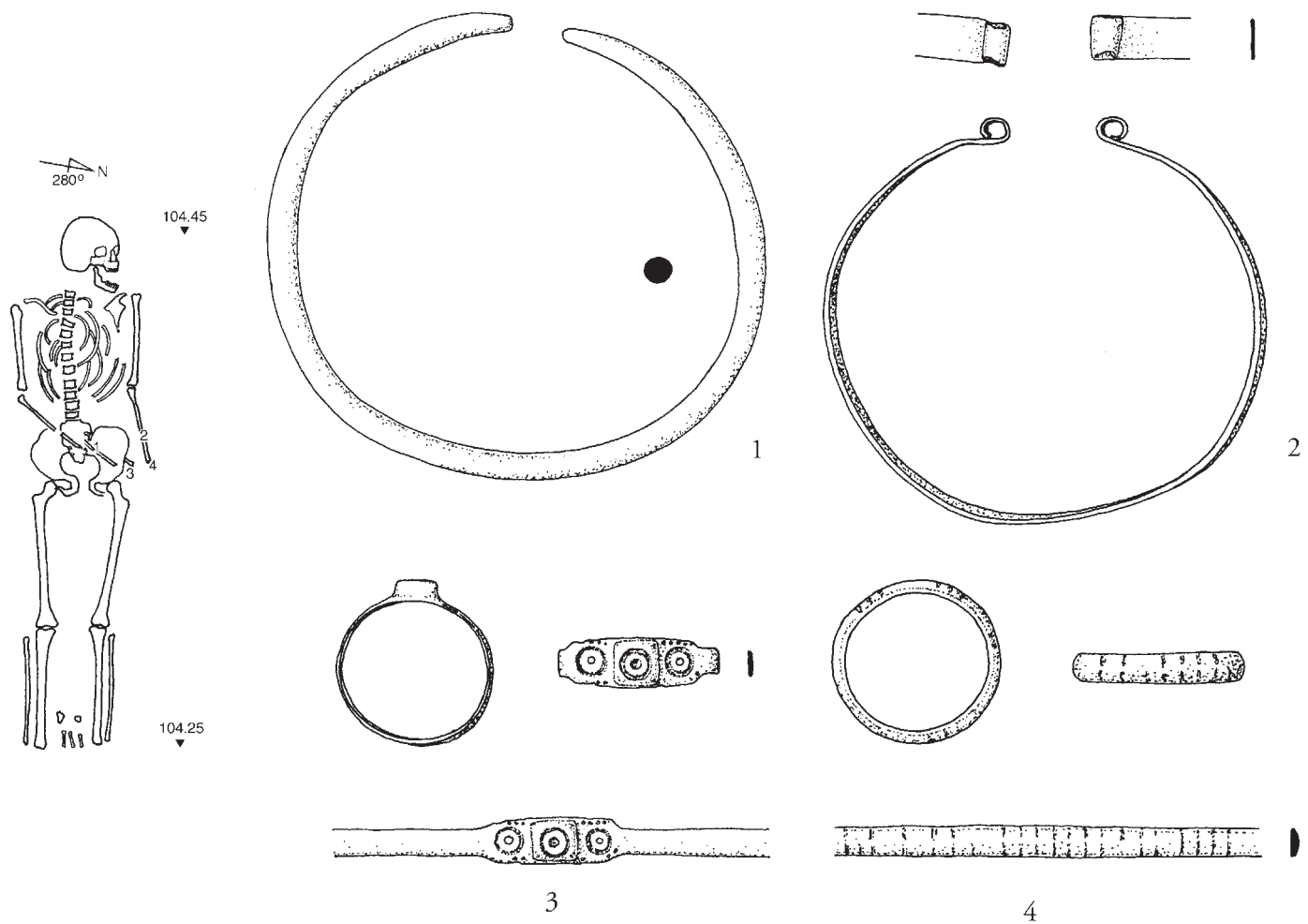
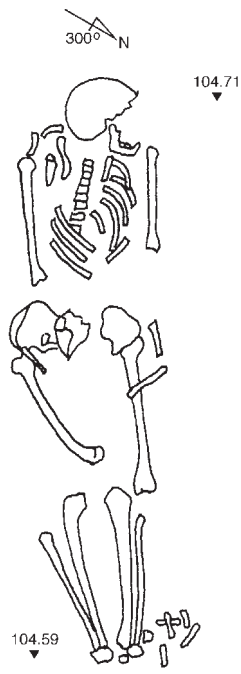
2. *Bracelet* – bronze, open ended, of sheet metal (banded section), with separated and spirally everted ends; Ø 6.05/5.70 cm; w. 0.70 cm; th. 0.14 cm; wt. 8.412 g; S-2622 (G. 2);

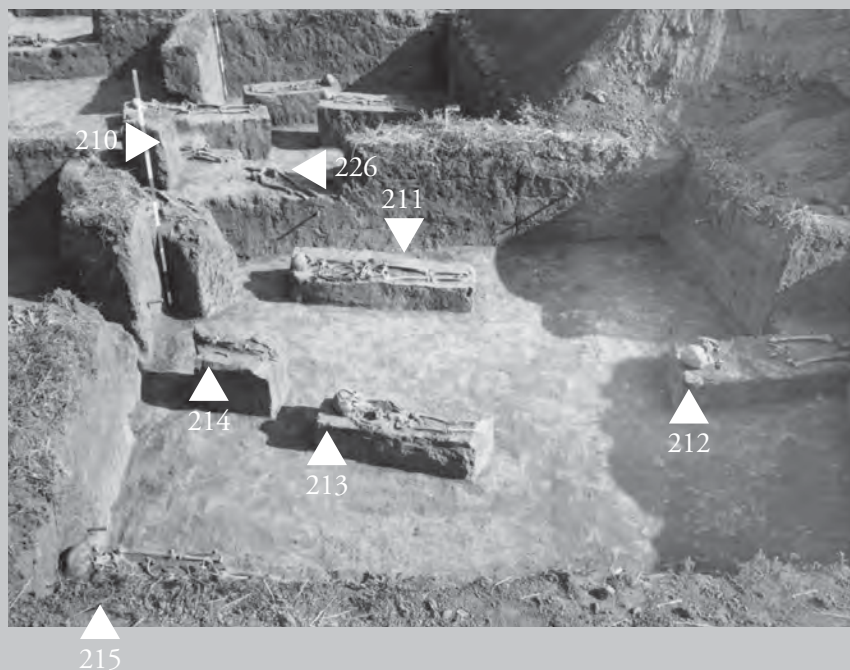
3. *Ring with a crown* – a bronze, closed, banded hoop with soldered shoulders and a square step-like raised crown; the shoulders and crown are each decorated with an impressed circle with a dot in the center (1+1+1); h. 2.37 cm; crown: dim. 0.71/0.64 cm, h. 0.28 cm; hoop: Ø 2.25/2.18 cm, w. 0.40 cm, th. 0.10 cm; wt. 2.603 g; S-2623 (G. 36); [Pl. 20:2];

4. *Ring* – bronze, closed hoop, semicircular section; the hoop decorated with perpendicular, shallowly incised lines; Ø 2.38/2.26 cm; w. 0.48–0.41 cm; th. 0.19–0.17 cm; wt. 3.329 g; S-2620 (G. 31; H. 52b).

<sup>105</sup> Most probably damaged by the tree roots that also damaged grave 226.

<sup>106</sup> The *Dnevnik*, ad 18 Aug. 1953, describes the situation in the field and the finds as follows: "Grave 210, below which other bones were visible, was removed and it was established that the bones belonged to this same disturbed skeleton. An iron Hallstatt fibula was found below the rib cage, below the right arm was a thin bronze rod, and below the head an iron knife (?). A little further from this knife, in the previous excavation level, was an iron spear, previously mentioned, which definitely belonged to grave 210."





**GRAVE 212**, quadrant XVIII/14b–d. – A grave in an earthen pit; depth 0.76 m; ▼ 104.41/104.27 m; or. 272° (92° deviation from north). – Damaged skeleton (the trunk, arms, and pelvis missing);<sup>107</sup> Lying on the back, legs extended, head turned to the right; the forearm positions could not be determined. – Female?; length 1.55 m.  
*No finds.*



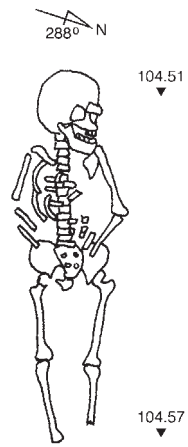
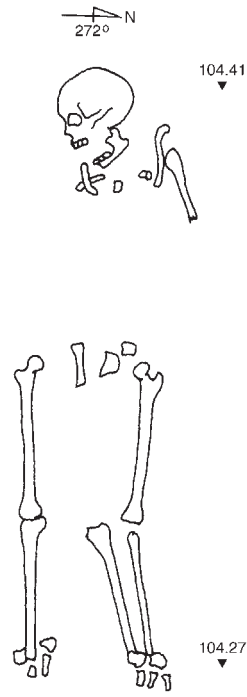
**GRAVE 213**, quadrant XVIII/14c. – A grave in an earthen pit; depth 1.08 m; ▼ 104.51/104.39 m; or. 288° (108° deviation from north). – Damaged skeleton (the feet missing); lying on the back, legs extended, head turned to the left; the arms were bent outwards from the body, the forearms angled downwards across the abdomen (v.7c). – Child; length 0.94 m.  
*No finds.*



**GRAVE 214**, quadrant XVIII/14a. – A grave in an earthen pit; depth 0.90 m; ▼ 104.67/104.57 m; or. 288° (108° deviation from north). – Poorly preserved skeleton (part of the trunk and arms missing); lying on the back, legs extended, head straight; the forearm positions could not be determined (the right forearm angled downwards across the abdomen). – Child; length 0.65 m.  
*Find: A bracelet on the right forearm.*

1. *Bracelet*, fragment – iron, open ended (?), circular section; damaged (most missing); Ø ca. 3.70 cm; dim. frag. 3.7/2.7 cm; Ø wire 0.45 cm; wt. 2.917 g; S-2624 (G. 4; De. 1.2a).

<sup>107</sup> The damage to the trunk, arm, and pelvis was most probably caused by a transverse ditch whose existence is indicated by the damaged skeleton in the nearby somewhat more northeasterly grave 105.





**GRAVE 215**, quadrant XVII/14c. – A grave in an earthen pit; depth 1.08 m; ▼ 104.56/104.44 m; or. 292° (112° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms extended along the body (v.1). – Male; length 1.64 m.

*No finds.*



**GRAVE 216**, quadrant XVII/14b. – A grave in an earthen pit; depth 0.79 m; ▼ 104.86/104.70 m; or. 294° (114° deviation from north). – Lying on the back, legs extended, head tilted to the right; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Female; length 1.58 m.

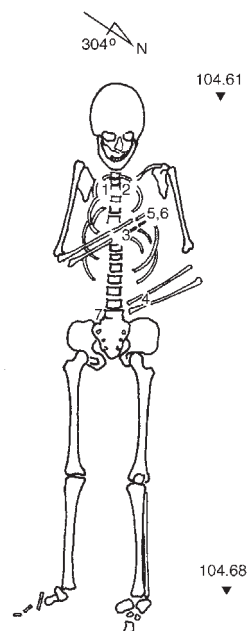
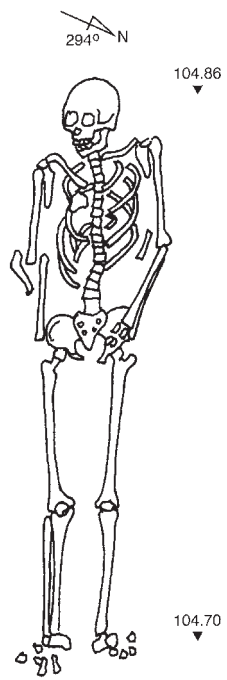
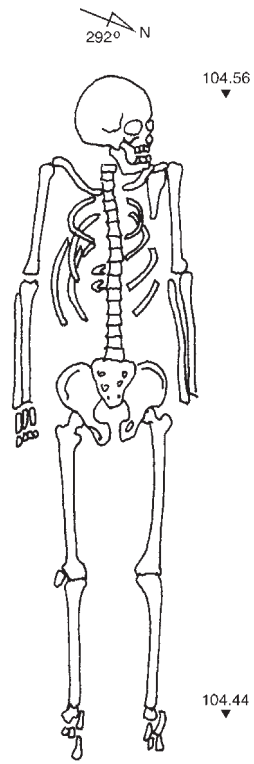
*No finds.*



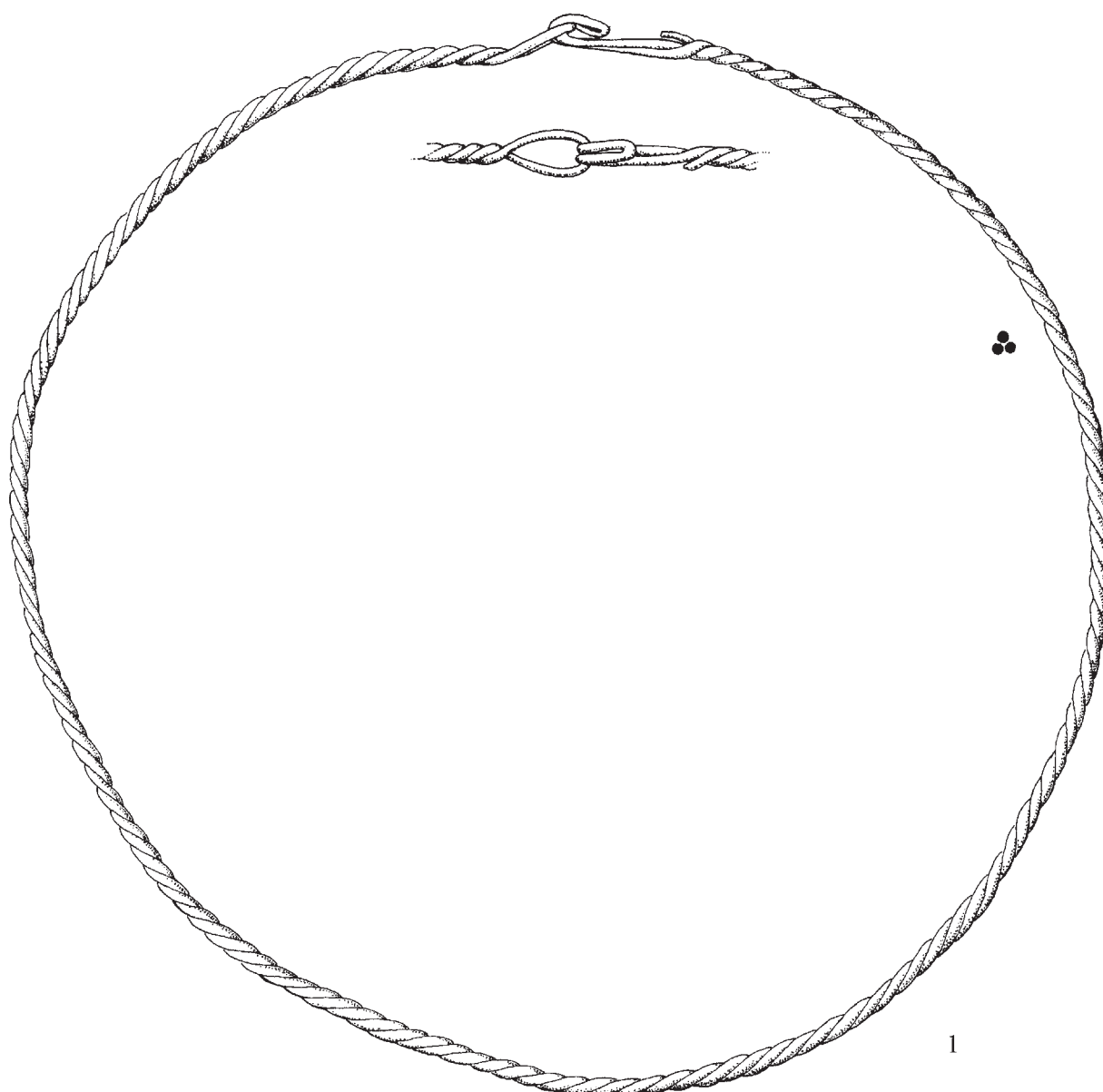
**GRAVE 217**, quadrant XVII/14d. – A grave in an earthen pit; depth 0.88 m; ▼ 104.61/104.68 m; or. 304° (124° deviation from north). – Lying on the back, legs extended, head straight; the right forearm angled upwards across the chest, the left angled downwards across the abdomen (v.9). – Female; length 1.43 m.

*Finds:* A *torc* across the collarbones (1), a *necklace of beads* around the neck (2), a *bracelet* on the right forearm (3), a *bracelet* on the left forearm (4), two *rings* on the fingers of the right hand (5,6), and a *ring* on a finger of the left hand (7).

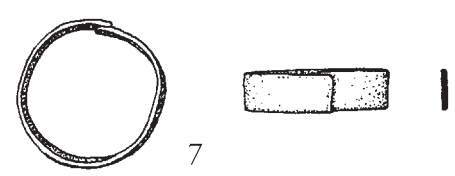
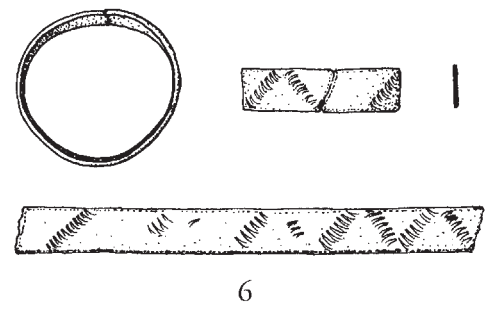
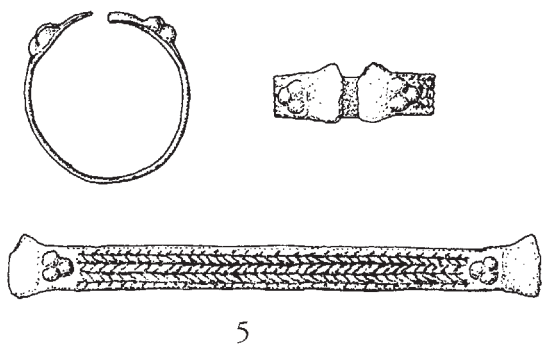
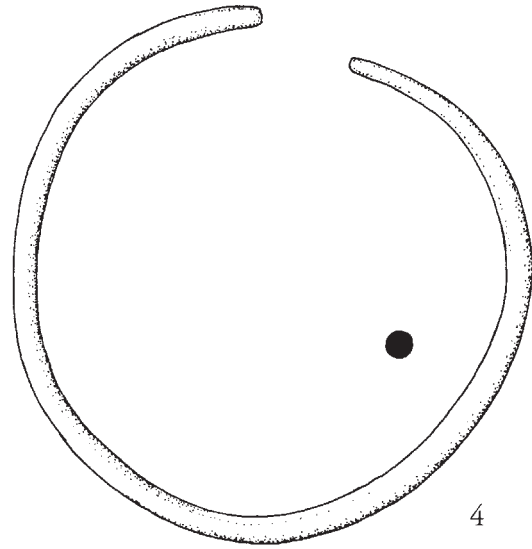
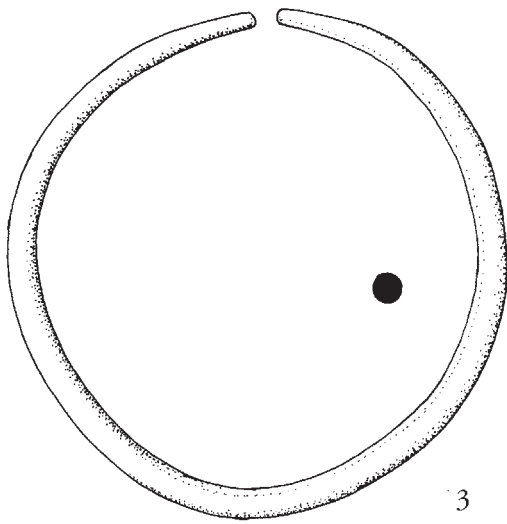
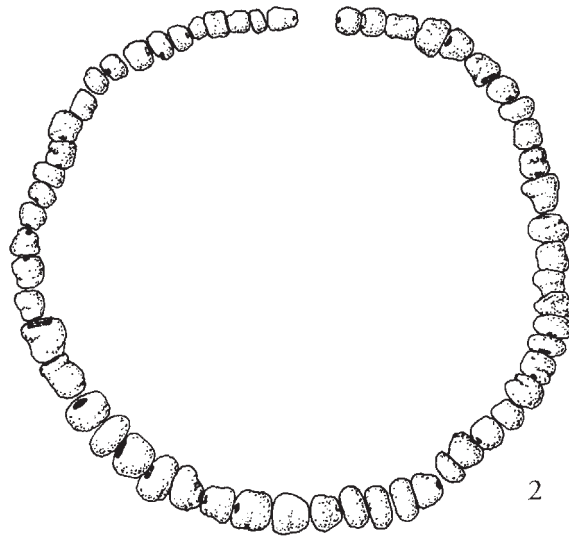




1. *Torc* – bronze, with a hook and eye for fastening, twisted from one triply bent wire of circular section, the ends of the wire cut; damaged (broken into two parts); Ø 15.57/15.14 cm (fastened); Ø twisted wire 0.27 cm; Ø wire 0.14 cm; wt. 17.270 g; S-2626 (G. 1a; De. 1.1.1.1a/nn);
2. *Necklace of beads – glass beads (59)*: globular-flattened, opaque, pale green (31); grits-shaped, opaque, yellowish white (17) and pale green (11); S-2629 (01/03 2 53; 01/14 2 12; 01/14 2 53);<sup>108</sup>
3. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered ends; Ø 6.73/6.50 cm; Ø wire 0.42–0.25 cm; wt. 18.024 g; S-2627 (G. 4; De. 1.2a);
4. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered ends; Ø 7.06/6.64 cm; Ø wire 0.38–0.24 cm; wt. 16.020 g; S-2628 (G. 4; De. 1.2a);
5. *Ring with a crown* – bronze, two-part; a hoop of banded section, with open and hammered ends, decorated with five rows of lengthwise pseudo-twisted wire, on the shoulders on each side of the crown three triangularly arranged granules; damaged (crown missing); h. –; hoop: Ø 2.22/2.15 cm, w. 0.55 cm, th. 0.13 cm; w. bezel 0.84 cm; crown: –; wt. hoop 3.087 g; S-2630 (G. 38b; M. 16b);
6. *Ring* – bronze, with open ends, banded section; cut ends of equal width; the hoop is decorated with a single zig-zag band formed from transverse, short, shallowly incised lines; Ø 2.14/1.98 cm; w. 0.64 cm; th. 0.10 cm; wt. 2.236 g; S-2631 (G. 21; H. 45b);
7. *Ring* – bronze, with open ends, banded section; the cut ends of equal width overlap; Ø 1.96/1.88 cm; w. 0.57 cm; th. 0.12 cm; wt. 1.974 g; S-2625 (G. 21; H. 45a).



<sup>108</sup> Three beads are missing.





**GRAVE 218**, quadrant XVII/14a. – A grave in an earthen pit; depth 1.15 m; ▼ 104.64/104.40 m; or. 280° (100° deviation from north). – Lying on the back, legs extended, head straight; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Female; length 1.46 m.

*Finds:* One *circlet* each on the right and left side of the head (1,2), a *spindle-whorl* between the feet (3).<sup>109</sup>

1. *Circlet* – bronze, open-ended, circular section, cut ends; Ø 3.12–3.00 cm (= 9.60 cm); Ø wire 0.28 cm; wt. 3.845 g; S-2633 (G. 13-I,9/5);
2. *Circlet* – bronze, open-ended, circular section, overlapping cut ends; Ø 2.89–2.58 cm (= 8.58 cm); Ø wire 0.21 cm; wt. 2.557 g; S-2634 (G. 13/I,8/3);
3. *Spindle-whorl* – clay, greyish-brown (Munsell 10YR 5/2), circular, biconical, differing halves, with a circular hole for the spindle; damaged (chipped); Ø 173 cm; h. 1.10 cm; Ø hole 0.48 cm; wt. 2.607 g; S-2632 (V. VII/26; H. 6).



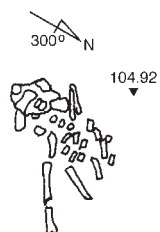
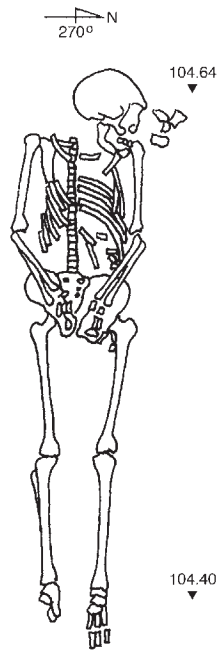
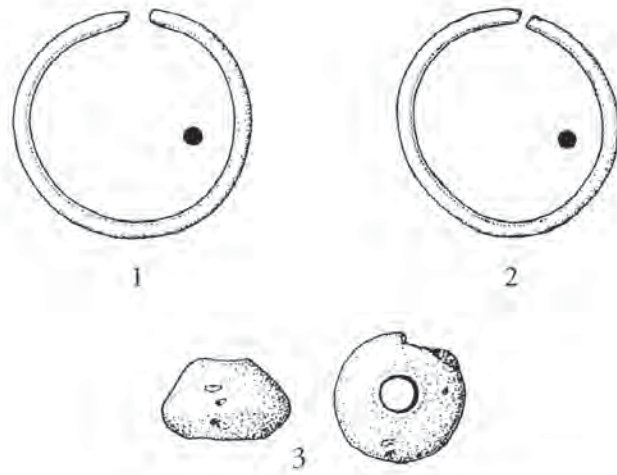
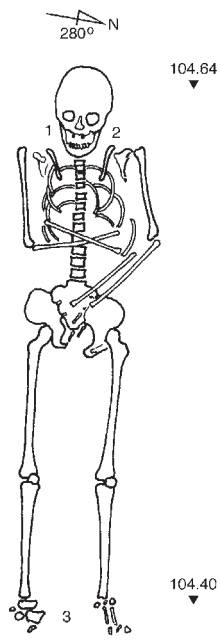
**GRAVE 219**, quadrant XVII/15c. – A grave in an earthen pit; depth 0.66 m; ▼ 104.81/104.72 m; or. 270° (90° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Male; length 1.49 m.

*No finds.*

**GRAVE 220**, quadrant XVII/15a. – A grave in an earthen pit; depth 0.42 m; ▼ 104.92 m (at the head); or. 300° (120° deviation from north). – Destroyed skeleton (a few bones of the skull and trunk remained). – Child; length 0.31 m.

*No finds.*

<sup>109</sup> The find of the spindle-whorl is noted in the *Zapisek*, no. 218/14 Aug. 1953.





**GRAVE 221**, quadrant XVI/14c. – A grave in an earthen pit; depth 0.68 m; ▼ 105.10/104.95 m; or. 280° (100° deviation from north). – Lying on the back, legs extended, head turned to the left (north); the forearms folded horizontally across the stomach: right below, left above (v.13a). – Female; length 1.58 m.

*No finds.*



**GRAVE 222**, quadrant XV/14c–XVI/14c. – A grave in an earthen pit; depth 0.63 m; ▼ 105.15/105.00 m; or. 274° (94° deviation from north). – Damaged skeleton (the skull and upper part of the trunk disarranged, the right arm missing); lying on the back, legs extended, head turned to the left; the right forearm bent horizontally across the abdomen, the left angled upwards across the chest (v.18).<sup>110</sup> – Female; length 1.60 m.

*Finds:* A ring on the right hand (1).

1. *Ring with a crown* – bronze, two-part; a hoop of banded section, separated and hammered ends, decorated with a lengthwise rib between double rows of pseudo-twisted wire; the crown circular, of petal-like trimmed sheet metal wound with a wire, with an inset hemispherically rounded stone of some fired mass with additions of silicate substances; damaged (hoop broken); h. 2.37 cm; hoop: Ø 2.10/1.93 cm, w. 0.98–0.60 cm, th. 0.12 cm; w. bezel 1.02 cm; crown: Ø 1.10/1.03 cm; wt. 2.767 g; S-2635 (G. 38b; M. 16b).

*Other objects in the grave:* A fragment of an *object of unknown purpose* by the feet (2).<sup>111</sup>

2. *Object of unknown purpose*, fragment – bone (worked); not preserved.

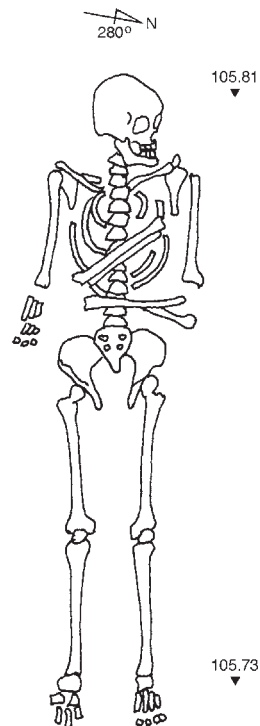
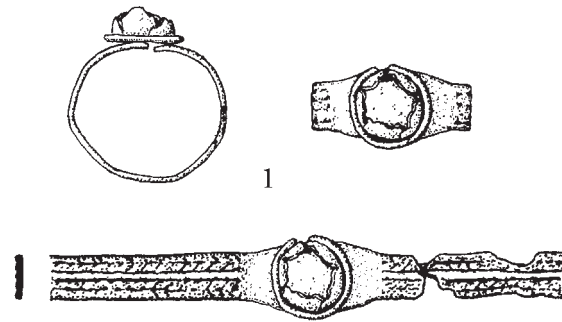
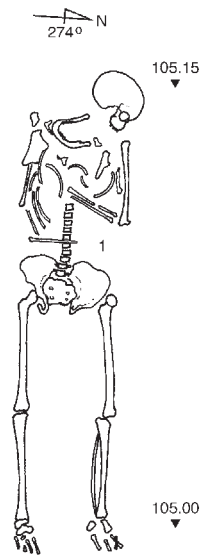
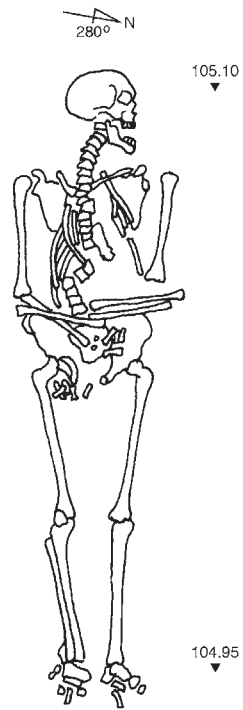


**GRAVE 223**, quadrant XVII/2d. – A grave in an earthen pit; depth 0.88 m, ▼ 105.81/105.73 m; or. 280° (100° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm angled upwards across the chest, the left horizontally across the stomach (v.14). – Female; length 1.55 m.

*No finds.*

<sup>110</sup> The position of the forearms was determined on the basis of the photograph of the skeleton.

<sup>111</sup> The *Dnevnik*, ad 26 Aug. 1953, described the object as a "fragment of worked bone" found "by the feet".





**GRAVE 224**, quadrant XVII/2a. – A grave in an earthen pit; depth 0.95 m; ▼ 104.85/104.70 m; or. 262° (82° deviation from north). – Damaged skeleton (skull fallen backwards); lying on the back, legs extended, head straight; the forearms angled downwards across the abdomen (v.7a). – Female; length 1.63 m. *No finds.*



**GRAVE 225**, quadrant XVI/2d. – A grave in an earthen pit; depth 0.95 m; ▼ 105.00/104.90 m; or. 294° (114° deviation from north). – Lying on the back, legs extended, head turned to the left (north); the forearms angled downwards across the abdomen (v.7a). – Female; length 1.58 m. *No finds.*



**GRAVE 226**, quadrant XVIII/14a–XVIII/15c. – A grave in an earthen pit; depth 0.43 m; ▼ 104.66 m (at the feet); or. 328° (148° deviation from north). – Damaged skeleton (the skull, upper part of the trunk with the upper arms, and the calves are missing);<sup>112</sup> Lying on the back, legs extended, head position undetermined; the forearms extended along the body (v.1). – Sex?; length 1.01 m (preserved part). *No finds.*

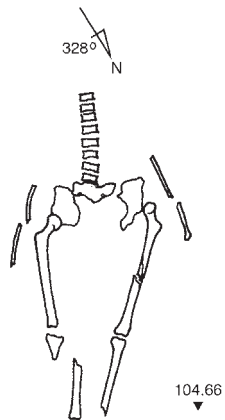
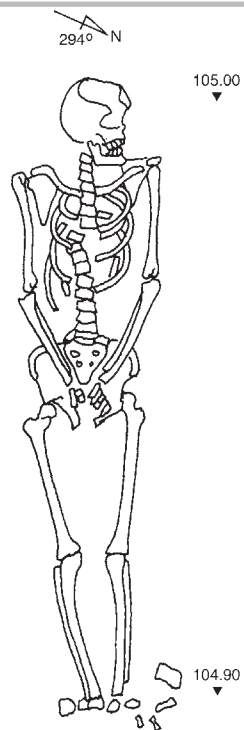
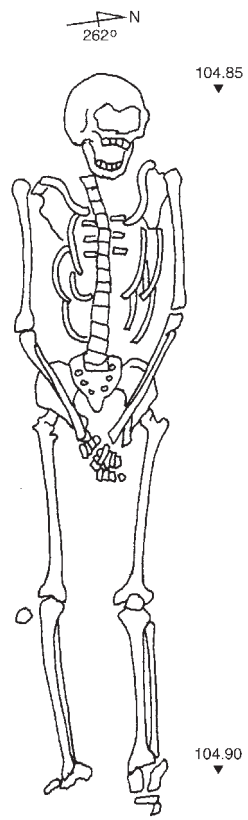
*Other objects in the grave:* A prehistoric bowl by the outer side of the left shin.<sup>113</sup>

1. Bowl; prehistoric, Early Iron Age.

<sup>112</sup> The *Zapiski*, no. 226/14 Aug. 1953, attributed the damaged state and poor preservation of the skeleton to tree roots growing through the grave.

<sup>113</sup> The *Zapiski*, no. 226/14 Aug. 1953, mentioned "by the (foot) left lower leg" the find of a Hallstatt bowl, which according to the log recorder (K.V. = Ksenija Vinski) "apparently is not a grave good". The find was similarly discussed by VINSKI 1955, 240–241; VINSKI 1959, 103).







**GRAVE 227**, quadrant XVIII/14c. – A grave in an earthen pit; depth 0.84 m; ▼ 104.67/104.56 m; or. 285° (105° deviation from north). – Poorly preserved skeleton (arms missing); lying on the back, legs extended, head turned to the right; the forearm position could not be determined. – Child; length 0.60 m.

*Finds: A necklace of beads around the neck (1) and a pendant in the form of a hoop (2).*

1. *Necklace of beads and a metal pendant (19) – glass beads (18):* globular-flattened, unspecified, yellowish white (1) and brown (4); globular-flattened, unspecified, brown / two opposite dots, impressed, yellowish white (1); globular-flattened, unspecified, pale brown / two irregularly arranged dots, impressed, yellowish white (1);

globular-flattened, unspecified, brown / three dots at regular intervals, impressed, yellowish white (3); globular-flattened, unspecified, brown / three irregularly arranged dots, impressed, yellowish white (3); globular-flattened, unspecified, brown / four irregularly arranged dots, impressed, yellowish white (1); globular-flattened, ribbed, opaque, pale green (1); annular, unspecified, pale brown (1); annular, unspecified, brown / irregular line, intermittent, impressed, yellowish white (1); annular, unspecified, brown / three irregularly arranged dots, impressed, yellowish white (1); 2636 (01/03 4 12; 01/03 4 60; 01/03 4 60/10102 01 12; 01/03 4 12/10112 01 12; 01/03 4 60/10103 01 12; 01/03 4 60/10113 01 12; 01/03 4 12/10114 01 12; 01/04 2 53; 01/11 4 60; 01/11 4 60/20201 02 12; 01/11 4 60/10113 02 12); – *metal pendant (1):* see no. 2 (hoop);

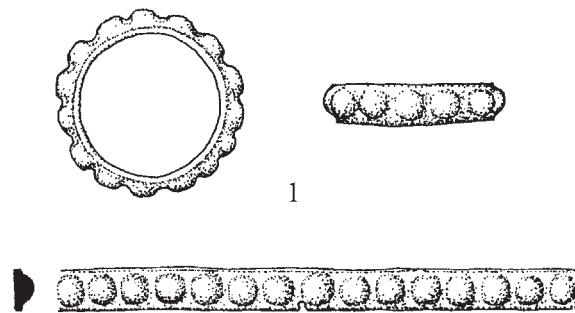
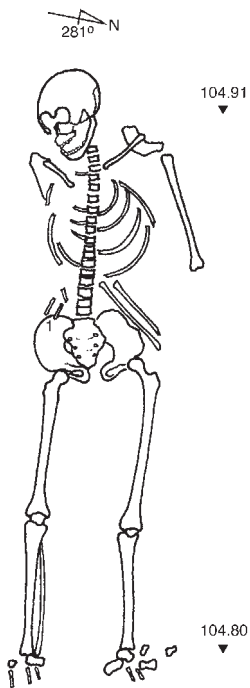
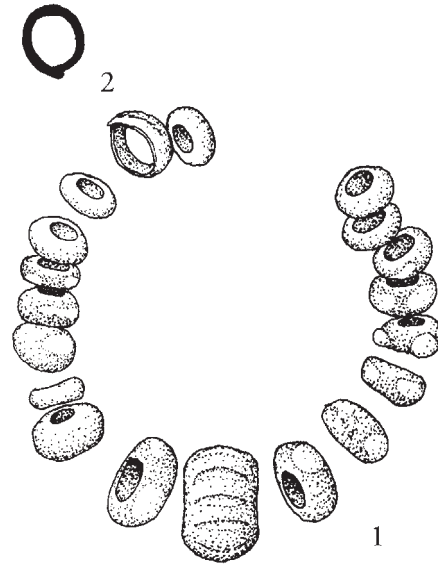
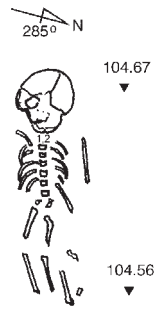
2. *Hoop, pendant on a necklace – bronze, smooth, open-ended, circular, triangular section, the cut ends overlap; h. 0.99; Ø 0.85cm; w. 0.42 cm; th. 0.13 cm; wt. 0,667 g; S-2636 (G. –).*



**GRAVE 228**, quadrant XVII/3c. – A grave in an earthen pit; depth 0.95 m; ▼ 104.91/104.80 m; or. 281° (101° deviation from north). – Damaged skeleton (the right part of the trunk and arm missing); lying on the back, legs extended, head turned to the right; the forearm position could not be determined (the left angled upwards across the chest). – Male; length 1.58 m.

*Finds: A ring on a finger of the right hand; [Pl. 11:1].*

1. *Ring – bronze, closed hoop, semicircular section; decorated on most of the width of the hoop with 15 wart-like extrusions (pseudo-granules); Ø 2.42 cm; w. 0.59 cm; th. 0.35/0.23 cm; wt. 5.378 g; S-2637 (V. III/33; H. 55b); [Pl. 11:1].*





**GRAVE 229**, quadrant XVII/3a. – A grave in an earthen pit; depth 0.90 m; ▼ 104.89/104.74 m; or. 280° (100° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Male; length 1.45 m.

*Finds:* An *O-circlet* on the right side of the head (1), a *ring* on a finger of the right hand (2).

1. *O-circlet* – silver, circular section, cut end; h. 3.10 cm; Ø 2.80/2.70 cm; Ø wire 0.20 cm; O-w. 0.37 cm; wt. 2.596 g; S-2638 (V. IV/5; H. 12a-I,8/3);
2. *Ring* – silver, with open ends, banded section, the tapered and rounded ends meet; Ø 2.00/1.94 cm; w. 0.38–0.17 cm; th. 0.19–0.07 cm; wt. 1.720 g; S-2639 (G. 21; H. 45a).



**GRAVE 230**, quadrant XVII/4c. – A grave in an earthen pit; depth 0.62 m; ▼ 105.01 m (at the head); or. 267° (87° deviation from north). – Damaged skeleton (skull crushed, feet missing); lying on the back, legs extended, head turned to the left; the forearms extended along the body (v.1). – Child; length 0.52 m.

*Find:* A *bead* near the head.

1. *Necklace with a bead* – glass bead (1): unknown; not preserved (01/16 0 00).<sup>114</sup>



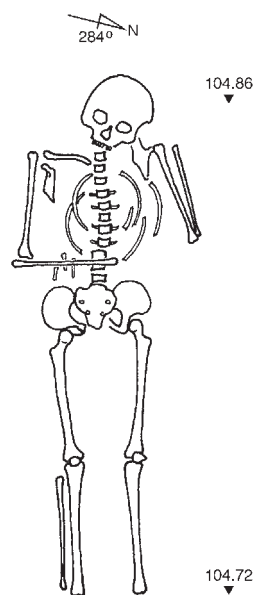
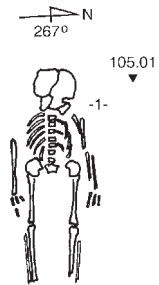
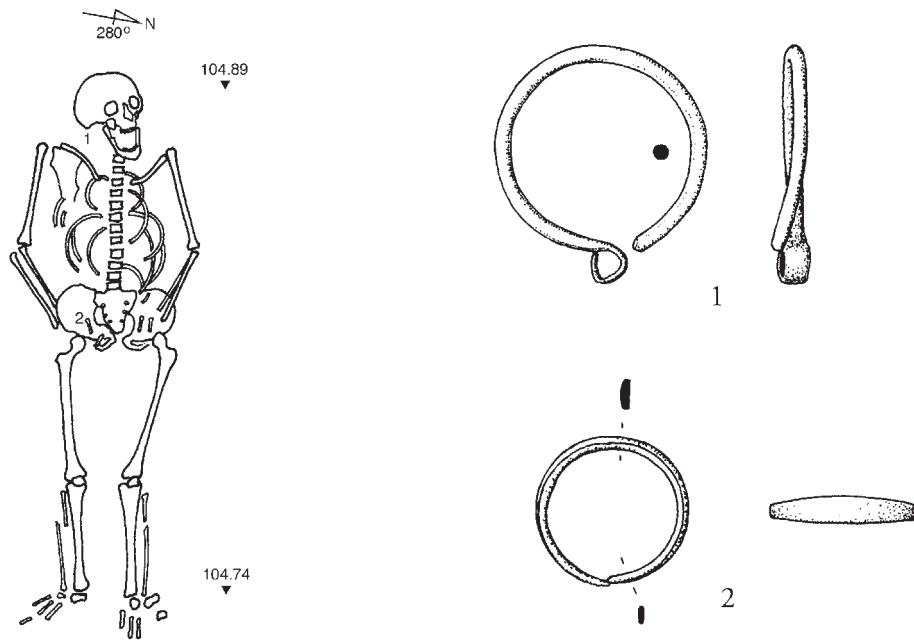
**GRAVE 231**, quadrant XVII/4a–b. – A grave in an earthen pit; depth 0.90 m; ▼ 104.86/104.72 m; or. 284° (104° deviation from north). – Damaged skeleton (feet missing); lying on the back, legs extended, head straight; the right forearm folded horizontally across the abdomen, the left bent upwards with the hand on the shoulder (v.23). – Female; length 1.42 m.

*No finds.*

*Other objects in the grave:* An animal tooth next to the right side of the pelvis on the outside.

1. *Tooth* – bone, eyetooth of a pig; l. 5.24 cm; w. 1.42 cm; wt. 6.066 g; S-2640; (Fig. 56:19).

<sup>114</sup> The bead is not preserved, but it was noted that it was multicolored and that it had been found in the "upper part of the grave" (*Dnevnik*, ad 10 Aug. 1953), i.e. "near the head" (*Zapiski*, no. 230/13 Aug. 1953).



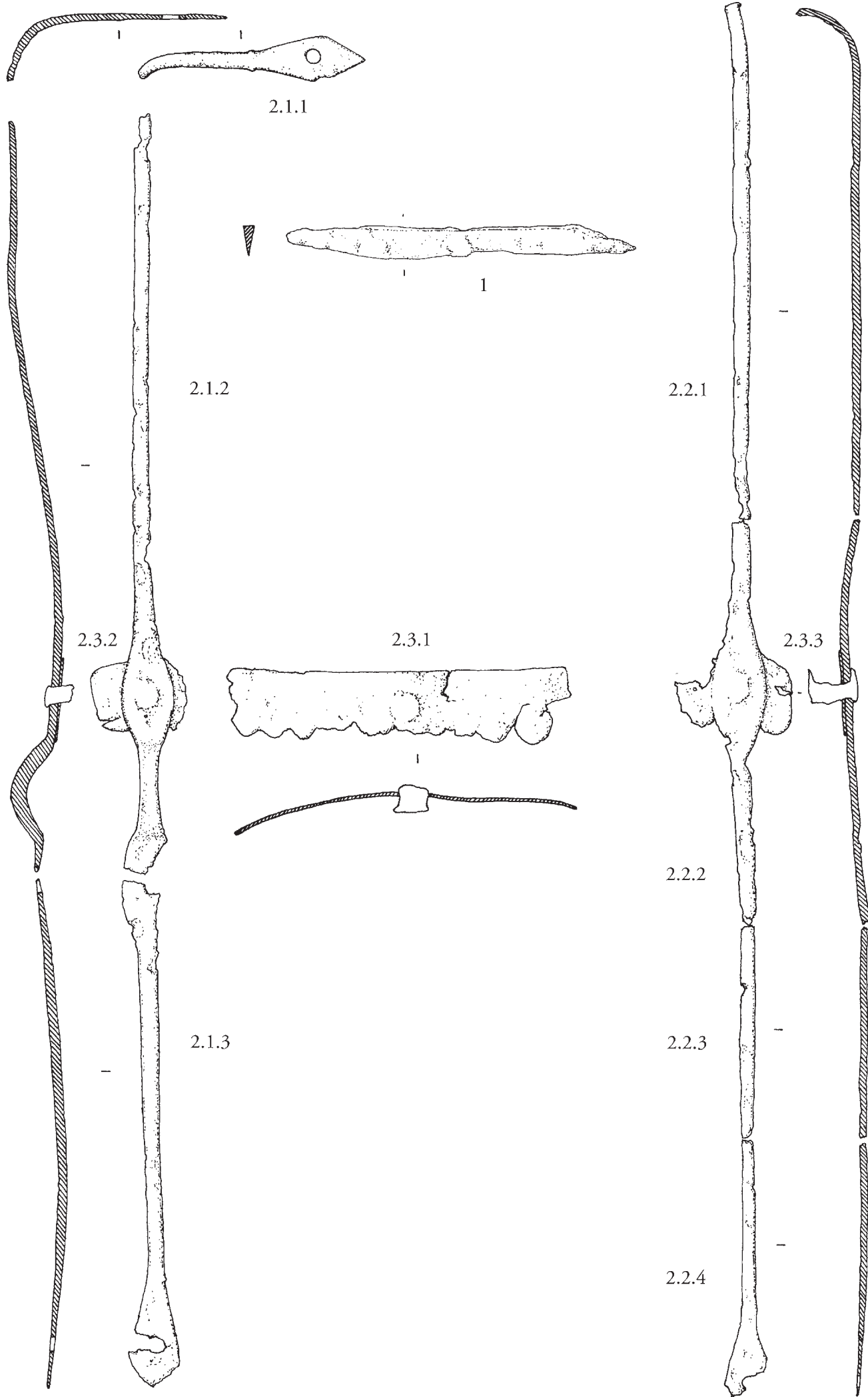


**GRAVE 232**, quadrant XIII/5a–b. – A grave in an earthen pit; depth 0.88 m; ▼ 105.79/105.59 m; or. 265° (85° deviation from north). – Lying on the back, legs extended, head straight; the forearms angled downwards and crossed on the abdomen (v.7b). – Male; length 1.69 m.

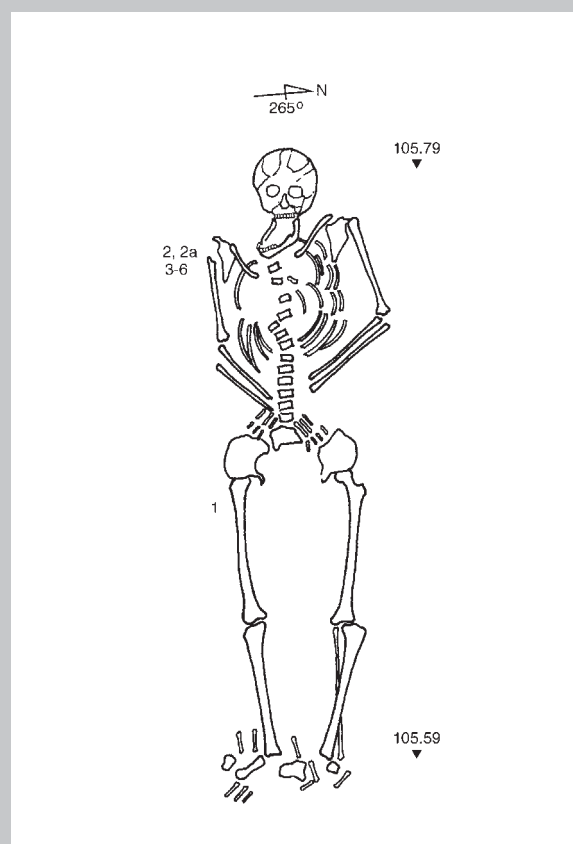
*Finds: A quiver with bone panels by the right upper arm (2), four arrowheads in the quiver (3–6), a razor by the outside of the right thigh (1).<sup>115</sup>*

1. *Razor* – iron, blade of triangular section with the top angled downwards and the bottom angled upwards; damaged (corroded; case missing); l. 6.90 cm; w. 0.67 cm; th. 0.32 cm; wt. 2.868 gr; S-3819 (H. –);
2. *Quiver*, parts, entire and fragments (14 pieces) – a) *reinforcing rods*, iron, entire and fragments (5+4 pieces): upright, lateral, upper (2 pieces); transverse, banded, upper (1 piece); upright, upper, middle with a hook (1 piece), transverse, banded, lower with panelling of the base (1 piece); mounts of unknown purpose (4 pieces); S2641-1/1–9 (G. –; To. A2; H. 10); b) *panels of the rim and neck*, bone, fragments (5 pieces): side panels of the rim (2 pieces); upper surface panel of the rim (1 piece); upper frontal panel of the rim (1 piece); front panel of the neck (1 piece); S-2646/1–5 (G. –; To. A2; H. 10); [PI. 14];
  - 2.1 *Rod: upright, upper, lateral, arched, with an L-shaped ending*, fragments (3 pieces) – iron, a rod of hemispherical section with an arched elevated element, with three rhomboid widenings with rivets on the perpendicular sides and a rhomboid widening with a hole for a nail on the upper L-ending; damaged (corroded; broken into three parts; incomplete); l. ca. 29,5 cm (l. fragment: 1.35+ 15.00+10.06 = 26.41 cm); w. 0.35 cm, th. 0.17 cm; rivet: h. 1.02 cm, dim. 0.30/0.45 cm; S-2641/1.1–3;
  - 2.2 *Rod: upright, upper, lateral, straight, with an L-shaped ending*, fragments (4 pieces) – iron, a rod of hemispherical section with three rhomboid widenings with rivets on the perpendicular sides and a rhomboid widening with a hole for a nail on the upper L-ending; damaged (corroded; broken into four parts; incomplete, the rhomboid widening with the L-ending missing); rod: l. ca. 29.5 cm (l. fragments: 10.12+7.9+4.31+5.14 = 27.45 cm), w. 0.40 cm, th. 0.16 cm; rivet: h. 1.05 cm; S-2641/2.1–4;
  - 2.3 *Rod: transverse, upper*; fragments (3 pieces) – iron, banded section, bent in an arch; the upper surface flat, the lower triangularly serrated; damaged (corroded; incomplete, most of the rod missing); l. fragment 10.89 cm (6.70+1.85+2.34); w. 1.50 cm, th. 0.1 cm; S-2641/3.1–3 (S-2641/3.1=S-2751);
  - 2.4 *Rod: upright, upper, middle with a hook* – iron, a rod of hemispherical section, rhomboid widenings on the ends, the upper broad rhomboid widening with a rivet ends in a hook bent outwards; damaged (corroded; incomplete, lower widening broken off); l. 16.4 cm, w. 0.44 cm, th. 0.18 cm; rivet: h. 0.70 cm, dim. 0.30/0.40 cm; S-2641/4;
  - 2.5 *Rod: transverse, lower*; fragment – iron, banded section, with the accompanying nail; damaged (corroded; incomplete, bent); l. 3.36 cm, w. 1.62 cm, th. 0.07 cm; S-2641/5;
    - 2.5a *Nail* – iron, circular head, square sectioned shank; (corroded); l. 1.89 cm; S-2641/5a;
    - 2.5-1 *Frame of the panelling of the base (?)*, fragment – iron, banded section; damaged (corroded, incomplete); l. 3.28 g, w. 1.62 cm; th. 0.60 cm; S-2641/5-1;

<sup>115</sup> The razor is attributed to the skeleton from gr. 232 (by the leg) on the basis of the photo documentation from the field (Photo Archives AMZ, nos. 1823-III-131; 1825-II-837). In the S-AMZ it was located in a group together with iron objects of unknown purpose attributed to gr. 127? (all objects S-2581).



- 2.6 *Mount of unknown purpose*; fragment – iron, banded section with a rhomboid widening and rivets at both ends; damaged (corroded, incomplete); mount: l. 4.20 cm, w. 0.60 cm, th. 0.08 cm; rivets (1,2): h. 0.70 cm, dim. 0.35/0.45 cm; S-2641/6;
- 2.7 *Mount of unknown purpose*; fragment – iron, banded section with a rhomboid widening with a rivet; damaged (corroded; incomplete, the rhomboid widening broken off, rivet missing); l. 4.27 cm, w. 0.40 cm, th. 0.1 cm; S-2641/7;
- 2.8 *Mounts of unknown purpose*; fragments (4 pieces) – iron, banded section, rounded body, with a rivet and remains of a rivet; damaged (corroded, incomplete, broken); mounts (1–4): l. fragments 11.42 cm (3.50+3.43+3.14+1.35); w. 0.68 cm, th. 0.11 cm; rivet: h. 1.12 cm; S-2641/8.1–4;
- 2.9 *Rivets for mounts of unknown purpose* (2 pieces) – iron, oval shaped; damaged (corroded, mounts missing); h. 1.04, 0.87 cm; S-2641/9.1–2;
- 2a. *Quiver panels*, parts of the rim and neck of a quiver (5 pieces) – bone, carved, geometric and curved decoration; damaged (the parts broken and only partially preserved); S-2646;
- 2a.1 *Rim panel, exterior surface of the right wall*; fragments (4 pieces) – bone, irregular trapezoidal shape, rounded corners; along the middle of the exterior surface a vertical trace of corrosion from the iron rod; damaged (incomplete; broken into four pieces; the lower part missing); l. 9.3 cm, w. 3.38 cm; th. 0.14–0.2 cm; S2646/1.1–4;
- 2a.2 *Rim panel, upper part of the front surface of the right wall*; fragments (2 pieces) – bone, narrow banded shape, rounded edges; damaged (incomplete; broken into two pieces); l. 6.53 cm; w. 0.56 cm, th. 0.26; AMZ S-2646/2.1–2;
- 2a.3 *Rim panel, exterior surface of the left wall*; fragments (3 pieces) – bone, irregular trapezoidal shape, rounded corners; along the middle of the exterior surface a vertical trace of corrosion from the iron rod; damaged (incomplete; broken into three parts); l. 14 cm, w. 3 cm, th. 0.1–0.25 cm; S-2646/3.1–3;
- 2a.4 *Rim panel, exterior surface of the upper wall*; fragments (broken) – bone, irregular trapezoidal shape, rounded sides; damaged (incomplete; most missing; broken into several pieces); l. 6 cm; w. 2.8 cm, th. 0.17–0.18 cm; S-2464/4;
- 2a.5 *Neck panel, front surface*; fragments (broken) – bone, irregular rectangular shape, damaged (incomplete; broken into several pieces; reconstructed); dim. ca. 13.5/13x4.3/4.1 cm; l. fragments 11.72 cm (6.68+5.04 cm), w. 3.9 cm, th. 0.14–0.16; S-2646/5;







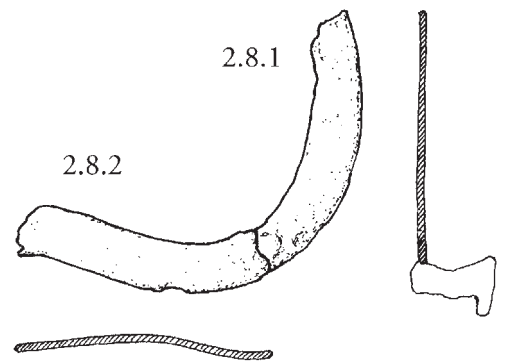
2.5



2.5a

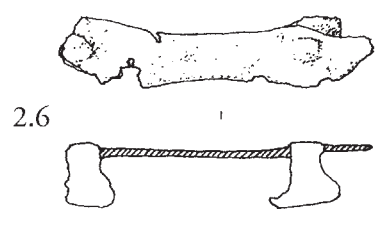


2.5-1

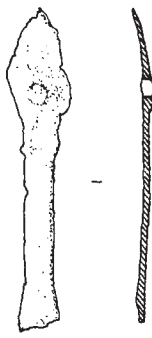


2.8.1

2.8.2



2.6



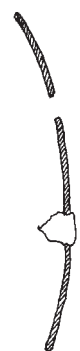
2.7



2.9.1



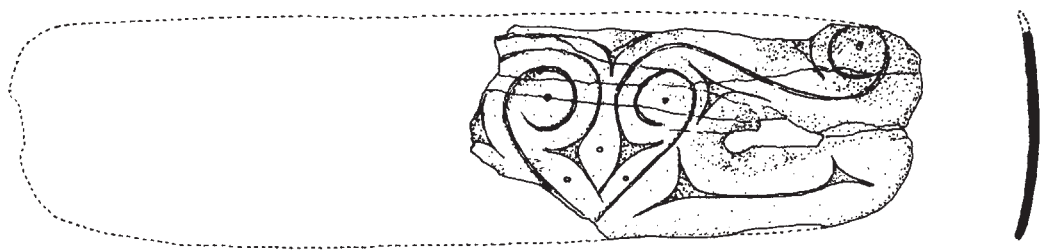
2.9.2



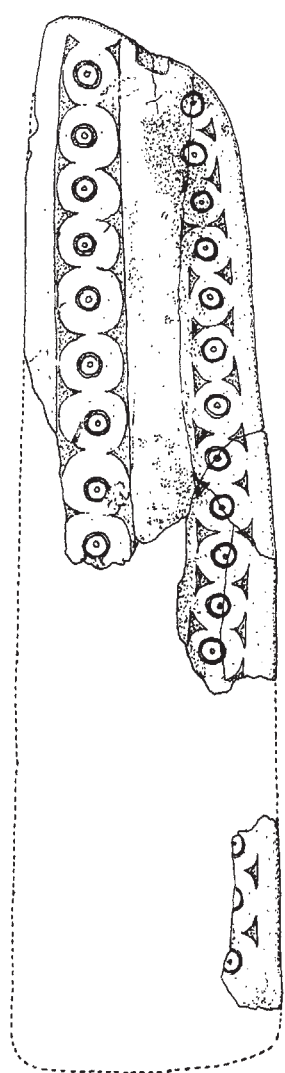
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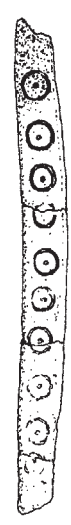
2.8.4



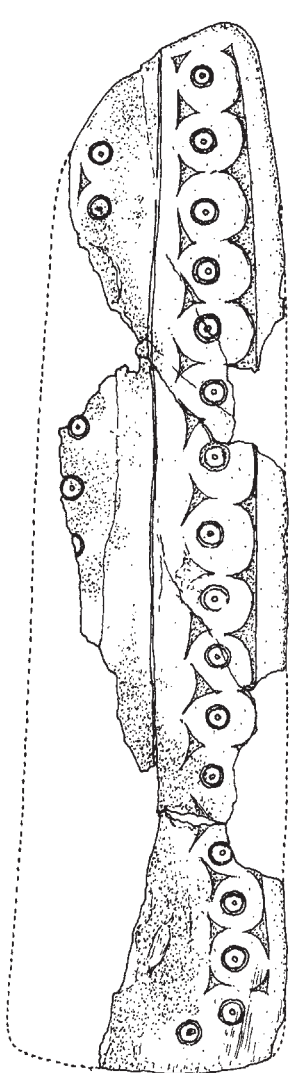
2a.4



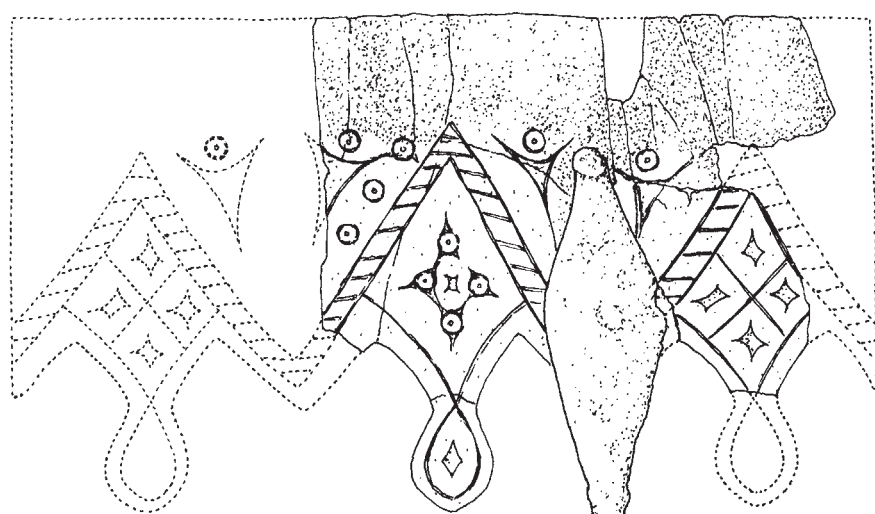
2a.1.1-4



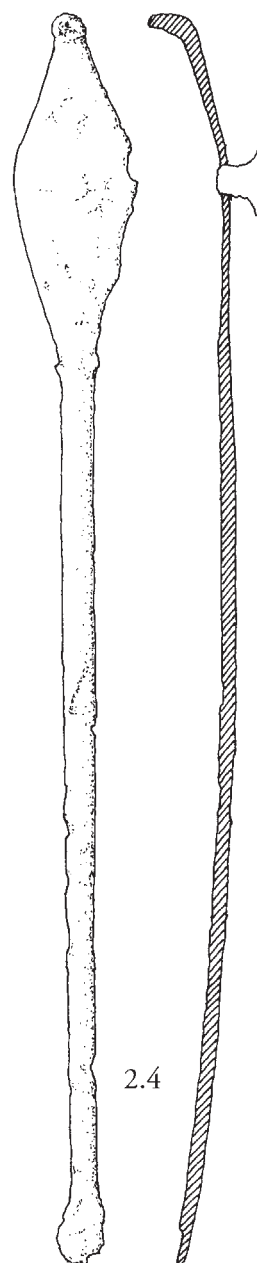
2a.2.1-2



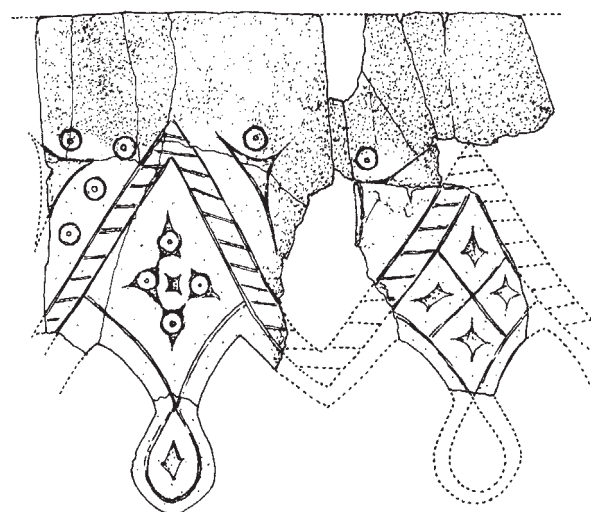
2a.3.1-3



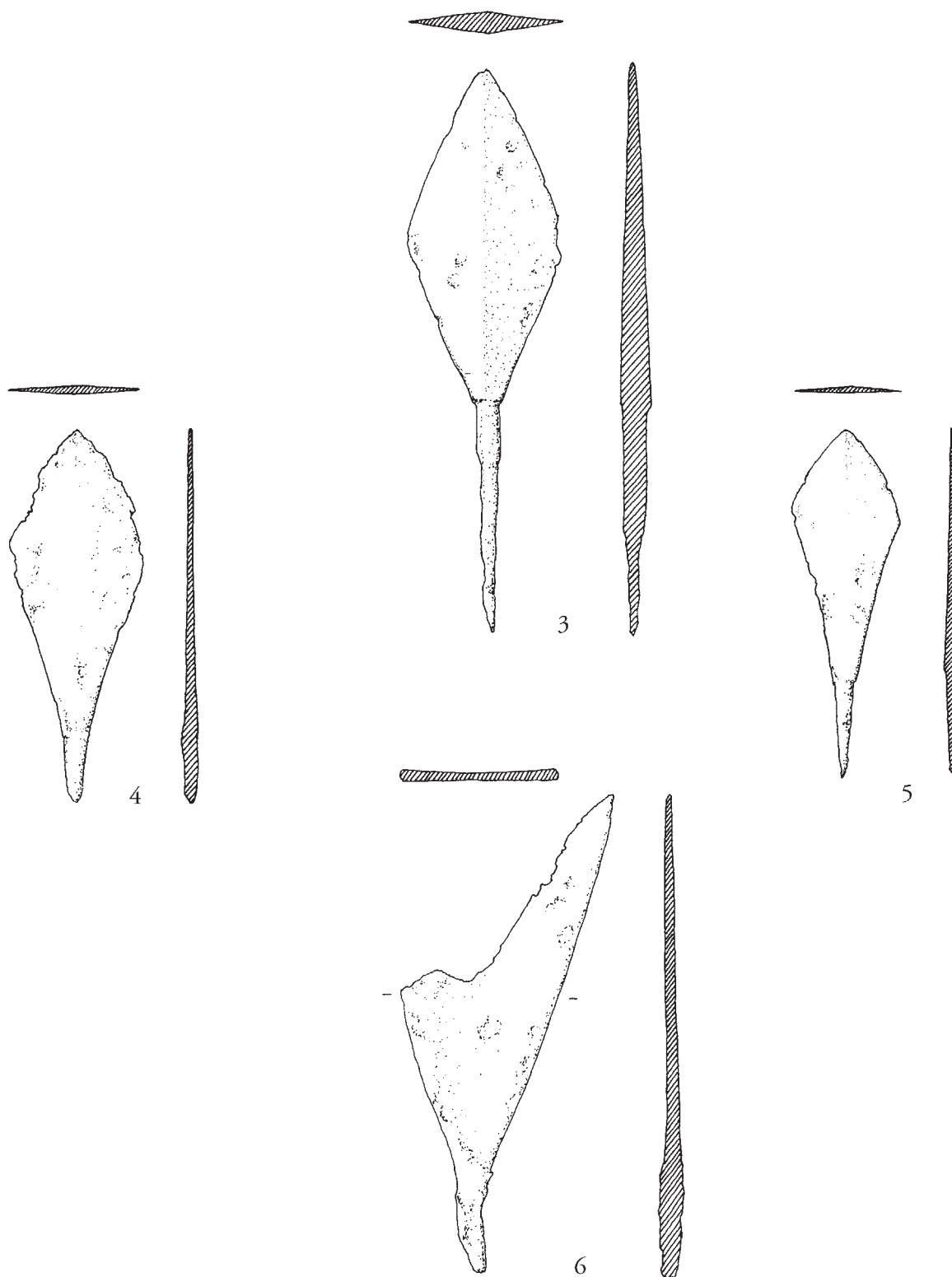
2.4/2a.5



2.4



2a.5



3. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the middle of the head; damaged (corroded); l. 9.00 cm; head: l. 5.30 cm, w. 2.45 cm, th. 0.42 cm; tang: l. 3.70 cm; wt. 15.800 g; S-2642 (G. A; To. A3; H. 8a; De. 1.2; Rutt. B2a/Med. 48);
4. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half of the head; damaged (corroded; head chipped, tang incomplete); l. 6.00 cm; head: l. 4.80 cm, w. 2.14 cm, th. 0.20 cm; tang: l. 1.20 cm; wt. 5.306 g; S-2643 (G. A; To. A3; H. 8a; De. 1.1; Rutt. B3/Med. 52);
5. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half of the head; l. 5.62 cm; head: l. 4.00 cm, w. 1.74 cm, th. 0.15 cm; tang: l. 1.62 cm; wt. 3.587 g; S-2644 (G. A; To. A3; H. 8a; De. 1.1; Rutt. B3/Med. 52);
6. *Arrowhead* – iron, double-winged head, tang with a groove, damaged (corroded; one wing broken, tang incomplete); l. 7.82 cm; head: l. 6.00 cm; w. 4.50 cm, th. 0.22 cm; tang: l. 1.82 cm; wt. 8.763 g; S-2645 (G. A; To. A3; H. 8c; De. 3.1; Rutt. B5a/Med. 60).



**GRAVE 233**, quadrant XIII/5b–d. – A grave in an earthen pit; depth 0.63 m; ▼ 105.89/105.81 m; or. 270° (90° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk disarranged, the arms and legs missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length?.

*No finds.*

**GRAVE 234**, quadrant XIII/5a. – A grave in an earthen pit; depth 0.90 m; ▼ 105.87/105.71 m; or. 275° (95° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk, arms, and legs disarranged); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Female?; length 1.53 m.

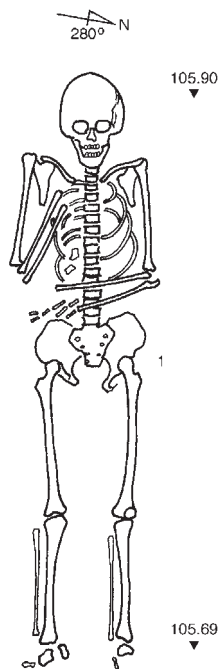
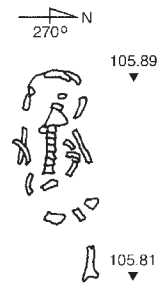
*No finds.*



**GRAVE 235**, quadrant XIII/5c–d. – A grave in an earthen pit; depth 0.87 m; ▼ 105.90/105.69 m; or. 280° (100° deviation from north). – Lying on the back, legs extended, head straight; the right forearm angled upwards across the chest, the left folded horizontally across the stomach (v.14). – Female?; length 1.66 m.

*Finds:* A *knife* on the outside of the pelvis on the left.

1. *Knife* – iron, single-edged, with a tang for the handle, curved back, damaged (corroded; tip of the point missing, blade chipped); l. 12.40 cm; blade: w. 1.52 cm, th. 1.28/1.14 cm; wt. 11.614 gr; S-2647 (To. A4; H. 5).



1



**GRAVE 236**, quadrant XIII/5c. – A grave in an earthen pit; depth 0.58 m; ▼ 105.92 m; or. 270° (90° deviation from north). – Destroyed skeleton (a few bones of the pelvis and legs remained). – Child; length?.

*No finds.*



**GRAVE 237**, quadrant XIII/4a. – A grave in an earthen pit; depth 0.87 m; ▼ 105.77/105.59 m; or. 280° (100° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm angled downwards across the abdomen, the left extended along the body (v.2). – Male; length 1.68 m.

*Finds:* By the upper and lower right arm extending to the pelvis *reinforcing rods for a quiver* (1) with *buckles for attachment* (2,3) and two *arrowheads* (4,5).<sup>116</sup>

1. *Quiver*, parts, entire and fragments (7 pieces) – *rods*, iron, parts, entire and fragments (7 pieces): upright, lateral, upper with an L-shaped ending (1 piece); upright, lateral, upper without an L-shaped ending (1 piece); upright, upper, middle with a hook (1 piece); upright, middle, lateral (1 piece); upright, lower (3 pieces); S-2648/1–7 (To. A2; H. 10);

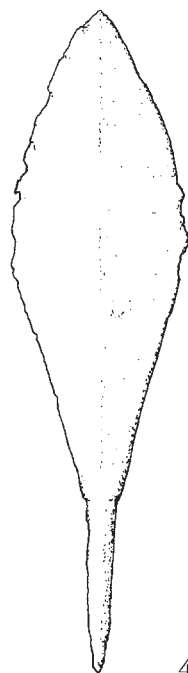
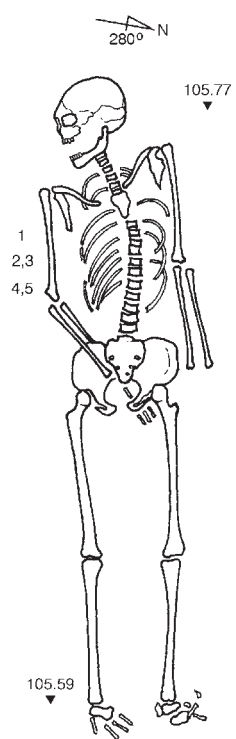
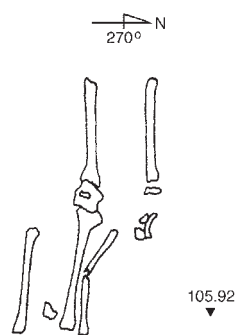
1.1 – *Rod: upright, upper, lateral, arched (with an L-shaped ending)*; fragments (3 pieces) – iron, a rod of hemispherical section with an arched elevated element and three rhomboid widenings with rivets on the perpendicular sides and a rhomboid widening with a hole for a nail on the upper L-ending; a fragment of the upper widening with the accompanying nail; damaged (corroded; incomplete, broken into two parts, the upper L-ending with the rhomboid widening and nail missing); l. fragment 17.59 cm (2.95+6.53+8.11 cm), w. 0.24 cm, th. 0.15 cm; arch (arched elevated element): h. 1.06 cm, w. 0.42 cm, th. 0.35 cm; S2648-/1.1–3;

1.1a *Nail* – iron, circular head, square sectioned shank; (corroded); l. 2.23 cm; AMZ 2648/1a;

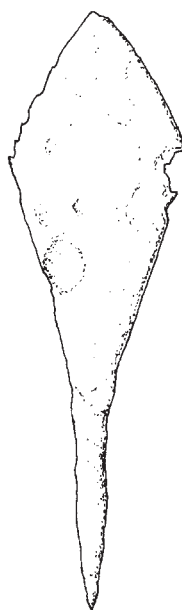
1.2 *Rod: upright, upper, lateral, straight, with an L-shaped ending*; fragments (2 pieces) – iron, a rod of hemispherical section with a rhomboid widening with a rivet and a rhomboid widening with a hole for a nail on the upper L-ending; damaged (corroded; incomplete, broken into two parts; the upper part of the rod with a rhomboid widening and hole for a nail missing, and the lower rhomboid widening with a rivet broken off); l. fragment 11.78 cm (8.12+3.66 cm), w. 0.33, th. 0.19; S-2648/2.1–2;

1.3 *Rod: upright, upper, middle with a hook and three (?) rivets* – iron, a rod of hemispherical section with an elongated rhomboid widening with two rivets at one end, and a rhomboid widening with a rivet at the other end; damaged (corroded; incomplete, part of the lower rhomboid widening broken off); l. 17 cm, w. 0.26 cm, th. 0.18 cm; elongated widening: w./1 0.98 cm, w./2 0.80 cm, th. 0.14 cm; w./3 –, th. 0.15 cm; S-2648/4/3;

<sup>116</sup> The photographs of the grave further confirm that in gr. 237 only two arrows were found (*Zapiski*, no. 237/4 Aug. 1953), and not three, as was written in the *Dnevnik* (ad 13 Aug. 1953) and as was noted in the first publication, see VINSKI 1955, 244.



4



5



1.4 *Rod: upright, middle, lateral, arched*; fragments (2 pieces) – iron, a rod of banded section with an arched elevated element, with three rhomboid widenings with rivets on the perpendicular sides; damaged (corroded; incomplete, broken into two parts, the upper part of the rod with a rhomboid widening missing, the lower rhomboid widening broken off); l. fragment 11.78 cm (6.00+5.78 cm), w. 0.43 cm, th. 0.15 cm; arch (arched elevated element): h. 1.00 cm, w. 0.37 cm, th. 0.30 cm; S-2648/3.1–2/4.1–2;

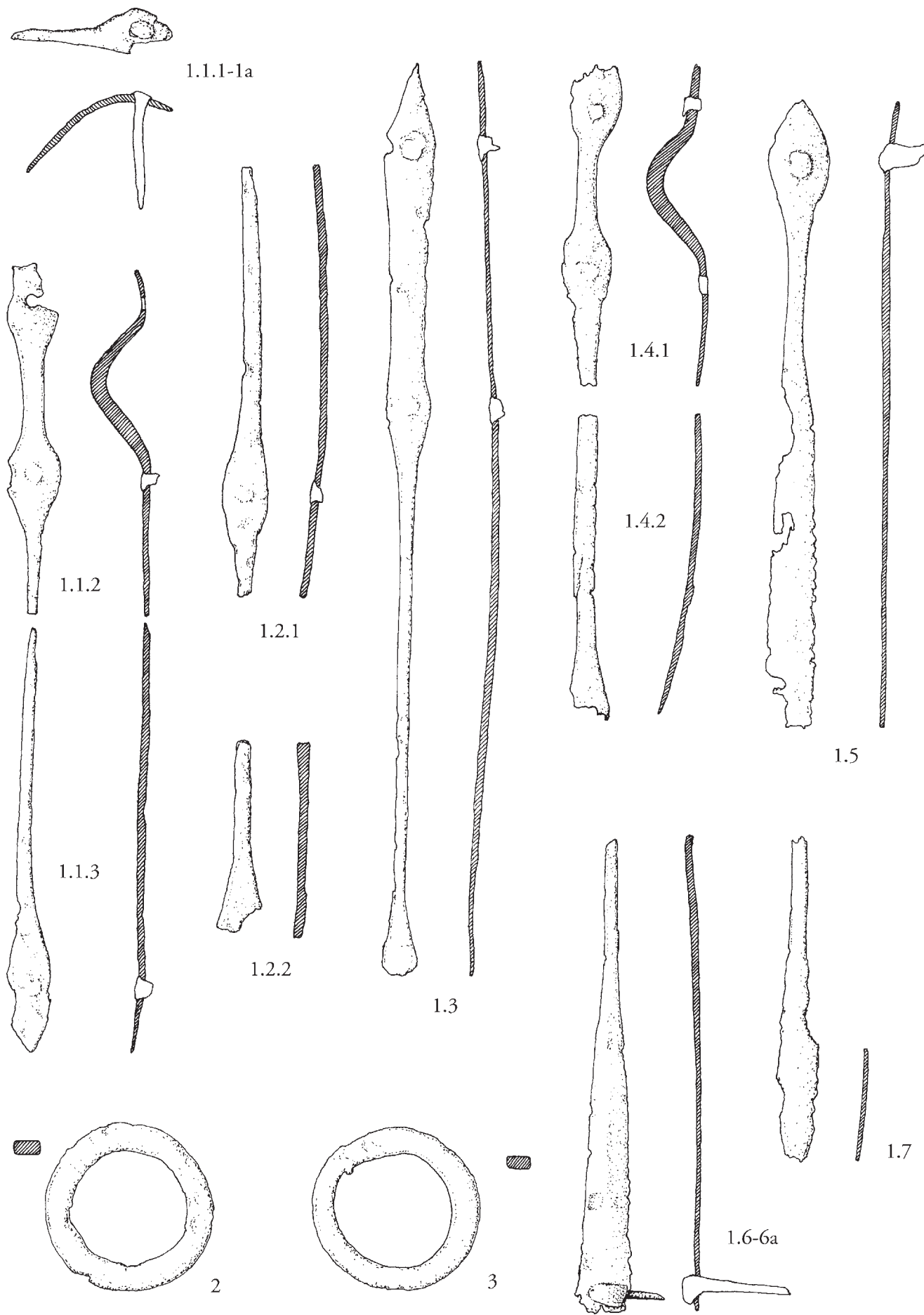
1.5 *Rod: upright, lower*; fragment – iron, a rod of hemispherical section with an upper rhomboid widening with a rivet and a lower elongated trapezoidal widening (with a hole for a nail); the walls of the lower widening serrated; damaged (corroded; incomplete, the lower part with the hole for a nail missing); l. 11.68 cm; w. 0.31 cm; th. 0.15 cm; rhomboid widening: w./1 1.26 cm, th. 0.16 cm; elongated widening: w./2 0.96 cm, th. 0.08 cm; rivet: h. 1 cm; w. 0.50–0.30 cm; S-2648/5;

1.6 *Rod: upright, lower*; fragment – iron, a rod of hemispherical section (with an upper rhomboid widening with a rivet) and a lower elongated trapezoidal widening with a hole for a nail; the walls of the lower widening are serrated; the lower widening still has its nail; damaged (corroded; incomplete, the upper widening missing); l. 8.94 cm; w. 0.29 cm; th. 0.16 cm; elongated widening: w./2 1.10 cm, th. 0.11 cm; S-2648/6;

1.6a *Nail* – iron, circular head, square sectioned shank; (corroded); l. 2.18 cm; AMZ 2648/6a;

- 1.7 *Rod: upright, lower*; fragment – iron, a rod of hemispherical section (with an upper rhomboid widening with a rivet) and a lower elongated trapezoidal widening (with a hole for a nail); the walls of the lower widening are serrated; damaged (corroded; incomplete, part of the rod with the upper widening and most of the lower widening with a hole for a nail are missing); l. 6.12 cm, w. 0.34 cm, th. 0.14 cm; lower widening: w./2 0.83 cm, th. 0.14 cm; S-2648/7;
2. *Buckle*, for attaching a quiver, incomplete – iron, one part, circular frame; frame closed, square section; damaged (corroded; pin missing); Ø 3.12 cm; th. 0.25 cm; wt. 6.851 g; S-3817 (H. 64a);
3. *Buckle*, for attaching a quiver, incomplete – iron, one part, circular frame; frame closed, square section; damaged (corroded; pin missing); Ø 3.11 cm; th. 0.25 cm; w. 6.608 g; S-3818 (H. 64a);
4. *Arrowhead* – iron, laurel-leaf shaped head with a central rib, tang with a groove; damaged (corroded); l. 8.71 cm; head: l. 6.37 cm, w. 2.23 cm, th. 0.22 cm; tang: l. 2.34 cm; wt. 9.993 g; S-2650 (G. A; To. A3; H. 8b; De. 2.1; Rutt. B 1a/Med. 63);
5. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half of the head; damaged (corroded; head chipped); l. 7.93 cm; head: l. 5.10 cm, w. 2.33 cm, th. 0.20 cm; tang: l. 2.83 cm; wt. 10.284 g; S-2649 (G. A; To. A3; H. 8a; De. 1.1; Rutt. B3/Med. 52).







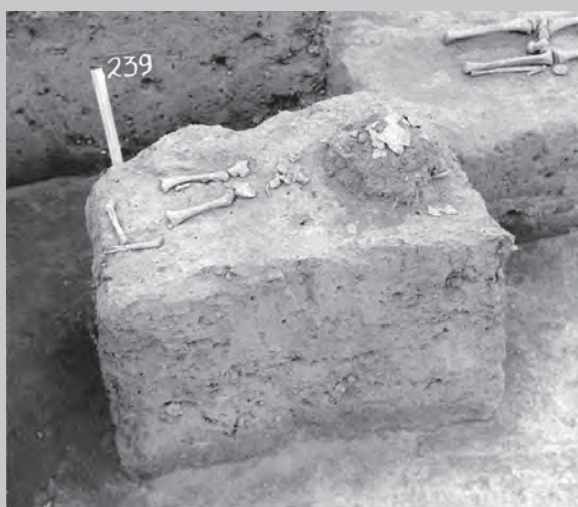
**GRAVE 238**, quadrant XIII/4c–d. – A grave in an earthen pit; depth 1.05 m; ▼ 105.59/105.43 m; or. 298° (118° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms extended along the body (v.1). – Male?; length 1.68 m.

*Finds: A knife in the palm of the left hand (1).*

1. *Knife* – iron, single-edged, with a tang for fixing the handle, straight back curved downwards at the tip; damaged (corroded, blade chipped); l. 14.50 cm; blade: w. 1.72 cm, th. 0.50/0.25 cm; wt. 26.105 g; S-2651 (To. A4; H. 5).

*Other objects in the grave: A nail on the left side by the left foot (2).*

2. *Nail* – iron, square section; damaged (corroded, incomplete, head damaged); l. 2.70 cm; w. 0.44/0.20 cm, wt. 0.803 g; S-2652; (Fig. 56:20).<sup>117</sup>



**GRAVE 239**, quadrant XIII/4d. – A grave in an earthen pit; depth 0.57 m; ▼ 105.97/105.85 m; or. 270° (90° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk and arms missing, the legs disarranged); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length ca. 0.60 m.

*No finds.*

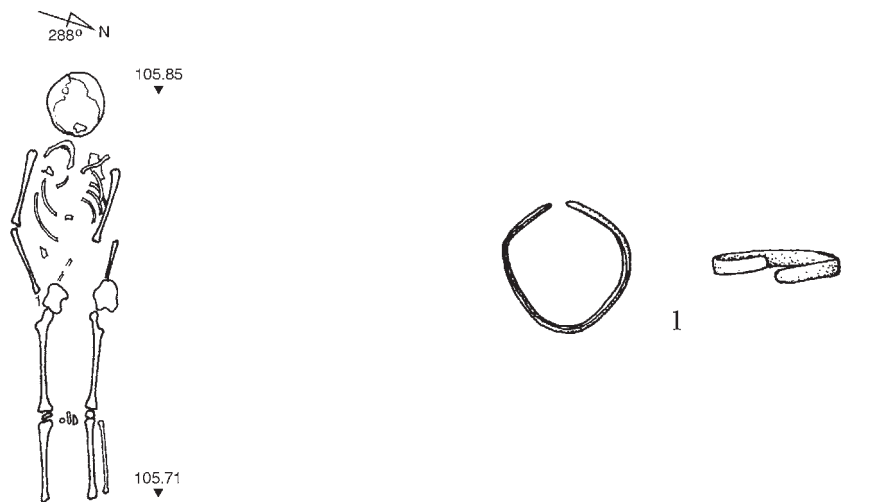
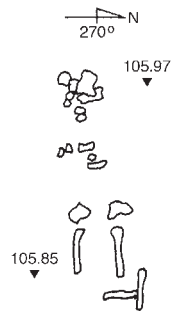
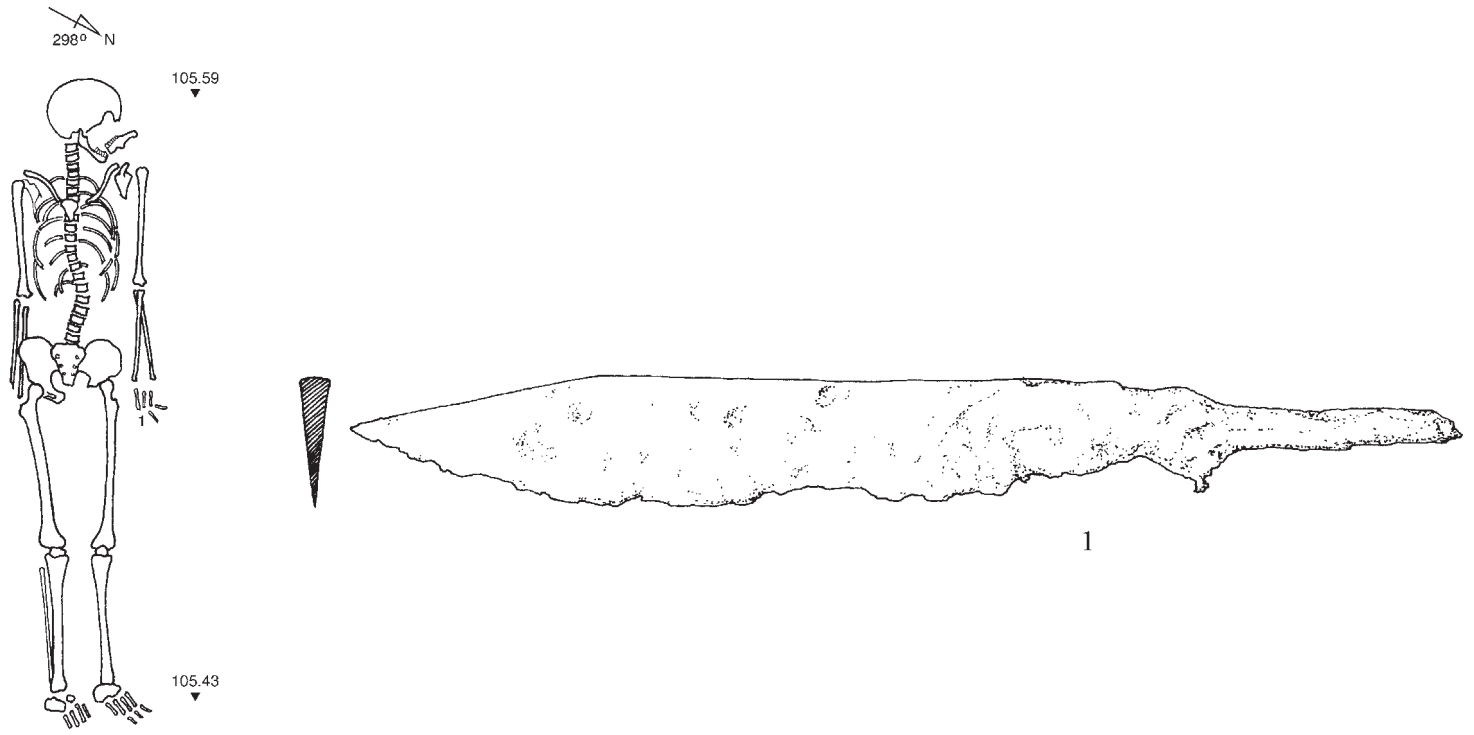


**GRAVE 240**, quadrant XIII/4c–d. – A grave in an earthen pit; depth 0.71 m; ▼ 105.85/105.71 m; or. 288° (108° deviation from north). – Damaged skeleton (part of the head disturbed, the feet missing); lying on the back, legs extended, head turned to the right; the forearms angled downwards across the abdomen (v.7a). – Child; length 1.19 m.

*Finds: A ring on a finger of the right hand.*

1. *Ring* – bronze, with open ends, semicircular section, separated, tapered and rounded ends; Ø 1.7/1.6 cm; w. 0.30–0.23 cm; th. 0.10–0.06 cm; wt. 0.520 g; S-2653 (G. 22; H. 48a; De. 1.4a).

<sup>117</sup> The find of a nail was noted in both field records: *Dnevnik*, ad 12 Aug. 1953; *Zapisnik*, no. 238/14 Aug. 1953.





**GRAVE 241**, quadrant XVII/16c. – A grave in an earthen pit; depth 0.63 m; ▼ 104.84/104.81 m; or. 295° (115° deviation from north). – Damaged skeleton (skull crushed, the left foot missing); lying on the back, legs extended, head position undetermined; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Male; length 1.50 m.

*No finds.*



**GRAVE 242**, quadrant XVII/16a–b. – A grave in an earthen pit; depth 0.35 m; ▼ 104.86 m (at the feet); or. 290° (110° deviation from north). – Damaged skeleton (the skull and feet missing);<sup>118</sup> lying on the back, the legs contracted and placed to the right on the earth, head position undetermined; the forearms bent upwards with the hands on the shoulders (v.25). – Child (6–7 years old); length 0.80 m (preserved part).

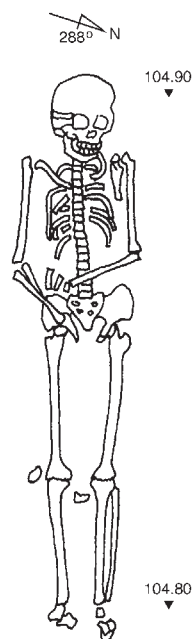
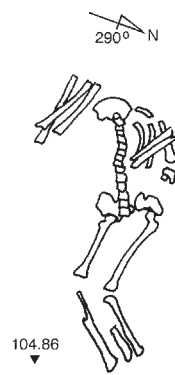
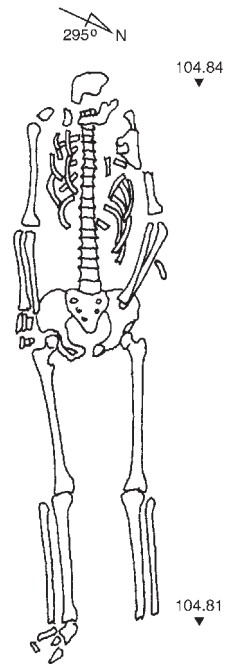
*No finds.*



**GRAVE 243**, quadrant XVII/16a–b. – A grave in an earthen pit; depth 0.40 m; ▼ 104.90/104.80 m; or. 288° (108° deviation from north). – Lying on the back, legs extended, head straight; the right forearm angled downwards across the abdomen, the left horizontally across the stomach (v.12). – Female; length 1.45 m.

*No finds.*

<sup>118</sup> The damage to the skeleton was caused by the roots of a large tree: *Zapisek*, no. 242/1953 (without a date).





**GRAVE 244**, quadrant XVII/16d. – A grave in an earthen pit; depth 0.45 m; ▼ 104.85 m; or. – (deviation from north unknown). – Destroyed skeleton (some bones of the skull and trunk remained). – Child; length?.

*No finds.*



**GRAVE 245**, quadrant XVII/14c. – A grave in an earthen pit; depth 0,73 m; ▼ 104.85 m (at mid skeleton); or. 300° (120° deviation from north). – Poorly preserved skeleton (skull crushed, the lower section of the trunk, the left arm and the legs missing); lying on the back, legs extended, head turned to the left; the forearm position could not be determined, the right forearm angled downwards across the abdomen. – Child; length 0.40 m (preserved part).

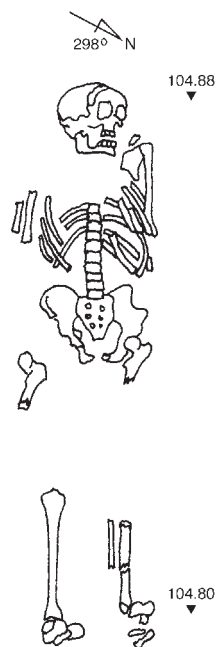
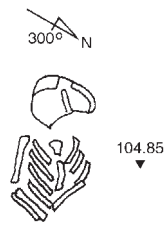
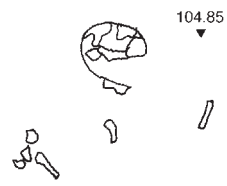
*No finds.*



**GRAVE 246**, quadrant XVII/15b–XVII/16c–d. – A grave in an earthen pit; depth 0.50 m; ▼ 104.88/104.80 m; or. 298° (118° deviation from north). – Damaged skeleton (the upper section of the trunk, the right forearm, and the calves missing);<sup>119</sup> lying on the back, legs extended, head turned to the left; the forearm position could not be determined (the left bent upwards with the hand on the shoulder). – Male; length 1.50 m.

*No finds.*

<sup>119</sup> The skeleton was damaged during removal of a trench dividing wall.





**GRAVE 247**, quadrant XVII/16b–XVIII/16a. – A grave in an earthen pit; depth 0.81 m; ▼ 104.51/104.35 m; or. 300° (120° deviation from north). – Damaged skeleton (part of the left forearm and the feet missing); lying on the back, legs extended, head turned to the right; the forearms extended along the body (v.1). – Female; length 1.45 m.

*No finds.*

**GRAVE 248**, quadrant XVI/16d. – A grave in an earthen pit; depth 0.42 m; ▼ 105.00/104.88 m; or. 282° (102° deviation from north). – Poorly preserved skeleton (arms and legs missing); lying on the back, legs extended, head straight; the forearm position could not be determined. – Female?; length 1.00 m (preserved part).

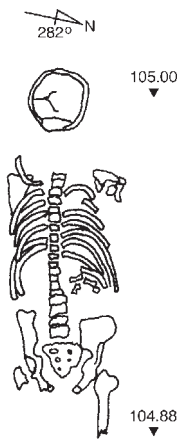
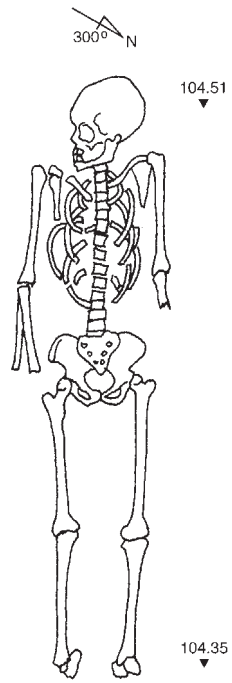
*No finds.*



**GRAVE 249**, quadrant XVI/16b. – A grave in an earthen pit; depth 0.42 m; ▼ 105.05/104.94 m; or. 265° (85° deviation from north). – Damaged skeleton (the skull and left calf crushed, the left forearm missing); lying on the back, legs extended, head turned to the right; the forearm position could not be determined (the right forearm bent upwards with the hand on the shoulder). – Male; length 1.78 m.

*No finds.*







**GRAVE 250**, quadrant XVI/16a. – A grave in an earthen pit; depth 0.40 m; ▼ 105.22/105.10 m; or. 294° (114° deviation from north). – Damaged skeleton (the forearms, pelvis, and right thigh disarranged, the feet missing);<sup>120</sup> lying on the back, legs extended, head straight; the forearm position could not be determined. – Female?; length 1.40 m.

*Finds:* A *ring* in the soil above the middle of the skeleton.

1. *Ring* – bronze, with open ends, arched section, the ends of different width overlap, one end cut, the other tapered and rounded; the hoop decorated along the entire length: an impressed or incised herring bone pattern crossing in the center of the hoop; damaged (broken into two parts); Ø 2.22/2.17 cm; w. 0.69–0.60 cm; th. 0.14 cm; wt. 1.206 g; S-2654 (G. 24; De. 1.5b).



**GRAVE 251**, quadrant XIV/13b. – A grave in an earthen pit; depth 0.39 m; ▼ 105.59 m (at the head); or. – (deviation from north unknown). – Destroyed skeleton (some bones of the skull and trunk remained).<sup>121</sup> – Sex?; length?.

*No finds.*



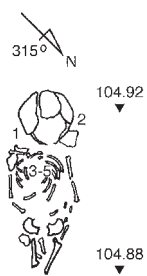
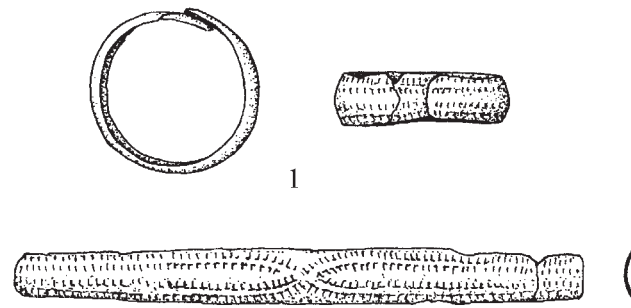
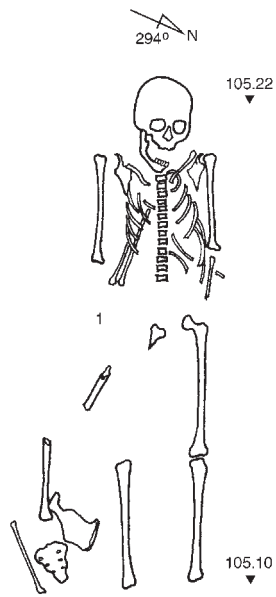
**GRAVE 252**, quadrant XVI/15b. – A grave in an earthen pit; depth 0.35 m; ▼ 104.92/104.88 m; or. 315° (135° deviation from north). – Damaged skeleton (skull crushed, calves missing); lying on the back, legs extended, head straight; forearms extended along the body (v.1). – Child; length 0.50 m.

*Finds:* A *circlet with a spiral end* on the left and right sides of the head (1,2), a *necklace of beads* around the neck (3) with a *metal pendant with a coin* below the first neck vertebrae (4), and a *La Tène fibula* below the head found during removal of the skeleton (5); [Pl. 11:2–3].

1. *Circlet with a spiral end* – bronze, circular section, the hoop at one end was cut and at the other curves into a spiral pendant that widens towards the bottom; no. of spirals: 10; h. 2.57 cm, w. 1.35 cm, Ø wire 0.10 cm; pendant: h. 0.93 cm; Ø upper 0.40 cm; Ø lower 0.60 cm; wt. 0.869 g; S-2658/1 (G. 19); [Pl. 11:2/ left];

<sup>120</sup> The disturbance to the forearms, pelvis and right thigh was caused by tree roots, *Zapiski*, no. 250/25 Aug. 1953.

<sup>121</sup> The legs and lower part of the trunk were destroyed by the burial in gr. 278.



2. *Circlet with a spiral end* – bronze, circular section, the hoop at one end was cut and at the other curves into a spiral pendant that widens towards the bottom; no. of spirals: 8; damaged (corroded, part of the hoop missing; deformed hoop); h. 2.53 cm; w. 0.98 cm, Ø wire 0.10 cm; pendant: h. 0.87 cm; Ø upper 0.40 cm; Ø lower 0.60 cm; wt. 0.559 g; S-2658/2 (G. 19); [Pl. 11:2/right];
3. *Necklace of beads and metal pendants* (29) – *glass beads* (27): globular-flattened, unspecified, yellowish white (1), brown (3) and honey brown (4); globular-flattened, unspecified, brown / wavy line, broken, applied, yellowish white (1); globular-flattened, unspecified, brown / dot, impressed, yellowish white (1); globular-flattened, unspecified, brown / two thrice intersecting wavy lines, applied, yellowish white (5); biconical, unspecified, pale green (1); rectangular-prismatic, translucent, violet (1); annular, unspecified, yellowish white (7) and pale green (2); annular, unspecified, brown / two irregularly arranged dots, impressed, yellowish white (1); S-2655 (01/03 4 12, 01/03 4 60, 01/03 4 61; 01/03 4 60/20111 02 12; 01/03 4 60/10101 01 12; 01/03 4 60/20102 02 12; 01/09 4 53; 01/10 1 33; 01/11 4 12, 01/11 4 53; 01/11 4 60/10112 01 12); – *metal pendants* (2): see nos. 4–5 (coin, fibula); [Pl. 11:3];
4. *Coin* – bronze, centenionalis; Roman Empire: Valentinian I (364–375), Rv. *Gloria Romanorum* (LRBC?); damaged (perforated, clipped); Ø 1.66/1.55 cm; ax. 6; wt. 1.481 g; S-2657 (To. 44a); [Pl. 11:3];
5. *Fibula*, pendant on a necklace (secondary use; prehistoric; late Iron Age: late La Tène) – bronze, the bent back foot is attached to the bow, damaged (pin missing); l. 4.64 cm; h. 1.19 cm; wt. 1828 g; S-2656 (G. –); [Pl. 11:3].



**GRAVE 253**, quadrant XIII/3a–b. – A grave in an earthen pit; depth 0.75 m; ▼ 105.60/105.48 m; or. 292° (112° deviation from north). – Lying on the back, legs extended, head straight; right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Female?; length 0.1.54 m.

*Finds:* On the exterior side of the left shin next to one another an *awl* (1) and an *awl press* (2).

1. *Awl*, fragment – bone, from the head of a large fish (?),<sup>122</sup> yellow-brown, body rectangular with a broadened stem; damaged (tip broken off); l. 3.43 cm; w. 0.65 cm; th. 0.27 cm; wt. 1.076 g; S-2660 (H. –);

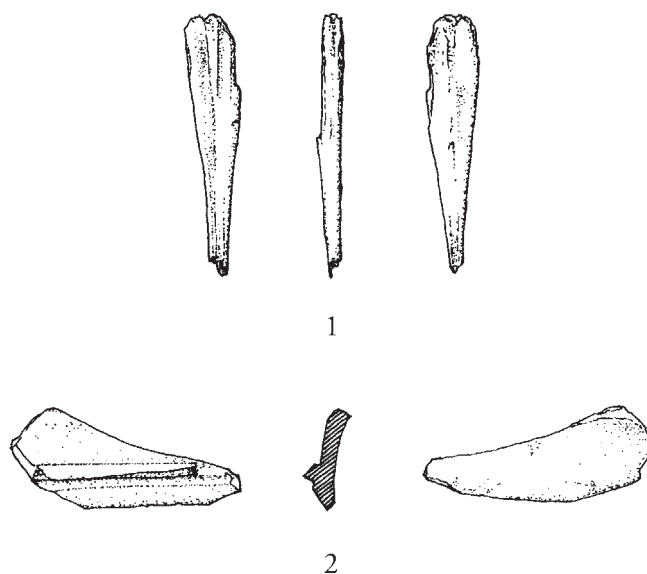
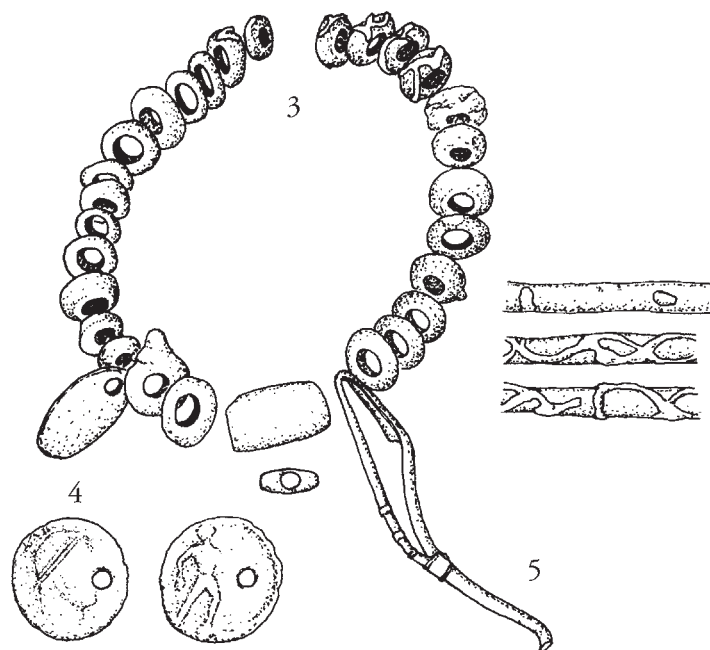
2. *Awl press* – stone, crystalline schist, dark grey; l. 3.09; w. 1.3 cm; th. 0.42/0.20 cm; wt. 2.574 g; S-2659 (H. –).



**GRAVE 254**, quadrant XIII/3b–d. – A grave in an earthen pit; depth 0.58 m; ▼ 105.84/105.72 m; or. 270° (90° deviation from north). – Damaged skeleton (skull crushed, the lower section of the calves and the feet missing); lying on the back, legs extended, head position undetermined; the forearms extended along the body (v.1). – Child; length ca. 0.83 m.

*No finds.*

<sup>122</sup> It was identified as a possible fish bone by the late Dr. Maja Paunović of the Institute of Paleontology and Quaternary Geology of the Croatian Academy of Science and Art, whom I remember with thanks.





**GRAVE 255**, quadrant XIII/3a–c. – A grave in an earthen pit; depth 0.71 m; ▼ 105.81/105.72 m; or. 290° (110° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Female?; length 1.40 m.

*Find:* An *O-circlet* on the right side of the head.

1. *O-circlet* – bronze, circular section, cut end; h. 3.29 cm; Ø 2.53/2.17 cm; Ø wire 0.20 cm; O-w. 0.30 cm; wt. 2.070 g; S-2661 (V. IV/5; H. 12a-1,7/3).



**GRAVE 256**, quadrant XIII/3c–d. – A grave in an earthen pit; depth 0.72 m; ▼ 105.75/105.61 m; or. 292° (112° deviation from north). – Damaged skeleton (feet missing); lying on the back, legs extended, head tilted towards the left; the forearms angled downwards across the abdomen (v.7a). – Child; length ca. 0.80 m.

*No finds.*



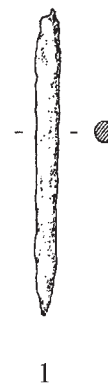
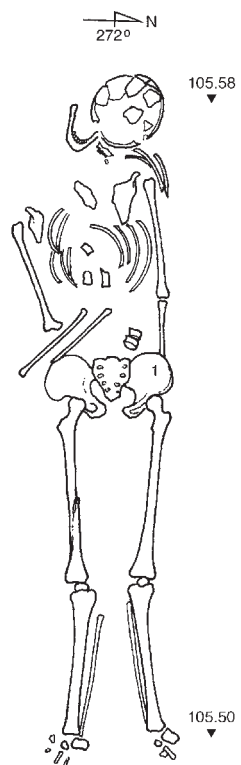
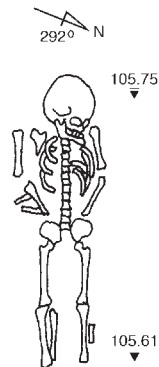
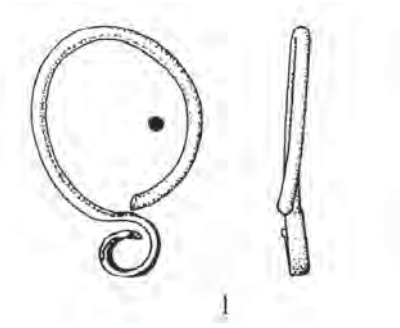
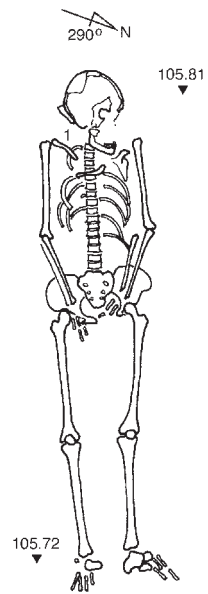
**GRAVE 257**, quadrant XII/3b–d. – A grave in an earthen pit; depth 1.02 m; ▼ 105.58/105.50 m; or. 272° (92° deviation from north). – Damaged skeleton (the skull and upper part of the trunk disarranged);<sup>123</sup> lying on the back, legs extended, head turned to the right; the forearms extended along the body (v.1).<sup>124</sup> – Male?; length 1.76 m.

*Find:* A *needle* on the left part of the pelvis.

1. *Needle*, fragment – iron, circular section; damaged (corroded; incomplete, upper part missing); l. 4.09 cm; Ø 0.31 cm; wt. 1.642 g; S-2662 (H. –).

<sup>123</sup> The skeleton was damaged while excavating an additional trench section.

<sup>124</sup> The arm position according to notes in the *Zapisnik*, no. 257/17 Aug. 2004.





**GRAVE 258**, quadrant XII/3b–d. – A grave in an earthen pit; depth 0.80 m; ▼ 105.85/105.87 m; or. 294° (114° deviation from north). – Damaged skeleton (skull out of place, the upper part of the trunk incomplete, the calves and feet missing); lying on the back, legs extended, head straight; the right forearm bent upwards with the hand on the shoulder, the left horizontally across the abdomen (v.15). – Sex?; length 1.08 m (preserved part).

*No finds.*



**GRAVE 259**, quadrant XII/3a. – A grave in an earthen pit; depth 0.87 m; ▼ 105.69/105.61 m; or. 274° (94° deviation from north). – Lying on the back, legs extended, head turned to the left (north); the right forearm angled downwards across the abdomen, the left extended along the body (v.2). – Male?; length 1.60 m.

*No finds.*



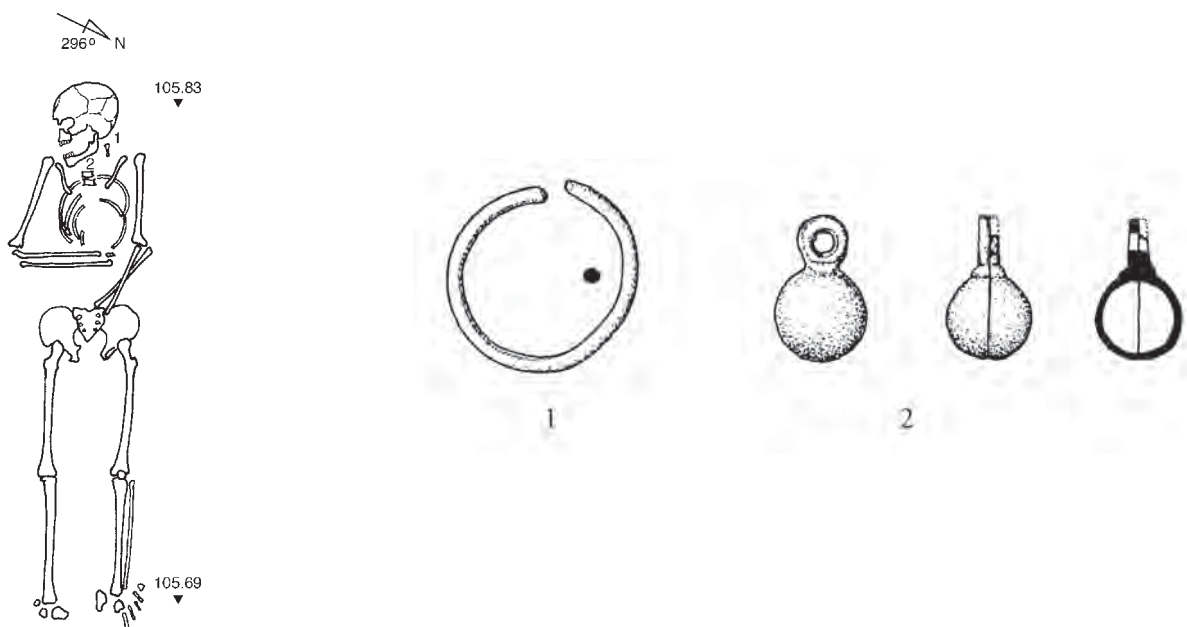
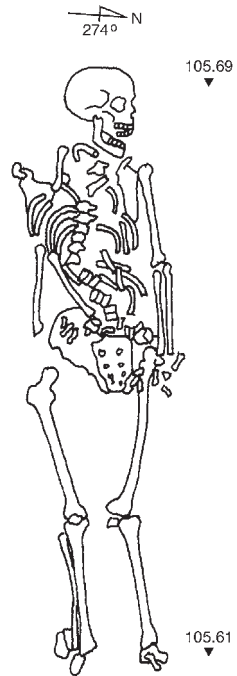
**GRAVE 260**, quadrant XII/3b–XIII/3a. – A grave in an earthen pit; depth 0.66 m; ▼ 105.83/105.69 m; or. 296° (116° deviation from north). – Lying on the back, legs extended, head turned to the right (south); the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Female; length 1.54 m.

*Finds:* A *circlet* on the left side of the head (1), a *button-pendant* on the neck (2).

1. *Circlet* – silver, open-ended, circular section, cut ends; Ø 2.60–2.37cm (= 7.80); Ø wire 0.21 cm; wt. 2.326 g; S-2663 (G. 13-I,7/3);

2. *Button-pendant* – bronze, spherical, hollow, two-part, with a circular loop for attachment, identical halves divided vertically; damaged (halves separated, part of the loop broken off on one half); h. 1.88 cm; Ø 1.16 cm; wt. 2.049 g; S-2664 (H. 59).







**GRAVE 261**, quadrant XII/4c. – A grave in an earthen pit; depth 0.90 m; ▼ 105.91/105.85 m; or. 260° (80° deviation from north). – Damaged skeleton (skull crushed, the upper part of the trunk and arms disarranged); lying on the back, legs extended, head turned to the right (south); the forearm position could not be determined. – Female; length 1.65 m.

*No finds.*



**GRAVE 262**, quadrant XII/4d–XIII/4c. – A grave in an earthen pit; depth 0.60 m; ▼ 106.08/105.90 m; or. 276° (96° deviation from north). – Lying on the back, legs extended, head straight; the right forearm angled upwards across the chest, the left horizontally across the stomach (v.14). – Female?; length 1.50 m.

*No finds.*

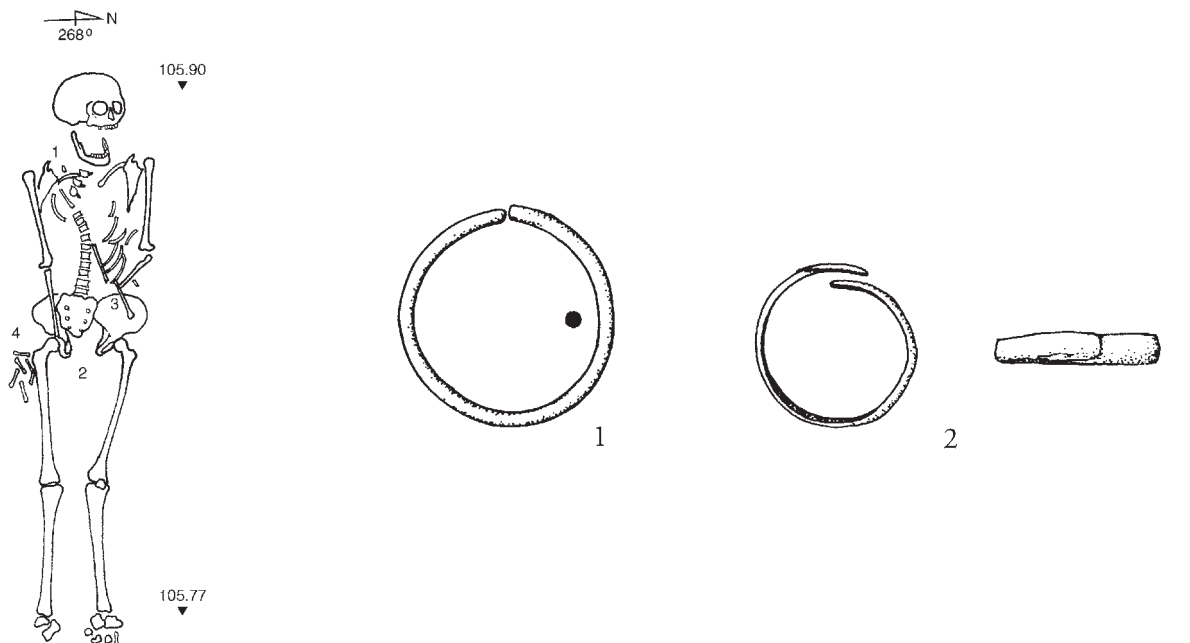
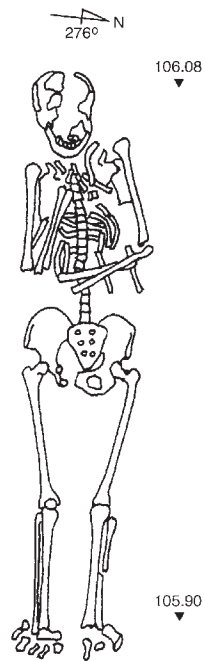
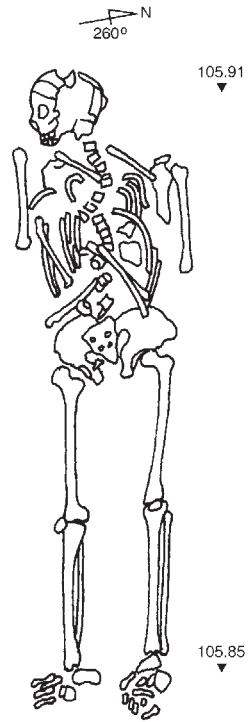


**GRAVE 263**, quadrant XII/4a. – A grave in an earthen pit; depth 0.94 m; ▼ 105.90/105.77 m; or. 268° (88° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Female; length 1.50 m.

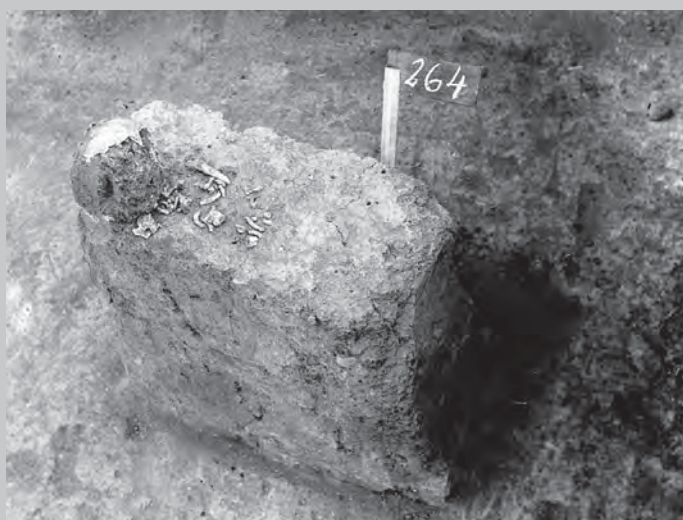
*Finds:* A *circlet* below the right collarbone (1), a *ring* in the middle between the pelvis and the thigh (2),<sup>125</sup> a *belt clasp* on the left side above the pelvis (3), a *bead* on the right side of the pelvis (4).

1. *Circlet* – bronze, open-ended, circular section, cut ends; Ø 2.84–2.78 cm (= 8.82 cm); Ø wire 0.19 cm; wt. 2.052 g; S-2665 (G. 13-I,8/3);

<sup>125</sup> Because of the position of the forearms and the destroyed fingers of the skeleton, it is not possible to determine which hand the ring was on.



2. *Ring* – bronze, with open ends, semicircular section, the rounded ends overlap; damaged (the edges chipped in places);  $\varnothing$  2.15/2.07 cm; w. 0.43–0.36 cm; th. 0.10 cm; wt. 1.418 g; S-2666 (G. 22; H. 48a; De. 1.4a);
3. *Clasp with a hook for fastening*, fragment – iron, one part, flat body, rhomboid; damaged (corroded; loop and hook missing); l. 5.54 cm; w. 1.01 cm; th. 0.20 cm; wt. 2.283 g; S-2667 (G. –);
4. *Bead* – bone, cylindrical, long, worked, yellowish-white / polished;  $d_1$  0.74 cm;  $d_2$  0.43 cm; h. 1.13 cm; wt. 0.818 g; S-2668 (03/06 1 12/06).



**GRAVE 264**, quadrant XII/4b. – A grave in an earthen pit; depth 0.63 m;  $\blacktriangledown$  106.08 m (at the head); or. 280° (100° deviation from north). – Destroyed skeleton (a few bones of the skull and trunk remained). – Child; length?.

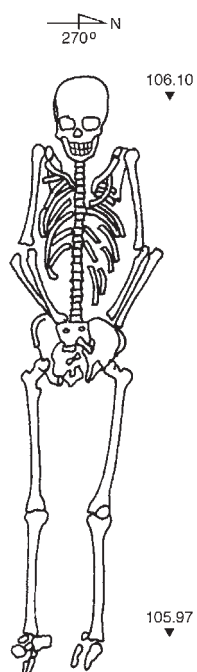
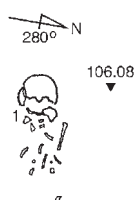
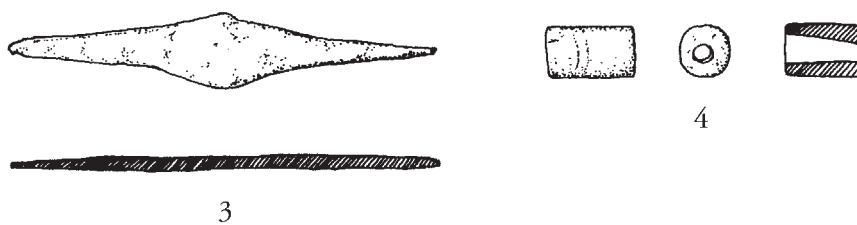
*Find:* A *circlet* on the right side of the head.

1. *Circlet* – bronze, open-ended, circular section, cut ends;  $\varnothing$  1.57–1.41 cm (= 4.68 cm);  $\varnothing$  wire 0.16 cm; wt. 0.572 g; S-2669 (G. 13-II,4/2).



**GRAVE 265**, quadrant XII/4a–b. – A grave in an earthen pit; depth 0.68 m;  $\blacktriangledown$  106.10/105.97 m; or. 270° (90° deviation from north). – Lying on the back, legs extended, head straight; the forearms angled downwards across the abdomen (v.7a). – Male?; length 1.60 m.

*No finds.*





**GRAVE 266**, quadrant XII/5a. – A grave in an earthen pit; depth 0.58 m; ▼ 106.23/106.16 m; or. 265° (85° deviation from north). – Poorly preserved skeleton (skull crushed, the upper part of the trunk, the arms and the feet missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length ca. 0.62 m.

*No finds.*

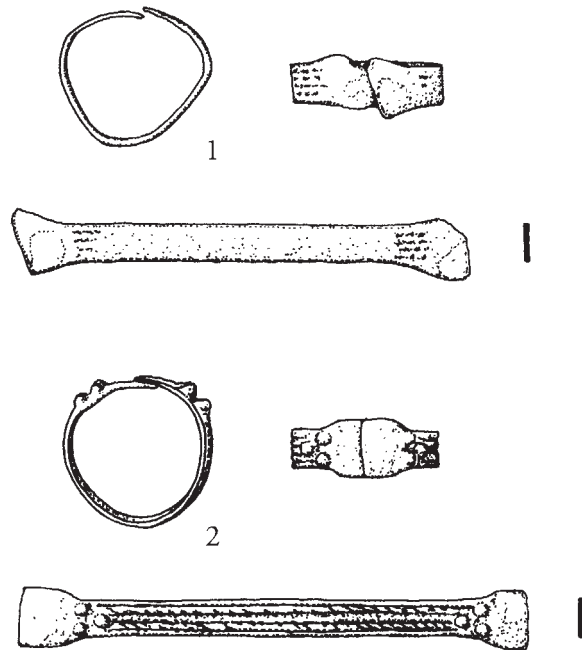
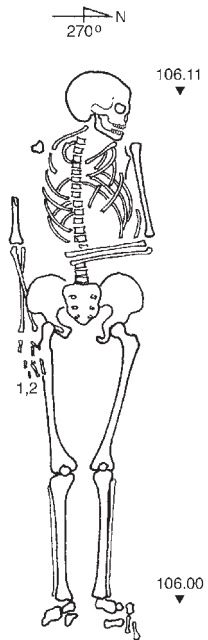
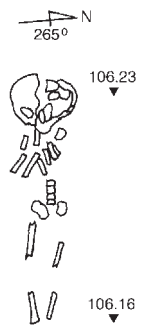


**GRAVE 267**, quadrant XII/5a. – A grave in an earthen pit; depth 0.78 m; ▼ 106.11 m/106.00 m; or. 270° (90° deviation from north). – Lying on the back, legs extended, head turned to the left (north); the right forearm extended along the body, the left horizontally across the stomach (v.11). – Female; length 1.52 m.

*Finds:* Two rings on the fingers of the right hand (1, 2).

1. *Ring with a crown* – bronze, two-part; a profiled hoop of banded section, with separated and hammered ends; decorated with a lengthwise rib between single rows of pseudo-twisted wire, on the shoulders on each side of the crown three triangularly arranged granules; damaged (crown missing); h. –; hoop: Ø 1.98/1.96 cm, w. 0.50 cm, th. 0.11 cm; w. bezel 0.86 cm; crown: –; wt. hoop 2.170 g; S-2670 (G. 38b; M. 16b);

2. *Ring with a crown* – bronze, two-part; a hoop of banded section, with separated and hammered ends, decorated with five rows of lengthwise pseudo-twisted wire; damaged (hoop worn; crown missing); h. –; hoop: Ø 1.88/1.79 cm, w. 0.50 cm, th. 0.12 cm; w. bezel 0.86 cm; crown: –; wt. hoop 1.875 g; S-2671 (G. 38b; M. 16b).





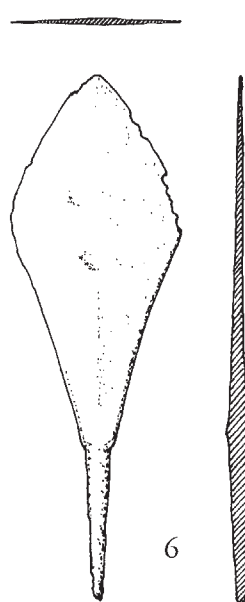
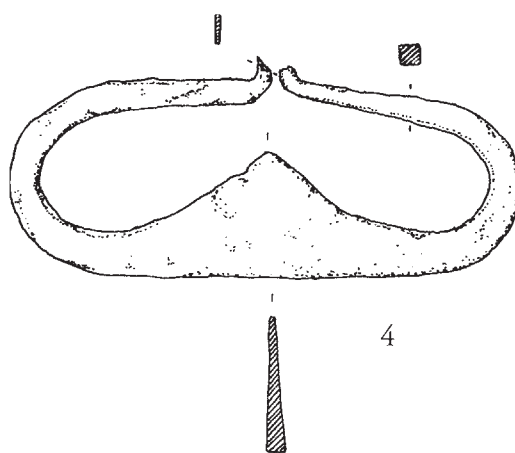
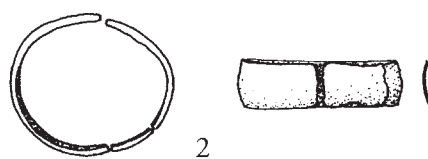
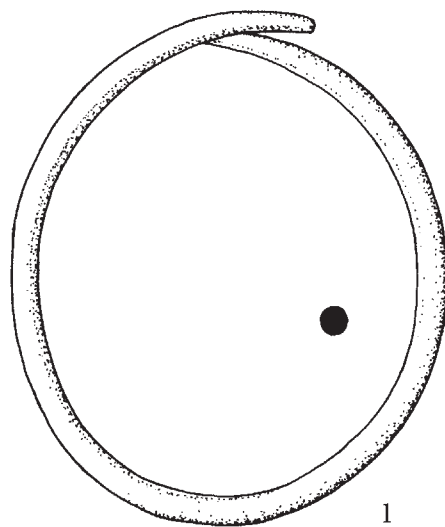
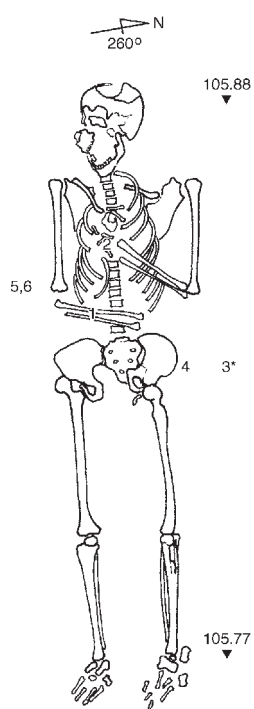
**GRAVE 268**, quadrant XII/5b. – A grave in an earthen pit; depth 0.95 m; ▼ 105.88/105.77 m; or. 260° (80° deviation from north). – Damaged skeleton (skull fallen backwards); lying on the back, legs extended, head tilted to the right; the right forearm folded horizontally across the stomach, the left angled upwards across the chest (v.18). – Male; length 1.68 m.

*Finds:* A bracelet on the right forearm (1), a ring on the left hand (2), a steel along the left flank (4), on the right side extending from the elbow to the knee the reinforcing rods (5) and panels of a quiver [5a] and an arrowhead (6); the position of the knife in the grave is unknown (3\*).<sup>126</sup>

1. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered overlapping ends; Ø 6.68/5.78 cm; Ø wire 0.40–0.24 cm; wt. 17.771 g; S-2676 (G. 4; De. 1.2a);
2. *Ring* – bronze, with open ends, arched section, the ends of equal width overlap; damaged (broken into four parts); Ø 2.07/1.97 cm; w. 0.66 cm; th. 0.13 cm; wt. 1.312 g; S-2677 (G. 24; H. 46a; 1.5a);
- 3.\* *Knife* – iron, single-edged, with a tang for the handle, curved back; damaged (corroded; tip of the point missing, blade chipped); l. 10.31 cm; blade: w. 1.24 cm, th. 0.25/0.20 cm; wt. 10.784 g; S-2674 (To. A4; H. 5);
4. *Steel for tinder* – iron, lyre-shaped; the base flat, the body of rectangular section with a central triangular reinforcement; the arms bent back in the shape of the letter "C", the ends of the arms separated and curved outwards; l. 6.73 cm; h. 2.82 cm; th. 0.35 cm; wt. 13.989 g; S-2675 (H. 4; To. A5); [Pl. 12:3];
5. *Quiver*, parts, entire and fragments (10 pieces) – *reinforcing rods*, iron, entire and fragments (10 pieces): upright, upper, lateral, arched (1 piece); upright, upper, lateral, straight (1 piece); transverse, upper (1 piece); upright, upper, middle, with a hook and two rivets (1 piece); upright, middle, lateral, arched (1 piece); upright, middle with three widenings and two rivets (1 piece); upright, lower, long (1 piece); upright, lower, short (2 pieces); transverse, lower (1 piece); S-2672/1–10 (G. –; To. A2; H. 10);
  - 5.1 *Rod: upright, upper, lateral, arched*; fragments (2 pieces) – iron, a rod of banded section with four rhomboid widenings with rivets on the perpendicular sides; damaged (corroded; incomplete, the third widening and central part of the rod missing); l. fragments 15.03 cm (8.65+6.38), w. 0.43/0.32 cm, th. 0.13/0.17 cm; arch (arched elevated element): h. 1.0 cm, w. 0.44 cm, th. 0.25 cm; rhomboid widenings: w./1 cm, th. 0.13 cm; w./2 1.12 cm, th. 0.14 cm; w./4 0.95 cm, th. 0.16 cm; rivet: h./2 0.86 cm, dim. 0.40/0.44 cm; h./4 0.96 cm; dim. 0.25/0.38 cm; S-2672/1.1–2;
    - 5.1a *Nail*, fragment – iron, circular head, square sectioned shank; (corroded; incomplete); l. 0.60 cm; S2672-1a;
  - 5.2 *Rod: upright, upper, lateral, arched*; fragments (2 pieces) – iron, a rod of banded section with three rhomboid widenings with oval rivets on the perpendicular sides; damaged (corroded; broken into two parts, the lower widening incomplete); l. fragment 20.20 cm (10.95+9.25), w. 0.30 cm, th. 0.17 cm; rhomboid widenings: w./1 0.96 cm, th. 0.11 cm; w./2 1.06 cm, th. 0.16 cm; rivet: h./2 1.06 cm, dim. 0.34/0.43 cm; h./3 1.00 cm; dim. 0.34/0.46 cm; S-2672/2.1–2;
    - 5.2a *Nail*, fragment – iron, circular head, square sectioned shank; (corroded; incomplete); l. 0.25 cm; S2672-12a;
  - 5.3 *Rod: transverse, upper*; fragments (4 pieces) – iron, banded section, straight edges, and with an oval rivet; damaged (corroded; incomplete, bent, most of the rod missing); l. fragment 13.32cm (5.8+1.95+2.70+2.87), w. 1.11 cm, th. 0.08 cm; rivet: h. 0.70 cm, dim. 0.36/0.46 cm; S-2672/3.1–4;
  - 5.4 *Rod: upright, upper, middle with a hook and with two rivets* – iron, a rod of banded section with three rhomboid widenings and oval rivets on the end widenings; damaged (corroded; end widening incomplete); l. 17.3 cm, w. 0.44/0.36 cm, th. 0.16 cm; rhomboid widenings: w./1 1.13 cm, th./1 0.12 cm; w./2 0.95 cm, th./2 0.11 cm; w./3 0.99 cm, th. 0.13 cm; rivets: h./1 0.74 cm, dim. 0.40/0.44 cm; h./2 0.85 cm, dim. 0.37/0.42 cm; S-2672/4;

<sup>126</sup> The *Dnevnik*, ad. 15 Aug. 1953, first mentioned that "on the right side, from the elbow of the right arm to the knee of the right leg, in three zones were found... the iron reinforcing rods for a quiver and..., two small bone fragments...", followed by the other finds, which other than the arrows included "on the right forearm a bracelet, and on a finger of the left hand a bronze ring." The steel for striking a flint belongs among the subsequent finds discovered after the skeleton was lifted (ad. 24 Sept. 1953), while the knife was not mentioned at all among the finds (also in the *Zapisnik*, no. 268/17 Aug. 1953). It was mentioned, however, in both the older P-AMZ and the newer S-AMZ (P-18252 = S-2674), and it can only be conjectured that it lay in the soil below the quiver, and that it was subsequently noted and excavated.







5.5 *Rod: upright, middle, lateral, arched* – iron, a rod of banded section with an arched elevated element and four rhomboid widenings with rivets; damaged (corroded, the rivets on the end rhomboid widening are missing); l.: 17.8 cm, w. 0.57 cm, th. 0.20 cm; arch (arched elevated element): h. 1.05 cm, w. 0.48 cm, th. 0.28 cm; rhomboid widenings: w./1 1.27 cm, th. 0.10 cm; w./2 1.27 cm, th. 0.19 cm; w./3 1.30 cm, th. 0.14 cm; w./4 1.13 cm, th. 0.15 cm; rivets: h. 0.77 cm, Ø 0.36 cm; h. 0.70 cm, Ø 0.36 cm; S-2672/5;

5.6 *Rod: upright, middle with two rivets* – iron, a rod of banded section with three rhomboid widenings and oval rivets on the end widenings; damaged (corroded); l. 15.1 cm, w. 0.33 cm, th. 0.11 cm; rhomboid widenings: w./1 0.94 cm, th. 0.11 cm; w./2 0.96 cm, th. 0.12 cm; w./3 0.93 cm, th. 0.13 cm; rivets: h./1 0.70 cm, dim. 0.33 cm; h./2 0.75 cm, dim. 0.38/0.46 cm; S-2672/6;

5.7 *Rod: upright, lower, long* – iron, a rod of banded section with an upper rhomboid widening with a rivet and a lower elongated oval widening (with a hole for a nail); damaged (corroded; incomplete, part of the lower widening missing); l. 18.3 cm, w. 0.36 cm, th. 0.20 cm; rhomboid widening: w. 1.34 cm, th. 0.14 cm; rivet: h. 0.73 cm, Ø 0.50 cm; elongated widening: w. 1.34 cm, th. 0.12 cm; S-2672/7;

5.8 *Rod: upright, lower, short* – iron, a rod of banded section with an upper rhomboid widening with a rivet and a lower elongated oval widening (with a hole for a nail); damaged (corroded; incomplete, part of the upper and lower widenings missing); l. 16.3 cm, w. 0.31 cm, th. 0.21 cm; rhomboid widening: w. 0.95 cm, th. 0.10 cm; rivet: h. 0.75 cm, Ø 0.47 cm; elongated widening: w. 1.02 cm, th. 0.10 cm; S-2672/8;

5.9 *Rod: upright, lower, short* – iron, a rod of banded section with an upper rhomboid widening with a rivet and a lower elongated oval widening (with a hole for a nail); damaged (corroded; incomplete, part of the rod and lower widening missing); l. 15.8 cm, w. 0.33 cm, th. 0.18 cm; rhomboid widening: w. 1.10 cm, th. 0.11 cm; rivet: h. 0.83 cm, Ø 0.39 cm; elongated widening: w. 0.93 cm, th. 0.11 cm; AMZ 2672/9;

5.10 *Rod: transverse, lower*; fragments (4 pieces) – iron, banded section, straight edges, with holes for square section nails; two fragments with the accompanying nails (2 pieces); damaged (corroded; incomplete, broken into several pieces); l. fragment 18.96 cm (8.3+5.82+2.9+1.94), w. 1.00 cm, th. 0.12 cm; nail: S2672-10.1–4;

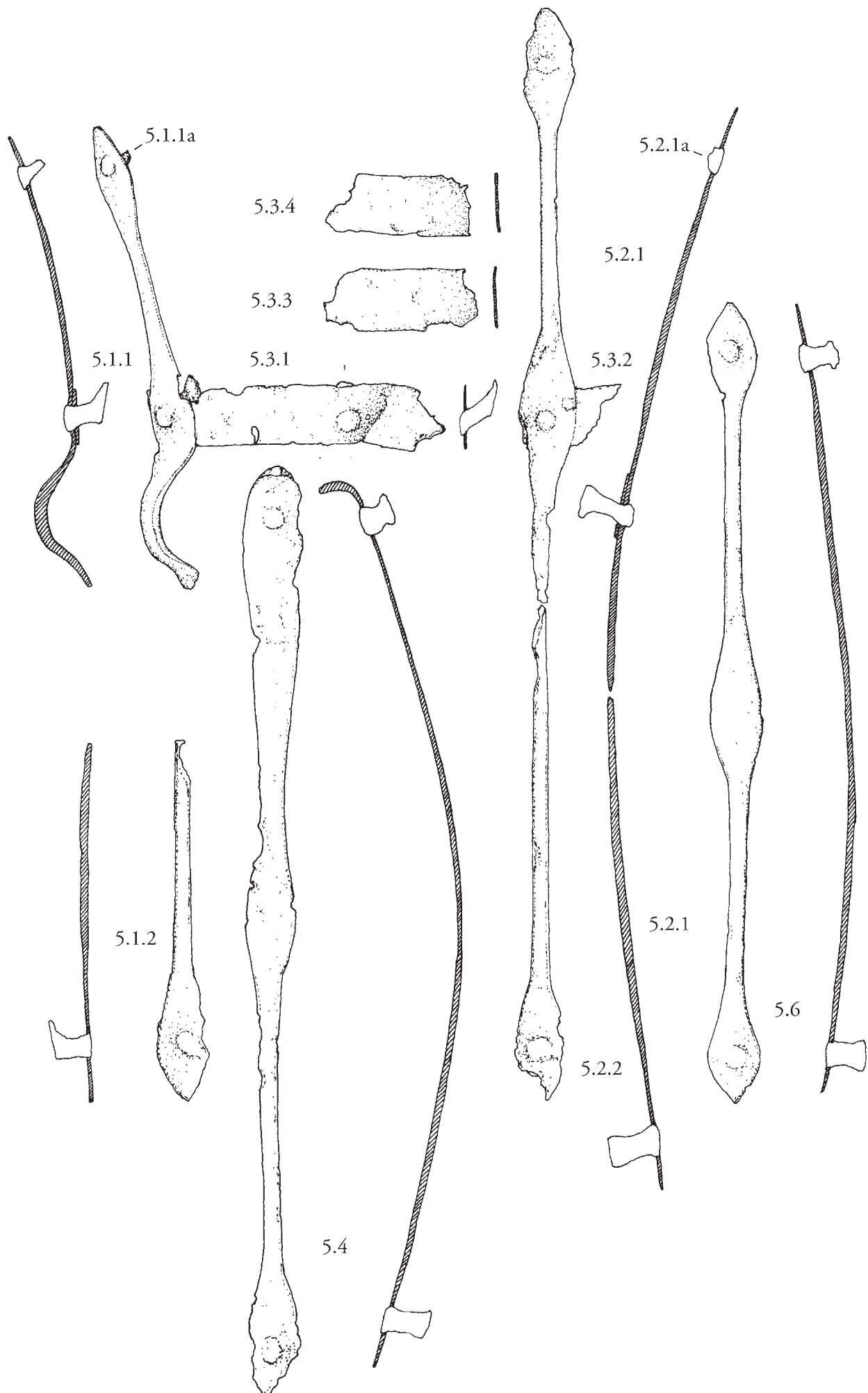
5.10.1a–b *Nail* (2 pieces) – iron, circular head, square sectioned shank; (corroded); l./a 2.25 cm; l./b 2.16 cm; S-2672/10.1a–b;

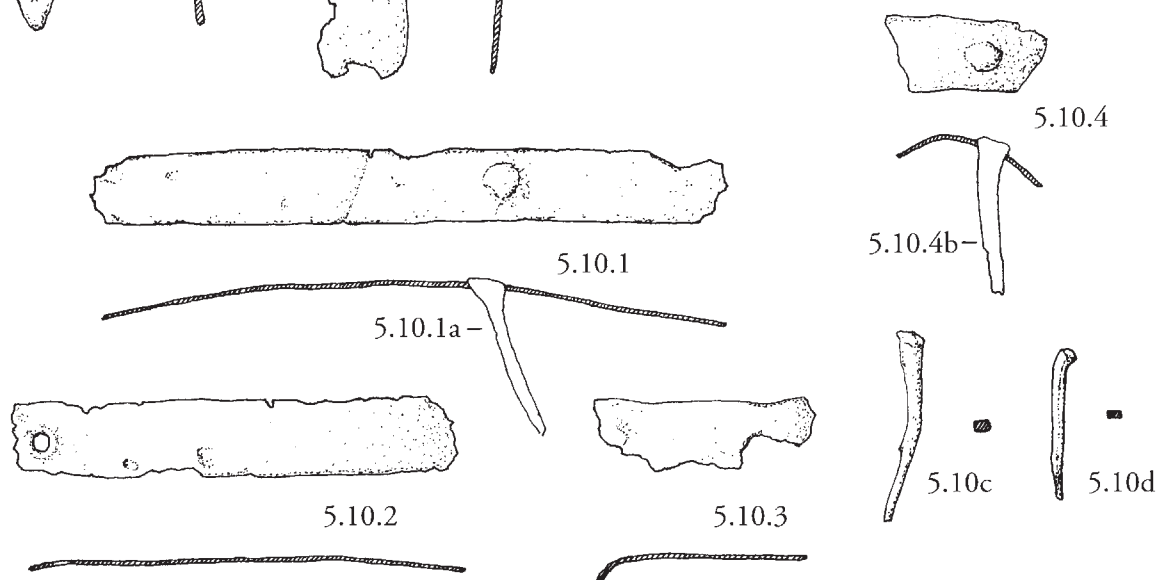
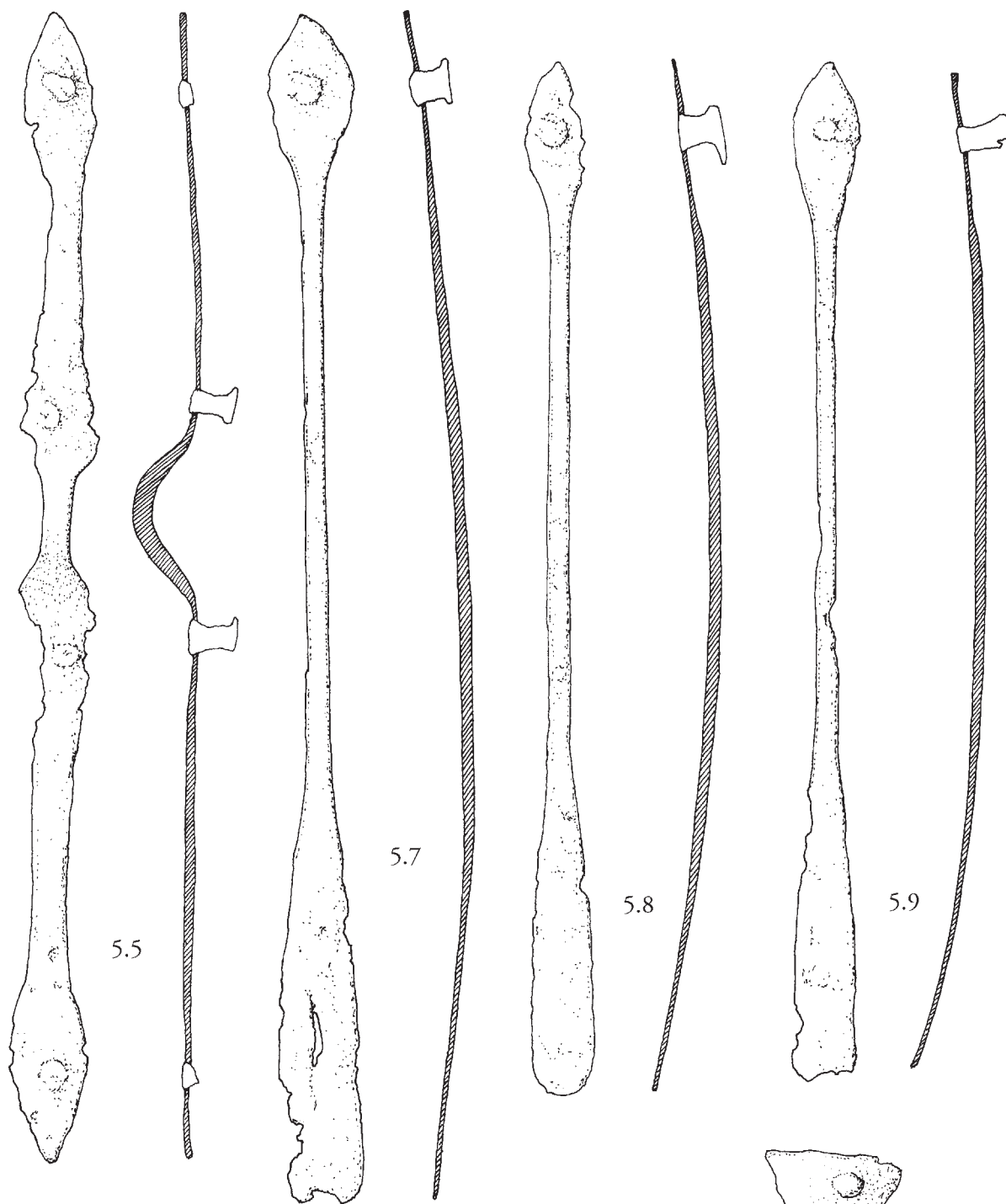
5.10.1c *Nail* – iron, square sectioned shank; damaged (corroded; incomplete, head missing); l./1 2.53 cm; S-2672/10.1c;

5.10.1d *Nail* – iron, square sectioned shank; damaged (corroded; incomplete, head missing); l./2 2.13 cm; S-2672/10.1d;

[5a] *Quiver panels*, sections of the upper part (2 pieces) – bone, carved; damaged (fragments); not preserved (G. A = Tom. A2);

6. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half of the head, sides of the heads rounded; damaged (corroded); l. 6.95 cm; head: l. 4.77 cm, w. 2.20 cm, th. 0.20 cm; tang: l. 2.18 cm; wt. 6.30 g; S-2673 (G. A; To. A3; H. 8a; De. 1.1; Rutt. B3/Med. 52).







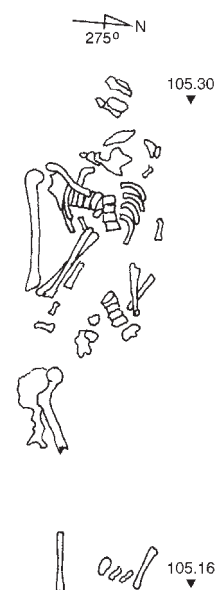
\***GRAVE 269/prehistoric**, quadrant XV/17a–XV/18c. – A grave in an earthen pit (north – south, head/feet); depth 0.65 m; ▼ 104.79/104.71 m; or. 350° (10° deviation from north). – Lying on the back, legs extended, head tilted to the right; the forearms were extended along the body (v.1). – Male; length 1.83 m.

*Finds:* Whetstone with a bronze handle and leather pouch (stone, AE), spearhead (Fe), knobbed fibula (AE), bead (AE), green-white bead (glass paste).<sup>127</sup>

*Bibliography:* VINSKI 1955, 237, 252, Fig. 11; VINSKI 1959, 101, Pl. XXXVI:11; VINSKI-GASPARINI 1962, Pl. III: 42–47; VINSKI-GASPARINI 1973, 222, Pl. 125:1–4; VINSKI-GASPARINI 1978, 136 Fig. 3:4; VINSKI-GASPARINI 1983, 608, 611–612; DEMO 1996, 29, 35 Fig. 16 & 16\*; ŠIMIĆ 2004, 50 Fig. 12–13; MIHELIĆ 2004, 262 no. 4.

**GRAVE 270**, quadrant XV/17b. – A grave in an earthen pit; depth 0.15 m; ▼ 105.30/105.16 m; or. 275° (95° deviation from north). – Damaged skeleton (disarranged);<sup>128</sup> Lying on the back, legs extended, head position undetermined; the forearm position could not be determined (the right angled upwards across the chest). – Sex?; length?.

*No finds.*



<sup>127</sup> The *Dnevnik*, ad 14 Aug. 1953, described the field situation and the finds as follows: "Grave 269 was cleaned, which was oriented north (head) – south (legs) with finds: on the left side of the head an iron spear, above the left upper arm a bronze fibula with an iron loop, a small knife, and a pin. Between the knees a whetstone, and below it bronze, ocher, and iron. Just by these objects a bronze spindle-whorl and fragments of an iron pin." Ten days later, the note was added: "... XV/17 grave 269 with the bead of a necklace on the left side of the head;" (*Dnevnik*, ad 25 Aug. 1953). The *Zapisnik*, no. 269/15 Aug. 1953, contains nothing new.

<sup>128</sup> The *Zapisnik*, no. 270/15 Aug. 1953, mentioned that the skeleton "was disturbed by the great force of the tree that grew through it."



**GRAVE 271**, quadrant XV/17d. – A grave in an earthen pit; depth 0.30 m; ▼ 105.30 m (mid skeleton); or. 288° (108° deviation from north). – Poorly preserved skeleton (the skull and upper part of the trunk missing, the legs disarranged); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Sex?; length?.

*Finds:* Around the middle of the grave a *spangle* for clothing (1) and a *coin* (2).

1. *Spangle* – bronze, gilded, circular, domed, with a banded profiled edge and a recessed banded zone around the central convex protrusion; on

the reverse two horizontally arranged, soldered, parallel, semicircularly bent, banded hooks for attachment by sewing; damaged (hooks missing, gilt traces); Ø 1.30/1.25 cm; h. 0.22 cm (with hooks ca. 0.43 cm); wt. 0.579 g; S-2678 (G. –; H. 61b dif.);

2. *Coin* – bronze, follis; Roman Empire: Maxentius (306–312), Ostia (309–312; *RIC* 35); damaged (perforated); Ø 2.64/2.31 cm; ax. 6; wt. 5.617 g; S-2679 (To. 44a).



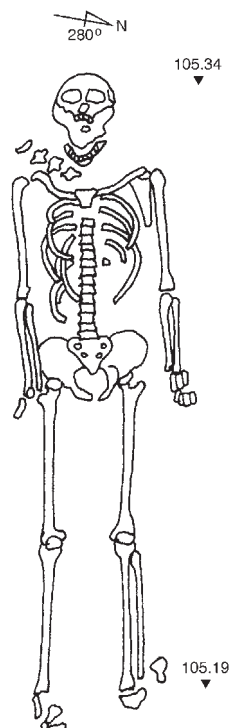
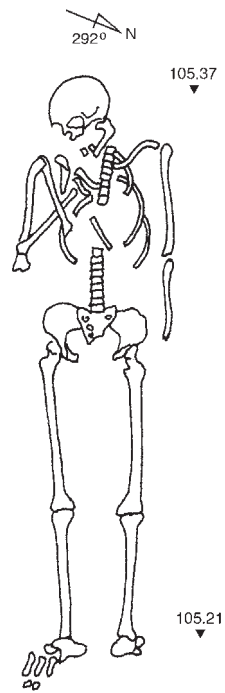
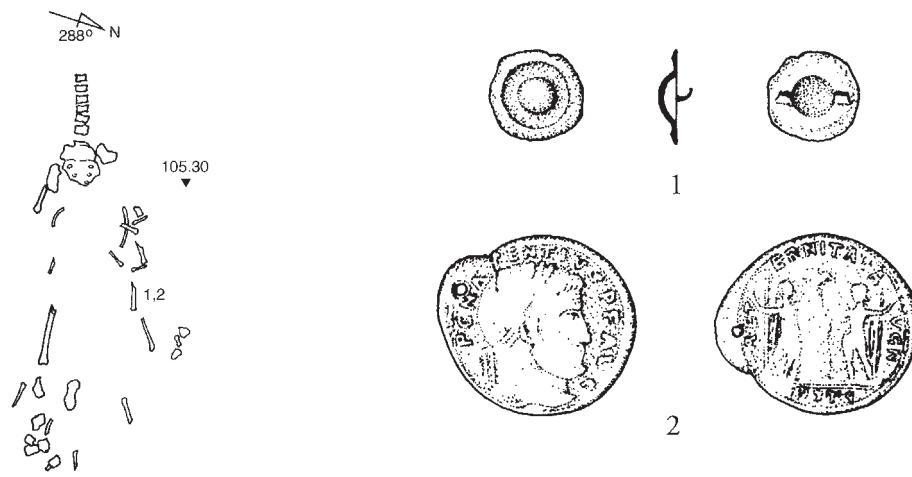
**GRAVE 272**, quadrant XV/16a–b. – A grave in an earthen pit; depth 0.38 m; ▼ 105.37/105.21 m; or. 292° (112° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm bent upwards with the hand on the shoulder, the left extended along the body (v.5). – Female; length 1.55 m.

*No finds.*



**GRAVE 273**, quadrant XV/16c–d. – A grave in an earthen pit; depth 0.38 m; ▼ 105.34/105.19 m; or. 280° (100° deviation from north). – Damaged skeleton (skull fallen backwards); lying on the back, legs extended, head straight; the forearms extended along the body (v.1). – Male; length 1.70 m.

*No finds.*





**GRAVE 274**, quadrant XIV/16d–XV/16c. – A grave in an earthen pit; depth 0.50 m; ▼ 105.54/105.39 m; or. 290° (110° deviation from north). – Damaged skeleton (skull crushed); lying on the back, legs extended, head straight; the right forearm was angled downwards across the abdomen, the left extended along the body (v.2). – Male; length 1.60 m.

*No finds.*



**GRAVE 275**, quadrant XIV/13b–XV/13a. – A grave in an earthen pit; depth 0.72 m; ▼ 105.32/105.02 m; or. 290° (110° deviation from north). – Damaged skeleton (skull disturbed); lying on the back, legs extended, head turned to the left; the forearms extended along the body (v.1). – Male; length 1.70 m.

*No finds.*

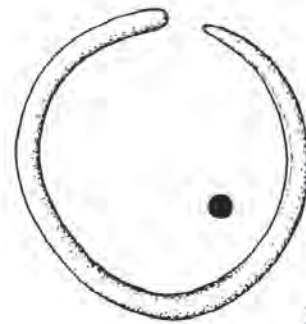
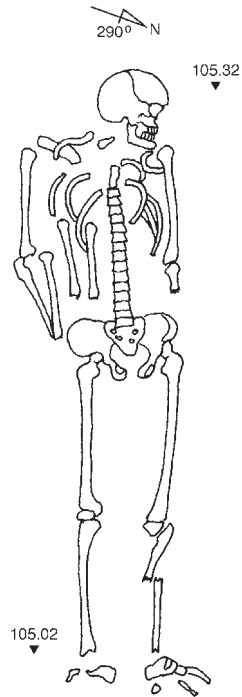
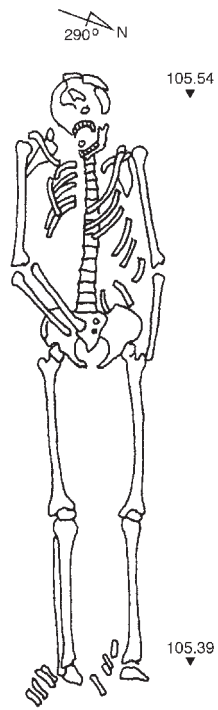


**GRAVE 276**, quadrant XV/13a–b. – A grave in an earthen pit; depth 0.43 m; ▼ 105.40/105.30 m; or. 278° (98° deviation from north). – Damaged skeleton (skull crushed, the trunk incomplete, feet missing); lying on the back, legs extended, head straight; the forearms extended along the body (v.1). – Child; length 0.70 m.

*Find:* A *bracelet* on the left forearm.

1. *Bracelet* – bronze, open ended, circular section, with separated ends, one cut, the other tapered; Ø 4.05/3.70 cm; Ø wire 0.36–0.16 cm; wt. 7.726 g; S-2680 (G. 4; De. 1.2a).







**GRAVE 277**, quadrant XV/13b–d. – A grave in an earthen pit; depth 0.52 m; ▼ 105.22 m (mid skeleton); or. 278° (98° deviation from north). – Damaged skeleton (the skull, the upper part of the trunk with the arms, and the feet missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length 0.35 m (preserved part).

*No finds.*



**GRAVE 278**, quadrant XIV/13b–XV/13a. – A grave in an earthen pit; depth 0.70 m; ▼ 105.25/105.19 m; or. 290° (110° deviation from north). – Damaged skeleton (the lower part of the calves and the right foot missing);<sup>129</sup> lying on the back, legs extended, head turned to the left; the forearms bent upwards with the hands on the shoulders (v.25). – Female; length 1.56 m.

*No finds.*



**GRAVE 279**, quadrant XV/13c. – A grave in an earthen pit; depth 0.80 m; ▼ 105.28/105.12 m; or. 280° (100° deviation from north). – Lying on the back, legs extended, head straight; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Female?; length 1.58 m.

*Finds:* One *circlet* each on the right side of the head and below the head on the left (1,2), a *bead* below the head (3), a *ring* on a finger of the left hand (4).

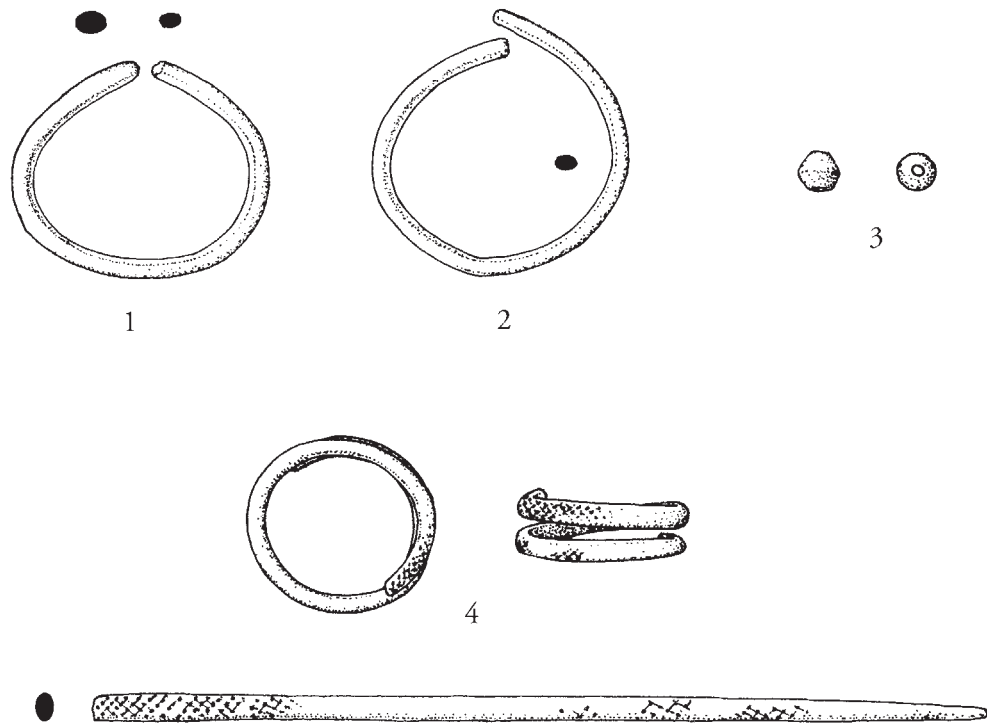
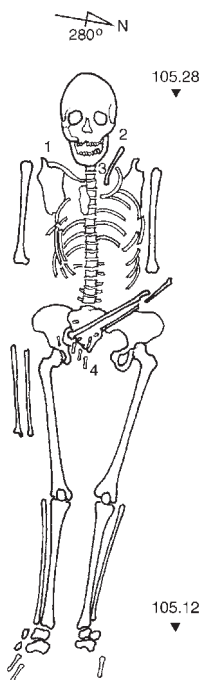
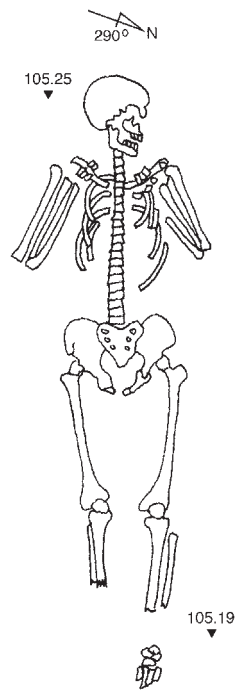
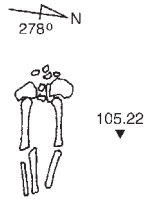
1. *Circlet* – bronze, open-ended, semicircular section, cut ends; Ø 3.37–2.95 cm (= 9.92 cm); Ø wire 0.40–0.25 cm; wt. 5.853 g; S-2682 (G. 13-I,9/6);

2. *Circlet* – bronze, open-ended, semicircular section, overlapping cut ends; Ø 3.31–3.03 cm (= 9.95 cm); Ø wire 0.30–0.24 cm; wt. 4.857 g; S-2681 (G. 13-I,9/6);

3. *Necklace with a bead* – *glass bead* (1): biconical, translucent, dark blue; Ø 0.57 cm; d 0.25 cm; h. 0.52 cm; wt. 0.61 g; S-damaged; 2684 (01/09 1 44);

4. *Ring* – bronze, with open ends, oval section, separated ends, one cut, the other pointed; 1 and 1/2 spiral coils; Ø 2.46/2.34 cm; w. 0.26 cm; th. 0.17 cm; wt. 5.483 g; S-2683 (V. III/11).

<sup>129</sup> The burial of grave 278 caused the destruction of the legs and lower part of the trunk of the skeleton in grave 251.





**GRAVE 280**, quadrant XV/13c–XV/12a. – A grave in an earthen pit; depth 0.60 m; ▼ 105.44 m (at the head); or. 292° (112° deviation from north). – Damaged skeleton (skull crushed); lying on the back, legs extended, head tilted towards the left side; the forearms angled downwards across the abdomen (v.7a). – Male; length 1.45 m.

*Find:* A *button-pendant* in the middle of the pelvis.

1. *Button-pendant* – bronze, spherical, hollow, two-part, with a circular loop for attachment, identical halves divided vertically; incomplete (one half missing); h. 1.73 cm; Ø 1.10 cm; wt. 1.441 g; S-2685 (H. 59).

**GRAVE 281**, quadrant XIV/13d. – A grave in an earthen pit; depth 0.35 m; ▼ 105.57/105.45 m; or. 272° (92° deviation from north). – Damaged skeleton (the feet missing); lying on the back, legs extended, head tilted towards the right side; the forearms extended along the body (v.1). – Child; length 0.68 m.

*Find:* A *spindle-whorl* in the soil above the pelvis.

1. *Spindle-whorl* – clay, very dark grey (Munsell 10YR 3/1), circular, biconical, identical halves, with a hole for the spindle; one half decorated with an incised broken line; Ø 1.66 cm; h. 1.17 cm; Ø hole 0.46 cm; wt. 2.718 g; S-2686 (V. VII/26; H. 6).

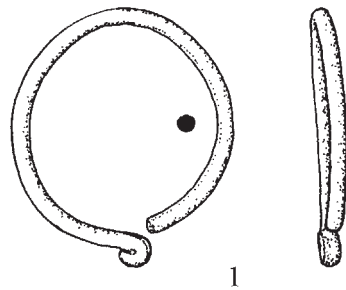
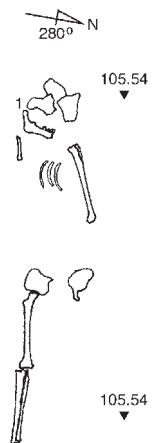
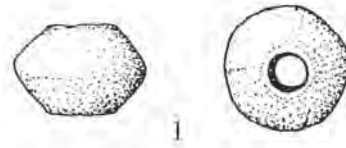
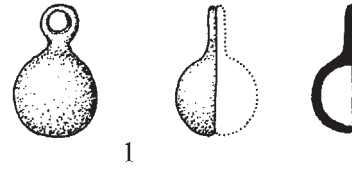
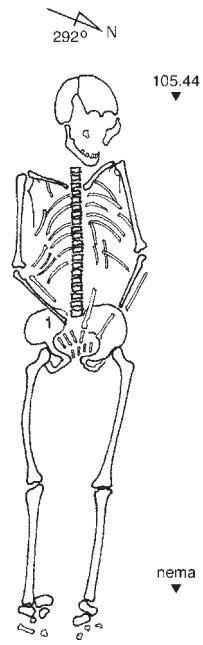


**GRAVE 282**, quadrant XIV/17d–XV/17c. – A grave in an earthen pit; depth 0.25 m; ▼ 105.54/105.54 m; or. 280° (100° deviation from north). – Poorly preserved skeleton (skull crushed, trunk disarranged, the right arm, left leg and feet are missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length 0.95 m.

*Finds:* An *O-circlet* on the right side of the head.<sup>130</sup>

1. *O-circlet* – bronze, circular section, cut end; h. 3.42 cm; Ø 3.10/2.84 cm; Ø wire: 0.26 cm; O-w. 0.32 cm; wt. 2.878 g; S-2687 (V. IV/5; H. 12a-I,9/4).

<sup>130</sup> The position of the circlet on the right side of the head is according to the *Dnevnik*, ad 17 Aug. 1953; *Zapisek*, no. 282/17 Aug. 1953 (in the photograph of gr. 282 the circlet was placed to the left of the head).





**GRAVE 283**, quadrant XIV/17d–XV/17c. – A grave in an earthen pit; depth 0.45 m; ▼ 105.54/105.37 m; or. 302° (122° deviation from north). – Lying on the back, legs extended, head straight; the right forearm folded horizontally across the stomach, the left extended along the body (v.3). – Male; length 1.75 m.

*Finds:* One *circlet* on each side of the head.<sup>131</sup>

1. *Circlet* – bronze, open-ended, circular section, cut ends; Ø 2.65–2.22 cm (= 7.46 cm); Ø wire 0.28–0.26 cm; wt. 2.680 g; S-2688 (G. 13-I, 7/5);
2. *Circlet* – bronze, open-ended, circular section, overlapping ends, one cut, the other tapered; Ø 3.00–2.75 cm (= 8.27 cm) Ø wire 0.28–0.15 cm; wt. 2.841 g; S-2689 (G. 13-I, 8/5).



**GRAVE 284**, quadrant XIV/16a. – A grave in an earthen pit; depth 0.85 m; ▼ 105.53/105.46 m; or. 292° (112° deviation from north). – Damaged skeleton (the upper part of the trunk and the right upper arm disarranged); lying on the back, legs extended, head turned to the right; the right forearm extended along the body, the left angled downwards across the stomach (v.6). – Male; length 1.60 m.

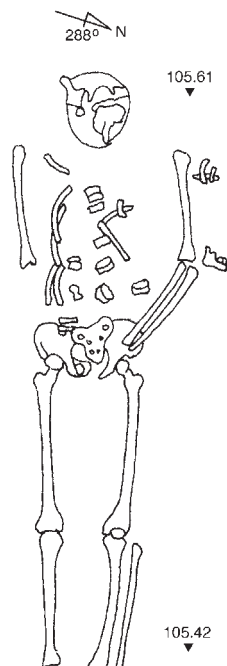
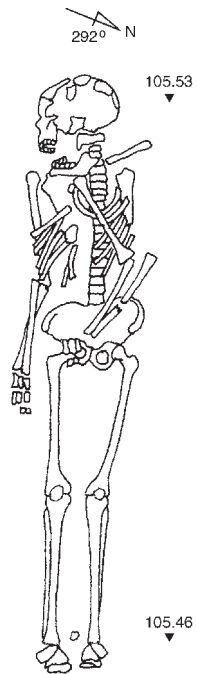
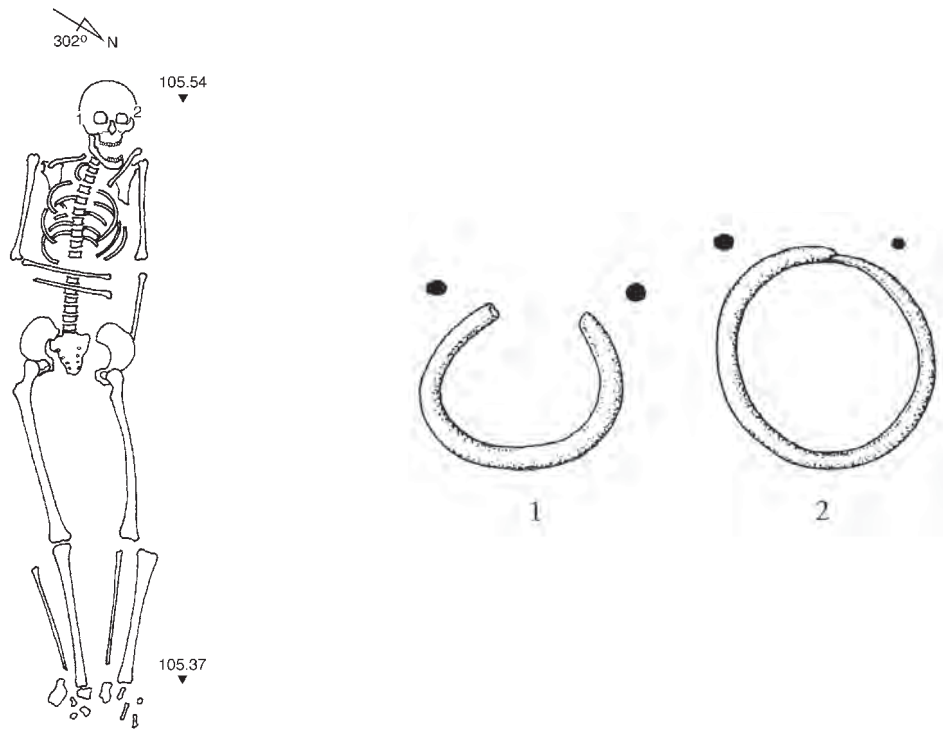
*No finds.*



**GRAVE 285**, quadrant XIV/16a–b. – A grave in an earthen pit; depth 0.52 m; ▼ 105.61/105.42 m; or. 288° (108° deviation from north). – Damaged skeleton (the skull and the upper part of the trunk disarranged, the right forearm and feet missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined (the left angled downwards across the abdomen). – Female; length 1.60 m.

*No finds.*

<sup>131</sup> Found during removal of the skeleton, *Dnevnik*, 25 Aug. 1953.





**GRAVE 286**, quadrant XIV/13c. – A grave in an earthen pit; depth 0.25 m; ▼ 106.62 m (middle of the skeleton); or. 278° (98° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk, arms and legs incomplete); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length 0.40 (preserved part).

*No finds.*



**GRAVE 287**, quadrant XIV/13c. – A grave in an earthen pit; depth 0.42 m; ▼ 105.61/105.47 m; or. 280° (100° deviation from north). – Damaged skeleton (the forearms and feet missing); lying on the back, legs extended, head straight; the forearm position could not be determined. – Child (ca. 10 years old); length 0.84 m.

*No finds.*

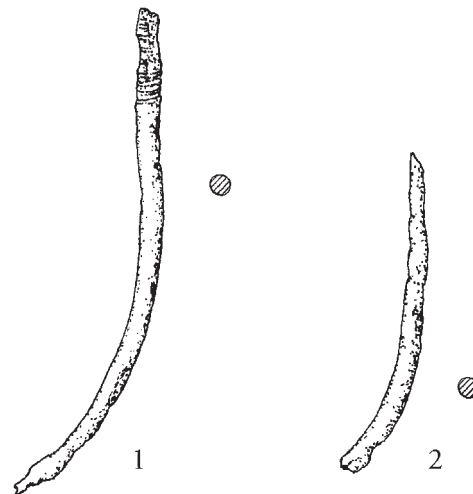
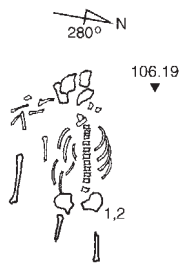
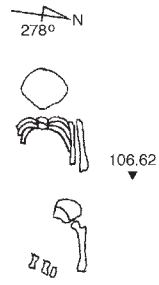


**GRAVE 288**, quadrant XII/5a–b. – A grave in an earthen pit; depth 0.52 m; ▼ 106.19 m (at the head); or. 280° (100° deviation from north). – Poorly preserved skeleton (skull and trunk disarranged, the forearms, calves, and feet missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length ca. 0.55 m.

*Finds:* Two *fishhooks* on the left side by the pelvis (1–2).

1. *Fishhook*, fragment – iron, shaft of circular section, in the upper section a belt of transversal grooves for attachment; the hook hammered, rectangular section; damaged (corroded; tip of the shaft broken, most of the hook missing); h. 6.28 cm; Ø 0.33 cm; hook: h. –, dim. 0.33 x 0.20 cm, w. –, wt. 3.074 g; S-2690/1 (H. –);
2. *Fishhook*, fragment – iron, shaft of circular section; hook hammered, rectangular section; damaged (corroded; tip of the shaft missing, most of the hook missing); h. 4.22 cm; Ø 0.29 cm; hook: h. –, dim. 0.29 x 0.18 cm; w. –, wt. 1.019 g; S-2690/2 (H. –).







**GRAVE 289**, quadrant IX/4b. – A grave in an earthen pit; depth 0.92 m; ▼ 105.85/105.70 m; or. 296° (116° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms bent upwards with the hands on the shoulders (v.25). – Male?; length 1.60 m.

*Finds:* A *knife* on the left side by the pelvis (1), a *spindle-whorl* on the right side above the pelvis (2).

1. *Knife* – iron, single-edged, with a tang for the handle, straight back; damaged (corroded; tip of the point missing, blade chipped); l. 8.75 cm; blade: w. 1.09 cm; th. 0.28/0.20 cm; wt. 7.171 g; S-2691 (To. A4; H. 5);

2. *Spindle-whorl* (secondary use, prehistoric spindle-whorl; Bronze Age: Kostolac Culture or late Bronze and early Iron Age) – clay, yellowish-brown (Munsell 10YR 5/4), circular, conical, with a hole for the spindle; damaged (chipped); Ø 6.37 cm; h. 2.40 cm; Ø hole 0.92 cm; wt. 71.476 g; S-2692 (H. 6 dif.).



**GRAVE 290**, quadrant VIII/4b–IX/4a. – A grave in an earthen pit; depth 0.96 m; ▼ 105.81/105.71 m; or. 278° (98° deviation from north). – Damaged skeleton (the lower part of the calves and the feet missing); lying on the back, legs extended, head tilted towards the left side; the right forearm angled upwards across the chest, the left downwards across the stomach (v.9). – Sex?; length ca. 1.55 m.

*No finds.*

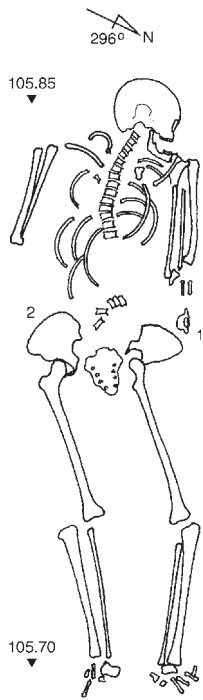


**GRAVE 291**, quadrant VIII/4d–IX/4c. – A grave in an earthen pit; depth 0.85 m; ▼ 105.87/105.79 m; or. 278° (98° deviation from north). – Damaged skeleton (the right forearm missing);<sup>132</sup> lying on the back, legs extended, head turned to the right; the forearm position could not be determined (the left forearm angled downwards across the abdomen). – Female?; length 1.47 m.

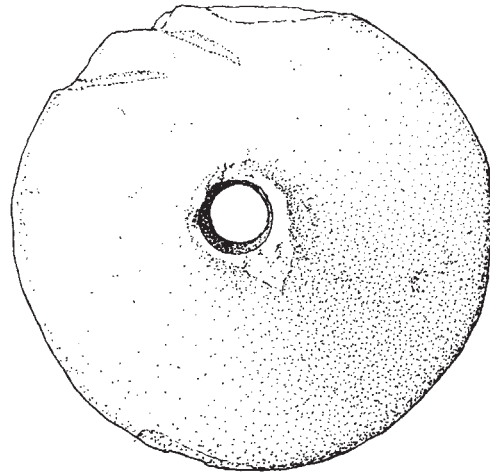
*Find:* A *circlet* on the left side of the head.

1. *Circlet* – bronze, open-ended, circular section, cut ends; Ø 1.56–1.47 cm (= 4.75 cm); Ø wire 0.14 cm; wt. 0.518 g; S-2693 (G. 13-I,4/1).

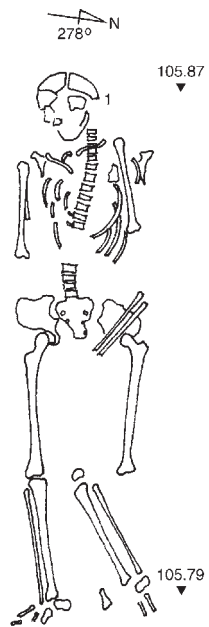
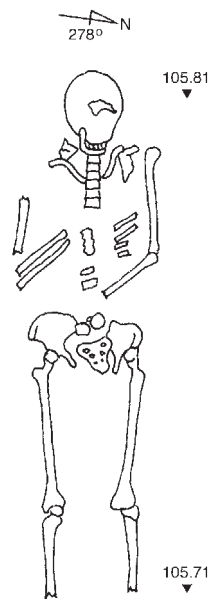
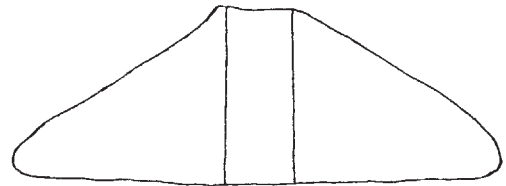
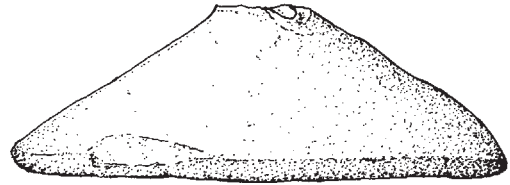
<sup>132</sup> The skeleton was damaged during removal of a trench dividing wall.



1



2



1



**GRAVE 292**, quadrant IX/5d. – A grave in an earthen pit; depth 0.77 m; ▼ 105.90/105.82 m; or. 280° (100° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm folded horizontally across the stomach, the left bent upwards with the hand on the shoulder (v.23).<sup>133</sup> – Female; length 1.46 m.

*Finds:* A *button-pendant* by the spine near the left collarbone (1), a *bracelet* on the right forearm (2), a *ring* on a finger of the left hand (3).

1. *Button-pendant* – bronze, mushroom-shaped, solid, with an elongated loop for attachment; h. 1.20 cm; Ø 0.82 cm; wt. 1.171 g; S-2696 (G. 11b dif.; H. 58d);

2. *Bracelet* – bronze, open ended, circular section, with separated, cut and tapered ends; Ø 7.87/7.29 cm; Ø wire 0.32–0.20 cm; wt. 14.587 g; S-2694 (G. 4; De. 1.2a);

3. *Ring with a crown* – bronze, two-part; a hoop of banded section, separated, hammered, and trapezoidal cut ends; damaged (part of the bezel deformed, crown missing); h. –; hoop: Ø 2.20/1.90 cm, w. 0.48 cm; th. 0.09 cm; w. bezel 0.92 cm; crown: –; wt. hoop 1.811 g; S-2695 (G. 38b; M. 16b).



**GRAVE 293**, quadrant IX/5a. – A grave in an earthen pit; depth 0.88 m; ▼ 105.96/105.86 m; or. 280° (100° deviation from north). – Damaged skeleton (skull fallen backwards); lying on the back, legs extended, head straight; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Male?; length 1.55 m.

*Find:* A *needle* on the right side of the head.<sup>134</sup>

1. *Needle* – bronze, circular section, tapered into a point; damaged (deformed); l. 4.33 cm; Ø 0.20 cm; wt. 0.714 g; S-2697 (H. –).

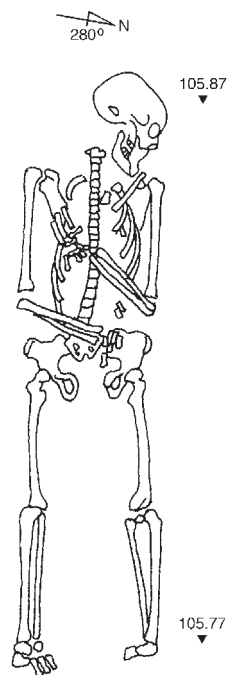
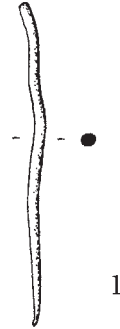
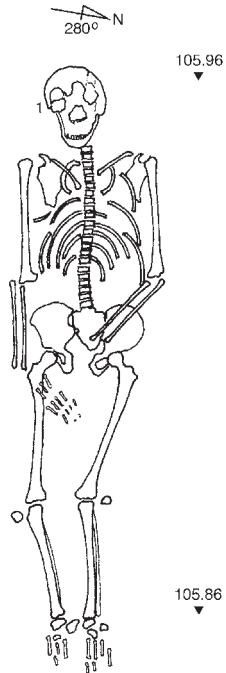
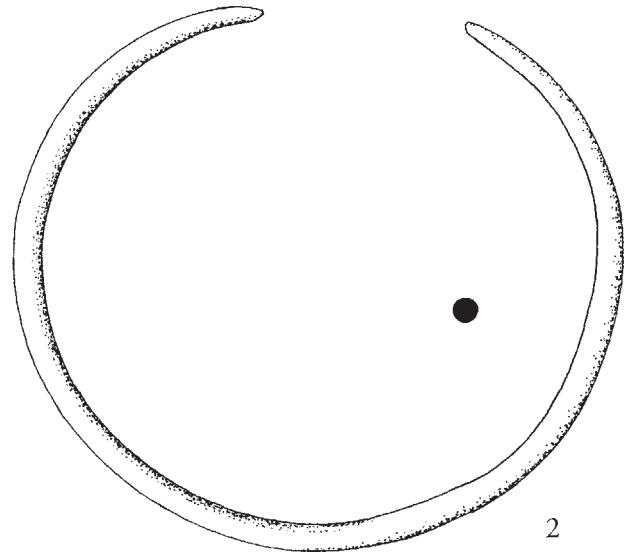
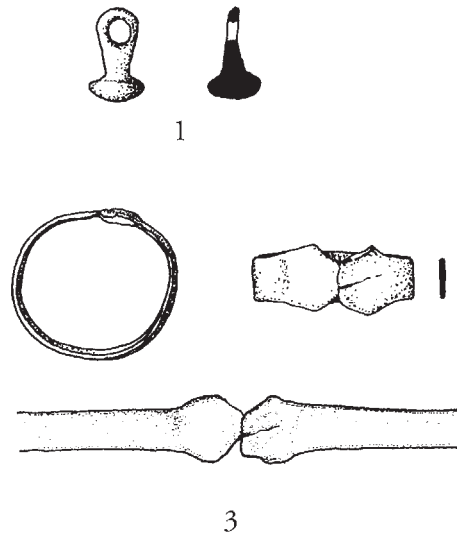
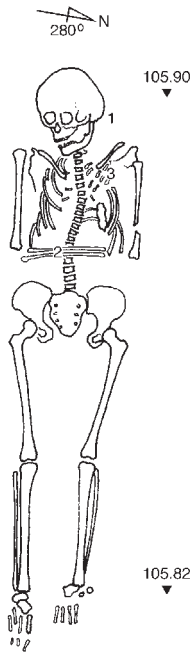


**GRAVE 294**, quadrant IX/5b–X/5a. – A grave in an earthen pit; depth 0.85 m; ▼ 105.87/105.77 m; or. 280° (100° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm angled downwards across the abdomen, the left upwards across the chest (v.17). – Female?; length 1.64 m.

*No finds.*

<sup>133</sup> The left forearm position is proven by the find of a ring.

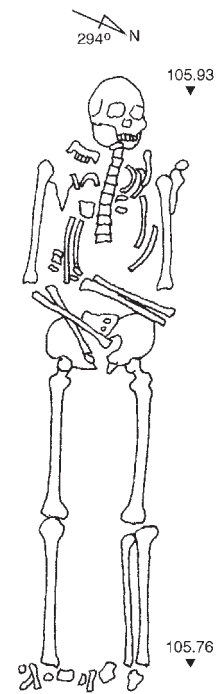
<sup>134</sup> In contrast to the *Dnevnik* (ad. 18 Aug. 1953.), the *Zapisnik*, no. 293/18 Aug. 1953, noted in reference to this find that "it is not entirely certain if the bronze pin came from the grave or was found next to it".





**GRAVE 295**, quadrant IX/6c. – A grave in an earthen pit; depth 0.88 m; ▼ 105.93/105.76 m; or. 294° (114° deviation from north). – Damaged skeleton (skull fallen backwards); lying on the back, legs extended, head straight; the right forearm angled downwards across the abdomen, the left horizontally across the stomach (v.12). – Male; length 1.52 m.

*No finds.*

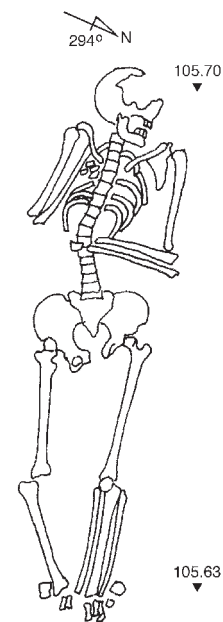


**GRAVE 296**, quadrant IX/6a. – A grave in an earthen pit; depth 1.02 m; ▼ 105.70/105.63 m; or. 294° (114° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm bent upwards with the hand on the shoulder, the left horizontally across the stomach (v.15). – Female?; length 1.50 m.

*No finds.*

*Other objects in the grave: A spindle-whorl outside the grave (?).<sup>135</sup>*

[1.] *Spindle-whorl* – clay; not preserved (?).



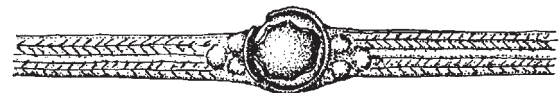
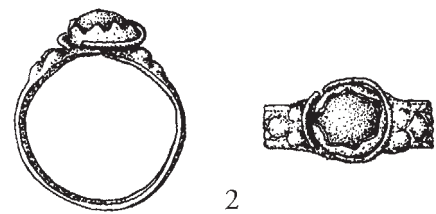
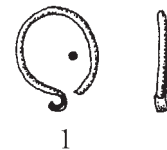
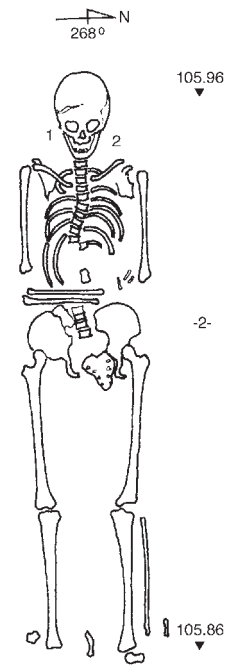
<sup>135</sup> The *Zapiski*, no. 296/18 Aug. 1953, mentioned the find of some clay spindle-whorl and concluded that it had been found outside of gr. 296, although at first the spindle-whorl had been recorded as a find discovered "on the left side of the skeleton, distant 0.10 m" and in fact it was even drawn on the corresponding field sketch. The *Dnevnik* noted that gr. 296 was without finds (ad 18 Aug. 1953), and in the S-AMZ there is no trace or mention of this spindle-whorl. Among the quite numerous prehistoric spindle-whorls from Lijeva Bara listed in the P-AMZ it is not possible to recognize a single example that would be marked as coming from quad. IX/6.



**GRAVE 297**, quadrant VIII/4a–b.– A grave in an earthen pit; depth 0.85 m; ▼ 105.96/105.86 m; or. 268° (88° deviation from north). – Lying on the back, legs extended, head straight; the right forearm folded horizontally across the abdomen, the left extended along the body (v.3). – Female?; length 1.59 m.

*Finds:* An *S-circlet* on the right side of the head (1), a crown of a *ring* on the left side of the head, its hoop found at the waist during removal of the skeleton (2).<sup>136</sup>

1. *S-circlet* – silver, circular section, cut end; damaged (part of the S-terminal missing); h. 1.32 cm; Ø 1.26/1.04 cm; Ø wire 0.10 cm; S-w. 0.19 cm; wt. 0.261 g; S-2699 (G. II,4/1);
2. *Ring with a crown* – bronze, two-part; a hoop of banded section, with separated and hammered ends; decorated with a lengthwise rib between double rows of pseudo-twisted wire, on the shoulders on each side of the crown three triangularly arranged granules; a circular crown, made of petal-like trimmed sheet metal wound with wire, with an inset hemispherically rounded stone of dark green opaque glass paste; h. 2.57 cm; hoop: Ø 2.20 cm, w. 0.60 cm, th. 0.13 cm; w. bezel 0.96 cm; crown: Ø 1.10 cm, h. 0.55 cm; wt. 4.458 g; S-2698 (G. 38b; M. 16b).



<sup>136</sup> The *Dnevnik*, ad 18 Aug. 1953 and 22 Aug. 1953; *Zapisnik*, no. 297/20 Aug. 1953. – It is also mentioned that by the legs of the skeleton buried in gr. 297 a find was noted of "dislocated horse bones, not considered to represent an archaeological find", *Dnevnik*, ad 19 Aug. 1953.



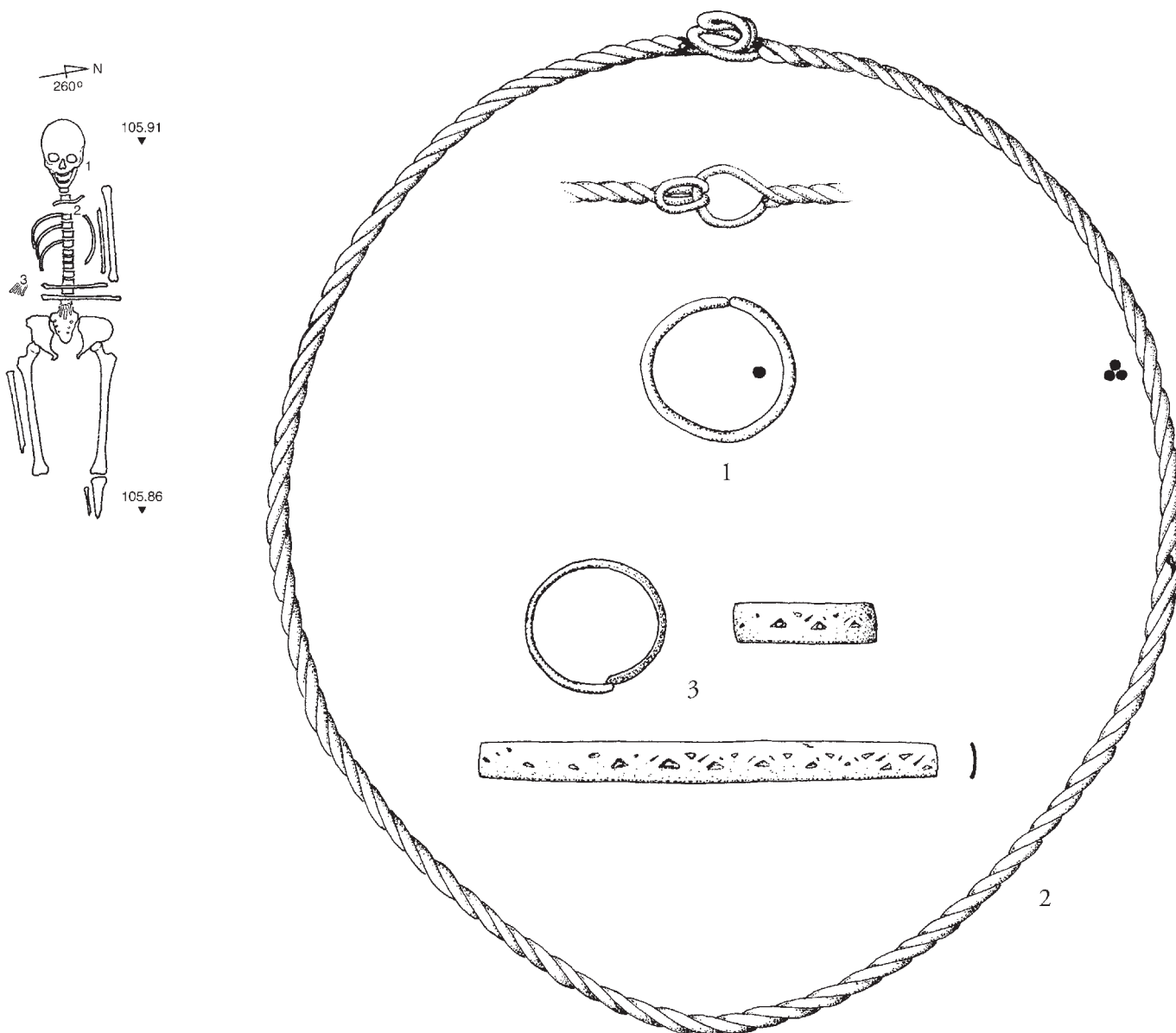
**GRAVE 298**, quadrant VIII/4c-d. – A grave in an earthen pit; depth 0.75 m; ▼ 105.91/105.86 m; or. 260° (80° deviation from north). – Damaged skeleton (the right arm, the calves and feet missing); lying on the back, legs extended, head straight; the forearm position could not be determined (the left forearm folded horizontally across the stomach). – Female; length ca. 1.76 m.

*Finds:* A *circlet* on the left side of the head (1), a *torc* around the neck (2), a ring on a disturbed finger of the right hand (3).<sup>137</sup>

1. *Circlet* – bronze, open-ended, circular section, touching cut ends; Ø 2.27–2.40 cm (= 7.33 cm); Ø wire 0.17 cm; wt. 1.242 g; S-2701 (G. 13-I, 7/2);

2. *Torc* – bronze, with a hook and eye for fastening, twisted from one triply bent wire of circular section, the ends of the wire cut; damaged (broken into two parts); Ø 15.10/13.72 cm (fastened); Ø twisted wire 0.31 cm; Ø wire 0.16 cm; wt. 20,735 g; S-2700 (G. 1a; De. 1.1.1.1a/nn);

3. *Ring* – silver, with open ends, arched section, the ends of equal width overlap; the hoop decorated entirely: a lengthwise double row of triangles with an incomplete row of short slanted lines between; Ø 2.18/2.05 cm; w. 0.64 cm; th. 0.15 cm; wt. 2.731 gr; 2877 (G. 24; De. 1.5b).



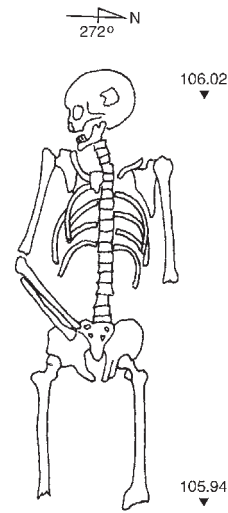
<sup>137</sup> "A bronze braided (broken) necklace round the neck, a bronze ring on the right hand and a bronze circlet on the left side of the head" are the finds mentioned in the *Dnevnik*, ad 19 Aug. 1953. In the S-AMZ, the ring was not listed among the objects found in gr. 298, but was instead assigned to the inventory of gr. 444. Up until this revision, it remained uncleaned, and hence it was not known that it was made of silver and was decorated.





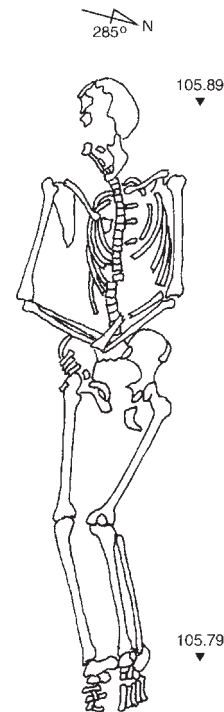
**GRAVE 299**, quadrant VIII/5c–d. – A grave in an earthen pit; depth 0.79 m; ▼ 106.02/105.94 m; or. 272° (92° deviation from north). – Damaged skeleton (the left forearm, the calves and feet missing); lying on the back, legs extended, head turned to the right; the forearm position could not be determined (the right forearm angled downwards across the abdomen). – Male?; length 1.18 m (preserved part).

*No finds.*



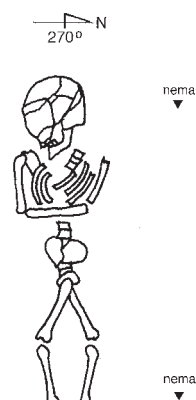
**GRAVE 300**, quadrant VIII/5a–b. – A grave in an earthen pit; depth 0.80 m; ▼ 105.89/105.79 m; or. 285° (105° deviation from north). – Lying on the back, legs extended, head straight; the forearms angled downwards and crossed on the abdomen (v.7b). – Sex?; length 1.65 m.

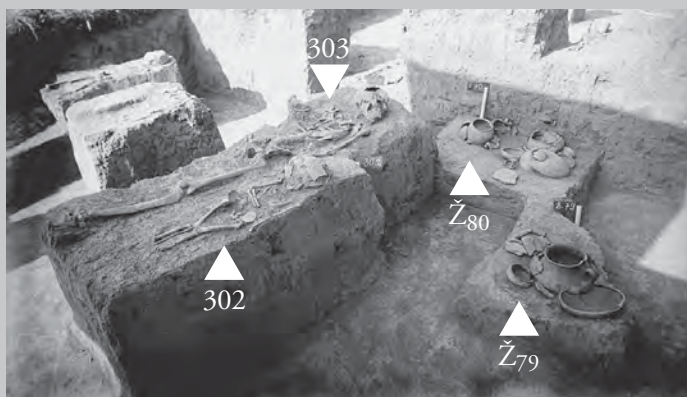
*No finds.*



**GRAVE 301**, quadrant XII/4a–XII/5c. – A grave in an earthen pit; depth 0.73 m; ▼ –; or. 270° (90° deviation from north). – Poorly preserved skeleton (legs disarranged, the left forearm and feet missing); lying on the back, legs extended, head turned to the right; the forearm position could not be determined (the right forearm folded horizontally across the stomach). – Child; length 0.85 m.

*No finds.*





**GRAVE 302 (double grave; see 303)**, quadrant XIV/13a.– A grave in an earthen pit; depth 0.55 m; ▼ 105.66/105.51 m; or. 292° (112° deviation from north). – Poorly preserved skeleton (skull crushed, feet missing); lying on the back, legs extended, head turned to the left; the right forearm folded horizontally across the stomach, the left extended along the body (v.3). – Child; length 0.73 m.

*No finds.*

**GRAVE 303 (double grave; mother and child, see 302)**, quadrant XIV/13a–d. – A grave in an earthen pit; depth 0.60 m; ▼ 105.70/105.57 m; or. 288° (108° deviation from north). – Damaged skeleton (the right side of the trunk, arms and legs missing); lying on the back, legs extended, head turned to the left (north); the forearm position could not be determined (the left forearm extended along the body). – The skeleton of a child (gr. 302) was placed at pelvis level some 15 cm from the left hand of the adult individual. – Female;<sup>138</sup> length 1.59 m.

*No finds.*

*Other objects in the grave:* Pieces of graphite by the left fist.<sup>139</sup>

1. *Graphite* (2 pieces) – pieces of various size; S-2702.



**GRAVE 304**, quadrant XIV/12a–b– XIV/13c–d. – A grave in an earthen pit; depth 0.65 m; ▼ 105.35/105.27 m; or. 260° (80° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms extended along the body (v.1). – Child (ca. 13–14 years old); length 1.30 m.

*No finds.*

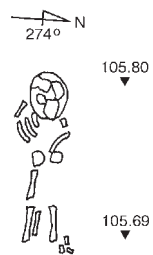
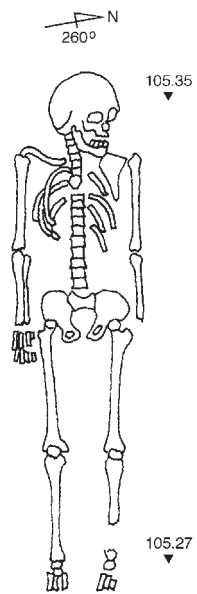
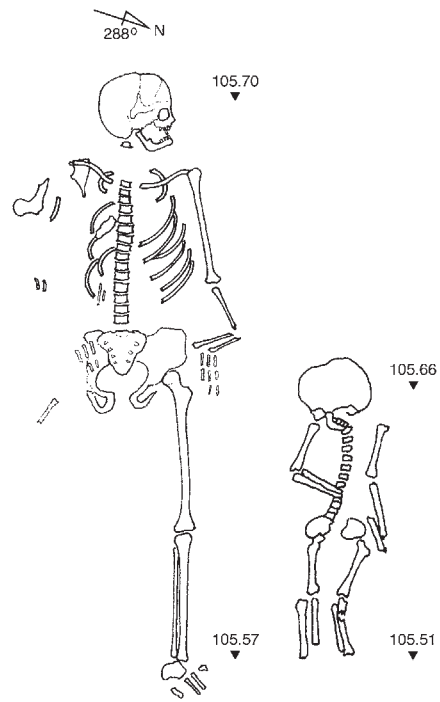


**GRAVE 305**, quadrant XIII/13b. – A grave in an earthen pit; depth 0.40 m; ▼ 105.80/105.69 m; or. 274° (94° deviation from north). – Poorly preserved skeleton (crushed skull, the arms and right upper arm missing); lying on the back, legs extended, head straight; the forearm position could not be determined. – Child (2–3 years old); length 0.52 m.

*No finds.*

<sup>138</sup> It was listed as a male skeleton in the *u Zapisnik*, no. 303/20 Aug. 1953 (sic!).

<sup>139</sup> The *Dnevnik*, ad 19 Aug. 1953, notes them as finds discovered by the left hand of the skeleton. The *Zapisnik*, no. 303/20 Aug. 1953, assigned the position to the right hand (which was not preserved!), considering the pieces of "*graphite as finds that arrived in the grave from the prehistoric La Tène stratum*".





**GRAVE 306**, quadrant XIII/13d–XIV/13c. – A grave in an earthen pit; depth 0.78 m; ▼ 105.58/105.35 m; or. 272° (92° deviation from north). – Poorly preserved skeleton (crushed skull, trunk incomplete, arms missing, the pelvis and calves disarranged); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Male; length 1.58 m.

*Finds:* On the right side of the chest at elbow height next to each other two *awls* (1,2) and an *awl press* (3).

1. *Awl* – iron, the point with a circular section, the tang of rectangular section, narrowed towards the top (triangular); damaged (corroded, broken into two pieces); l. 9.5 cm (6.5+3); point: l. 6.5 cm, Ø 0.35 cm; tang: l. 3 cm, w. 0.50 cm, th. 0.28 cm; wt. 2.569 g; S-2703 (H. –);
2. *Awl*, fragment – iron, the point with a circular section, widened towards the tang; damaged (corroded, tang broken off); l. 2.82 cm, Ø 0.35 cm; wt. 0.360 g; S-2703/2 (H. –);

3. *Awl press* – bone (animal bone, tubular), grey-brown, trapezoidal; l. 3.33 cm; w. 1.11/0.50 cm; th. 0.48/0.25 cm; wt. 1.893 g; S-2704 (H. –).



**GRAVE 307**, quadrant XIII/13b. – A grave in an earthen pit; depth 0.52 m; ▼ 105.79/105.76 m; or. 312° (132° deviation from north). – Damaged skeleton (the upper part of the skull incomplete, the left forearm missing); lying on the left flank, legs contracted, head turned to the left (north); the forearm position could not be determined (the right forearm beneath the mouth, the left missing). – Female; length ca. 1.50 (in contracted position: 1.08 m).

*Find:* A fragment of a *needle* on the chest.<sup>140</sup>

- [1.] *Needle*, fragment – bronze; missing (H. –).

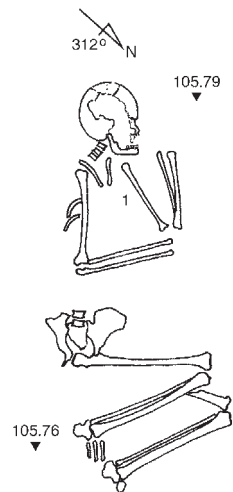
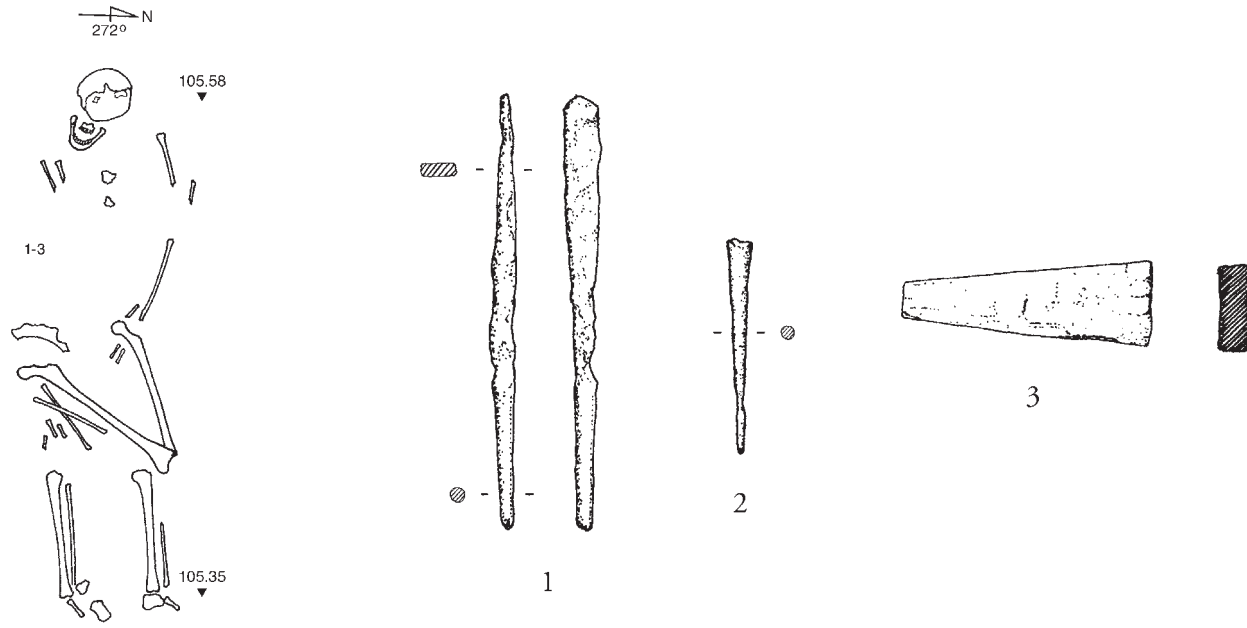
**\*GRAVE 308/prehistoric**, quadrant XIII/13a–c. – A grave in an earthen pit (south – north, head/feet); depth 0.38 m; ▼ 105.88 m (at the head); or. 200° (20° deviation from north). – Poorly preserved skeleton (the arms and the lower part of the body missing); lying on the back, legs extended, head straight; the forearm position could not be determined. – Child; length 0.20 m (preserved part).

*Finds:* spatula (bone), spool (pottery).<sup>141</sup>

*Bibliography:* DEMO 1996, 29.

<sup>140</sup> The *Zapiski*, no. 307/21 Aug. 1953 and the *Dnevnik*, ad 18 Aug. 1953, note a fragment of a bronze pin as a fin discovered on "the chest", or "above the middle of the grave". There is no trace or mention of this find in the S-AMZ.

<sup>141</sup> The *Dnevnik*, ad 15 Aug. 1953, noted that the grave had no finds ("**308** child grave without finds;..."), but data about the existence of finds and their position in the grave at the moment of discovery are noted in the *Zapiski*, no. 308/21 Aug. 1953: "...on the right side of the skeleton at the height of the upper arm ca. 10 cm distant a blade of bone; a clay spindle-whorl in the digging above the head"). The objects are in the S-AMZ: *Spatula*, fragment – bone (animal rib), towards the top angled and thinned, the upper edge flat; damaged (part broken off); l. 6.67 cm; w. 0.81 cm; wt. 1.740 g; S-2706; *Spool* – pottery, brown-grey, irregular cylindrical shape, narrowed in the center; damaged (chipped); l. 4.74 cm; w. 3.47–2.52 cm; wt. 44.802 g; S-2705.





**GRAVE 309**, quadrant XIII/13c. – A grave in an earthen pit; depth 0.28 m; ▼ 105.91 m (mid skeleton); or. 273 (93° deviation from north). – Poorly preserved skeleton (skull crushed, the trunks and arms incomplete, the calves and feet missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length 0.49 m (preserved part).

*Find:* Coiled wire on the chest.

1. *Wire*, fragment (2 pieces) – silver, circular section, curved, coiled from two wire rolls of circular section; damaged (incomplete, broken into two parts); l. 2.19 cm; Ø 0.20 cm; Ø roll: 0.20 cm; wt. 0.242 g; S-2707 (G. –).



**GRAVE 310**, quadrant XIII/16c–d. – A grave in an earthen pit; depth 0.65 m; ▼ 105.73/105.55 m; or. 278 (98° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm was folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Male; length 1.83 m.

*No finds.*

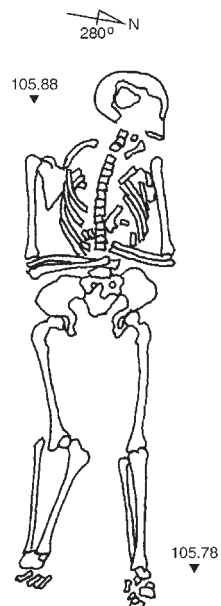
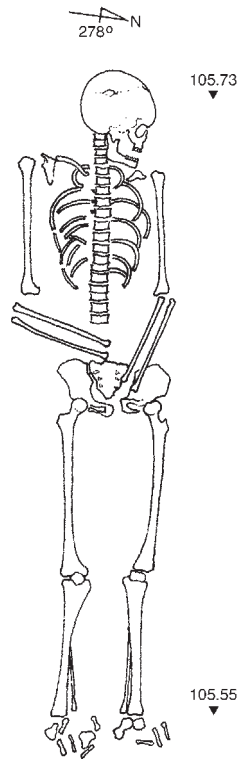
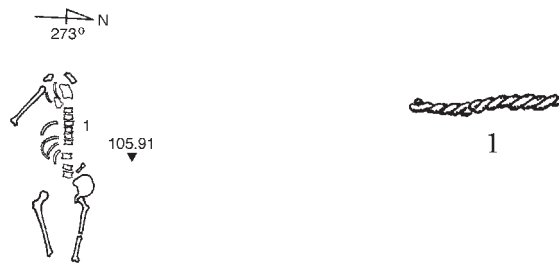
*Other objects in the grave:* An animal bone between the pelvis and thigh.

1. *Tooth* – bone, incisor of a pig; l. 5.84 cm; w. 0.92 cm; wt. 3.213 g; S-2708; (**Fig. 56:22**).



**GRAVE 311**, quadrant VIII/6c–d. – A grave in an earthen pit; depth 0.73 m; ▼ 105.88/105.78 m; or. 280° (100° deviation from north). – Damaged skeleton (skull crushed, the right calf disarranged); lying on the back, legs extended, head turned to the left; the forearms were folded horizontally across the chest: right below, left above (v.13a). – Female?; length 1.48 m.

*No finds.*





**GRAVE 312**, quadrant VIII/6a. – A grave in an earthen pit; depth unknown; ▼ 105.90/105.80 m; or. 290° (110° deviation from north). – Lying on the back, legs extended, head turned to the right; the forearms angled downwards and crossed on the abdomen (v.7b). – Male?; length 1.73 m.

*Finds:* A *knife* by the right side of the pelvis (1), an *arrowhead* on the left side of the pelvis ca. 20 cm above the skeleton (2).<sup>142</sup>

1. *Knife* – iron, single-edged, with a tang for the handle, straight back curved downwards at the tip; damaged (corroded); l. 7.55 cm; blade: w. 1.25 cm, th. 0.33/0.26 cm; wt. 8.748 g; S-2709 (To. A4; H. 5);

2. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half of the head; damaged (corroded; head chipped); l. 7.64 cm; head: l. 5.00 cm, w. 1.92 cm, th. 0.20 cm; tang: l. 2.64 cm, Ø 0.32 cm; wt. 6.646 g; S-2710 (G. A; To. A3; H. 8a; De. 1.1; /Rutt. B3/Med. 52).



**GRAVE 313**, quadrant V/5b–VI/5a. – A grave in an earthen pit; depth 0.87 m; ▼ 105.55/105.47 m; or. 272° (92° deviation from north). – Lying on the back, legs extended, head straight; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Female?; length 1.45 m.

*Finds:* One *circlet* each on the right (1) and left sides of the head (2), two *rings* on the fingers of the left hand (3,4).<sup>143</sup>

1. *Circlet* – bronze, open-ended, circular section, cut ends; Ø 2.72–2.35 cm (= 7.94 cm); Ø wire 0.20 cm; wt. 1.458 g; S-2712 (G. 13-I,7/3);

2. *Circlet* – bronze, open-ended, circular section, cut ends; Ø 1.85–1.40 cm (= 5.10 cm); Ø wire 0.26–0.16 cm; wt. 1.286 g; S-2713 (G. 13-II, 5/5);

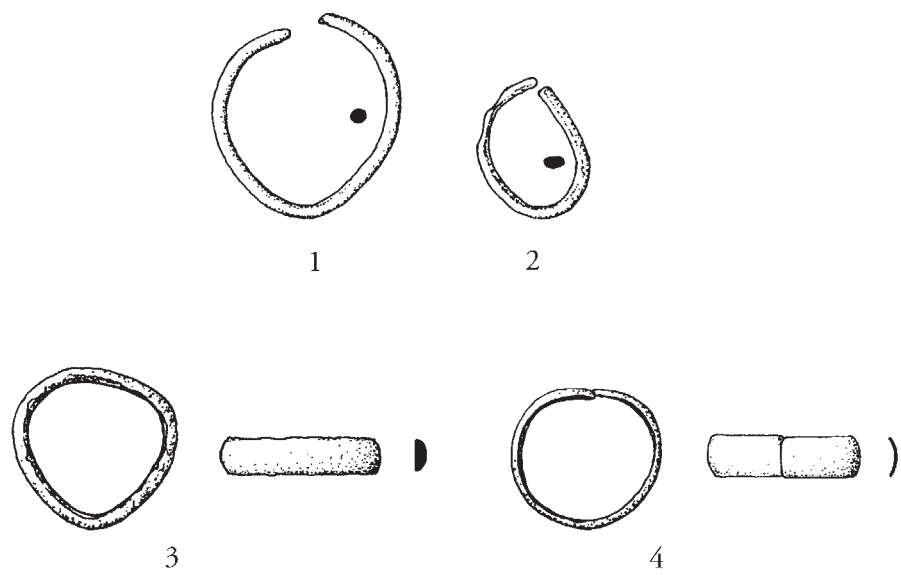
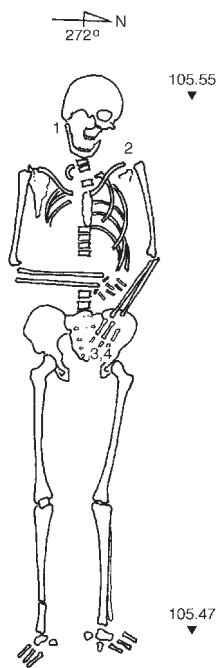
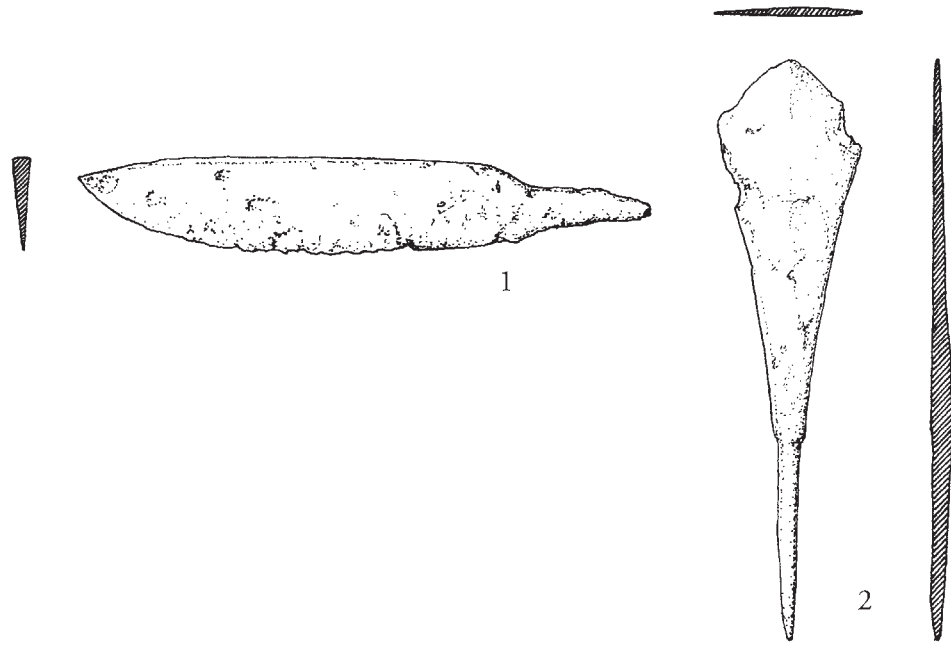
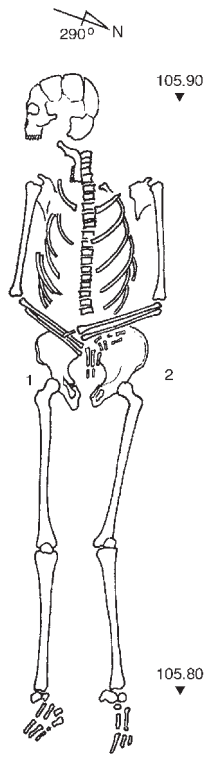
3. *Ring* – silver (an alloy of silver, lead and bronze), closed hoop, semicircular section; deformed (an irregular triangle with rounded edges); Ø 2.14/2.09 cm; w. 0.50–0.38 cm; th. 0.20–0.18 cm; wt. 2.855 g; S-2741 (G. 31; H. 52b);

4. *Ring* – bronze, with open ends, arched section, the ends of equal width overlap; Ø 1.96/1.82 cm; w. 0.58 cm; th. 0.12 cm; wt. 1.471 g; S-2711 (G. 24; H. 46a; De. 1.5a).

<sup>142</sup> The position of the arrowhead in the grave was determined on the basis of a sketch of the grave in the *Zapisnik*, no. 312/20 Aug. 1953.

<sup>143</sup> The first of these two rings (3) is visible in the photograph of gr. 313, and the other ring (4) was discovered subsequently, i.e. after removing the skeleton (*Dnevnik*, ad 27 Aug. 1953), and only on that occasion was it noted that it had originally been on a finger of the left hand (*Zapisnik*, no. 313/21 Aug. 1953). In the S-AMZ, the ring (3) visible in the photograph of gr. 313 was listed among the objects found in gr. 326.







**GRAVE 314**, quadrant V/6d–VI/6c. – A grave in an earthen pit; depth 0.95 m; ▼ 105.41/105.35 m; or. 275° (95° deviation from north). – Damaged skeleton (skull fallen backwards); lying on the back, legs extended, head straight; the right forearm angled upwards across the chest, the left angled downwards across the abdomen (v.9). – Female; length 1.53 m.

*Finds:* A *circlet* on the right side of the head (1), a *ring* on a finger of the right hand (2), a *ring* on a finger of the left hand (3).

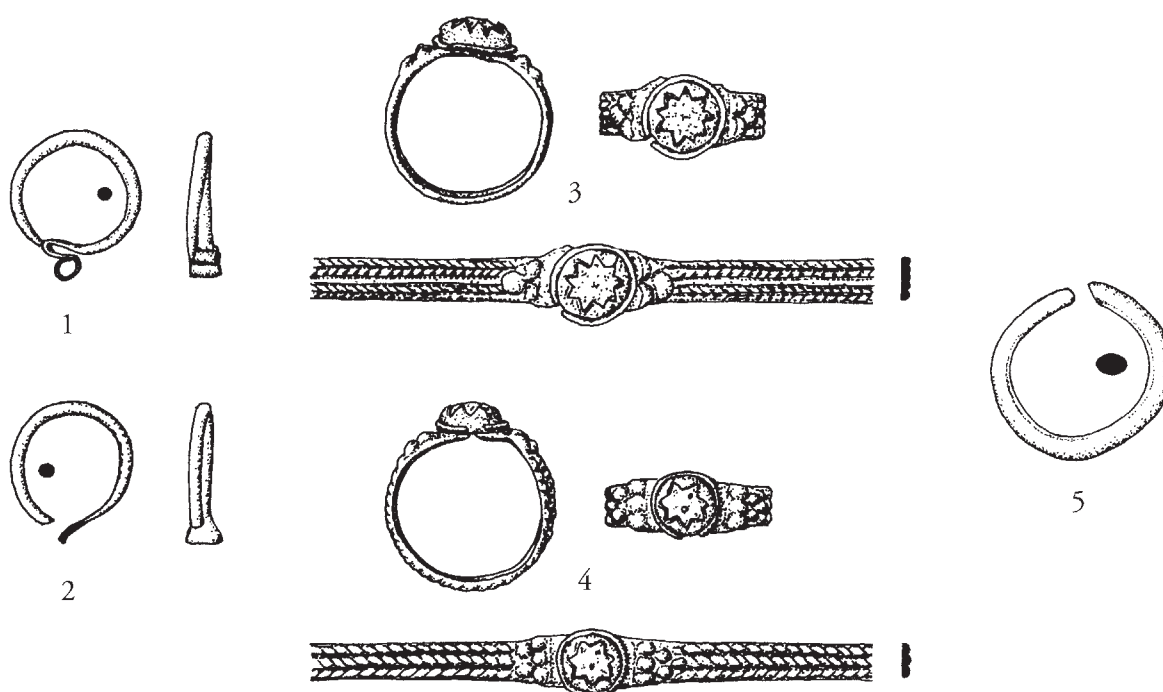
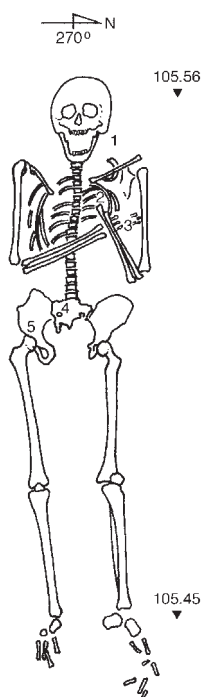
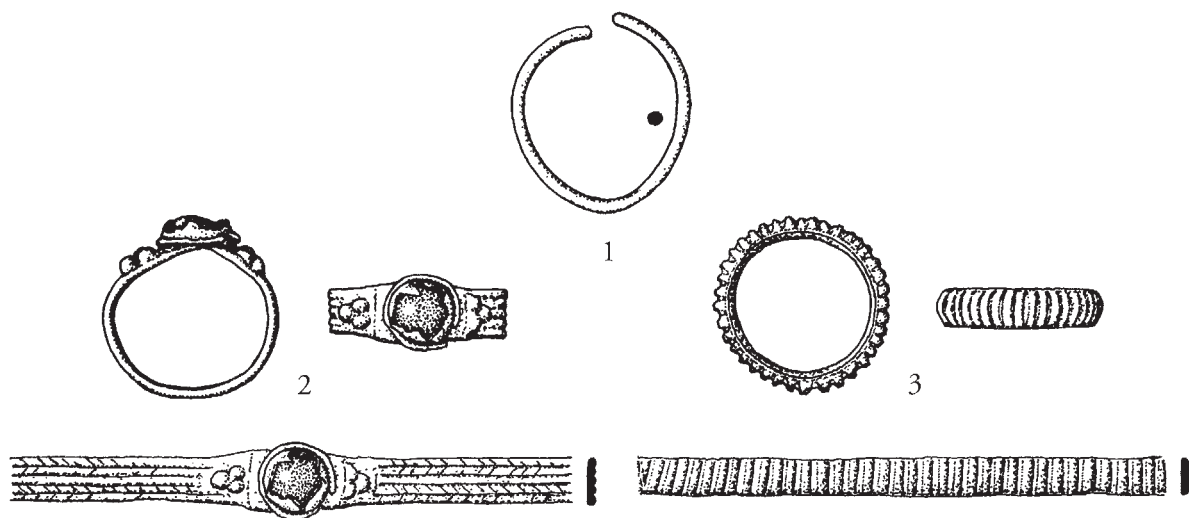
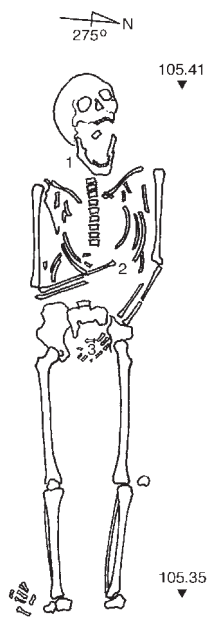
1. *Circlet* – bronze, open-ended, circular section, cut ends; Ø 2.61–2.32 cm (= 7.72 cm); Ø wire 0.15 cm; wt. 1.153 g; S-2716 (G. 13-I,7/2);
2. *Ring with a crown* – bronze, two-part; a hoop of banded section, separated and hammered ends; decorated with a lengthwise rib between double rows of pseudo-twisted wire, on the shoulders on each side of the crown three triangularly arranged granules; a circular crown, made of petal-like trimmed sheet metal wound with wire, with an inset hemispherically rounded stone of pale green transparent glass paste; h. 2.50 cm; hoop: Ø 2.32/2.17 cm, w. 0.62 cm, th. 0.15 cm; w. bezel 0.89 cm; crown: Ø 1.07 cm, h. 0.48 cm; wt. 5.281 g; S-2714 (G. 38b; M. 16b);
3. *Ring* – bronze, closed hoop, semicircular section; decorated with transverse ribbing; Ø 2.26/2.20 cm; h. 0.53 cm; th. 0.28 cm; wt. 4.735 g; S-2715 (G. 33; H. 54a).



**GRAVE 315**, quadrant V/6b. – A grave in an earthen pit; depth 0.80 m; ▼ 105.56/105.45 m; or. 270° (90° deviation from north). – Lying on the back, legs extended, head straight; the forearms angled upwards across the chest (v.19). – Female; length 1.53 m.

*Finds:* One *S-circlet* each on the left side of the head and on the left side of the rib cage (1,2), one *ring* on a finger of the right hand (3), two *rings* on the right side above the pelvis (4,5).

1. *S-circlet* – silver, circular section, pointed end; h. 2.04 cm; Ø 1.69 cm; Ø wire 0.19 cm; S-w. 0.43 cm; wt. 1.370 g; S-2720 (G. II, 5/3);
2. *S-circlet* – bronze, circular section, cut end; damaged (broken S-terminal); h. –; Ø 1.72/1.69 cm; Ø wire 0.19 cm; S-w. –; wt. 1.002 g; S-2721 (G. II, 5/3);
3. *Ring with a crown* – bronze with traces of gilding, two-part; a hoop of banded section, with separated and hammered ends; decorated with a lengthwise rib between double rows of pseudo-twisted wire, on the shoulders on each side of the crown three triangularly arranged granules; a circular crown of petal-like trimmed sheet metal wound with wire, with an inset hemispherically rounded stone of some fired mass; h. 2.52 cm; hoop: Ø 2.27 cm, w. 0.57 cm, th. 0.14 cm; w. bezel 0.97 cm; crown: Ø 1.10 cm; wt. 4.389 g; S-2717 (G. 38b; M. 16b); [Pl. 19:3];
4. *Ring with a crown* – bronze, two-part; a hoop of banded section, with separated and hammered ends; decorated with three rows of lengthwise pseudo-twisted wire, on the shoulders on each side of the crown six triangularly arranged granules; a circular crown of petal-like trimmed sheet metal wound with wire, with an inset hemispherically rounded stone of some fired mass; h. 2.48 cm; hoop: Ø 2.26 cm, w. 0.50 cm, th. 0.16 cm; w. bezel 0.77 cm; crown: Ø 0.90 cm, h. 0.47 cm; wt. 3.881 g; S-2718 (G. 38b; M. 16b);
5. *Ring* – bronze, with open ends, oval section, separated and cut ends; Ø 2.40/2.20 cm; w. 0.45–0.38 cm; 0.33–0.28 cm; wt. 5.086 g; S-2719 (G. 25 dif.).





**GRAVE 316**, quadrant V/7c–d. – A grave in an earthen pit; depth 0.86 m; ▼ 105.54/105.45 m; or. 290° (110° deviation from north). Lying on the back, legs extended, head straight; the forearms folded horizontally across the stomach: right above, left below (v.13b). – Female; length 1.53 m.

*Finds:* One *circlet* on each side of the head (1,2), a *bracelet* on the right forearm (3), a *bracelet* on the left forearm (4), one *ring* on a finger of the right hand (5), two *rings* on the fingers of the left hand (6,7).

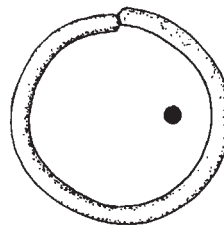
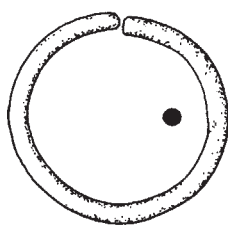
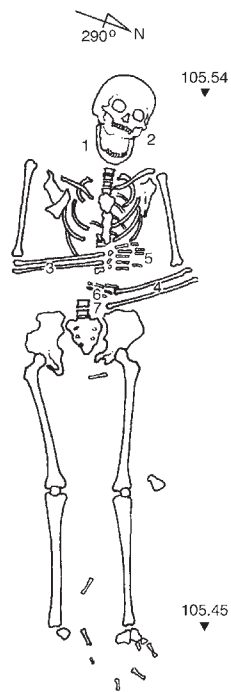
1. *Circlet* – silver, open-ended, circular section, touching cut ends; Ø 2.90–2.73 cm (= 8.83 cm); Ø wire 0.26 cm; wt. 4.004 g; S-2727 (G. 13-I,8/4);
2. *Circlet* – silver, open-ended, circular section, touching cut ends; Ø 2.88–2.83 cm (= 8.96 cm); Ø wire 0.26 cm; wt. 3.979 g; S-2728 (G. 13-I,8/4);
3. *Bracelet* – bronze, open ended, circular section, with separated and tapered ends; the upper sides of both ends are decorated with six shallow transverse incisions; Ø 6.87/6.63 cm; Ø wire 0.44–0.37 cm; wt. 24.997 g; S-2723 (G. 4; De. 1.2a.1);
4. *Bracelet* – bronze, open ended, circular section, with separated and tapered ends; the upper parts of both ends are decorated with five or six shallow transverse incisions; Ø 7.10/7.02 cm; Ø wire 0.57–0.35 cm; wt. 40.540 g; S-2722 (G. 4; De. 1.2a.1);
5. *Ring with a crown* – silver, a banded hoop of hammered wire in the lower half and of circular sectioned wire on the shoulders and the crown; the crown of spirally wound wire whose ends on the shoulders end in transverse coils; h. ring 2.77 cm; hoop: Ø 2.56 cm; w. 0.35 cm, th. 0.12 cm; crown: dim. 1.21/0.93 cm; h. 0.37 cm; Ø wire 0.14 cm; wt. 4.263 g; S-2724 (G. –; Be. IV/16; Gu. 6d); [Pl. 19:2];
6. *Ring with a crown* – bronze, closed, banded hoop with soldered shoulders and a square step-like raised crown; the shoulders each decorated with a pair of circles, and the crown with one impressed circle with a dot in the center (2+1+2); h. 2.30 cm; crown: dim. 0.71/0.53 cm, h. 0.33 cm; hoop: Ø 2.14 cm, w. 0.50–0.47 cm, th. 0.10 cm; wt. 2.215 g; S-2725 (G. 36);
7. *Ring* – silver, with open ends, triangular section, separated and cut ends; Ø 2.05 cm; w. 0.69 cm; th. 0.20 cm; wt. 4.868 g; S-2726 (G. 22; H. 48b; De. 1.4b).



**GRAVE 317**, quadrant V/7a–b–V/8c–d. – A grave in an earthen pit; depth 0.71 m; ▼ 105.68/105.60 m; or. 270° (90° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Male; length 1.60 m.

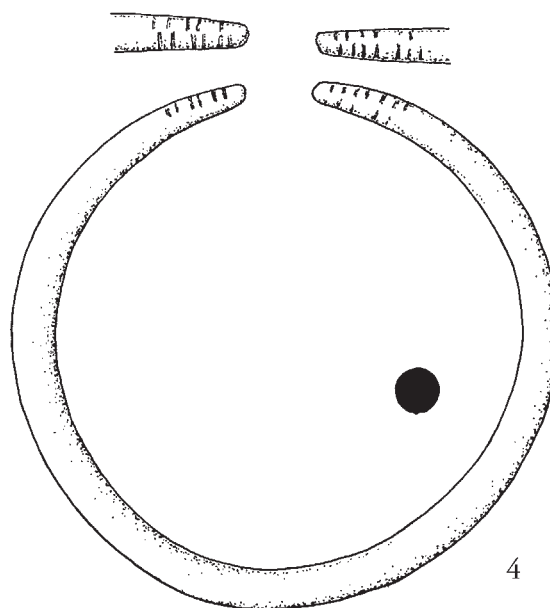
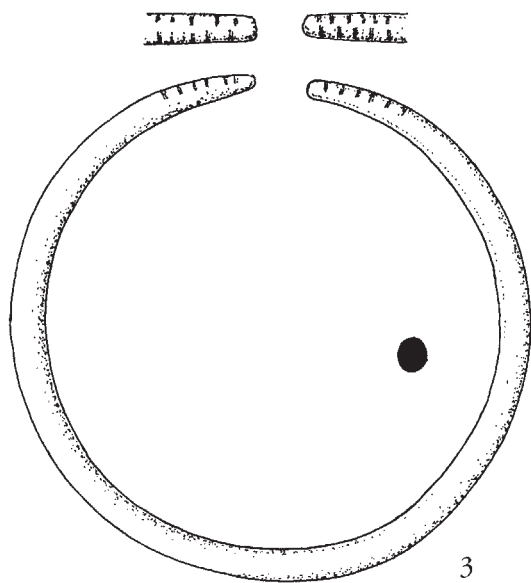
*Find:* A *flint* on the left side of the head.

1. *Flint* (secondary use, prehistoric flake; Paleolithic) – stone: flint, reddish-brown; l. 2.94 cm; w. 2.66 cm; th. 0.58 cm; wt. 4.065 g; S-2729 (H.3).



1

2

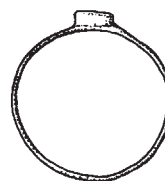


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5



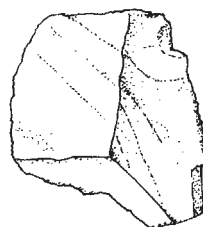
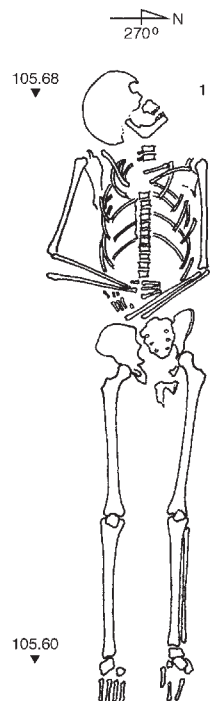
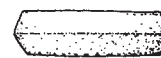
6



7



7



1



**GRAVE 318**, quadrant V/5d. – A grave in an earthen pit; depth 0.63 m; ▼ 105.75/105.65 m; or. 288° (108° deviation from north). – Poorly preserved skeleton (the skull fallen forward, legs incomplete, feet missing); lying on the back, legs extended, head position undetermined; the forearms extended along the body (v.1). – Child (5–6 years old?); length ca. 0.95 m.

*No finds.*

*Other objects in the grave:* A nugget of metal on the left side near the ribs.

1. *Nugget of metal* (a grain of melted bronze) – bronze, oval; dim. 0.80/0.60 cm; wt. 0.748 g; S-2730; (Fig. 56:23).



**GRAVE 319**, quadrant XIII/16b–XIII/17d. – A grave in an earthen pit; depth 0.65 m; ▼ 105.44 m (at the feet); or. 300° (120° deviation from north). – Damaged skeleton (skull missing, trunk incomplete, the right forearm and calf disarranged);<sup>144</sup> Lying on the back, legs extended, head position undetermined; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Sex?; length 1.40 m (preserved part).

*Finds:* Projectiles for a slingshot found on the neck (1,2); [Pl. 12:4].<sup>145</sup>

1. *Projectile (shot)* – baked earth, pale brown; irregularly spherical, surface unsmoothed; Ø 3.33/3.14 cm; h. 2.60 cm, wt. 34.177 g; S-2731 (H. –); [Pl. 12:4/left];
2. *Projectile (shot)* – baked earth, grey-brown; spherical, surface smoothed; damaged (part missing); Ø 2.47/2.42 cm, wt. 12.669 g; 2732 (H. –); [Pl. 12:4/right]

\***GRAVE 320/prehistoric**, quadrant XIII/17a. – A grave in an earthen pit (southeast – northwest, head/feet). Depth 1.18 m; ▼ 105.30/105.21 m; or. 129° (51° deviation from north). – Lying on the back, legs extended, glava pravo; the forearms were extended along the body (v.1). – Female; length 1.59 m.

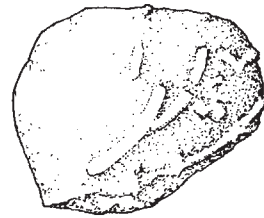
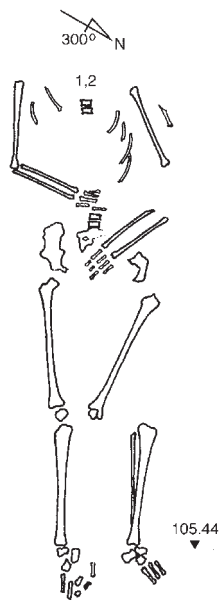
*Finds:* Bracelet with two anthropomorphic pendants (AE), bracelet (AE), temple-ring of spirally coiled wire (AE), temple-ring of spirally coiled wire with a gold bead on the circlet (AE, AV), rounded object of unknown purpose (Fe).<sup>146</sup>

*Bibliography:* VINSKI 1955, 237, 252, Fig. 10; VINSKI 1959, 101, Pl. XXXVI:10; VINSKI-GASPARINI 1962, Pl. III: 48–53; VINSKI-GASPARINI 1973, 222, Pl. 125:7–10; VINSKI-GASPARINI 1983, 608, 612; DEMO 1996, 29, 35 Fig. 17 & 17\*.

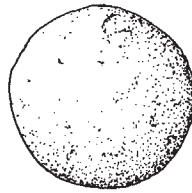
<sup>144</sup> The skeleton was damaged during removal of a trench dividing wall.

<sup>145</sup> The finds and the circumstances of the finds are mentioned in the *Zapisnik*, no. 319/21 Aug. 1953, where it was noted that the "clay balls... had probably fallen into the soil at the burial" and hence "probably belonged to the Hallstatt layer".

<sup>146</sup> The *Dnevnik*, ad 21 Aug. 1953 noted "...Hallstatt grave 320 with finds: on the right side of the head a group of large bronze hoops, one small bronze circlet with a gold bead. In the left side of the head, a group of large bronze hoops, and below them, on the neck below the lower jaw, a circular iron fragment. In the middle of the left forearm, a bronze bracelet, spirally wound." The *Zapisnik* added to the mentioned objects "a bronze pendant in the form of a stylized human figure below the left forearm, i.e. below the bracelet; it was found after removal of the skeleton." (no. 320/21 Aug. 1953).



1



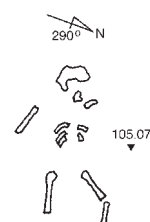
2





**GRAVE 321**, quadrant XVI/3c. – A grave in an earthen pit; depth 0.63 m; ▼ 105.07 m (middle of the skeleton); or. 290° (110° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk, arms and legs incomplete); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child (2–3 years old); length?.

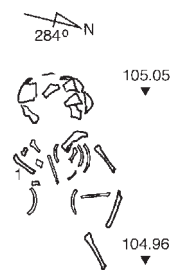
*No finds.*



**GRAVE 322**, quadrant XVI/3c. – A grave in an earthen pit; depth 0.71 m; ▼ 105.05/104.96 m; or. 284° (104° deviation from north). – Poorly preserved skeleton (the skull crushed, the trunk disarranged, the arms and legs incomplete); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length?.

*Find:* A bead near the right upper arm.

1. *Necklace with a bead – glass bead (1):* globular-flattened, unspecified, brown / three irregularly arranged dots, impressed, yellowish white;  $d_1$  0.97 cm;  $d_2$  0.42 cm; h. 0.54 cm; 2733 (01/03 4 60/10113 01 12).

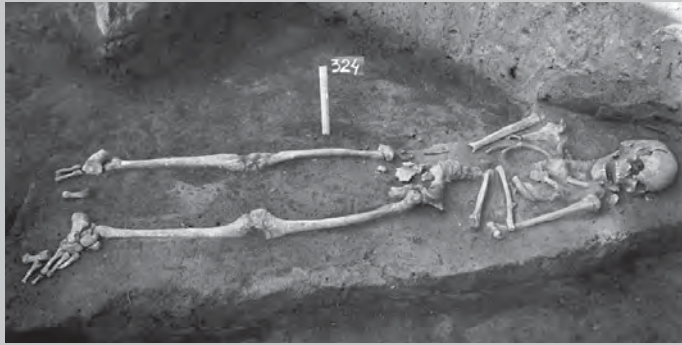


**GRAVE 323**, quadrant XVI/3a–c. – A grave in an earthen pit; depth 0.69 m; ▼ 105.18/105.09 m; or. 270° (90° deviation from north). – Poorly preserved skeleton (the trunk disarranged, the arms and legs incomplete); lying on the back, legs extended, head straight; the forearm position could not be determined. – Child (2 years old); length ca. 0.60 m.

*No finds.*



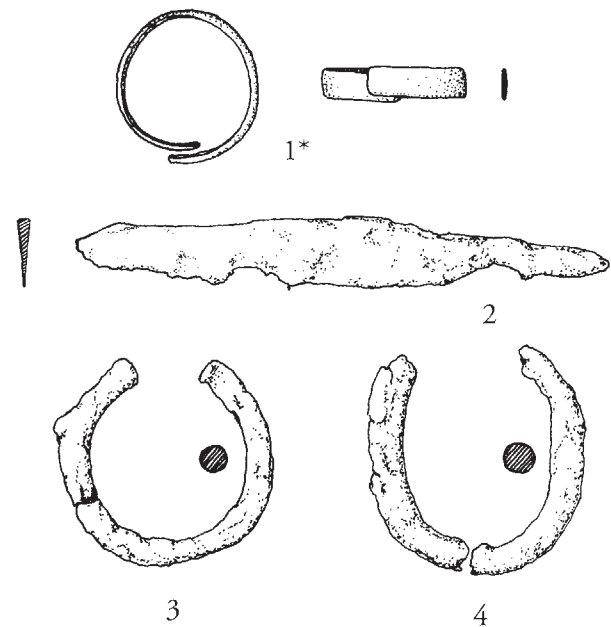
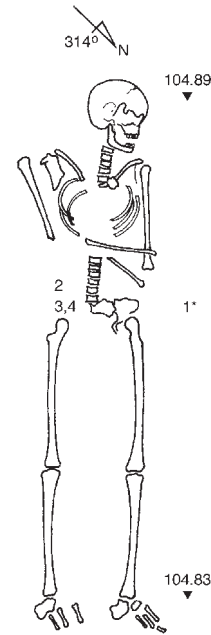




**GRAVE 324**, quadrant XVI/3a. – A grave in an earthen pit; depth 0.92 m; ▼ 104.89/104.83 m; or. 314° (134° deviation from north). – Damaged skeleton (the right side of the trunk and the arms disarranged, the right forearm missing); lying on the back, legs extended, head turned to the left; the forearm position could not be determined (the left folded horizontally across the stomach). – Male; length 1.52 m.

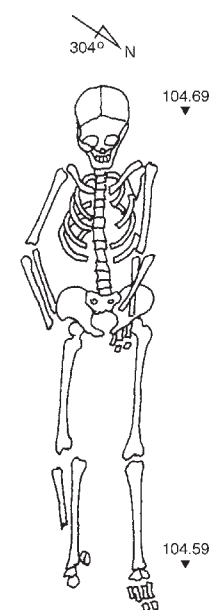
*Finds:* A *knife* (2) and one *circlet* (3) under the forearm of the right arm, another *circlet* under the pelvis on the right side near the spine (4), a *ring* on the left side in the fill of the grave (1\*).

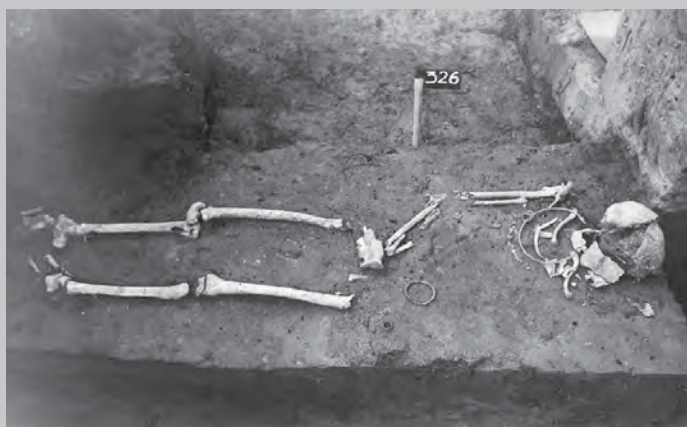
- 1.\* *Ring* – bronze, with open ends, banded section; the cut ends of different widths overlap; Ø 1.96/1.90 cm; w. 0.40 cm; th. 0.10 cm; wt. 1.575 g; S-2735 (G. 21; H. 45a);
2. *Knife* – iron, single-edged, with a tang for the handle, straight back curved downwards at the tip; damaged (corroded; blade chipped); l. 7.02 cm; blade: w. 1.02 cm; th. 0.27/0.24 cm; wt. 4.146 g; S-2734 (To. A4; H. 5);
3. *Circlet*, from a belt set, fragment – iron, circular, circular section; damaged (corroded; incomplete, broken into two parts); Ø ca. 2.96 cm; Ø wire 0.45 cm; wt. 2.175 g; S-2736 (G. –);
4. *Circlet*, from a belt set, fragment – iron, circular, circular section; damaged (corroded; incomplete, broken into two parts); Ø 3.50 cm; Ø wire 0.60 cm; wt. 5.091 g; S-2737 (G. –).



**GRAVE 325**, quadrant XVI/3b. – A grave in an earthen pit; depth 0.97 m; ▼ 104.69/104.59 m; or. 304° (124° deviation from north). – Lying on the back, legs extended, head straight; the right forearm bent at the elbow and placed along the body, the left angled downwards across the abdomen (v.6). – Female; length 1.35 m.

*No finds.*





**GRAVE 326**, quadrant XVI/3b–XVI/4d. – A grave in an earthen pit; depth 0.95 m; ▼ 104.74/104.54 m; or. 288° (108° deviation from north). – Poorly preserved skeleton (skull crushed, the upper section of the trunk and the left arm missing); lying on the back, legs extended, head straight; the forearm position could not be determined (the right forearm angled downwards across the abdomen). – Female; length ca. 1.48 m.

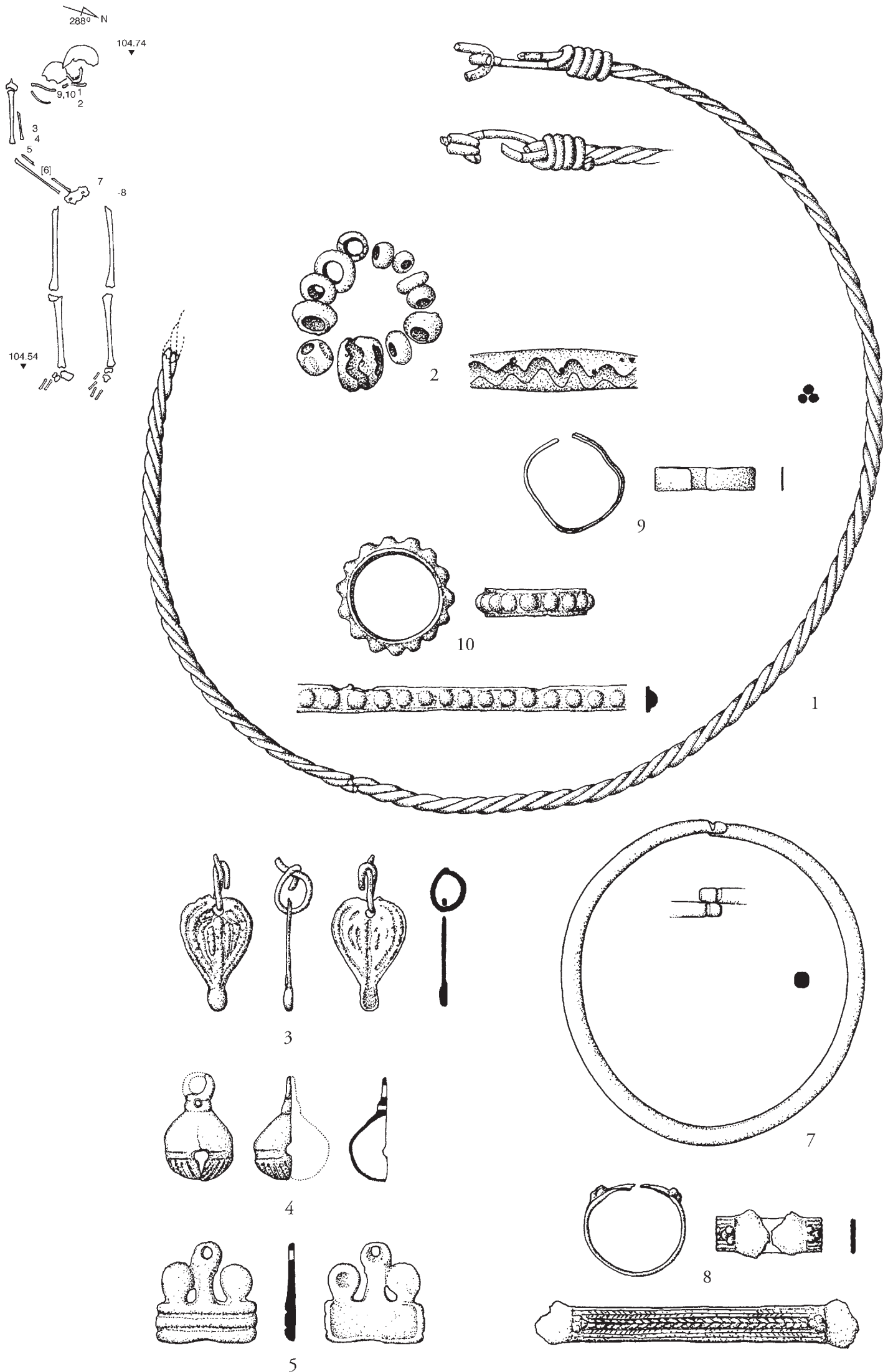
*Finds:* A *torc* around the neck (1) with two *rings* (9,10)<sup>147</sup> and a *necklace of beads* (2), three *pendants* on the right side of the rib cage (3,4,5), a fragment of a *bracelet* that had fallen apart on the right forearm [6],<sup>148</sup> a *bracelet* on the left forearm (7), and a *ring* on a finger of the left hand (8).

1. *Torc*, fragment – bronze, with a hook and eye for fastening, twisted from one single and one doubly bent wire of circular section; the cut ends of the doubly bent wire form a hook, one end of the single wire is cut, the other is wound around the neck of the eye (5 coils); damaged, incomplete (broken into three sections, part of the body missing, the eye incomplete); Ø ca. 16.10/14.00 cm; Ø twisted wires 0.33 cm; Ø wires 0.20 cm; wt. 25.018 g; S-2746 (G. 1a; De. 1.1.1.2b/nu);
2. *Necklace of beads – glass beads* (12): segmented, single, translucent, colorless / silver coating between two glass layers (2); globular-flattened, opaque, yellowish white (1), brown (3) and black (5); globular-flattened, translucent, dark blue / wavy line (fell off), impressed, unknown color (1); globular-flattened, ribbed, opaque, dark green (1); annular, unspecified, yellowish white (1) and honey brown (2); S-2742 (01/011 1 81/04; 01/03 2 12, 01/03 2 60, 01/03 2 71; 01/03 1 44/20101 01 00;<sup>149</sup> 01/04 2 54; 01/11 4 12, 01/11 4 61);
3. *Two-part pendant* (lower part), pendant on a necklace (secondary use; early medieval) – bronze, heart-shaped plate with profiled edges, with a teardrop-shaped terminal in the lower section and a raised, semicircular loop for hanging in the upper section; in the center of the plate an upright line of egg-and-darts enclosed by three rows of rounded egg-and-darts; damaged (perforated in the upper section; hoop for hanging missing); h. 2.48 cm; w. 1.60 cm; th. 0.115 cm; wt. 1.628 (with remains of wire); S-2744 (H.35a/G. 9b; D. 13; B. I/a);
4. *Globular bell-pendant*, fragment, pendant on a necklace (secondary use; early medieval) – bronze, two-part, pear-shaped, with a circular loop for suspension, identical halves divided along the perpendicular, the lower part of the bell circular in plan; at the base of the half a transverse incision with a circular ending divided the base into two fields; a double row of incised horizontal lines on the walls, at the base four rows of slanted incised lines in fields; damaged (the loop for attachment broken off on one half, below it a hole for suspension; the other half missing); h. 2.25 cm; l. 1.44 cm; w. 0.77 – cm; wt. 1.763 g; S-2743 (G. 10; To. 10a);
5. *Mount/belt mount, pendant on a necklace* (secondary use; belt mount, part of a belt set; Migration Period: late Avaric period) – bronze, the lower part rectangular with three horizontal relief ribs, above them three vertical protrusions, the central highest, with a loop of bronze wire for suspension; h. 2.22 cm; w. 2.15 cm; th. 0.20 g; wt. 1.628 g; S-2745 (G. –);
- [6.] *Bracelet*, fragment – bronze; missing.
7. *Bracelet* – bronze, open ended, square section rounded on the outer side, with separated, cut, and tapered overlapping ends; the upper side of each of the ends is decorated with a deep perpendicular groove; Ø 6.93/6.61 cm; Ø wire 0.37–0.34 cm; wt. 19.760 g; S-2738 (G. 4; De. 1.2c.1);
8. *Ring with a crown* – bronze, two-part; a profiled hoop of banded section, with separated and hammered ends; decorated with a lengthwise pseudo-braid between double rows of pseudo-twisted wire; on the shoulders on each side of the crown three triangularly arranged granules; damaged (the bezel partly broken off; crown missing); h. –; hoop: Ø 2.15 cm, w. 0.77 cm, th. 0.12 cm; w. bezel 1.02 cm; crown: –; wt. hoop 3.711 g; S-2739 (G. 38b; M. 16b);
9. *Ring*, pendant on a necklace (secondary use; early medieval) – bronze, with open ends, banded section, cut ends of equal width; Ø 2.20/1.88 cm; w. 0.55 cm; th. 0.12 cm; wt. 2.048 g; S-2740 (G. 21; H. 45a);
10. *Ring*, pendant on a necklace (secondary use; early medieval) – bronze, closed hoop, semicircular section; decorated on most of the hoop with 15 wart-like extrusions (pseudo-granules); Ø 2.46 cm; w. 0.63 cm; th. 0.54/0.20 cm; wt. 5.157 gr; 2849 (V. III/33; H. 55b).

<sup>147</sup> It was identified and assigned to gr. 326 on the basis of the field photographic documentation of gr. 326 as one of two rings hung from the torc (recognizable because of its wart-like protrusions). It was listed in the S-AMZ among the objects found in gr. 422.

<sup>148</sup> The find of two bracelets – an entire one on the left hand and a "disintegrated bracelet on the right hand", or "fragments of a bracelet on the right hand" – were recorded in both field records: *Zapiski*, no. 326/22 Aug. 1953; *Dnevnik*, ad 21 Aug. 1953. In the S-AMZ there is no trace or mention of the fragmentary bracelet.

<sup>149</sup> HAEVERNICK 1983, 48, Pl. 1:1–20 – examples of beads from the Early Iron Age.





**GRAVE 327**, quadrant XVI/4d. – A grave in an earthen pit; depth 0.95 m; ▼ 104.74/104.64 m; or. 260° (80° deviation from north). – Damaged skeleton (the upper section of the trunk); lying on the back, legs extended, head turned to the right; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Female?; length 1.50 m.

*Find:* A *knife* on the left side by the pelvis.

1. *Knife* – iron, single-edged, with a tang for the handle, straight back curved downwards at the tip; damaged (corroded; blade chipped); l. 10.20 cm; blade: w. 1.00 cm, th. 0.37/0.24; wt. 10.921 g; S-2747 (To. A4; H. 5);



**GRAVE 328**, quadrant XVI/4b. – A grave in an earthen pit; depth 0.84 m; ▼ 104.90/104.82 m; or. 272° (92° deviation from north). – Lying on the back, legs extended, the head tilted to the left side; the forearms extended along the body (v.1). – Child (3–4 years old); length 0.65 m.

*No finds.*

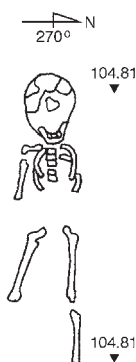
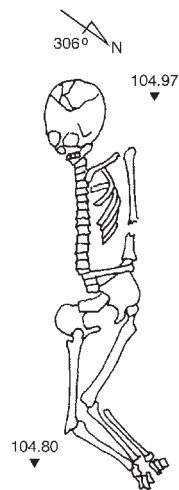
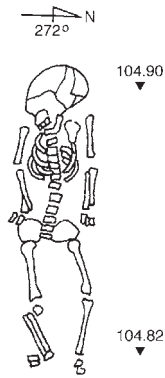
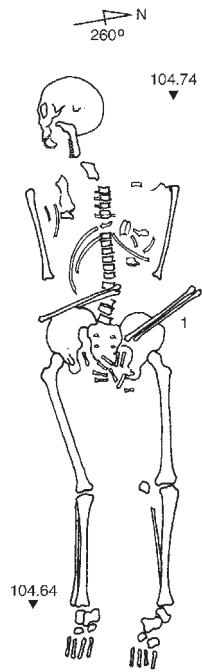


**GRAVE 329**, quadrant XVI/4a. – A grave in an earthen pit; depth 1.05 m; ▼ 104.97/104.80 m; or. 306° (126° deviation from north). – Damaged skeleton (skull crushed); lying on the back, the legs bent at the knees and placed on the earth to the right, the head tilted towards the right side; the forearm position could not be determined (the left folded horizontally across the stomach). – Child (girl?); length ca. 1.15 m (contracted 1.02 m).

*No finds.*

**GRAVE 330**, quadrant XVI/4a. – A grave in an earthen pit; depth 1.05 m; ▼ 104.81/104.81 m; or. 270° (90° deviation from north). – Poorly preserved skeleton (the trunk incomplete, the arms, the right calf and feet missing); lying on the back, legs extended, head straight; the forearm position could not be determined. – Child; length 0.79 m.

*No finds.*





**GRAVE 331**, quadrant XVI/4c–XV/4d. – A grave in an earthen pit; depth 0.98 m; ▼ 104.91/104.78 m; or. 290° (110° deviation from north). – Damaged skeleton (the lower part of the trunk and the pelvis incomplete); lying on the back, legs extended, head turned to the right; the forearms bent upwards with the hands on the shoulders (v.25). – Male; length 1.60 m.

*Finds:* In the soil of the grave a  *ring* on the right side (1), a  *knife* on the left side by the pelvis (2).

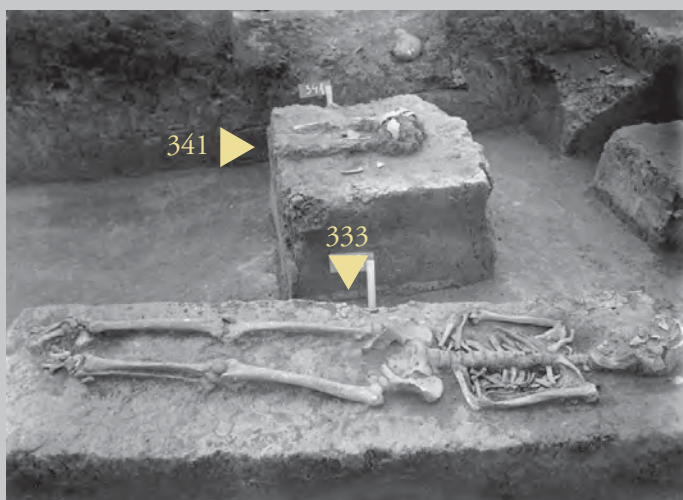
1.  *Ring* – silver (with a lot of lead), closed hoop, semicircular section; deformed (an irregular pentagram); Ø 2.29 cm; w. 0.53 cm; th. 0.29 cm; wt. 3.481 g; S-2749 (G. 31; H. 52b);

2.  *Knife* – iron, single-edged, with a tang for the handle, straight back curved downwards at the tip; damaged (corroded; tip of the point missing, blade chipped); l. 11.83 cm; blade: w. 1.14 cm; th. 0.31/0.18 cm; wt. 10.603 g; S-2748 (To. A4; H. 5).



**GRAVE 332**, quadrant XVI/3d. – A grave in an earthen pit; depth 0.66 m; ▼ 105.13/104.99 m; or. 282° (102° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk, arms, and legs incomplete); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length?.

*No finds.*

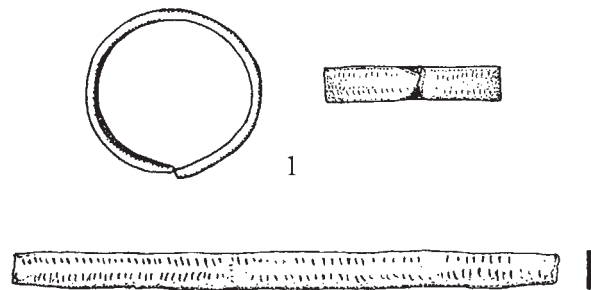
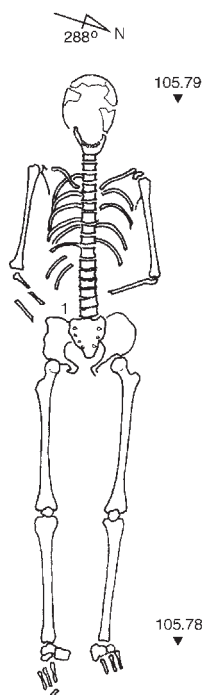
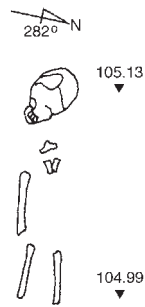
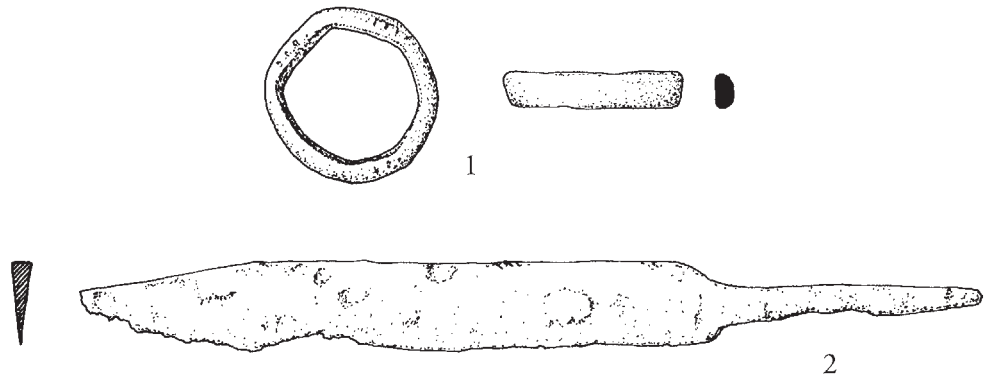
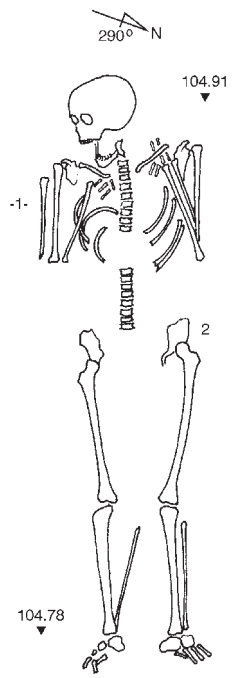


**GRAVE 333**, quadrant XIII/6c–d. – A grave in an earthen pit; depth 0.70 m; ▼ 105.79/105.78 m; or. 288° (108° deviation from north). – Damaged skeleton (skull crushed, forearms incomplete); lying on the back, legs extended, head straight; the right forearm angled downwards across the abdomen, the left folded horizontally across the stomach (v.12). – Sex?; length 1.57 m.

*Find:* A  *ring* on a finger of the left hand.<sup>150</sup>

1.  *Ring* – bronze, with open ends, banded section, cut ends of different width; the hoop decorated with a double line of perpendicular, short, and shallowly incised lines (partly visible); Ø 2.30/2.20 cm; w. 0.52–0.48 cm; th. 0.18–0.15 cm; wt. 3.481 g; S-2750 (G. 21; H. 45b).

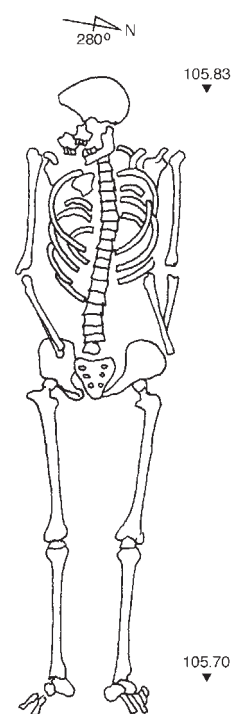
<sup>150</sup> The  *Dnevnik*, ad 22 Aug. 1953, assigned the ring to a finger of the left hand. The  *Zapisnik*, no. 333/25 Aug. 1953, attributed it to a finger of the right hand (sic!).





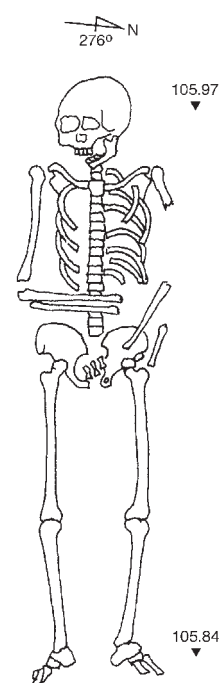
**GRAVE 334**, quadrant XII/6d–XIII/6c. – A grave in an earthen pit; depth 0.76 m; ▼ 105.83/105.70 m; or. 280° (100° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm angled downwards across the abdomen, the left extended along the body (v.2). – Male; length 1.68 m.

*No finds.*



**GRAVE 335**, quadrant XIII/6a. – A grave in an earthen pit; depth 0.65 m; ▼ 105.97/105.84 m; or. 276° (96° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Male; length 1.62.

*No finds.*







**GRAVE 336**, quadrant XIII/6d. – A grave in an earthen pit; depth 0.50 m; ▼ 105.93/105.75 m; or. 266° (86° deviation from north). – Damaged skeleton (skull crushed, the right forearm and left thigh missing, the pelvis disarranged); lying on the back, legs extended, head straight; the forearm position could not be determined (the left angled downwards across the abdomen). – Sex?; length 1.52 m.

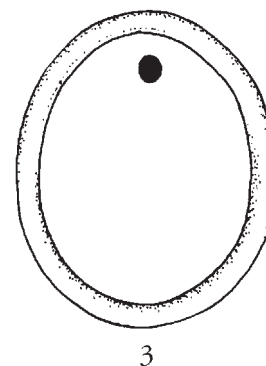
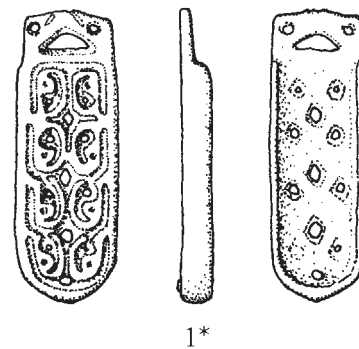
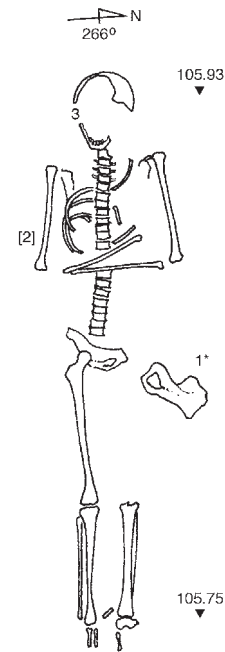
*Finds:* In the soil of the grave a *strap-end* (1\*), below the right upper arm part of a *reinforcing rod for a quiver* [2],<sup>151</sup> a *circlet* on the right side of the head (3).<sup>152</sup>

1.\* *Strap-end*, subsidiary, incomplete (secondary use, part of an Avar belt set; Migration Period: late Avaric period) – bronze, cast, perforated technique, two-part, parallel sides, end rounded, zone for attachment in the shape of animal heads, a rivet in the lower section; decorated with tendrils arranged like scales; damaged (incomplete; the upper rivets and the second half of the strap-end missing); l. 3.83 cm; w. 1.32 cm; th. 0.38 cm; wt. 6.358 g; S-2753 (To. A6);

[2.] *Quiver*, part, fragment – *reinforcing rod*, iron, fragment (1 piece): transverse lower (1 piece); not preserved (Pl. A2; H. 10);

[2.1] – *Rod: transverse, lower*; fragment (1 piece) – iron, banded section, upper surface flat, lower surface triangularly serrated; damaged (incomplete); l. ca. 9 cm, w. ca. 1.5 cm, th. – cm; not preserved;

3. *Circlet*, from a belt set, – bronze, closed, oval, circular section; damaged (irregular elongated form); Ø 4.16/3.41 cm; Ø wire 0.35 cm; wt. 7.303 g; S-2752 (G. –).



<sup>151</sup> It was noted as a bronze rod in the P-AMZ (P-18330), and as iron in the S-AMZ (S-2751), although the latter is identical to the front side of the upper transverse rod from gr. 232.

<sup>152</sup> The objects and their position in the grave on the day of excavating the grave are noted in the *Dnevnik*, ad 22 Aug. 1953. The strap end was found in the grave fill and was subsequently listed among the grave finds, as is confirmed by the *Zapisek*, no. 336/25 Aug. 1953, and the first publications (VINSKI 1955, fig. 23; VINSKI 1959, 104, Pl. XXXVIII: 23; KSN, p. 102 fig. 2).

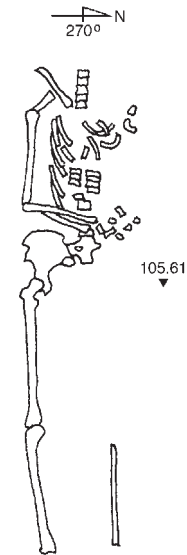
**GRAVE 337**, quadrant XII/7d. – A grave in an earthen pit; depth 0.60 m; ▼ 105.99 m (at the head); or. – (deviation from north unknown). – Destroyed skeleton (some bones of the skull and trunk remained). – Sex?; length?.

*No finds.*



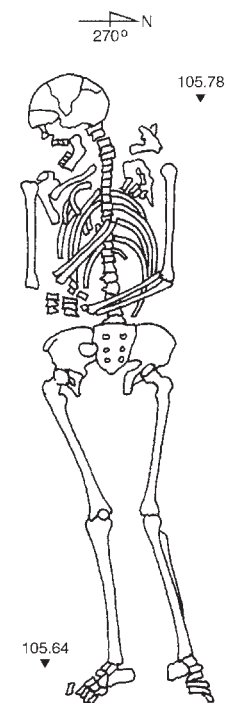
**GRAVE 338**, quadrant XIII/7d. – A grave in an earthen pit; depth 0.57 m; ▼ 105.61 (mid skeleton); or. 270° (90° deviation from north). – Damaged skeleton (the skull, the left side of the trunk with the arm, the pelvis, the legs and both feet missing);<sup>153</sup> lying on the back, legs extended, head position undetermined; the forearm position could not be determined (the right forearm folded horizontally across the stomach). – Sex?; length 1.30 (preserved part).

*No finds.*



**GRAVE 339**, quadrant XIII/7a–b. – A grave in an earthen pit; depth 0.65 m; ▼ 105.78/105.64 m; or. 270° (90° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm angled upwards across the chest, the left horizontally across the stomach (v.14). – Male; length 1.58 m.

*No finds.*

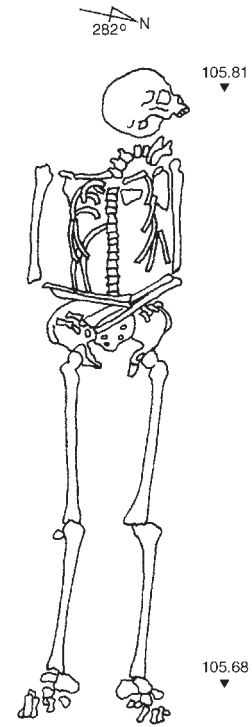


<sup>153</sup> It was noted in the field notes that the skeleton "had probably been damaged either by ploughing or by some animal", *Zapisnik*, no. 338/25 Aug. 1953.



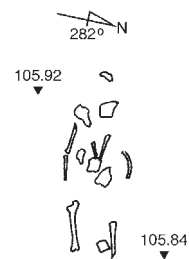
**GRAVE 340**, quadrant XII/7b–XIII/7a. – A grave in an earthen pit; depth 0.79 m; ▼ 105.81/105.68 m; or. 282° (102° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms angled downwards and crossed on the stomach (v.7b). – Male; length 1.70 m.

*No finds.*



**GRAVE 341**, quadrant XIII/6c–d. – A grave in an earthen pit; depth 0.55 m; ▼ 105.92/105.84 m; or. 282° (102° deviation from north). – Destroyed skeleton (some bones of the skull, trunk, arms and legs remained). – Child; length 0.47 m.

*No finds.*





**GRAVE 342**, quadrant XI/6d–XII/6c. – A grave in an earthen pit; depth 0.87 m; ▼ 105.79/105.72 m; or. 272° (92° deviation from north). – Lying on the back, legs extended, head straight; the right forearm folded horizontally across the stomach, the left angled upwards across the chest (v.18). – Male; length 1.72 m.

*Finds: A knife (1) and a steel for striking flints (2) on the right side by the pelvis.*

1. *Knife* – iron, single-edged, with a tang for the handle, straight back curved downwards at the tip; damaged (corroded); l. 10.38 cm; blade: w. 0.93 cm; th. 0.31/0.24 cm; wt. 10.026 g; S-2755 (To. A4; H. 5);
2. *Steel for tinder* – iron, lyre-shaped; the base flat, the body of rectangular section with a central triangular reinforcement; the arms bent back and raised at an angle, the ends of the arms separated and curved outwards; damaged (triangular reinforcement incomplete; part of the arm with the end missing); l. 6.96 cm; h. 3.68 cm; th. 0.43 cm; wt. 15.194 g; S-2754 (To. A5; H. 4).

**GRAVE 343**, quadrant XII/6d. – A grave in an earthen pit; depth 0.50 m; ▼ 105.97 m (mid skeleton); or. 270° (90° deviation from north). – Destroyed skeleton (some bones of the skull, trunk, arms and legs remained). – Child; length 0.47 m.

*No finds.*

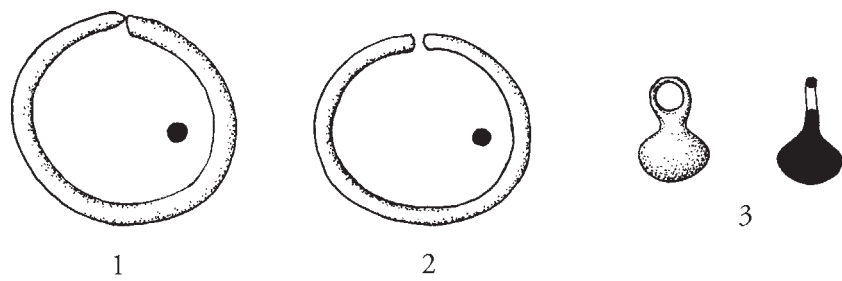
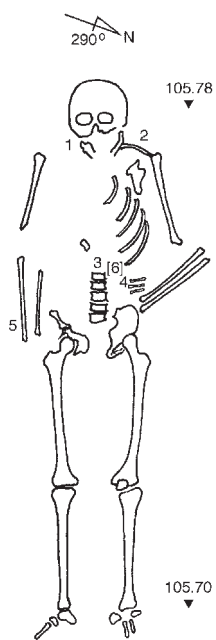
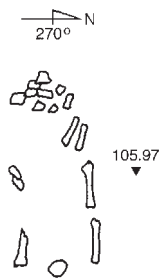
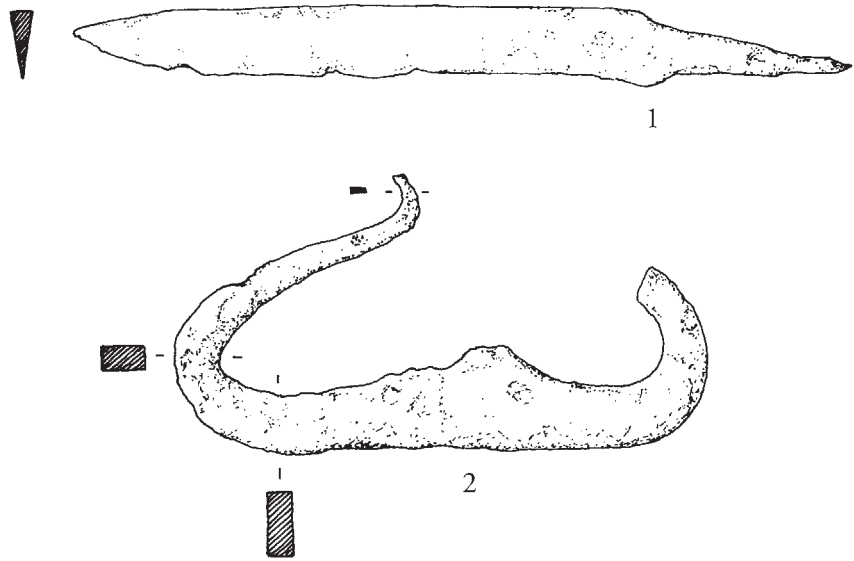
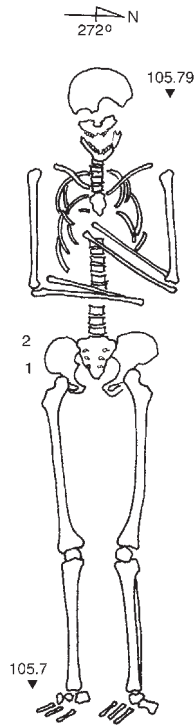


**GRAVE 344**, quadrant XII/6a. – A grave in an earthen pit; depth 0.85 m; ▼ 105.78/105.70 m; or. 290° (110° deviation from north). – Damaged skeleton (the left side of the trunk incomplete); lying on the back, legs extended, head straight; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Female; length 1.50 m.

*Finds: One circlet on each side of the head (1,2), a ring on a finger of the left hand (4), a belt clasp on the right side of the pelvis (5),<sup>154</sup> a button-pendant on the abdomen (3), and a fragment of a cuff end [6].*

1. *Circlet* – silver, open-ended, circular section, one end cut, the other tapered; Ø 2.97–2.76 cm (= 8.99 cm); Ø wire 0.28 cm; wt. 3.986 g; S-2758 (G. 13-I,8/5);
2. *Circlet* – silver, open-ended, circular section, cut ends; Ø 2.83–2.55 cm (= 8.44 cm); Ø wire 0.21 cm; wt. 2.624 g; S-2759 (G. 13-I,8/3);

<sup>154</sup> The *Zapiski*, no. 344/25 Aug. 1953, and *Dnevnik*, ad 24 Aug. 1953, and S-AMZ all note it as an arrow. In the photographic documentation, it is shown by the right forearm, while the field records note and draw it as a find discovered on the right side of the pelvis.



3. *Button-pendant* – bronze, lenticular, solid, with an elongated loop for attachment; h. 1.40 cm; Ø 0.95 cm; wt. 2.518 g; S-2760 (G. 11b; H. 58c);
  4. *Ring with a crown* – bronze, two-part; a profiled hoop of banded profile, with separated and hammered ends; decorated with a lengthwise pseudo-braid between double pseudo-twisted wire; on the shoulders on each side of the crown three triangularly arranged granules; a crown with a circular and hemispherically rounded stone of dark (or dark blue) opaque glass paste; damaged (hoop broken; the coronet (petal-like trimmed sheet metal) of the crown missing); h. 2.50 cm; hoop: Ø 2.20 cm, w. 0.82 cm, th. 0.16 cm; w. bezel 1.08 cm; crown: ≥ 1.10 cm; wt. 4.797 g; S-2756 (G. 38b; M. 16b);
  5. *Clasp with a hook for fastening, fragment* – iron, one part, arched body, leaf-shaped; damaged (corroded; loop and hook missing); l. 4.48 cm; w. 0.90 cm; th. 0.16 cm; wt. 1.613 g; S-2757 (G. –);
- [6.] *Cuff end, fragment* – silver, banded section; missing (H. 67).<sup>155</sup>



**GRAVE 345**, quadrant XII/6b. – A grave in an earthen pit; depth 0.85 m; ▼ 105.83/105.78 m; or. 278° (98° deviation from north). – Lying on the back, legs extended, head straight; the right forearm angled downwards across the abdomen, the left horizontally across the stomach (v.12). – Male; length 1.65 m.

*Find:* A *knife* on the left side by the pelvis.

1. *Knife* – iron, single-edged, with a tang for the handle, straight back curved downwards at the tip; damaged (corroded; blade chipped); l. 9.90 cm; blade: w. 0.92 cm, th. 0.29/0.22 cm; wt. 7.406 g; S-2761 (To. A4; H. 5).



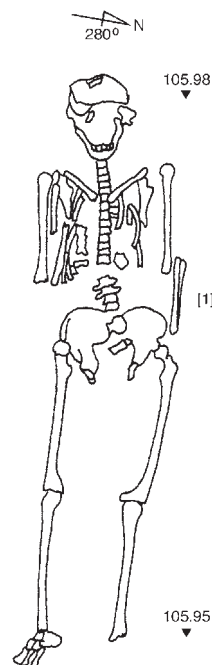
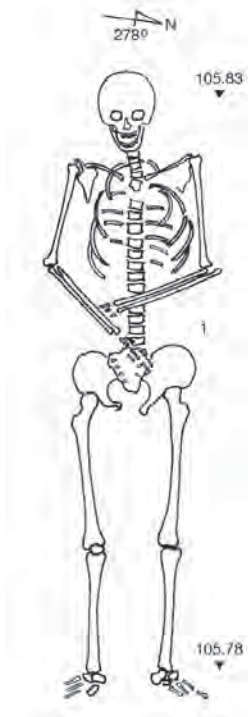
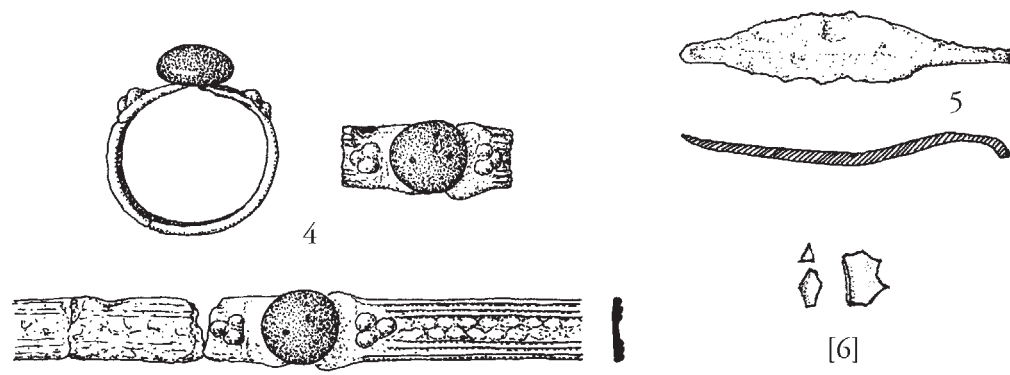
**GRAVE 346**, quadrant XII/7c. – A grave in an earthen pit; depth 0.63 m; ▼ 105.98/105.95 m; or. 280° (100° deviation from north). Lying on the back, legs extended, head straight; the right forearm bent upwards with the hand on the shoulder, the left extended along the body (v.5). – Sex?; length 1.53 m.

*Find:* The *bone* of a horse leg near the left shin.<sup>156</sup>

- [1.] *Bone* – horse, leg bone, right foreleg (*tibia*); missing (H. 72).

<sup>155</sup> It was even noted in the field documentation that the fragment of silver sheet metal found on the abdomen of the skeleton (*Dnevnik*, ad 24 Aug. 1953.) had fallen apart (*Zapisek*, no. 344/25 Aug. 1953), and this is presumably the reason that it is not listed in the S-AMZ.

<sup>156</sup> The position of the bones in the grave is shown by the photograph of the grave. The *Zapisek*, no. 346/25 Aug. 1953, noted that the bone was 15 cm distant from the arm and was 8 cm higher in terms of level. The osteological material was not preserved (?). – For the identification of the bone material, see here p. 547 n. 615.

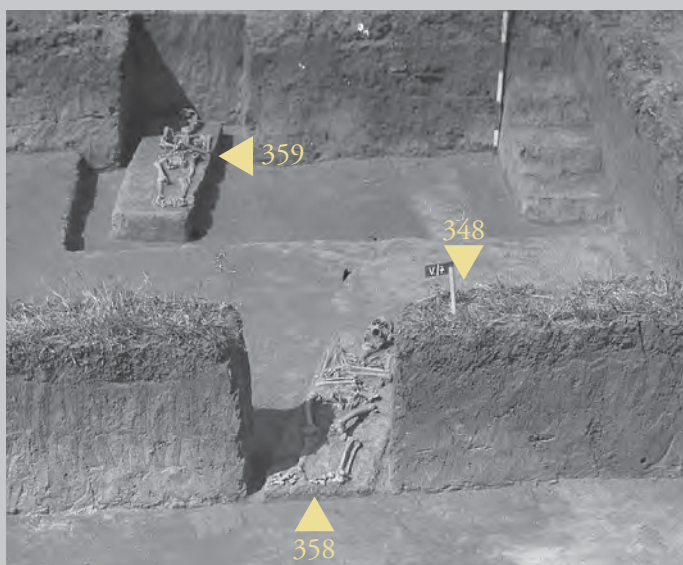




**GRAVE 347**, quadrant XIII/5a–b–XIII/6c–d. – A grave in an earthen pit; depth 0.59 m; ▼ 105.89/105.79 m; or. 289° (109° deviation from north). – Damaged skeleton (incomplete arms); lying on the back, legs extended, head turned to the right; the forearms extended along the body (v.1).<sup>157</sup> – Child (ca. 12 years old); length 1.12 m.

*Finds:* A *circlet* on the right side of the head (1), a *necklace of beads* (2) and three *button-pendants* (3–5) on the neck; the circumstances of the find and position of the *ring* in the grave are unknown (6\*).<sup>158</sup>

1. *Circlet* – silver, open-ended, semicircular section, overlapping ends, one cut, the other tapered; Ø 1.70–1.57 cm (= 5.13 cm); Ø wire 0.22 cm; wt. 1.616 g; S-2763 (G. 13-I,5/5);
2. *Necklace of beads – glass beads* (9): globular-flattened, unspecified, brown (1); annular, unspecified, brown (1); cylindrical with a pinched end, opaque, yellowish white (1); grits-shaped, opaque, yellowish white (5); S-2764/1 (01/03 4 60; 01/11 4 60; 01/13 2 12; 01/14 2 12);
3. *Button-pendant* – bronze, spherical, solid, with a circular loop for attachment; h. 1.57 cm; Ø 0.81 cm; wt. 2.785 g; S-2764/2 (G. 11a);
4. *Button-pendant* – bronze, mushroom-shaped, solid, with an elongated loop for attachment; h. 1.29 cm; Ø 0.88/0.85 cm; wt. 1.785 g; S-2764/3 (G. 11b dif.; H. 58d);
5. *Button-pendant* – bronze, mushroom-shaped, solid, with an elongated loop for attachment; decorated on the lower side with seven concentrically arranged incisions; h. 1.16 cm; Ø lower part 0.70 cm; wt. 1.066 g; S-2764/3 (G. 11b dif.; H. 58d);
- 6.\* *Ring with a crown* – silver, gilded, two-part; a hoop of banded section with a hammered bezel; the crown of rhomboid shape with a circular decoration in the center and with a rounded circular decoration at each of the corners; h. 2.78 cm; hoop: Ø 2.50/2.38 cm, w. 0.30 cm, th. 0.16–0.14 cm; crown: dim. 1.95/1.90 cm, h. 0.84 cm; wt. 7.100 g; S-2762 (G. –); [Pl. 20:1].



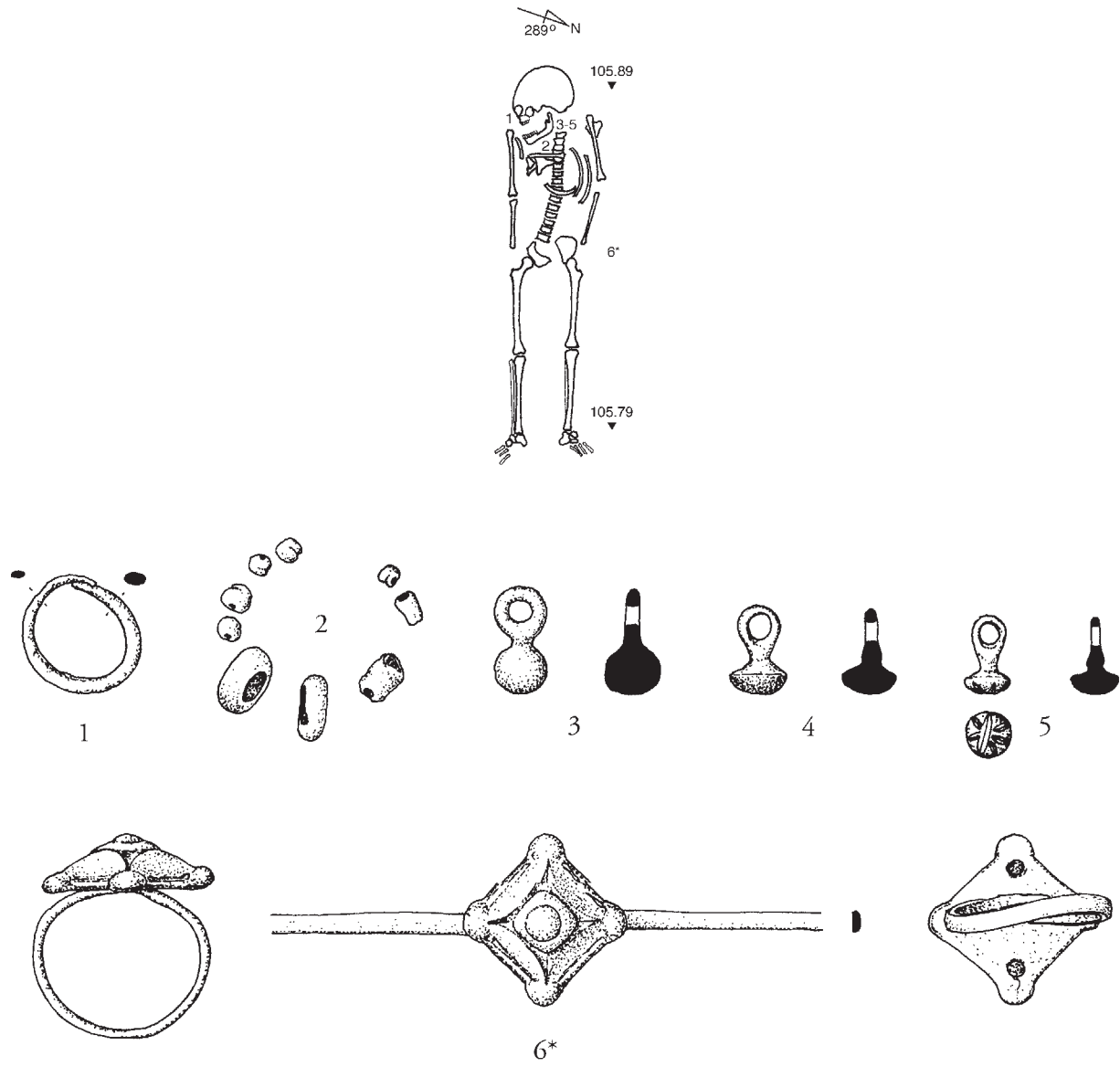
**GRAVE 348**, quadrant IV/7b. – A grave in an earthen pit; depth 0.67 m; ▼ 105.64/105.57 m; or. 271° (91° deviation from north). – Poorly preserved skeleton (skull crushed, the right side of the trunk with the arm, the pelvis, the right leg and both feet missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child (4–5 years old); length 0.70 m (preserved part).

*No finds.*

<sup>157</sup> The position of the forearms was determined on the basis of the photographic field documentation.

<sup>158</sup> *Zapisnik*, no. 347/25 Aug. 1953 and *Dnevnik*, ad. 24 Aug. 1953. The descriptions of the grave goods correspond, but neither of them mentioned a solid silver gilded ring, which is noted as a grave find only in the S-AMZ.



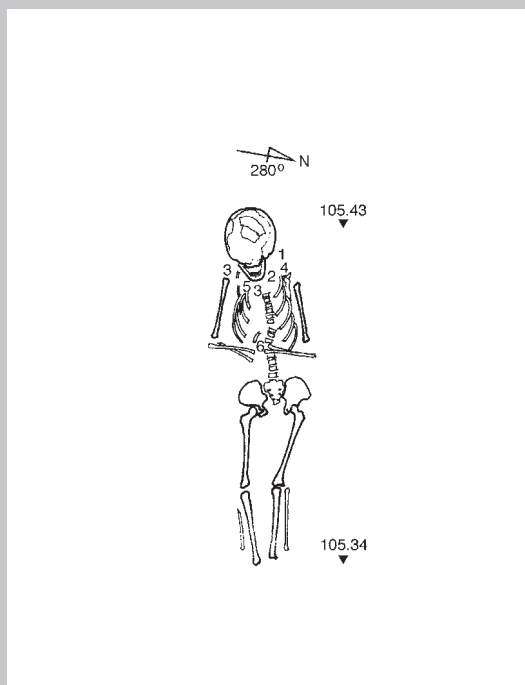


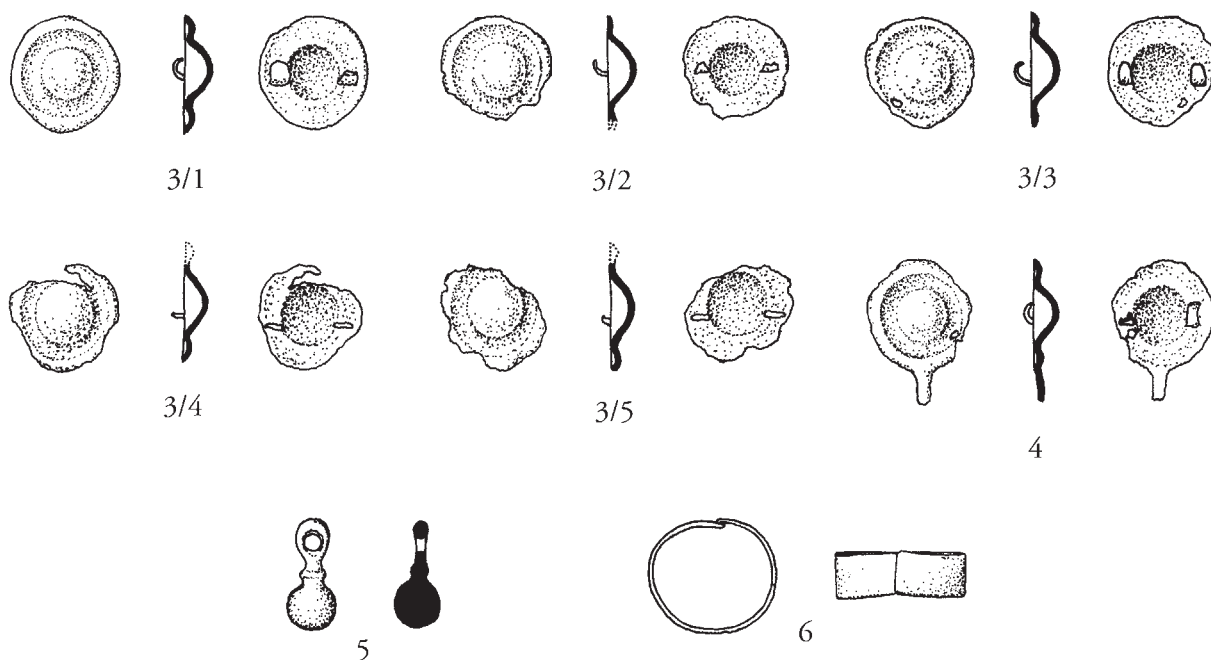
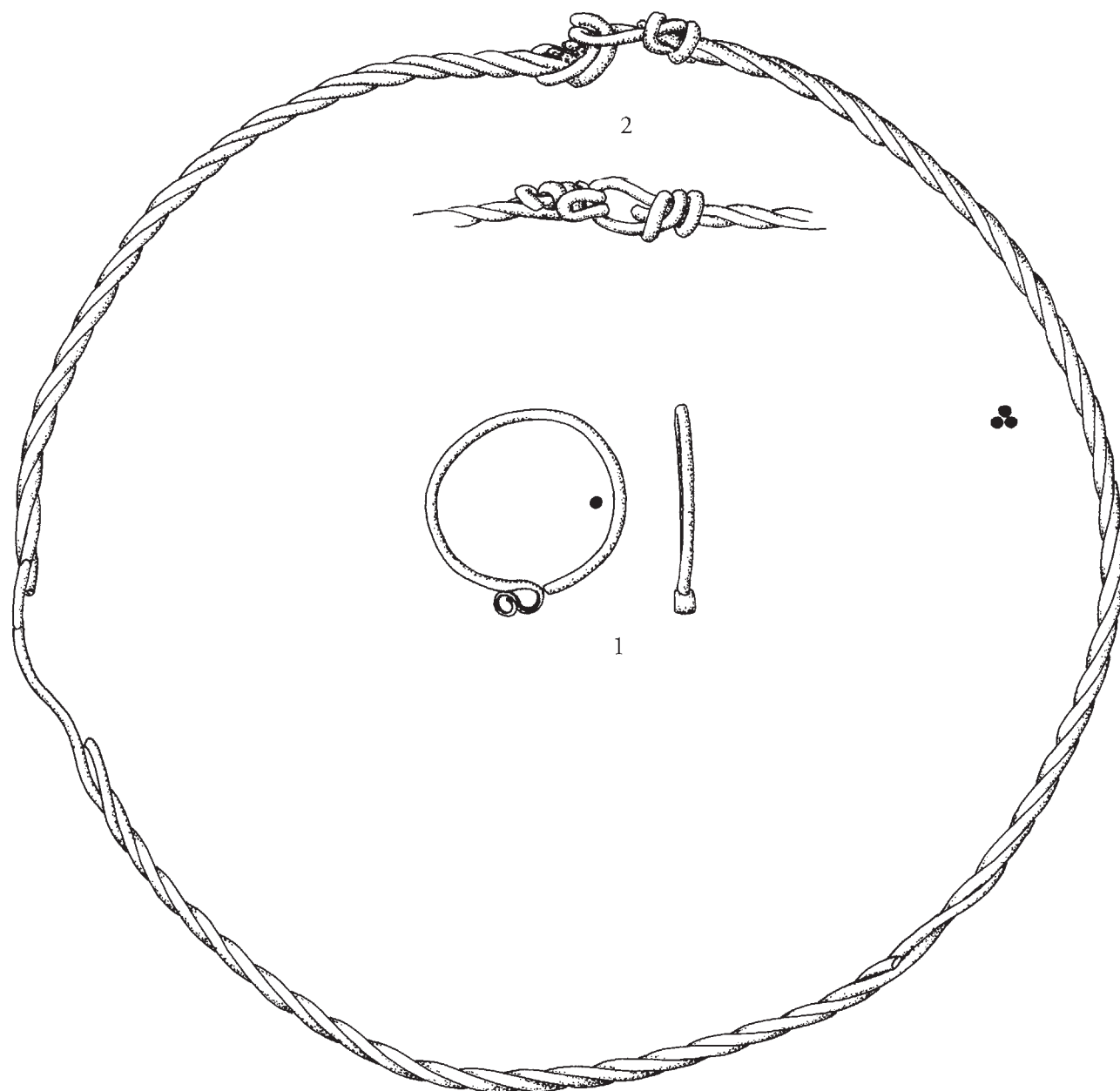


**GRAVE 349**, quadrant IV/5d–V/5c. – A grave in an earthen pit; depth 0.78 m; ▼ 105.43/105.34 m; or. 280° (100° deviation from north). – Damaged skeleton (feet missing); lying on the back, legs extended, head straight; the forearms folded horizontally across the stomach: right below, left above (v.13a). – Child (female, ca. 12 years old); length 0.98 m.

*Finds:* An *S-circlet* on the left side of the head (1), a *torc* around the neck (2), a *button-pendant* on the neck (5), three spangles under the neck (3), a spangle by the temple on the right side of the head (3), a spangle by the left side of the head (3) along with the upper part of a two-part pendant used as a spangle (4), a *ring* on a finger of the left hand (6).

1. *S-circlet* – bronze, circular section, cut end; h. 3.05 cm; Ø 2.99/2.80 cm; Ø wire 0.18 cm; S-w. 0.20 cm; wt. 1.766 g; S-2766 (G. I,9/2);
2. *Torc* – bronze, with a hook and eye for fastening, twisted from three single wires of circular section; the cut ends of the wires form the hook and eye with coils wound around the necks of the hook and eye (3+3 coils); damaged (broken into two sections); Ø 16.10/15.82 cm (fastened); Ø twisted wires 0.33 cm; Ø wires 0.18 cm; wt. 21,007 g; S-2765 (G. 1a; De. 1.1.1.3c/nd);
3. *Spangles*, 5 examples – bronze, gilded, circular, domed, with a banded profiled edge and a recessed banded zone around the central convex protrusion; on the reverse two soldered banded hooks for attachment by sewing, horizontally arranged, parallel, semicircularly bent, thinned towards the end; damaged (broken, hooks missing, gilt traces); Ø 1.65–1.42/1.45–1.12 cm; h. 0.38–0.29 (with hooks 0.58–0.53 cm); wt. 1.233–0.742 g; S-2768/2–6 (G. –, H. 61b dif.);
4. *Two-part pendant, upper part, spangle* (secondary use; early medieval) – bronze, gilded, circular, domed platelet with an elongated banded, semicircularly bent hook in the lower sections; platelet with a profiled edge and a recessed banded zone around the central convex protrusion; on the reverse two soldered hooks for attachment, horizontally arranged, parallel, turned upwards, semicircularly bent, thinned towards the ends; damaged (platelet broken, hooks missing, gilt traces); l. 1.86 cm; w. 1.43 cm; h. 0.33 cm (with hooks 0.50 cm); wt. 0.907 g; S-2768/1 (G. 9b dif.);
5. *Button-pendant* – bronze, spherical, solid, with an annular relief below the circular loop for attachment; h. 1.43 cm; Ø 0.65 cm; wt. 1.599 g; S-2769 (H. 58a);
6. *Ring* – bronze, with open ends, banded section, cut ends of equal width overlap; Ø 1.70/1.52 cm; w. 0.59 cm; th. 0.10 cm; wt. 1.395 g; S-2767 (G. 21; H. 45a).







**GRAVE 350**, quadrant IV/6c. – A grave in an earthen pit; depth 0.60 m; ▼ 105.41 m (mid skeleton); or. 300° (120° deviation from north). – Destroyed skeleton (some bones of the skull, trunk and arms remained). – Child; length?.

*No finds.*



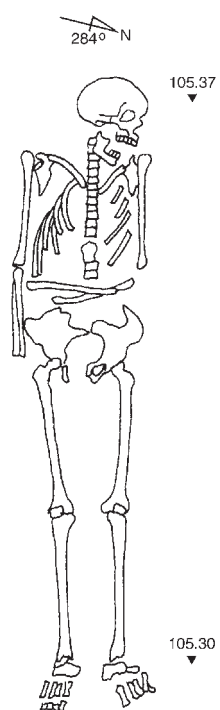
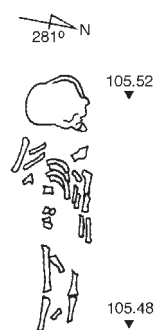
**GRAVE 351**, quadrant IV/6c–d. – A grave in an earthen pit; depth 0.67 m; ▼ 105.52/105.48 m; or. 281° (101° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk, arms, and legs incomplete); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length ca. 0.65 m.

*No finds.*



**GRAVE 352**, quadrant IV/6a–b. – A grave in an earthen pit; depth 0.85 m; ▼ 105.37/105.30 m; or. 284° (104° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm extended along the body, the left folded horizontally across the stomach (v.11). – Male?; length 1.57 m.

*No finds.*





**GRAVE 353**, quadrant IV/6c. – A grave in an earthen pit; depth 0.70 m; ▼ 105.44/105.30 m; or. 270° (90° deviation from north). – Damaged skeleton (the calves disarranged); lying on the back, legs extended, head turned to the right; the forearms angled downwards across the abdomen (v.7a). – Child; length ca. 0.75 m.

*No finds.*



**GRAVE 354**, quadrant IV/6a. – A grave in an earthen pit; depth 0.55 m; ▼ 105.48 m (mid skeleton); or. 288° (108° deviation from north). – Destroyed skeleton (some bones of the skull, the trunk, arm and leg remained). – Child; length?.

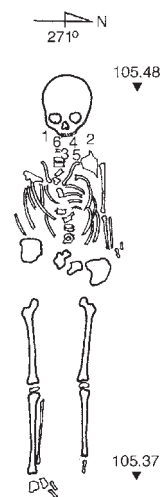
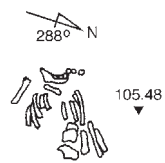
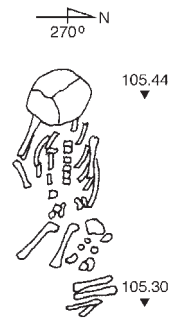
*No finds.*



**GRAVE 355**, quadrant IV/6b. – A grave in an earthen pit; depth 0.72 m; ▼ 105.48/105.37 m; or. 271° (91° deviation from north). – Damaged skeleton (the right side of the trunk and the pelvis disarranged, the right arm and the left foot missing); lying on the back, legs extended, head straight; the forearm position could not be determined (the left extended along the body). – Child (female; 12–15 years old); length 1.10 m.

*Finds:* A *circlet* on the right side of the head (1), a *torc* around the neck (2), a *spangle* (6) and half of a *globular bell-pendant* (4) next to one another in the upper section of the neck, and a complete *globular bell-pendant* (3) and the upper part of a *two-part pendant* (5) next to one another in the lower section of the neck.<sup>159</sup>

<sup>159</sup> The *Dnevnik*, ad 24 Aug. 1953, mentioned the find of three pendants, which thanks to the photographs in the field can be recognized as two two-part bell-pendants: one completely preserved (3), and the other partly (4).

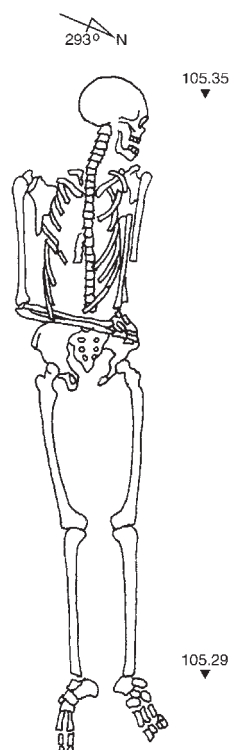
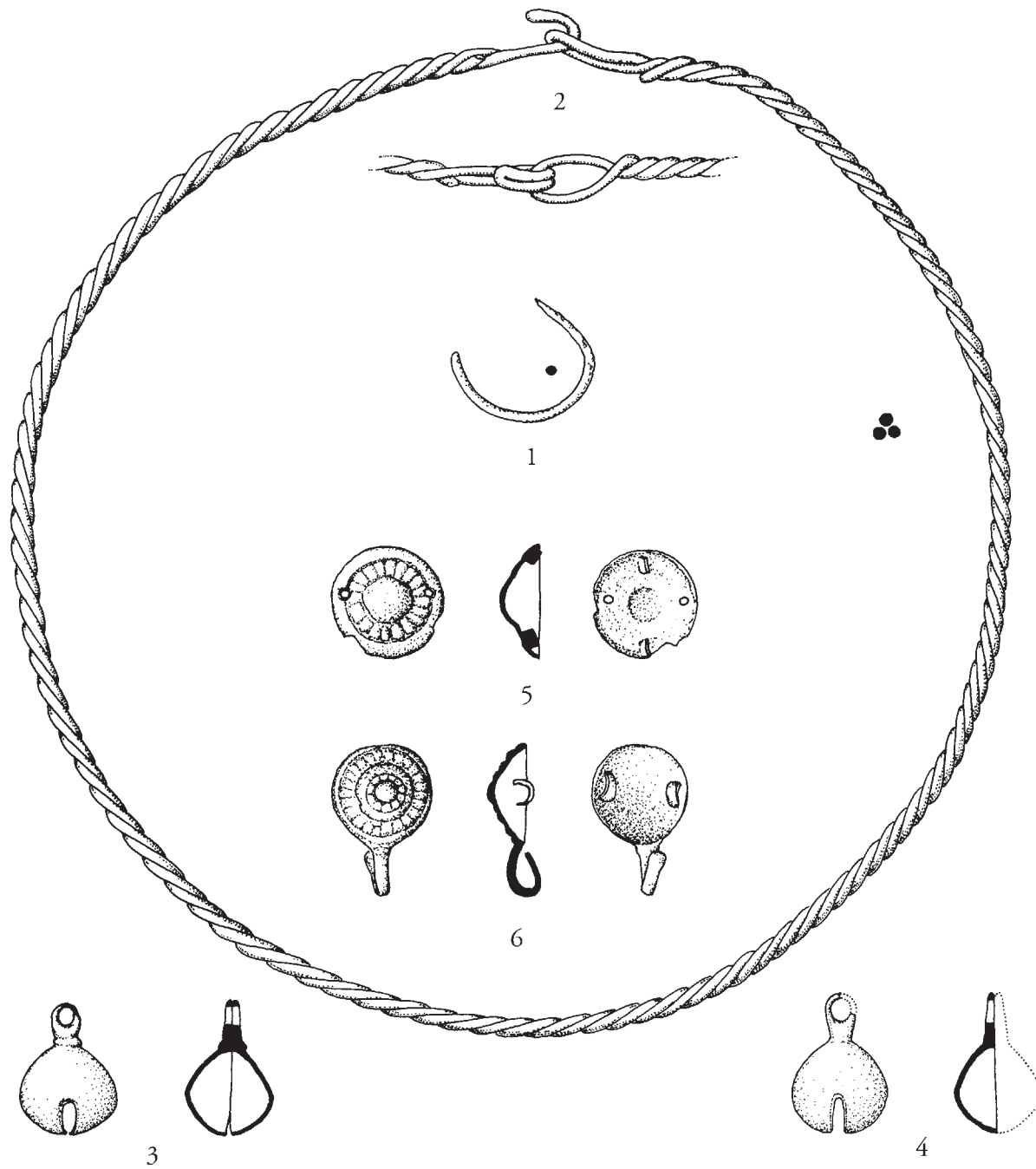


1. *Circlet* – bronze, open-ended, circular section, one end tapered; damaged (deformed); Ø ca. 2.00 cm (= ca. 6.28 cm); Ø wire 0.16 cm; wt. 0.528 g; S-2774 (G. 13-I,6/2);
2. *Torc* – bronze, with a hook and eye for fastening, twisted from one triply bent wire of circular section, the ends of the wire cut; Ø 15.05/14.5 cm (fastened); Ø twisted wire 0.30 cm; Ø wire 0.16 cm; wt. 23.317 g; S-2770 (G. 1a; De. 1.1.1.1a/nn);
3. *Globular bell-pendant* – bronze, two-part, pear-shaped, with a ring-like profiling below the elongated loop for suspension, identical halves divided along the perpendicular, the lower part of the bell rhomboid in plan; at the base of each half an elongated transverse incision; undecorated; damaged (the halves separated, part of the loop broken off); h. 2.04 cm; l. 1.47 cm; w. 1.32 cm; wt. 3.106 g (1,585+1,437); S-2771/1–2 (G. 10; To. 10a);
4. *Globular bell-pendant*, fragment – bronze, two-part, pear-shaped, with an elongated loop for suspension, identical halves divided along the perpendicular, the lower part of the bell rhomboid in plan; at the base of the half an elongated transverse incision; undecorated; damaged (part of the loop broken off, the other half missing); h. 2.13 cm; l. 1.45 cm; w. 0.67 cm; wt. 1.437 g; S-2771/3 (G. 10; To. 10a);
5. *Two-part pendant*, upper part (secondary use) – bronze, circular, domed platelet with an elongated banded semicircularly bent hook in the lower part; the platelet has a profiled edge, with alternate relief and undecorated, concentrically arranged, and gradually raised zones around the central convex protrusion; on the reverse, two horizontally arranged, soldered hooks for attachment by sewing, banded, turned in opposite directions, semicircularly bent, and thinned toward the ends; l. 2.27 cm; w. 1.53; h. 0.56 cm (with hooks 0.71 cm); wt. 1.763 g; S-2772 (G. 9b dif);
6. *Spangle* (secondary use) – silver, gilded, circular, domed, with a smooth, banded, profiled edge and a relief, concentrically arranged, gradually raised banded zone around a low convex protrusion; on the reverse, two horizontally arranged, soldered, parallel, semicircularly bent, banded hooks for attaching by sewing; two subsequently perforated small holes for attachment on opposite sides; damaged (small section broken off, hooks missing, secondarily perforated holes; gilt traces); Ø 1.68 cm; h. 0.47 cm (with hooks –); wt. 1.268 g; S-2773 (G. –; H. 62b).



**GRAVE 356**, quadrant III/6b–7d–IV/6a–7c. – A grave in an earthen pit; depth 0.68 m; ▼ 105.35/105.29 m; or. 293° (113° deviation from north). – Lying on the back, legs extended, head turned to the left (north); the right forearm folded horizontally across the stomach, the left bent upwards with the hand on the shoulder (v.23). – Male; length 1.63 m. *No finds.*







**GRAVE 357**, quadrant III/7d–IV/7c. – A grave in an earthen pit; depth 0.80 m; ▼ 105.26/105.23 m; or. 278° (98° deviation from north). – Damaged skeleton (skull fallen backwards); lying on the back, legs extended, head straight; the forearms angled downwards and crossed on the stomach (v.7b). – Male; length 1.64 m.

*Finds:* One *arrowhead* on the inner side of the left thigh (1), another *arrowhead* below the right thigh (2).

1. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove, widest span in the upper half of the head; damaged (corroded, tip broken, head incomplete); l. 6.67 cm; head: l. 4.05 cm, w. 1.76 cm, th. 0.29 cm; tang: l. 2.62 cm; wt. 5.962 g; S-2775 (G. A; To. A3; H. 8a; De. 1.1/Rutt. B3/Med. 5);

2. *Arrowhead* (fragment) – iron, rhomboid head with a rib, tang with a groove, widest span in the middle of the head; damaged (corroded, head incomplete, tang broken); l. 4.8 cm; head: l. –, w. –, th. –; tang: l. –; wt. 2.602 g; S-2776 (G. A; To. A3; H. 8a; De. 1.1/Rutt. B3/Med. 5).



**GRAVE 358**, quadrant IV/7b–V/7a. – A grave in an earthen pit; depth 0.86 m; ▼ 105.44/105.34 m; or. 290° (110° deviation from north). – Lying on the back, legs extended, head straight; the forearms folded horizontally across the stomach: right below, left above (v.13a). – Male; length 1.63 m.

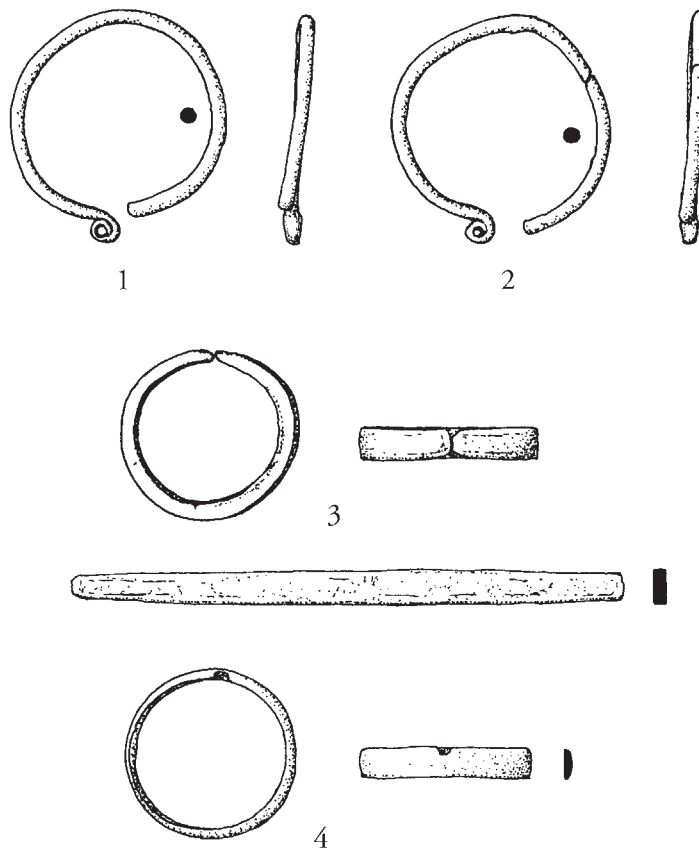
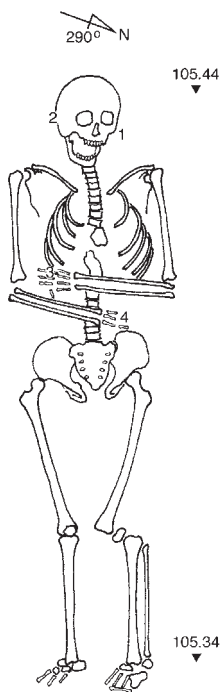
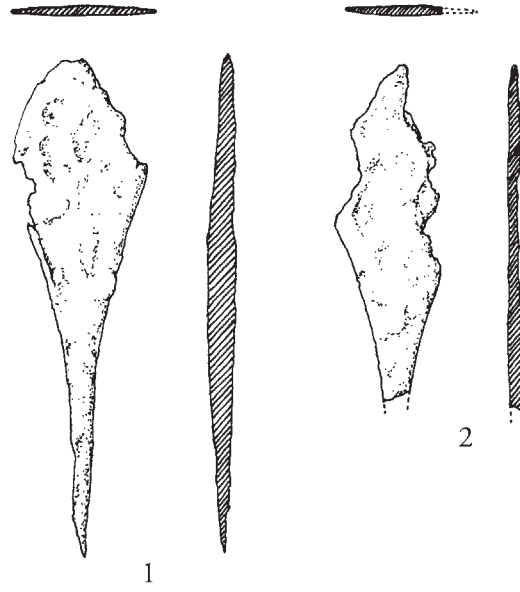
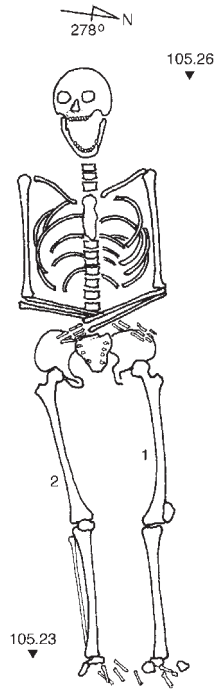
*Finds:* One *O-circlet* on both sides of the head (1–2), a *ring* on a finger of the right hand (4), a *ring* with traces of textile on a finger of the left hand (3).

1. *O-circlet* – bronze, circular section, cut end; h. 3.08 cm; Ø 2.91/2.74 cm; Ø wire 0.17 cm; O-w. 0.25 cm; wt. 1.795 g; S-2779/1 (V. IV/5; H. 12a-I/8,2);

2. *O-circlet* – bronze, circular section, cut end; damaged (broken in two); h. 3.08 cm; Ø 2.84 cm; Ø wire 0.17 cm; O-w. 0.24 cm; wt. 1.433 g; S-2779/2 (V. IV/5; H. 12a-I/8,2);

3. *Ring* – silver, with open ends, banded section, and cut and tapered ends, one square and the other polygonal; Ø 2.35/2.24 cm; w. 0.52–0.48 cm; th. 0.27–0.20 cm; wt. 5.544 g; S-2777 (G. 21; H. 45a);

4. *Ring* – silver, closed hoop, semicircular section; Ø 2.24/2.23 cm; w. 0.45–0.40 cm; th. 0.14–0.11 cm; wt. 2.461 g; S-2778 (G. 31; H. 52b).



**GRAVE 359**, quadrant II/8d–III/8c. – A grave in an earthen pit; depth 0.67 m; ▼ –; or. 270° (90° deviation from north). – Damaged skeleton (the skull disarranged, the trunk with the arms, the lower part of the calves and the feet missing);<sup>160</sup> Lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child (ca. 2–3 years old); length?.

*No finds.*



**GRAVE 360**, quadrant III/8c–d. – A grave in an earthen pit; depth 0.65 m; ▼ –; or. 295° (115° deviation from north). – Damaged skeleton (skull crushed); lying on the back, legs extended, head turned to the left; the right forearm angled downwards across the pelvis, the left bent upwards with the hand on the shoulder (v.22). – Male?; length 1.50 m.

*Finds:* A ring on a finger of the left hand.<sup>161</sup>

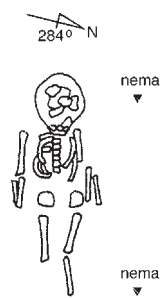
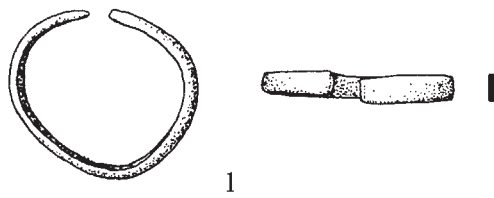
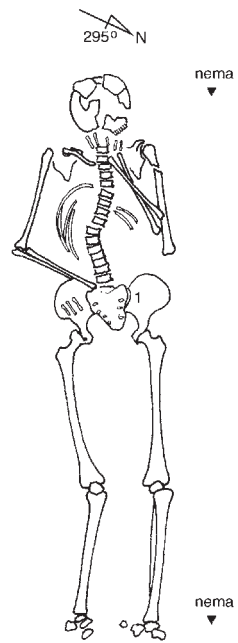
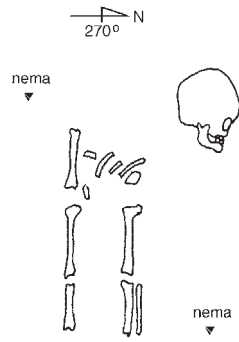
1. *Ring* – bronze, with open ends, semicircular section, separated ends, one cut, the other narrowed and rounded; Ø 2.45/2.17 cm; w. 0.38–0.30 cm; th. 0.20–0.14 cm; wt. 2.416 g; S-2780 (G. 22; H. 48a; De. 1.4a).

**GRAVE 361**, quadrant III/8d. – A grave in an earthen pit; depth 0.55 m; ▼ –; or. 284° (104° deviation from north). – Damaged skeleton (the right calf and feet missing); lying on the back, legs extended, head straight; the forearms extended along the body (v.1). – Child (ca. 2 years old); length ca. 0.60 m.

*No finds.*

<sup>160</sup> Damage to the skull most likely occurred while expanding the trench to reach the upper part of the trunk that extended beyond quadrant III/8.

<sup>161</sup> The ring was found "on the left side of the pelvis", and in the field documentation it was mentioned as a "bronze circlet", *Dnevnik*, ad 25 Aug. 1953 and *Zapisnik*, no. 360/25 Aug. 1953.





**GRAVE 362**, quadrant VII/4a–d. – A grave in an earthen pit; depth 0.90 m; ▼ 105.75/105.72 m; or. 270° (90° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Female?; length 1.60 m.

*Finds:* A *button-pendant* on the neck (1), a *ring* on a finger of the right hand (2).

1. *Button-pendant* – bronze, spherical, solid, with a circular loop for attachment; h. 1.70 cm; Ø 1.07/1.00 cm; wt. 5.006 g; S-2782 (G. 11a);

2. *Ring* – bronze, with open ends, arched section with a triangular exterior surface of the hoop, the ends of different widths overlap, one end cut and the other tapered and rounded; Ø 2.36/2.07 cm; w. 0.70–0.60 cm; th. 0.23 cm; wt. 4.911 g; S-2781 (G. 24; H. 46a; De. 1.5a).



**GRAVE 363**, quadrant VII/5d. – A grave in an earthen pit; depth 1.07 m; ▼ 105.74/105.63 m; or. 272° (92° deviation from north). – Damaged skeleton (the lower jaw, trunk, left arm, and the legs disarranged); lying on the back, legs crossed at the ankles (Szabó, type I.2),<sup>162</sup> head straight; the forearm position could not be determined (the right extended along the body). – Female?; length ca. 1.65 m.

*No finds.*

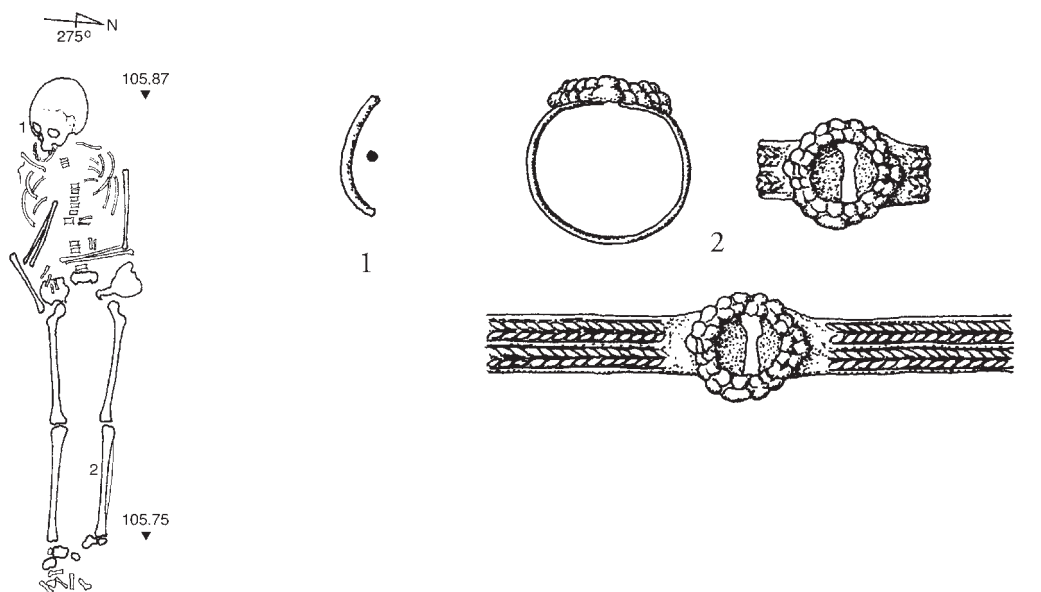
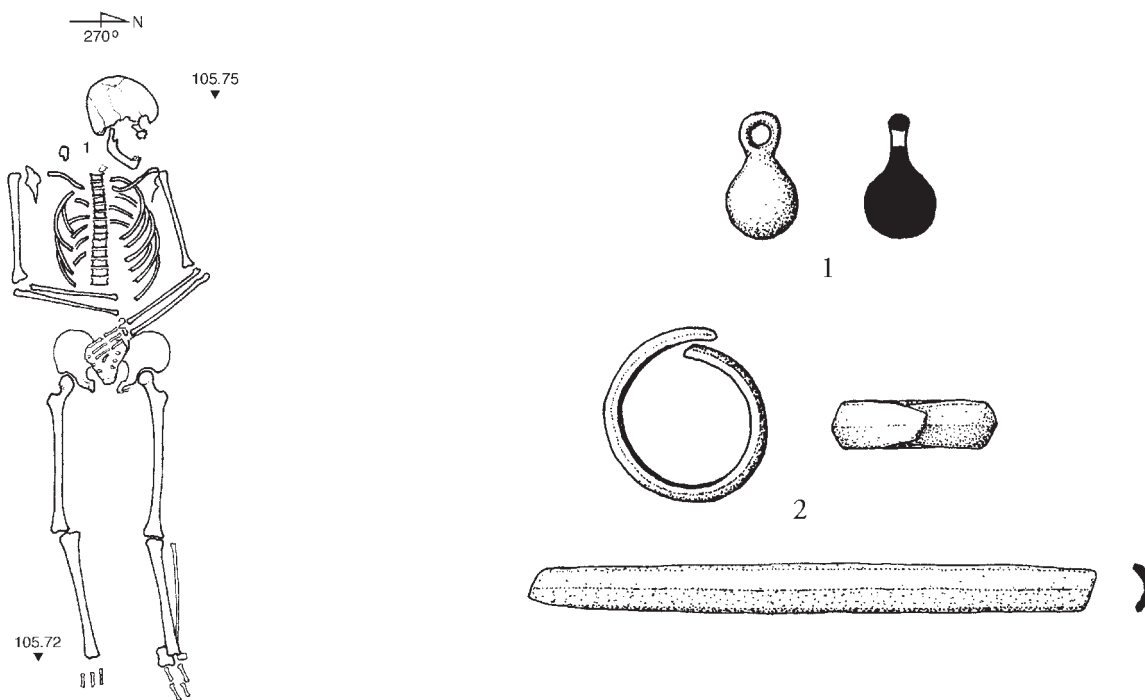
**GRAVE 364**, quadrant VII/5d. – A grave in an earthen pit; depth 0.90 m; ▼ 105.87/105.75 m; or. 275° (95° deviation from north). – Female; length 1.32 m; Damaged skeleton (the right side of the trunk and the arm disarranged); lying on the back, legs extended, head tilted towards the right side; the forearm position could not be determined (the left folded horizontally across the stomach). – Female; length ca. 1.32 m.

*Finds:* A *circlet* on the right side of the head (1), a *ring* on the inner side of the left shin (2).

1. *Circlet*, fragment – bronze, open-ended, circular section; damaged (two thirds missing); Ø –; Ø wire 0.15 cm; wt. 0.120 g; S-2784 (G. 13–?);

2. *Ring with a crown* – bronze, silver plated, two-part; a profiled hoop of banded section, separated and hammered ends; decorated with a lengthwise rib between double pseudo-twisted wire; a circular crown of a double row of concentrically arranged pseudo-granules, the shoulders of the crown decorated with pseudo-granules; damaged (the stone of the crown missing); h. 2.30 cm; hoop: Ø 2.20/1.95 cm, w. 0.80–0.76 cm, th. 0.13 cm; w. bezel 1.07 cm; crown: Ø 1.45 cm; wt. 5.314 g; S-2783 (G. 38b; M. 16b); [Pl. 19:4];

<sup>162</sup> Originally extended, the legs of the deceased were placed in a crossed position after subsequent digging up of the grave (!)





**GRAVE 365**, quadrant VI/5d–VII/5c. – A grave in an earthen pit; depth 0.82 m; ▼ 105.55/105.50 m; or. 268° (88° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Female?; length 1.65 m.

*Finds:* A bracelet on the right forearm (1), the crown of a ring under the right forearm (2).

1.  *Bracelet*  – bronze, open ended, circular section, with separated, cut, and tapered ends; Ø 7.50/7.03 cm; Ø wire 0.52–0.30 cm; wt. 35.670 g; S-2785 (G. 4; De. 1.2a);
2.  *Ring with a crown*  – bronze, two-part; a circular crown made of petal-like trimmed sheet metal with an inset hemispherically rounded stone of some fired mass; damaged (hoop missing; crown broken off, lacking the encircling wire); h. –; hoop: –; crown: Ø 1.00 cm; h. 0.46 cm; wt. crown 0.407 g; S-2786 (G. 38b; M. 16b).



**GRAVE 366**, quadrant VI/5b–VII/5a. – A grave in an earthen pit; depth 1.00 m; ▼ 105.77/105.74 m; or. 273° (93° deviation from north). – Lying on the back, legs extended, head turned to the right; the forearms extended along the body (v.1). – Male?; length 1.68 m.

*Find:* A knife on the right side by the pelvis.

1.  *Knife*  – iron, single-edged, with a tang for the handle, straight back curved downwards at the tip; damaged (corroded; tip of the point missing); l. 13.85 cm; blade: w. 1.14 cm, th. 0.37/0.26 cm; wt. 16.747 g; S-2787 (To. A4; H. 5).



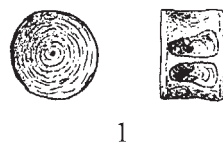
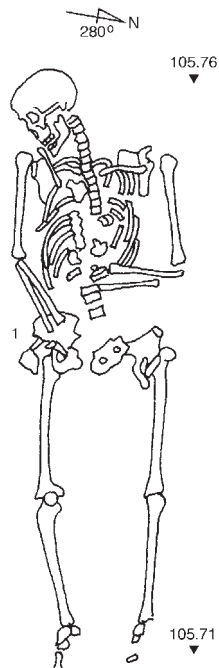
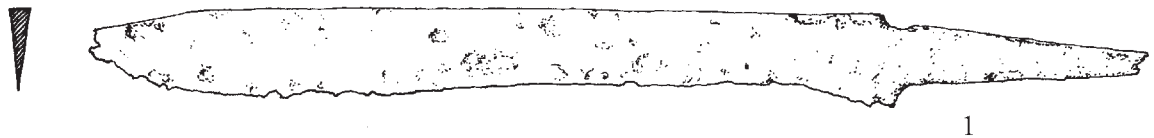
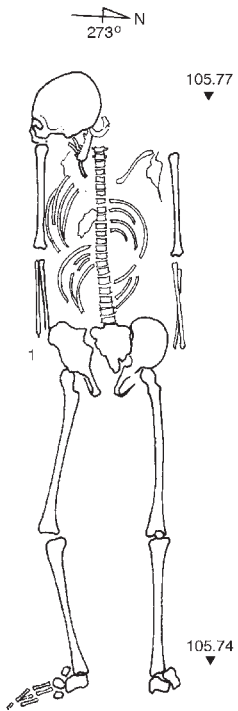
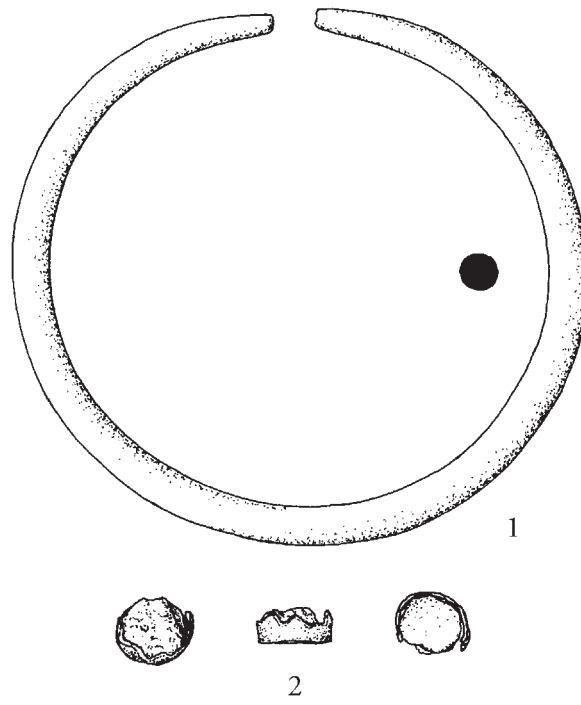
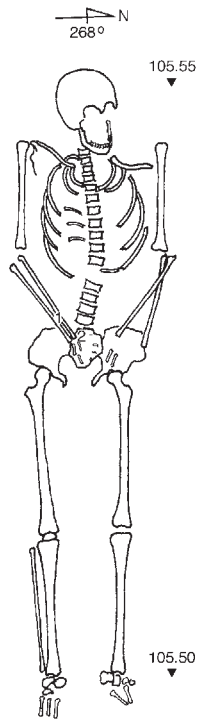
**GRAVE 367**, quadrant VII/5b–VIII/5a. – A grave in an earthen pit; depth 0.98 m; ▼ 105.76/105.71 m; or. 280° (100° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm angled downwards across the abdomen, the left horizontally across the stomach (v.12). – Male; length 1.57 m.

*Finds:* A bead-vertebra of a fish next to the pelvis on the right side.<sup>163</sup>

1.  *Bead-vertebra*  – bone, cylindrical, short, unworked, yellowish-white; fish –  *teleostei / cyprinidae* ; Ø 1.16 cm; h. 0.83 cm; wt. 0.569 g; S-2900 (03/05 2 12).

<sup>163</sup> The *Dnevnik*, ad 30 Aug. 1953, noted the existence of this find, although in the S-AMZ it was listed separately from the grave unit to which it belonged.







**GRAVE 368**, quadrant VII/5b. – A grave in an earthen pit; depth 0.65 m; ▼ 106.05/105.98 m; or. 270° (90° deviation from north). – Poorly preserved skeleton (the trunk incomplete, legs disarranged); lying on the back, legs extended, head straight; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Child (1–2 years old); length ca. 0.50 m.

*No finds.*



**GRAVE 369**, quadrant VII/5a–b–VII/6c–d. – A grave in an earthen pit; depth 0.92 m; ▼ 105.71/105.73 m; or. 279° (99° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Male?; length 1.79 m.

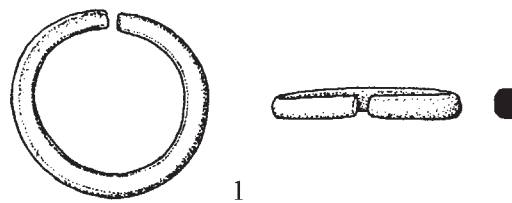
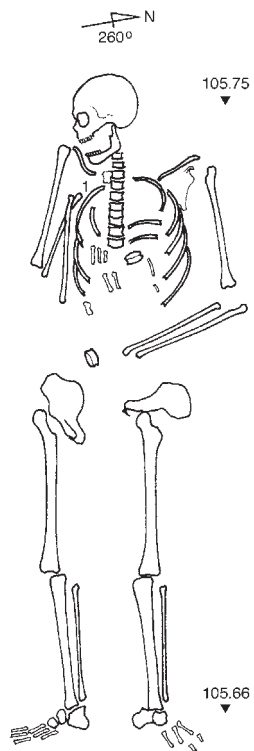
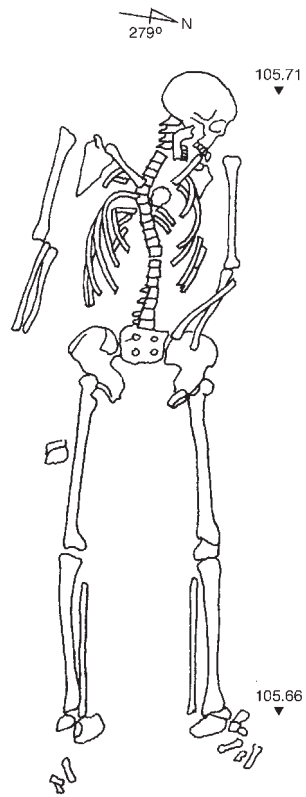
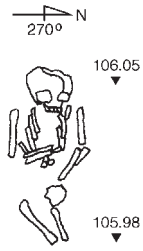
*No finds.*



**GRAVE 370**, quadrant VII/6d. – A grave in an earthen pit; depth 0.90 m; ▼ 105.75/105.66 m; or. 260° (80° deviation from north). – Damaged skeleton (the lower part of the trunk incomplete, the pelvis disarranged); lying on the back, legs extended, head turned to the right (south); the right forearm bent upwards with the hand on the shoulder, the left angled downwards across the stomach (v.10). – Male; length 1.65 m.

*Find:* A ring on a finger of the right hand.

1. Ring – silver, with open ends, polygonal section with a rounded exterior side, separated, cut and tapered ends; Ø 2.58/2.45 cm; w. 0.36–0.33 cm; th. 0.35–0.27 cm; wt. 5.908 g; S-2788 (G. 28 dif.).

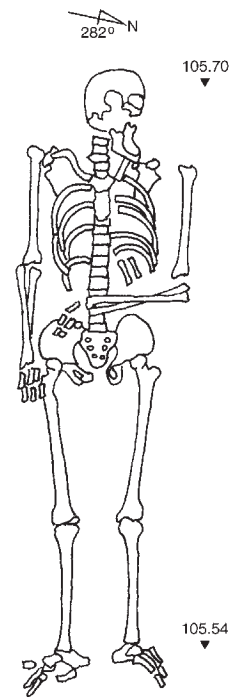


1



**GRAVE 371**, quadrant VI/6d–VII/6c. – A grave in an earthen pit; depth 0.87 m; ▼ 105.70/105.54 m; or. 282° (102° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm extended along the body, the left folded horizontally across the stomach (v.11). – Male; length 1.57 m.

*No finds.*



**GRAVE 372**, quadrant VII/6b. – A grave in an earthen pit; depth 0.64 m; ▼ 106.04/105.97 m; or. 266° (86° deviation from north). – Lying on the back, legs extended, head straight; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Child; length 0.72 m.

*No finds.*



**GRAVE 373**, quadrant VII/6b–VIII/6a. – A grave in an earthen pit; depth 0.55 m; ▼ 106.06/105.93 m; or. 274° (94° deviation from north). – Damaged skeleton (the trunk incomplete, the feet missing); lying on the back, legs extended, head straight; the forearms extended along the body (v.1). – Child; length 0.65 m.

*No finds.*

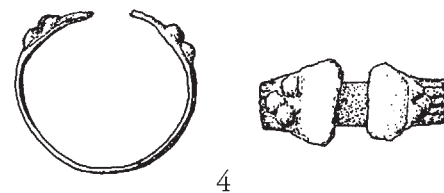
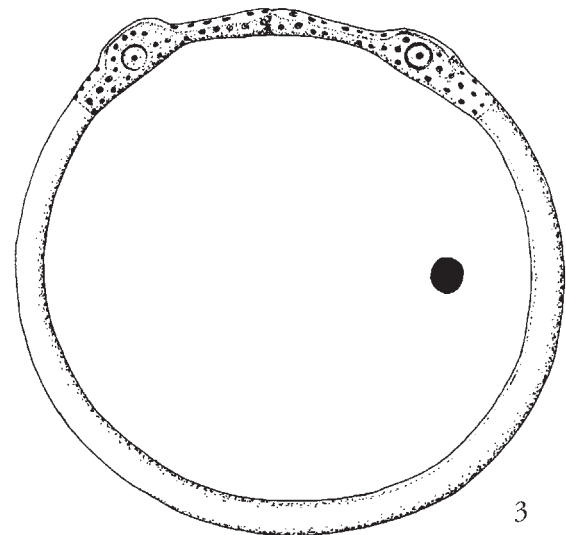
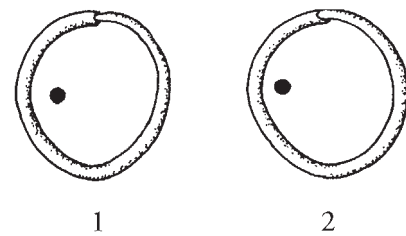
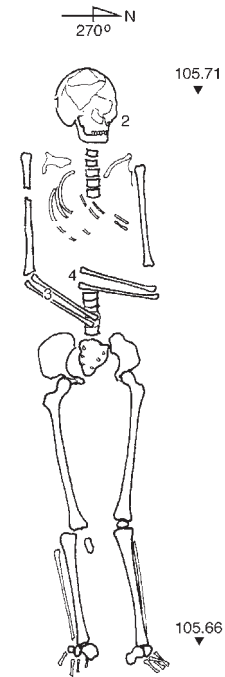


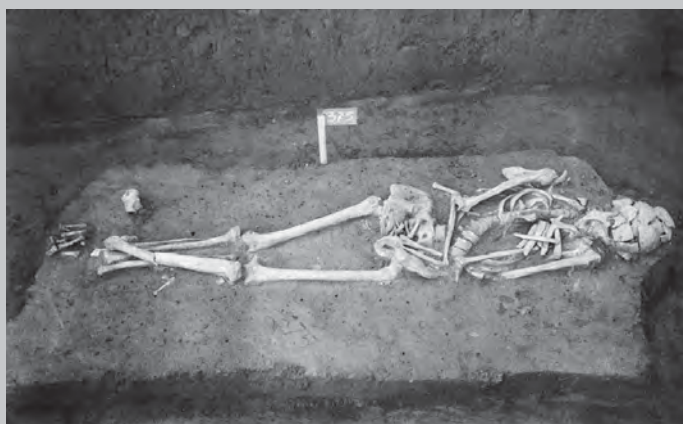


**GRAVE 374**, quadrant VII/6a. – A grave in an earthen pit; depth 0.78 m; ▼ 105.71/105.66 m; or. 270° (90° deviation from north). – Damaged skeleton (skull crushed, the right forearm disarranged); lying on the back, legs extended, head straight; the right forearm angled upwards across the chest, the left horizontally across the stomach (v.14). – Female?; length 1.58 m.

*Finds:* One *circlet* on each side of the head (1,2), a *bracelet* on the right forearm (3), a *ring* on a finger of the left hand (4).

1. *Circlet* – silver, open-ended, circular section, overlapping ends, one cut, the other pointed; Ø 2.26–2.03 cm (= 6.73 cm); Ø wire 0.20 cm; wt. 1.415 g; S-2791/1 (G. 13-I,6/3);
2. *Circlet* – silver, open-ended, circular section, overlapping ends, one cut, the other pointed; Ø 2.22–2.04 cm (= 6.68 cm); Ø wire 0.20 cm; wt. 1.611 g; S-2791/2 (G. 13-I,6/3);
3. *Bracelet* – bronze, closed, smooth hoop, circular section, with two touching and opposed animal heads, with closed mouths and emphasized eyes, the heads decorated with dense rows (4/5) of circular depressions; Ø 7.17/6.93 cm; Ø wire 0.45 cm; wt. 29.041 g; S-2881 (V. II/11; K. 2b; De. 2.1); [Pl. 18:2];
4. *Ring with a crown* – bronze, two-part; a hoop of banded section, with separated and hammered ends; decorated with a lengthwise rib between two rows of pseudo-twisted wire, on the shoulders on each side of the crown three triangularly arranged granules; damaged (hoop broken; crown missing); h. –; hoop: Ø 2.20/2.05 cm, w. 0.64–0.54 cm, th. 0.16–0.13 cm; w. bezel 1.08 cm; crown: –; wt. hoop 3.688 g; S-2790 (G. 38b; M. 16b).





**GRAVE 375**, quadrant X/4c–d. – A grave in an earthen pit; depth 0.97 m; ▼ 105.77/105.71 m; or. 275° (95° deviation from north). – Lying on the back, legs crossed at the ankles (Szabó, type I.2), head turned to the left; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Male?; length 1.65 m.

*No finds.*



**GRAVE 376**, quadrant X/4a–b. – A grave in an earthen pit; depth 0.76 m; ▼ 105.87/105.82 m; or. 268° (88° deviation from north). – Damaged skeleton (the head missing, the trunk and the right leg disturbed); lying on the back, legs extended, head straight; the right forearm angled upwards across the chest, the left downwards across the abdomen (v.9). – Female; length 1.44 m.

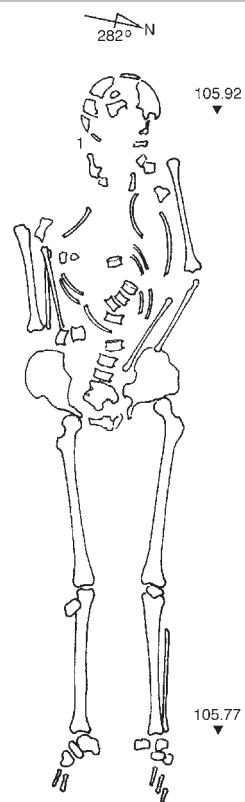
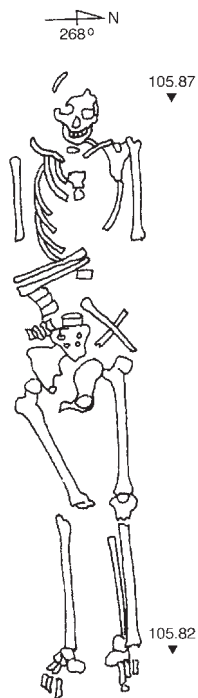
*No finds.*



**GRAVE 377**, quadrant X/4b–XI/4a. – A grave in an earthen pit; depth 0.82 m; ▼ 105.92/105.77 m; or. 282° (102° deviation from north). – Damaged skeleton (skull crushed, the upper part of the trunk disarranged); lying on the back, legs extended, head turned to the left; the right forearm bent upwards with the hand on the shoulder, the left angled downwards across the abdomen (v.10). – Male?; length 1.72 m.

*Find:* A *circlet* on the right side of the head.

1. *Circlet* – silver, open-ended, circular section, damaged (broken into three pieces); Ø ca. 1.90 (= ca. 5.96); Ø wire 0.12 cm; wt. 0.310 g; S-2792 (G. 13-II,5/1).



1



**GRAVE 378**, quadrant X/4b. – A grave in an earthen pit; depth 0.71 m; ▼ 105.83 m (mid skeleton); or. 277° (97° deviation from north). – Destroyed skeleton (some bones of the skull and trunk remained). – Child (1–2 years old); length?.

*Find:* A *cross-pendant* on the ribs; [Pl. 16:1].

1. *Cross-pendant* – bronze, cast, widened arms, with an oval transversely placed loop for suspension; in shallow relief on the front an image of Christ crucified with arms lowered and spread from the elbows, fingers spread, feet widely spaced, around the waist and thighs a short loincloth, below the feet a barely recognizable line of a *suppedaneum*; the reverse side of the cross smooth and undecorated; h. 3.83 cm; w. 2.36 cm; wt. 4.939 g; S-2793 (G. –; To. 45); [Pl. 16:1].



**GRAVE 379**, quadrant X/5c–d. – A grave in an earthen pit; depth 0.94 m; ▼ 105.73/105.62 m; or. 270° (90° deviation from north). – Lying on the back, legs extended, head turned to the right (south); the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Male; length 1.70 m.

*Find:* A *ring* on a finger of the right hand (1).<sup>164</sup>

1. *Ring with a crown* – silver, two-part; a double-layered hoop of banded section, with separated and hammered ends; a filigree decoration was soldered to a sheet metal base: a lengthwise rib of smooth wire between a double row of wound wires and a single row of smooth wire; on the

shoulders on each side of the crown, six triangularly arranged grains; damaged (broken at several spots; crown missing); h. –; hoop: Ø 2.30/2.16 cm, w. 0.67–0.66 cm, th. 0.12 cm; w. bezel 0.87 cm; crown: –; wt. 3.841 g; S-2794 (G. 38a; M. 16a); [Pl. 20:3].

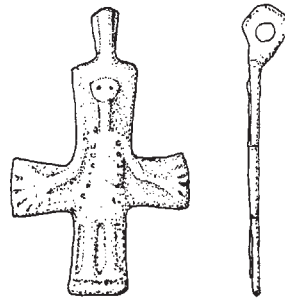
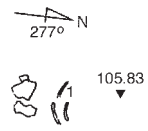


**GRAVE 380**, quadrant X/5a–d. – A grave in an earthen pit; depth 0.72 m; ▼ 105.92/105.90 m; or. 266° (86° deviation from north). – Damaged skeleton (the trunk incomplete, feet missing); lying on the back, legs extended, head turned to the right; the right forearm angled downward across the abdomen, the left horizontally across the stomach (v.12). – Child (ca. 10–12 years); length 1.10 m.

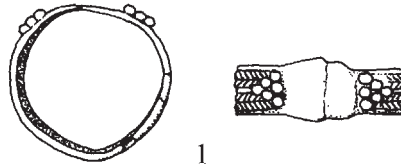
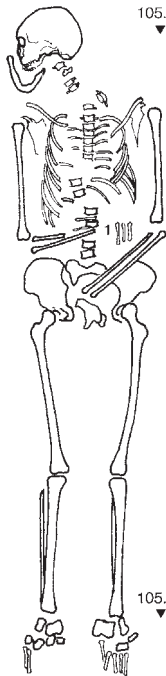
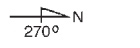
*No finds.*

<sup>164</sup> The field documentation recognized and noted as a find from gr. 379 only one silver ring found by the fingers of the right hand, *Dnevnik*, ad 27 Aug. 1953; *Zapismik*, br. 379/29 Aug. 1953.

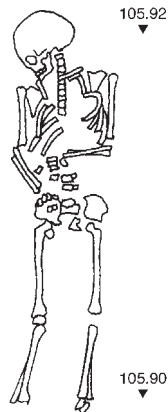
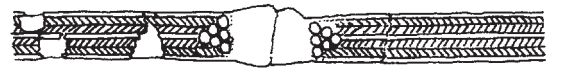




1



1





**GRAVE 381**, quadrant X/5d. – A grave in an earthen pit; depth 0.62 m; ▼ 105.98/105.86 m; or. 281° (101° deviation from north). – Poorly preserved skeleton (skull crushed, the upper part of the trunk and the pelvis disarranged, the right thigh and feet missing); lying on the back, legs extended, head turned to the right; the forearm position could not be determined. – Child (12–14 years old); length 1.01 m.

*No finds.*

**GRAVE 382**, quadrant X/5d. – A grave in an earthen pit; depth 0.60 m; ▼ 105.92/105.90 m; or. 281° (85° deviation from north). – Poorly preserved skeleton (skull crushed, the right side of the trunk and the legs disarranged); lying on the back, legs extended, head turned to the right; the forearm position could not be determined (the left extended along the body). – Child (ca. 7–8 years old); length 0.90 m.

*Finds:* A necklace with a coin (2) and a button-pendant (1) on the left collarbone,<sup>165</sup> a bracelet on the left forearm (3).

1. *Button-pendant* – bronze, spherical, solid, with a circular loop for attachment; h. 1.33 cm; Ø 0.74 cm; wt. 1.762 g; S-2798 (G. 11a);
2. *Coin* – bronze, antoninian; Roman Empire: Gallienus, independent rule (260–268), Rome (*RIC?*); damaged (perforated, clipped); Ø 1.83/1.38 cm; ax. 7; wt. 1.291 g; S-2797 (To. 44a);
3. *Bracelet* – bronze, of three-ply spirally twisted wire; damaged (broken, incomplete, loop and hook missing); Ø undetermined; Ø wire 0.33 cm; Ø wire 0.13 cm; wt. 7.402 g; S-2796 (G. 5);

*Other objects in the grave:* Nuggets of metal by the left thigh next to the pelvis (4).

4. *Nugget of metal*, fragments (3) – lead; wt. 0.692 g; S-2799; (Fig. 56:24).



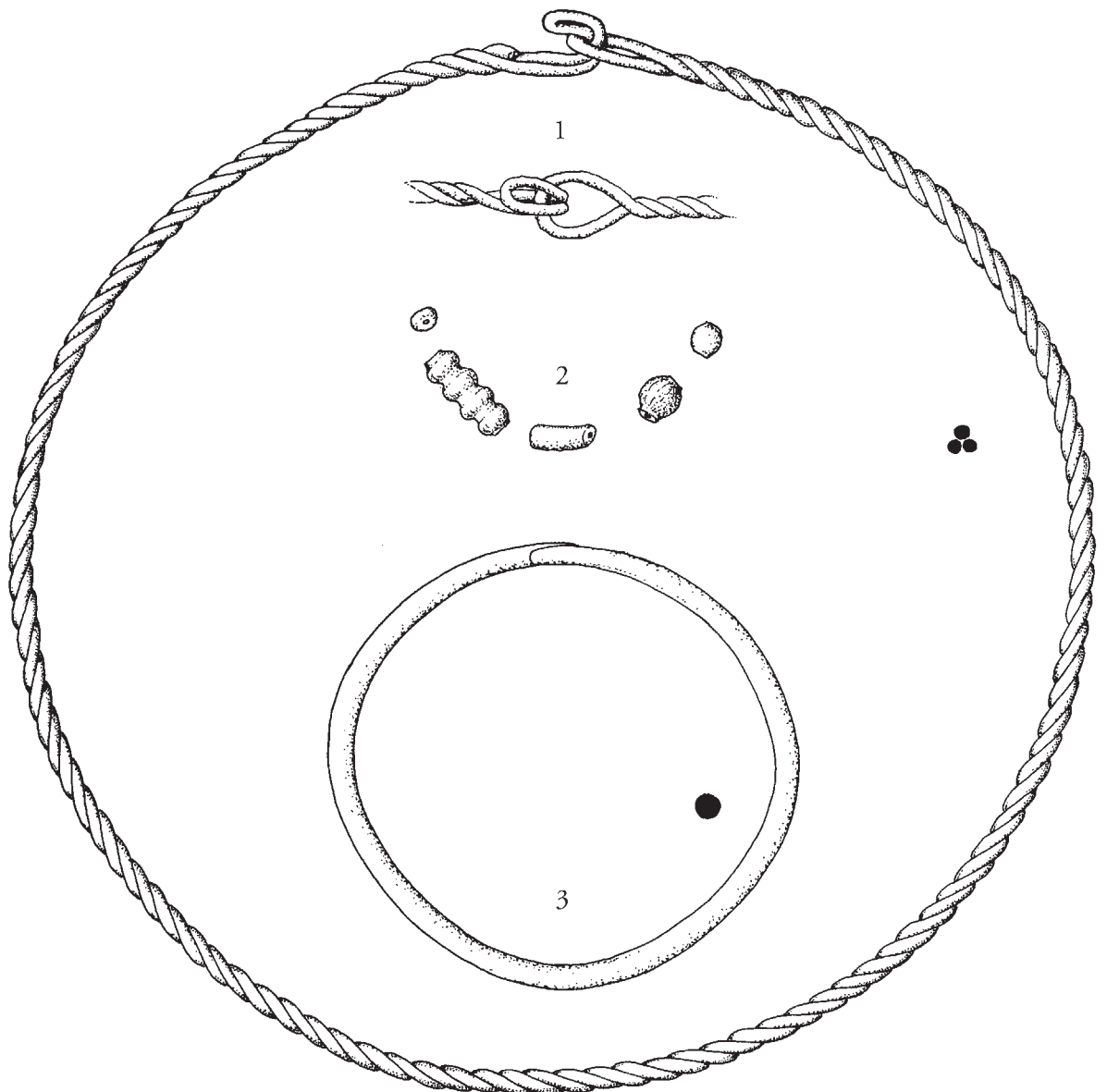
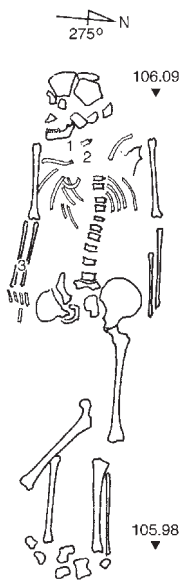
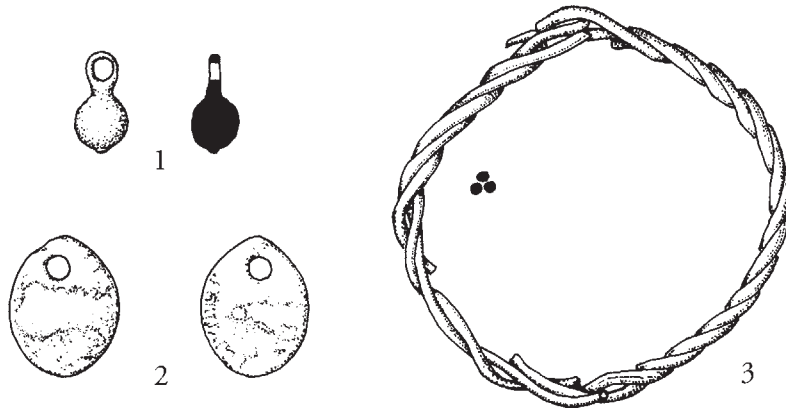
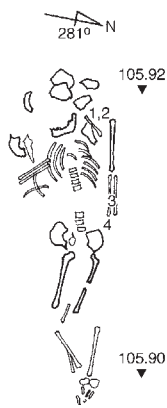
**GRAVE 383**, quadrant X/5b. – A grave in an earthen pit; depth 0.56 m; ▼ 106.09/105.98 m; or. 275° (95° deviation from north). – Damaged skeleton (skull crushed, trunk incomplete, right thigh disarranged);<sup>166</sup> Lying on the back, legs extended, head turned to the right; the forearms extended along the body (v.1). – Child (female; ca. 15 years old); length 1.28 m.

*Finds:* A torc (1) and also a necklace of beads (2) around the neck, a bracelet on the right forearm (3).

1. *Torc* – bronze, with a hook and eye for fastening, twisted from one triply bent wire of circular section, the ends of the wire cut; Ø 15.20/15.00 cm (fastened); Ø twisted wire 0.32 cm; Ø wire 0.17 cm; wt. 26.446 g; S-2800 (G. 1a; De. 1.1.1.1a/nn);
2. *Necklace of beads* – glass beads (5): – segmented, single, translucent, colorless (2); segmented, quadruple, translucent, colorless (1); high cylindrical, opaque, dark blue (1); grits-shaped, opaque, pale blue (1); S-2802 (01/011 1 81; 01/014 1 81; 01/06 2 54; 01/14 2 40);
3. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered ends; Ø 6.61/6.33 cm; Ø wire 0.35–0.26 cm; wt. 16.541 g; S-2801 (G. 4; De. 1.2a).

<sup>165</sup> The field documentation mentioned the find of "two bronze pendants on the left collarbone", but the coin, although visible in the photograph, was not mentioned specifically as a find, *Dnevnik*, ad 27 Aug. 1953; *Zapisnik*, no. 382/29 Aug. 1953.

<sup>166</sup> The skeleton was damaged during removal of a trench dividing wall.





**GRAVE 384**, quadrant X/5a–b. – A grave in an earthen pit; depth 0.82 m; ▼ 105.91/105.82 m; or. 270° (90° deviation from north). – Damaged skeleton (legs disarranged, feet missing); lying on the back, legs extended, head turned to the right; the right forearm extended along the body, the left bent upwards with the hand on the shoulder (v.21). – Male?; length ca. 1.60 m.

*Finds:* A *circlet* on the left side of the head (1), a *ring* on a finger of the left hand (2).

1. *Circlet* – silver, open-ended, circular section, cut ends; Ø 1.97–1.88 cm (= 6.04 cm); Ø wire 0.25 cm; wt. 1.709 g; S-2803 (G. 13-I,6/4);

2. *Ring with a crown* – bronze, two-part; a circular crown, the coronet made of petal-like trimmed sheet metal wound with wire, with an inset hemispherically rounded stone of some fired mass; damaged (hoop missing); h. –; hoop: –; crown: Ø 1.14 cm; h. 0.59 cm; wt. crown 0.571 g; S-2804 (G. 38b; M. 16b).



**GRAVE 385**, quadrant IX/6d–X/6c. – A grave in an earthen pit; depth 0.80 m; ▼ 105.89/105.78 m; or. 284° (104° deviation from north). – Lying on the back, legs extended, head straight; the right forearm folded horizontally across the stomach, the left angled upwards across the chest (v.18). – Male; length 1.54 m.

*No finds.*



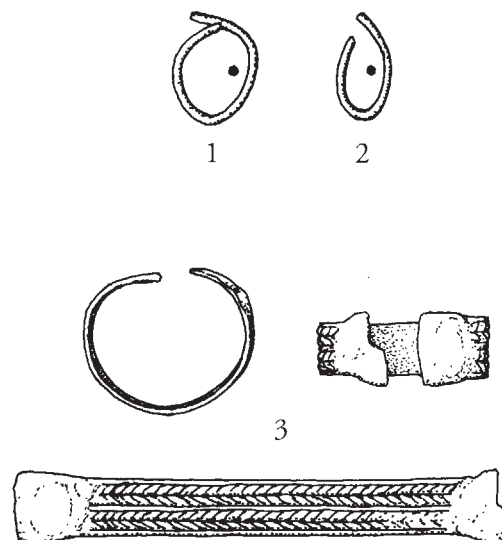
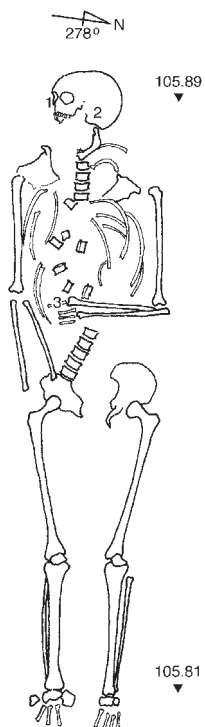
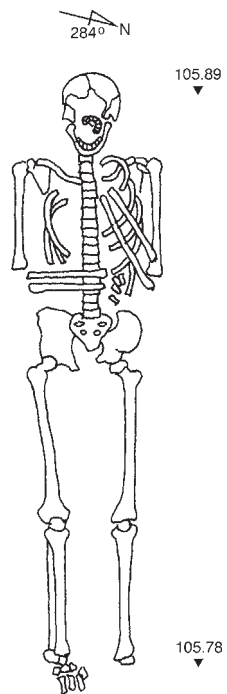
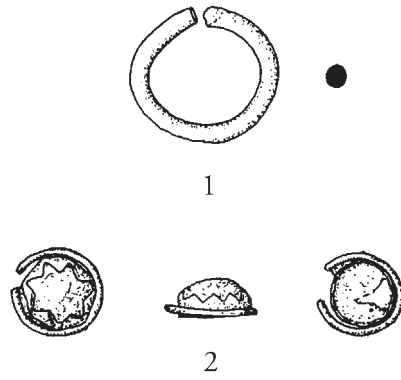
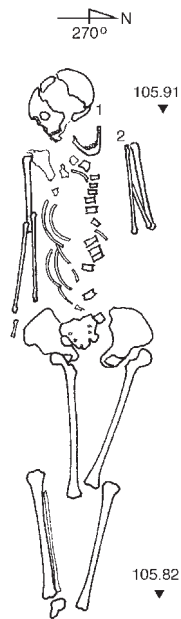
**GRAVE 386**, quadrant X/6a. – A grave in an earthen pit; depth 0.82 m; ▼ 105.89/105.81 m; or. 278° (98° deviation from north). – Damaged skeleton (the upper part of the trunk disarranged); lying on the back, legs extended, head turned to the right; the right forearm extended along the body, the left horizontally across the stomach (v.11). – Male; length 1.58 m.

*Finds:* A *circlet* on each side of the head (1,2), a *ring* on a finger of the left hand (3).

1. *Circlet* – bronze, open-ended, circular section, cut ends; Ø 1.40–1.07 cm (= 3.87 cm); Ø wire 0.14 cm; wt. 0.354 g; S-2806/1 (G. 13-I,4/1);

2. *Circlet* – bronze, open-ended, circular section, cut ends; Ø 1.44–0.73 cm (= 3.40 cm); Ø wire 0.16 cm; wt. 0.326 g; S-2806/2 (G. 13-I,4/2);

3. *Ring with a crown* – bronze, two-part; a profiled hoop of banded section, with separated and hammered ends; decorated with a lengthwise rib between double pseudo-twisted wire; damaged (crown missing); h. –; hoop: Ø 2.26/1.93 cm, w. 0.79–0.74 cm, th. 0.11 cm; w. bezel 0.99 cm; crown: –; wt. hoop 3.33 g; S-2805 (G. 38b; M. 16b).





**GRAVE 387**, quadrant X/6c. – A grave in an earthen pit; depth 0.66 m; ▼ 106.08/106.00 m; or. 282° (102° deviation from north). – Lying on the back, legs extended, head straight; the right forearm angled downwards across the abdomen, the left horizontally across the stomach (v.12). – Child (6–7 years old); length 0.86 m.

*Find:* A necklace of beads around the neck.

1. *Necklace of beads* – glass beads (8 kom): globular-flattened, unspecified, brown (3); globular-flattened, opaque, brown / dots in three fields of two intersecting wavy lines, impressed, yellowish white (1); globular-flattened, unspecified, brown / two thrice intersecting wavy lines, applied, yellowish white (1); annular, unspecified, brown (2); annular, unspecified, brown / two thrice intersecting wavy lines, applied, yellowish white (1); S-2807 (01/03 4 60; 01/03 4 60/30101 01 12; 01/03 4 60/20102 01 12; 01/11 4 60; 01/11 4 60/20102 02 12).

lowish white (1); annular, unspecified, brown (2); annular, unspecified, brown / two thrice intersecting wavy lines, applied, yellowish white (1); S-2807 (01/03 4 60; 01/03 4 60/30101 01 12; 01/03 4 60/20102 01 12; 01/11 4 60; 01/11 4 60/20102 02 12).

**GRAVE 388**, quadrant X/6d. – A grave in an earthen pit; depth 0.55 m; ▼ 106.07 m (mid skeleton); or. 270° (90° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk, arms, and legs incomplete); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child (1–2 years old); length?.

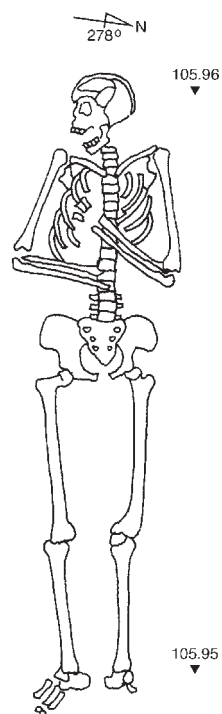
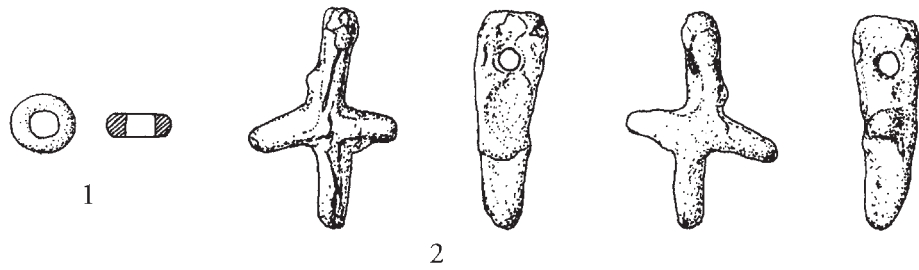
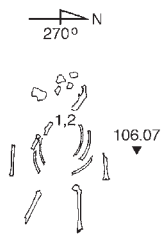
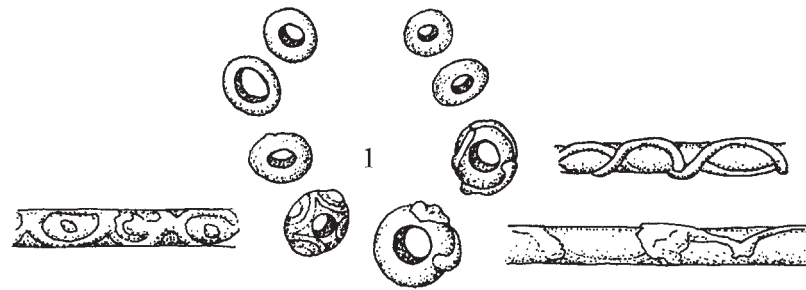
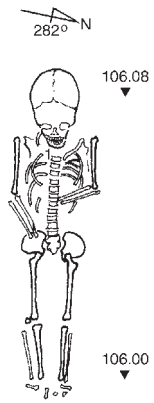
*Finds:* On the left side under the neck a necklace with a bead (1) and a cross-pendant (2).

1. *Necklace with a bead and a metal pendant* (2) – glass bead (1): annular, unspecified, yellowish white; damaged (broken into three parts); S-2809 (01/11 4 12); – metal pendant (1): see no. 2 (cross-pendant);
2. *Cross-pendant* – lead, cast, irregular form, the arms of unequal length and thickness, perforation for suspension on the lateral sides of the upper longer arm, the front and back surfaces of the arms of the cross rounded; h. 2.92 cm; w. 2.07 cm; wt. 7.024 g; S-2808 (G. –; To. 45); [Pl. 16:2].



**GRAVE 389**, quadrant X/6b–d. – A grave in an earthen pit; depth 0.66 m; ▼ 105.96/105.95 m; or. 278° (98° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm folded horizontally across the stomach, the left angled upwards across the chest (v.18). – Female; length 1.53 m.

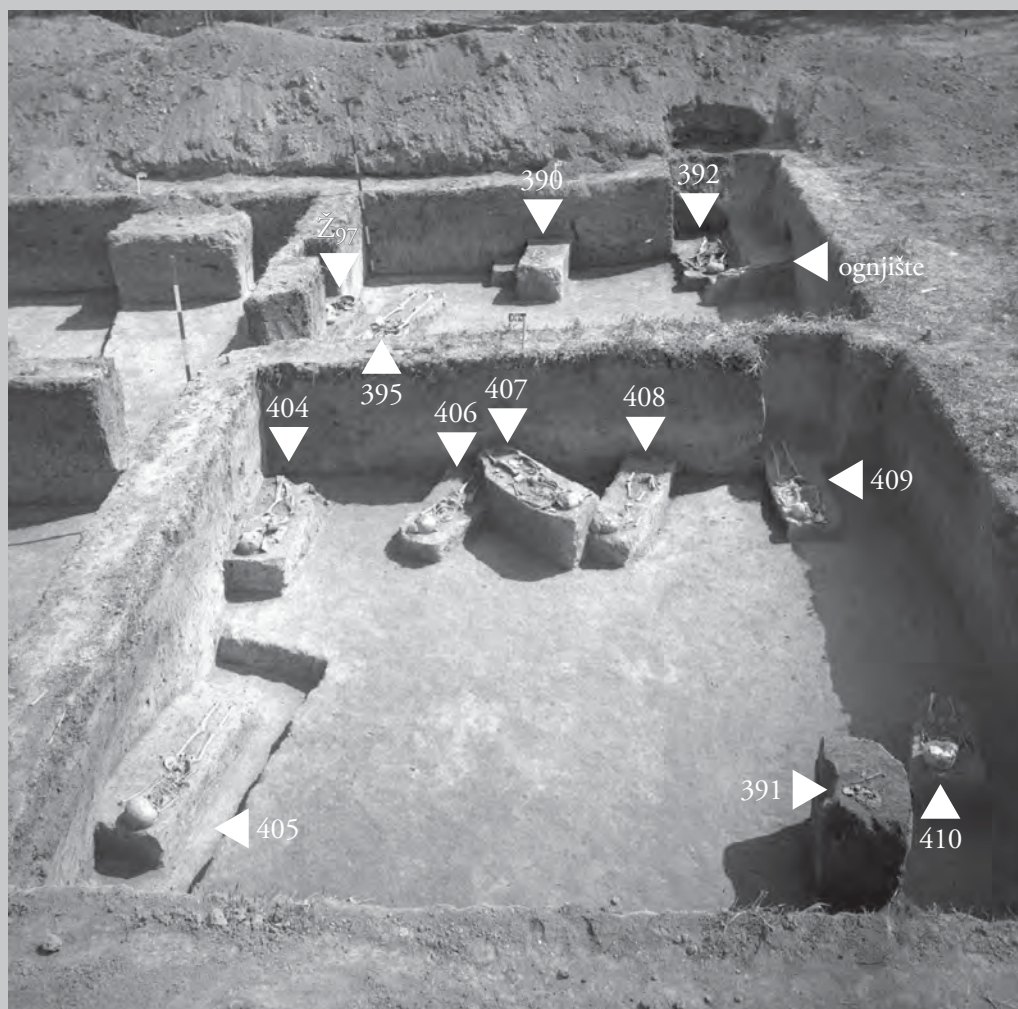
*No finds.*



**GRAVE 390**, quadrant XV/3b–d. – A grave in an earthen pit; depth 0.63 m; ▼ 105.37/105.36 m; or. 262° (82° deviation from north). – Poorly preserved skeleton (skull crushed, the upper part of the trunk and the arms disarranged); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child (ca. 2–3 years old); length ca. 0.60 m.

*Find:* A bracelet on the left forearm.

1. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered ends; Ø 7.20/7.09 cm; Ø wire 0.31–0.18 cm; wt. 15.270 g; S-2810 (G. 4; De. 1.2a).



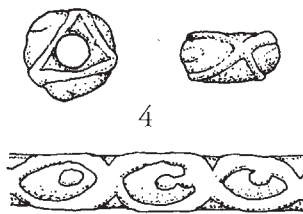
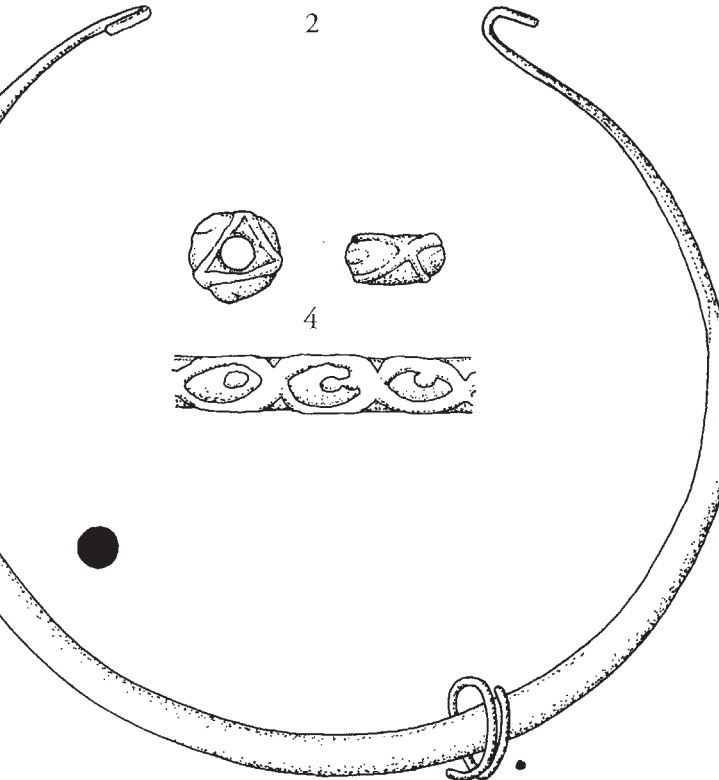
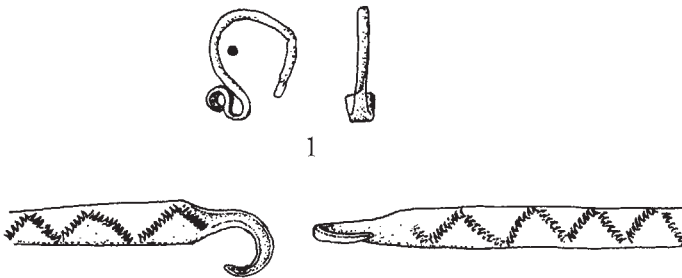
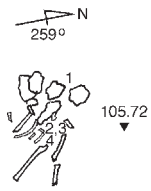
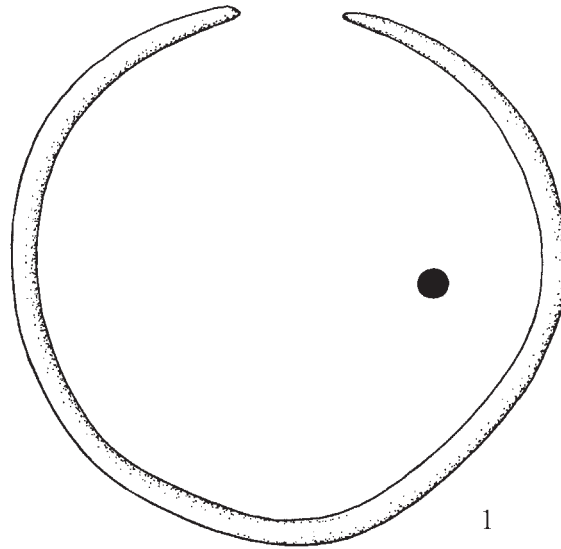
**GRAVE 391**, quadrant XIV/3c. – A grave in an earthen pit; depth 0.52 m; ▼ 105.72 m (mid skeleton); or. 259° (79° deviation from north). – Poorly preserved skeleton (skull crushed, the upper section of the trunk, the arms and legs disarranged); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length?.

*Finds:* An *S-circlet* on the left side of the head (1), a *torc with a hoop pendant* around the neck (2, 3),<sup>167</sup> a *bead* below the neck (4).

1. *S-circlet* – bronze, circular section, cut end; h. 1.54 cm; Ø 1.145/1.13 cm; Ø wire 0.165 cm; S-w. 0.39 cm; wt. 0.723 g; S-2812 (G. II,4/2);
2. *Torc*, bronze, with two hooks for fastening, of circular sectioned wire with tapered ends, which were hammered into a band and decorated on the outer side; the decoration consisted of rows of dense parallel lines arranged in a zigzag; a loop-pendant on the torc; Ø 10.83 cm; Ø wire 0.50–0.32 cm; wt. 33.990 g; S-2811 (G. –; H. 21c dif.; De. 1.2.1.3.1);
3. *Hoop*, pendant on a torc – bronze, open-ended, oval, circular section wire with ends that overlap in the middle; h. 1.44 cm; Ø 1.18 cm; Ø wire 0.13 cm; tw. 0.696 g; S-2811/2 (G. –);
4. *Necklace with a bead* – *glass bead (1)*: globular-flattened, unspecified, brown / dots in three fields of two intersecting wavy lines, impressed, yellowish white; S-2813 (01/03 4 60 / 30101 01 12).

<sup>167</sup> A circlet in the function of a pendant on the torc was mentioned by both field records: *Dnevnik*, ad 31 Aug. 1953; *Zapisnik*, no. 391/2 Sept. 1953.







**GRAVE 392**, quadrant XV/3d–XVI/3c. – A grave in an earthen pit; depth 0.91 m; ▼ 105.19/105.16 m; or. 278° (98° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm folded horizontally across the stomach, the left angled downwards across the abdomen (v.8). – Male; length 1.55 m.

*No finds.*

**GRAVE 393**, quadrant XV/3a. – A grave in an earthen pit; depth unknown; ▼ 105.62/105.53 m; or. 256° (104° deviation from north). – Poorly preserved skeleton (skull crushed, the upper section of the trunk with the arms, the pelvis and the legs disarranged); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child (ca. 5 years old); length 0.72 m.

*Find:* An *S-circlet* on the left below the head.<sup>168</sup>

1. *S-circlet* – bronze, circular section, cut end; h. 1.57 cm; Ø 1.35/1.21 cm; Ø wire 0.125 cm; S-w. 0.41 cm; wt. 0.525 g; S-2814 (G. II, 4/1).

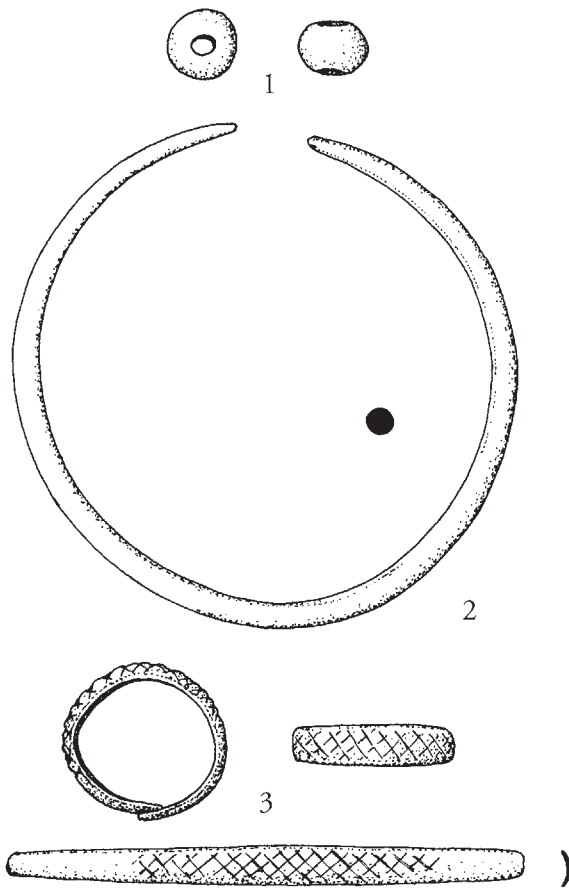
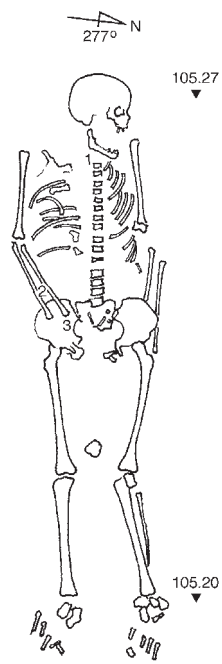
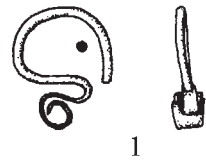
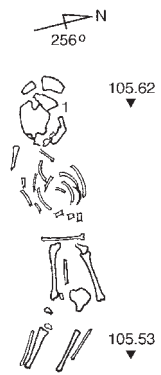
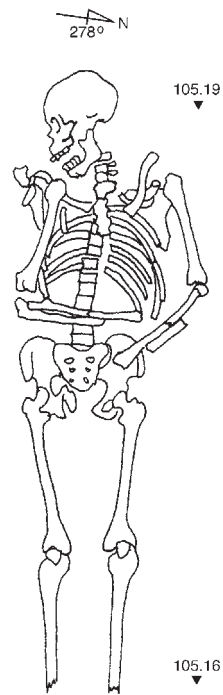
**GRAVE 394**, quadrant XV/3c–d. – A grave in an earthen pit; depth 1.02 m; ▼ 105.27/105.20 m; or. 277° (83° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm angled downwards across the abdomen, the left extended along the body (v.2). – Female; length 1.43 m.

*Finds:* A *bead* by the neck (1), a *bracelet* on the right upper arm (2), and a *ring* on a finger of the right hand (3).<sup>169</sup>

1. *Necklace with a bead* – glass bead (1): globular-flattened, unspecified, brown; d<sub>1</sub> 1.00 cm; d<sub>2</sub> 0.37 cm; h. 0.74 cm; wt. 1.00 g; S-2817 (01/03 4 60);
2. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered ends; Ø 6.74/6.45 cm; Ø wire 0.35–0.22 cm; wt. 14.607 g; S-2815 (G. 4; De. 1.2a);
3. *Ring* – bronze, with open ends, arched section, the tapered and rounded ends overlap; two thirds of the hoop decorated with a net-like pattern; Ø 2.17/1.99 cm; w. 0.57–0.47 cm; th. 0.18 cm; wt. 2.853 g; S-2816 (G. 24; H. 46b; De. 1.5b).

<sup>168</sup> The position of the find according to the drawing in the *Zapisnik*, no. 393/1 Sept. 1953.

<sup>169</sup> The position of the find according to the drawing in the *Zapisnik*, no. 394/1 Sept. 1953.





2. Bone – cattle, femoral bone; right *metatarsus*; missing.

**GRAVE 395**, quadrant XV/3a–b. – A grave in an earthen pit; depth 0.79 m; ▼ 105.41/105.26 m; or. 287° (73° deviation from north). – Lying on the back, legs extended, head straight; the forearms folded horizontally across the stomach: right above, left below (v.13b). – Female; length 1.45 m.

*Finds*: A *ring* on a finger of the left hand (1), and on the right side next to the pelvis a *cattle bone*.<sup>170</sup>

1. *Ring* – bronze, with open ends, arched section, the tapered and rounded ends overlap; two thirds of the hoop decorated with a net-like pattern (decoration partly visible); Ø 1.98/1.90 cm; w. 0.57–0.42 cm; th. 0.14 cm; wt. 2.041 g; S-2818 (G. 24; H. 46b; De. 1.5b);

**GRAVE 396**, quadrant XIV/3b–XV/3a–XV/4c. – A grave in an earthen pit; depth 0.85 m; ▼ 105.41/105.29 m; or. 313° (47° deviation from north). – Lying on the back, legs extended, head turned to the right; the forearms angled downwards across the abdomen (v.7a). – Male?; length 1.46 m.

*No finds*.

*Other objects in the grave*: A fragment of a pottery *vessel* had an unknown position in the grave.<sup>171</sup>

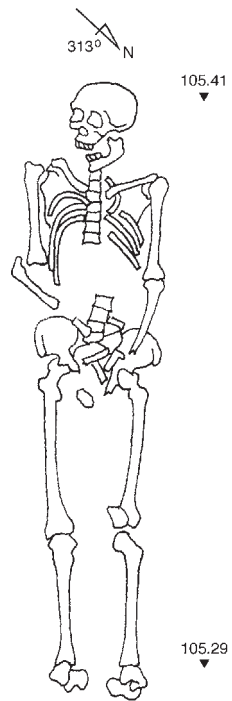
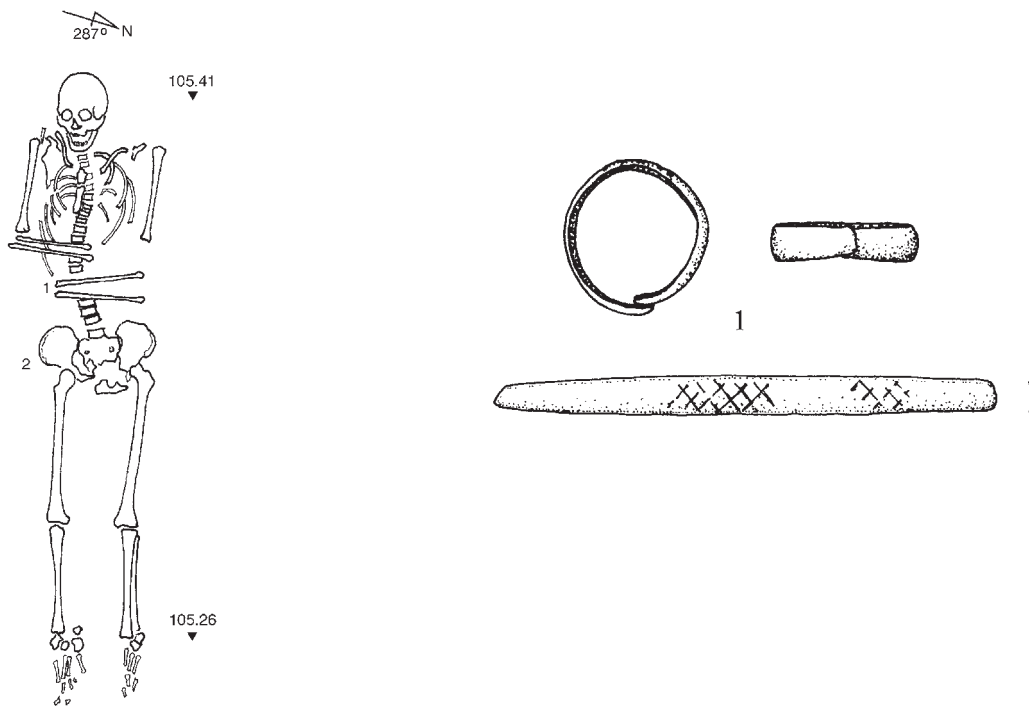
- 1.\* *Vessel*, fragment of the body– pottery, well refined clay, orange-red, traces of a potter's wheel on the inside; dim. 3.67/1.64 cm; S-2819.

**GRAVE 397**, quadrant XV/4c. – A grave in an earthen pit; depth 0.62 m; ▼ 105.61/105.58 m; or. 272° (88° deviation from north). – Poorly preserved skeleton (the skull, trunk, arms, pelvis, and legs crushed and disarranged, the feet missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child (ca. 12 years old); length?.

*No finds*.

<sup>170</sup> The position of the find according to the photographic documentation, as the field documentation does not mention this find at all. The osteological material was not preserved (?). – For the identification of the bone material see here p. 547 n. 615.

<sup>171</sup> No finds whatsoever are assigned to gr. 396 in the field documentation, *Dnevnik*, ad 31 Aug. 1953 and 1 Sept. 1953; *Zapisnik*, no. 396/1 Sept. 1953. Despite this, the S-AMZ for gr. 396 attributes the find of a small fragment of a "pottery vessel of refined clay of a red color", with the note that "the inner side bears visible traces of a potter's wheel" and that it "represents part of the body of a Roman vessel" (S-2819). It is not known how and why this fragment was placed in the grave inventory, and the circumstances and position of its discovery in the grave are unknown. From the *Dnevnik*, however, it is possible to perceive that in almost all parts of quad. XV/3, La Tène settlement traces had been noted, with hearths and numerous pottery fragments (ad 27 Aug. 1953 and 3 Sept. 1953), which seem to have continued into the nearby quad. XVI/2, where various La Tène finds were also uncovered (ad 7 and 8 Aug. 1953).



**GRAVE 398**, quadrant XV/4a–c. – A grave in an earthen pit; depth 1.00 m; ▼ 105.28 m (mid skeleton); or. 267° (93° deviation from north). – Destroyed skeleton (some bones of the skull, trunk, and limbs remained).<sup>172</sup> – Sex?; length?.

*No finds.*



**GRAVE 399**, quadrant XV/4a–b. – A grave in an earthen pit; depth 1.01 m; ▼ 105.27/105.18 m; or. 291° (69° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Female?; length 1.64 m.

*Find:* An *arrowhead* below the left side of the pelvis.<sup>173</sup>

1. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half; damaged (corroded); l. 8.56 cm; head: l. 5.50 cm, w. 2.05 cm, th. 0.19 cm; tang: 3.06 cm; wt. 9.290 g; S-2820 (G. A; To. A3; H. 8a; De. 1.1; Rutt. B3/Med. 52).

**GRAVE 400**, quadrant XIV/4b–XV/4a. – A grave in an earthen pit; depth 0.76 m; ▼ 105.44/105.35 m; or. 267° (93° deviation from north). – Lying on the back, legs extended, head turned to the left; forearms extended along the body (v.1).<sup>174</sup> – Male; length 1.57 m.

*Find:* A *buckle* on the left side of the pelvis.<sup>175</sup>

1. *Buckle* – bronze, one piece, with a D-shaped frame and a movable pin; open frame, circular section, separated, cut, and tapered ends; the pin of hemispherical section, narrowed from the base towards the top, the base hammered and bent into a circular open loop, the top tapered and gently curved to fit over the frame of the buckle; frame: l. 1.73 cm, h. 2.20 cm, Ø 0.36–0.28 cm; pin: l. 2.20 cm, w. 0.34–0.25 cm, th. 0.22–0.20 cm; wt. 4.386 g; S-2821 (G. –).

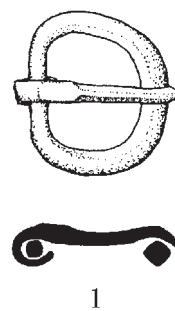
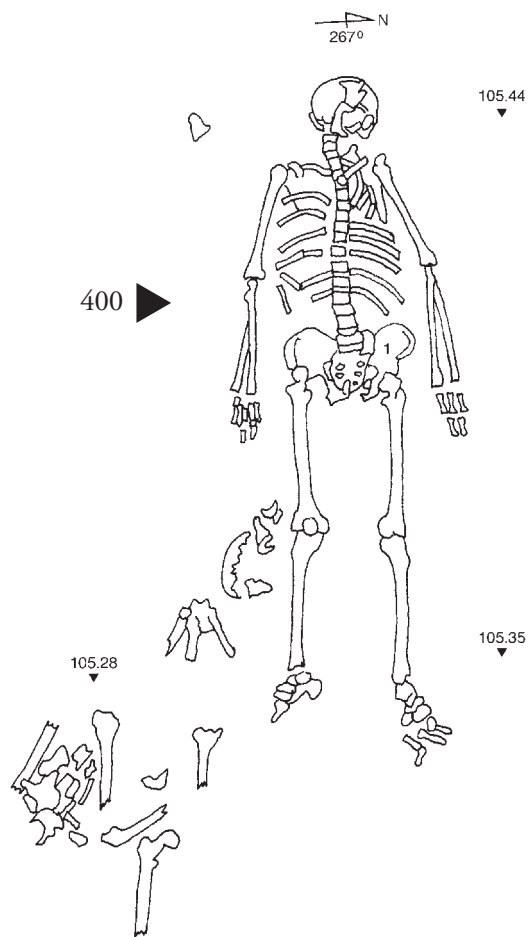
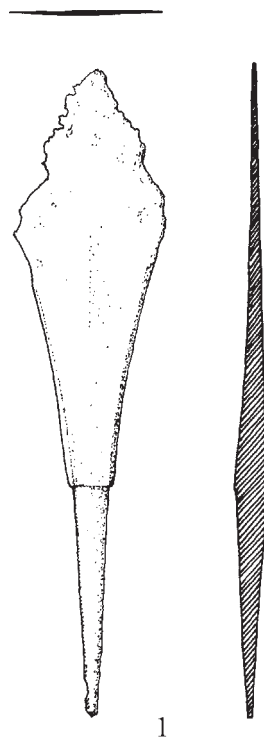
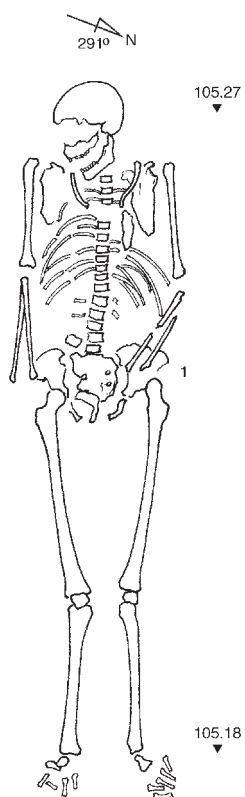
<sup>172</sup> The skeleton was partly destroyed by the burial of the individual in grave 400.

<sup>173</sup> *Dnevnik*, ad 31 Aug. 1953; *Zapisnik*, no. 399/1 Sept. 1953.

<sup>174</sup> The burial disturbed grave 398.

<sup>175</sup> The position of the finds according to the drawing in the *Zapisnik*, nos. 398/1 Sept. 1953 and 400/2 Sept. 1953.

(See the drawing for gr. 400)





**GRAVE 401**, quadrant XIV/4a–b. – A grave in an earthen pit; depth 0.94 m; ▼ 105.32/105.20 m; or. 289° (71° deviation from north). – Damaged skeleton (head fallen to the right, the upper part of the trunk disarranged); lying on the back, legs extended, head straight; the forearms bent upwards with the hands on the shoulders (v.25). – Male; length 1.66 m.

*No finds.*

**GRAVE 402**, quadrant XIV/4a–b. – A grave in an earthen pit; depth 0.63 m; ▼ 105.61/105.50 m; or. 296° (68° deviation from north). – Damaged skeleton (upper part of the trunk incomplete); lying on the back, legs extended, head turned to the right; the forearm angled downwards across the abdomen (v.7a). – Child (ca. 10–11 years old); length 1.01 m.

*Finds:* A *circlet* on the right side of the head (1), a *ring* on a finger of the right hand (2).

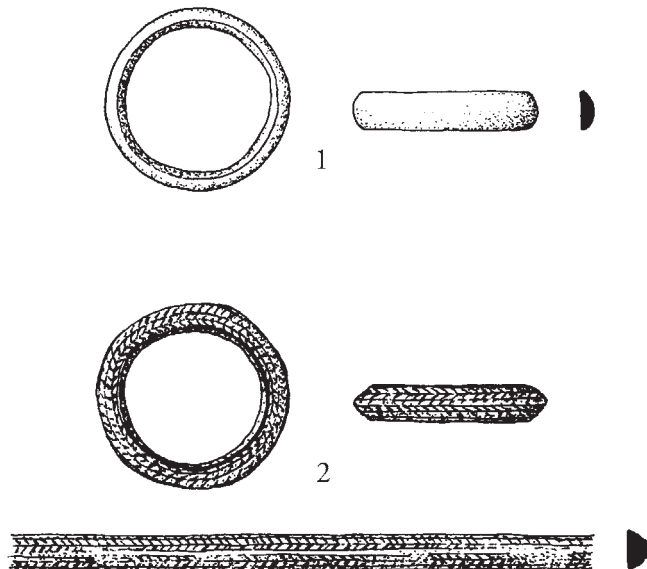
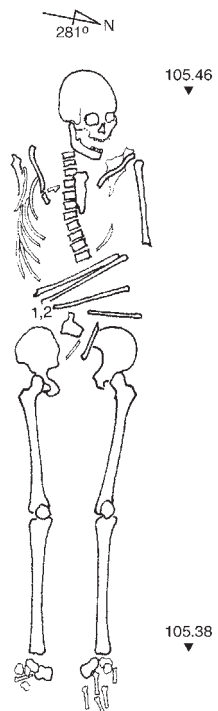
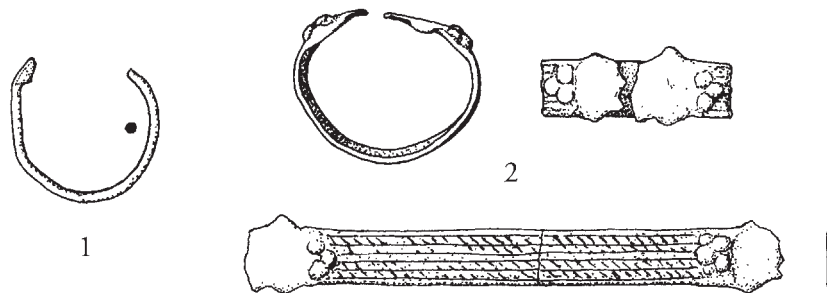
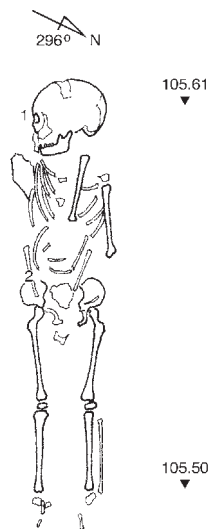
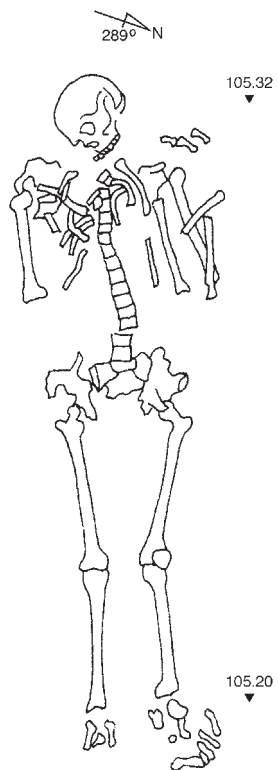
1. *Circlet*, fragment – bronze, open-ended, circular section, damaged (a small part missing); Ø 1.96 cm (= 5.10 cm); Ø wire 0.14 cm; wt. 0.434 g; S-2823 (G. 13-II,5/1);
2. *Ring with a crown* – bronze, two-part; a profiled hoop of banded section, with separated and hammered ends; decorated with a lengthwise rib between double rows of pseudo-twisted wire, on the shoulders on each side of the crown three triangularly arranged granules; damaged (hoop broken, bezel broken; crown missing); h. –; hoop: Ø 2.20/2.00 cm, w. 0.75 cm, th. 0.12 cm; w. bezel ≥ 1.05 cm; crown: –; wt. hoop 4.171 g; S-2822 (G. 38b; M. 16b).

**GRAVE 403**, quadrant XIII/4d–XIV/4d. – A grave in an earthen pit; depth 0.91 m; ▼ 105.46/105.38 m; or. 281° (79° deviation from north). – Damaged skeleton (the upper part of the trunk disarranged, the right upper arm missing); lying on the back, legs extended, head turned to the left; the forearms folded horizontally across the stomach: right above, left below (v.13b). – Female; length 1.41 m.

*Finds:* Two *rings* on the fingers of the left hand (1, 2).

1. *Ring* – bronze, closed hoop, semicircular section; Ø 2.40/2.35 cm; w. 0.57–0.47 cm; th. 0.24 cm; wt. 6.205 g; S-2824 (G. 31; H. 52b);
2. *Ring* – silver (poor silver alloy), closed hoop, triangular section; decorated with a motif of seven rows of lengthwise pseudo-twisted wire; Ø 2.50 cm; h. 0.52 cm; th. 0.38–0.36 cm; wt. 5.220 g; S-2825 (V. III/17).







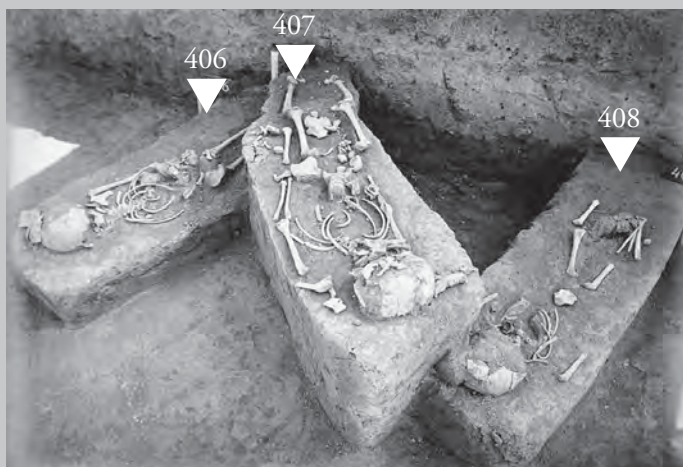
**GRAVE 404**, quadrant XIV/3b. – A grave in an earthen pit; depth 0.78 m; ▼ 105.57/105.44 m; or. 272° (88° deviation from north). – Damaged skeleton (the left arm and left calf disarranged); lying on the back, legs extended, head straight; the right forearm angled upwards across the chest, the left extended along the body (v.4). – Child (ca. 12 years old); length 1.05 m.

*No finds.*



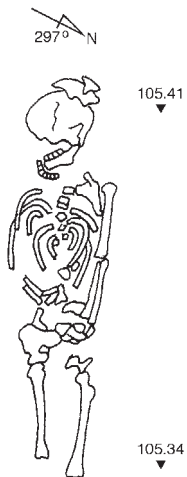
**GRAVE 405**, quadrant XIV/3a. – A grave in an earthen pit; depth 1.02 m; ▼ 105.33/105.20 m; or. 287° (73° deviation from north). – Damaged skeleton (the upper part of the trunk and the arms disarranged); lying on the back, legs extended, head turned to the right; the forearm position could not be determined. – Child; length 1.00 m.

*No finds.*



**GRAVE 406**, quadrant XIV/3b. – A grave in an earthen pit; depth 0.90 m; ▼ 105.41/105.34 m; or. 297° (63° deviation from north). – Damaged skeleton (the upper part of the trunk and the arms disarranged, the calves and feet missing); lying on the back, legs extended, head turned to the left; the forearm position could not be determined. – Child (8–9 years old); length ca. 0.85 m.

*No finds.*



\***GRAVE 407/prehistoric**, quadrant XIV/3b–d. – A grave in an earthen pit (southeast – northwest, head/feet); depth 0.63 m; ▼ 105.65/ 105.51 m; or. 228° (132° deviation from north). – Lying on the back, legs extended, head turned to the right (east); forearms extended along the body (v.1). – Child (young individual); length 1.13 m.

*No finds.*<sup>176</sup>

*Bibliography:* DEMO 1996, 29.



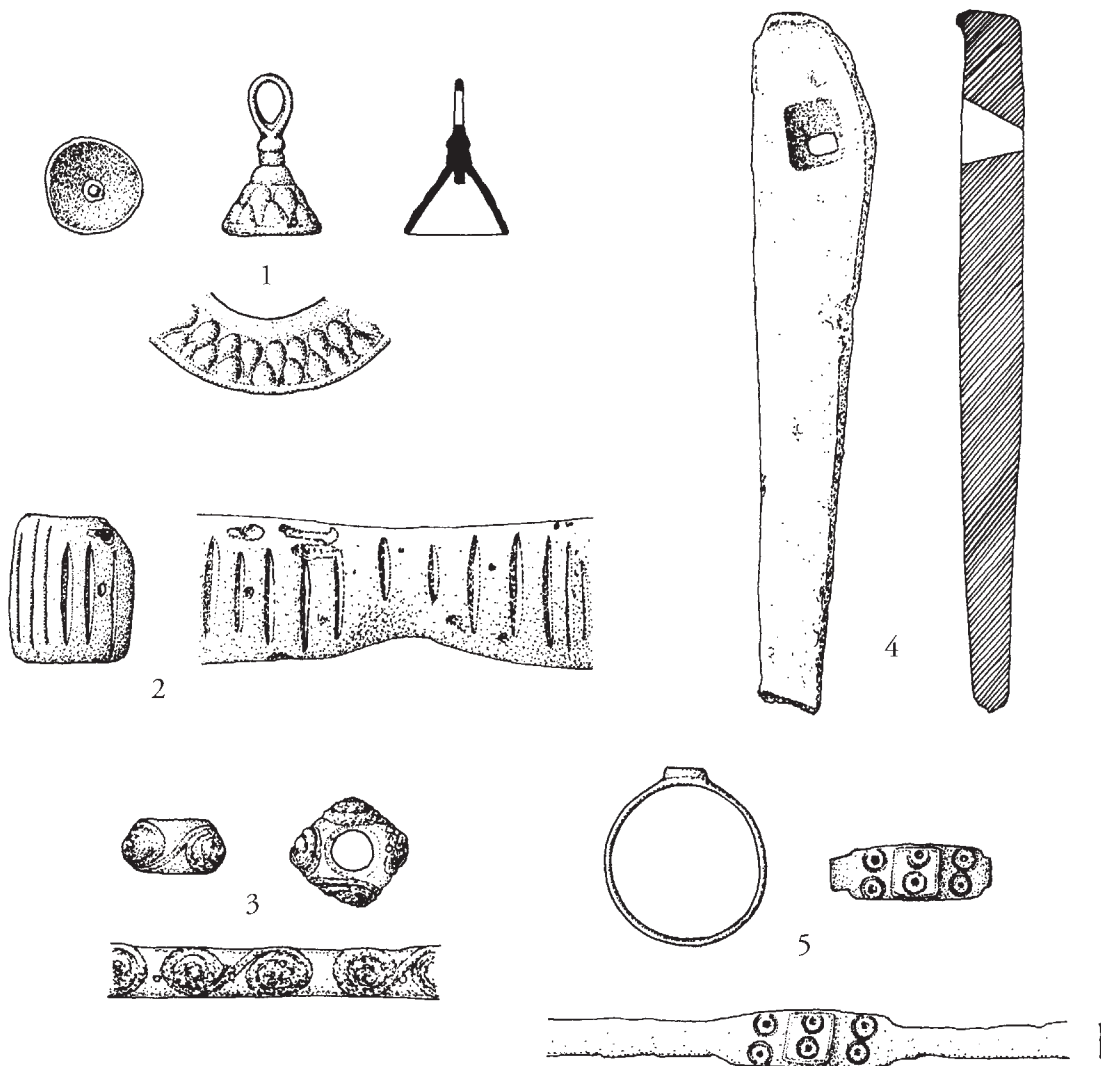
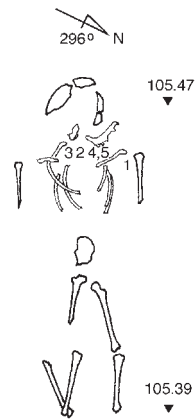
**GRAVE 408**, quadrant XIV/3d. – A grave in an earthen pit; depth 0.90 m; ▼ 105.47/105.39 m; or. 291° (69° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk, arms, and pelvis disarranged); lying on the back, legs extended, head turned to the left; the forearm position could not be determined. – Child (ca. 8–9 years old); length ca. 0.85 m.

*Finds:* A necklace of beads and metal pendants below the neck, with two *beads* below the chin on the right side (2–3), and a *ring* (5), *spike* (4) and a *bell* (1) to the left of the chin.<sup>177</sup>

1. *Bell-pendant* (secondary use; early Middle Ages) – bronze, conical, with a doubly profiled top leading to an oval loop for suspension; the surface decorated with a fish-scale motif, the rim thickened; above the rim a small regularly perforated hole; damaged (the iron [?] clapper of the bell missing); h. 2.06 cm; Ø bell-shaped section 1.3/1.24 cm; wt. 2.608 g; S-2828 (V. V/54); [Pl. 16:3];
2. *Bead* (secondary use; prehistoric; early Iron Age) – glass, high cylindrical, vertically ribbed, opaque, cobalt blue; damaged (chipped); d<sub>1</sub> 1.77 cm; d<sub>2</sub> 0.53 cm; h. 1.96 cm; wt. 6.098 g; S-2829 (01/03 1 81 10201 43);
3. *Bead* (secondary use; prehistoric; late Bronze Age) – glass, globular-flattened, transparent, colorless, with four cobalt-white "eyes" in two layers; d<sub>1</sub> 1.31/1.25 cm; d<sub>2</sub> 0.66 cm; h. 0.72 cm; wt. 1.423 g; S-2830 (01/03 1 81/10210 43 = Venclová 02 030 1 81 / 10502 / 43-11);
4. *Spike*, pendant on a necklace, fragment (secondary use; Roman period; late Republican/early Imperial) – iron, rectangular section, the upper section broadened ovals, with a square perforation in the center; damaged (corroded; lower part missing); l. 9.20 cm; w. 1.67 cm; th. 0.84 cm; wt. 53.029 g; S-2826 (G. –);
5. *Ring with a crown* (secondary use; early medieval) – bronze, closed banded hoop with soldered shoulders and a square step-like raised crown; the shoulders and the crown were decorated with pairs of impressed circles with dots in the center (2+2+2); h. 2.37 cm; crown: dim. 0.81/0.65 cm, h. 0.32 cm; hoop: Ø 2.17 cm, w. 0.52 cm, th. 0.09 cm; wt. 2.949 g; S-2827 (G. 36).

<sup>176</sup> *Dnevnik*, ad 31 Aug. 1953; *Zapisnik*, no. 407/1 Sept. 1953.

<sup>177</sup> Both field documents noted that the ring had been found on a spike, *Dnevnik*, ad 31 Aug. 1973. ("an iron fragment of undetermined function and on it a bronze ring with a square crown below the neck"); *Zapisnik*, no. 408/1 Sept. 1953. ("...an iron fragment of undetermined function and on it a bronze ring with a square crown...").





**GRAVE 409**, quadrant XIV/3d–XV/3c. – A grave in an earthen pit; depth 0.94 m;  $\nabla$  105.41/105.39 m; or. 273° (87° deviation from north). – Damaged skeleton (skull crushed); lying on the back, legs extended, head straight; the right forearm angled upwards across the chest, the left angled downwards across the stomach (v.9). – Child (female; ca. 12 years old); length 1.23 m.

*Finds:* A *torc* (1) and *necklace of beads* (2) below the neck, with a metal pendant with a *coin* in the center (4) and a *button-pendant* at the level of the left ear (3),<sup>178</sup> two *rings* on fingers of the left hand (5,6), one *belt chape* each on the left and right sides of the pelvis (7–8).<sup>179</sup>

1. *Torc*, bronze, with a hook and eye for fastening, twisted from one triply bent wire of circular section, the ends of the wire wound around the necks of the hook and eye (2+2 coils);  $\varnothing$  15.50/14.48 cm (fastened);  $\varnothing$  twisted wire 0.27 cm;  $\varnothing$  wire: 0.14 cm; wt. 18.439 g; S-2831 (G. 1a; De. 1.1.1.1a/nd);

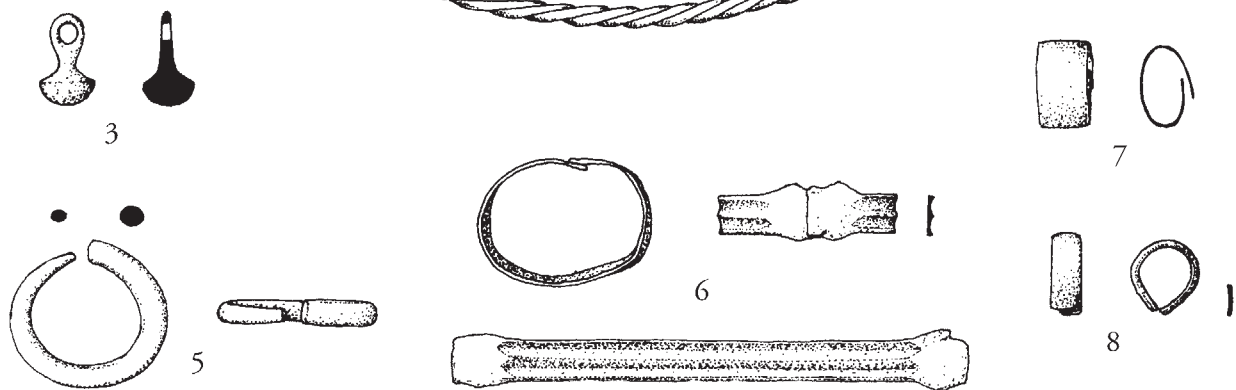
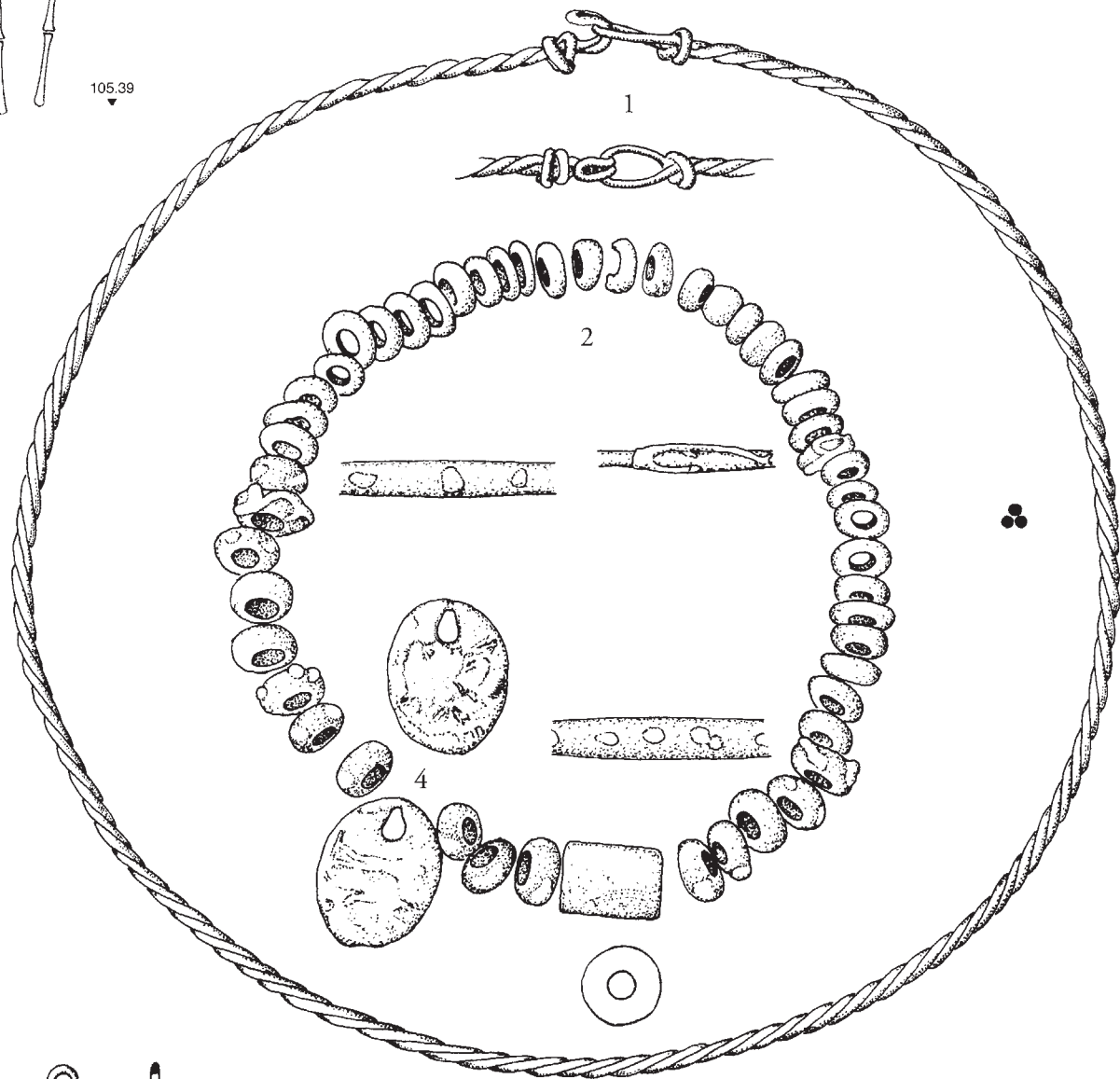
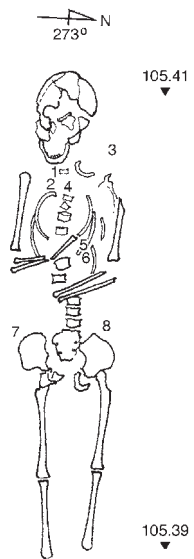
2. *Necklace of beads and a metal pendant* (53) – *glass beads* (52): segmented, single, translucent, colorless / silver coating between two glass layers, yellowish white (1); globular-flattened, unspecified, yellowish white (3), brown (4) and honey brown (3); globular-flattened, unspecified, black / three dots at regular intervals, impressed, yellowish white (4); globular-flattened, unspecified, brown / three irregularly arranged dots, impressed, yellowish white (11);

globular-flattened, unspecified, brown / five irregularly arranged dots, impressed, yellowish white (1); globular-flattened, unspecified, brown / two thrice intersecting wavy lines, applied, yellowish white (1); high cylindrical, opaque, milky white (1); annular, translucent, lemon yellow (1); annular, unspecified, yellowish white (10), yellowish green (1), brown (4) and honey brown (6); annular, opaque, golden yellow / two thrice intersecting wavy lines, applied, yellowish white (1); S-2832 (01/011 1 81/04; 01/03 4 12, 01/03 4 60, 0/03 4 61; 01/03 4 71/10103 01 12; 01/03 4 60/10113 01 12; 01/03 4 60/10115 01 12; 01/03 4 60/20102 02 12; 01/06 2 11; 01/11 1 21; 01/11 4 12, 01/11 4 55, 01/11 4 60, 01/11 4 61; 01/11 2 24/20102 02 12); – *metal pendant* (1): see no. 4 (coin);

3. *Button-pendant* – bronze, mushroom-shaped, solid, with an elongated loop for attachment; h. 1.24 cm;  $\varnothing$  0.74 cm; wt. 1.245 g; S-2836 (G. 11b dif.; H. 58d);
4. *Coin* – bronze, antoninian; Roman Empire: Aurelian (270–275), Rv. *Concordia militum* (RIC?); damaged (perforated);  $\varnothing$  2.20/1.69 cm; ax. 12; wt. 3.076 g; S-2833 (To. 44a);
5. *Ring* – bronze, with open ends, circular section, separated ends, one cut, the other tapered;  $\varnothing$  2.02/1.86 cm;  $\varnothing$  wire 0.36–0.23 cm; 3.225 g; S-2834 (G. 25/26 dif.);
6. *Ring with a crown* – bronze, two-part; a profiled hoop with a horizontal rib in the center, a three-ribbed profile, with separated and hammered ends; damaged (hoop deformed, bezel broken off; crown missing); h. –; hoop:  $\varnothing$  2.36/1.75 cm, w. 0.58 cm, th. 0.18 cm; w. bezel 0.82 cm; crown: –; wt. hoop 1.607 g; S-2835 (G. 38b; M. 16b);
7. *Belt chape* – bronze, banded section, the separated ends overlap;  $\varnothing$  1.07/0.84 cm; h. 0.65 cm, th. 0.05–0.09 cm; wt. 0.737 g; S-2837/1 (G. –);
8. *Belt chape* – bronze, semicircular section, separated ends;  $\varnothing$  1.00/0.92 cm; h. 0.47 cm, th. 0.12 cm; wt. 0.773 g; S-2837/2 (G. –).

<sup>178</sup> In the *Dnevnik*, ad 31 Aug. 1953 and *Zapiski*, no. 409/1 Sept. 1953, the pendant was considered to be silver.

<sup>179</sup> *Dnevnik*, ad 31 Aug. 1953; *Zapiski*, no. 409/1 Sept. 1953.



**GRAVE 410**, quadrant XIV/3c. – A grave in an earthen pit; depth 0.74 m; ▼ 105.60/105.51 m; or. 282° (78° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk and arms disarranged, the calves and feet missing); lying on the back, legs extended, head straight; the forearm position could not be determined. – Child (3–4 years old); length ca. 0.68 m (preserved part).

*No finds.*

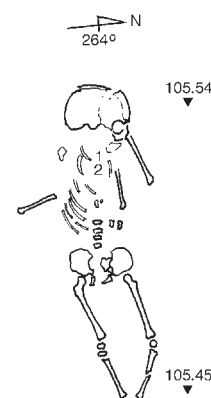
**GRAVE 411**, quadrant IX/4d. – A grave in an earthen pit; depth 0.66 m; ▼ 105.97 m (mid skeleton); or. 260° (100° deviation from north). – Destroyed skeleton (some bones from the skull and trunk remained). – Child (ca. 3 years old); length?.

*No finds.*

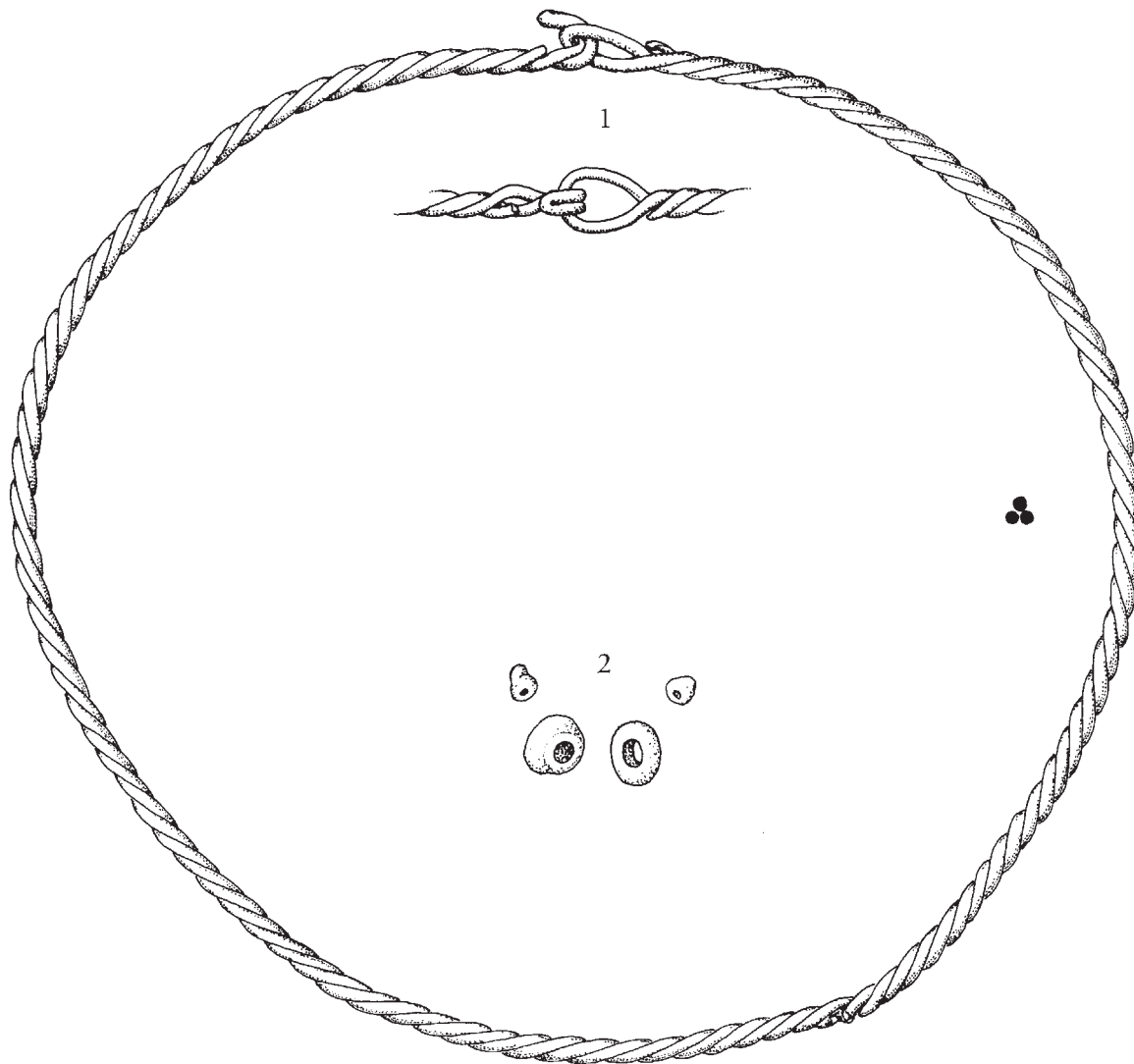
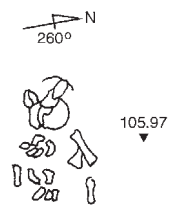
**GRAVE 412**, quadrant XV/3a. – A grave in an earthen pit; depth 0.77 m; ▼ 105.54/105.45 m; or. 264° (96° deviation from north). – Poorly preserved skeleton (the upper part of the trunk and arms disarranged, the feet missing); lying on the back, legs extended, head turned to the left; the forearm position could not be determined. – Child (ca. 5 years old); length 0.80 m.

*Finds:* A *torc* (1) and a *necklace of beads* (2) below the neck.

1. *Torc* – bronze, with a hook and eye for fastening, twisted from one triply bent wire of circular section, the ends of the wire cut; damaged (broken into two parts); Ø 15.00/13.70 cm (fastened); Ø twisted wires 0.35 cm; Ø wire 0.17 cm; wt. 30.284 g; S-2905 (G. 1a; De. 1.1.1.1a/nn);
2. *Necklace of beads* – *glass beads* (4): globular-flattened, opaque, brown (2); grits-shaped, opaque, yellowish white (2); S-2838 (01/03 2 60; 01/14 2 12).



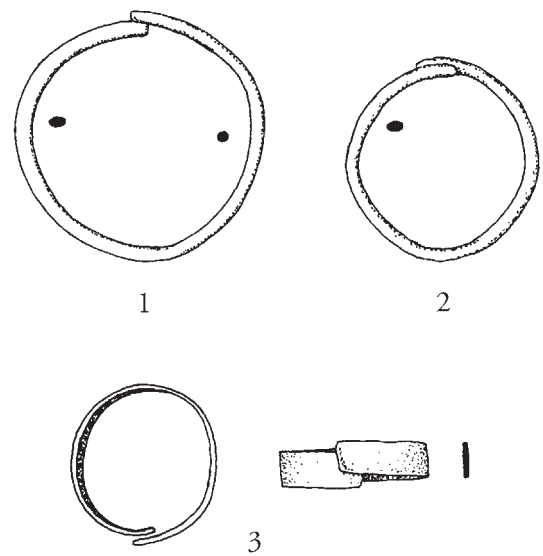
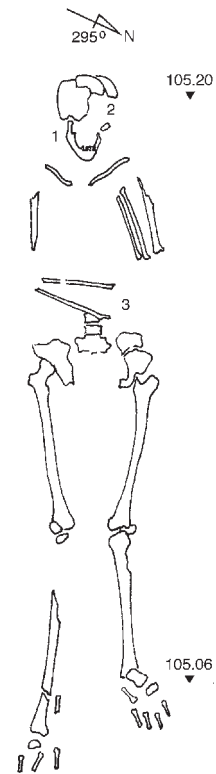




**GRAVE 413**, quadrant XIV/4c-d. – A grave in an earthen pit; depth 1.12 m; ▼ 105.20/105.06 m; or. 295° (65° deviation from north). – Poorly preserved skeleton (the skull and trunk incomplete); lying on the back, legs extended, head straight; the right forearm folded horizontally across the stomach, the left bent upwards with the hand on the shoulder (v.23). – Sex?; length 1.50 m.

*Finds:* A *circlet* on each side of the head (1,2),<sup>180</sup> a *ring* on a finger of the left hand (3).

1. *Circlet* – bronze, open-ended, circular-oval section, overlapping cut ends; Ø 3.20 cm (= 10.04 cm); Ø wire 0.16 cm; wt. 1.173 g; S-2839 (G. 13-I,10/3);
2. *Circlet* – bronze, open-ended, circular-oval section, overlapping cut ends; Ø 2.67–2.47 cm (= 8.06 cm); Ø wire 0.19 cm; wt. 1.679 g; S-2840 (G. 13-I,8/3);
3. *Ring* – bronze, with open ends, banded section; the ends of different widths overlap, one end cut straight, and the other rounded; damaged (broken into two parts); Ø 1.94 cm; w. 0.52–0.48 cm; th. 0,11 cm; wt. 1.597 g; S-2841 (G. 21; H. 45a).

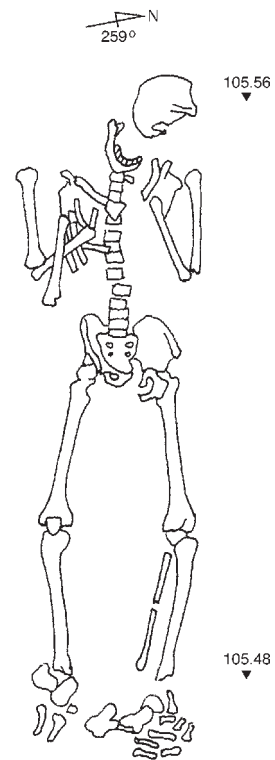


<sup>180</sup> It was noted for one of the circlets that it had been found in the head during removal of the skeleton, *Dnevnik*, ad 3 Sept. 1953; *Zapisek*, no. 413/2 Sept. 1953.



**GRAVE 414**, quadrant XI/3a–d. – A grave in an earthen pit; depth 1.06 m; ▼ 105.56/105.48 m; or. 259° (101° deviation from north). – Damaged skeleton (the skull and the upper part of the trunk disarranged); lying on the back, legs extended, head turned to the left; the forearms angled upwards across the chest (v.19). – Male; length 1.70 m.

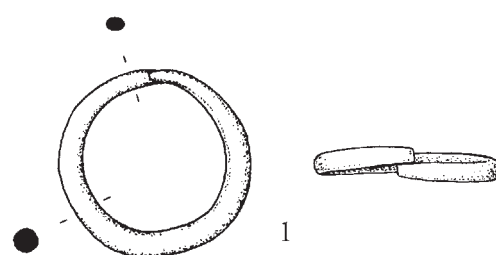
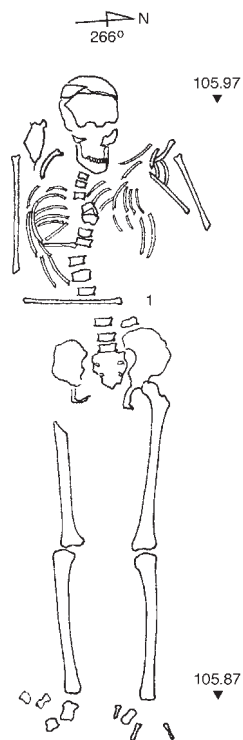
*No finds.*



**GRAVE 415**, quadrant XI/4c–d. – A grave in an earthen pit; depth 0.71 m; ▼ 105.97/105.87 m; or. 266° (94° deviation from north). – Damaged skeleton (skull crushed, the trunk incomplete and disarranged); lying on the back, legs extended, head turned to the left; the right forearm folded horizontally across the stomach, the left bent upwards with the hand on the shoulder (v.23). – Male?; length 1.67 m.

*Finds:* A ring on a finger of the right hand.

1. *Ring* – silver, with open ends, circular section, the separated, cut, and tapered ends overlap; Ø 2.47 cm; Ø wire 0.38–0.26 cm; wt. 5.193 g; S-2842 (G. 26).





**GRAVE 416**, quadrant XI/4b. – A grave in an earthen pit; depth 0.56 m; ▼ 105.97/105.88 m; or. 287° (73° deviation from north). – Damaged skeleton (skull crushed); lying on the back, legs extended, head turned to the left; the forearms angled downwards and crossed on the abdomen (v.7b).<sup>181</sup> – Male; length 1.77 m.

*No finds.*

*Other objects in the grave:* Small clumps of slag (iron by-products) by the left knee.<sup>182</sup>

1. *Slag* (3 pieces) – pieces of various dimensions; S-2843.



**GRAVE 417**, quadrant XI/5b–d. – A grave in an earthen pit; depth 0.81 m; ▼ 105.85/105.71 m; or. 271° (89° deviation from north). – Damaged skeleton (skull crushed, trunk incomplete); lying on the back, legs extended, head straight; the forearms folded horizontally across the stomach: right below, left above (v.13a). – Male; length 1.58 m.

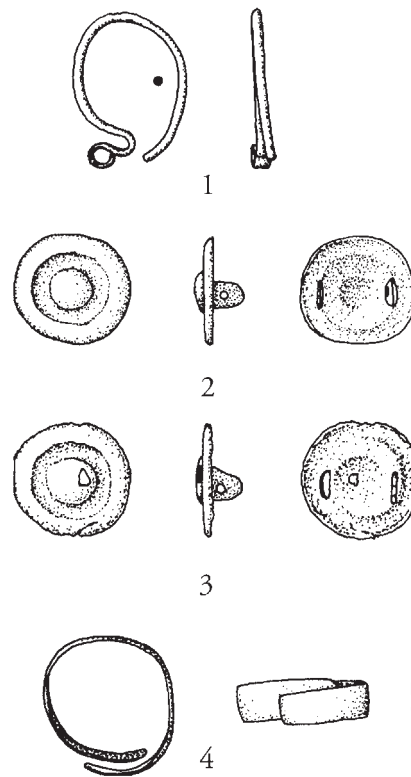
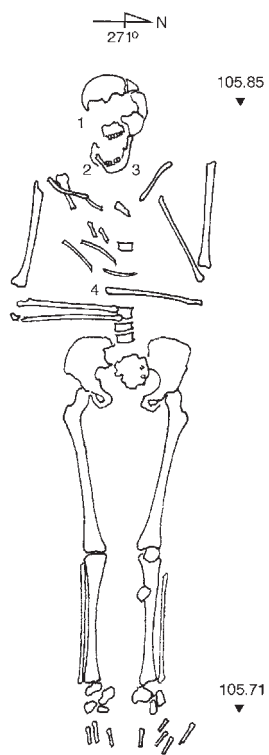
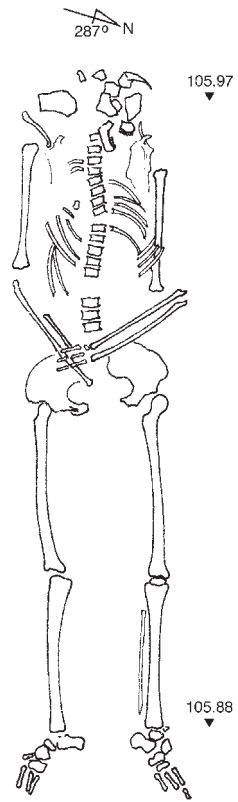
*Finds:* An *S-circlet* (1) and a *spangle* (2) on the right side of the head, a *spangle* (3) below the head, a *ring* on a finger of the left hand (4).

1. *S-circlet* – bronze, circular section, cut end; h. 2.05 cm; Ø 1.95/1.49 cm; Ø wire 0.14 cm; S-w. 0.29 cm; wt. 0.718 g; S-2846 (G. II,5/1);

2. *Spangle* – silver, gilded, circular, domed, with a broad banded and profiled edge and a recessed banded zone around the central convex protrusion; on the reverse were soldered two horizontally arranged and perpendicularly raised, rounded platelets with a perforated hole for attachment by sewing; S-damaged (gilt traces); Ø 1.57/1.48 cm; h. 0.27 (with platelets 0.68 cm); wt. 1.152 g; 2845/1 (G. –; H. 61b dif.);
3. *Spangle* – silver, gilded, circular, domed, with a broad banded and profiled edge and a recessed banded zone around the central convex protrusion; on the reverse were soldered two horizontally arranged and perpendicularly raised, rounded platelets with a perforated hole for attachment by sewing; damaged (corrosion hole in the center of the protrusion; missing one platelet; gilt traces); Ø 1.57/1.54 cm; h. 0.22 cm (with platelets 0.68 cm); wt. 0.862 g; S-2845/2 (G. –; H. 61b dif.);
4. *Ring* – silver, with open ends, banded section, the narrow and rounded ends overlap; Ø 1.95/1.70 cm; w. 0.58–0.50 cm; th. 0.10 cm; wt. 1.820 g; S-2844 (G. 21; H. 45a).

<sup>181</sup> "On the right lower leg ca. 8 cm from the ankle a fracture is apparent that grew over during life so that one part of the broken bone spread widely; the lower leg remained somewhat bent", *Zapisnik*, no. 416/2 Sept. 1953.

<sup>182</sup> *Dnevnik*, ad 31 Aug. 1953.



**GRAVE 418**, quadrant XI/5b. – A grave in an earthen pit; depth 0.54 m; ▼ 105.89 (mid skeleton); or. 250° (110° deviation from north). – Poorly preserved skeleton (skull missing, the trunk and arms disarranged, the feet missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child (2–3 years old); length 0.38 m (preserved part).

*No finds.*

**GRAVE 419**, quadrant XI/5a. – A grave in an earthen pit; depth 0.45 m; ▼ 106.87 m (mid skeleton); or. 271° (89° deviation from north). – Destroyed skeleton (some bones of the skull and trunk remained). – Child; length?.

*No finds.*



**GRAVE 420**, quadrant XI/5a–b. – A grave in an earthen pit; depth 0.66 m; ▼ 106.03/105.94 m; or. 275° (85° deviation from north). – Lying on the back, legs extended, head turned to the left; the right forearm extended along the body, the left angled downwards across the abdomen (v.6). – Female; length 1.44 m.

*Find:* A ring on a finger of the left hand.

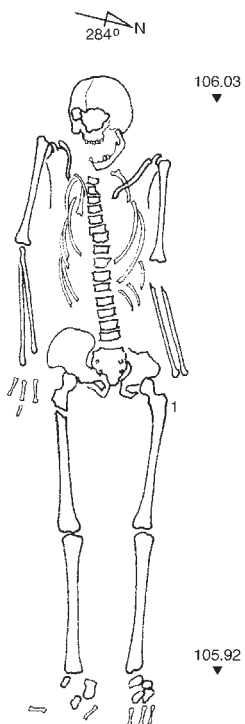
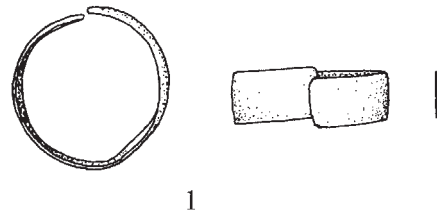
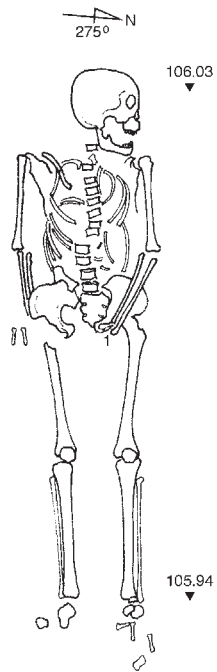
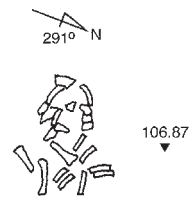
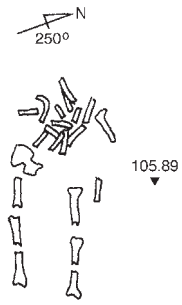
1. *Ring* – bronze, with open ends, banded section, cut ends of different widths; Ø 2.13/2.00 cm; w. 0.67 cm; th. 0.08 cm; wt. 1.912 g; S-2847 (G. 21; H. 45a).



**GRAVE 421**, quadrant XI/6c–d. – A grave in an earthen pit; depth 0.72 m; ▼ 106.03/105.92 m; or. 284° (76° deviation from north). – Lying on the back, legs extended, head turned to the right; the forearms extended along the body (v.1). – Male; length 1.54 m.

*Find:* A knife above the upper section of the left thigh.

1. *Knife* – iron, single-edged, with a tang for the handle, straight back curved downwards at the tip; damaged (corroded; tip of the point missing, blade chipped); l. 9.25 cm; blade: w. 1.26 cm, th. 0.35/0.19 cm; wt. 9.550 g; S-2848 (To. A4; H. 5).





**GRAVE 422**, quadrant XIII/6d–XIV/5a. – A grave in an earthen pit; depth 0.79 m; ▼ 105.61/105.43 m; or. 308° (52° deviation from north). – Poorly preserved skeleton (skull crushed, legs disarranged); lying on the back, legs extended, head turned to the right; the right forearm bent upwards with the hand on the shoulder, the left horizontally across the stomach (v.15). – Female (young individual); length ca. 1.33 m.

*Finds:* An *O-circlet* on the right side of the head (1), a *circlet with a pendant* on the left side of the head (2,2.1), a *ring* on a finger of the left hand (3).<sup>183</sup>

1. *O-circlet* – silver, circular section, cut end; h. 2.83 cm; Ø 2.95/2.53 cm; Ø wire 0.23 cm; O-w. 0.29 cm; wt. 3.203 g; S-2851 (V. IV/5; H. 12a-I,8/3);
2. *Circlet with a pendant* – *circlet*; bronze, open-ended, circular section, cut ends; a metal pendant threaded on the circlet; *circlet*: Ø 2.24–1.89 cm (= 6.48 cm), Ø wire 0.14 cm, wt. 1.517 g; wt. without pendant 0.744 g; S-2850/1 (G. 13 dif.-I,6/1 with a circlet/metal pendant; H. 18d dif.); – *loop*, metal pendant (1): see no. 2.1;
- 2.1. *Loop*, pendant on the circlet (secondarily used loop of a ring, fragment) – bronze, open-ended, oval form, banded section, cut ends; dim. 0.75/0.70 cm, w. 0.46 cm; th. 0.12 cm; wt. 0.773 g; S-2850/2 (H. 37c);
3. *Ring* – bronze, with open ends, triangular section, the cut ends overlap; Ø 2.18/1.67 cm; w. 0.48 cm; th. 0.19 cm; wt. 2.573 g; S-2852 (G. 22; H. 49; De. 1.4b).

**GRAVE 423**, quadrant XIV/5d. – A grave in an earthen pit; depth 0.69 m; ▼ 105.63/105.48 m; or. 279° (81° deviation from north). – Poorly preserved skeleton (the trunk incomplete, arms disarranged, the calves and feet missing); lying on the back, legs extended, head turned to the left; the forearm position could not be determined. – Child (10–12 years old); length ca. 0.74 (preserved part).

*No finds.*

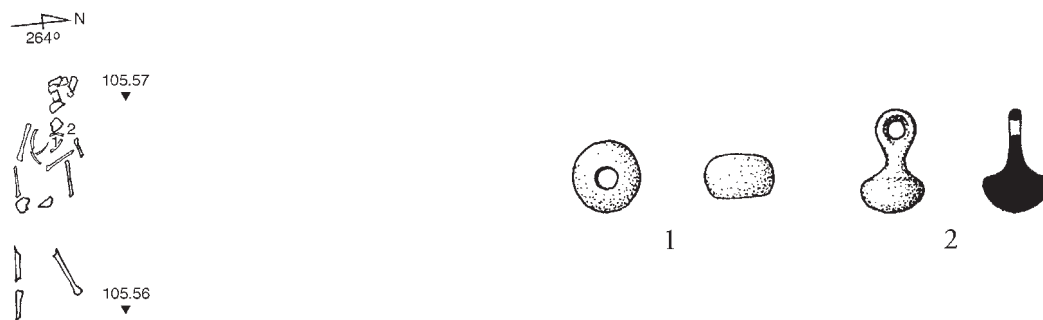
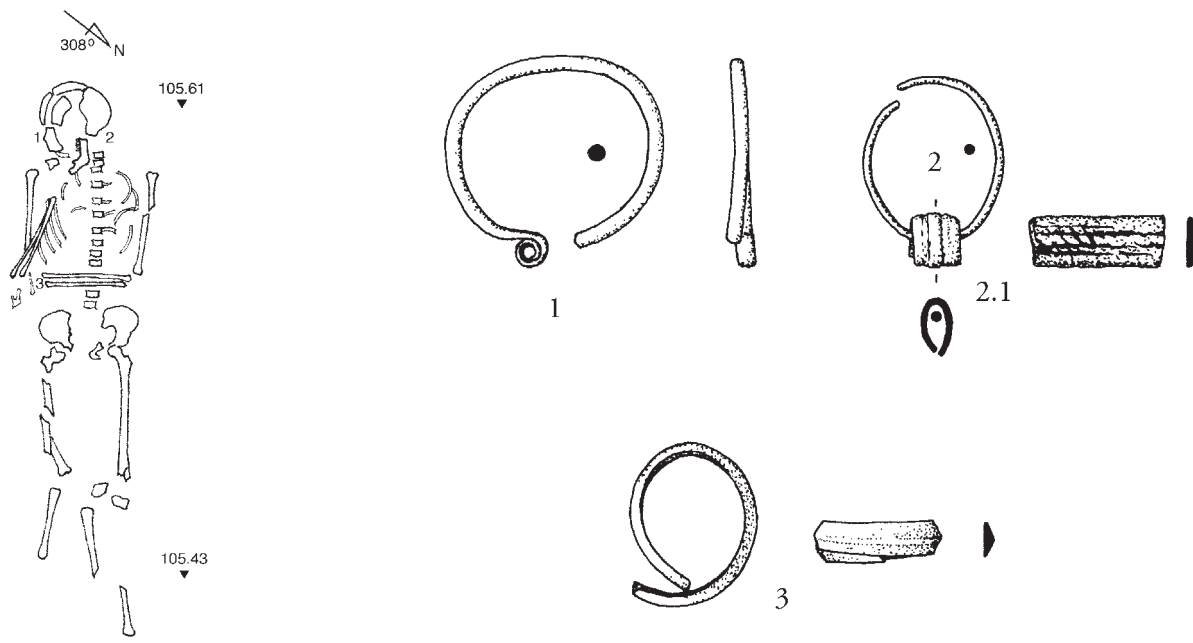
**GRAVE 424**, quadrant XIV/5c. – A grave in an earthen pit; depth 0.56 m; ▼ 105.57/105.56 m; or. 264° (96° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk with arms and legs disarranged, feet missing); lying on the back, legs extended, head straight; the forearm position could not be determined. – Child; length ca. 0.65 m.

*Finds:* A *bead* on the chest below the neck (1), to the right of it a *button-pendant* (2).

1. *Necklace with a bead* – *glass bead* (1): globular-flattened, opaque, turquoise; 2854 (01/03 2 42);
2. *Button-pendant* – bronze, lenticular, solid, with an elongated loop for attachment; h. 1.30 cm; Ø 0.88 cm; wt. 2.042 g; S-2853 (G. 11b; H. 58c).

<sup>183</sup> The field documentation gr. 422 noted only one ring found by the fingers of the left hand, *Dnevnik*, ad 1 Sept. 1953; *Zapisnik*, no. 422/2 Sept. 1953. The other ring that was assigned to this grave in the S-AMZ (S-2849) was documented as coming from gr. 326 (sic!).





**GRAVE 425**, quadrant XIV/5a–c. – A grave in an earthen pit; depth 0.56 m; ▼ 105.64/105.56 m; or. 265° (95° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk and arms disarranged, the calves and feet missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child; length?

*Finds:* A *necklace of beads* on the neck (1) and a *spangle* on the right side of the head (2).

1. *Necklace of beads* – *glass beads* (5): annular, unspecified, black (4); annular, unspecified, black / two thrice intersecting wavy lines, applied, yellowish white (1); 2856 (01/11 4 71; 01/11 4 71/20102 02 12).
2. *Spangle* – silver, gilded, circular, domed, with a smooth profiled edge, and alternative relief and undecorated concentrically arranged, gradually raised banded zones around the central convex protrusion; on the reverse, soldered hooks for attachment by sewing, horizontally arranged, oppositely facing, banded, semicircularly bent, thinned toward the ends; damaged (one hook missing; gilt traces); Ø 1.60 cm; h. 0.33 cm (with hooks 0.57 cm); wt. 0.909 g; S-2855 (G. –; H. 62b).



**GRAVE 426**, quadrant XIV/5a–b. – A grave in an earthen pit above grave 427 (it cut across the chest and head of the skeleton in grave 427, oriented north-south); depth 0.90 m; ▼ 105.46/105.37 m; or. 273° (87° deviation from north). – Lying on the back, legs extended, head turned to the right;<sup>184</sup> the forearms angled downwards and crossed on the stomach (v.7b). – Female; length 1.60 m.

*Finds:* A *raceme earring* on each side of the head (1,2), a *bracelet* on the right forearm (4), a *bracelet* on the left forearm (3), a *ring* on a finger of the left hand (5).<sup>185</sup>

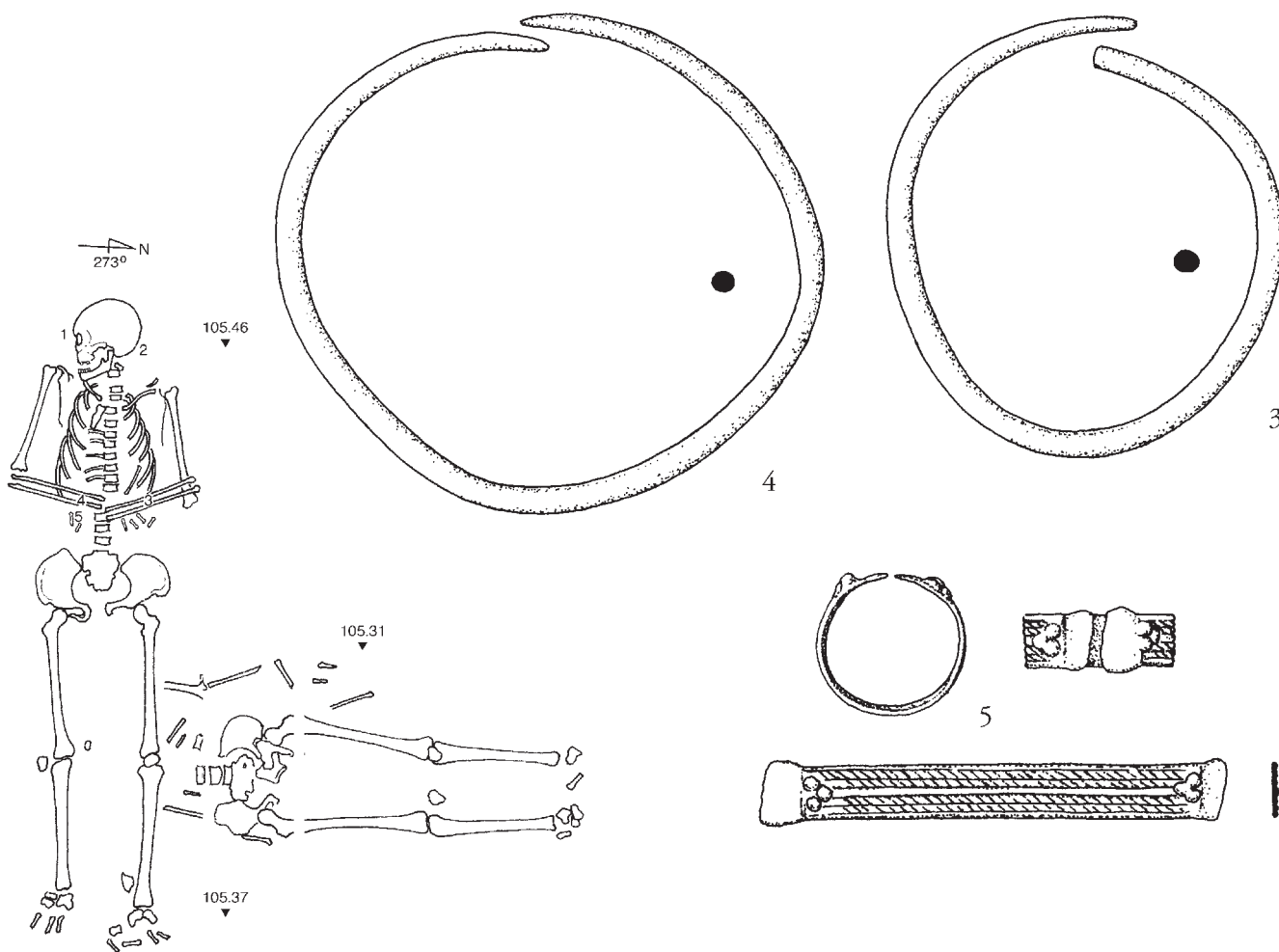
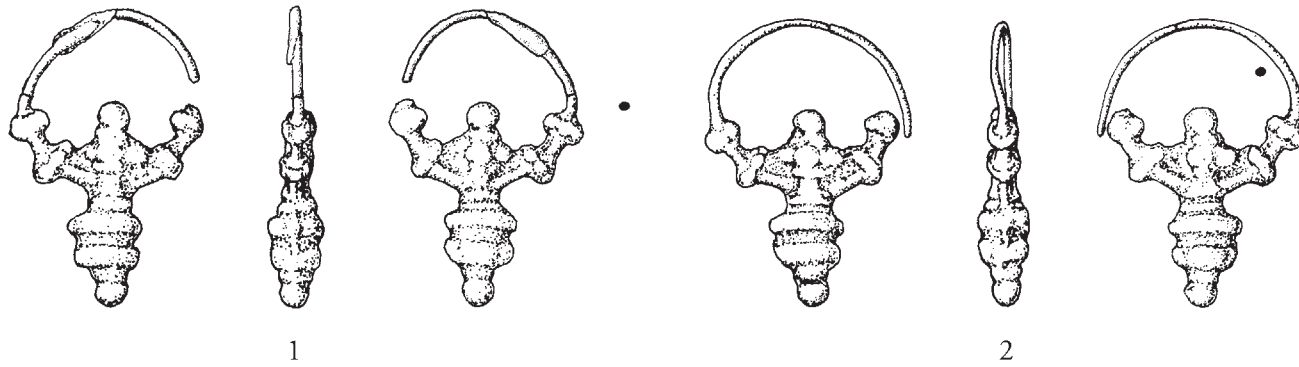
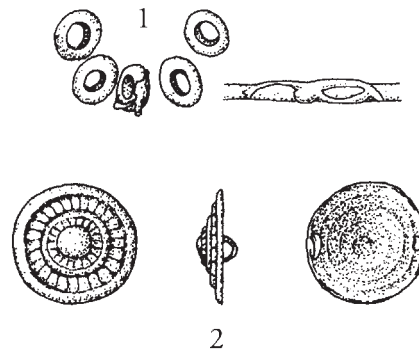
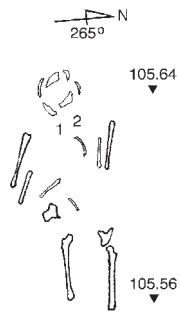
1. *Earring of the "Volhynia-Kiev" type with two pairs of joints* – silver, cast, with a smooth open-ended circllet of circular section and a decorative section composed of a raceme pendant and two pairs of joints, traces of medieval repairs on the circllet;

damaged (the circllet broken into two parts, part of the circllet missing); h. 3.95 cm; w. –; decorative section: h. 2.68 cm, w. 2.8 cm; pendant: h. 2.68 cm, w. 1.00 cm; wt. 8.477 g (8.074 + 0.228 + 0.175); 2858/1 (G. 17b); [Pl. 15:2/left];

2. *Earring of the "Volhynia-Kiev" type with two pairs of joints* – silver, cast, with a smooth open-ended circllet of circular section and a decorative section composed of a raceme pendant and two pairs of joints; damaged (circllet broken into two parts); h. 3.85 cm; w. 2.71 cm; Ø wire 0.14 cm; decorative section: h. 2.71 cm, w. 2.68 cm; pendant: h. 2.71, w. 1.00 cm; wt. 9.282 g (9.078 + 0.204); S-2858/2 (G. 17b); [Pl. 15:2/right];
3. *Bracelet* – bronze, open ended, circular section, with separated and cut overlapping ends, (one end tapered); damaged (one end broken off); Ø 5.90/5.30 cm; Ø wire 0.38–0.22 cm; wt. 12.271 g; S-2859 (G. 4; De. 1.2a);
4. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered overlapping ends; Ø 7.38/6.61 cm; Ø wire 0.32–0.20 cm; wt. 12.831 g; S-2860 (G. 4; De. 1.2a);
5. *Ring with a crown* – bronze, two-part; a profiled hoop of banded section, with separated and hammered ends; decorated with a lengthwise rib between double rows of pseudo-twisted wire, on the shoulders on each side of the crown three triangularly arranged granules; damaged (crown missing); h. –; hoop: Ø 2.03/1.96 cm, w. 0.75 cm, th. 0.13 cm; w. bezel 0.95 cm; crown: –; wt. hoop 3.310 g; S-2857 (G. 38b; M. 16b).

<sup>184</sup> The *Zapiski*, no. 426/2 Sept. 1953, notes distinct dolichocephalic and dolichoskeletal traits as anthropological features.

<sup>185</sup> The attribution of the ring to the fingers of the left hand is based on the photographic documentation.



\***GRAVE 427/prehistoric** (the grave was cut into by grave 426), quadrant XIV/5b–XIV/6d. – A grave in an earthen pit (south – north, head/feet); depth –; ▼ 105.31 m; or. 180° (180° deviation from north). – Skeleton damaged (the head and upper part of the chest missing); lying on the back, legs extended, the positions of the head and arms could not be determined. – Male; length 1.14 m (preserved part of the skeleton).

*No finds.*<sup>186</sup>

*Bibliography:* VINSKI 1955, 237, 252 Fig. 7; VINSKI 1959, 101, Pl. XXXV:7; DEMO 1996, 29, 83.

\***GRAVE 428/prehistoric**, quadrant XI/5b. – A grave in an earthen pit (west – east, glave/noge); depth 0,95 m; ▼ 105.67 m (mid skeleton); or. – (deviation from north unknown). – Skeleton poorly preserved, disarranged, lying on the back, legs extended; the positions of the head and arms could not be determined. – Child (ca. 1–2 years old); length could not be determined.

*No finds.*<sup>187</sup>

*Bibliography:* VINSKI 1955, 237; VINSKI 1959, 101; DEMO 1996, 29.



**GRAVE 429**, quadrant VI/5d. – A grave in an earthen pit; depth 0.78 m; ▼ 105.75/105.65 m; or. 281° (79° deviation from north). – Damaged skeleton (skull crushed, the forearms and feet missing); lying on the back, legs extended, head straight; the forearm position could not be determined. – Child (8–9 years old); length 0.83 m.

*Finds:* A necklace with a bead (1) and a wire-pendant (2) on the right side of the head.

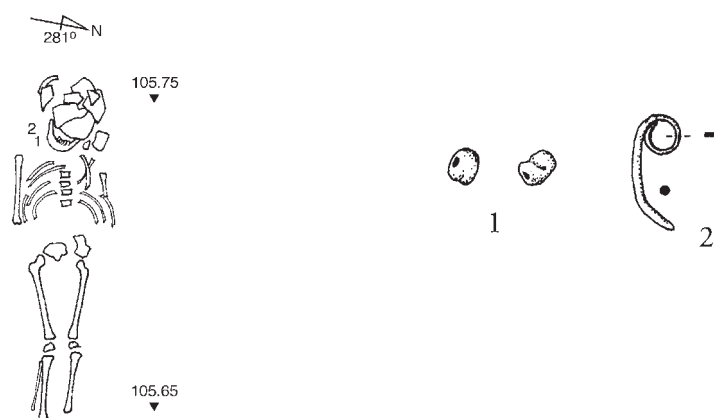
1. *Necklace of beads with a metal pendant* (3) – *glass beads* (2): grits-shaped, opaque, yellowish white; 2862 (01/14 2 12); – *metal pendant* (1): see no. 2 (wire-pendant);
2. *Wire with a spiral ending*, pendant on a necklace – bronze, circular section, one end cut, the other hammered and bent inwards in the shape of the letter O; h. 1.50 cm; Ø wire 0.13 cm; O-ending: Ø 0.50 cm; w. 0.27 cm; wt. 0.282 g; S-2861 (G. –).

**GRAVE 430**, quadrant VI/5a. – A grave in an earthen pit; depth 0.56 m; ▼ 105.87 m (mid skeleton); or. 269° (91° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk, arms, and legs incomplete); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child (1 year old); length 0.33 m (preserved part).

*No finds.*

<sup>186</sup> *Dnevnik*, ad. 1 Sept. 1953; *Zapiski*, no. 427/2 Sept. 1953.

<sup>187</sup> "In quadrant **XI/5** in field b) in the 4<sup>th</sup> excavation level a child grave east-west the bones indicate cremation, so it seems that the grave was Illyrian and that it was not completely cremated. The **grave** is no. **428**. The quadrant was excavated to the 6<sup>th</sup> excavation level" (*Dnevnik*, ad. 1 Sept. 1953).



**GRAVE 431**, quadrant VI/6d. – A grave in an earthen pit; depth 0.49 m; ▼ 105.93/105.90 m; or. 270° (90° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk, arms, and legs incomplete); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child (ca. 8 months to 1 year old); length 0.30 m (preserved part).

*No finds.*



**GRAVE 432**, quadrant VI/6a–b. – A grave in an earthen pit; depth 0.96 m; ▼ 105.47/105.38 m; or. 282° (78° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm angled upwards across the chest, the left horizontally across the stomach (v.14). – Male; length 1.70 m.

*No finds.*

**GRAVE 433**, quadrant VI/6b. – A grave in an earthen pit; depth 0.57 m; ▼ 105.91 m (mid skeleton); or. 267° (93° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk, arms, and legs disarranged); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child (ca. 1 year old); length 0.32 m (preserved part).

*No finds.*



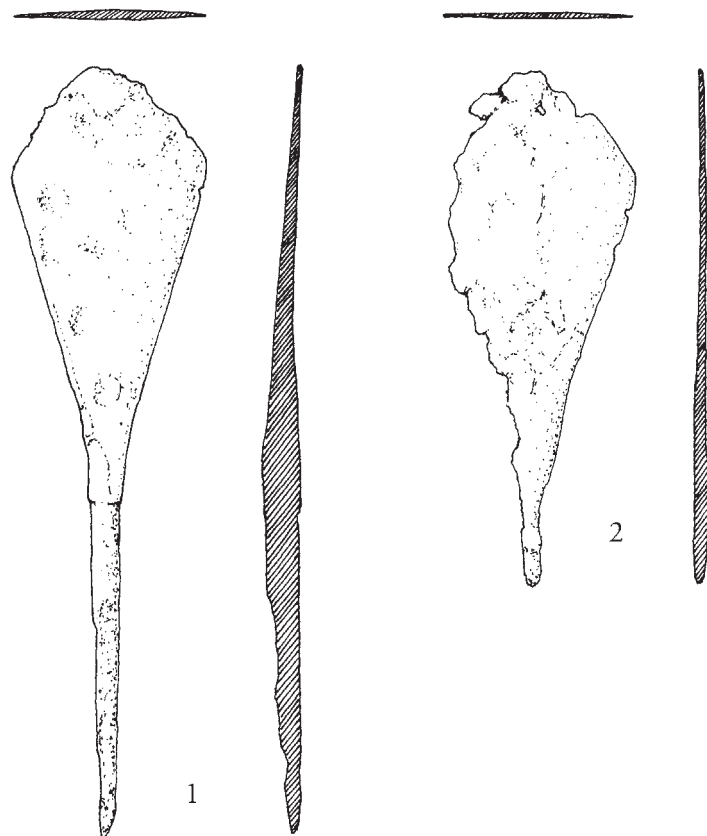
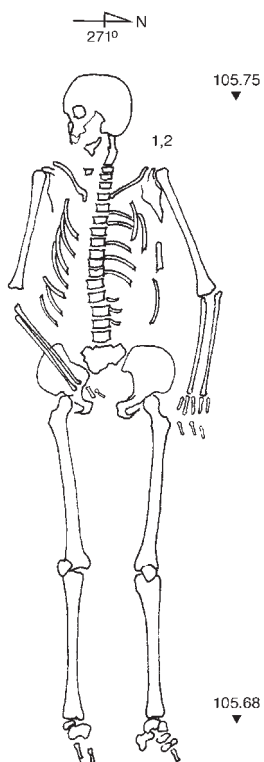
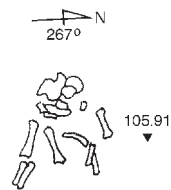
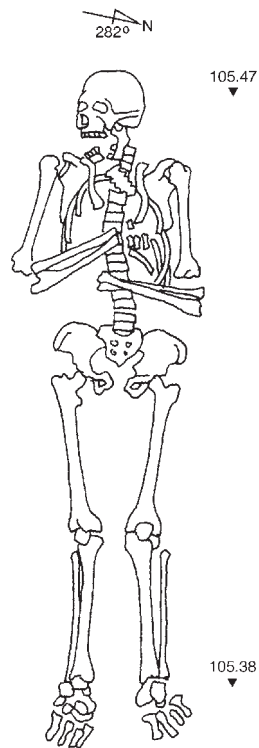
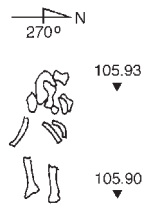
**GRAVE 434**, quadrant VI/7c–d. – A grave in an earthen pit; depth 0.76 m; ▼ 105.75/105.68 m; or. 271° (89° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm angled downwards across the abdomen, the left extended along the body (v.2). – Male; length 1.76 m.

*Finds:* Two *arrowheads* on the left side of the head (1,2).<sup>188</sup>

1. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half of the head; damaged (corroded; tip broken); l. 10.15 cm; head: l. 5.54 cm, w. 2.60 cm, th. 0.24 cm; tang: l. 4.61 cm; wt. 13.952 g; S-2863 (G. A; H 8a; To. A3; De. 1.1; Rutt. B3/Med. 52);

2. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half of the head; damaged (corroded, tip broken, part of the head and the tang missing); l. 6.80 cm; head: l. 5.33 cm, w. 2.5 cm, th. 0.21 cm; tang: l. 1.47 cm; wt. 6.544 g; S-2864 (G. A; H 8a; To. A3; De. 1.1; Rutt. B3/Med. 52).

<sup>188</sup> The *Zapiski*, no. 434/2 Sept. 1953, recorded the find of two arrows, noting that one of them had been subsequently found during removal of the skeleton.





**GRAVE 435**, quadrant V/7d–VI/7c. – A grave in an earthen pit; depth 0.82 m; ▼ 105.52/105.42 m; or. 273° (87° deviation from north). – Damaged skeleton (skull crushed, the trunk incomplete, the right upper arm missing); lying on the back, legs extended, head turned to the left; the forearms extended along the body (v.1). – Female; length 1.45 m.

*Finds:* A ring on a finger of the right hand (1) and a ring on a finger of the left hand (2).

1. *Ring* – bronze, with open ends, banded section; the cut ends of equal width overlap; the hoop is decorated with a banded zig-zag (double row of broken bands) formed from perpendicular, short, and shallowly incised lines; Ø 1.83/1.80 cm; w. 0.54 cm; th. 0.09 cm; wt. 2.130 g; S-2866 (G. 21; H. 45a);
2. *Ring with a crown* – bronze, two part; a profiled hoop of banded section, with separated and hammered ends; decorated with a lengthwise pseudo-braid between double rows of pseudo-twisted wire, on the shoulders on each side of the crown three triangularly arranged granules; a circular crown, the coronet of petal-like trimmed sheet metal, with an inset hemispherically rounded stone of dark (or dark blue) opaque glass paste; damaged (the encircling wire is missing from the crown); h. 2.43 cm; hoop: Ø 2.05/1.96 cm, w. 0.76 cm, th. 0.14 cm; w. bezel 1.03 cm; crown: Ø 1.10/1.05 cm, h. 0.48 cm; wt. 4.616 gr (hoop 3.442 gr); S-2865 (G. 38b; M. 16b).



**GRAVE 436**, quadrant VI/7c–d. – A grave in an earthen pit; depth 0.43 m; ▼ 105.89/105.83 m; or. 275° (85° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk incomplete, the left arm, right upper arm, and feet missing); lying on the back, legs extended, head straight; the forearm position could not be determined (the right forearm angled downwards across the abdomen). – Child (ca. 4–5 years old); length 0.76 m.

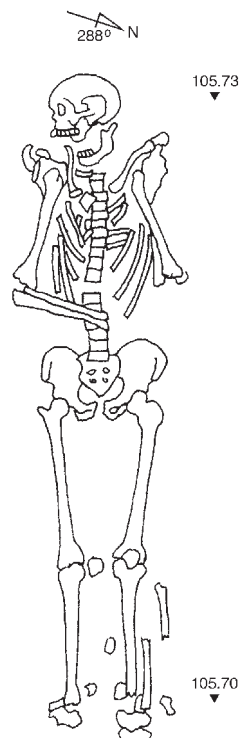
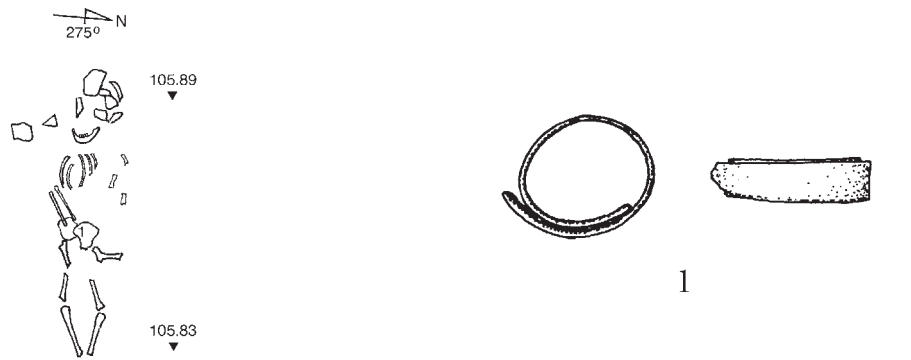
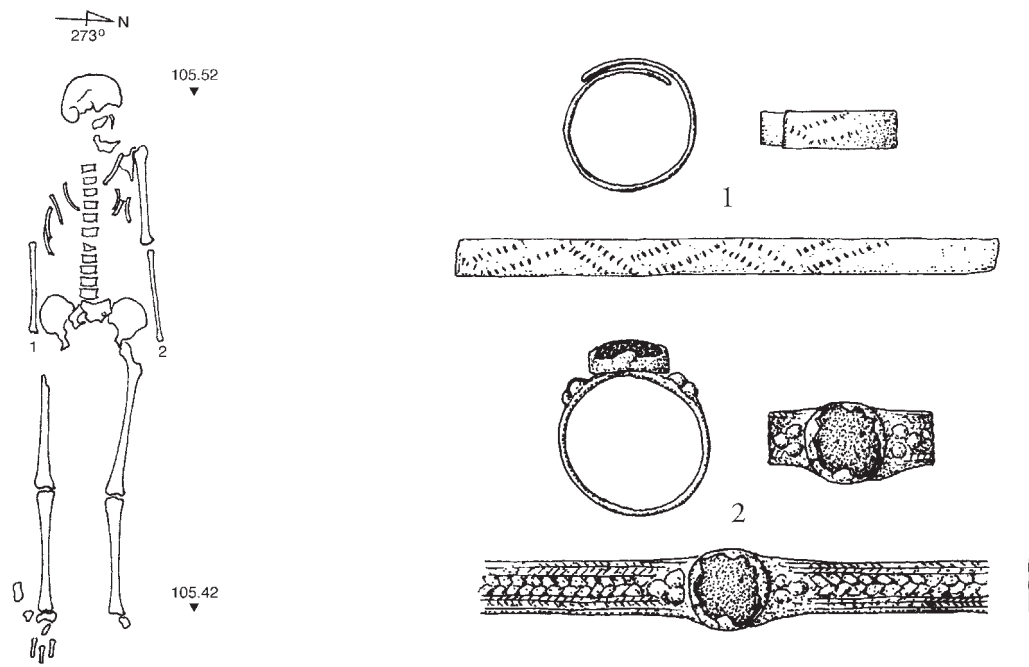
*Finds:* A ring on a finger of the right hand.

1. *Ring* – bronze, with open ends, banded section; the cut ends of equal width overlap; damaged (one end broken off); Ø 1.55/1.38 cm; w. 0.47 cm; th. 0.10 cm; wt. 1.842 g; S-2867 (G. 21; H. 45a).

**GRAVE 437**, quadrant VII/7c–d. – A grave in an earthen pit; depth 0.80 m; ▼ 105.73/105.70 m; or. 288° (72° deviation from north). – Lying on the back, legs extended, head straight; the right forearm folded horizontally across the stomach, the left bent upwards with the hand on the shoulder (v.23). – Male; length 1.65 m.

*No finds.*





**GRAVE 438**, quadrant VII/7d. – A grave in an earthen pit; depth 0.44 m; ▼ 106.13/106.07 m; or. 277° (83° deviation from north). – Poorly preserved skeleton (skull crushed, the trunk with the arms disarranged, the pelvis and the feet missing); lying on the back, legs extended, head position undetermined; the forearm position could not be determined. – Child (ca. 2 years old); length ca. 0.59 m.

*No finds.*

**GRAVE 439**, quadrant VII/7d–VIII/7c. – A grave in an earthen pit; depth 0.82 m; ▼ 105.83/105.74 m; or. 269° (91° deviation from north). – Damaged skeleton (skull crushed, the trunk incomplete, the right leg and feet missing);<sup>189</sup> lying on the back, legs extended, head turned to the right; the forearms angled downwards across the abdomen (v.7a). – Sex?; length 1.47 m.

*Find:* A *circlet* on the right side of the head (1), the position unknown for the other *circlet* (2\*).

1. *Circlet* – silver (with much lead), open-ended, circular section, cut ends?; damaged (deformed, fragment broken into three parts); Ø ca. 2.00 cm; Ø wire 0.22 cm; wt. 1.277 g; S-2868/1 (G. 13-I,6/3);
- 2.\* *Circlet*, fragment – silver (with much lead), open-ended, circular section, cut ends?; damaged (deformed, fragment broken into two parts); Ø 2.00; Ø wire 0.22 cm; wt. 0.608 g; S-2868/2 (G. 13-I,6/3).

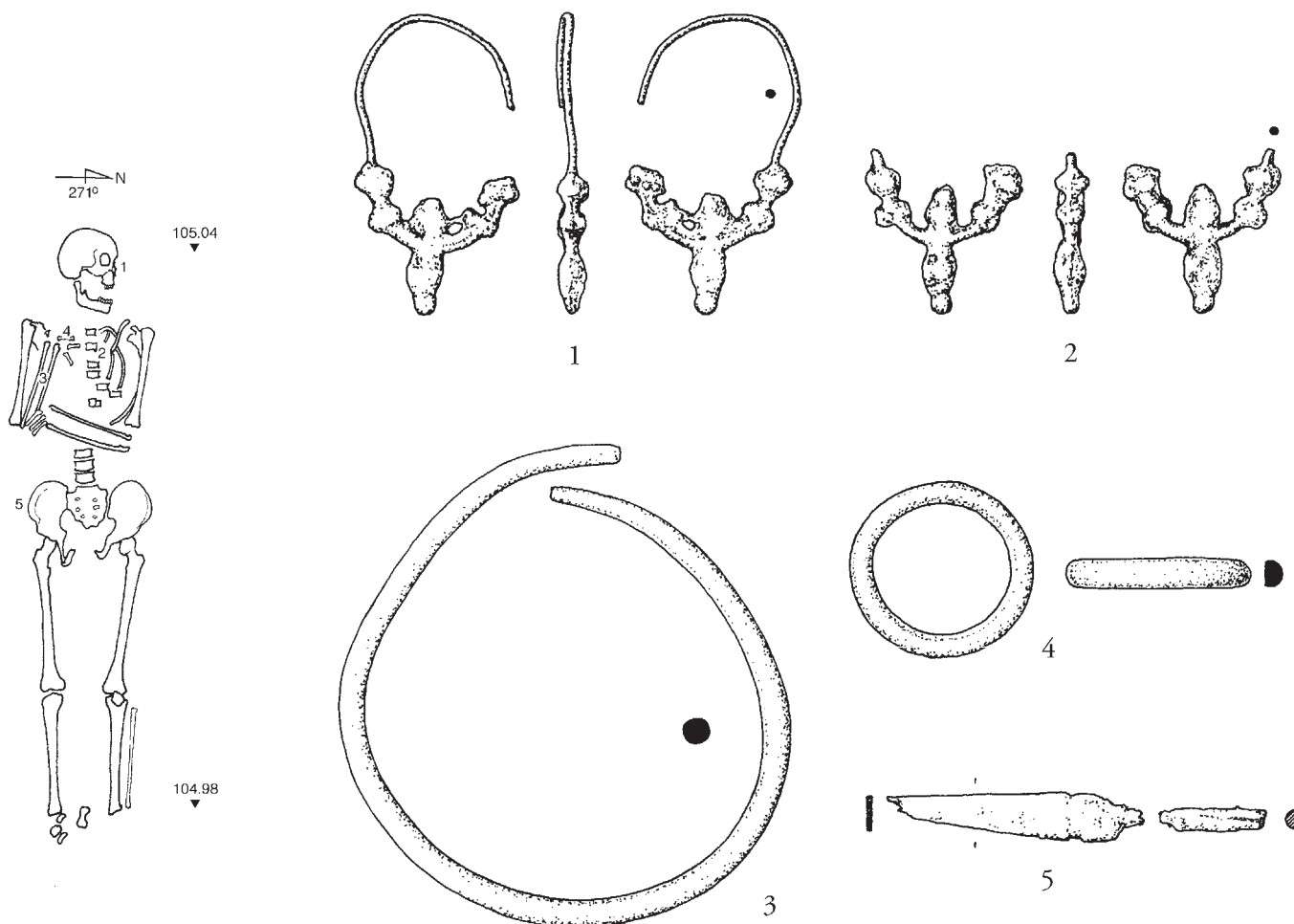
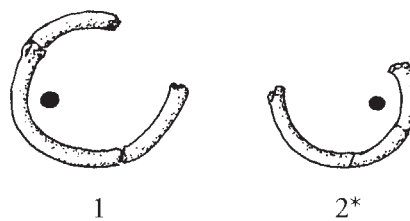
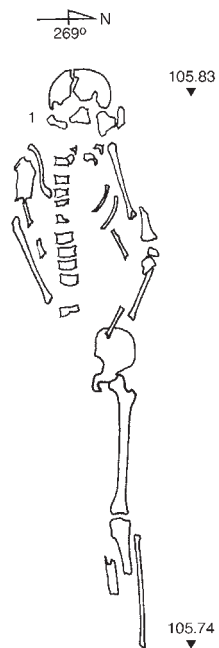
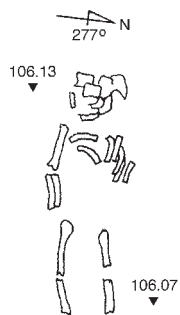


**GRAVE 440**, quadrant XV/13b–XVI/13a. – A grave in an earthen pit; depth 0.79 m; ▼ 105.04/104.98 m; or. 271° (89° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm bent upwards with the hand on the shoulder, the left angled downwards across the stomach (v.20). – Female; length 1.48 m.

*Finds:* An *earring* on the left side of the head (1), another *earring* on the chest (2), a *bracelet* on the right forearm (3), a *ring* on a finger of the right hand (4), an *awl* on the right side by the pelvis (5).

1. *Earring* with a raceme pendant and two pairs of joints – bronze, cast, with a smooth, open-ended cirlet of circular section and a decorative section composed of a raceme pendant and two pairs of joints; h. 4.15 cm; w. 2.34 cm; Ø wire 0.12 cm; decorative section: h. 2.00 cm, w. 2.36 cm; pendant: h. 1.62, w. 0.54 cm; wt. 2.885 g; S-2869/1 (G. 17b dif.); [Pl. 15:3/left];
2. *Earring* with a raceme pendant and two pairs of joints – bronze, cast, with a smooth, open-ended cirlet of circular section and a decorative section composed of a raceme pendant and two pairs of joints; damaged (cirlet missing); h. –; w. – Ø wire –; decorative section: h. 2.00 cm, w. 2.16 cm; pendant: h. 1.78 cm; w. 0.55 cm; wt. 2.455 g; S-2869/2 (G. 17b dif.); [Pl. 15:3/right];
3. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered overlapping ends; Ø 6.16/5.80 cm; Ø wire 0.35–0.28 cm; wt. 14.992 g; S-2871 (G. 4; De. 1.2a);
4. *Ring* – silver, closed hoop, semicircular section; Ø 2.48/2.42 cm; w. 0.43 cm; th. 0.35 cm; wt. 6.301 g; S-2872 (G. 31; H. 52b);
5. *Awl*, fragments (2 pieces) – iron, the point of circular section, the tang of rectangular section, narrowed towards the top (triangular); damaged (corroded; incomplete, two fragments; point incomplete, top of the tang broken); l. 5.08 cm (1.5 + 3.58); point: Ø 0.32 cm, l. 1.5 cm; tang: l. 3.58 cm, w. 0.70 cm, th. 0.25 cm; wt. 1.423 g; S-2870 (H. –).

<sup>189</sup> The skeleton was damaged during excavation of a trench extension.





**GRAVE 441**, quadrant III/12d (= trench O). – A grave in an earthen pit; depth 0.90 m; ▼ 105.12/105.06 m; or. 269° (91° deviation from north). – Lying on the back, legs extended, head turned to the left; the forearms angled downwards across the abdomen (v.7a). – Male; length 1.61 m.

*Finds:* Three *arrowheads* next to the right shoulder.<sup>190</sup>

1. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half of the head; damaged (corroded); l. 9.39 cm; head: l. 5.38 cm, w. 2.27 cm, th. 0.28 cm; tang: l. 4.01 cm; wt. 13.78 g; S-2873 (G. A; H 8a; To. A3; De. 1.1; Rutt. B3/Med. 52);

2. *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half of the head; damaged (corroded, part of the head and tang missing); l. 6.45 cm; head: l. 4.15 cm, w. 1.40 cm, th. 0.16 cm; tang: l. 2.30 cm; wt. 3.444 g; S-2874 (G. A; H 8a; To. A3; De. 1.1; Rutt. B3/Med. 52);

[3.] *Arrowhead* – iron, rhomboid head with a central rib, tang with a groove; widest span in the upper half of the head; missing (G. A; H 8a; To. A3; De. 1.1; Rutt. B3/Med. 52?).



**GRAVE 442**, quadrant III/12b (= trench O). – A grave in an earthen pit; depth 0.63 m; ▼ 105.38/105.28 m; or. 264° (96° deviation from north). – Damaged skeleton (the trunk incomplete, the right arm disarranged, the feet missing); lying on the back, legs extended, head turned to the right; the forearm position could not be determined (the left angled downwards across the abdomen). – Child (10–12 years old); length ca 1.00 m.

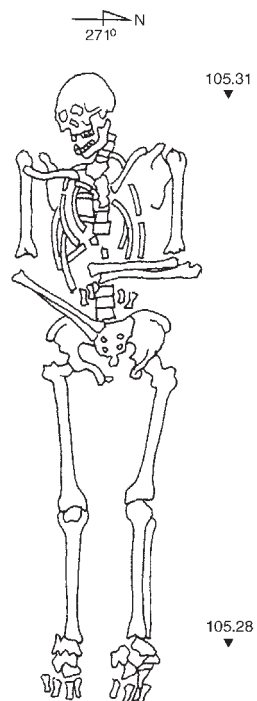
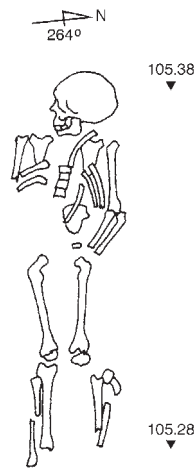
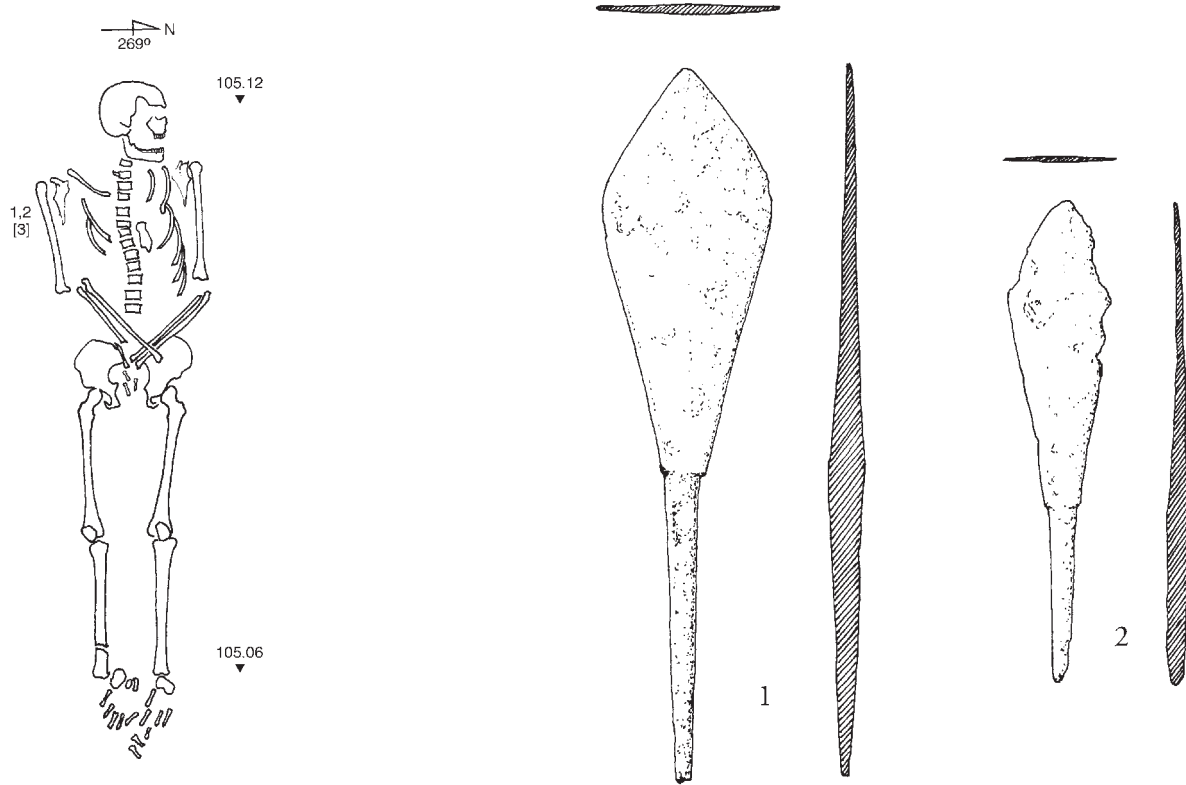
*No finds.*



**GRAVE 443**, quadrant III/12d–IV/12c (= trench O). – A grave in an earthen pit; depth 0.78 m; ▼ 105.31/105.16 m; or. 271° (89° deviation from north). – Lying on the back, legs extended, head turned to the right; the right forearm angled downwards across the abdomen, the left horizontally across the stomach (v.12). – Female; length 1.44 m.

*No finds.*

<sup>190</sup> The *Dnevnik*, ad 3 Sept. 1953, noted the find of "three iron arrowheads...", which is confirmed by the field photo documentation as well as an accompanying drawing preserved with the *Zapisnik*, no. 441/3 Sept. 1953. In the latter, however, the data was for some unknown reason subsequently modified into a find of "two iron arrows...", and as such it was later transferred and recorded in the S-AMZ (without any explanation).





**GRAVE 444**, quadrant V/9c–d (= trench P). – A grave in an earthen pit; depth 0.70 m;  $\nabla$  105.59/105.43 m; or. 277° (83° deviation from north). – Damaged skeleton (calves missing);<sup>191</sup> Lying on the back, legs extended, head straight; the right forearm angled upwards across the chest, the left folded horizontally across the stomach (v.14). – Female; length 0.98 m (preserved part).

*Finds:* A *torc* around the neck (2), a *bracelet* on the forearm of the right arm (4), another *bracelet* on the forearm of the left arm (5), a *ring* on a finger of the right hand (6),<sup>192</sup> an *awl* on the right side of the pelvis (7); while the position of discovery are unknown for the *circlet* (1\*) and *button-pendant* (3\*).<sup>193</sup>

1.\* *Circlet* – silver, open-ended, circular section, cut ends;  $\varnothing$  2.46–2.44 cm (= 7.69 cm);  $\varnothing$  wire 0.24 cm; wt. 2.476 g; S-2876 (G. 13-I,7/4);

2. *Torc* – bronze, with a hook and eye for fastening, twisted from two doubly bent wires of circular section with one inserted opposite to the other; one end of each wire is cut, the other end is wound around the necks of the hook and eye (4+1 coils); damaged, incomplete (broken into three parts, part of the eye missing);  $\varnothing$  ca. 15.85 cm;  $\varnothing$  twisted wires 0.39 cm;  $\varnothing$  wired 0.19/0.15 cm; wt. 36.638 g; S-2880 (G. 1b; De. 1.1.1.2a/nd);

3.\* *Button-pendant* – bronze, mushroom-shaped, solid, with an elongated loop for attachment; h. 1.87 cm;  $\varnothing$  0.85/0.78 cm; wt. 1.344 g; S-2878 (G. 11b dif.; H. 58d);

4. *Bracelet* – bronze, open ended, smooth hoop, circular section, with triangularly shaped snake heads on the ends, the heads decorated with impressed circles, and the necks with two perpendicular incisions, on the hoop behind one of the heads six (?) shallow perpendicular incisions;  $\varnothing$  6.90/6.25 cm;  $\varnothing$  wire 0.50 cm; wt. 26.539 g; S-2789 (G. 8 dif.; K. 1a dif.; De. 1.4); [Tab. 18:3];

5. *Bracelet* – bronze, open ended, circular section, with separated, cut, and tapered ends;  $\varnothing$  7.18/7.05 cm;  $\varnothing$  wire 0.48–0.35 cm; wt. 29.352 g; S-2875 (G. 4; De. 1.2a);

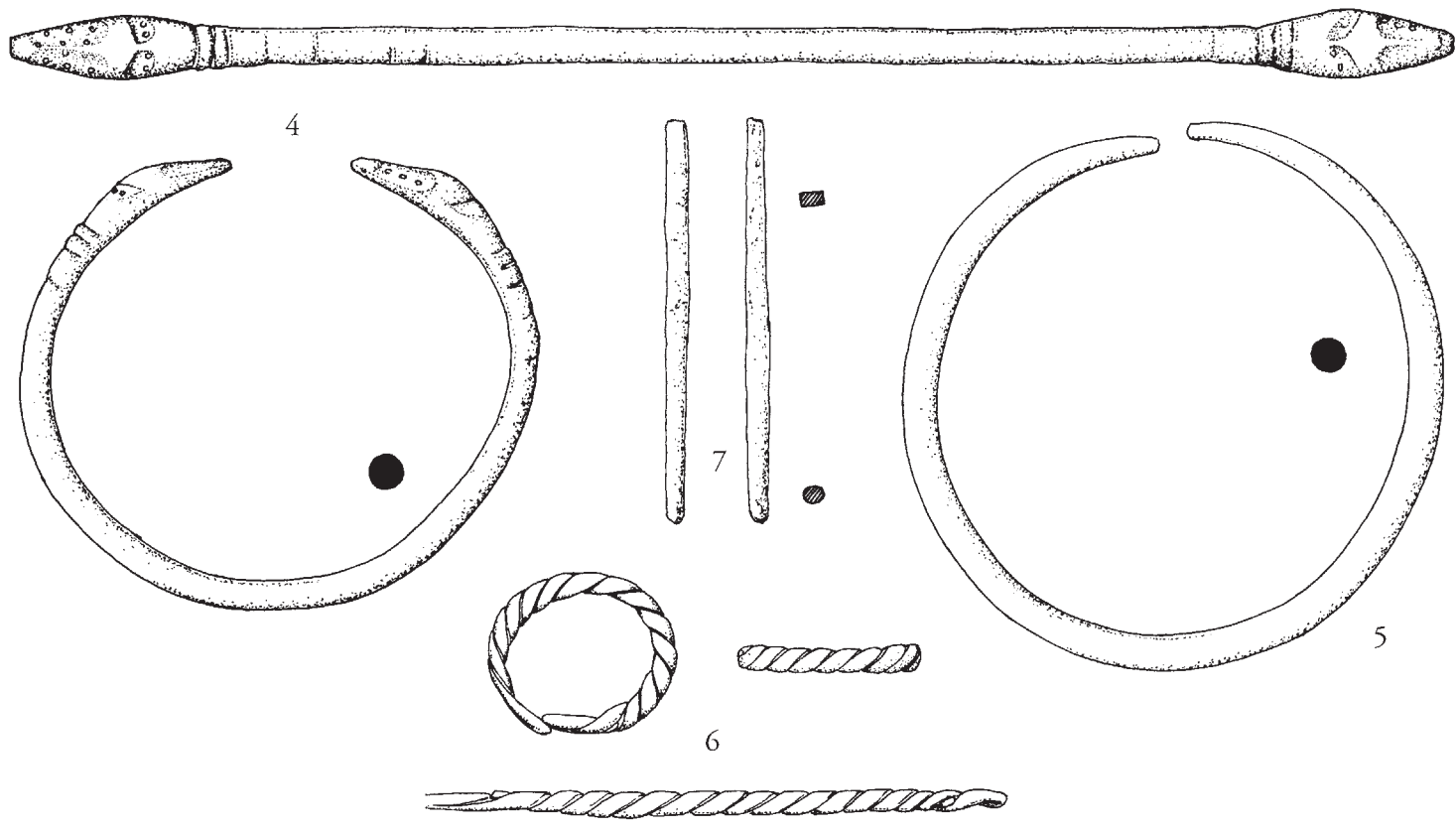
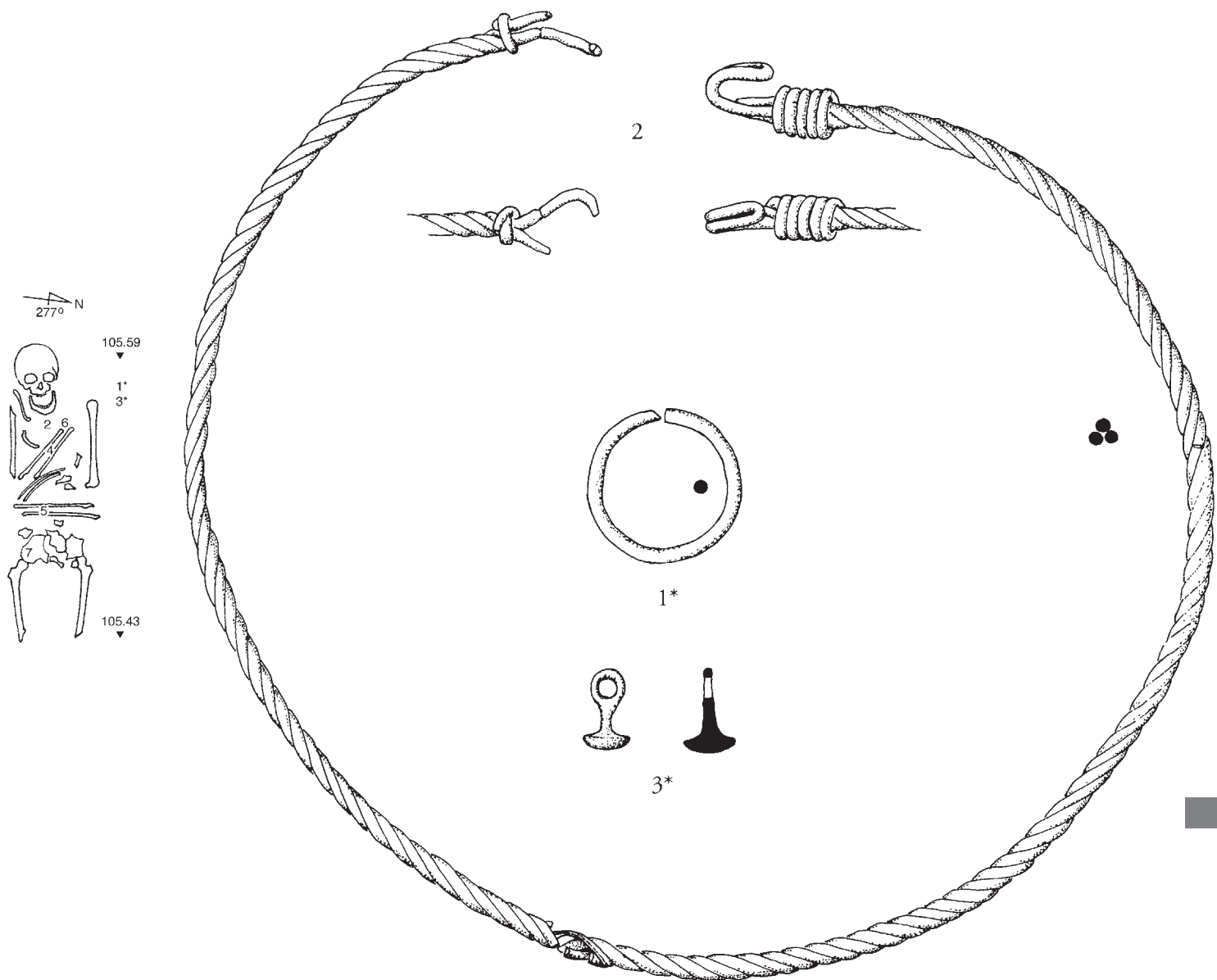
6. *Ring* – silver, with open ends, an oval section formed from three spirally twisted wires, the tapered ends overlap; two of the wires are thinned and hammered at the ends, and one is cut;  $\varnothing$  2.48/2.19 cm; w. 0.36–0.29 cm; th. 0.33–0.22 cm; wt. 4.063 g; S-2795 (G. 29); [Pl. 20:4];

7. *Awl*, fragment – iron, the point of circular section, the tang of rectangular section; damaged (corroded; incomplete, upper part of the tang broken); l. 5.43 cm; w. 0.35; th. 0.29 cm;  $\varnothing$  0.31 cm; wt. 2.192 g; S-2879 (H. –).

<sup>191</sup> *Zapisnik*, no. 444/3 Sept. 1953, mentioned in a special note that grave 444 was not excavated in entirety, i.e. "the grave was excavated from the head to halfway down the thighs (the grave was located in a yard underneath an outside hearth, and the entire grave could not be opened)".

<sup>192</sup> The attribution to gr. 444 is made on the basis of the photographic documentations in the S-AMZ the ring was assigned to gr. 379 (TOMIČIĆ 1992, 156, 160–161, 169; DEMO 1996, 90 no. 52:7).

<sup>193</sup> As finds from gr. 444 this circlet and button-pendant are mentioned only in the S-AMZ, while the field documentation offers no information whatsoever about their existence, *Zapisnik*, no. 444/3 Sept. 1953. The *Dnevnik*, ad 3 Sept. 1953, mentioned no finds at all in gr. 444, so it can only be conjectured that the mentioned objects were subsequent finds discovered only after the removal of the skeleton.



## 2.2.4. Chance finds collected during the systematic excavations in 1952–1953 (9 items)

### Quad. XI/10, 1952 – ex P-AMZ

1. *Knife* – iron, single-edged, with a tang for the handle, curved back; damaged (corroded; blade chipped); l. 11.16 cm; blade: w. 1.52 cm, th. 0.32/0.17 cm; wt. 8.945 g; S-3458 (To. A4; H. 5).<sup>194</sup>
2. *Knife*, fragment – iron, single-edged, with a tang for the handle damaged (corroded; fragment of the blade and tang); l. 3.06 cm; blade: w. 1.08 cm; th. 0.27/– cm; wt. 1.218 g; S-3459 (To. A4; H. 5).<sup>195</sup>

### Quad. VII/6d, 1953 – *Diary*, ad 31.VIII.1953<sup>196</sup>

3. *Ring with a crown* – bronze, two-part; a profiled hoop of banded section with separated and hammered ends, decorated with a lengthwise double row of pseudo-twisted wire between lengthwise ribbed thickenings; damaged (crown missing); h. –; Ø 2.11/2.06 cm, w. 0.47 cm, th. 0.14 cm; w. crown 0.73 cm; crown: –; wt. hoop 1.946 g; S-2894 (G. 38b; M. 16b).

### Quad. XII/5, 1953 – *Diary*, ad 26.VIII.1953<sup>197</sup>

4. *Circlet* – bronze, open-ended, oval section, overlapping cut ends; Ø 2.58–2.44 cm (= 7.88 cm); Ø wire 0.19 cm; wt. 1.671 g; S-2892 (G. 13-I,7/4).

### Quad. XIII/3c, 1953 – S-AMZ

5. *File*, fragment – iron, flat body, with a cut tang for the handle, body and tang of rectangular section; damaged (corroded; incomplete; broken into two pieces; part of the tang and part of the body missing); l. > 11 cm; w. 0.88 cm; th. 0.26 cm; wt. > 9.821 g; S-2895 (H. –).<sup>198</sup>

### Quad. XIII/6a, 1953 – *Diary*, ad 21.VIII.1953<sup>199</sup>

6. *Bracelet* – iron, open, circular section, separated, cut, and tapered ends; damaged (bent); Ø 3.83–3.40 cm; Ø wire: 0.39–0.27 cm; wt. 6.836 g; S-2896 (G. 4; De. 1.2a).
7. *S-circlet* – silver, circular section; damaged (part of the S-end is missing); h. –; Ø 1.76/1.59 cm; Ø wire 0.18 cm; S-w. 0.40 cm; wt. 0.710 g; S-2898 (G. II,5/2).

### Quad. XIII/6d, 1953 – S-AMZ

8. *Knife* – iron, single-edged, with a tang for the handle, straight back; damaged (corroded; blade chipped); l. 10.70 cm; blade: w. 1.17 cm; th. 0.27/0.20 cm; wt. 7.412 g; S-2897 (To. A4; H. 5).<sup>200</sup>

### No data – S-AMZ

9. *Button-pendant* – bronze, spherical, solid, with an annular relief below the circular loop for attachment; damaged (part of the loop missing); h. 1.18 cm; Ø 0.67 cm; wt. 1.293 g; S-2904 (G. 11a).

<sup>194</sup> Ex P-17730/1.

<sup>195</sup> Ex P-17730/2.

<sup>196</sup> "In quad. VII/6 d, found after removal of the bronze ring."

<sup>197</sup> "In quad. XII/5, a bronze circlet was found during filling."

<sup>198</sup> According to the position of the find in the quadrant, the file could have belonged to one of the nearby graves, e.g. gr. 253/?, 254/ch, 255/?, and 256/ch.

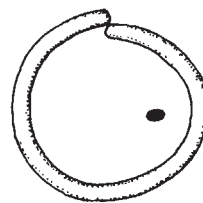
<sup>199</sup> "In quad. XIII/6 in the 4<sup>th</sup> excavation level, in field c), a skull appeared along the southern edge of the quadrant. In the field, the 4<sup>th</sup> excavation level, a circlet with an S-terminal and a small iron wheel were found. The find might belong to a grave from field a)." – Quadrant XIII/6a contained most of gr. 335/m.

<sup>200</sup> According to the position of the find in the quadrant, the knife might have belonged to one of the nearby graves (e.g. gr. 333/? or 336/?).

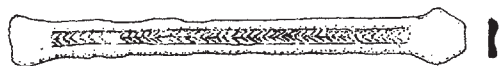




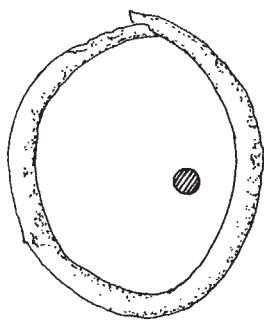
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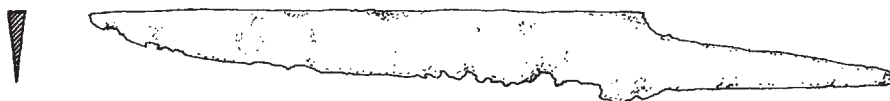
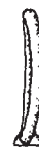
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## 2.3. CHANCE FINDS FROM GRAVES DESTROYED AT LIJEVA BARA PRIOR TO ARCHAEOLOGICAL EXCAVATIONS

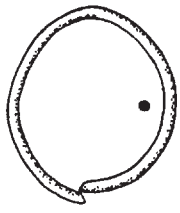
### 2.3.1. Artifacts purchased for the AMZ in 1931–1935 (31 items)

10. *Circler* – bronze, open-ended, circular section, overlapping cut ends; Ø 2.30–2.14 cm (= 6.97 cm); Ø wire 0.15 cm; wt. 1.011 g; S-2401 (G. 13-I,6/2).
11. *S-circler* – bronze, circular section, cut end; h. 1.72 cm; Ø 1.725/1.12 cm; Ø wire 0.205 cm; S-w. 0.66 cm; wt. 1.272 g; S-2402 (G. II,4/3).
12. *S-circler* – bronze, circular section, cut end; h. 2.43 cm; Ø 1.90/1.59 cm; Ø wire 0.16 cm; S-w. 0.40 cm; wt. 1.045 g; S-2403 (G. II,5/2).
13. *S-circler* – bronze, circular section, cut end; damaged (part of the S-terminal missing); h. –; Ø 1,73/1,355 cm; Ø wire 0,21 cm; S-w. –; wt. 1,134 g; S-2404 (G. II,4/3).
14. *Earring with a raceme pendant and two pairs of joints*, fragmentary – silver, filigree and granulation; on a hoop of circular section a pendant between two pairs of joints composed of seven circular flattened granules placed between smooth wires of circular section; the upper part of the pendant composed of two rows of granules arranged in horizontal rows of 1+3; the lower part of the pendant composed of four rows of granules arranged in horizontal rows of 7+1+3:1 (from above to below) with between each row a coiled band of smooth wire of circular section; between the granules of the third row of the lower part of the pendant a vertical coil of smooth wire; damaged (part of the circler and one joint missing, the other joints incomplete); h. –; w. –; Ø wire 0.18 cm; joints: Ø 0.57 cm; pendant (lower part): h. 3.21 cm; w. 1.16 cm; wt: 6.725 g S-2406–7=S-3288 (G. 17a dif).<sup>201</sup>
15. *Torc*, fragment – bronze, with a hook and eye for fastening, twisted from a single triply bent wire or from one single and one doubly bent wire of circular section; damaged (a fourth of the body and the hook for fastening missing); Ø ca. 15.50 cm; Ø twisted wires 0.37 cm; Ø wires 0.19 cm; wt. 23.531 g; S-2389 (G. 1b; De. 1.1.1.1a–3c/kn).
16. *Torc* – bronze, with a hook and eye for fastening, twisted from one triply bent wire of circular section, the ends of the wire cut; a closed loop-pendant hangs from the torc with the same inv. no.; Ø 16.25/1523 cm (fastened); Ø twisted wire 0.31 cm; Ø wire 0.14 cm; wt. 25.959 g; S-2390/1 (G. 1a; De. 1.1.1.1a/nn).<sup>202</sup>
17. *Torc*, fragment – bronze, with a hook and eye for fastening, twisted from a single triply bent wire or from one single and one doubly bent wire of circular section; the end of the wires cut; the neck of the eye wound with a separate piece of wire (5 coils); damaged (half the body and the hook for fastening missing); Ø ca. 15.63 cm; Ø twisted wires 0.38 cm; Ø wires 0.20 cm; wt. 20.011 g; S-2391 (G. 1b; De. 1.1.1.1a–3c/kun).
18. *Torc*, fragment – bronze, with a hook and eye for fastening, twisted from two doubly bent wires of circular section with one inserted opposite to the other; damaged, incomplete (deformed, most of the main section and the eye for fastening are missing); Ø ca. 16.50 cm; Ø twisted wire 0.64 cm; Ø wires 0.26 cm; wt. 33.633 g; 2392 (G. 1b; De. 1.1.1.2a/nx);
19. *Torc*, fragment – bronze, with a hook and eye for fastening, twisted from two doubly bent wires of circular section with one inserted opposite to the other; damaged, incomplete (deformed, most of the main section, hook and eye for fastening missing); Ø –; Ø twisted wire 0.70 cm; Ø wire 0.28 cm; wt. 20.843 g; S-2393 (G. 1b; De. 1.1.1.2a/nx).
20. *Torc*, fragment – bronze, with a hook and eye for fastening, twisted from a single triply bent wire or from one single and one doubly bent wire of circular section or from three single wires of circular section; the ends of the wire(s) cut, on the neck of the hook 5 wound coils made from a separate piece of circular section wire enter the extrusive hook, the tip of the hook strengthened with a double coil of thin wire; damaged (half the body and the eye for fastening missing); Ø ca. 11.82 cm; Ø twisted wire(s) 0.38 cm; Ø wire 0.17 cm; wt. 15.556 g; S-2394 (G. 1b; De. 1.1.1.1a–3c/un).<sup>203</sup>
21. *Torc* – bronze, with two hooks for fastening, of circular sectioned wire tapering towards the ends; Ø 13.96/13.00 cm; Ø wire 0.50–0.24 cm; wt. 45.260 g; S-2418 (G. –; H. 21c; De. 1.2.1.2).

<sup>201</sup> S-2406 = S-3288 (bead), S-2407 (part of a circler with joints). – For a bead without part of the circler with three joints see VINSKI 1970, 60 n. 84a, Tab. V:2.

<sup>202</sup> The torc had a suspended circler-pendant, here no. 26 (S-2390/2).

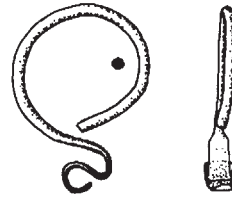
<sup>203</sup> VINSKI-GASPARINI 1954, 126, 127 (fig. 13, left).



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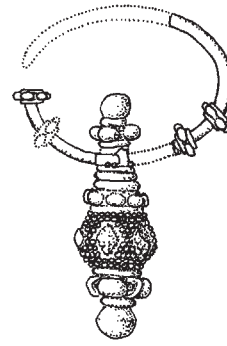
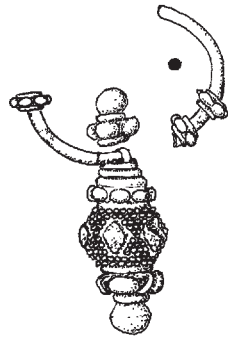
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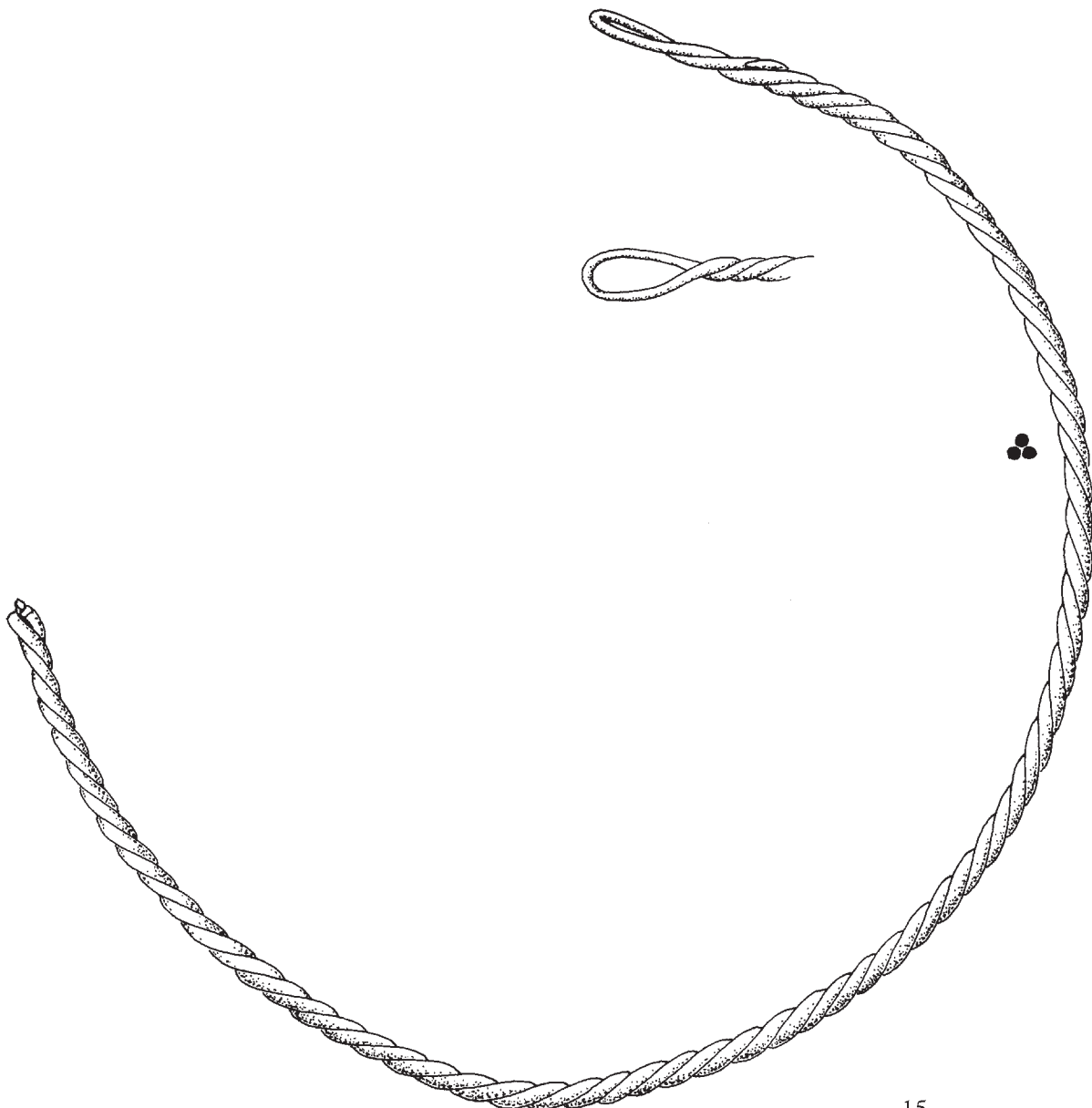
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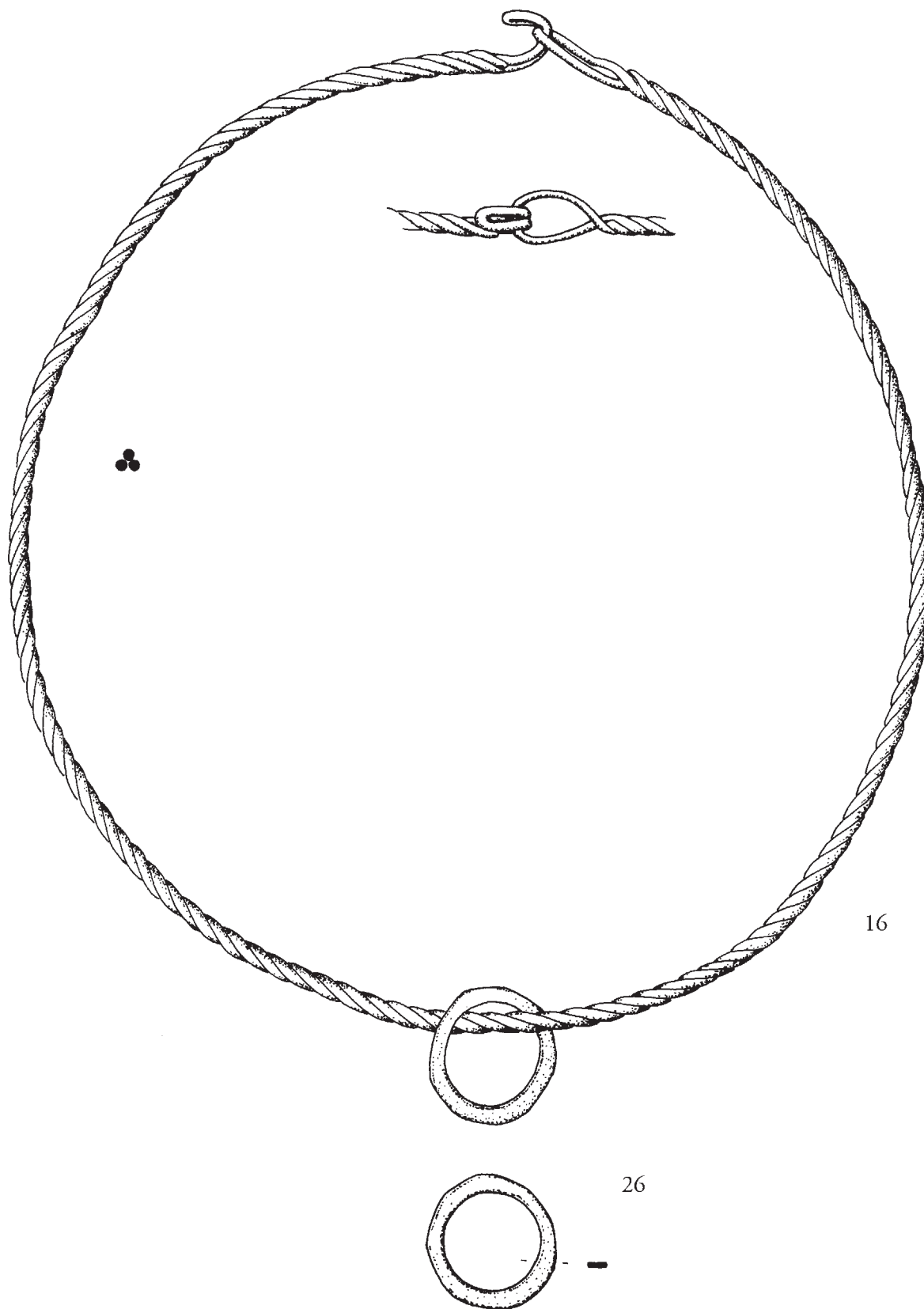
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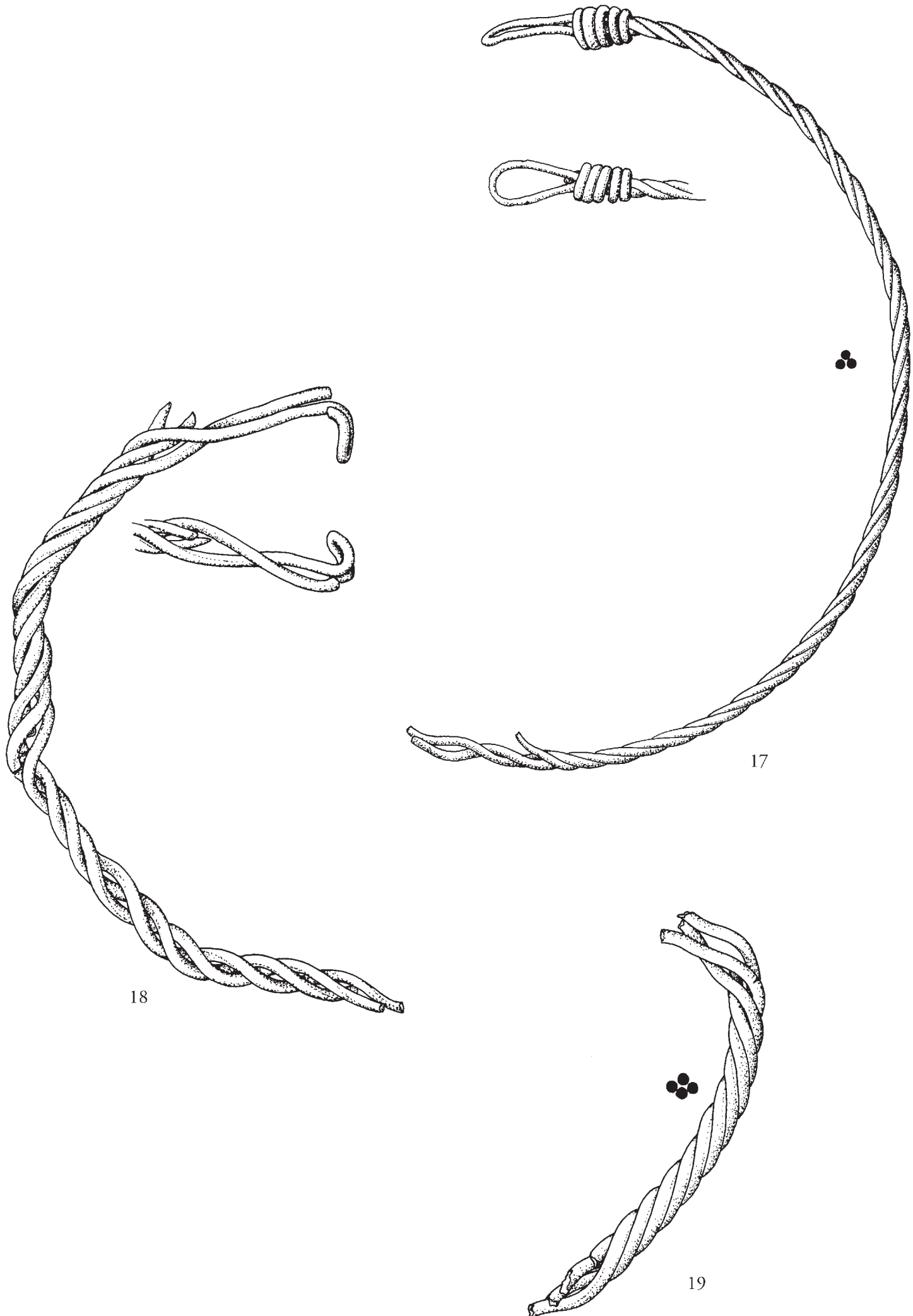
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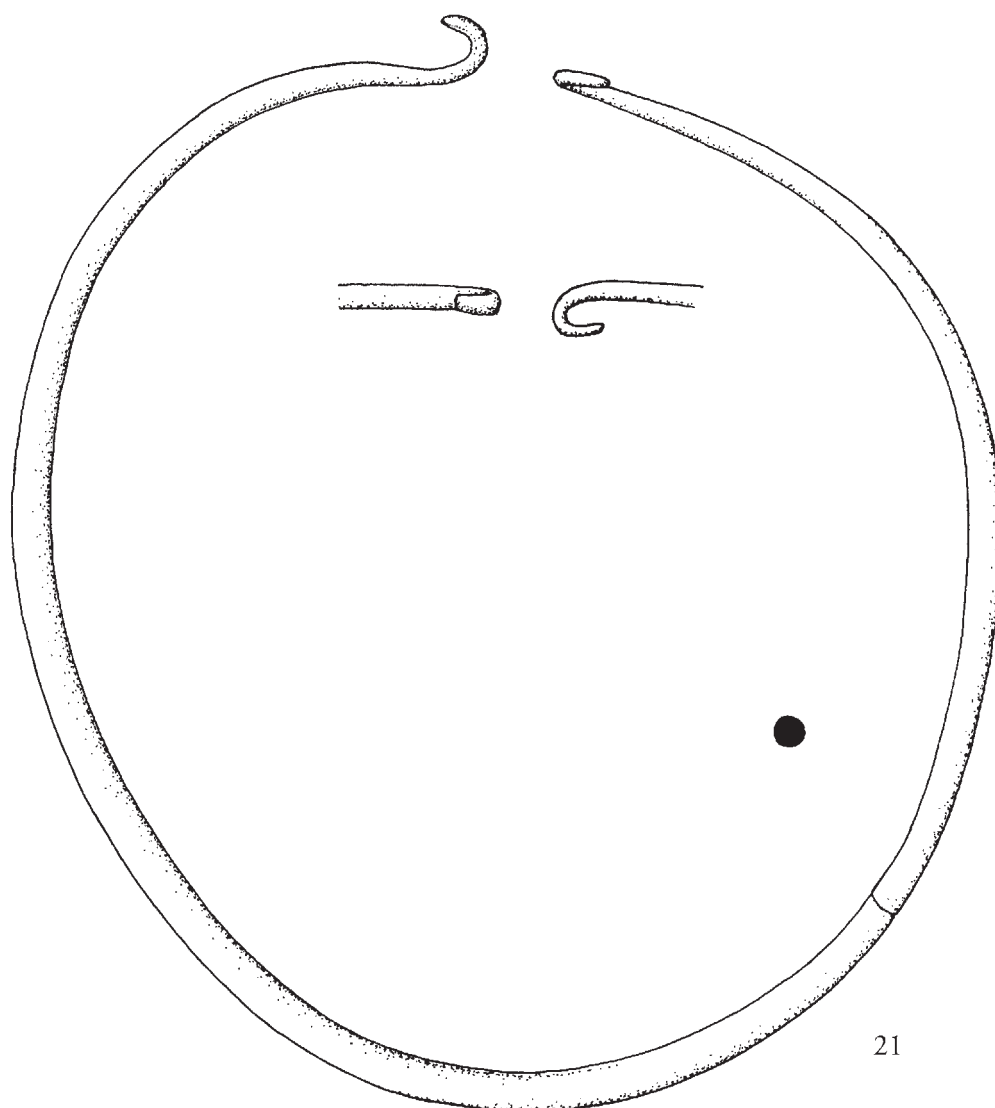
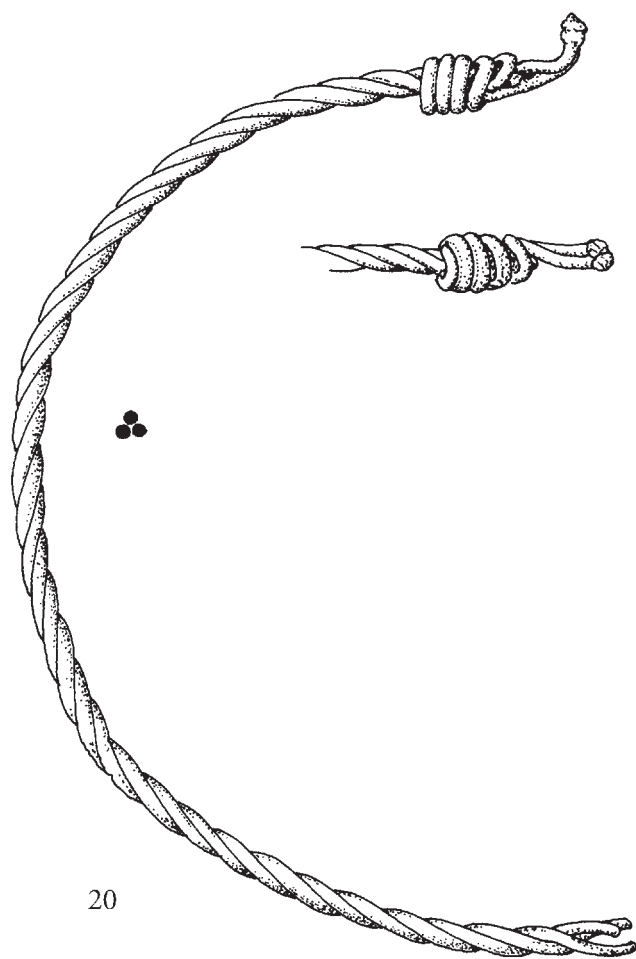


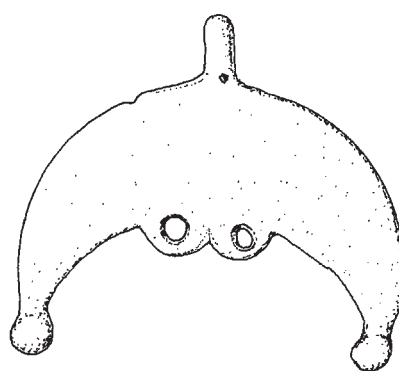
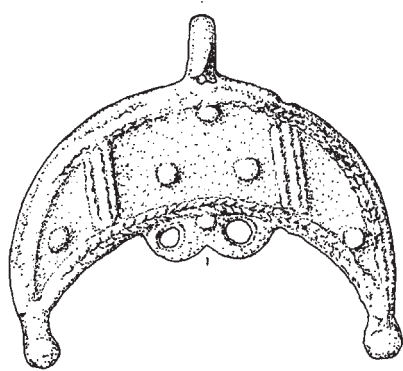
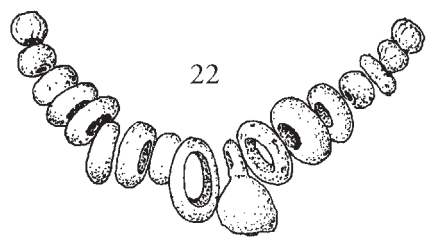
22. *Necklace of beads – glass beads (16)*: segmented, single, translucent, colored / silver coating between two glass layers (4); globular-flattened, unspecified, yellowish white (2) and honey brown (2); annular, translucent, lemon yellow (1) and cobalt blue (1); annular, unspecified, yellowish white (3) and honey brown (1); S-2410/1 (01/011 1 81/04; 01/03 4 12, 01/03 4 62; 01/11 1 21; 01/11 1 43; 01/11 4 12; 01/11 4 62).<sup>204</sup>
23. *Crescent pendant (lunula)* – silver, gilded; crescent shaped, with tear-shaped elements on each end, a ring-shaped hoop for attachment on the top and a spectacle-like addition to the bottom; the front side of the crescent was decorated, the back was smooth and unworked; two vertical triple rows of pseudo-twisted wire created three decorative fields with granules in an 1+3+1 arrangement, in the central decorative field the granules were arranged in the form of a triangle pointing upwards; the edges of the crescent were decorated with a double row of pseudo-twisted wire; a granule in the center of the upper section of the spectacle-shaped addition; h. 4.72 cm; w. 5.12 cm; wt. 10.527 g; S-2400 (G. 12; To. 12a); [Pl. 17:1–2].
24. *Globular bell-pendant* – iron, tripartite, globular, horizontally divided halves, with a banded circularly shaped loop for suspension, at the base of the lower half a cross-shaped incised opening; in the interior a green stone circular bead; damaged (corroded, bottom chipped); h. 2,40 cm; Ø 2,00 cm; wt. 4,135 g; S-2408 (V. V/53).
25. *Globular bell-pendant* – bronze, two-part, pear-shaped, with a circular loop for suspension, identical halves perpendicularly divided, the lower part of the bell oval in plan; the base of the halves divided into two fields by an elongated transverse incision; on the walls a triple row of incised horizontal lines, on the base fields of four rows of transverse incised lines; damaged (halves separated, part of the loop for suspension broken, the bead for producing sound missing); h. 2.10 cm; l. 1.58 cm; w. 1.25 cm; wt. 4.123 g; S-2413 (G. 10; To. 10a).
26. *Hoop, pendant on a torc (secondary use: prehistoric; late Bronze Age/early Iron Age)* – bronze, closed hoop, circular, banded section; Ø 2.27/2.15 cm; band: w. 0.33–0.25 cm; th. 0.13 cm; wt. 1.228 g; S-2390/2 (G. –).<sup>205</sup>
27. *Bracelet* – bronze, circular section, with separated ends, one cut, the other tapered; Ø 5.23/4.77 cm; Ø wire 0.39–0.29 cm; wt. 11.703 g; S-2395 (G. 4; De. 1.2a).
28. *Bracelet, fragment* – bronze, semicircular section; damaged (two thirds missing); Ø –; wt. frag. 4.198 g; S-2396 (G. 4; De. 1.2b).
29. *Bracelet* – bronze, of three-ply twisted wire; damaged (hook missing); Ø 8.20/7.80 cm; Ø wire 0.26 cm; Ø wire 0.15 cm; wt. 9.382 g; S-2419 (G. 5).<sup>206</sup>
30. *Ring* – bronze, open-ended, arched section, cut ends of equal width; the band is decorated along the entire length: four wavy bands between a single row of short slanted lines on each edge; Ø 2.34/2.25 cm; w. 0.58 cm; th. 0.31 cm; wt. 4.729 g; S-2397 (G. 24).
31. *Ring* – bronze, open-ended, circular section, narrowed and rounded ends; Ø 2.61/2.41 cm; Ø wire 0.44–0.33 cm; wt. 5.932 g; S-2398 (G. 26).
32. *Ring with a crown* – bronze, two-part; a profiled band with a strap-like section, separated and hammered ends; decorated by a lengthwise rib between double rows of pseudo-twisted wires; on the shoulders on each side of the crown three triangularly arranged granules; damaged (the crown missing); h. –; hoop/ring Ø 2.45/2.18 cm, w. 0.78 cm, th. 0.14 cm; w. crown 0.96 cm; crown –; wt. 5.417 g; S-2399 (G. 38b; M. 16b).
33. *Two-part pendants, 4 examples – upper part*: bronze, circular, domed platelet with an elongated, banded, semi-circularly bent hook in the lower part; the platelet has a profiled edge, with alternate relief and undecorated, concentrically arranged, and gradually raised zones around the central convex protrusion; the reverse has two soldered hooks for attachment by sewing, horizontally arranged, oppositely turned, semi-circularly bent, and thinned towards the ends; one example damaged (missing hooks); l. 2.23–2.12 cm; w. 1.68–1.61 cm; h./1 0.50–0.48 cm; h./2 0.60–0.56 cm; *lower part*: bronze, heart-shaped plate with profiled edges, with a teardrop-shaped terminal in the lower section and a raised semicircular hoop for hanging in the upper section; in the center of the plate, an upright row of egg-and-darts enclosed by three rows of rounded egg-and-darts; h. 2.84–2.67 cm, w. 1.64–1.60 cm, h. 0.155–0.120 cm; wt. two-part pendants 2.918–2.575 g (total wt. 10.845 g); S-2414/1–4 (G. 9b; D. 13; B. I/a).

<sup>204</sup> On the same wire with the beads is a button-pendant, no. 40 (S-2410/2).

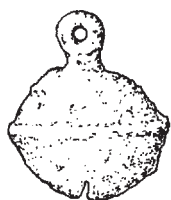
<sup>205</sup> It was found hanging on a torc, here no. 16 (S-2390/1).

<sup>206</sup> The bracelet bears an attached piece of paper with the name Doriath and the year of acquisition, 1931.





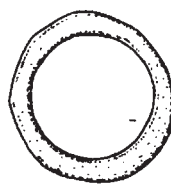
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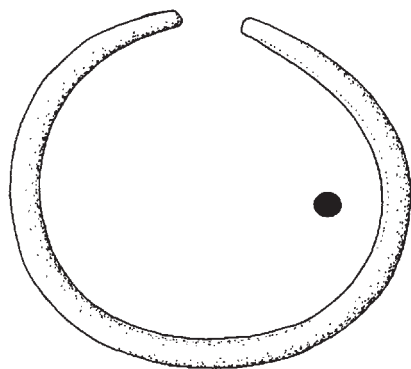
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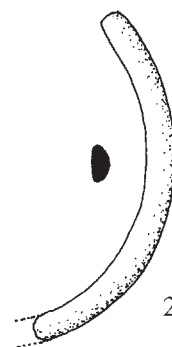
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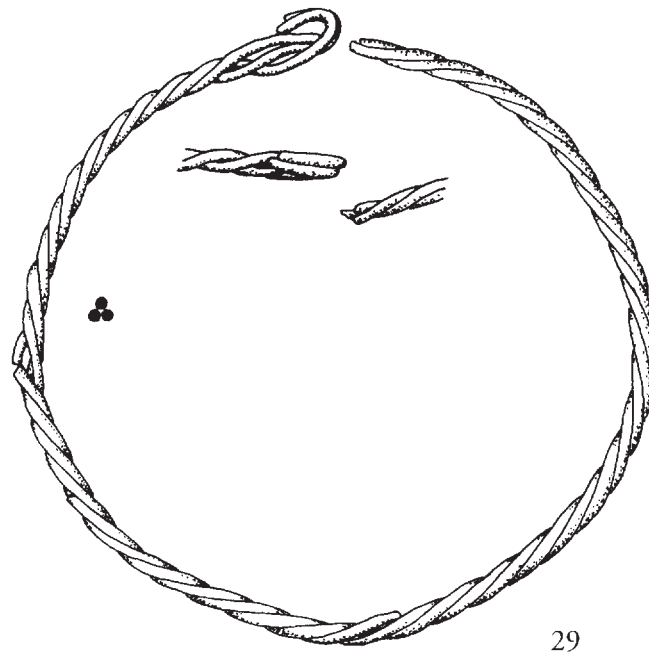


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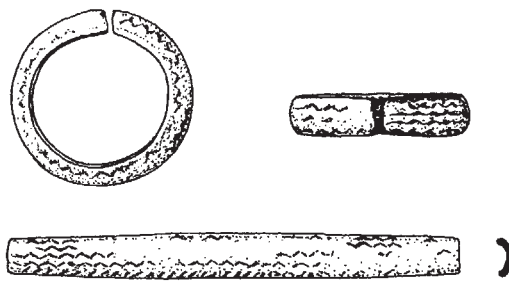


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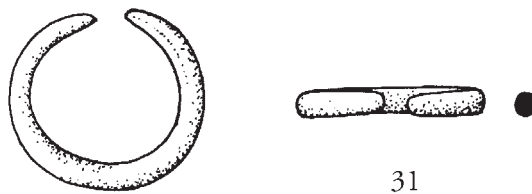




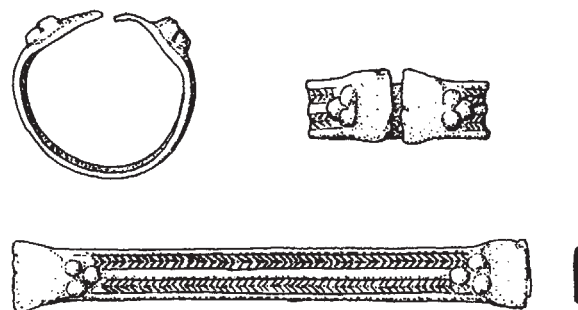
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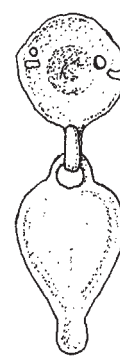
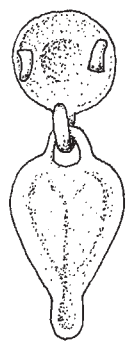


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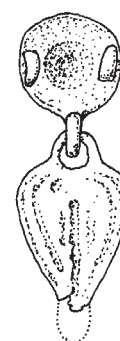
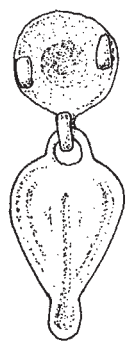
32

34. *Two-part pendants, lower parts*, 5 examples – bronze, heart-shaped plate with profiled edges, with a teardrop-shaped terminal in the lower section and a raised semicircular hoop for hanging in the upper section; in the center of the plate, an upright row of egg-and-darts enclosed by three rows of rounded egg-and-darts; l. 2.91–2.77 cm; w. 1.68–1.60 cm; h. 0.135–0.125 cm; wt. 1.576–1.223 g (total wt. 7.124 g); S-2415/1–5 (G. 9b; D. 13; B. I/a).
35. *Two-part pendants, upper parts*, 5 examples – bronze, circular, domed platelet with an elongated, banded, semicircularly bent hook in the lower part; the platelet has a profiled edge, with alternate relief and undecorated, concentrically arranged, and gradually raised zones around the central convex protrusion; the reverse has two soldered hooks for attachment by sewing, horizontally arranged, oppositely turned, semicircularly bent, and thinned towards the ends; damaged (broken hooks in the lower section of the pendants; broken hook for attachment on one pendant); l. 1.72–2.02 cm; w. 1.46–1.39 cm; h./1 0.50–0.43 cm; h./2 0.71–0.60 cm; wt. 1.223–1.067 g; S-2416/1–5 (G. 9b dif.).
36. *Two-part pendants, upper parts*, 4 examples (secondary use) – bronze, circular, domed platelet with an elongated, banded, semicircularly bent hook in the lower part; the platelet has a profiled edge, with alternate relief and undecorated, concentrically arranged, and gradually raised zones around the central convex protrusion; on the reverse, soldered in a horizontal arrangement two hooks for attachment by sewing, banded, parallel, semicircularly bent, thinned towards the ends; two subsequently perforated holes for attachment on the platelet; damaged (broken hooks in the lower section of the pendant, attachment hooks broken on three pendants, subsequent perforation); l. 1.90–1.83 cm; w. 1.48–1.45 cm; h./1 0.47–0.52 cm; h./2 0.66 cm; wt. 0.983–0.943 g; S2416/6–9 (G. 9b dif.).
37. *Two-part pendants, upper parts*, 2 examples (secondary use) – bronze, circular, domed platelet with an elongated, banded, semicircularly bent hook in the lower part; the platelet has a profiled edge, with alternate relief and undecorated, concentrically arranged, and gradually raised zones around the central convex protrusion; on the reverse, soldered in a horizontal arrangement two hooks for attachment by sewing, banded, facing opposite directions, semicircularly bent, thinned towards the ends; on the right side of one platelet, one subsequently perforated hole for attachment by sewing; damaged (broken hooks in the lower section of the pendant, attachment hooks missing, subsequent perforation); l. 1.52–1.31 cm; w. 1.41–1.30 cm; h./1 0.52–0.50 cm; h./2 0.78 cm; wt. 1.267–0.873 g; S-2416/10–11 (G. 9b dif.).
38. *Spangle* (secondary use) – bronze, square, domed, with a perpendicular row of two antithetically placed owl heads, depicted like pairs of globular elements separated by transverse triangular extrusions, placed around the central convex protrusion; on the reverse, horizontally arranged, were soldered two perpendicularly raised platelets with perforated holes for attachment by sewing; on one of the globular elements a hole was subsequently drilled for attachment by sewing; damaged (platelets missing, subsequently perforated); dim. 1.92/1.86 cm; h. 0.72 cm (with platelets ca. 1.00 cm); wt. 4.159 g; S-2411 (G. –; H. –).
39. *Spangle* – bronze, circular, domed, with a banded profiled edge and a relief banded zone around the central convex protrusion; on the reverse, horizontally arranged, were soldered two hooks for attachment by sewing, banded, semicircularly bent, facing in opposite directions; damaged (deformed, cracked); Ø 1.93/1.86 cm; h./1 0.72 cm; h./2 0.89 cm; wt. 2.378 g; S-2412 (G. –; H. –).
40. *Button-pendant* – bronze, spherical, hollow, two-part, with a circular loop for attachment, identical halves divided vertically; damaged (half missing); h. 1.93 cm; 0.95 cm; wt. 0.804 g; S-2410/2 (H. 59).



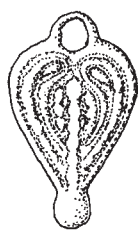
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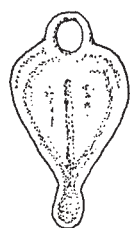
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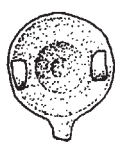
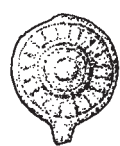


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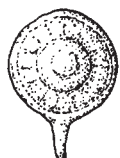
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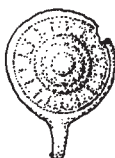
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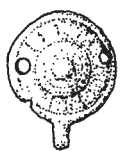
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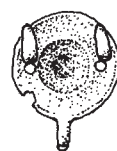
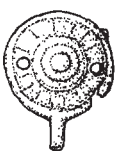
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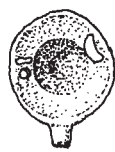
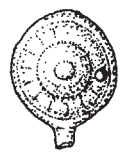
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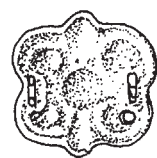
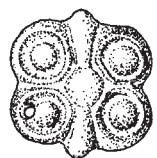
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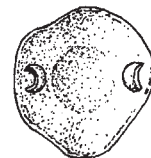
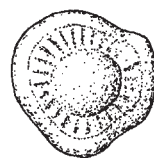
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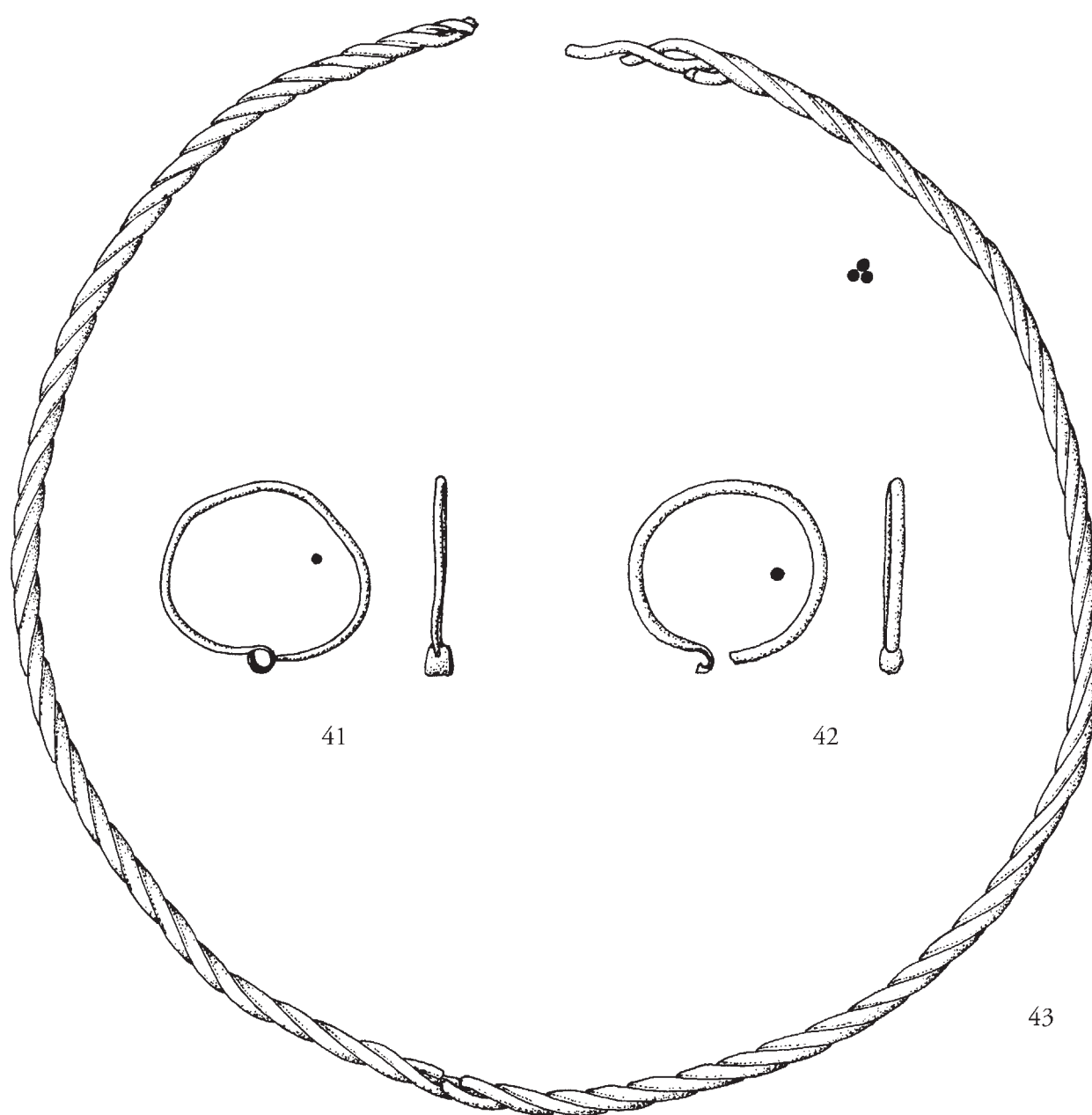
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40

## 2.3.2. Chance finds from Vukovar 1880–1886 (donated by the noble Aleksandar Krajčović<sup>207</sup>)

41. *O-circllet* – bronze, circular section, cut end; h. circllet: 2.82 cm; Ø circllet: 3.06/2.86 cm; Ø wire: 1.55 cm; wt. 1.278 g; S-2386 (G. I,9/2).
42. *S-circllet* – bronze, circular section, cut end; damaged (part of the S-ending is missing); h. 2.90 cm; Ø 2.83/2.75 cm; Ø wire 0.21 cm; S-w. –; wt. 2.003 g; S-2387 (G. I,8/3).
43. *Torc*, fragment – bronze, with a hook and eye for fastening; from a single triply bent and twisted wire or from one single and one doubly bent and twisted wires or from three single twisted wires of circular section; damaged (broken into two parts; the hook and eye missing); Ø ca. 17.00/16.50 cm; Ø twisted wires 0.38 cm; Ø wires 0.19 cm; wt. 29.351 g; (G. 1b = De. 1.1.1.1–3a–c/n).



<sup>207</sup> The noble Aleksandar Krajčović / Alexander pl. Krajcovichs (Ilok, 26.04.1832–Zagreb, 03.04.1905), apothecary and major of the market-town of Vukovar (1879–1891), and a representative in the Croatian Parliament (1892–1897, 1897–1901, 1901–1905). Together with the lawyer Dr. Aleksandar Peičić in 1895 he took over the weekly newspaper in Vukovar *Srijemske novine*. (HORVAT 1924, 285, 286, 288, 289). From 1880 to 1886 he was a supporting member and trustee of the Croatian Archaeological Society in Vukovar (DEMO 1996, 17, 110).



Musei  
Archaeologici  
Zagrabiensis  
Catalogi et  
Monographiae

RANOSREDNJOVJEKOVNO GROBLJE BJELOBRDSKE KULTURE:

# VUKOVAR

## – Lijeva Bara

(X–XI. stoljeće)

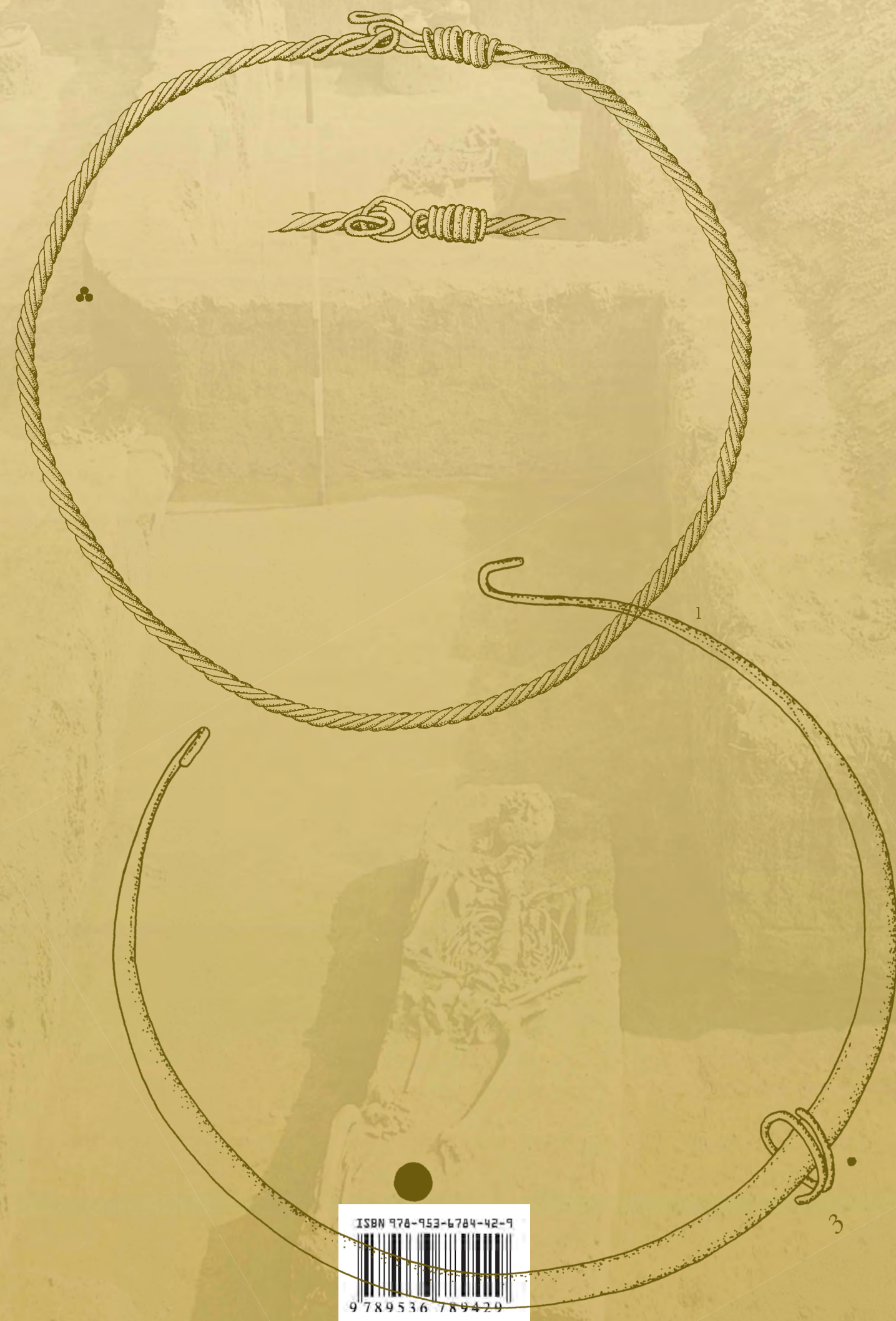
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VUKOVAR  
– Lijeva Bara (X–XI. stoljeće)

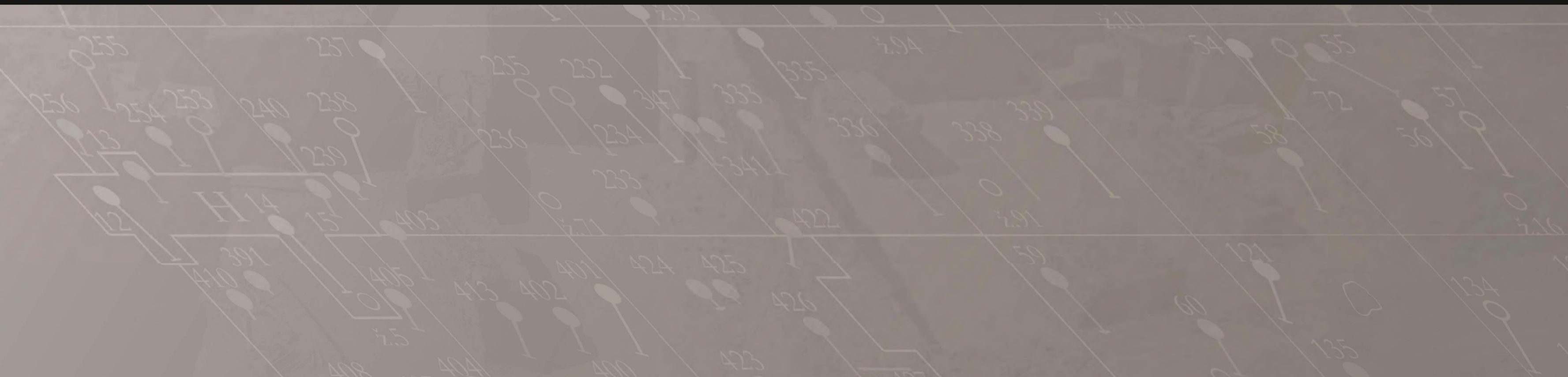
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Vol.

Musei Archaeologici Zagrabiensis Catalogi et Monographiae







# 3. THE BURIAL RITE

## 3.1. Surface marking of the graves

Although it is generally believed that the surface marking of early medieval graves encompassed first of all the formation of a small mound of elongated shape in a size similar to the grave pit, followed only occasionally and in some places by one or two wooden beams, poles, or planks being driven into the ground near the head or feet of the deceased,<sup>1</sup> the early medieval graves at Lijevo Bara offered no direct confirmation whatsoever for any such marking. An indirect indicator of the existence of some form of grave markers would be the quite frequent identical orientation of graves buried in the immediate vicinity of one another or even directly adjacent, but also certain other common indicators of recognition of the site of a previous burial are not lacking, such as super-positioned burials, i.e. subsequent burial in the same grave pit (gr. 36/? and 88/ch) or even subsequent disturbance to the body of the deceased because of fear of vampirism (gr. 363/!).

## 3.2. Grave pits

387

### 3.2.1. Forms of grave pits

The grave pit was most often described in the field documentation as "*a simple earthen grave that does not differ from the surrounding soil*", and since no trace of the grave pits could be distinguished in the soil<sup>2</sup> even today nothing more can be said about their existence or possible form.

### 3.2.2. Measurement data

#### 3.2.2.1. The length and width of the grave pits

The same conditions meant that it was not possible to determine even the basic dimensions of the grave pits. The only exception is the data noted for grave gr. 97/m?, where the outlines of its grave pit were recognizable and measured. The recorded length and width of the grave with the approximate dimensions of ca. 169 x 60 cm was barely sufficient for the burial of the deceased (length of the skeleton 160 cm).<sup>3</sup> Considering the noted relative depth of the grave (80 cm), the volume of this grave pit measured around 0.768 m<sup>3</sup>.

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<sup>1</sup> HANULIAK 1990, 152 (with earlier literature about this problem). Along with frequently mentioned examples of marking graves with a wooden beam, pole, or plank from Poland (*Lutomiersk 1*, gr. 15), Hungary (*Halimba – Ceres*, gr. 324 and 325) and Austria (*Tulln – Schottergrube Göbl*, gr. 13), for a more recent example of marking a grave with a pole thrust into the earth not far from the head of a deceased individual at the cemetery of Malé Kosihy – Horné Konopnice in Slovakia, see HANULIAK 1994, 11 s., Pl. XXXV:A (gr. 153).

<sup>2</sup> VINSKI 1955, 238.

<sup>3</sup> *Zapismik*, no. 97/5 Sept. 1952.

### 3.2.2.2. The depth of the grave pits

The absolute depth measured according to mean sea level was measured and recorded in the grave log for only 86 medieval<sup>4</sup> and 1 prehistoric skeleton grave (gr. 202p/f), i.e. for somewhat less than 20% of all excavated skeleton graves.<sup>5</sup> Such a small amount of recorded data means that the absolute depths did not acquire the level necessary to be statistically valid.

The relative depth was measured in 435 early medieval graves (99.32%),<sup>6</sup> and it varied in a range of exactly one meter, i.e. from the most shallow grave found at a depth of only 15 cm (gr. 270/?) to the deepest found at a depth of 115 cm (gr. 218/f).<sup>7</sup> The relative depth of the early medieval burials measured on average 68.64 cm, and almost the same measurement (68.62 cm) was taken for the average depth of eight from the total of nine prehistoric skeleton graves recorded at Lijeva Bara (Table 3).<sup>8</sup>

**Table 3**

The depth of the graves (relative) according to groups and the sex of the deceased.

Group depth	Range of depth (cm)	Graves		No. of graves acc. to the sex of the deceased			
		no.	%	male	female*	child	unknown
1.	15–25	3	0.69	–	–	2	1
2.	26–35	12	2.76	–	–	7	5
3.	36–45	39	8.97	6	4	21	8
4.	46–55	63	14.48	11	10	30	12
5.	56–65	79	18.16	24	14	35	6
6.	66–75	82	18.85	25	29	22	6
7.	76–85	69	15.86	28	28	8	5
8.	86–95	54	12.41	23	21	5	5
9.	96–105	22	5.06	9	6	2	5
10.	106–115	12	2.76	6	3	1	2
Relative depth of graves – known:		435	100.00 / 99.32	132	115	133	55
Relative depth of graves – unknown:		3	0.68	1	–	1	1
<i>Total graves:</i>		438	100.00	133	115	134	56

[\* Gr. 208-1,2/f,ch (double grave of mother and child) was placed among the female graves; depth 72 cm]

Adult individuals in the early medieval graves at Lijeva Bara were usually buried more deeply, so that skeletons of male and female deceased individuals were most often found at a depth between 56 and 95 cm, and the skeletons of children at a depth between 36 and 75 cm. The average relative depth of the graves of adult individuals of different sexes did not exhibit any major variation, as it ranged between 74.34 cm for male burials and 75.37 cm for female ones, while the burials of children were on average somewhat less than 20 cm shallower (Table 4). In terms of this, it can be noted that this does not match the lowest minimum standard of hygiene, which is considered a burial at a depth of no less than 80 cm,<sup>9</sup> and the cemetery at Lijeva Bara even in this detail corresponds to the pattern of the relatively shallow burial of the deceased usual for row cemeteries from the second half of the 10th century onwards.<sup>10</sup> The average relative depth, however, most probably corresponds to some early medieval measurement for depth (ell, foot, and so forth) whose proportions today remain poorly known, but in their heyday would definitely have been utilized for the burial of the deceased.

The deepest graves, both individually and on average, were found in the southern and southeastern parts of the cemetery, where they were protected from adverse weather conditions by the lay of the land, which gently rises from the north to the south. In the course of time, whether through water activity or wind, additional loess soil was deposited, which was certainly aided by the prevailing winds from the northern quadrant in the Vukovar region, in frequency most often as winds

<sup>4</sup> Graves 79, 94, 104–105, 115–116, 118–119, 121–132, 134–143, 145–146, 148–156, 158–191, 194–201, 203–205.

<sup>5</sup> These were mostly graves excavated during the second campaign, specifically in the period from 12–19 Sept. 1952.

<sup>6</sup> The relative depths were not recorded in the field documentation and remain unknown today for gr. 312/m, 393/ch, and III-51/?.

<sup>7</sup> Both graves are located in the northeastern part of the cemetery.

<sup>8</sup> Prehistoric graves were discovered at depths that varied between 33 cm (gr. 202p/f, with finds), and 118 cm (gr. 320p/f, with finds). The depth is unknown for prehistoric gr. 427p/? (no finds).

<sup>9</sup> HRUBÝ 1955, 56.

<sup>10</sup> HANULIAK 1990, 153 fig. 3.

from the northwest and west, and in strength most often as winds from the north and northwest.<sup>11</sup> In the more northerly parts of the cemetery, which was more subject to erosion because of weather factors and intensive working of the land (vineyards, orchards, crops, and vegetable gardens),<sup>12</sup> the discovered graves were shallower and closer to the surface.

**Table 4**

Examples of calculating the average depth (relative) and differences in the received results: (1) – the calculation of the average on the basis of the greatest values; (2) – the calculation of the average by singling out the most represented values and categories; (3) – the calculation of the average depth of all graves (by group).

Sex of the deceased	Total no. of graves	(1)		Depth range from	(2) Graves		Average depth	(3) Average relative depth
		Depth range from	Average depth		no.	%		
male	132	38–110	74.0	56–95	100	75.76	75.5	74.34
female	115	38–115	76.5	56–95	92	80.00	75.5	75.37
child	134	25–108	66.5	36–75	108	81.20	55.5	58.43
<i>Total:</i>	380	25–115	70.0	36–95	300	78.95	65.55	69.43
unknown	55	15–112	63.5	36–75	32	58.18	55.5	63.16
<i>Total:</i>	435*	15–115	65.0	36–95	332	76.32	65.5	68.64

[\* Data about the relative depths are unknown for gr. 312/m, 393/ch and III-1951/?]

### 3.2.3. Outfitting of the grave pits

#### 3.2.3.1–2. The base and walls of the grave pits

Almost all grave records are unanimous in declaring that at Lijeva Bara the deceased were placed directly in the earth without any traces of grave equipment, i.e. boards, panels, or coffins.<sup>13</sup> The existing photographic field documentation entirely supports such observations.

## 3.3. The position of the deceased

### 3.3.1. General information

At Lijeva Bara a total of 448 skeletons were excavated from 447 inhumation graves: 446 skeletons come from individual graves, and only 2 skeletons were from a double grave of mother and child (gr. 208/1–2). Of 448 skeletons, 9 of them come from the same number of prehistoric graves (202p/f, 206p/ch, 210p/m?, 269p/m, 308p/ch, 320p/f, 407p/?, 427p/? and 428p/ch), and 439 skeletons from 438 early medieval graves. From the 439 early medieval skeletons, the position of the trunk was established for 413 skeletons (94.08%): 409 were found on their backs (93.17%), and only 4 skeletons were found on their sides (0.91%) – two on the right side with extended legs (gr. 43/f and 85/m), and two on the left side with contracted legs (gr. 60/f and 307/f?).<sup>14</sup> 26 skeletons were destroyed or damaged so badly that the position of the trunk could not be determined (5.92%).<sup>15</sup> Not a single example existed of the burial of the deceased placed face down (Table 5).<sup>16</sup>

<sup>11</sup> BOGNAR 1994, 32, 43.

<sup>12</sup> VINSKI 1955, 232, noted the fact that Lijeva Bara "was also called by the locals... Baščina". It is not excluded that in this case the name was related to the nearby street Jelačić bašće (later changed to the unwieldy 12.IV.1945. Street, today Ulica Hrvatske nezavisnosti/Croatian Independence Street), which was located a hundred meters further east from the early medieval cemetery (CRLJENAK 1975, 142–143). However, the only area considerably more extensive called Baščina is located much further west from Lijeva Bara, and it was noted under that name as early as a cadastral map of Vukovar from 1863 (CRLJENAK 1975, 53; KARAČ 1994, 284 with a drawing based on the mentioned cadastral map).

<sup>13</sup> VINSKI 1952, 22; VINSKI 1955, 238 s.; VINSKI 1959, 102.

<sup>14</sup> Because of the poor preservation and disturbance to most of the bones of the skeleton buried in gr. 9/ch (no finds), it was not possible to establish whether the legs were originally extended or contracted and placed on the right.

<sup>15</sup> 26 skeletons from 26 graves: 1, 8, 9, 95, 96, 99, 17, 124, 14, 220, 236, 244, 251, 264, 337, 341, 33, 350, 354, 378 398, 411, 419, III-51.

<sup>16</sup> For the basic determinants and typology of the skeleton positions, their variants, and representation at the cemeteries of the Bijelo Brdo cultural sphere, see SZABÓ 1976, 17–79 [Ger. 81–84; Rus. 85–89].

**Table 5**

The position of the skeletons and their variants: numerical and percentage representation.

Position of the skeleton	no.	%
1. On the back (Szabó, type I), legs:	409	93.17
1. <i>extended</i>	398	97.30
2. <i>crossed at the ankles</i>	4	0.98
3. <i>spread</i>	1	0.25
4. <i>extended-contracted</i>	1	0.25
5. <i>contracted, bent to the right, and</i>	5	1.22
1. <i>placed on the ground</i>	(4)	(80.00)
2. <i>raised obliquely</i>	(1)	(20.00)
2. On the side (Szabó, type II)	4	0.91
1. right, legs:	2	50.00
1. <i>extended</i>	(2)	(100.00)
2. <i>contracted</i>	–	–
2. left, legs	2	50.00
1. <i>extended</i>	–	–
2. <i>contracted</i>	(2)	(100.00)
3. On the stomach (Szabó, type III)	–	–
4. Unknown	26	5.92
Total skeletons:	439	100.00

Highly predominant among the skeletons on the back were those with extended legs (398 skeletons from 397 graves), while interesting variants included: the skeleton from gr. 44/f (with finds)<sup>17</sup> with spread arms and legs (**Fig. 5:1**),<sup>18</sup> as well as the skeletons from gr. 55/? (no finds), 71/m (with finds),<sup>19</sup> 363/f (no finds), and 375/m (no finds) with legs crossed at the feet (Szabó, I.2), and the skeleton from gr. 157/? (no finds) with the left leg extended and the right contracted and crossed at the foot (**Fig. 5:2**). A particularly interesting element was noted in gr. 363/f?, where the deceased female's legs were definitely extended during the original burial, and only after a subsequent digging up of the grave for fear of vampirism, were her legs placed in a crossed position (**Fig. 5:3**).<sup>20</sup> Among the skeletons placed on the back with legs contracted on the right, the usual and common variant appears of skeletons with the legs placed on the ground (Szabó, I.3), such as were found in gr. 25/? and 83/?, and the child gr. 242 and 329, while only in female gr. 131 was a skeleton noted with contracted and raised legs, somewhat leaning to the right (Szabó, I.1b).<sup>21</sup> It is interesting that not one of these five skeletons – in graves scattered throughout the cemetery – contained any finds of any other kind of grave good (**Fig. 6:1–5**).

For the primarily female (?) skeletons placed on the side – whether on the right side with extended legs (Szabó, type II.1) or on the left side with contracted legs (Szabó, II.2a),<sup>22</sup> which is an already noted and well known rule<sup>23</sup> – grave finds were noted in only two cases, i.e. in female gr. 60 (circlet, two rings, and large fragments of a pot)<sup>24</sup> and in the proba-

<sup>17</sup> Finds: two bracelets, one on a forearm, and the other on the chest, broken into two parts (old break).

<sup>18</sup> DEMO 1996, 39 fig. 19. A similar position of the arms and legs of the deceased was found, for example, in child gr. 79 from Mačvanska Mitrovica, buried in the older early medieval layer dated to the end of the 10<sup>th</sup> and beginning of the 11<sup>th</sup> cent. (ERCEGOVIĆ-PAVLOVIĆ 1980, 21, Pl. XXXV:3), as well as in the somewhat later child gr. 150 from the cemetery of Majs – Udvari rétek in Hungary (KISS 1983, 310 Pl. 2:3), in child gr. 83 and 336 from the cemetery of Trnjani – Staro groblje near Požarevac and in gr. 11 from Čezava in the Đerdap (Iron Gate) in Serbia dated to the 11<sup>th</sup> or 12<sup>th</sup> cent. (MARJANOVIĆ-VUJOVIĆ 1984, 21 fig. 26; MARJANOVIĆ-VUJOVIĆ 1984a, 123, 125 fig. 2). A similar position of the legs (the arm position is not described) was found in gr. 40 at the cemetery of Bijelo Brdo – Ul. Venecija (BRUNŠMID 1904, 54). – At Lijeva Bara arms with elbows distinctly moved away from the body were further found only for the skeletons from child gr. 213 (no finds) and male gr. 434 (find: arrow).

<sup>19</sup> Finds: knife, steel for tinder, and two arrowheads, cf. DEMO 1996, 72–73.

<sup>20</sup> A man between 30 and 60 years of age was buried in the grave with a prominent fracture of the left distal calf bone with angulation, which would have caused noticeable limping (data from Dr. M. Šlaus, on the basis of the photograph and drawing of the skeleton).

<sup>21</sup> DEMO 1996, 38 (fig. below), 40 fig. 20 (above). – In addition to this, just slightly raised legs were noted for the skeletons buried in the male graves 54 and 73 (both without finds). This, however, is insufficient to classify them as Szabó type I.1a.

<sup>22</sup> The skeletons from gr. 43 and 307 are presumed to have been female. The skeleton from gr. 85 was attributed as male during excavation.

<sup>23</sup> The custom that skeletons that had been placed on the side in a grave as a rule were of the female sex has already been pointed out by SZABÓ 1976, 82.

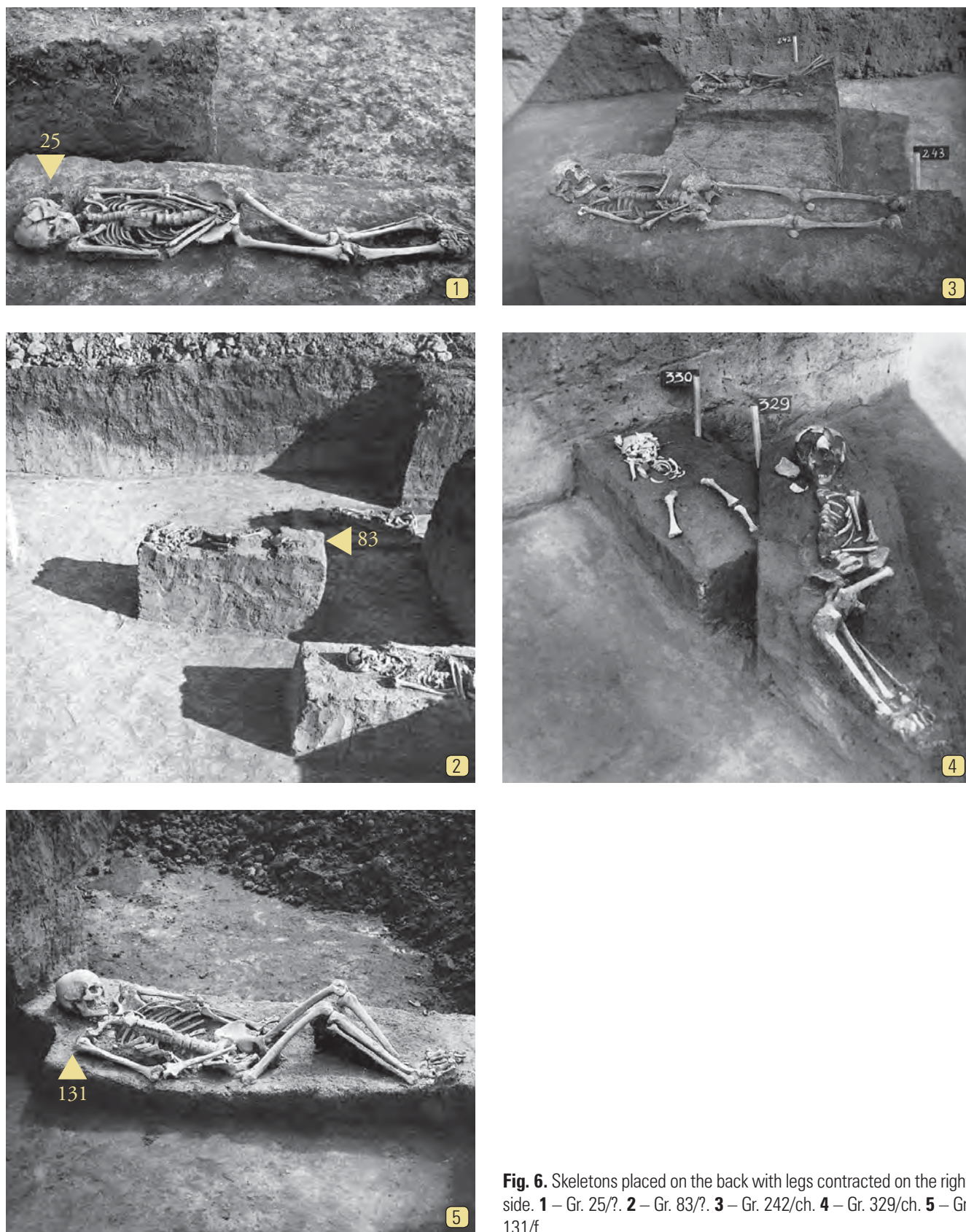
<sup>24</sup> DEMO 1996, 77–78. – A pot supposedly placed on the chest of a deceased individual with contracted legs was found in a destroyed early medieval grave not far from Donji Miholjac at the position called Brdača, SEKELJ-IVANČAN 2001, 92, 94 Fig. 45. Other than the above, at early



**Fig. 5.** Variants of leg position among skeletons placed on the back. **1** – Gr. 44/f. **2** – Gr. 157/?. **3** – Gr. 363/f.

bly female gr. 307 (fragment of a bronze pin). Skeleton placed on the side exhibit more or less emphasized deviation to the N, although it can be noted that the skeletons on the right side and with extended legs at Lijevo Bara were oriented to the W, while skeletons placed on the left side were oriented WNW, and others to the NW (**Table 6**). The positions of the forearms for the skeletons found on the left side and with contracted legs (gr. 60/f, 307/f?) might even have a chronological value considering they belong to variants 23 and 24.

medieval cemeteries near Vukovar, skeletons with contracted legs were found in gr. 83/? (no finds) at the cemetery of Bijelo Brdo – Ul. Venecija (BRUNŠMID 1907, 59), in gr. 30-1961/? (no finds) at the cemetery of Bošnjaci – ciglana Daraž (ČEČUK – DORN 1967, 400, 423), and gr. 10/? (no finds) and 51/? (finds: a jointed circler and a ring) at the cemetery of Mačvanska Mitrovica – Zidine (ERCEGOVIĆ-PAVLOVIĆ 1980, 20, 23, Pl. XX). The contracted legs of a child skeleton (side?) were noted at the cemetery of Lobar – Majka Božja Gorska in the Croatian Highlands (gr. 3), JURICA – FILIPEC 2002, 20, 27 (unfortunately without a photograph or drawing).



**Fig. 6.** Skeletons placed on the back with legs contracted on the right side. **1** – Gr. 25/? . **2** – Gr. 83/? . **3** – Gr. 242/ch. **4** – Gr. 329/ch. **5** – Gr. 131/f.

**Table 6**

Skeletons placed on the right or left side with extended legs (Szabó, type II.1) or contracted legs (Szabó, type II.2a).

Grave	Quadrant	Grave goods	Orientation	Side	Forearms	Szabó (type)
43/ž?	XII/9c–XII/8a	–	280°	right	1	II.1
60/ž	XIV/7a–b	+	284°	left	24	II.2a
85/m	VI/13a–b	–	273°	right	6	II.1
307/ž?	XIII/13	+	312°	left	23	II.2a

### 3.3.2. Position of the forearms

If the 26 destroyed skeletons<sup>25</sup> and 4 skeletons found on the side<sup>26</sup> are excluded, the analysis of the position of the forearms can be performed utilizing the data gathered for 409 skeletons lying on their backs. Of these 409 skeletons, the position of both forearms could be established for 296 skeletons (72.37%), while because of the destruction of one or both forearms, the position of the forearms remained undetermined in an additional 85 cases, i.e. for a total of 113 skeletons (27.36%). The more than half, and indeed even more than two-thirds of the skeletons with preserved forearms ensured that the data from Lijevo Bara in Vukovar have a specific statistic value (Fig. 7).

For the 296 skeletons available for statistical analysis, 24 of the total of 25 basic forearm positions were noted, i.e. all five unified groups (I–V).<sup>27</sup> The number of variants meant that as many as 17 of them would be represented with figures of less than 5% (0.34–3.38%), that five variants (v. 2, 6, 8, 12 and 13) would be represented with figures of between 5 and 10% (5.97–9.46%), and that only two variants (v.1 and 7) would be represented with figures greater than 10%. For more than half of the variants, the percentage of male skeletons is predominant, for a third of the variants, the percentage of female skeletons predominates, and but in only one case the percentage of child skeletons (v.1). In groups I, II, and V male skeletons are almost twice as numerous, in group III male and female skeletons are represented in approximately the same proportions, although the male examples are somewhat more numerous, while female skeletons predominate only in group IV. Within individual groups, with the exception of group IV, almost as a rule the fundamental variants predominate in representation, i.e. those where both forearms were placed or found in the same position: v.7 in group II (56.57%), v.13 in group III (28.38%), and v.25 in group V (24.39%).<sup>28</sup> Grave finds were contained, viewed on average, primarily in graves with the forearm variants of groups III, IV, and V (more than 50% of the graves), while in graves with the forearm variants of groups I and II grave finds were usually rarer by a fifth (Table 7).

GROUP	GROUP					
	I	II	III	IV	V	
GROUP	D		\	_	/	
	L		\	_	/	
I		<sub>1</sub>	\   <sub>2</sub>	_   <sub>3</sub>	/   <sub>4</sub>	<sub>5</sub>
II	/	/ <sub>6</sub>	\   <sub>7</sub>	/   <sub>8</sub>	/   <sub>9</sub>	/ <sub>10</sub>
III	_	_   <sub>11</sub>	\   <sub>12</sub>	_   <sub>13</sub>	/   <sub>14</sub>	_   <sub>15</sub>
IV	\	\   <sub>16</sub>	\   <sub>17</sub>	\   <sub>18</sub>	\   <sub>19</sub>	\   <sub>20</sub>
V		<sub>21</sub>	\    <sub>22</sub>	_    <sub>23</sub>	/    <sub>24</sub>	<sub>25</sub>

Fig. 7. The forearm positions: groups (I–V), variants (v.1–25), and the basic variants of individual groups (v.1, 7, 13, 19, 25).

<sup>25</sup> See above here p. 389 n. 15.

<sup>26</sup> The skeletons from graves 43/f, 60/f, 85/m, and 307/f.

<sup>27</sup> An incomplete, disorganized, and unclear analysis of forearm positions based on selected graves with finds and reduced to a simplified selection of groups and variants was once presented by TOMIČIĆ 1992, 133, 149, 154, 162, 167 (Pl. XXIV).

<sup>28</sup> Variant v.19, fundamental in group IV, is poorly represented (11.43%) in contrast to the predominant variants v.9 and 14 (each with more than 25%).

**Table 7**

Forearm positions: numerical and percentage representation of variants and proportions among the sexes.

Forearm position variant	Skeletons		Sex of the skeleton (no. and percentage within a variant)			
	no.	%	male	female	child	sex unknown
1	47	15.88	13 (27.66)	7 (14.89)	21 (44.68)	6 (12.77)
2	15	5.07	9 (60.01)	2 (13.33)	2 (13.33)	2 (13.33)
3	7	2.37	4 (57.14)	2 (28.57)	1 (14.29)	–
4	2	0.67	1 (50.00)	–	1 (50.00)	–
5	2	0.67	–	1 (50.00)	–	1 (50.00)
6	28	9.46	14 (50.00)	11 (39.29)	2 (7.14)	1 (3.57)
7	56	18.92	24 (42.86)	16 (28.57)	10 (17.86)	6 (10.71)
7a	39	69.24	(17/43.59)	(11/28.21)	(8/20.51)	(3/7.69)
7b	15	26.79	(7/46.67)	(4/26.67)	(1/6.666)	(3/20.00)
7c	2	3.57	–	(1/50.00)	(1/50.00)	–
8	19	6.42	8 (42.11)	7 (36.84)	1 (5.26)	3 (15.79)
9	10	3.38	3 (30.00)	5 (50.00)	1 (10.00)	1 (10.00)
10	3	1.01	2 (66.67)	–	–	1 (33.33)
11	10	3.38	7 (70.00)	1 (10.00)	–	2 (20.00)
12	17	5.74	6 (35.29)	8 (47.06)	2 (11.77)	1 (5.88)
13	21	7.10	6 (28.57)	11 (52.38)	1 (4.76)	3 (14.29)
13a	11	52.38	(4/36.36)	(5/45.46)	(1/9.09)	(1/9.09)
13b	10	47.62	(2/20.00)	(6/60.00)	–	(2/20.00)
14	9	3.04	3 (33.33)	6 (66.67)	–	–
15	5	1.69	4 (80.00)	–	–	1 (20.00)
16	–	–	–	–	–	–
17	4	1.35	1 (25.00)	2 (50.00)	–	1 (25.00)
18	6	2.03	4 (66.67)	2 (33.33)	–	–
19	4	1.35	1 (25.00)	2 (50.00)	1 (25.00)	–
20	6	2.03	1 (16.67)	2 (33.33)	3 (50.00)	–
21	1	0.34	1 (100.00)	–	–	–
22	3	1.01	1 (33.33)	2 (66.67)	–	–
23	8	2.70	4 (50.00)	3 (37.50)	–	1 (12.50)
24	3	1.01	2 (66.67)	1 (33.33)	–	–
25	10	3.38	6 (60.00)	2 (20.00)	1 (10.00)	1 (10.00)
<i>Total:</i>	296	100.00	121 (40.88)	97 (32.77)	44 (14.86)	34 (11.40)

On the basis of the representation of all five groups and the abundant numbers of their variants, the cemetery at Lijeva Bara can be placed among the Bijelo Brdo cemeteries with a distinctly heterogenous representation of forearm positions. This was common for the early medieval (and also later) cemeteries of the Byzantine-Bulgarian cultural sphere, where in



the beginning period it is considered a reliable sign of Christianization.<sup>29</sup> A similar interpretation is valid for the Hungarian principality of the third quarter of the 10<sup>th</sup> century, and the appearance of an increased number of variants in the forearm positions is attributed to missionary activities and the influences on the burial ritual by the Byzantine church,<sup>30</sup> particularly predominant in the eastern and southern regions of the Hungarian principality immediately after the establishment of the first Hungarian-Byzantine political connections in 948 and 952.<sup>31</sup> Accordingly – considering the geographic position of the site, and the emphasized diversity of the forearm positions – it can be claimed with certainty that the burial of the deceased at Lijevo Bara took place in a period marked by the powerful or even predominant influences of eastern Christianity.

For the cited period and area, the presence of all five groups and almost all of the variants united in them – variant 16 is the only one not represented – is a clear and specific indicator of the acceptance by an early medieval community of the burial customs of eastern Christianity. This becomes even more evident if we compare the percentage ratios of the first two groups (I–II) and their few variants marked by the placement of one or both arms along the body or on the pelvis of the deceased (49.32%) with the remaining three groups (III–V) marked by the placement of one or both hands on the upper part of the trunk (50.68%). The over fifty percent representation of these three groups (III–V) and their 9 variants

**Table 8**

Forearm positions (variants v.1–25 and groups of variants I–V) at selected Bijelo Brdo cemeteries in Croatia (1), Bosnia & Herzegovina (2–4), Hungary (5,6), and Slovakia (7), and at early medieval cemeteries in Slovenia (8) and Serbia (9,10).

Site	No. of graves	I/1	II/2,6,7	III/3,8,11, 12–13	IV/4,9,14, 16–19	V/5,10,15, 20–25
1 Vukovar – Lijevo Bara (second half 10 <sup>th</sup> cent. to beg. 11 <sup>th</sup> cent.)	296	47 15.88	99 33.45	74 25.00	36 11.82	41 13.84
2 Petoševci – Bagruša <sup>32</sup> (second half 10 <sup>th</sup> cent.)	87	17 19.54	46 52.87	7 8.05	8 9.20	9 10.34
3 Mahovljani – Luka <sup>33</sup> (second half 10 <sup>th</sup> cent. to beg. 11 <sup>th</sup> cent.)	64	19 26.69	28 43.75	15 23.44	1 1.56	1 1.56
4 Gomjenica – Baltine bare <sup>34</sup> (end 10 <sup>th</sup> cent. & first third 11 <sup>th</sup> cent.)	210	135 64.29	63 30.00	12 5.71	–	–
5 Szabolcs – Petőfi ut. <sup>35</sup> (10 <sup>th</sup> /11 <sup>th</sup> to first third 12 <sup>th</sup> cent.)	207	107 51.69	87 42.03	8 3.87	4 1.93	1 0.48
6 Pusztaszentlászló – Deáksűrű <sup>36</sup> (11 <sup>th</sup> –12 <sup>th</sup> cent.)	132	94 71.21	34 25.76	3 2.27	1 0.76	–
7 Bučány – Vinohrady <sup>37</sup> (ca. 910 to 970)	74	58 78.36	14 18.92	1 1.35	1 1.35	–
8 Ptuj-Grad / Turnirski prostor <sup>38</sup> (beg. to ca. mid. 11 <sup>th</sup> cent.)	77	71 92.20	4 5.20	2 2.60	–	–
9 Trnjane – Staro groblje <sup>39</sup> (11 <sup>th</sup> –13 <sup>th</sup> cent.)	257	5 1.95	49 19.07	78 30.35	60 23.35	65 25.29
10 Beograd – Tvrđava/Donji grad <sup>40</sup> (second half 10 <sup>th</sup> cent.)	29	1 3.45	8 27.59	12 41.38	5 17.24	3 10.35

<sup>29</sup> DIMITROV 1970, 47; VÁŽAROVA 1976, 413. – An identical number of basic positions, a lack of variant v.16, and a different numerical relation of individual groups are exhibited by the forearm position represented at the Braničevo area cemetery of Trnjane – Staro groblje (near Požarevac, Serbia), dated to the 11<sup>th</sup>–13<sup>th</sup> cent.

<sup>30</sup> TÖRÖK 1962, 14.

<sup>31</sup> SZABÓ 1980, 131–136. – For a hardly viable hypothesis about the connection between individual forearm positions and the social status of the deceased, cf. TETTAMANTI 1982, 89.

<sup>32</sup> The data revised on the basis of the drawings and descriptions in the text, ŽERAVICA 1986, 158–59, 197–201; MILETIĆ 1989, 179.

<sup>33</sup> The data revised on the basis of the drawings and descriptions in the text, MILETIĆ 1980, 83–109 and the cemetery plan; MILETIĆ 1989, 179.

<sup>34</sup> The data revised on the basis of the drawings and descriptions in the text, MILETIĆ 1967, 138–148 and add. II; MILETIĆ 1989, 179.

<sup>35</sup> The data compiled on the basis of drawings in the text, KOVÁCS 1994, 19–87, 104–105.

<sup>36</sup> The data compiled on the basis of drawings in the text, SZŐKE – VÁNDOR 1987, 21–87.

<sup>37</sup> HANULIAK 1992, 101–103.

<sup>38</sup> Because of the multilayered nature of the cemetery of Ptuj-Grad/Turnirski prostor, the data cited here refer only to graves with recognizable Bijelo Brdo finds. A total of 86 were found at Ptuj-Grad, but this number had to be reduced by the 9 graves with damaged or destroyed skeletons, so that in the analysis of the forearm positions data was used referring to the situation found in only 77 graves. For the list of Bijelo Brdo graves, see here p. 458 n. 238.

<sup>39</sup> The data compiled on the basis of drawings in the text, MARJANOVIĆ-VUJOVIĆ 1984, 13–60.

<sup>40</sup> The data revised on the basis of the descriptions and drawings in the text, MARJANOVIĆ-VUJOVIĆ 1989, 35–43.

makes the early medieval Bijelo Brdo cemetery of Vukovar close to some cemeteries from the area of medieval Braničevo in the Byzantine cultural sphere, where the groups III, IV, and V usually accounted for more than 2/3, and sometimes even more than 3/4 of all forearm positions (e.g. Beograd – Tvrđava/Donji grad; Trnjane – Staro groblje). In the southern Pannonian region, because of the small number of systematically investigated Bijelo Brdo cemeteries, at present it is only possible to note that the proportion of the III, IV, and V groups of forearm positions exhibits a tendency to decline in both the spatial and chronological sense: spatially, moving from east to west, and chronologically, moving from the middle of the 10<sup>th</sup> century towards the end of the 10<sup>th</sup> and the first decades of the 11<sup>th</sup> century (e.g. Petoševci – Bagruša, Mahovljani – Luka, Gomjenica – Baltine bare). At the partly contemporary Bijelo Brdo cemeteries located further to the north or west, the share of groups III, IV, and V is very small, and in percentage values is inversely proportional to the distance of the site from the nearest starting point for the spread of the funerary influences of the eastern church (in the north, for example, Bučány – Vinohrady in Slovakia; in the west, for example, Ptuj – Ptujski Grad in Slovenia). Similar percentages have been noted at later Bijelo Brdo cemeteries (e.g. Szabolcs – Petőfi ut., Pusztaszentlászló – Deáksűrű) that originated and were utilized primarily or exclusively during the 11<sup>th</sup> century and in the 12<sup>th</sup> century (Table 8).

Consequently, it appears that the position of the forearms in the southern Pannonian region has a chronological value, as in the middle of the 10<sup>th</sup> century, the western burial rite was replaced by the eastern rite, which subsequently was predominant throughout almost the entire second half of the 10<sup>th</sup> century, while at the very end of the 10<sup>th</sup> century and beginning of the 11<sup>th</sup>, it began to decline, and during the first quarter of the 11<sup>th</sup> century it had already almost entirely yielded to the again strengthened influences of western Christianity.

### 3.3.3. The orientation of the deceased

The orientations were determined according to the axis of the skeletons, as the grave pits, as was already explained, could not be distinguished from the surrounding soil because of the disturbed prehistoric layer in which the deceased were buried. The early medieval skeletons were oriented in a W–E direction (head–feet) with greater or lesser deviations to the north and south, which is usual at the cemeteries of this period. Of the 439 early medieval skeletons, the orientation was established for as many as 421 skeletons (95.90%),<sup>41</sup> in a range from 225° to 328° with the arithmetic mean at 276.5° and the average value of the orientations of all graves at 277.5° (Table 9). The range, however, if the two most extreme values were to be omitted (gr. 55/? and 226/?), would be much smaller, and would measure between 245° and 315°. In the span that would then measure only 70 degrees instead of 103, and would be very close to the ideal span of 72 degrees (240.5° to 312.5°),<sup>42</sup> deviations predominate to the south of the mean value acquired in this manner (280°).

Completely different data with by far more pronounced deviations towards the north are shown by comparisons or orientations north and south of 270°, i.e. from the west–east line, which at the same time is the line of correction. The percentage values for deviation to the north (271–328°) at Lijevo Bara measure a high 72.21% (304 skeletons), which can be considered a characteristic of Bijelo Brdo cemeteries created during the second half or the last third of the 10<sup>th</sup> century. At these cemeteries, the frequency of deviation towards the north replaced the similarly high percentage values of deviation towards the south, usual for cemeteries created and utilized during the second third of the of the 10<sup>th</sup> century, i.e. in the period from ca. 930 to ca. 960/970 (e.g. Letkés – Iskola, Halimba – Ceres I).

The orientations of male, female, and child skeletons are compared for a total of 373 skeletons:<sup>43</sup> 131 male skeletons were oriented in a range of 245° to 314° (average at 279.5°), 115 female skeletons were oriented in a range of 251° to 312° (average at 281.5°), and 127 child skeletons were oriented in a range of 248° to 328° (average at 288°).<sup>44</sup> The orientations of skeletons analyzed according to the existing sexual identity exhibit similar percentage values for the male and female skeletons, while only insignificant differences could be noted for the orientation of the child skeletons – exclusively in favor of a west–east direction, or rather the deviations covered by the range from 259° to 281° (Fig. 8).

<sup>41</sup> The orientation is unknown for 18 skeletons (4.10%) from a total of 17 mostly child graves: 1/ch, 8/ch, 79/?, 82/ch, 117/ch, 124/?, 129/?, 133/ch, 134/m?, 144/ch, 192/ch, 208-2/ch (the child skeleton from the double gr. 208, the grave of a mother and child), 244/ch, 251/?, 337/?, I-1951/?, II-1951/?, III/1951/?.

<sup>42</sup> KRALOVÁNSKY 1968, 83.

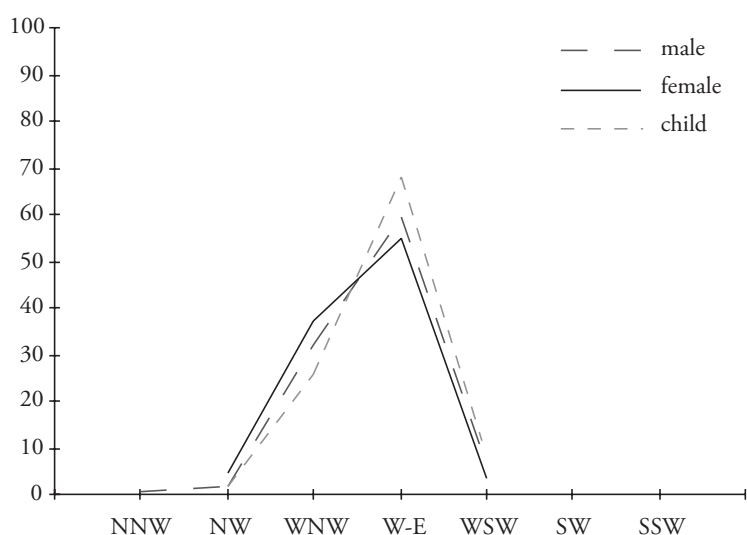
<sup>43</sup> Of the 421 skeletons where the orientation was established, the sex of 48 skeletons was not determined (gr. 7, 19, 25, 36, 55, 77, 83, 98, 101, 105, 110, 126, 128, 130, 135, 137, 152, 154, 157, 162, 173–4, 182, 184–5, 190, 196, 200–1, 203–4, 229, 248, 258, 270–1, 290, 300, 309, 319, 329, 333, 336, 338, 346, 398, 413, 439).

<sup>44</sup> The determination of the sexual identity of the deceased is based on the data recorded in the field documentation (*Zapisnik*). The manner in which these data were established is not, however, cited in any of the field documentation (e.g. *Dnevnik*). The presence is not mentioned of a professional anthropologist in the field team that performed the excavations at Lijevo Bara in 1951–1953. For the anthropological material that was partially gathered during excavation (see here p. 21 n. 34–39), and that contained the osteological remains of at least 101 male and 57 female skeletons, the only known data were published by: PILARIĆ – SCHWIDETZKY 1988, 1–15.

**Table 9**

The orientation of skeletons according to the frequency of deviation.

220–229°	1 (0.24%)	270–279°	149 (35.39%)	295°	5
225°	1	270°	34	296°	3
230–239°	–	271°	9	297°	5
240–249°	4 (0.95%)	272°	19	298°	3
245°	1	273°	17	299°	–
248°	2	274°	10	300–309°	16 (3.80%)
249°	1	275°	21	300°	7
250–259°	18 (4.28%)	276°	7	301°	1
251°	2	277°	12	302°	2
252°	2	278°	13	303°	–
253°	–	279°	7	304°	2
254°	–	280–289°	116 (27.55%)	305°	2
255°	3	280°	35	306°	1
256°	4	281°	8	307°	–
257°	3	282°	20	308°	1
258°	1	283°	4	309°	–
259°	2	284°	13	310–319°	4 (0.95%)
260–269°	60 (14.25%)	285°	8	312°	1
260°	8	286°	1	313°	1
261°	3	287°	8	314°	1
262°	6	288°	16	315°	1
263°	2	289°	3	320–329°	1 (0.24%)
264°	3	290–299°	52 (12.35%)	328°	1
265°	8	290°	18		
266°	6	291°	3		
267°	7	292°	7		
268°	11	293°	2		
269°	6	294°	6		
				<b>Total:</b>	<b>421 skeletons</b>
				(unknown:	18 skeletons)



**Fig. 8.** The frequency of orientations of the male, female, and child skeletons.

If the old hypothesis about connections between the orientation of graves (or skeletons) with the position of the rising sun in a given season of the year were applied to Lijevo Bara,<sup>45</sup> then the greatest mortality in the early medieval Vukovar settlement would have occurred in early spring or early fall (57.96%), declining in late autumn and in the winter (36.81%), and with the least mortality in late spring and during the summer (4.99%). This would further mean that almost 50% of the deaths would have occurred in the months of March and September, and that mortality would have been almost insignificant in December and January, i.e. less than 1% (Table 10).<sup>46</sup>

<sup>45</sup> NIEDERLE 1911, 359; HRUBÝ 1955, 75 obr. 8; KARAMAN 1940, 10; DOSTAL 1966, 25.

<sup>46</sup> For similar data acquired through measuring the orientation of graves (skeletons) at the Bijelo Brdo cemetery of Kérsuzta – Keréktábla in Hungary (= Fiad – Kérsuzta; Somogy County), which additionally were at one point used to undermine thoroughly the hypothesis about a connection between the orientation of graves (skeletons) and the rising sun, cf. KRALOVÁNSKY 1968a, 83, 104 Pl. 8.

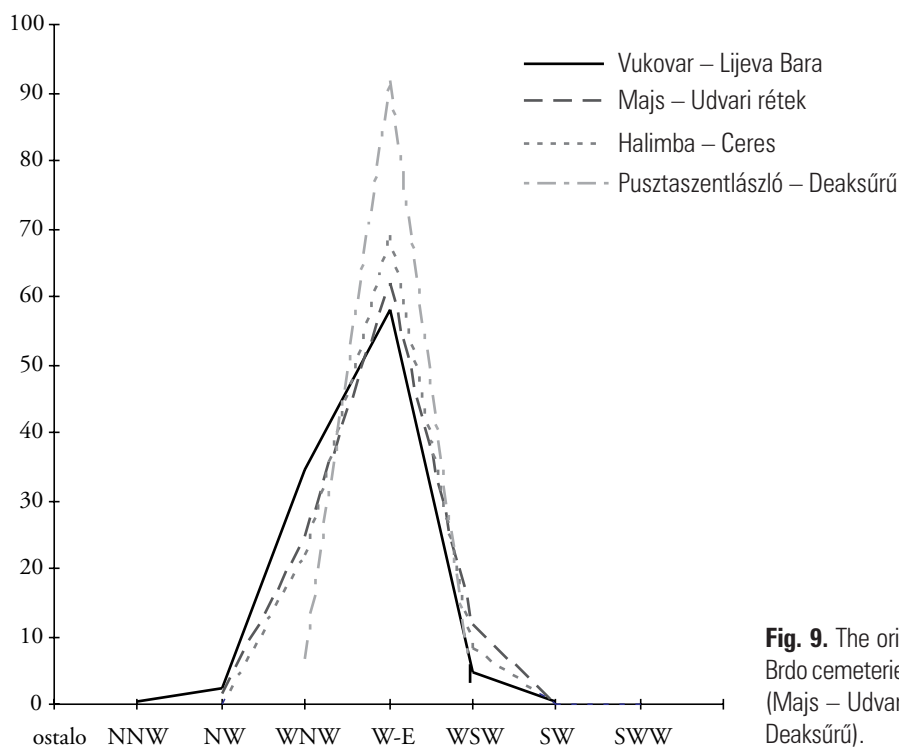
**Table 10**

The orientation of early medieval and prehistoric skeletons in reference to the position of the rising sun.

Early medieval graves	degrees	azimuth	no.	%	season
SSZ / NNW	327–348°	34.5–36–38°	1	0.24	undetermined
SZ / NW	304–326°	38.5–40–42°	10	2.37	winter
ZSZ / WNW	282–303°	42.5–44–46°	145	34.44	late autumn to winter
Z–I / W–E	259–281°	46.5–48–50°	244	57.96	early spring/early autumn
ZJZ / WSW	237–258°	50.5–52–54°	20	4.75	late spring to summer
JZ / SW	214–236°	54.5–56–58°	1	0.24	summer
<i>Total graves:</i>			421	100.00	

Prehistoric graves	degrees	azimuth	no.	%	no. of grave (°)
JZ / SW	214–236°	50.5–52–54°	1	11.11	408 (228°)
JJZ / SSW	192–213°	54.5–60–62°	2	22.22	308 (200°)
J / S	168–191°	62.5–64–2°	2	22.22	202 (188°), 427 (180°)
JJI / SSE	147–167°	2.5–4–6°	1	11.11	210 (149°)
JI / SE	124–146°	6.5–8–10°	1	11.11	320 (129°)
I / E	79–101°	14.5–16–18°	2	22.22	206 (90°), 428 (ca. 90°)
S / N	349–11°	30.5–32–34°	1	11.11	269 (350°)
<i>Total graves:</i>			9	100.00	



**Fig. 9.** The orientation of graves (skeletons) at several Bijelo Brdo cemeteries in Croatia (Vukovar – Lijeva Bara) and Hungary (Majs – Udvari rétek, Halimba – Ceres, Pusztaszentlászló – Deaksúrú).

Such or very similar indicators, only rarely different, were measured at other Bijelo Brdo cemeteries (**Fig. 9**). Hence claims about the orientation of graves being dependent on the position of the rising sun must be judged with considerable caution,<sup>47</sup> and sometimes even rejected totally, not merely because of finds of plants in graves that according to this theory would have been dug in months when the growing season of the given plant species would have long passed,<sup>48</sup> but also because of the influential factor of the geographical characteristics of individual sites (e.g. the surface relief),<sup>49</sup> so that only after all of this, can burial customs, various religious concepts, and the always present ritual and cult traditions be considered.<sup>50</sup>

<sup>47</sup> ŠKERLJ 1955, 132–133.

<sup>48</sup> For examples and citations of finds of linden branches with shoots, branches of plants with buds, a birch branch with leaves, and so forth, see HANULIAK 1990, 157.

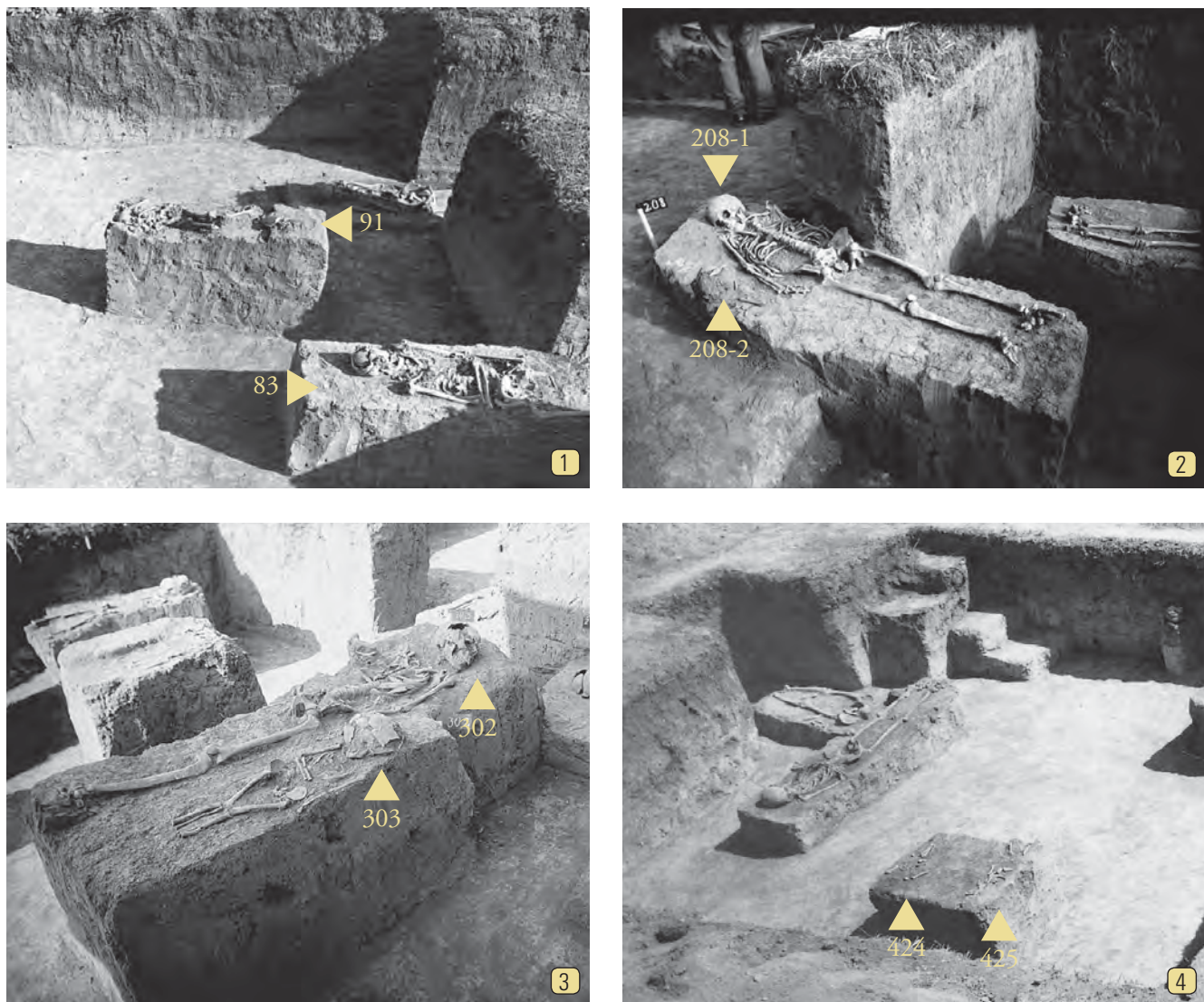
<sup>49</sup> MARJANOVIĆ-VUJOVIĆ 1989, 21, 35–40, 42–43, with data for the cemetery of Beograd – Donji grad, where more than 60% of the skeletons were oriented towards the southwest in a range from 214° to 236°, and more than a quarter of the skeletons were oriented even further south than those, i.e. in a range of 191–213°.

<sup>50</sup> HANULIAK 1984, 109–119

### 3.4. Graves with two or more deceased individuals

#### 3.4.1. Double burials (graves)

The lack of a recognizable grave pit means that the definition of double burials at Lijeva Bara results from a combination of the observations made in the field by the archaeologists at the time of excavation of the site and subsequent assumptions based on the data contained in the field documentation. In such circumstances, the existence of a double burial can be hypothesized only in four cases, in which (without changing the existing numbering of the graves) eight skeletons are mutually connected (1.82%) from a total of seven early medieval graves: the skeletons from gr. 83/? and 91/ch, where a quite young child was placed on the right side of an adult individual, adjacent to the feet of its otherwise contracted legs (**Fig. 10:1**);<sup>51</sup> gr. 208 with the skeletons 208-1/f and 208-2/ch, where the child was placed to the right of the female skeleton at the height of her upper arm and upper part of the forearm (**Fig. 10:2**); the skeletons in grave 302/ch and 303/f, where the somewhat older child was placed to the left of the female skeleton at the height of her pelvis, thigh, and upper part of the lower leg (**Fig. 10:3**);<sup>52</sup> and the skeletons in gr. 424 and 425 (**Fig. 10:4**), where two small children of approximately similar or the same age (ca. 2 years old) were buried near to one another.<sup>53</sup> Double graves with the skeletons of a woman and child were most probably the burials of a mother and child, where the head of the mother



**Fig. 10.** Hypothesized double graves. **1** – Gr. 83/? and 91/ch. **2** – Gr. 208-1,2/f,ch. **3** – Gr. 302/ch and 303/f. **4** –Gr. 424/ch and 425/dj.

<sup>51</sup> DEMO 1996, 40, 115.

<sup>52</sup> VINSKI 1955, 239; VINSKI 1959, 102; DEMO 1996, 40 (fig. 21), 115.

<sup>53</sup> *Zapisnik*, no. 424/2 Sept. 1953 and 425/2 Sept. 1953. The skeletons were found at the same depth (0.56 m), although contrary to the custom known from many early medieval child double graves, they were not touching. For some examples of double burials of children or young people, see *Mačvanska Mitrovica – Zidine*, gr. 70: ERCEGOVIĆ-PAVLOVIĆ 1980, Pl. XXXV:4; *Beograd – Donji grad*, gr. 19 and 19a: MARJANOVIĆ-VUJOVIĆ 1989, 21, 36; *Čezava/Castrum Novae – Bazilika*, gr. 11 and 12: MARJANOVIĆ-VUJOVIĆ 1984a, 123, 125 fig. 2; *Brestovik – Velika Ravan*, gr. 648: ĆOROVIĆ-LJUBINKOVIĆ 1958, 327, fig. 1.

in both cases (gr. 208-1/f and 303/f) was turned towards the child, whether the child was placed in the grave on her right side (gr. 208-2/ch) or left side (gr. 302/ch). With the exception of the child double grave (gr. 424 and 425), where in both cases beads and metal pendants representing parts of necklaces were noted as grave finds, none of the remaining three double burials contained any archaeological finds.

### 3.5. Superimposed graves

The overlapping or superimposition of graves appeared very rarely at Lijevo Bara, in only 6 cases, so that this encompassed a total of twelve early medieval graves, i.e. a minor 2.74% (Fig. 11).<sup>54</sup> In four cases, the partial touching of graves (89/m and 78/m; 287/ch and 304/ch),<sup>55</sup> and a small extent of overlapping (286/ch and 303/f; 400/m and 398/?) were noted, in two cases a larger extent of overlapping (251/? and 278/f), and a total overlapping of graves (88/ch and 36/?).<sup>56</sup> The overlapping of early medieval and prehistoric skeleton graves was noted in only two cases (gr. 185/? and 202p/f; gr. 426/f and 427p/?).<sup>57</sup> All of the above early medieval graves, with the exception of gr. 36/? and 88/ch, were found in the eastern half of the cemetery, and of the remaining ten graves, as many as six were uncovered in quadrant XIV/13 (Table 11).<sup>58</sup>

**Table 11**  
Examples of superimposed early medieval and prehistoric skeleton graves.

Quadrant	Early medieval graves					
	later/earlier	gr./sex	depth (cm)	o.	forearms	finds
XI/10d (Fig. 11:1)	later	88/ch	48	274°	1	none
	earlier	36/?	80	272°	11	none
XVI/10b–XVII/10a (Fig. 11:2)	later	89/m	54	249°	2	steel & flint, scraper
	earlier	78/m	68	281°	8	none
XIV/13b–XV/13b	later	251/?	39	–	–	none <sup>58</sup>
	earlier	278/f	70	290°	25	none
XIV/13a–c–d (Fig. 11:3)	later	286/ch	25	278°	–	none
	earlier	303/f	60	288°	–	none
XIV/13c–d (Fig. 11:4)	later	287/ch	42	280°	–	none
	earlier	304/ch	65	260°	1	none
XIV/4b–XV/4a–c	later	400/m	76	267°	1	buckle
	earlier	398/?	100	267°	–	none

Quadrant	Early medieval and prehistoric graves					
	med/preh	gr./sex	depth (cm)	o.	forearms	finds
XV/12b (Fig. 11:6)	med	185/?	70	255°	8	none
	preh	202p/f	93	188°	1	yes
XIV/5a–b (Fig. 11:5)	med	426/f	90	273°	7b	bracelets (2), raceme earrings (2), ring
XIV/5a–b	preh	427p/?	>90	180°	1	nema

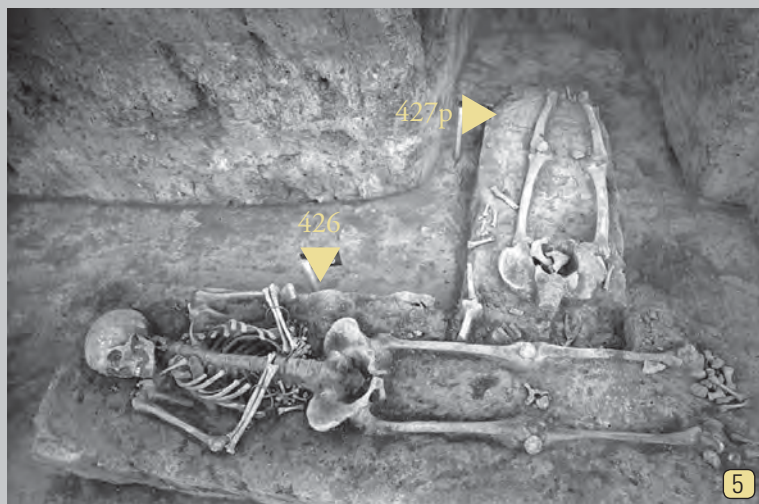
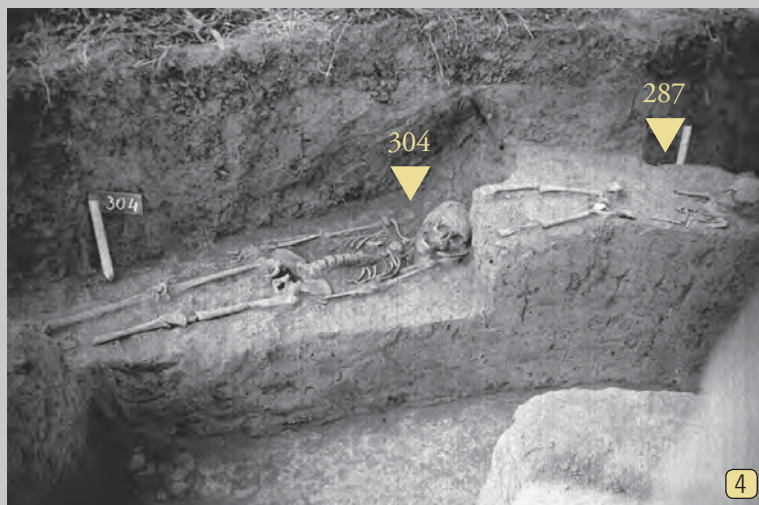
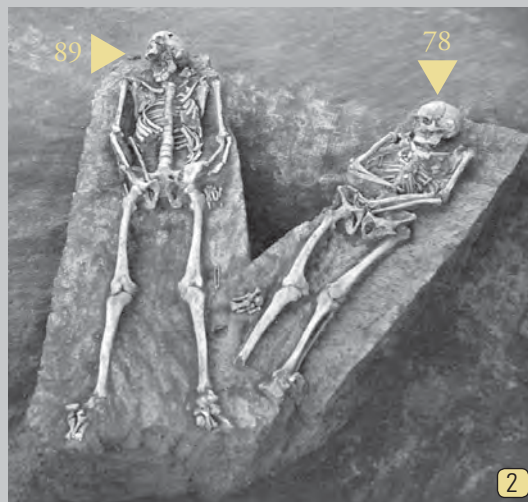
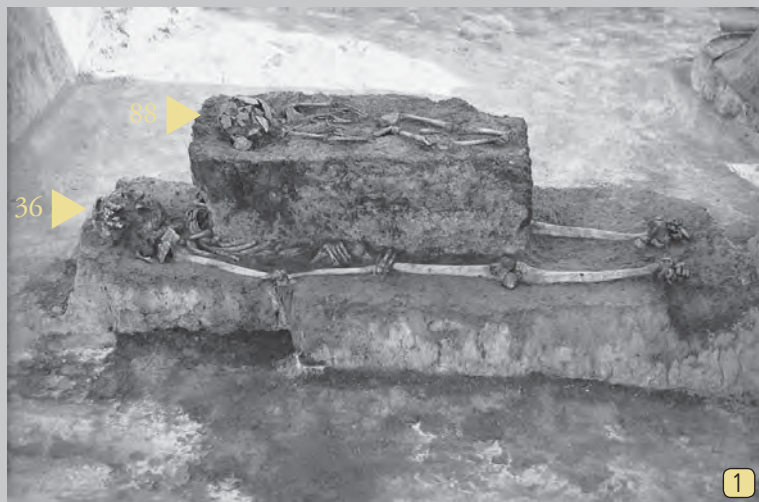
<sup>54</sup> This did not include gr. 236 and 237, as it is uncertain, because of the incomplete description and the insufficiently clear field photographs, whether or to what extent the male grave gr. 237 (quadrant XIII/4a) had overlapped and destroyed the upper part of the child (?) skeleton buried in gr. 236 (quad. XIII/5c–d).

<sup>55</sup> In the case of gr. 287 and 304 this is noted by the *Zapiski*, no. 287/20 Aug. 1953 and 304/20 Aug. 1953.

<sup>56</sup> VINSKI 1955, 238, Fig. 8; VINSKI 1959, 102, Pl. XXX:8; DEMO 1996, 39 Fig. 18, 83 (fig. below). – A similar example of superimposition, interpreted as a double grave upon publication, was noted at the cemetery of Gomjenica – Baltine bare in the Bosnian Sava basin, where 20 cm above the skeleton of a young woman (gr. 88) was subsequently buried a young child (gr. 87), MILETIĆ 1967, 94, 111–112, Pl. II (below).

<sup>57</sup> VINSKI 1955, 238; VINSKI 1959, 102; DEMO 1996, 83 (for gr. 426 and 427).

<sup>58</sup> On the basis of the photographs, Dr. Mario Šlaus suggested, with some caution, that the skeleton could have belonged to a female deceased individual (?).



**Fig. 11.** Superimposition in early medieval and prehistoric graves. **1** – Gr. 88/ch and 36/?. **2** – Gr. 89/m and 78/m. **3** – Gr. 286/ch and 303/f. **4** – Gr. 287/ch and 304/ch. **5** – Early medieval gr. 426/f and the lower part of the skeleton from prehistoric gr. 427p/ch. **6** – Early medieval gr. 185/f and the skull of the skeleton from prehistoric gr. 202p/f.

## 3.6. Destroyed and disturbed graves

### 3.6.1. Deliberate disturbance of the body of the deceased (demolished graves, vampirism)

In the course of time a considerable number of the early medieval graves at Lijeva Bara came to be located very close to the surface both because of agricultural cultivation of the land (vineyards, orchards) in the last hundred years and because of atmospheric and erosive activity. As many as 63 skeletons (14.48%) were found at a depth of less than 50 cm, and 139 of them at a depth of less than 60 cm (31.95%). In such circumstances, it could be expected that a not insignificant number of skeletons would be disturbed, damaged, or even completely destroyed, so that not even any relative entirety was preserved, much less an intact state. The destroyed skeletons (a total of 26) were predominantly the skeletons of children, particularly those buried shallowly,<sup>59</sup> while the only damage recorded in the field documentation, attributed to the roots of trees, disturbed the skeletons in gr. 120/m, 226/?, 250/f, and 270/?,<sup>60</sup> sometimes also causing evident damage, not noted in the field documentation, to some neighboring graves.<sup>61</sup> The damage to the skeleton in gr. 338/? was the only one interpreted in the field documentation as having been caused by the digging of some animal or plowing.<sup>62</sup>

Other than these, it is apparent that a transverse line of digging up the land in quad. IX/10 and IX/11 carried out nearby the house of Albina Lorinc-Janković in the recent period had caused damage to the skeletons in gr. 138/f, 139/f, 170/m?, 173/? and 193/? (**Fig. 12:1**),<sup>63</sup> while some similar digging in quad. VI/13 damaged the skeletons in gr. 85/m and 93/f (**Fig. 12:2**), in quad. X/12 the skeletons in gr. 114/f and 120/m (**Fig. 12:3**), in quad. X/8 the skeleton in gr. 31/f,<sup>64</sup> and in quad. XVIII/14–15 the skeletons in gr. 212/f? and 105/?.<sup>65</sup> Damage to the head or the upper parts of the body was suffered, almost as a rule, by skeletons found at a depth of less than 50 cm,<sup>66</sup> but damage or disturbance to skeletons also occurred during the archaeological excavations themselves. The damage was mostly suffered by graves that were bisected by the dividing walls of the quadrants, but also by some of the graves that extended beyond the quadrants, so that it was necessary to excavate an additional trench, cutting, or niche.<sup>67</sup>

All of this, as well as the meager and scarce observations noted in the existing field documentation, mean that it is difficult to determine to what extent the deliberate disturbance of the deceased was actually present at Lijeva Bara – this phenomenon was not rare at the Bijelo Brdo cemeteries of the 10<sup>th</sup> and 11<sup>th</sup> centuries, and it is interpreted as a defense and protection against vampirism. It was believed that vampirism usually occurred after burial, and protection was offered by a specific procedure known as "diminishing". Various parts of the body of the deceased were subjected to such acts: often the head was damaged or separated from the body, or because of the still existing vital organs, the upper parts of the body were frequently damaged or disturbed, but less so the lower parts or legs of the deceased, while sometimes the entire skeleton was destroyed.<sup>68</sup> A reliable example of vampirism visible through disturbance to the legs of the deceased can be seen at Lijeva Bara only in gr. 363/f?, where the originally extended legs of the skeleton were subsequently moved, and on that occasion were placed in a crossed position (**Fig. 5:3**). Such beliefs could also be the cause, although sometimes with a little less certainty, of the disturbance to the skeleton in gr. 234/f?, the disturbance to the heads and the lower parts of the body in gr. 83/?, 135/?, 185/? and 285/f, and the disturbance to the arms or legs in gr. 207/ch and 376/f, or gr. 7/? (**Fig. 13**).

<sup>59</sup> In this group of graves, at a depth of around 100 cm, was located the only skeleton of an adult individual buried in gr. 398/?. The skeleton, however, was destroyed by the subsequent, although somewhat shallower burial of an adult individual in gr. 400/m.

<sup>60</sup> *Zapisnik*, nos. 120/11 Sept. 1952, 226/14 Aug. 1953, 250/25 Aug. 1953, and 270/15 Aug. 1953.

<sup>61</sup> In the immediate vicinity of gr. 226/? were located gr. 105/?, 207/ch, and 209/m, all with major or minor damage to the skeletons caused, most probably, by the roots of the same tree that caused damage to the skeleton in gr. 226/? (quad. XVIII/13). Similar damage, seemingly also caused by tree roots, occurred on the skeletons from gr. 129/?, 130/?, and 201/? in quad. XIV/11.

<sup>62</sup> *Zapisnik*, no. 338/25 Aug. 1953.

<sup>63</sup> Traces of the ditch, which certainly damaged these graves, are visible because of the darker color on the photographs that show gr. 193/m?, and gr. 170/m? and 173/?.

<sup>64</sup> The skeleton in gr. 31 was damaged by the ditch that led from the Lorinc-Janković house through quad. IX/9, X/8–9, XI/8, and XII/8, where its outlines were particularly well visible in the vicinity of gr. 53/m (**Fig. 12:4**).

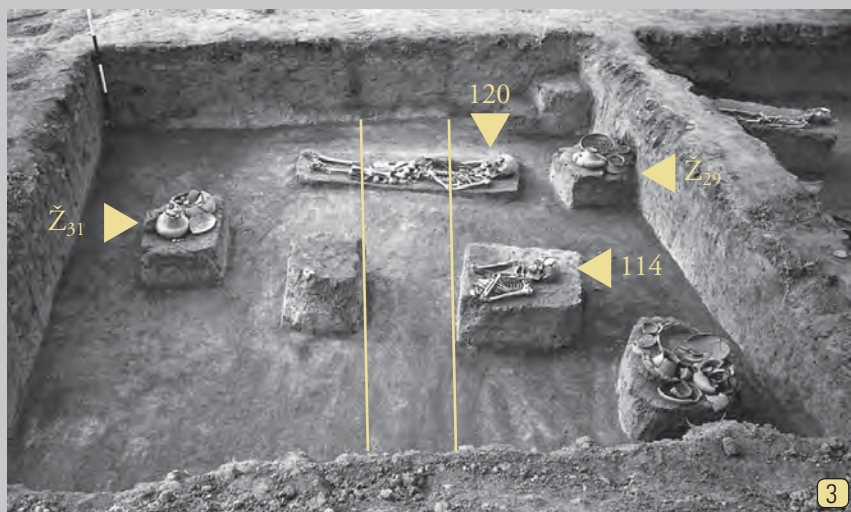
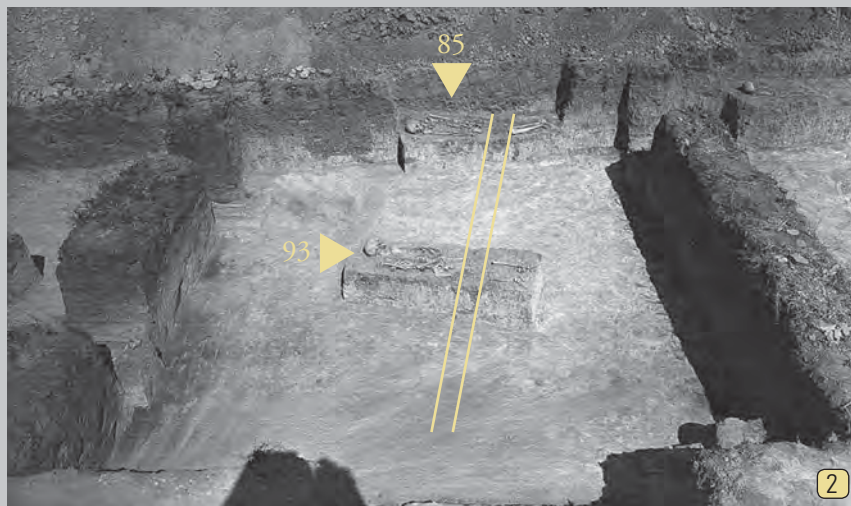
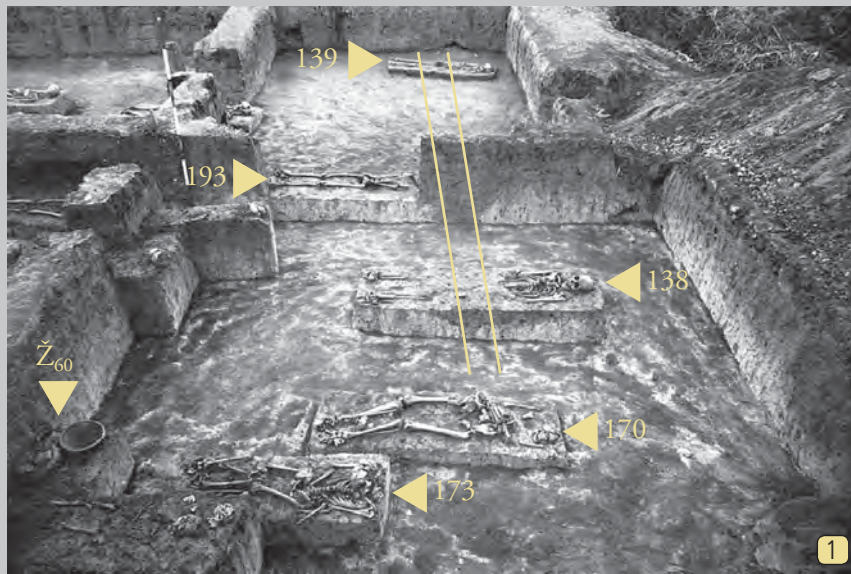
<sup>65</sup> A transverse ditch that cannot be confirmed by the original field photographic record damaged the upper part of the skeleton in gr. 212/f? (rib cage, arms, and pelvis) and skeleton buried not quite four meters further northeast in gr. 105/? (head and upper part of the trunk). The latter, in addition to this, also suffered considerable damage to the lower parts of the legs during excavation of one of two cuttings of trench L (= quad. XVIII/15).

<sup>66</sup> E.g. the skeletons in gr. 101/?, 154/?, 178/?, 184/?, 190/?.

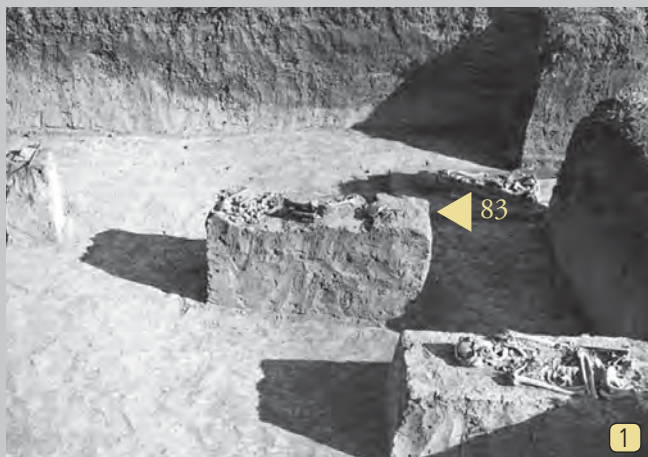
<sup>67</sup> Particularly good examples of such damage are those to the skeletons in gr. 97/m?, 137/?, 152/?, and 359/ch (all with damaged, moved, or missing heads), as well as in graves 64/m, 75/m, 94/m, 100/f?, 101/?, 105/?, 158/ch, 246/m, 257/m?, 291/f?, 319/?, 383/ch, 439/?, and also in certain others (e.g. the skeletons destroyed in gr. 236/ch and 411/ch).

<sup>68</sup> ČAJKANOVIĆ 1998, 72–84.





**Fig. 12.** Quadrants with early medi-  
eval graves damaged by recent peri-  
od digging. **1** – above to below gr.  
139/f, 138/f, 193/?, 170/m, and  
173/? in quad. IX/10 and IX/11. **2** –  
above to below gr. 85/m and 93/f in  
quad. VI/13. **3** – above to below gr.  
114/f and 120/m, and the undam-  
aged prehistoric cremation gr. 29/ch,  
31/f? and 30/ch in quad. X/12. **4** –  
left lower corner gr. 53/m in quad.  
XII/7 and XII/8.



**Fig. 13.** Graves with deliberately disturbed skeletons. **1** – Gr. 83/? (no finds). **2** – Gr. 135/? (no finds). **3** – Gr. 185/? (no finds). **4** – Gr. 285/f (no finds). **5** – Gr. 207/ch (no finds). **6** – Gr. 7/? (finds). **7** – Gr. 376/f (no finds).

### 3.7. The burial of horses or horse bones

The burial of a horse or horse bones, as part of any possible horseman's grave, was not established at all at Lijevo Bara.<sup>69</sup> Part of the field documentation, however, mentioned for quad. VIII/4 first a find of "a horse skeleton" that lay "above the legs of the skeleton",<sup>70</sup> and then "by the legs of grave 297...the dislocated bones of a horse", which was later claimed "did not represent an archaeological find".<sup>71</sup> Nothing of this, unfortunately was either drawn or photographed, so the exact position of these bones could not be determined in relation to the skeleton from gr. 297/f? (finds: S-circlet and a ring with a crown).

The find of a left *tibia* of a young horse also cannot be classified as the burial of a horse or parts of a horse,<sup>72</sup> as it was discovered as the only grave good representing a "traveling provision" by the right forearm of the skeleton in gr. 346/?.<sup>73</sup>

### 3.8. Burial rituals and beliefs

#### 3.8.1. Finds in nonfunctional positions

Objects found in a nonfunctional position in graves consist of those whose place of discovery shows that they did not belong to the deceased, but rather had been placed in the grave during the funeral – before or after the placement of the deceased in the grave pit – as a direct contribution by the family or members of the family and individuals in a kinship or any other close relationship with the deceased. The most numerous objects of this type include rings:<sup>74</sup> some of the rings found near the neck were hung on torcs (gr. 326/f, two examples)<sup>75</sup> or together with other objects were part of a necklace of metal pendants (gr. 2/ch, 408/ch), as individual finds were discovered by the head above the right ear (gr. 13/ch), next to the left ear (gr. 159/f),<sup>76</sup> on the inner side of the left lower leg of the deceased (gr. 364/f),<sup>77</sup> or on the right

<sup>69</sup> DEMO 1996, 40.

<sup>70</sup> *Dnevnik*, ad 17 Aug. 1953. The find was discovered in the 3<sup>rd</sup> excavation layer, which would correspond to a depth of ca. 60–75 cm.

<sup>71</sup> *Dnevnik*, ad 19 Aug. 1953. – A similar situation was noted at the cemetery of Bijelo Brdo – Ul. Venecija, where by the feet of the child skeleton from gr. 145 (finds: 3 S-circlets, fragment of a pottery vessel, beads, and a thin iron wire) was found a pile of horse bones, which were similarly considered to have come from a more recent period, see BRUNŠMID 1904, 66.

<sup>72</sup> The bone material is not preserved. The identification of the animal bones was made on the basis of photographs from gr. 346/? (the right *tibia* most probably of a young horse) and gr. 395/f (most probably the right *metatarsus* of a cow) in September 1998 by Dr. Mario Jurišić, of the Department of Archaeology of the State Office for the Protection of the Cultural and Natural Heritage, whom I remember with great respect.

<sup>73</sup> The bones of horses are sometimes found as grave goods intended to be travelling provisions in the graves of the middle Avaric and late Avaric periods, such as in Slovakia, *Nove Zamky – ciglana* (ČILINSKÁ 1966, 125), and Austria, *Loebersdorf*, gr. 77 and 94 (DAIM 1987, 108, 113).

<sup>74</sup> Here I do not include the hoop of a reworked and secondarily used silver filigree ring found next to the neck vertebrae in the upper part of the rib cage of the child buried in gr. 2. It made its way there, after it had been turned into a pendant, as part of a necklace-amulet together with a bronze button pendant, and a perforated and worn gold coin of the Byzantine emperor Constantine VII Porphyrogenitus, DEMO 1996, 49, 51, 84–85. A similar transformation was experienced, for example, by the conical crown of a silver filigree rings found on a necklaces of beads and metal pendants in one of the child graves at the cemetery of Bijelo Brdo – Ul. Venecija (gr. 56), BRUNŠMID 1904, 35 (Fig. 2:7), 56.

<sup>75</sup> This was particularly common at the cemetery of Bijelo Brdo – Ul. Venecija, where it was noted that rings hung on torcs usually appeared in graves from the early 11<sup>th</sup> century, BRUNŠMID 1904, 57, 67, 70–71, 73 (e.g. gr. 70, 156, 174, 182, 192). Similar examples can be noted, for example, at cemeteries in the Hungarian lower and upper Tisza basin (*Szentes – Szentlászló*, gr. 26; SZÉLL 1941, 237 Pl. IIIB:2–2b; *Hajdúszoboszló – Árko-shalom*, gr. 9 i 77; NEPPER 2002/2, 32 Pl. 26:5, 43 Pl. 37:2–3), in Romanian Transylvania, and elsewhere (*Földvár – Földvári puszta*: RÉTHY 1898, 129 Pl. III:3; HAMPEL 1905, 506 Fig. 3; *Budapest* 1996, 301 Fig. 2). – At Lijevo Bara, in addition to rings, other objects were also hung from torcs, such as a closed bronze circlet (S-2390) or a piece of spirally wound bronze wire (gr. 391/ch).

<sup>76</sup> In the field documentation, both of these rings were considered bronze circlets, most probably because of the location where they were found, *Dnevnik*, ad 8 Sept. 1951 and 15 Sept. 1952; *Zapiski*, no. 13/12 Sept. 1951 and 159/27 Aug. 1953. – At the cemetery of Bijelo Brdo – Ul. Venecija finds were noted, for example, of a bronze ring inside the skull of the deceased (gr. 173) or near the right shoulder of the deceased (gr. 181), BRUNŠMID 1904, 71 (all child graves). In the Bosnian Sava River basin, at the cemetery of Mahovljani – Luke/Kužno groblje, one ring was found "by the left ear" of the skeleton of a young woman (gr. 3), MILETIĆ 1980, 138, 156. In northeastern Slovenia, at the cemetery of Ptuj-Grad/Tournament grounds, a ring was found near a skull (gr. 50), SKRABAR 1910, 126.

<sup>77</sup> A similar position was noted at the cemetery of Malé Kosihy – Horné Konopnice in Slovakia, where in gr. 33 (child) a bronze ring was found on the inner side of the left knee, HANULIAK 1994, 118, 144 (Pl. V:E/1). – At the cemetery of Mahovljani – Luka/Kužno groblje in the Bosnian Sava River basin a bronze ring was found by the feet or between the bones of the left foot of the skeleton of an elderly person (gr. 66), MILETIĆ 1980, 144, 156. At Bijelo Brdo one ring was found between the legs of a skeleton (gr. 72) and another by a leg of a skeleton (gr. 160), BRUNŠMID 1904, 57, 68.

side above the pelvis but far away from the hands placed on the chest of the deceased (gr. 315/f, two rings).<sup>78</sup> In one case, in circumstances that are difficult to explain, the crown of a ring was found on the left side of the head, while the hoop was found by the waist during removal of the skeleton (gr. 297/f?), and in another example, in similarly unclear circumstances, a massive silver ring was attributed to the finds from child gr. 347, whose size and diameter indubitably proved it could not have belonged on the fingers of a child (ca. 12 years old).<sup>79</sup> Additionally, in terms of jewellery, only one bracelet broken into two parts was found in a nonfunctional position on the chest above the spine (gr. 44/f).<sup>80</sup>

The appearance of certain other objects in a nonfunctional position elsewhere is not at all so clear and recognizable. Of objects of everyday use, it could be considered that some of the knives had been found in a nonfunctional position, one "on the chest" of the deceased together with the frames of a quiver and an arrow (gr. 127/m?),<sup>81</sup> and another "above the upper right arm" (gr. 324/m),<sup>82</sup> and of weapons in a nonfunctional position, in the grave fill 25 cm above a skeleton an arrow was found that most probably had been placed there during the filling of the grave (gr. 14/m),<sup>83</sup> and two arrows were found in a grave placed in such a manner that their tips were facing down (gr. 357/m).<sup>84</sup>

<sup>78</sup> In gr. 250 the ring was noted in the middle of the grave, where it had arrived after falling from one of the fingers of the deceased's hand (the skeleton had been damaged by tree roots in the area of the pelvis and both forearms).

<sup>79</sup> *Zapisek*, no. 347/25 Aug. 1953 and *Dnevnik*, ad. 24 Aug. 1953, concur in the description of the grave finds, but neither mentions a massive silver gilded ring (S-2762), which is first mentioned and described as a grave find in the previous inv. AMZ (P-18341).

<sup>80</sup> *Dnevnik*, ad 22 Aug. 1952; *Zapisek*, no. 44/26 Aug. 1952. The bracelet had already been broken before (or during) the funeral into two parts (old break), and as such it was placed in the grave on the chest of the deceased. – An example of the placement of a bracelet by the head of a child skeleton was noted, for example, at the cemetery of Bijelo Brdo – Ul. Venecija, gr. 56: BRUNŠMID 1904, 56.

<sup>81</sup> In addition to this example, another knife from the same grave was in fact found in a functional position (on the right side of the pelvis).

<sup>82</sup> In both the above cases, the knives had probably been located in some case attached or sewn to the clothing. Knives in nonfunctional positions, particularly those found by the head or the shoulder bones, are considered (on the basis of ethnographic analogies) as indicators of superstitions, see TÖRÖK 1962, 39. Several knives have been found in nonfunctional positions at Bijelo Brdo sites in northern Croatia: *Lobor – Sv. Marija Gor-ska*, gr. 7/ch: JURICA – FILIPEC 2002, 22, 26 Pl. 2:5, 30 (twenty centimeters from the right upper arm); *Bijelo Brdo – Ul. Venecija*, gr. 78: BRUNŠMID 1904, 58 (the knife was thrust perpendicularly into the soil by the left thigh).

<sup>83</sup> *Zapisek*, 14/12 Sept. 1951; *Dnevnik*, 7 Sept 1951.

<sup>84</sup> Arrowheads turned downwards were part of the burial rite and a literal reminder that life after death was the opposite of that in this world. The custom was more common in the upper Tisza valley, but it was also noted in western Hungary, e.g. *Ikervár – Virág utca*, gr. 77: HAJMÁSI – KISS 2000, 100 Fig. 26:7.

## 4. OBJECTS FROM THE GRAVE INVENTORY

4. Objects of the grave inventory	Situation		Grave finds			Sex of the deceased				Chance
	no.	%	no.	%	graves	m/m ?	f/f ?	ch	sex ?	finds
4.1. Objects of everyday use	62	11.50	58	11.88	44	28	9	4	3	4
4.2. Weapons and military equipment	28	5.20	28	5.74	14	12	1	–	1	–
4.3. Jewellery	356	66.05	333	68.24	144	24	62	43	15	23
(A: pendants on circlets	4	–	4	–	3	–	1	2	–	–)
(B: pendants on torcs and necklaces	479	–	459	–	20*	–	8	23	3	20)
4.4. Attire (attire elements)	84	15.58	60	12.29	33	10	9	11	3	24
4.5. Objects of cult character	8	1.48	8	1.64	8	2	1	3	2	–
4.6. Objects of unknown purpose	1	0.19	1	0.21	1	–	–	1	–	–
Total (without pendants):	539	100.00	488	100.00	191	56	68	47	20	51
Total (with pendants; w/out necklaces):	987	–	917	–	191	56	68	47	20	70

The grave inventory is composed of objects found in the grave on the deceased or next to the deceased, where they arrived as part of the funerary equipment of the deceased or as part of a funerary ceremony performed above the grave or in the vicinity of the grave before or during the burial. A small number of these objects were chance finds from destroyed graves (9.46%), while the major part consists of objects discovered in 191 out of a total of 438 medieval graves, so that the proportion of graves with objects in the grave inventories measures **43.61%**.<sup>1</sup> They are most common and numerous in female graves (39.77%), slightly less frequent and numerous in male graves (35.75%), and the least numerous in child graves (27.48%).

The objects in the grave inventories are classified into 5 groups according to purpose, and the group of objects of unknown purpose is represented by only a single object. With a more than two-thirds share, jewellery composes the most numerous group of grave goods (counted individually, with a more than 80% share), and the remaining third is composed of attire elements, the somewhat less numerous but more diverse objects of everyday use, the by half scarcer category of weaponry and military equipment, while objects with a cult character are represented by a small and almost symbolic share.

The representation of individual groups of objects of the grave inventory is determined to a great extent by the sex of the deceased: finds of weaponry and military equipment are tied to male graves (92.31%) and to a slightly lesser extent, so are objects of everyday use or most of them (68.29%); jewellery is the main inventory in female graves (48.06%), followed by child graves (33.33%), while in male graves it is much rarer and less varied; attire elements are more numerous in child graves (36.67%) and are only insignificantly less numerous or approximately equally represented in male and female graves (33.33%); the share of the rare and few objects with a cult character is more emphasized in child graves (50%) than in male or female graves.

<sup>1</sup> In another 14 graves, objects were noted as the only finds from other archaeological periods, from destroyed or disturbed prehistoric cremation graves or prehistoric settlement structures: 10/f, 21/f, 55/?, 56/m, 67/m, 136/f, 163/ch, 226/?, 231/f, 303/m, 310/m, 318/ch, 396/m?, 416/m. Additionally, prehistoric objects from destroyed cremation graves and settlement structures were found together with medieval objects in another 7 medieval graves: 13/ch, 19/?, 94/m, 121/m, 222/f, 238/m?, 382/ch.

## 4.1. Objects of everyday use

4.1 Objects of everyday use	Objects		Material				Grave finds		Sex of the deceased				Chance finds
	no.	%	metal	clay	bone	stone	objects	graves	m/m ?	f/f ?	ch	sex ?	
1. Personal equipment	34	54,84	29	–	–	5	31	25*	21*	2	1	1*	3
1. Knife	23	37,10	23	–	–	–	20	18	16	2	–	–	3
2.1. Steel	6	9,68	6	–	–	–	6	6	5	–	–	1	–
2.2. Flint	5	8,06	–	–	–	5	5	5	4	–	–	1	–
2. Tools and implements	22	35,48	12	4	5	1	21	17*	8	7*	2	–	1
1. Spindle-whorl	4	6,45	–	4	–	–	4	4	1	2	1	–	–
2. Thatching needle	1	1,615	–	–	1	–	1	1	–	–	1	–	–
3. Awl	7	11,28	5	–	2	–	7	6	2	4	–	–	–
4. Needle	4	6,45	4	–	–	–	4	4	3	1	–	–	–
5. Awl press	2	3,225	–	–	1	1	2	2	1	1	–	–	–
6. Tightener/loosener	1	1,615	–	–	1	–	1	1	1	–	–	–	–
7. Scraper	1	1,64	1	–	–	–	1	1	1	–	–	–	–
8. File	2	3,225	2	–	–	–	1	1	–	–	1	–	1
3. Hunting and fishing gear	4	6,45	2	2	–	–	4	2	–	–	1	1	–
1. Projectile	2	3,225	–	2	–	–	2	1	–	–	–	1	–
2. Hook	2	3,225	2	–	–	–	2	1	–	–	1	–	–
4. Cosmetic accessories	2	3,23	2	–	–	–	2	2	1	–	1	–	–
1. Razor	1	1,615	1	–	–	–	1	1	1	–	–	–	–
2. Pincers	1	1,615	1	–	–	–	1	1	–	–	1	–	–
Total:	62	100,00	45	6	5	6	58	44*	28*	9	4*	3*	4

\* 4.1.1. – More than one item from various groups of objects of everyday use comes from 1 grave: steel, flint, and scraper (gr. 89/m).

4.1.1–2. – More than one item of the same group of objects come from 8 graves: personal equipment (5 graves) – 2 knives (gr. 92/m, 127/m?); knife and steel (gr. 81/m, 268/m, 342/m); tools and implements (3 graves) – awl press/awl (gr. 253/f?, 306/m); file and thatching needle (gr. 29/ch).

The objects of everyday use include personal equipment, various tools, implements, and devices, hunting and fishing gear, and cosmetic accessories. Their presence in the early medieval graves of the Bijelo Brdo cultural sphere is interpreted as representing the existence of a pagan burial ritual that was still fairly widespread during the 11<sup>th</sup> century:<sup>2</sup> whether as a symbol of a desire to drive off misfortune and sundry evils or to emphasize and stress the activities, skills, and capabilities related to the deceased (or to the parents of the deceased when such objects from child graves are in question).

Among the 62 objects of everyday use, personal equipment predominates with a representation of more than half, first with knives (37.10%), and a much smaller amount of fire steels (9.68%) and flints (8.06%). Tools, implements, and devices compose the second most numerous group of objects (35.48%), where awls, needles, and spindle-whorls predominate numerically, while with only one or two finds each are represented awl-presses and files, and a thatching needle, tightener/loosener, and scraper. Hunting and fishing gear is represented by two projectiles for slingshots and two hooks, while cosmetic accessories consisted of a razor and a pair of pincers (Fig. 14–16).

Objects made of metal predominate (72.58%), mostly of iron (knives, fire steels, awls, needles, files, hooks, razor, pincers), and rarely those made of bronze (needle) or silver (scraper), and objects made from clay (spindle-whorls, projectiles for a slingshot), bone (awl, thatching needle, tightener/loosener, awl press), and stone (flints, awl press) are rarer but are represented in approximately similar proportions.

Of the 62 objects of everyday use, 58 of them (93.55%) were discovered in 44 graves (ratio: 1.32), which among graves with finds achieves a share of a quite high 23.04%.<sup>3</sup>

<sup>2</sup> KOVÁCS 1994, 111.

<sup>3</sup> Graves: 17/m, 22/m, 29/ch, 37/m, 57/m, 81/m/, 86/ch, 89/m, 92/m, 94/m, 97/m, 101/?, 107/m?, 121/m, 122/f, 127/m?, 139/f, 148/m?, 218/f, 232/m, 235/f?, 238/m?, 253/f?, 257/m?, 268/m, 281/ch, 288/ch, 289/m?, 293/m?, 306/m, 307/f?, 312/m, 317/m, 319/?, 324/m, 327/f, 331/m, 342/m, 345/m, 366/m?, 421/m, 440/f, 444/f, II-1951/?.

## 4.1.1. Personal equipment

### 4.1.1.1. Knife (T. A4; H. 5)

No.	Inv. AMZ	Type knife	Knife l.	Knife blade			Wt. (g)	Grave (sex)	Circumstances of the find
				l.	w.	th.			
1.	2494	1	9,60	7,14	0,90	0,27/0,19	6,789	57/m ?	"by the left thigh"
2.	2515	1	(11,88)	(9,65)	1,22	0,36	14,513	81/m	"on the left side of the pelvis"
3.	2534/6	2	(14,07)	(9,03)	(1,5)	0,30/0,16	8,374	92/m	"by the right thigh"
4.	2535	3	(5+1,5)	–	(1,42)	(0,29)	6,823	92/m	"by the right thigh"
5.	2544	2	11,04	7,25	1,14	0,31/0,24	11,511	94/m	"on the right side by the pelvis"
6.	2546	1	(10,33)	6,90	0,87	0,40/0,28	7,344	97/m ?	"below the pelvis"
7.	2579	2	(8,19)	–	1,11	0,40/0,26	9,189	127/m ?	"on the chest"
8.	2580	2	(8,32)	7,65	1,18	0,25/0,22	6,640	127/m ?	"on the right side below the pelvis"
9.	2647	3	(12,40)	(6,28)	1,52	1,28/1,14	11,614	235/ž ?	"by the outside of the left pelvis"
10.	2651	2	14,50	11,20	1,72	0,50/0,25	26,105	238/m ?	"in the palm of the left hand"
11.	2674	3	(10,31)	8,36	1,24	0,25/0,20	10,784	268/m	on the right side below the quiver (?)
12.	2691	1	(8,75)	(6,40)	1,09	0,28/0,20	7,171	289/m ?	"on the left side below the pelvis"
13.	2709	2	7,55	5,45	1,25	0,33/0,26	8,748	312/m	"on the right side by the pelvis"
14.	2734	2	7,02	4,33	1,02	0,27/0,24	4,146	324/m	"above the upper right arm"
15.	2747	2	10,20	7,21	1,00	0,37/0,24	10,921	327/ž ?	"on the left side next to the pelvis"
16.	2748	2	(11,83)	8,33	1,14	0,31/0,18	10,603	331/m	"on the left side next to the pelvis"
17.	2755	2	10,38	7,67	1,93	0,31/0,24	10,026	342/m	"on the right side next to the pelvis"
18.	2761	2	9,90	7,77	0,92	0,29/0,22	7,406	345/m	"on the left side next to the pelvis"
19.	2787	2	(13,85)	10,60	1,14	0,37/0,26	16,747	366/m ?	"by the pelvis on the right side"
20.	2848	2	(9,25)	6,94	1,26	0,35/0,19	9,550	421/m	"across...the left thigh"
21.	3458	3	11,16	7,80	1,52	0,32/0,17	8,945	–	–
22.	3459	–	(3,06)	–	(1,08)	0,27/–	(1,218)	–	–
23.	2897	1	10,70	7,27	1,17	0,27/0,20	7,412	–	–

[NB: The length of the knife is noted in parentheses only in cases when the blade is damaged (but not the tang); w. blade = greatest width; th. blade = greatest thickness /thickness measured 1 cm from the tip of the blade]

\*Notes:

21. Excavated in quad. XI/10 in 1952 (ex P-17730/1).

22. Fragment; excavated in quad. XI/10 in 1952 (ex P-17730/2).

23. Excavated in quad. XIII/6d.

At Lijevo Bara, 23 early medieval iron knives were found, and of these 20 knives (86.96%) come from 18 graves, while 3 knives were chance finds (all three from a trench in the southeastern zone of the cemetery).<sup>4</sup> In most of the graves, one knife was found by the skeleton (88.89%), and in only two graves – which is unusual for cemeteries of the second half of the 10<sup>th</sup> and 11<sup>th</sup> centuries<sup>5</sup> – two knives were found by the skeletons (gr. 92 and 127). The greatest number of knives comes from male (or probably male) graves (90%), and only two knives come from two probable female graves (gr. 235, 327).<sup>6</sup> Among the graves with finds, the share of graves with knives measures a relatively significant 9.42%.

<sup>4</sup> An iron knife is mentioned as a chance find only once in the field documentation, as a find in the fill of quadrant XII/8 (*Dnevnik*, ad 20 August 1952). There is, however, no trace of this knife in the S-AMZ inventory book, although three early medieval knives are noted as chance finds: one completely preserved example and one fragment of a knife from the fill in quadrant XI/10 (S-3458-3459 = P-17730/1-2), and one completely preserved example from the fill in quad. XIII/6d (S-2897). Other than these three knives, the S-AMZ notes as a chance find from quad. XVI/13a a large fragment of an evidently prehistoric iron knife (S-2921).

<sup>5</sup> For this period the appearance of two knives is related to male, usually warrior graves, as is shown by the finds from several early medieval cemeteries in Hungary, such as *Sárbogard – Tringer tanya*, gr. 59: ÉRY 1968, 129, Pl. XXXV:1–2; *Tuszér – Boszorkányhegy*, gr. 3: JÓSA 1900, 215; HAMPEL 1907, 145.

<sup>6</sup> In the professional literature (TOMIČIĆ, 137 Pl. X:1), another knife find is attributed to another female grave (gr. 93), but that knife is in fact attributed in the museum documentation to the inventory of male grave 268 (S-AMZ 2674 = P-AMZ 18252; see also DEMO 1996, 87 no. 44.6).

All the knives from the grave inventory were discovered in a functional position. As a rule, they were found in the waist area – i.e. by the pelvis or beneath the pelvis, by, above, or across the thigh, and in the fist of the hand of one skeleton – in an equal number on the right and left side of the waist (8 knives from 7 graves, and 9 knives from 9 graves, respectively). In only one grave was the knife discovered "below the pelvis" of the deceased, and it is not known on which side of the skeleton the knife was in fact located (gr. 97). In a less usual position above the waist of the deceased, as the contents of some kind of receptacle sewn or attached to clothing, two knives were found: in one case the knife was located "above the upper right arm" of the deceased (gr. 324), and in another case, it was discovered "on the chest" of the deceased (gr. 127; S-2579).<sup>7</sup>

In male graves, the knife is usually found together with weapons, most often with one or two arrows (gr. 81, 312), with a quiver and arrows (gr. 127, 268), or simply with a bow (gr. 92), and of equipment, most often with a fire-steel (gr. 81, 268, 342), and once with a secondarily used prehistoric spindle-whorl (gr. 289).<sup>8</sup> Knives appear most often together with jewellery in the form of open-ended or closed hoops: two earlier warrior graves, along with open-ended rings of arched or semicircular section of the light weight system, also contained a bracelet with cut and thinned ends (gr. 268), and a bracelet of similar characteristics and a pair of large format bronze circlets (gr. 92), while one later grave contained a closed silver ring of semicircular section (gr. 331). Other than jewellery, a pair of iron belt loops was found along with a knife (gr. 324). A knife was the only find in six graves (33.33%), four of them male or probably male graves (gr. 57, 345, 366, 421) and two probably female graves (gr. 235, 327).

Graves with knives are most numerous in the southern half of the excavated area of the cemetery, but out of the 77.78% of graves in this part, almost four-fifths are located in the southeastern zone of burial (78.57%),<sup>9</sup> with the remainder in the southwestern zone of burial (21.43%).<sup>10</sup> Finds of knives are considerably more rare in the northern zone (22.22%), but are equally numerous in the northeastern<sup>11</sup> and the northwestern parts of the cemetery.<sup>12</sup>

For 22 of 23 knives, the typological characteristics and basic traits could be established, and it was possible to assign them to three groups on the basis of the formation of the spine (**Fig. 14:1.1–3**):<sup>13</sup>

1) *Knives with a straight back* (**Fig. 14:1.1; Pl. 9:5**) consisted of four grave finds and one chance find (5 ex.), with a total share of somewhat less than one quarter (22.73%) and were the only group of knives represented in equal amounts in the northern (gr. 81, 97) and southern parts of the cemetery (gr. 57, 289, S-2897). They were found exclusively in male or probably male graves, where they usually had a length of ca. 10 cm (gr. 57, 81, 97, 289). They were documented as an earlier relative chronological find together with a fire-steel and two arrows (gr. 81), and in later graves together with an open-ended ring of circular section (gr. 97), with a secondarily used prehistoric spindle-whorl (gr. 289), and in only one case was the knife the only grave find (gr. 57).

2) *Knives with a straight back bent downwards towards the tip* (**Fig. 14:1.2**) were represented by 13 specimens from 12 graves, and with a share reaching 59.09% were the dominant group among the Vukovar knives (gr. 92, 94, 127/2 ex., 238, 312, 324, 327, 331, 342, 345, 366, 421). Most of the knives were longer than 10 cm, and the shorter ones between 7 and 8 cm long were only rarely preserved specimens (gr. 312, 324).<sup>14</sup> On 11 knives, the tang was more or less sharply cut on both sides (gr. 94, 127/2580, 238, 312, 324, 327, 331, 342, 345, 366, 421), on only one example was the tang thinned on one side of the back (gr. 92/S-2534+2536).<sup>15</sup> With the exception of one probably female grave (gr. 327), all the other examples come from male or probably male graves, including three warrior graves located in various parts of the cemetery (gr. 92, 127, 312). A knife with a flat spine bent downwards towards the tip is the only find in two male or probably male graves (gr. 366, 421) and also in one probably female grave (gr. 327).

3) *Knives with a curved back* (**Fig. 14:1.3**) compose the least numerous group of knives (18.18%), represented by three grave finds (gr. 92/S-2535, 235, 268) and one chance find (S-3458). The preserved examples are longer than 10 cm, and their tangs are thinned either on both sides (S-3458) or on only one side – in one case along the back (gr. 235),

<sup>7</sup> For a similar position of a knife at the cemetery of Ikervár – Virág utca, gr. 57, see: HAJMÁSI – KISS 2000, Pl. 25.

<sup>8</sup> A rare combination of a knife and a spindle-whorl found in a male grave was noted, for example, at the cemetery Vasas – Somogy in Hungarian Baranya, DOMBAY 1962, 76, Pl. IX:3–4 (gr. 18).

<sup>9</sup> The southeastern zone with 11 graves gathered into three groups (I. zone): the more numerous western group (gr. 235/Ě, 238, 268, 342, 345, 421), and two smaller groups located in the southeastern (gr. 324, 327/Ě, and 331) and northern edge of the zone (gr. 57, 127).

<sup>10</sup> Southwestern zone (zone IV): 3 graves (gr. 312, 289, 366).

<sup>11</sup> Northeastern part: 2 graves (gr. 81, 94).

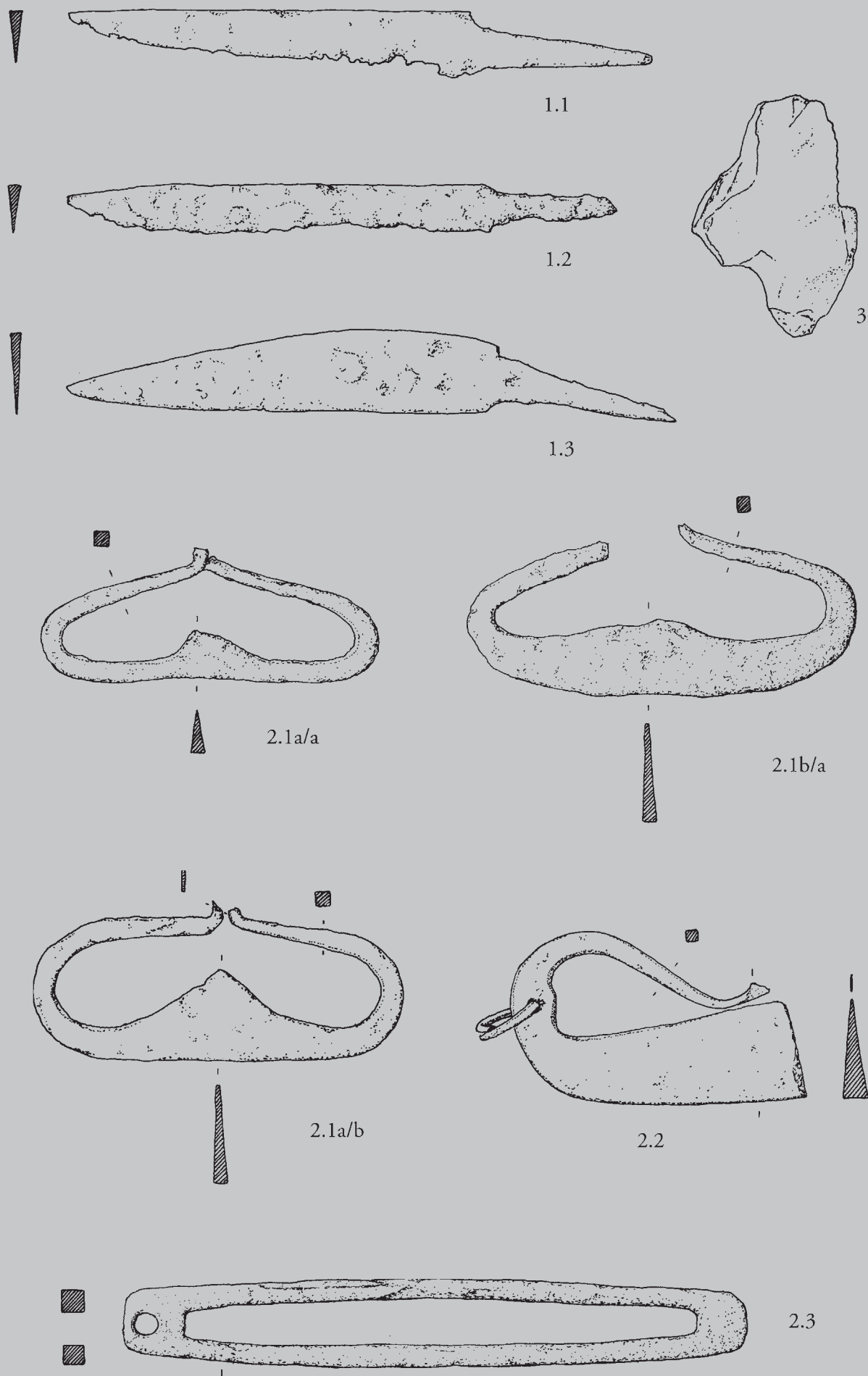
<sup>12</sup> Northwestern part: 2 graves (gr. 92, 97).

<sup>13</sup> The characteristics of the knives of the first two groups partly correspond to the division that was once suggested by: VÁŇA 1954, 72, 75 (Pl. VII:22–24).

<sup>14</sup> The knife from gr. 345 has a damaged and incomplete handle and was certainly longer than 10 cm.

<sup>15</sup> Because of only partial preservation, for one knife the cut angle of the tang remains unknown (gr. 127/S-2579).





**Fig. 14.** Represented types and variants of objects of everyday use, personal equipment (4.1.1.1–3). **1** – Knives, iron (1.1 – a knife with a straight spine: quad. XIII/6d, 1953; 1.2 – a knife with a straight back bent downwards toward the tip: gr. 345/m; 1.3 – a knife with a curved back: quad. XI/10, 1952). **2** – Fire-steels, iron (2.1a/a – lyre-shaped, flat base, arms raised at an angle: gr. 107/m; 2.1b/a – lyre-shaped, convex base, arms raised at an angle: gr. 81/m; 2.1a/b – lyre-shaped, flat base, arms curved like the letter "C": gr. 268/m; 2.2 – a fire-steel with one arm lowered at an angle: gr. 101/?; 2.3 – a fire-steel of elliptical-rectangular shape: gr. 89/m). **3** – A flint (gr. II-1951/?).

and in the other case along the blade (gr. 268).<sup>16</sup> The knives with a curved back come from the earlier graves buried at the end of the second third or beginning of the last third of the 10<sup>th</sup> century. Two examples are finds from warrior graves, very distant from one another and located in the northwestern (gr. 92) and southeastern parts of the cemetery (gr. 268), also the site of a knife with a curved back found in a probably female grave, where it was the only find (gr. 235). The deceased from graves located in the southeastern zone (zone I) were buried at a distance from each other of barely 2 m (gr. 235, 268).

In the Slavic regions south of the Drava and Mura Rivers, finds of knives are not common in the Bijelo Brdo cemeteries of the 10<sup>th</sup> and 11<sup>th</sup> centuries:<sup>17</sup> in eastern Slavonia, other than the numerous examples in the graves at Vukovar – Lijeva Bara, several knives come only from the cemetery of Bijelo Brdo – Ul. Venecija (gr. 35, 52, 78, 229)<sup>18</sup> and from the destroyed cemetery at Dalj,<sup>19</sup> while to the west of this region, only one or two knives were noted among the grave finds from the Bijelo Brdo cemeteries of Donji Miholjac – Borik/Janjevci u in Slavonia (gr. 4/m),<sup>20</sup> Stari Gradac – Kranjčev brijeg in the Virovitica Drava basin<sup>21</sup> and Đelekovec – Šćapovo in the Koprivnica Drava basin (gr. 32/?, 107/?),<sup>22</sup> Sv. Juraj u Trnje – Sv. Juraj in the Međimurje region,<sup>23</sup> and north of the Sava River at the cemeteries of Lobar – Majka Božja Gorska (gr. 7/ch)<sup>24</sup> and Zagreb – Stenjevec/Sv. Marija (gr. 74/f).<sup>25</sup> In Bijelo Brdo cemeteries south of the Sava in northwestern Bosnia, knives were found in two female graves, one at the cemetery of Gomjenica – Baltine bare (gr. 62),<sup>26</sup> and the other at the cemetery of Mahovljani – Luke/Kužno groblje (gr. 91).<sup>27</sup> A find of a knife in a female grave also comes from the cemetery of Mačvanska Mitrovica – Zidine, located south of the Sava in the northwestern part of the Serbian region of Mačva (gr. 229).<sup>28</sup>

Knives appear as grave finds at Bijelo Brdo cemeteries throughout the entire 11<sup>th</sup> century, as is shown by examples from Hungary, Slovakia, Romanian Transylvania, and Serbian Vojvodina, dated by coins of the Hungarian kings Stephen (1000–1038),<sup>29</sup> Andrew (1046–1060),<sup>30</sup> Béla I (1060–1063)<sup>31</sup> and Ladislav (1077–1095).<sup>32</sup>

<sup>16</sup> The considerable corrosion and damage to the fragment means that it cannot be established whether or not the knife from gr. 92 had an incised tang (S-2535).

<sup>17</sup> Such a situation – contributed to by the small number of archaeologically excavated Bijelo Brdo cemeteries in the southern Pannonian region in Slovenia, Croatia, and Bosnia & Herzegovina – does not permit any hypothesis about the possible role and significance of the knife as a symbol of free Slavs in these southern Bijelo Brdo Culture areas, as was once claimed and proven for the Slavic regions along the Elbe River and for the Slavs in Bohemia, Moravia, and Poland, BORKOVSKÝ 1956, 365–366; BORKOVSKÝ 1957, 553–560.

<sup>18</sup> BRUNŠMID 1904, 36 Fig. 3:1–2. 54–55, 58; ERCEGOVIĆ 1958, 170 Fig. 23, 171.

<sup>19</sup> HAMPEL 1907, 162 no. 2, Pl. 52:2.

<sup>20</sup> BOJČIĆ 1984, 218 Fig. 7, found in a grave together with a spear, a pottery vessel, a ring, and spikes (?).

<sup>21</sup> A fragment of the handle and blade of a small knife (S-2166) and 3 partly preserved S-circlets (S-2165) collected as chance finds from destroyed graves were donated to the AMZ by Miroslav Vukčević in 1954. The existence of this knife among the few preserved finds from Kranjčev brijeg, kept in addition to the AMZ by the Municipal Museum of Virovitica, is mentioned only in passing in the professional literature: TOMIČIĆ 1997, 71; SALAJIĆ 2001, 27.

<sup>22</sup> Š[MALCELJ] 1986 = *Koprivnica* 1986, 132, 139 (fig. 84: below), 156–157 no. 187, 196.

<sup>23</sup> TOMIČIĆ 1999a, 43 n. 6, but without noting the grave unit.

<sup>24</sup> JURICA-FILIPEC 2002, 22, 26 Pl. 2:5, 30 (child grave). The knife was found some twenty centimeters distant from the right upper arm, and it is evident that it was located in a non-functional position.

<sup>25</sup> *Zagreb* 1994, 158 no. 425a–b; SIMONI 1996, 73–74, 78 Fig. 2:8, other than the knife from gr. 74 (the circumstances of the find not noted), another example is cited as another example of a (chance) find from one of the destroyed graves; SIMONI 2004, 28–29 no. 7.

<sup>26</sup> MILETIĆ 1967, 91, 137–138, Pl. XV (below) and XXXII:19.

<sup>27</sup> MILETIĆ 1980, 147, 156–157, Pl. VIII (above) and XX.

<sup>28</sup> ERCEGOVIĆ 1980, 22, 51, Pl. XX.

<sup>29</sup> *Csanytelek – Sír-hegy*, gr. 22: SZÉLL 1941, 170, Pl. XXXVIII:26. *Szombathely – Szent Márton*, gr. 27: KISS – TÓTH 2000, 170, Pl. 80:3. *Ellend – Nagyödör dűlő*, gr. 117: DOMBAY 1961, 143, Pl. VI:12–14.

<sup>30</sup> *Szőreg – Homokbánya*, gr. 27: BÁLINT 1991, 87–88.

<sup>31</sup> *Szőreg – Homokbánya*, gr. 25: BÁLINT 1991, 87.

<sup>32</sup> *Moldovenesti – Várhegy*, gr. 55: ROSKA 1914, 177. *Nitra – Šindolka*, gr. F116: FUSEK 1999, 74, 76. *Subotica – Verusić/B*, gr. 148: SZEKERES – SZEKERES 1996, 48, Pl. XXXVII: 8–9. At the same cemetery, which judging from the finds belongs to the full 11<sup>th</sup> century – with coinage spanning the reigns of king Andrew (1046–1061) to Ladislav (1077–1095) – a knife was found in another two female graves (gr. 186, 265), and in one male and probably male grave (gr. 66, 93).

### 4.1.1.2–3. Steel and flint (T. A5; H. 3–4; V. VII/19–21)

No.	Steel 4.1.1.2.	Flint 4.1.1.3.	Inv. AMZ	Steel form	Dimensions			Wt (g)	Grave (sex)	Circumstances of the find
					l.	ht./w.	th.			
1.	–	1	2437	–	5.71	1.81	0.60	8.444	17/m ?	"on the l. side of the ribs"
2.	1	–	2518	1b/A1/a1	7.13	3.18	0.40	17.626	81/m	"on the left side by the pelvis"
3.	2	–	2523	3/B1	11.47	1.62–1.15	0.6–0.15	23.283	89/m	by the left knee "outside"
4.	–	2	2586	–	[1.42	1.25	0.40]	[0.556]	89/m	by the left knee "outside"
5.	3	–	2548	2/A1/c	4.91	3.03	0.55	23.006	101/?	"by the grave"
6.	4	–	2552	1a/B1/a2	6.18	2.52	0.46	10.898	107/m ?	"by the leg", between knees
7.	5	–	2675	1a/A1/b3	6.73	2.82	0.35	13.989	268/m	"by the left flank"
8.	6	–	2754	1a/A1/a1	6.96	3.68	0.43	15.194	342/m	"on the right side of the pelvis"
9.	–	3	2596	–	[1.48	1.34	0.48]	[1.068]	148/m ?	"on the chest"
10.	–	4	2729	–	[2.94	2.66	0.58]	[4.065]	317/m	"on the left side of the head"
11.	–	5	2888	–	[4.31	2.98	1.66]	[13.765]	II-1951/?	"by the toes"

[Forms: 1 – lyre-shaped steel (1a – flat base; 1b – convex base); 2 – steel with one backward bent arm; 3 – steel of ellipsoid-rectangular form; A1 – body with a rectangular section (with triangular reinforcement); B1 – body with a square section (with triangular reinforcement); a – arms bent backwards and raised at an angle; b – arms bent backwards like the letter "C"; c – arm(s) bent backwards and lowered at an angle; 1 – separated loops; 2 – touching loops; 3 – undetermined loop position]

\*Notes:

3. Circumstances of discovery on the basis of the field photographic documentation (AMZ 1693-IV-533).  
6. Circumstances of discovery on the basis of the field photographic documentation (AMZ 1797-II-810).

9. It is possible that the flint had been located in the palm of the right hand placed on the left side of the chest.

Steel and flint, a steel by itself, or a flint alone, were found in 10 graves: steel and flint in one grave (10%), a steel alone in five graves (50%), and a flint alone in four graves (40%). These finds were mainly connected to male or probably male graves (80%), while the sex of the deceased was not established for two graves (20%).<sup>33</sup> Among the graves with finds, the graves with steels, flints or both measured a minimal 5.24%.

Although steels are usually found in the waist area, on the left or right side – as the possible contents of some pouch of organic material hung from a belt – at Lijevo Bara only three steels were found in such a position, two on the left side of the waist (gr. 81, 268), and one on the right side of the waist (gr. 342). Among the remaining three steels, two were found in the knee area, on the left side (gr. 89) or between the knees (gr. 107), while one steel was found in an undetermined place "by the grave" of one very damaged and only partially preserved skeleton (gr. 101).<sup>34</sup>

The steels were usually found in graves together with a knife (gr. 81, 268, 342), or with one (gr. 262) or two arrows (gr. 81), or together with a quiver, an open-ended bracelet with cut and tapered ends, and with an open-ended ring of arched section (gr. 268). In only one case was a flint found along with a steel, and also with a metal scraper made from part of a silver Late Bronze Age fibula with a hammered leaf-shaped bow (gr. 89). As the only find in a grave, a steel was discovered in each of two graves distant less than 5 m from one another, located in the northwestern part of the excavated area of the cemetery (gr. 101, 107). A similar duplicate arrangement with a distance from each other of ca. 4 to ca. 6 m was also exhibited by the graves with steels located in the southeastern zone (gr. 268, 342) and eastern part of the northern zone of burial (gr. 81, 89).<sup>35</sup>

Three forms of steels were found (Fig. 14:2.1–3):

1) *Lyre-shaped steels* (Fig. 14:2.1/a–b; Pl. 9:6, 12:3) – common grave finds from the 8<sup>th</sup> to the 11<sup>th</sup> centuries<sup>36</sup> – are distinguished by their flat (type 1a) or convex base (type 1b) and two bent back arms on whose ends can occasionally be recognized tapered or hammered loops circularly curled outwards (in the shape of the letter "O"). The body of the steel was

<sup>33</sup> For the steel mentioned in part of the field documentation as a find "in quadrant XVIII/14" (*Dnevnik*, ad 10 August 1953), discovered "while cutting a niche into the eastern...half a meter above the skeleton" (sc. gr. 216!), no confirmation can be found in the inventory books of the AMZ.

<sup>34</sup> DEMO 1996, 42.

<sup>35</sup> For a similar example of the duplication of graves with steels in Hungarian Baranya at the cemetery of Kérpusztá – Keréktábla, gr. 66 and 67: NEMESZKÉRI – LIPTÁK – SZŐKE 1953, Plan.

<sup>36</sup> HRUBÝ 1955, 117–118. – In the graves of early Hungarian warriors in Slovakia (TOČÍK 1988, 200) and Hungary, only lyre-shaped steels are found.

usually reinforced with a high or low, long or short, but most often triangularly shaped central plate.<sup>37</sup> At Lijevo Bara, the lyre-shaped steels with a triangular reinforcement are the predominant form (66.67%). On most examples, the arms are raised upwards at an angle (gr. 81, 107, 342) and in only one case were they curved like the letter "C" (gr. 268). The body of the steel on both sides of the central triangular reinforcement often has a rectangular section (gr. 81, 268, 342), and more rarely a square section (gr. 107), which gives the former a more massive appearance, also emphasized by the greater metrological values. On two of the steels, the loops on the ends of the arms were separated or probably were separated (gr. 81, 342), while on another two they touched (gr. 107) or possibly could have touched (gr. 268). The lyre-shaped steels with arms raised at an angle had lengths of around 7 cm, with a height of more than 3 cm (gr. 81, 342), the lyre-shaped steel with arms curved like the letter "C" is of insignificantly smaller dimensions (gr. 268), and the smallest, lightest, and youngest in relative chronology is the steel with a square sectioned body (gr. 101). Also in terms of relative chronology, in reference to the location of the grave and the accompanying finds, the earliest is the steel with arms in the shape of the letter "C" (gr. 268), while somewhat later than this are the steels with raised angled arms (gr. 81, 342).

2) *A steel with one arm bent backwards* (Fig. 14:2.2; Pl. 12:2) belongs to a group of small steels (type 2) – with a length of less than 6 cm<sup>38</sup> – unusual as Bijelo Brdo grave finds (gr. 101).<sup>39</sup> The body of the steel is polygonal in shape with a rectangular section (only in the highest section with a triangular section), and the arm of the steel is also of rectangular section, bent backwards and lowered towards the top of the body, which it does not touch, and again bent and briefly raised in the opposite direction (the arm bent in the shape of the letter "S"). A hole for suspension is located in the lower section of the arm, with a circular loop whose ends overlap.<sup>40</sup> Despite the generally smaller dimensions in relation to the lyre-shaped steels, the steel with one arm bent backwards is both more massive and heavier than the former.

3) *A steel of ellipsoid-rectangular shape* (type 3) – the only one among the six Vukovar steels found together in a grave with a flint for striking (gr. 89)<sup>41</sup> – is classified among steels of larger dimensions (longer than 9 cm). It is composed of two elliptically separated bars of rectangular section (0.55/0.38 cm) connected by two rectangular platelets of triangular section. The platelets are gently rounded on the outer side with a circular hole for suspension pierced in one of them (Fig. 14:2.3; Pl. 12:1). The ellipsoidal form is merely a variant of the more rounded bars characteristic for the type of *oval or oval-rectangular steel*, which is a very rarely found among Bijelo Brdo finds. Other than the ellipsoidal steel from Vukovar in the Croatian Danubian basin, in the lower Tisza valley in Hungary oval-rectangular steels appear as early as during the first third of the 11<sup>th</sup> century (Csanytelek-Dilitor),<sup>42</sup> and in Hungarian Baranya rare examples appear during the second quarter of the 11<sup>th</sup> century<sup>43</sup> or the middle of the 11<sup>th</sup> century.<sup>44</sup> In the near vicinity of these finds or further afield, in the south of Croatia,<sup>45</sup> Romania,<sup>46</sup> Serbia,<sup>47</sup> and Slovenia<sup>48</sup> finds of *oval-rectangular steels* are usually dated to the 11<sup>th</sup>–12<sup>th</sup>/13<sup>th</sup> centuries.<sup>49</sup>

In contrast to the more numerous steels, finds of *flints* from stone of the same name were noted in five graves (Fig. 14:3) – in four male or probably male graves (gr. 17, 89, 148, 317), and in a grave where the sex of the deceased was not determined (gr. II-1951). In only one of these graves was a flint found together with a steel, placed by the left knee "on the ou-

<sup>37</sup> Such reinforcement is not noticeable for some steels, e.g. Nové Zámky – Kombinat "Slovlik", gr. 42: REJHOLCOVÁ 1974, Pl. II:15.

<sup>38</sup> DEMO 1996, 42, 86 no. 45b:3, where in the first publication this steel was described as a fragment and classified among steels with the shape of the letter "B". Subsequent laboratory analysis established that the body of the steel had not been broken, and it became clear that it belonged to the different typological group, i.e. steels with one arm bent. – For a similar example in the Historical Museum of Croatia, see ŠKILJAN 2002, 121 no. 515. – Another similar example comes from the site of Beograd – Donji grad, Belgrade fortress (Danube slope, bank, S-273), BIKIĆ – ŠĆEHAR 2004, 167 (Fig. 108:461), 209 no. 461. Although the steel comes from the layers of the embankment, at this site traces were noted and finds were gathered from the destroyed early medieval settlement layer of the 10<sup>th</sup>–12<sup>th</sup> centuries (Byzantine fortress with suburbium), POPOVIĆ – BIKIĆ 2004, 45–47, 241.

<sup>39</sup> The typologically quite differently shaped steel with one arm bent backwards is more common in the lower Danube basin among finds from the 7<sup>th</sup>–9<sup>th</sup> centuries, FIEDLER 1992, 208–209.

<sup>40</sup> The steel was probably used so that the index finger was placed in the opening between the bent arm and the polygonal body of the steel, while the middle finger merely leant on the exterior side of the ending of the arched arm.

<sup>41</sup> "I steel of large dimensions and a small red flint,..." as finds from gr. 89 were noted only by the *Dnevnik*, ad 2 September 1952.

<sup>42</sup> For an oval steel found in gr. 37 by the head of the skeleton together with a silver coin of King Stephen (1000–1038), see SZÉLL 1941, 263, pl. X/B:20. Also from the same cemetery is a grave find of a lyre-shaped steel, dated by a coin of the same king, op.cit., 263, Tab. XI/A:18 (gr. 50).

<sup>43</sup> *Képuszta – Keréktábla*, gr. 67: NEMESZKÉRY – LIPTÁK – SZŐKE 1953, Pl. XLVII:14.

<sup>44</sup> *Ellend – Nagyödör dűlő*, gr. 251: DOMBAY 1961, 148. XXII:31. – In Scandinavia, such steels are often dated to the period between AD 1000 and 1050, e.g. *Copenhagen* 1992, 244 No. 61a.

<sup>45</sup> *Plavno*, chance find: GUNJAČA 1960, 17, Pl. XII:4.

<sup>46</sup> *Bisericuța – Garvăn*/ancient *Dinogetia*: BARNEA 1967b, 73 Fig. 38:23, 75, 79 Fig. 41:16. *Pacuiul lui Soare*: DIACONU 1972a, 319 Fig. 1:5–7, 321–323.

<sup>47</sup> *Mačvanska Mitrovica – Zidine*, gr. 124: ERCEGOVIĆ 1980, 26–27, 51, Pl. XXII. *Trnjane – Staro groblje*, gr. 342: MARJANOVIĆ-VUJOVIĆ 1984, 55, 101–102, Pl. XXVII:6.

<sup>48</sup> *Fijeroga – Sv. Štefan*, gr. 1: KNIFIC 1994, 54–55, 60–61, in addition to the oval, or rather oval-rectangular steel from this cemetery, another five such steels from various sites in Slovenia were gathered and published. The length of most of these steels measures from 11.4 to 12.6 cm, and an example that is considered to belong to the late medieval period was as much as 16.95 cm long (Otok ob Dobravi). For the latter example, see STARE 2002, 19, 23 (fig. 3), 30 (Pl. 2:12).

<sup>49</sup> Finds of oval steels from Novgorod Veliki in the north of Russia are dated similarly, KOLČIN 1959, 101–103.

ter side" (gr. 89). In the remaining four graves the flint was found without a steel in a nonfunctional position: "by the toes" of a skeleton outfitted with a pair of silver circlets and a heavy silver bracelet (gr. II-1951/?), as the only grave find placed "on the left side of the head" (gr. 317), "on the chest" of the deceased, where it was found as it belonged to some receptacle hung around the neck or sewn onto the clothing (gr. 17), or it was simply placed in the hand of the deceased, which was placed on the chest of the deceased (gr. 148).<sup>50</sup>

At Bijelo Brdo Culture cemeteries in Hungary and Slovakia, the find of flints without steels is not unusual, occurring equally in female,<sup>51</sup> child,<sup>52</sup> or male graves.<sup>53</sup>

## 4.1.2. Tools and implements

### 4.1.2.1. Spindle-whorl (V. VII/26; H. 6, 6 dif.)

No.	Inv. AMZ	Form	Dimensions			Wt. (g)	Grave (sex)	Circumstances of the find
			Ø	ht.	Ø hole			
1.	2574	1b	2.00	(1.24)	0.38	3.345	122/f	"by the edge of the grave"
2.	2632	1b	1.73	1.10	0.48	2.607	218/f	"between the feet"
3.	2686	1a	1.66	1.17	0.46	2.718	281/ch	"in the soil above the pelvis"
4.	2692	2	6.375	2.40	0.92	71.476	289/m ?	"on the right side above the pelvis"

[Forms of spindle-whorls: 1a – biconical, identical halves; 1b – biconical, different halves; 2 – conical]

\*Notes:

1. Incomplete (half missing).  
2. Damaged (chipped).

3. Decorated with an incised broken line.  
4. Secondary use of a prehistoric spindle-whorl; damaged (chipped).

Spindle-whorls are not artifacts usually found at Bijelo Brdo cemeteries, and it is considered that as grave finds they were not related to the Hungarian population,<sup>54</sup> but rather Slavic inhabitants.<sup>55</sup> They were found in four graves at Lijevo Bara: in two female graves (50%), in one child grave (25%), and in one probably male grave (25%).<sup>56</sup> Among the graves with finds, the share of graves with spindle-whorls is a minimal 2.09%.

All four spindle-whorls are made of fired clay, and only one was decorated with an incised broken line (gr. 281/ch). Three spindle-whorls are smaller and lighter examples of biconical forms with unequal (gr. 122/f, 218/f) or equal halves (gr. 281/ch),<sup>57</sup> and the fourth example is very heavy with a conical shape, to all appearances an Eneolithic spindle-whorl secondarily used in the early medieval period (gr. 289/m?).<sup>58</sup> The smaller and lighter spindle-whorls were used to spin wool, and the larger and heavier ones to spin plant fibers (Fig. 15:1–2).<sup>59</sup> No traces or remains of a distaff or spindle making up a full set for spinning were found with any of these spindle-whorls.

<sup>50</sup> The position of the find in the grave was noted by the *Zapisnik*, 148/15 September 1952. – Similar finds of flints discovered in the area of the head and neck of the skeleton can be noted at other Bijelo Brdo Culture cemeteries from the 10<sup>th</sup> and 11<sup>th</sup> centuries, such as in Slovakia at the cemetery of Bešeňov – Sirdúló, gr. 10, 129 (NEVIZANSKI 1979, 377, 388, 396 Pl. II:15, 399 Pl. VIII:3) and Čakajovice – Kostolné, gr. 405 (REJHOLCOVÁ 1995, 43, 154 Pl. LXIV:15) and in northeastern Hungary at the cemetery of Timár – Béke Tsz majorja, gr. 36 (KOVÁCS 1989a, 138, 145). In Croatia, one example of a flint blade was noted in central Istria at the Early Croatian cemetery of Žminj – Staro sajmište, gr. 73 (MARUŠIĆ 1987, 24, 88, Pl. III:16).

<sup>51</sup> *Malé Kosihy – Horné Konopnice*, gr. 18: HANULIAK 1994, 117, 141 Pl. II:B/4. *Piliny – Sirmányhegy*, gr. 64: NYÁRI 1902, 238.

<sup>52</sup> *Ikervár – Virág utca*, gr. 41: HAJMÁSI-KISS 2000, 49, Pl. 21:41/3–4.

<sup>53</sup> *Timár – Béke Tsz majorja I*, gr. 26: KOVÁCS 1989a, 136 Fig. 10:2, 144. *Zemné – Gúg*, gr. 28: REJHOLCOVÁ 1979, 409, 424 Pl. II:10.

<sup>54</sup> SZABÓ 1966, 66.

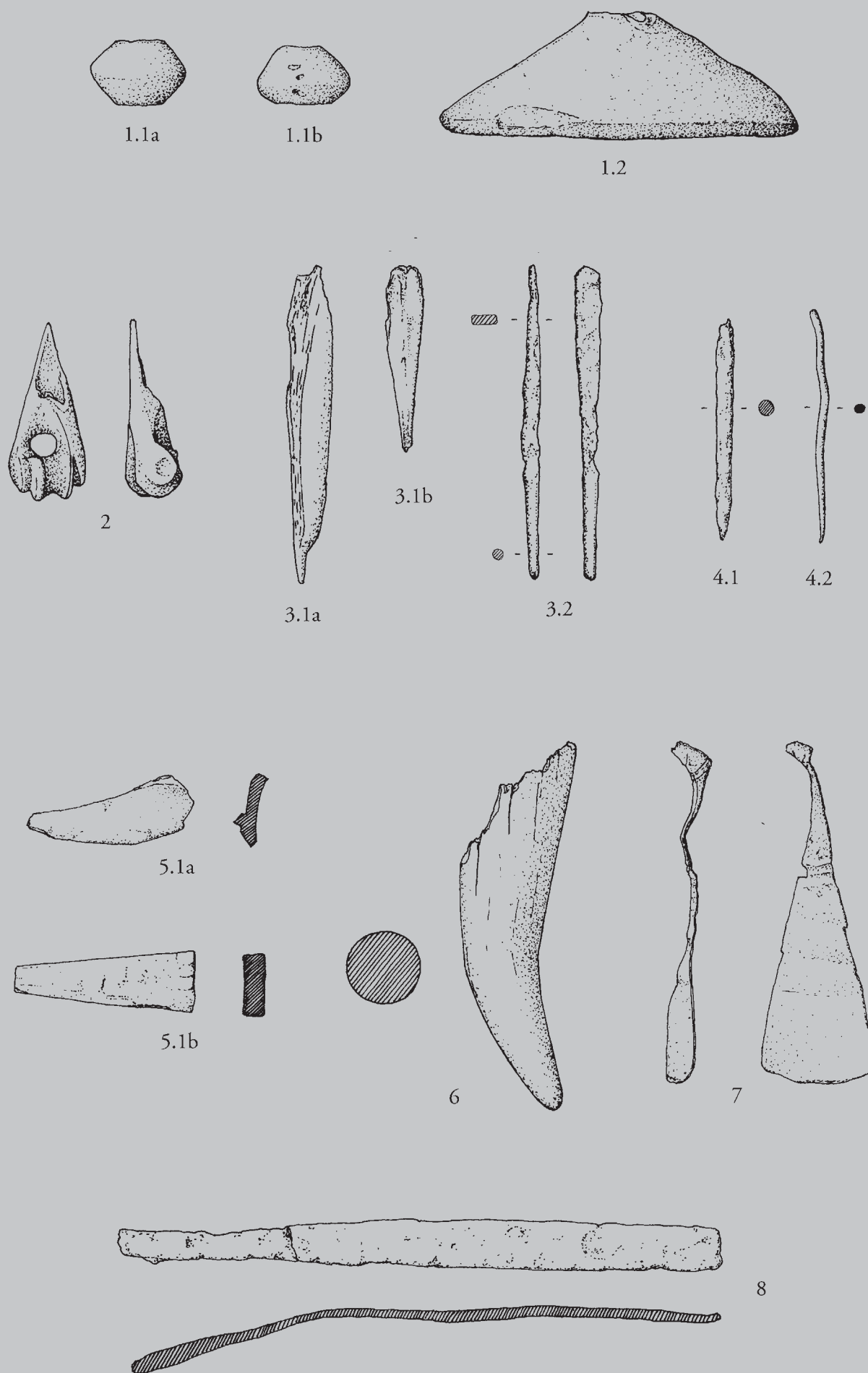
<sup>55</sup> HANULIAK 1994, 33.

<sup>56</sup> DEMO 1996, 42–43.

<sup>57</sup> In the early medieval period in the Carpathian basin, biconical spindle-whorls were the predominant shape as early as the late Sarmatian and Hunnic period of the late 4<sup>th</sup> and early 5<sup>th</sup> centuries (VADAY 1989, 126–127), and they were particularly frequent in the middle Avaric and late Avaric period of the 7<sup>th</sup> and 8<sup>th</sup> centuries (KOVRIK 1963, 118; ČILINSKÁ 1966, 180–182), while they were also common later, during the 9<sup>th</sup> century, in the Early Carolingian period (SZŐKE 1992a, 146–148).

<sup>58</sup> For analogous spindle-whorls from the early Bronze Age Vučedol Culture with sites in eastern Croatia (e.g. Sarvaš in eastern Slavonia), see HORNES 1903, 277 (Fig. 37–38).

<sup>59</sup> BŘEZINOVÁ 1997, 130.



**Fig. 15.** Represented types and variants of objects of everyday use: tools and implements (4.1.2.1-8). **1** – Spindle-whorl, fired clay (1.1a – biconical, identical halves: gr. 281/ch; 1.1b – biconical, unequal halves: gr. 218/f; 1.2 – conical: gr. 289/m?). **2-4** – Thatching needle, awl, needle (2 – thatching needle, bone: gr. 29/ch; 3.1a – awl, bone, animal: gr. 22/m; 3.1b – awl, bone, fish: gr. 253/f?; 3.2 – awl, iron: gr. 306/m; 4.1 – needle, iron: gr. 257/m?; 4.2 needle, bronze: gr. 293/m?). **5** – Awl press (5.1a – stone: gr. 253/f?; 5.1b – bone: gr. 306/m). **6** – Tightener/loosener, bone (37/m). **7** – Scraper, silver, (89/m). **8** – File, iron (quad. XIII/3c, 1953.).

In the pelvic area, where spindle-whorls are usually most often found, they were noted twice (gr. 281/ch, 289/m?), once between the feet (gr. 218/f), and once in an unspecified place "along the edge of the grave" (gr. 122/f). Graves with spindle-whorls are not rich in finds, but they usually contain more than one object, and among these objects were an iron knife (gr. 289/m?), a pair of large-format bronze circlets (gr. 218/f), and one very heavy open-ended bracelet and a ring of the "Vukovar – Bijelo Brdo" type (gr. 122/f). On only one grave was the spindle-whorl the only grave find (gr. 281/ch). Most of the graves with spindle-whorls were located in the central and northeastern parts of the excavated area of the cemetery (gr. 122/f, 218/f, 281/ch), with only one grave in the southwestern part of the cemetery (gr. 289/m?).

At Bijelo Brdo cemeteries south of the Drava, a find of a fired clay spindle-whorl was otherwise noted only at the cemetery of Gomjenica – Baltine bare in the northwestern Bosnian Sava basin (gr. 91).<sup>60</sup> Further south of these regions, in the homeland of the Dalmatian Croats, spindle-whorls – in the form of examples made of Roman period brick more often than those of fired clay or stone<sup>61</sup> – are more common and they are not rare among archaeological finds from the early medieval graves there from the 9<sup>th</sup>–12<sup>th</sup> centuries.

#### 4.1.2.2–4. Thatching needle, awl, and needle (H. –)

No.	Th. 2.	awl 3.	needle 4.	Inv. AMZ	Material	Dimensions			Wt. (g)	Grave (sex)	Circumstances of the find
						l.	Ø/w.	th.			
1.	–	1	–	2445	bone	5.82	0.90	0.50	1.690	22/m	"by the left lower leg"
2.	1	–	–	2455	bone	3.24	1.34	1.00	1.88	29/ch	"by the neck on the right side of the head"
3.	–	–	1	2571	Fe	(2.5)	0.22	–	(0.241)	121/m	–
4.	–	2	–	2595	Fe	(1.75)	0.36	–	(0.268)	139/f	"r. side of the rib cage below the elbow"
5.	–	3	–	2660	bone	(3.43)	0.65	0.27	(1.076)	253/f?	"on the outside of the left calf"
6.	–	–	2	2666	Fe	(4.09)	0.31	–	(1.642)	257/m?	"on the left side of the pelvis"
7.	–	–	3	2697	AE	4.33	0.20	–	0.714	293/m?	"on the right side of the head"
8.	–	4	–	2703/1	Fe	(5.72)	0.35	–	(2.208)	306/m	"on the right side, by the arm"
9.	–	5	–	2703/2	Fe	(2.82)	0.35	–	(0.360)	306/m	"on the right side, by the arm"
10.	–	–	4	–	AE	–	–	–	–	307/f?	"on the chest"
11.	–	6	–	2870	Fe	(5.08)	0.32	–	1.423	440/f	"by the right side of the pelvis"
12.	–	7	–	2879	Fe	(5.43)	0.35	0.29	(2.192)	444/f	"on the right side of the pelvis"

[Metrological data: the figures in parentheses refer to incompletely preserved examples]

\*Notes:

- |   |   |
|---|---|
| 1. Animal bone (tubular), shin (?); l. of the point: 0.60 cm.                               | 7. Deformed; circular section.  |
| 2. Rabbit, bone of the lower part of the leg (humerus).                                     | 8. Fragment; the point, circular section, the tang, rectangular section.  |
| 3. Fragment; circular section; broken into two parts.                                       | 9. Fragment; circular section.  |
| 4. Fragment of the body, circular section, and the tang with remains of wooden plating.     | 10. Missing.  |
| 5. Fragment; bone from the head of a large fish (?); the skeleton in a contracted position. | 11. Fragments (2: 3.58 + 1.5 cm); the point of circular section, the tang of rectangular section (w. 0.70 cm, th. 0.25 cm). |
| 6. Deformed; circular section.  | 12. Fragment; the point, circular section, the tang, rectangular section.   |

A thatching needle, awls, and needles were found in 11 graves: a thatching needle and awls in 7 graves, and needles in the remaining 4 graves (Fig. 15:2–4).<sup>62</sup> These finds are a little more numerous in male or probably male graves (54.54%) than in female or probably female graves (36.36%), and only one object from this group was found in a child grave (9.10%). Among the graves with finds, the share of graves with a thatching needle, awl, or needle was a small 5.76%.

The tools of this group were usually found in the grave on the right side of the skeleton in a line from the head to the pelvis, but most often on the rib cage or nearby the rib cage as a component part of some receptacle hung around the neck or attached or sewn onto the clothing, and were less commonly found by the pelvis or by one of the legs as part

<sup>60</sup> MILETIĆ 1967, 94, 137.

<sup>61</sup> KARAMAN 1940, 18; JELOVINA 1976, 129; BELOŠEVIĆ 1980, 122–123; BELOŠEVIĆ 2007, 294, 494, 495 Pl. CXCI:1–4.

<sup>62</sup> For the thatching needle from gr. 29/ch and the bone awls from gr. 22/m and 253/f?, see DEMO 2007a, 126, 142 Pl. 1:1.1, 2.1–2.

of some receptacle or pouch hung from the belt. Tools kept in a receptacle hung from the neck could also be considered a find in a nonfunctional position, particularly found by a child skeleton where it could have the function of an amulet (gr. 29/ch).

As the only grave goods, a bone awl, and two iron and two bronze needles were found in four male or probably male graves (gr. 22, 121, 257, 293) and in one probably female grave (gr. 307), and in two examples, awls were found together in graves with presses: in one example, a bone awl with a press of crystal schist (gr. 253/f?), and in a second example, the fragments of two iron awls with a press of polished animal bone (gr. 306/m). In four graves the bone thatching needle and iron awls were found together with jewellery, which in three female graves consisted of two large-format silver circlets, two earrings with a raceme pendant and two pairs of joints, a torc with a hook and loop for closure of the IIb weight group (>35–45g), a solid mushroom-shaped button-pendant, a heavy open-ended bracelet with tapered and cut ends, an open bracelet with two snake heads, a closed bracelet of twisted wires of varied sections, an open-ended bracelet with separated, cut, and tapered ends, and a closed silver ring of semicircular section and an open silver ring of three spirally twisted wires (gr. 139/f, 440/f, 444/f), while the child grave contained a small-format bronze S-circlet, a necklace of tiny glass beads of the Ib quantity group (2–5 pieces), and one very badly damaged iron chisel (gr. 29/ch).

Half of the graves with finds of a thatching needle, awls, and needles were located in the edge sections of the southwestern zone of burial (gr. 22/m, 29/ch, 139/f, 293/m?, 444/f). In the southeastern zone (gr. 121/m, 253/f?, 257/m?) and in the eastern part of northern zone (gr. 306/m, 307/f?, 440/f) such finds are more rare, and in the western part of the northern zone not a single example from this group of tools was noted (zone II). The awl from the female grave located along the southern edge of the eastern part of the northern zone of burial (gr. 440) belongs to the beginning or the first decades of the 11<sup>th</sup> century.

1) *Thatching needles*, i.e. pointed bone objects with the tip cut on only one of the ends (**Fig. 15:2**) – usually made from the *tibiae* of small animals (sheep, goat, dog, rabbit) that served for interweaving plant fibers, bast, wattle, straw (thatch), and so forth<sup>63</sup> – are frequent among finds from early medieval Slavic settlements, but are very rare in early medieval graves, and the graves of the Bijelo Brdo cultural sphere are not any exception to this.<sup>64</sup> The only thatching needle from Vukovar comes from a grave located in the northern edge section of the southwestern zone of burial, where it was found by the head of a child skeleton together with an iron file, and with jewellery for the head and neck (gr. 29).<sup>65</sup> Other than in the Croatian part of the central Danube basin, thatching needles made of sheep bones also appear as grave finds in the nearby Serbian Danube basin, where they were found in two female graves at the cemetery of Beograd – Donji grad (Belgrade fortress/western suburbium), dated to the 10<sup>th</sup>–11<sup>th</sup> centuries.<sup>66</sup>

2) *Awls* (**Fig. 15:3.1–2**), in contrast to bone thatching needles, are considerably more common finds both at Lijeva Bara (7 ex.) and at other cemeteries of the Bijelo Brdo cultural sphere. At Lijeva Bara awls come from two male and four female or probably female graves. Iron awls with a circularly formed point predominate (66.67%), with a diameter of no greater than 0.35 cm,<sup>67</sup> which in the upper section of some specimens merges into a triangularly shaped tang of rectangular section (gr. 306/m, 440/f). A similar, but somewhat greater broadening of the tang can also be noted on one partly preserved awl made from a bone of a fish head (gr. 253/f?). On a bone awl made from a tubular animal bone, the shaft is elongated to the extent that the short, rounded pointed section does not take up even one tenth of the total length of the object (gr. 22/m). One bone awl and fragments of two iron awls were found in graves together with a flat and polished press of stone (gr. 253/m?), and animal bone (gr. 306/m), respectively.

3) *Needles* (**Fig. 15:4**) of circular section with a diameter no greater than 0.35 cm, made of iron (2) or bronze (2), were found in one female grave, and surprisingly in three male or probably male graves. In each of the four graves, the needle was the only grave find.

<sup>63</sup> HRUBÝ 1957, 127 (Fig. 5), 144, 146; BARTOŠKOVÁ 1995, 26–32.

<sup>64</sup> For the thatching needle made of a rabbit bone from the cemetery of Bučany – Vinohradi in Slovakia, found in a grave attributed to the earliest horizon of burial (gr. 70), see HANULIAK 1993, 90, 93, 98 Fig. 17:4, 109.

<sup>65</sup> In the same northern border area of the southwestern zone in gr. 22/m, only 6 m distant from gr. 29/ch, a bone awl was found as the only grave find placed along the left shin of the deceased.

<sup>66</sup> MARJANOVIĆ-VUJOVIĆ 1989, 25, 36, 40, 41 Pl. I:2,15 (gr. 19 and 46).

<sup>67</sup> At the cemetery of Trnjane – Staro groblje (Požarevac district) in the Serbian Danube basin, a similarly formed but somewhat shorter iron awl (6 cm long), found on the right side of the pelvis, was the only find in female grave 317, MARJANOVIĆ-VUJOVIĆ 1984, 50–51, 101 (Fig. 218).



#### 4.1.2.5. Press (for an awl) (H. –)

No.	Inv. AMZ	Mat.	Press			Wt. (g)	Grave (sex)	Circumstances of the find
			l.	w.	h.			
1.	2659	stone	3.09	1.33	0.42/0.20	2.574	253/f?	"on the outside of the left calf"
2.	2704	bone	3.33	1.11/0.50	0.48/0.25	1.893	306/m	"on the right side of the chest at elbow height"

\*Notes:

1. Crystal schist; found together with a bone awl.
2. Animal bone (tubular); found together with an iron awl.

Presses are an implement for greater effectiveness and easier handling in using an awl to punch through some hard surface (**Fig. 15:5**). Awl presses are made of stone or bone, have an irregular shape and are polished on one (gr. 253/f?) or both utilized sides (gr. 306/m).<sup>68</sup> They were found in one probably female grave and in one male grave, in both cases in different positions on or by the skeleton of the deceased, but always only in the immediate vicinity of an awl, with which they represent the only grave finds. Materials different than those used for the awls were utilized for the presses, so that a stone press was found in a combination with a bone awl (gr. 253), and a bone press in combination with iron awls (gr. 306). The graves with an awl and awl press were located in the eastern part of the cemetery quite distant from one another: one in the southern edge section of the southeastern zone of burial (gr. 253/f?), and the other some 50 meters more northerly in the eastern part of the northern zone of burial (gr. 306/m).

#### 4.1.2.6. Tightener/loosener (H. –)

No.	Inv. AMZ	Mat.	Tightener		Wt. (g)	Grave (sex)	Circumstances of the find
			l.	Ø			
1.	2471	bone	(6.68)	1.68	(12.298)	37/m	"below the nose" (the head turned right)

[Metrological data: the figures in parentheses refer to incompletely preserved examples]

\*Note:

1. Fragment; deer antler tine.

The only tightener/loosener – a tool used, among other things, for work with cords and ropes or in their production<sup>69</sup> – comes from a male grave, where it was found directly below the nose of the head turned to the right towards the shoulder, on which one end was leaning (**Fig. 15:6**). Given such a position, it probably belonged in some receptacle hung around the neck of the deceased, but it could also have been placed in the grave as part of a grave rite before or during the burial. The grave with the tightener/loosener was located in the central section of the excavated area of the cemetery in a part belonging to the northwestern edge section of the southeastern zone of burial (zone I), with a date no earlier than ca. AD 1000.<sup>70</sup>

<sup>68</sup> For the awl press from gr. 306/m, see DEMO 2007a, 126–127, 142 Pl. 1:3.1.

<sup>69</sup> BARTOŠKOVÁ 1995, 41 (Abb. 7:5,7), 42.

<sup>70</sup> DEMO 2007a, 127–128, 143 Pl. 2:4.2. – In the Bulgarian-Byzantine cultural circle, the placement of such objects in graves is not unusual, e.g. *Kjulevča – Sadel*, gr. 11, 31, 55, 63; VÁŽAROVA 1976, 97 (51:5), 105 (59:4), 117 (Fig. 59:3), 121 (Fig. 72:3); *Ravna – Slog*, gr. 46/ch; JOVANOVIĆ-VUKSAN 2005, 187, 220 Fig. 20, 260 (Pl. IV:1).

#### 4.1.2.7. Scraper (H. –)

No.	Inv. AMZ	Mat.	Scraper			Wt. (g)	Grave (sex)	Circumstances of the find
			l./ht.	w.	th.			
1.	2524	AR	6.24	2.06	0.09	3.907	89/m	"by the outside of the knee"

A silver scraper of triangular shape, with a convex blade pyramidically narrowed towards the raised, thinned, and bent handle, made from the hammered bow of a prehistoric late Bronze Age fibula (Fig. 15:7).<sup>71</sup> The shape of the object is reminiscent of iron scrapers from Roman period sites, whose purpose and use were considered related to the surface working of various semi-finished products (such as items made of leather).<sup>72</sup> The scraper was found near a flint and steel of ellipsoid-rectangular shape, placed next to the upper part of the left lower leg of a male skeleton buried in the eastern zone of burial (zone V).

#### 4.1.2.8. File (H. –)

No.	Inv. AMZ	Metal	File			Wt. (g)	Grave (sex)	Circumstances of the find
			l.	w.	th.			
1.	2454	Fe	(ca. 10)	0.80	0.32	(5.223)	29/ch	"by the right shoulder"
2.	2895	Fe	(11.00)	0.88	0.26	(9.821)	–	quad. XIII/3c

[Metrological data: the figures in parentheses refer to incompletely preserved examples]

\* Notes:

1. Fragment: broken into several pieces; traces of wooden plating.
2. Fragment; excavated in quad. XIII/3c.

Iron files, in the form of elongated flat bars of rectangular section with a narrowed tang for insertion in a handle (Fig. 15:8),<sup>73</sup> were represented by two examples discovered in the southern half of the cemetery: one found as a grave find "by the right shoulder" in the vicinity of a bone thatching needle in a child grave (gr. 29) located in the eastern part of the southwestern zone of burial (zone IV), while the other was a chance find from a trench in a quadrant located on the very southern edge of the southeastern zone of burial (zone I).<sup>74</sup>

### 4.1.3. Hunting and fishing gear

#### 4.1.3.1. Projectile (for a slingshot) (H. –)

No.	Inv. AMZ	Material	Projectile		Wt. (g)	Grave (sex)	Circumstances of the find
			Ø	ht.			
1.	2731	clay	3.33/3.14	2.60	34.177	319/?	"two clay balls on the neck"
2.	2732	clay	2.47/2.42	–	(12.669)	319/?	"two clay balls on the neck"

[Metrological data: the figures in parentheses refer to incompletely preserved examples]

\* Notes:

1. Irregular circular shape.
2. Circular; damaged (part broken off).

<sup>71</sup> A remodeled fragment of a bronze middle La Tène fibula had a similar appearance, discovered at the flank of a male skeleton buried in the Bijelo Brdo part of the cemetery of Ptuj-Grad, gr. 218: KOROŠEC 1950, 178, Fig. 59; KOROŠEC 1999, 22, 79, Pl. 27. Objects of more or less similar appearance of iron or bronze were found at the cemetery of Trnjane – Staro groblje in two female graves, in both cases in the area of the pelvis (gr. 129, 356): MARJANOVIĆ-VUJOVIĆ 1984, 25–26, 57–58, Pl. X:19, XXVIII:3. A similar iron object was found by the head of a skeleton at the cemetery of Bešeňov – Sirdülő in Slovakia (gr. 79), NEVIZÁNSKY 1979, 382, 399, Pl. VIII:1; HANULIAK 1992, 292, Pl. II:1.

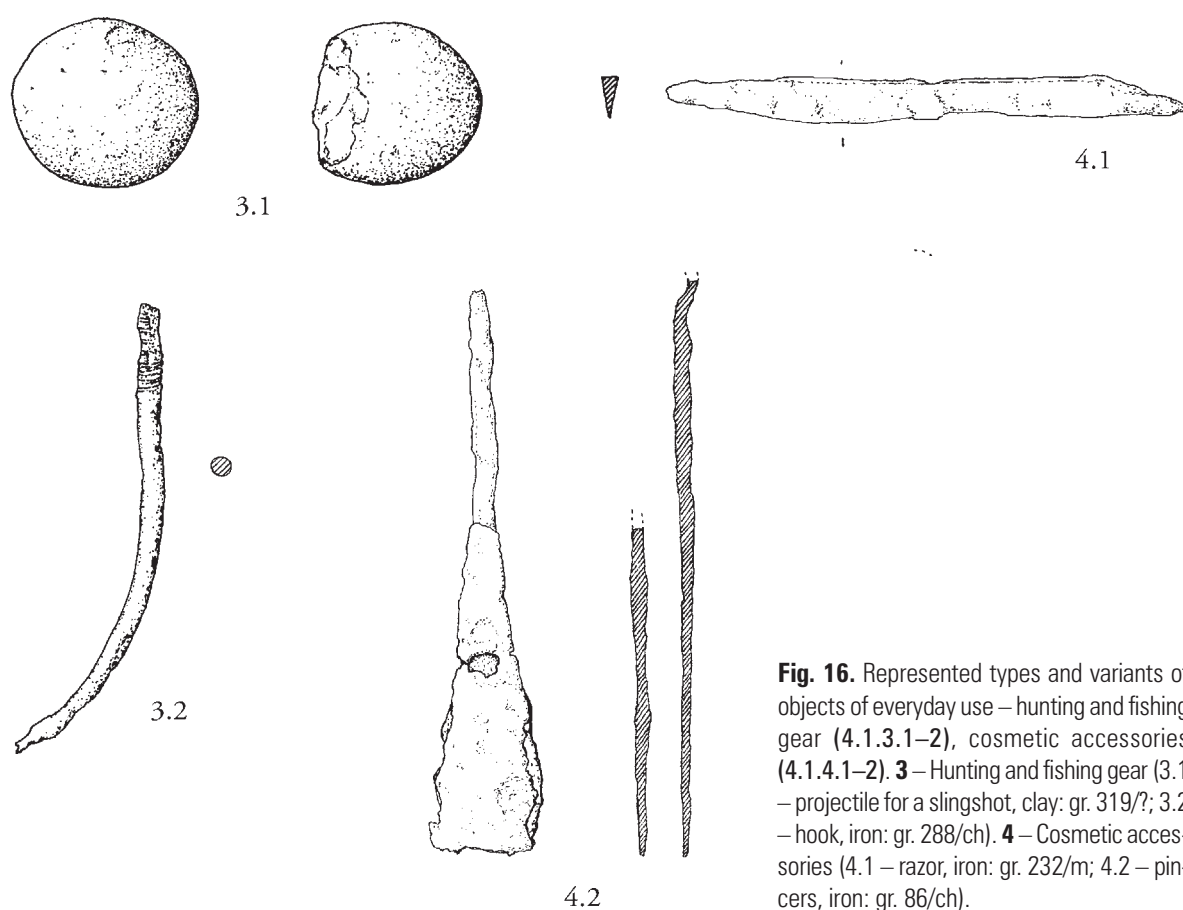
<sup>72</sup> PIETSCH 1983, 58, 113, Pl. 20:473–474; DOLENZ 1998, 211, 383 Pl. 75:W307–317.

<sup>73</sup> A similar object, described as an iron rod and found on the chest of the deceased next to an arrowhead, comes from the cemetery of Letkés – Téglaégető II, gr. 78: BAKAY 1978, 117, Pl. LIV:4.

<sup>74</sup> As a find from quadrant XIII/3c (4<sup>th</sup> excavation level), it is noted only in the inventory book of the AMZ.

The slingshot is considered the simplest, easiest to transport, and cheapest type of personal weaponry used in war and hunting, while its specific purpose is indicated by the appearance, dimensions, and weight of the discovered projectiles. The finds of two fired clay projectiles, for a slingshot whose organic remains or traces were not established, are indicators for the existence and use of slingshots among the early medieval inhabitants of Vukovar (Fig. 16:3.1; Pl. 12:4). The projectiles were found "on the neck" of a poorly preserved skeleton (missing the head),<sup>75</sup> buried in the early 11<sup>th</sup> century in a grave located in the far northern section of the excavated area of the cemetery (gr. 319/?). Considering the position of the finds in the grave, it is likely that the projectiles (together with the unpreserved slingshot?) were located either in a receptacle hung around the neck or sewn onto the upper part of the clothing of the deceased. The small dimensions (2.47 and 3.32 cm) and the not very large weight of the projectiles (not more than 35 g) would speak in favor of their use in hunting birds and small animals.

It is known that slingshots were used in the early and late medieval periods (in the 11<sup>th</sup> and 13<sup>th</sup> centuries, and later),<sup>76</sup> and rare examples of clay projectiles<sup>77</sup> can be noted among the early medieval settlement finds of the 11<sup>th</sup> century in Hungary and in Croatia,<sup>78</sup> although more numerous and frequent finds come from the somewhat later medieval Byzantine and Bulgarian – Byzantine fortifications in the Bulgarian<sup>79</sup> and Romanian Danube basin.<sup>80</sup>



**Fig. 16.** Represented types and variants of objects of everyday use – hunting and fishing gear (4.1.3.1–2), cosmetic accessories (4.1.4.1–2). **3** – Hunting and fishing gear (3.1 – projectile for a slingshot, clay: gr. 319/?; 3.2 – hook, iron: gr. 288/ch). **4** – Cosmetic accessories (4.1 – razor, iron: gr. 232/m; 4.2 – pincers, iron: gr. 86/ch).

<sup>75</sup> According to the analyses and data of Mario Šlaus, PhD, of the Department of Archaeology of the Institute for Historical and Social Sciences of the Croatian Academy of Science and Art in Zagreb, this would have been a male who died at age 35–40.

<sup>76</sup> LINDENSCHMIT 1889, 150; CAPELLE 1982, 268; KORFMANN 1986, 137–139. For slingshots and their use throughout history, see KORFMANN 1973, 34–42.

<sup>77</sup> It is known that clay projectiles dried in the sun, as well as lead projectiles, achieved the best proportion of weight and size (the greatest weight with the smallest dimensions).

<sup>78</sup> SZŐKE-VÁNDOR 1987, 84, 132 (Fig. 91:8–9), 155, noted a find that came from an early medieval settlement, located around 500 m to the north of the cemetery of Pusztaszentlászló – Deáksűrű. For several examples from the vicinity of Tiszabercel in the Hungarian upper Tisza Basin (Szabolcs – Szatmár – Bereg County) and settlements finds dated to the 11<sup>th</sup>–12<sup>th</sup> centuries from Muraszemenye – Hosszú – dűlő and Letenye – Korongi-tábla (Zala County), see ISTVÁNOVITS 2003, 206 no. 56 (Fig. 121); KVASSAY 2005, 255 (Fig. 4:9,11–12), 261 (Fig. 10:10). – The only finds of this type in Croatia were recently displayed at the "The Results of Rescue Excavations on the Route of the Beli Manastir – Osijek – Svilaj Highway" (Archaeological Museum in Zagreb, 30 October 2008 to 31 January 2009). The objects come from the site of Jurjevac Punitovački – Stara vodenica (Osijek – Baranja County), where during rescue excavations along the route of the future highway traces were uncovered of a medieval site dated to the 10<sup>th</sup>–13<sup>th</sup> centuries (refuse pits, shallow pits with a fired base, clay balls). Reconstructed examples of medieval pottery from this site displayed at the exhibition belong to the 11<sup>th</sup> and 12<sup>th</sup> centuries, and hence it is possible to date the finds of slingshot projectiles, which were found in considerable numbers, either complete or in fragments. For basic data about the site, and an illustration with the clay projectiles, see BALEN 2008, 32–34.

<sup>79</sup> Červen: GEORGIJEVA – DIMOVA 1967, 23 no. 10–17; GEORGIJEVA 1985, 139–140; NEŠEVA 1985, 185.

<sup>80</sup> Biserița – Garvăn: BARNEA 1967d, 344, 346 Fig. 10–12, 347 Fig. 185 (ancient *Dinogetia*).

### 4.1.3.2. Hook (H. –)

No.	Inv. AMZ	Metal	Hook ht.	Bend				Wt. (g)	Grave (sex)	Circumstances of the find
				Ø	ht.	dim.	w.			
1.	2690/1	Fe	(6.28)	0.33	–	0.33x0.20	–	(3.074)	288/ch	"left side of the pelvis"
2.	2690/2	Fe	(4.22)	0.29	–	0.29x0.18	–	(1.019)	288/ch	"left side of the pelvis"

[Metrological data: the figures in parentheses refer to incompletely preserved examples]

\*Notes:

1. Fragment: the tip of the shaft broken, most of the hook missing; on the shaft a zone with threads for tying (ht. 1.35 cm).  
2. Fragment: the upper part of the shaft and most of the hook missing.

At the early medieval settlement sites in the central and lower Danube basin fishhooks are not an unusual object (Serbia,<sup>81</sup> Romania<sup>82</sup>), but their appearance among grave finds is exceptional and very rare.<sup>83</sup> This can also be said for the finds of hooks at the cemeteries of the Bijelo Brdo cultural circle, where this kind of find is even rarer (e.g. the find of a hook by the shoulder of a child buried at an 11<sup>th</sup> century cemetery in Mlynárce, near Nitra in Slovakia).<sup>84</sup> At Lijeva Bara, two iron hooks of different sizes were found as the only grave good by the skeleton of a small child in a grave located in the eastern part of the northern zone of burial (zone II). The hooks were located on the left side of the pelvis of the deceased, because of which it is probable that they belonged in a pouch worn on the belt or had been placed there together with it in the course of the burial (Fig. 16:3.2).

### 4.1.4. Cosmetic accessories

#### 4.1.4.1. Razor (H. –)

No.	Inv. AMZ	Metal	Blade of the razor			Wt. (g)	Grave (sex)	Circumstances of the find
			l.	w.	th.			
1.	3819	Fe	6.90	0.67	0.32	2.868	232/m	"by the right thigh bone"

\*Note:

1. The case of the razor was not preserved.

An iron razor is a rare find at Bijelo Brdo cemeteries and the only example at Lijeva Bara was found in the grave of an older male individual (40–50 years old), placed in the soil to the right of the deceased's right thigh bone (Fig. 16:4.1).<sup>85</sup> The relatively short and somewhat corroded narrow blade was preserved from the razor, without the remainder or even traces of the case. The shape with the blade angled downwards and the base angled upwards places this razor among the less usual examples, which only rarely appear here and there (e.g. Břeclav – Pohansko in Slovakia).<sup>86</sup> In contrast to this, in Slavic regions razors that have a blade with a straight back and a straight or rounded base and razors that have a blade with a tip bent

<sup>81</sup> *Boljetin – Smorna*: ERCEGOVIĆ-PAVLOVIĆ 1986, 14 Fig. 3:7, 15, Pl. V:6. *Veliki Gradac-kuća 14*: JOVANOVIĆ 1981, 32, 62, Pl. VI:8; JOVANOVIĆ 1983, 59, Pl. VI:13.

<sup>82</sup> *Bisericuța – Garvăn*: BARNEA 1967a, 55, 56 Fig. 35:9–19. *Pacuiul lui Soave*: VÎLCEANU 1972, 174, 175 Fig. 71:3–7, 272 Pl. XXXIII:1–3, 8–9. – Settlement finds from the 10<sup>th</sup>–13<sup>th</sup> centuries in Hungary also include finds of fishhooks, e.g. Szabolcs – Kisfalud: FODOR 1975, 180 Fig. 8:4–5, 186.

<sup>83</sup> For finds of fishhooks in northeastern Bulgaria from the cremation cemetery of Razdelna – Blatata, near Varna (gr. 202, 215): DIMITROV 1978, 149, Pl. XVI:18; FIEDLER 1992, 215, 482–483, 484, Pl. 88:11–12; 90:9.

<sup>84</sup> TOČÍK 1960, 272 Fig. 3:3 (gr. 22/ch), where it was described as a hook with a pointed end.

<sup>85</sup> According to the description in the field documentation, the object was located "by the right thigh bone" in a group of objects that consisted of "three fragments of quiver frames" (*Zapisnik*, no. 232/14 August 1953). The identification of this object and its position in the grave during discovery were confirmed by the photographs of gr. 232/m (Photo Archives AMZ, 1823-III-131, 1825-II-837).

<sup>86</sup> A similar example with a slightly broader blade and a preserved case was a settlement find, but without any chronologically valid data, DOSTÁL 1975, 201 no. 3, 202 Fig. 20:1.

backwards are common among the settlement and cemetery finds of the 9<sup>th</sup> century in the eastern Alpine region, western Hungary, and in the Moravian parts of Slovakia,<sup>87</sup> in Poland and Russia,<sup>88</sup> and at several recently investigated cemeteries of the Dalmatian Croats in the south of Croatia in Dalmatia<sup>89</sup> and in western Herzegovina (B&H).<sup>90</sup> At the Bijelo Brdo cemeteries at the end of the 10<sup>th</sup> and in the first half of the 11<sup>th</sup> century, razors appear at the cemetery of Ptuj-Grad/Turnirski prostor in northeastern Slovenia and the cemetery of Ikervár – Virag utca in western Hungary (Vas County), where they were found by the right side of the pelvis of the skeletons, the first in a female grave (gr. 239),<sup>91</sup> and the other in a child grave (gr. 44).<sup>92</sup> Another example was probably noted at the cemetery of Bijelo Brdo – Ul. Venecija (gr. 35).<sup>93</sup>

#### 4.1.4.2. Pincers (H. –)

No.	Inv. AMZ	Metal	Pincers ht.	Grip w.	Weight (g)	Grave (sex)	Circumstances of the find
1.	2522	Fe	(9.00)	(1.50)	(6.123)	86/ch	"on the left side of the rib cage, in four fragments"

\* Note:

1. Fragments: broken into several sections; the loop, parts of the handle, and the grip are incomplete.

Pincers made of bronze or iron are a rare find at Bijelo Brdo cemeteries, and when they do appear, it is usually in connection to child graves (**Fig. 16:4.2**). An iron specimen was represented at Lijevo Bara found in the grave of a young child (gr. 86),<sup>94</sup> in the upper part of the rib cage on the left side below the collar bone (**Fig. 17**).<sup>95</sup> The position of the pincers in the grave was very similar to the position of the iron pincers found at the cemetery of Rád – Kishegy (gr. 15)<sup>96</sup> and the position of the bronze pincers hung from a torc at the cemetery of Sakcs – Deák Ferenc ut. 6 (gr. 5),<sup>97</sup> which leads to the conjecture that the Vukovar pincers also hung from the neck of the skeleton on a cord of some organic material (fiber, leather).<sup>98</sup> In addition to the pincers, two open-ended bronze bracelets were found in the grave, one bracelet with cut and tapered ends (heavier) and one bracelet with pointed ends (lighter), because of which this grave, located in the northwestern part of the excavated area of the cemetery, could belong to the period around AD 1000.



**Fig. 17.** The position of the pincers in gr. 86/ch (detail).

<sup>87</sup> SZÓKE 1992, 106–108 (with literature and a list of finds).

<sup>88</sup> NIEDERLE 1911, 151–156.

<sup>89</sup> *Nin – Ždrijac*, gr. 146, 206, 218, 222, 312; BELOŠEVIĆ 1980, 118–119, Pl. XXVIII:12, XL:22,28–29. *Kašić – Razbojine*, gr. 16, 33; JELOVINA 1968, 30, 36, 41, Pl. IV:3, IX:1; *Biljane Donje – Begovača*, by gr. 110; JELOVINA-VRSALOVIĆ 1981, 103, Pl. XLVIII:71; *Kašić – Maklinovo brdo*, gr. 47; BELOŠEVIĆ 1982, Y273; *Stranče – Gorica*, gr. C5; CETINIĆ 1998, 92, 168.

<sup>90</sup> *Podhum – Rešetarica*, gr. 4: VRDOLJAK 1990, 146, 184, 188.

<sup>91</sup> KOROŠEC 1999, 68, Pl. 28:20.

<sup>92</sup> HAJMÁSI-KISS 2000, 50, 80, Pl. 22:44/1. – For one of two knives found with the male skeleton in gr. 54 at the cemetery of Malé Kosihy – Horné Konopnice in Slovakia it is suggested that one may have been used as a razor (?), HANULIAK 1994, 119, 148, Pl. IX:C/1–2.

<sup>93</sup> It was noted as a "clasp knife" found "by the left leg" of the skeleton, BRUNŠMID 1904, 54.

<sup>94</sup> In the first publications, two pairs of pincers were mentioned among the finds from Lijevo Bara, both without any data about the grave units, see VINSKI 1957, 239 (bronze and iron pincers); VINSKI 1959, 102.

<sup>95</sup> The child could be younger than 6 years old (according to M. Šlaus, PhD, from the Department of Archaeology HAZU).

<sup>96</sup> PATAY 1957, 62, Pl. XIV:22 (Pest County).

<sup>97</sup> MÉSZÁROS 1962, 204, 205 Fig. 11–12 (Tolna County).

<sup>98</sup> Iron pincers were found above the right shoulder hung on a necklace of beads, and bone and metal pendants at the cemetery of Szob – Kiserdő (Pest County), gr. 60: BAKAY 1978, 30–32, 37 Pl. XXI:42–43.

## 4.2. Weapons and Military Equipment

4.2 Weapons and military equipment	Current state		Grave finds			Sex of the deceased				Chance find (no.)
	no.	%	no.	%	graves	m/m?	f/f?	ch	sex?	
4.2.1. Archery equipment	28	100.00	28	100.00	14*	12*	1	–	1	
1. Reflex bow	1	3.57	1	3.57	1	1 –	–	–	–	
2. Arrows (arrowheads)	22	78.57	22	78.57	13	12	1	–	–	–
3. Quivers	5	17.86	5	17.86	5	4	–	1	–	
Total:	28	100.00	28	100.00	14*	12*	1	–	1	–

\*4.2.1.1–3. – More than one object of attack weaponry and equipment from different groups come from 5 graves: reflex bow and arrow (gr. 92/m); arrow and quiver (gr. 127/m?; 268/m); 2 arrows and quiver (gr. 237/m); 4 arrows and quiver (gr. 232/m).

4.2.1.2. – More than one object of attack weaponry of the same group come from 6 graves: arrows – 2 arrows (gr. 81/m; gr. 237/m; gr. 357/m; gr. 434/m); 3 arrows (gr. 441/m); 4 arrows (gr. 232/m).

At Lijeva Bara weapons and military equipment are the most rare and least numerous group of objects from the grave inventory, represented only by archery weapons and equipment (28 items) collected exclusively from excavated graves (Fig. 18:1–3). Among the weapons and equipment of archers, arrows predominate (78.57%), with much less numerous quivers (17.86%) and only one reflex bow (3.57%). Weapons and military equipment were found in 14 mostly male or probably male graves (ratio: 2:1),<sup>99</sup> so that their share among the graves with finds amounts to 7.33%.

### 4.2.1. Archery weapons and equipment

#### 4.2.1.1. Composite (reflex) bow (G. A; T. A1; H. 7)

Bone laths of the wings and grip of the bow												
No.	Inv. AMZ	Upper laths (1–2)			Grip laths (3–4)			Lower laths (5–6)			Total laths	Grave (sex)
		frags.	l.	w.	frags.	l.	w.	frags.	l.	w.		
1.1	2537	5	23.52	1.75–2.28	–	–	–	–	–	–	1/6	92/m
1.2	2537	4	19.00	1.06–1.76	–	–	–	–	–	–	2/6	92
1.3–4*	–	–	–	–	(2)	–	–	–	–	–	(3–4/6)	92
1.5–6*	–	–	–	–	–	–	–	–	–	–	–	92

[\* Denotes objects that were not found in the field, or if they existed for various known or unknown reasons were not preserved, as they were later misplaced, lost, or in some other manner disappeared forever]

\* Notes:

1.1 Size of the fragments, 5 pieces (= l./w./th.): 1/1 – 5.06/ 1.75/0.33 cm; 1/2 – 4.08/1.77/0.35 cm; 1/3 – 4.66/1.94/0.37 cm; 1/4 – 5.1/2.28/0.38 cm; 1/5 – 4.62/2.25/0.33 cm.

1.2 Size of the fragments, 4 pieces (= l./w./th.): 2/1 – 5.06/ 1.54/0.25 cm; 2/2 (broken into two parts) – 4.50/1.54/0.28 cm; 2/3 – 2.94/1.06/0.33 cm; 2/4 – 6.50/1.76/0.40 cm.

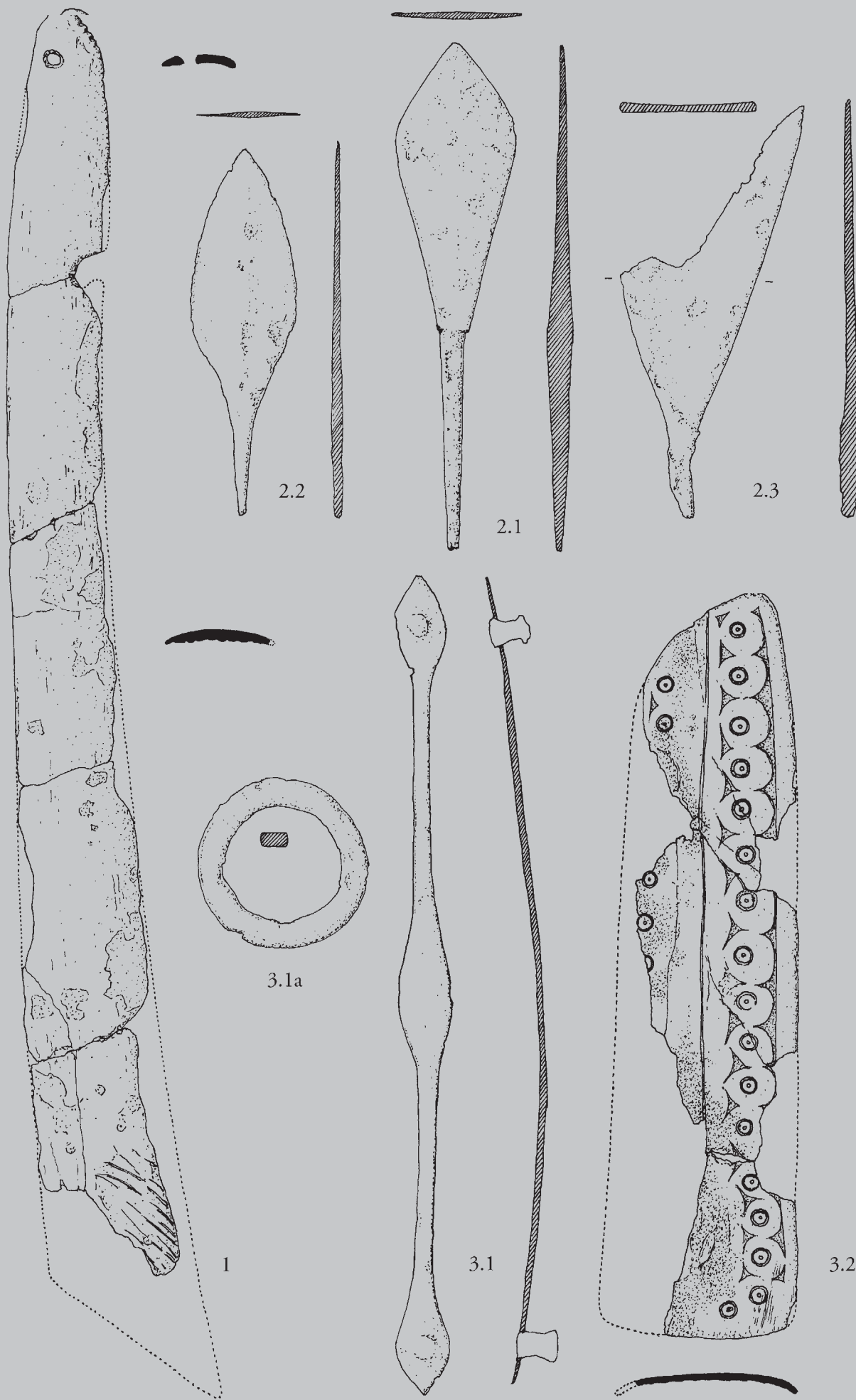
1.3–4\* Fragments of the grip laths were documented in the field photographic records (2 pieces); not preserved.

1.5–6\* During the excavation, the lower laths were not noted.

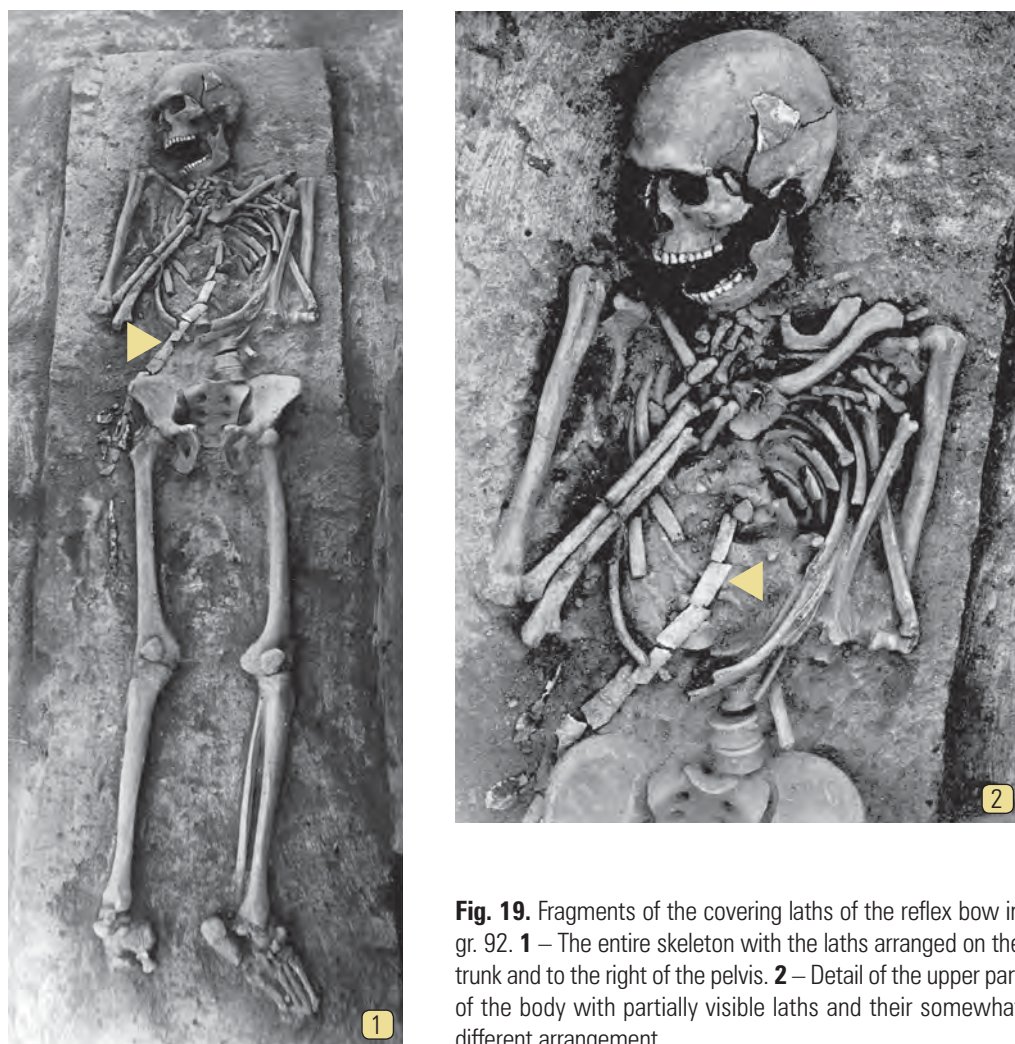
The broken sections of the bone platelets or laths found by the skeleton of the young male (20–28 years old) buried in gr. 92 are the only archaeological traces of the existence of a composite or reflex bow (Fig. 18:1; Pl. 13). The laths were found "in a row from the chest across the right side of the abdomen to the right knee",<sup>100</sup> but on one of the field photographs they were shown as an uninterrupted row composed of eleven non-functionally arranged fragments placed subsequently,

<sup>99</sup> Graves: 14/m, 40/m?, 81/m, 92/m, 127 m?, 232/m, 237/m, 268/m, 312/m, 336/?, 357/m, 399/f?, 434/m, 441/m.

<sup>100</sup> VINSKI 1955, 244 Fig. 14; VINSKI 1959, 105, Pl. XXVI:13, XXVII:14.



**Fig. 18.** Represented types of weapons and military equipment – archery weapons and equipment (4.2.1.1–3). **1** – Bow, bone plating (gr. 92/m). **2** – Arrowhead, iron (2.1 – rhomboid head: gr. 441/m; 2.2 – laurel-leaf head: gr. 127/m; 2.3 – double-winged head: gr. 232/m). **3** – Quiver (3.1 – reinforcing rods, iron: gr. 268/m; 3.1a – suspension parts, iron: gr. 237/m; 3.2 – paneling of mouth and neck, bone: gr. 232/m).



**Fig. 19.** Fragments of the covering laths of the reflex bow in gr. 92. **1** – The entire skeleton with the laths arranged on the trunk and to the right of the pelvis. **2** – Detail of the upper part of the body with partially visible laths and their somewhat different arrangement.

evidently during the excavating, on the right side of the skeleton approximately in the area where they were probably for the most part originally discovered (**Fig. 19:1–2**).<sup>101</sup> Such a relocation of the covering laths means it is impossible to know if the bow was placed in the grave in a drawn or undrawn state, or if it was laid down or even placed in a perpendicular position.<sup>102</sup>

Of eleven fragments, nine belong to the upper pair of laths (1/1–5; 2/1–4), and the remaining two fragments found by the upper part of the right thigh, not preserved and today non-existent, should be attributed to the bone laths of the central section (grip) of the reflex bow (3–4/1). The lower pair of covering laths, whose sections could be expected by the skeleton or on the lower part of the skeleton, primarily at the height of the right knee of the deceased or even a little lower, were seemingly not noted at the site, and hence no elements whatsoever were gathered from them.<sup>103</sup>

Despite the incomplete and generally poor preservation of the collected material, the covering laths exhibit clear structural characteristics of the early Hungarian reflex bow, where originally three pairs of laths arranged on the ends and the grip of the bow were in use (2+2+2).<sup>104</sup> The body of the upper pair of laths from Vukovar has an arched curve and is uniformly tapered to the notch (nock) and the tip, which is a characteristic of typological group 1, the most common and richest in variants, of the covering plates of the early Hungarian reflex bows of the 10<sup>th</sup> and earlier 11<sup>th</sup> century (**Fig. 20**).<sup>105</sup> The somewhat broader and seemingly more massive form of the Vukovar laths is most similar to the laths from the cemetery of Letkés–Tégláégető I in the western part of Hungary on the far side of the Danube (Pest County),<sup>106</sup> and probably also the laths from the cemetery of Voiteni–Temesköz in the Banat region of Romania.<sup>107</sup>

<sup>101</sup> This would be supported by the noticeable traces of green patina on the exterior side of individual fragments, which would mean that one side of the covering laths was at least partially in contact with one or both of two bronze objects found on the right arm and hand of the skeleton placed on the chest of the deceased (bracelet on the forearm, a ring broken in two on the fist placed below the jaw).

<sup>102</sup> The placement of bows in the graves of Avars and Hungarians in unstrung or strung state, but as a rule in a perpendicular position, was suggested by SZÖLLÖSY 2000, 173–182.

<sup>103</sup> DEMO 2005, 77–89; DEMO 2007, 129–131, 147 Pl. 6:7.3.1–2.

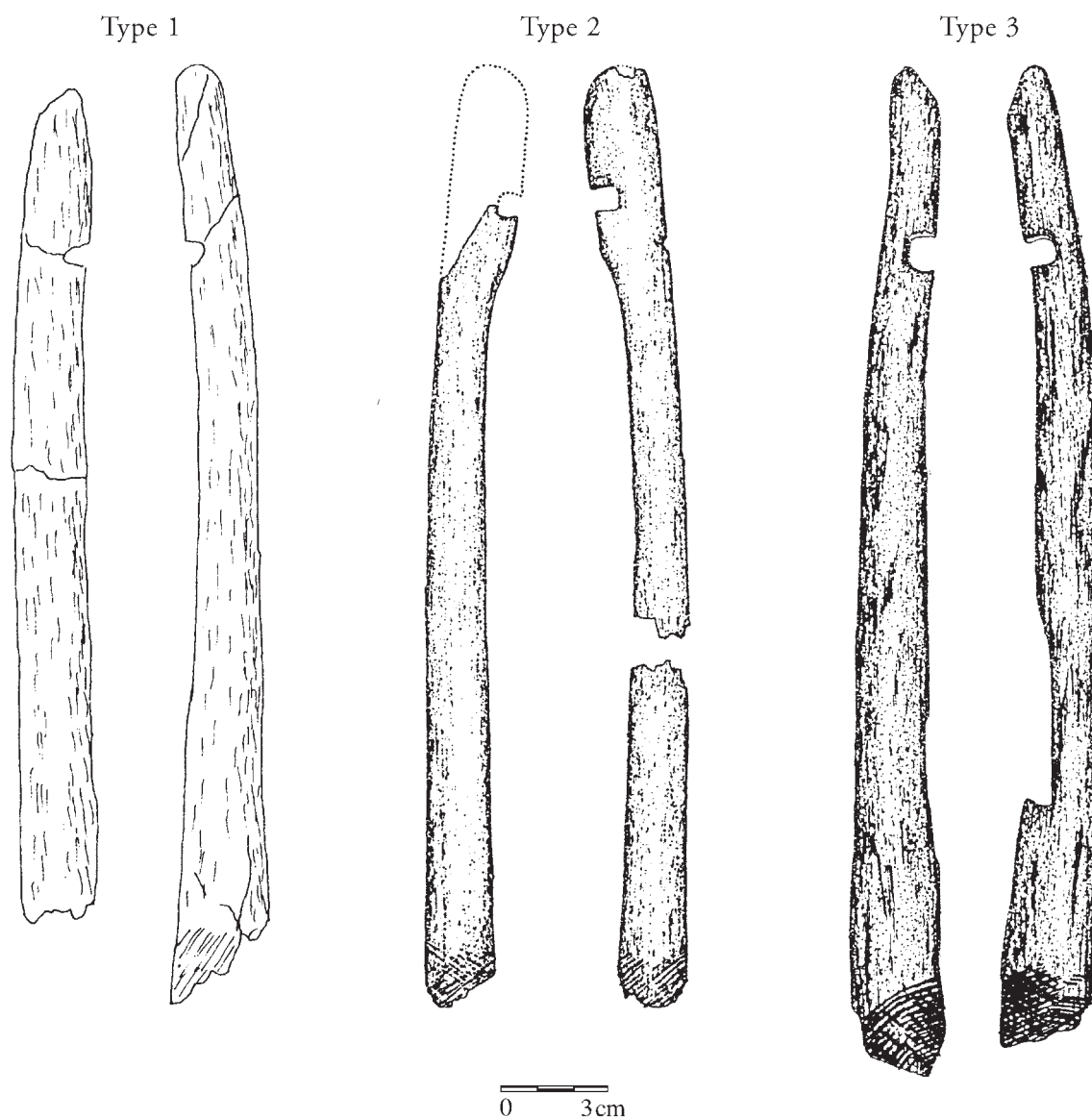
<sup>104</sup> SEBESTYÉN 1932, 229 / cited in VINSKI 1955, 254 (n. 24).

<sup>105</sup> DEMO 2005, 79–80, 85, 87 Fig. 3.

<sup>106</sup> BAKAY 1978, Pl. XXXVII:11–13 (gr. 59).

<sup>107</sup> MENDELEȚ – TĂNASE – GÁLL 2001, 102 Fig. 3:6–7 (gr. 3); GÁLL 2005, 418 Pl. 25:4–7; GÁLL 2007, 466 Pl. VIII:4–7.





**Fig. 20.** Main forms of the upper bone laths of early Hungarian composite bows (from: DEMO 2005). **1** – Sárkadkeresztúr – Barna tanya (H; Békés County), gr. 81: MEDGYESI 1993, 499. **2** – Karos – Eperjesszög I (H; Borsod – Abaúj – Zemplén County), gr. 1/1936: RÉVÉSZ 1996, 227 Pl. 5:1. **3** – Karos – Eperjesszög III (H; Borsod – Abaúj – Zemplén County), gr. 14: RÉVÉSZ 1996, 355 Pl. 132:5–6.

The length of the joined fragments of the better preserved bone lath measures 23.52 cm and in its original form would have had a length of between 24.5 and 26.5 cm,<sup>108</sup> and the hypothesized length of the bow when drawn would be between 110–115 cm,<sup>109</sup> 120 cm,<sup>110</sup> somewhat more,<sup>111</sup> or could even reach a length of around 130 cm.<sup>112</sup> A particularly interesting feature is the hole for a rivet (or for attachment), which was frequent and usual on the bows of the Avars,<sup>113</sup> but seems to represent a true rarity on early Hungarian bows.<sup>114</sup>

In addition to the bow, grave 92 contained bronze jewellery for the head and arms (a pair of large-format circlets, an open-ended bracelet of circular section, an open ring with a semicircular section and pointed ends), two iron knives, and only one rhomboid arrowhead (lost).<sup>115</sup> The grave was located in the archaeologically insufficiently investigated northwestern section of the cemetery, where it was an isolated find in terms of the inventory. Among the graves with finds, the share of the grave with the bow barely surpasses a minimal 0.5%.

<sup>108</sup> And not more than a possible 28.5 cm, the largest hypothesized length of such laths (e.g. DEMO 1996, 74 no. 22:7).

<sup>109</sup> The suggested length of early Hungarian reflex bows according to: RÉVÉSZ – NEPPER 1996, 44; SZŐLŐSY 1992, 355.

<sup>110</sup> *Karos – Eperjesszög II*, gr. 60: Cf. RÉVÉSZ 1996, 154 (n. 708).

<sup>111</sup> *Békés – Povázd*, gr. 45 and 58: FÁBIÁN 1984, 71.

<sup>112</sup> Cf. RITZ 1983, 8 (n. 22), with data about the length, which for the early Hungarian bows would measure 130–140 cm.

<sup>113</sup> RITZ 1983, 5. Some Avar bows have not one but even two holes for rivets, see RIC 1984, 84 (e.g. Bačka Topola, gr. 34).

<sup>114</sup> DEMO 1996, 43 (Fig. 25); DEMO 2005, 79, 84, 88–89. For a rare example of the remains of rivets on the laths of a reflex bow from the cemetery of Sárrétudvari – Hízó föld in eastern Hungary (Hajdú – Bihar County), see NEPPER 2002 (2), 324 Pl. 318:1 (gr. 214).

<sup>115</sup> DEMO 2005, 78. Also here p. 428 n. 116.

### 4.2.1.2. Arrows (arrowheads) (G. A; T. A3; H. 8a–c)

No.	Inv. AMZ	Head type	Arrowhead (l.)	Head of the arrowhead (dim.)					Shaft (l.)	Wt. arrow	Grave (sex)
				l.	l/a	l/b	w.	th.			
1.	2436	1c	6.15	4.54	2.76	1.78	2.20	0.24	1.61	7.032	14/m
2.	2922	2a	7.6-3	4.92	–	–	1.90	0.20	2.71	6.086	40/m?
3.	2516	1a	7.90	5.58	2.00	3.58	2.26	0.26	2.32	7.806	81/m
4.	2517	1a	(7.67)	(4.87)	–	–	–	–	2.80	(5.016)	81/m
5.	–	1a	–	–	–	–	–	–	–	–	92/m
6.	2578	2c	6.93	5.25	–	–	1.92	0.23	1.48	6.43	127/m?
7.	2642	1b	9.00	5.30	2.65	2.65	2.45	0.42	3.70	15.800	232/m
8.	2643	1a	6.00	4.80	2.00	2.80	2.14	0.20	1.20	5.306	232/m
9.	2644	1a	5.62	4.00	1.50	2.50	1.74	0.15	1.62	3.587	232/m
10.	2645	3	7.82	6.00	3.00	3.00	(4.50)	0.22	1.82	(8.763)	232/m
11.	2649	1a	7.93	5.10	2.00	3.10	2.33	0.20	2.83	10.284	237/m
12.	2650	2b	8.71	6.37	–	–	2.23	0.22	2.34	9.993	237/m
13.	2673	1a	6.95	4.77	2.04	2.73	2.20	0.20	2.18	6.30	268/m
14.	2710	1a	7.64	5.00	–	–	(1.92)	0.20	2.64	6.646	312/m
15.	2775	1a	(6.67)	(4.05)	(1.40)	(2.65)	1.76	0.29	2.62	5.962	357/m
16.	2776	1b	(4.58)	–	–	–	–	–	–	(2.602)	357/m
17.	2820	1a	8.86	5.50	2.18	3.32	2.05	0.19	3.06	9.290	399/f?
18.	2863	1a	(10.15)	(5.54)	(1.36)	(4.18)	2.60	0.24	4.61	13.952	434/m
19.	2864	1a	(6.80)	(5.33)	(1.60)	(3.73)	2.50	0.21	1.47	6.544	434/m
20.	2873	1a	9.39	5.38	1.84	3.54	2.27	0.28	4.01	13.78	441/m
21.	2874	1a	6.45	4.15	1.35	2.80	(1.40)	0.16	2.30	3.444	441/m
22.	–	1a	–	–	–	–	–	–	–	–	441/m

[Abbreviations: a – broadest span in the upper third or upper fourth of the head; b – broadest span in the middle of the head; c – broadest span in the lower third of the head; w. = span / greatest width of the head of the arrow; th. = thickness of the head at the broadest span; l./a = the length of the head above the broadest span; l./b = the length of the head below the broadest span; brackets denote metrological data significantly different from the original due to damage or corrosion]

\*Notes:

- |   |  |
|---|--|
| 1. The sides of the head rounded.   | 15. Damaged; tip broken off, head incomplete.  |
| 4. Damaged, head incomplete.  | 16. Damaged, head incomplete, tip broken off.  |
| 5. Arrowhead lost; attribution in the basis of field photographic documentation (AMZ, 1700-IV-535 and 1792-II-805). | 18. Damaged; tip broken off.   |
| 10. Damaged, one fork broken off, shaft incomplete.   | 19. Damaged; tip broken off, part of the head and shaft missing.                     |
| 13. The sides of the head rounded.  | 21. Damaged, part of the head and shaft missing.                                     |
| 14. Damaged, head broken off.   | 22. Attribution in the basis of field photographic documentation (AMZ, 2023-II-918). |

Arrowheads (*further*: arrows) were represented by 22 examples in 13 graves (ratio: 1.69).<sup>116</sup> Finds from male or probably male graves predominate almost completely with only one example of an arrow found in one probably female grave (8.33 %).<sup>117</sup> Among the graves with finds, the share of graves with arrows achieves the above-average figure (for Bijelo Brdo cemeteries) of 6.81%.

<sup>116</sup> In previous publications the data about the number of arrows gathered in the graves at Lijeva Bara vary, and at first the finds of 25 arrows are noted (VINSKI 1955, 239, 242; VINSKI 1959, 104), with later only 22 arrows (DEMO 1996, 45). The difference in the figures was caused by a difference in the number of arrows recorded among the finds from gr. 92/m (one, and not three arrows) and gr. 441/m (three, and not two arrows), and the classification among arrows of the fragment of pincers found in gr. 86/ch. For the finds of arrows in gr. 86 (no arrows), gr. 92/m (one arrow), and gr. 441/m (three arrows), newly discovered or digitally recovered photographs of the grave situation were decisive, and for gr. 92/m, other than the above, also data from the old P-AMZ inventory and new S-AMZ inventory (see here p. 28: arrows, gr. 92/m).

<sup>117</sup> At cemeteries of the Bijelo Brdo cultural circle, finds of arrows in female graves are rare, but not unknown, cf. *Blandiana – In vii*, gr. 4: HORED T 1966, 277, 278 Abb. 18:18.20–23, 284; GÁLL 2007, 408, 467; *Koppányszántó – Homokbánya*, gr. 13: ÓDOR 2000, 237, 247 Fig. 4:2; *Majs – Udvari reték*, gr. 602: KISS 1983, 117, 361 Pl. 53; *Sándorfalva – Eperjes*, gr. 93: Budapest 1996, 348; GÁLL 2007, 408, 467; *Szakony – Lenin MTSz majorja*, gr. 12: GÖMÖRI 1984, 84, 92 Fig. 10.

All of the arrows, without exception, are of the eastern type, which have a tang in place of a socket for hafting (Fig. 18:2.1–3; Pl. 9:7–8).<sup>118</sup> Arrows with a rhomboid head predominate (81.81%), and the remaining less than a fifth consists of three arrows with a laurel-leaf head (13.64%) and one example of a double-winged or forked arrow (4.55%). Among the arrows with a rhomboid head (or point) by far the greatest number of arrows had the broadest span in the upper third or even the upper fourth of the head (type 1a), while a greatest span in the middle of the head (type 1b) or in the lower third of the head (type 1c) was evident only for a few and quite rare number of examples (16.67%). For graves with finds of two, three, or four arrows, it is usual that other than one or more lightweight arrows for shooting at greater distances, such a grave also contained at least one arrow with a rhomboid head for shooting at lesser distances, whose (preserved) weight ranges from ca. 13 to ca. 16 gr (graves 232, 434, 441). The heavier arrows would include an example of an incompletely preserved two-winged or forked arrowhead (gr. 232) used in hunting,<sup>119</sup> primarily for feathered game.

The number of arrows in a grave, which is usually interpreted as a recognizable symbol of the social position of the deceased,<sup>120</sup> varies in a range from the most common amount of one or two arrows (84.62%) to individual and considerably rarer graves with finds of three or four arrows (15.38%).<sup>121</sup> It appears in reference to this that at Lijevo Bara a greater number of arrows in a grave does not automatically denote a warrior grave rich in finds,<sup>122</sup> as in several graves as the only grave goods were equally frequently found one arrow (gr. 399/♀), two arrows (gr. 357, 434) or three arrows (gr. 441). The higher age of the deceased was more important than this, which in the overwhelming majority of graves at Vukovar probably determined the greater number of arrows placed in the graves. Additionally, in contrast to several older warriors (gr. 232, 441) and their somewhat younger colleagues who were mostly buried with only weapons and items of fighting equipment (gr. 237, 357, 434), among the younger warriors the custom was widespread of bearing objects of everyday use, but also of wearing jewellery for the head and arms or hands (Table 12).<sup>123</sup>

Table 12

Arrowheads in combination with other grave finds (weapons and military equipment, objects of everyday use, and jewellery).

No.	Grave (sex)	No. of arrows	Types of arrowheads							Age (M. Šlaus)	Weapons and equipment	Objects of everyday use	Jewellery for head and arms
			1a	1b	1c	2a	2b	2c	3				
1	232/m	4	2	1	–	–	–	–	1	40–50	T	B	–
2	441/m	3	3	–	–	–	–	–	–	35–50	–	–	–
3	237/m	2	1	–	–	–	1	–	–	30–40	T	–	–
4	81/m	2	2	–	–	–	–	–	–	20–30	–	N, K	–
5	357/m	2	1	1	–	–	–	–	–	30–45	–	–	–
6	434/m	2	2	–	–	–	–	–	–	25–45	–	–	–
4 graves = 30.77%		8	6	1	–	–	1	–	–	26.25–40	T	N, K	–
7	92/m	1	1	–	–	–	–	–	–	20–28	L	N/2	Ka/2, Na, Pr
8	268/m	1	1*	–	–	–	–	–	–	20–25	T	N, K	Na, Pr
9	127/m?	1	–	–	–	–	–	1	–	20–35	T	N/2	–
10	312/m	1	1	–	–	–	–	–	–	25–35	–	N	–
11	40/m?	1	–	–	–	1	–	–	–	?	–	–	Ka
12	14/m	1	–	–	1*	–	–	–	–	25–35	–	–	Pr
13	399/♀	1	1	–	–	–	–	–	–	25–32	–	–	–
7 graves = 53.85%		7	4	–	1	1	–	1	–	22.5–31.67	L, T/2	N/6, K	Ka
Total: 13 graves		22	15	2	1	1	1	1	1	26.25–37.5	L, T/4	N/7, K/2, B	Ka/3, Na/2, Pr/3

[Abbreviations: B – razor; K – steel; Ka – circlets; L – bow; N – knife; Na – bracelet; Pr – ring; T – quiver; 2/3/4/6/7 = number of finds]

<sup>118</sup> MEDVEDEV 1966, 58; RUTTKAY 1976, 326.

<sup>119</sup> RUTTKAY 1976, 330–331 (type B-5).

<sup>120</sup> SEBESTYÉN 1932, 242–246.

<sup>121</sup> In warrior and rider graves from the 10<sup>th</sup> century in Hungary and Slovakia, the number of arrows usually varies in a range from five to seven examples. Eight arrows were found in one rider grave at the cemetery of Batajnica – Velika Humka in eastern Srijem/Syrmia not far from Belgrade (gr. 51), JOVANOVIĆ 1990, 71. So far, the find is exceptional of thirteen arrows in one of the warrior graves at the early Hungarian cemetery of Karos – Eperjesszög II (Liba-tanya) in the upper Tisza basin (gr. 60), RÉVÉSZ 1996, 30, 168, 321–322.

<sup>122</sup> Graves with four arrows are usually classified among warrior graves, and not rarely rider graves, that are rich in finds. In contrast to them, warrior or rider graves with three or less arrows are more rare and less usual.

<sup>123</sup> In the graves of young warriors the custom was more frequent of placing one forearm on the upper part of the body (gr. 14, 81, 127) or both forearms (gr. 92, 268).

Arrows were placed in the graves without quivers at various places near the deceased individual. They were often found on the skeleton or by its upper part, on the left (gr. 434) or right side of the head (gr. 14), by the right shoulder (gr. 441), near the dislocated bones of the right arm (gr. 40) or on the chest of the deceased (gr. 127), and somewhat less often by the lower part of the skeleton, where they were found on the left side of the pelvis (gr. 312), below the left pelvis (gr. 399/f?), and by or under the thigh of the deceased (gr. 81, 357).

For most of the arrows, whether found in the grave within a quiver (gr. 232, 237, 268) or outside a quiver (gr. 81, 92, 399, 434, 441), the tips were always pointing upwards. In contrast to this – as an expression of belief translated into a burial ritual – in only one grave were two arrows found with the tips pointing downwards (gr. 357).<sup>124</sup>

A little less than half of all arrows (10) and graves with arrows (6) come from the southeastern zone of burial (zone I), where the finds are represented in equal numbers from the graves located in the central section (gr. 232, 237, 268), and from the graves located in the edge sections of the southeastern zone of burial (gr. 14, 40, 399). The number of arrows and corresponding graves is half of that in the southwestern zone (gr. 312, 434) or in its immediate vicinity (gr. 357). The remaining arrows (7) and graves with arrows (4) – somewhat less than one third – were located in the northern parts of the cemetery, where they are equally scarce in the western (gr. 92, 441) and eastern sections (gr. 81, 127).

One, two, or three arrows were found as the only grave goods in three male graves located within the southwestern zone of burial (gr. 434) or along the eastern edges of the excavated area of the cemetery (gr. 357, 441), and in one probably female grave located within the southeastern zone of burial (gr. 399).

The custom of placing arrows in early medieval graves in Hungary and Slovakia took root and was common during the 10<sup>th</sup> century, and continued at the Bijelo Brdo cemeteries of the late 10<sup>th</sup> century and early periods of the 11<sup>th</sup> century.<sup>125</sup> At Lijevo Bara the majority of graves with arrows belong to the second half and last third of the 10<sup>th</sup> century, and only one find of an arrow from the southern part of the southeastern zone of burial (zone I) can be dated to the end of the 10<sup>th</sup> and the decades of the 11<sup>th</sup> century, as it was found together with a ring of the "Vukovar–Bijelo Brdo" type (gr. 14).<sup>126</sup>

### 4.2.1.3. Quiver

(G. –; T. A2; H. 10)

No.	Inv. AMZ	Reinforcing rods of the walls	Rods of unknown purpose	Suspension parts	Panels mouth and neck	Rendering of the quiver top	Grave (sex/age)
1.1	S-2581	5	–	–	–	with L-ending	127/m/20–30
2.1	S-2641/2646/2751	5	4	–	5	w/out L-ending	232/m/40–50
3.1	S-2648	7	–	2	–	w/out L-ending	237/m/30–40
4.1	S-2672	10	–	–	–	with L-ending	268/m/20–30
5.1*	–	1	–	–	–	–	336/?/–

[\* Denoting an object that was noted in the field, but was not preserved after restoration and conservation]

Quivers were manufactured from material subject to rapid decay (leather, wood, bone, iron) so that usually all that remains of them in graves are relatively complete sections or fragments consisting of well or poorly preserved iron frames or rods with corresponding reinforcements, sometimes the mounts for the iron buckles used to attach the quivers to the belt (gr. 237), and only exceptionally fragments of the bone panels of the top, mouth, or neck of the quiver (gr. 232). Iron reinforcing rods for quivers were noted or found in five male graves (gr. 127, 232, 237, 268, 336),<sup>127</sup> and their share among the graves with finds measures a small 2.62%.

The discovered quivers belong to common forms for finds in the Carpathian Basin at the end of the 9<sup>th</sup> century and in the 10<sup>th</sup> century from the graves of the newly settled Hungarians. Their quivers – in addition to the Hungarian finds also distributed throughout several neighboring counties (Austria, Croatia, Romania, Slovakia, and Serbia)<sup>128</sup> – are character-

<sup>124</sup> Because of the lack of precise data in the field documentation about the tips of the arrows and their positions, it was possible to decide only on the basis of the photographs of individual grave situations. Despite this, for four arrows from four graves, the photographs were of no help whatsoever (gr. 14, 40, 127, 312).

<sup>125</sup> One already quite dated list of cemeteries from the 11<sup>th</sup> century with finds of arrows was composed by KISS 1985, 339.

<sup>126</sup> KISS 1985, 230, hypothesized that the custom of placing arrows in the grave could have continued deep into the 11<sup>th</sup> century.

<sup>127</sup> VINSKI 1955, 242–244, 245 Fig. 16; VINSKI 1959, 104–105, Pl. XXXVII:15; DEMO 1996, 45 (and n. 109), 46.

<sup>128</sup> Iron rods from the cemetery of Ptuj-Grad/Turnirski prostor, discovered in the supposedly early Hungarian grave 262, are groundlessly included among the quivers from northeastern Slovenia, KOROŠEC 1985, 342–343, Fig. 2–3; KOROŠEC 1999, 24, 70, Pl. 31. "In relation to the Carin-

ized by a semicircular or somewhat oval shape, with ends made of wood (the top and the base of the quiver), and walls made of leather (or thick cloth), and reinforcements for the walls made of perpendicularly placed iron rods and transverse iron bands whose attachments usually consisted of rivets, with thin but long iron nails utilized only at the upper and lower ends of the quiver.<sup>129</sup> The upright rods arranged in three zones reinforce the flanks and the outside walls of the quiver (gr. 127, 232, 237, 268), while the broader transverse iron rods reinforce the neck (gr. 232, 268, 336),<sup>130</sup> while a somewhat narrower iron rod reinforces the wooden base of the quiver (gr. 268).<sup>131</sup> The length of a quiver made in this manner measured around 80 or 80–85 cm,<sup>132</sup> and the dimensions of the elliptical bottom could measure around 16 x 8 cm.<sup>133</sup>

The upright lateral reinforcing rods of the top, neck, and upper section of the walls of the quiver (*section 1*) consist of a pair, only one of which has an arched elevation to thread the suspension strap (gr. 127, 232, 237, 268). Another arched elevation for a strap is located on one of the upright lateral rods of the central part of the walls (*section 2*) reinforced with four rivets (gr. 237, 268), while the parallel upright central reinforcing rods are narrower, with a widening in the center and on the ends, and with only two rivets (gr. 268). The lower part of the quiver (*section 3*) has several long and short upright rods with a rhomboid widening on one end and an elongated banded widening on the other end (gr. 127, 237), of which there could be three or at the least three on the quiver (gr. 268). The upper part of the walls is characterized by an upright rod whose upper widening was bent outwards and shaped like a hook for attachment (gr. 127, 232, 237, 268),<sup>134</sup> while the suspension of the quiver and its attachment to the belt are represented by a pair of buckles; at Lijevo Bara in only one case were the closed square sectioned mounts of two circular iron buckles preserved (gr. 237).<sup>135</sup> The purpose could perhaps be conjectured but not determined with certainty for only a small amount of rod fragments (gr. 232), including fragments of rods of banded section with rhomboid widenings and rivets (2.2.6–7) and fragments of a bent rod of banded section with rivets (2.2.8.1–4) and a pair of rivets (2.2.9.1–2) (**Table 13**).

At Lijevo Bara 28 iron quiver reinforcing rods were discovered (the selection does not include rods of unknown purpose), ranging from only a single rod discovered in gr. 336 to the greatest number (10) of rods discovered in gr. 268, or an average of 5.6 rods per grave. The figure of ten rods was acquired by adding up the two transverse rods arranged in two belts

thian finds... and the Frankish – Bavarian cultural circle" was a supposed "quiver with arrows" attributed to early medieval finds of the 10<sup>th</sup> and 11<sup>th</sup> centuries from the cemetery of Stari Trg – Pušcava near Slovenj Gradec in northern Slovenia, KOROŠEC 1947, 45; PAHIĆ 1975, 277; KOROŠEC 1999, 70 n. 8. An interesting find comes from the southern part of Croatia, at Piramatovci near Skradin in central Dalmatia, where the grave finds from an accidentally discovered early medieval grave from the first half of the 10<sup>th</sup> century included a group of iron rods attributed to the remains of a quiver, BELOŠEVIĆ 1965, 153, Pl. V:1; BELOŠEVIĆ 1980, 104. – Such a subject would be greatly aided by the unfortunately never systematically published data about the finds from the early medieval cemetery of Batajnica – Velika Humka (Serbia), where rider grave 51 contained, in addition to laths of a reflex bow (7 sections), iron arrows (8), rectangular iron buckles, iron stirrups, and some corroded iron objects (perhaps parts of a pail), also a large number of iron rods for a quiver (sections 9.3–13.1 cm in length), JOVANOVIĆ 1990, 71. Too little information is available about the cemetery of Batajnica – Velika Humka, cf. KOVAČEVIĆ – DIMITRIJEVIĆ 1959, 151–153; KOVAČEVIĆ 1961, 282–283.

<sup>129</sup> For well documented nails for attaching the lower transverse bands of the quivers, cf. examples from the cemeteries: *Hajdúszoboszló – Árkoshalom*, gr. 217: NEPPER 2002 (2), 93 Fig. 55; *Ikervár – Virág utca*, gr. 24, 37, 57, 65: HAJMÁSI – KISS 2000, pl. 16:24/2/1, pl. 18:37/4/1, Pl. 26:57/7/2, Pl. 31:65/3/2; *Karos – Eperjesszög II*, gr. 63: RÉVÉSZ 1996, 329 Pl. 106:11; *Letkés – Téglaégető I*, gr. 59: BAKAY 1978, 80 Pl. XXXVIII:10–12; *Sáretudvari – Hizófold*, gr. 206: NEPPER 2002 (2), 318 Pl. 312; *Szarkadkeresztúr – Barna tanya*, gr. 81: MEDGYESI 1993, 501 Pl. IX:16; *Tiszaeszlár – Bashalom*, gr. I: DIENES 1956, Pl. LXVI:26–27; *Tuszer – Boszorkányhegy*, gr. 5: JÓSA 1900, 217 (no. 12) HAMPEL 1905, Pl. 34:12 = HAMPEL 1907, Pl. 435:12; ISTVÁNOVITS 2003, 729 Pl. 227:5/8.

<sup>130</sup> In some examples, the transverse iron bands have serrated decoration (gr. 232), which ornaments the lower edge of the upper cross band and the upper edge of the lower cross band. For similarly worked cross bands on quivers, see, for example, *Karos – Eperjesszög*, gr. 52: RÉVÉSZ 1996, 308 Pl. 85; *Novi Bečej – Matejski brod*, gr. 1: STANOJEV 1989, 63–64 no. 336; *Piliny – Sirménhegy*, gr. 61: HAMPEL 1905, Pl. 524:16; HAMPEL 1907, Pl. 69:16; *Sáretudvari – Poroshalom*, gr. 2: NEPPER 2002 (2), 355 Pl. 349; *Sered – Mačianske Vřísky I*, gr. I/52: TOČÍK 1968, 42 no. 6, Pl. XXX:3, TOČÍK 1987, 197 Fig. 9:24.

<sup>131</sup> Details of the workmanship and to date the most suitable reconstruction of a quiver, based on the analysis of the preserved sections of the iron rods from the cemetery of Hódmezővásárhely – Nagysziget, were presented by RÉVÉSZ 1985, 35–53 (gr. 22). Unfortunately, even after this, the actual number remained unsolved of the number of the iron rods, as well as their final functional arrangement. This is indicated by certain other, less successful attempts at reconstructing quivers, also based on grave finds, such as *Hajdúszoboszló – Árkoshalom*, gr. 217: NEPPER 2002 (2), 93 Fig. 55; *Ikervár – Virág utca*, gr. 65: HAJMÁSI – KISS 2000, 101, 104; *Letkes – Téglaégető I*, gr. 59: BAKAY 1978, 82 Pl. XL; *Sáretudvari – Poroshalom*, gr. 2: NEPPER 2002 (2), 355 Pl. 349; *Szer – Kiszener tanya*, gr. 1: VÁLYI 1994, Fig. 2. For another, even more unsuccessful attempt by Romanian archaeologists, see ANGHEL 1999, 603.

<sup>132</sup> RÉVÉSZ 1996, 172; RÉVÉSZ – NEPPER 1996, 45; HAJMÁSI – KISS 2000, 79 (the length of four quivers discovered at the cemetery of Ikervár – Virág utca varied in a range from 77 to 82 cm); the quiver from the cemetery of Hajdúszoboszló – Árkoshalom was 78 cm long (gr. 217), see NEPPER 2002 (1), 92.

<sup>133</sup> For a rare good example of the dimensions of the transverse bands of the quiver base, from the cemetery of Sáretudvari – Hizófold (gr. 216), see NEPPER 2002 (2), 318 Pl. 312.

<sup>134</sup> For similar examples of upright iron rods at certain cemeteries in Hungary and Slovakia, see *Hódmezővásárhely – Nagysziget*, gr. 22: RÉVÉSZ 1985, 49 Pl. II; *Ikervár – Virág utca*, gr. 114: HAJMÁSI – KISS 2000, Pl. 47:114/6; *Letkés – Téglaégető I*, gr. 59: BAKAY 1978, 80 Pl. XXXVIII:6; *Streda nad Bodrokom – Bálványhegy*, gr. 3 (Sk): ERDELYI 1964, 25 Fig. 11 (right), 225 (Pl. V); *Tiszaabercel – Ráctemető*, gr. 5: ISTVÁNOVITS 2003, Pl. 682:5/1 (middle); *Tuszer – Boszorkányhegy*, gr. 6: JÓSA 1900, 219 (no. 10) = HAMPEL 1905, Pl. 35:10 = HAMPEL 1907, Pl. 436:10; *ISTVÁNOVITS 2003, 730 Pl. 228:6/8.*  
*Vörs – Papkert*, gr. 561: KÖLTŐ 1993, 443 Pl. II:14.

<sup>135</sup> For similar examples used to suspend a quiver found at the cemetery of Ikervár – Virág utca, see HAJMÁSI – KISS 2000, 101 Fig. 27, Pl. 27:57/3 (gr. 57). Another example with identical characteristics comes from the same grave, used as a belt buckle, op. cit., Pl. 29:65/1 (gr. 65).

Table 13

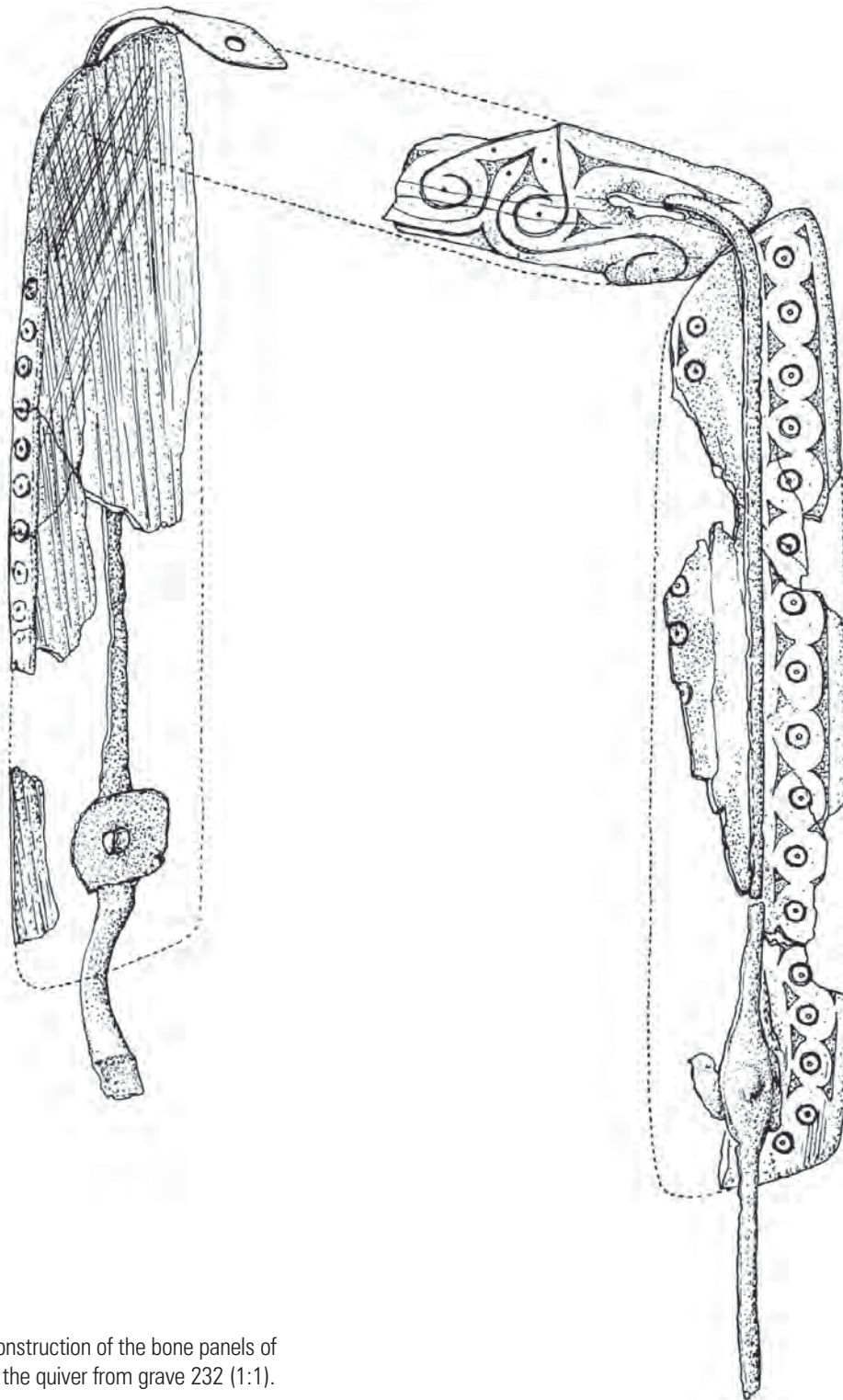
Quiver parts from graves at Vukovar–Lijeva Bara (iron reinforcing rods, bone panels, and suspension elements)

Quiver parts (metal, bone)	Graves with quiver parts					Total parts
	127	232	237	268	336	
<b>Rod, iron</b>						
Upright						
Upper, lateral, arched, with an L-ending	–	1	1	–	–	2
Upper, lateral, arched	1	–	–	1	–	2
Upper, lateral, straight, with an L-ending	–	1	1	–	–	2
Upper, lateral, straight	1	–	–	1	–	2
Upper middle with a hook and two rivets	–	1	–	1	–	2
Upper middle with a hook and three (?) rivets	–	–	1	–	–	1
Middle, lateral, arched (four widenings and rivets)	–	–	1	1	–	2
Middle, three widenings and two rivets	–	–	–	1	–	1
Lower, long (base frame)	–	–	1	1	–	2
Lower, short (base frame)	3	–	2	2	–	7
Transverse						
Banded, upper (neck frame)	–	1	–	1	–	2
Banded, lower (base frame)	–	–	–	1	1	2
Banded, lower with base panel	–	1	–	–	–	1
Rods of unknown purpose*						
Fragments of rods and rivets (not included in total)	–	(4)	–	–	–	(4)
<i>Total rods:</i>	5	5	7	10	1	28
<b>Suspension parts, iron</b>						
Buckle for suspension (mount without pin)	–	–	2	–	–	2
<i>Total mounts and suspension parts:</i>	5	5	9	10	1	30
<b>Panels, bone, decorated (carved)</b>						
Mouth of the quiver						
Exterior surface of the upper wall, irregular trapezoid	–	1	–	–	–	1
Exterior surface of the right wall, irregular trapezoid	–	1	–	–	–	1
Front surface of the right wall, banded	–	1	–	–	–	1
Exterior surface of the left wall, irregular trapezoid	–	1	–	–	–	1
Neck of the quiver						
Front surface, irregular-rectangular	–	1	–	–	–	1
<i>Total panels:</i>	–	5	–	–	–	5
<i>Total rods, suspension parts and panels:</i>	5	10	9	10	1	35

in a 1+1 formation and eight upright rods arranged in three zones in a 3+2+3 formation. As in terms of structure, the three zone formation of 3+3+3 for the upright rods appears firmer, more secure, and also more harmonious, it is more likely that there was a total of eleven iron rods on the early Hungarian quivers and not the ten gathered from the excavation of grave 268. The displayed arrangement of iron rods, however, would not have permitted opening the front face for quicker and simpler loading of the arrows in the quiver, so such an opening, if it actually existed, must have been located on these quivers on the rear side, and as it would most probably have been made of organic material (wood, for instance), it would not be preserved. Remains of the suspension for the quiver are represented by a pair of iron buckles that were usually located near the lateral, arched rods of the upper and middle zone, which were discovered at Lijeva Bara only in grave 237.

In contrast to the walls of the quiver, made of leather and reinforced by iron rods, the upper surface of the wooden top of the quiver was sometimes covered by iron sheet metal, and only in rare cases – such as the finds from grave 232 – the upper and both side walls of the mouth of the quiver were covered by trapezoidal bone panels decorated with carvings (floral and geometric decorations). These were reinforced in the center by thin perpendicular iron rods and were attached to the wooden frame of the quiver top with symmetrically arranged pairs of iron nails.<sup>136</sup> The wooden surfaces of the front face

<sup>136</sup> The length and sharpness of the occasional well preserved nail clearly shows that the upper edge of the quiver was not merely made from wood, but was also not particularly thin. For the attachment of the iron rods and the upper panel, cf. *Tiszaeszlár – Bashalom*, gr. B: DIENES 1956, Pl. LX:1; *Karos – Eperjesszög II*, gr. 34: RÉVÉSZ 1996, 269 táb. 47:1; *Sárrétudvari – Poroshalom*, gr. 1: *Budapest* 1996, 277 Fig. 1.



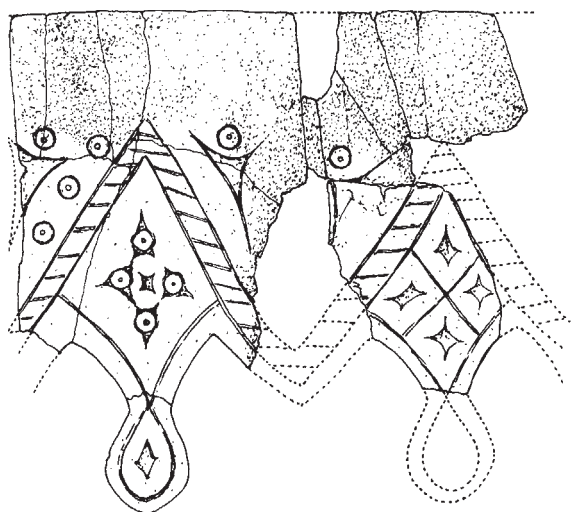
**Fig. 21.** Reconstruction of the bone panels of the mouth of the quiver from grave 232 (1:1).

of the mouth of such decorated quivers were further covered with thin lengthwise bone bands.<sup>137</sup> One rare find consists of a bone panel placed at the juncture of the frontal surface of the neck and the upper part of the frontal surface of the quiver itself, which in its upper section covered and with its leather backing joined the transverse iron rod of the neck of the quiver (**Fig. 21**).<sup>138</sup>

This panel (2a.5), the most prominent on the quiver, but only partially preserved, is filled with a decoration whose dense symbolism illustrates the complexity of the shamanic world-view: the tree of life (evergreen, cypress?), reproduced three times (trinity, triplicity, triad); the tree connects three worlds (the underworld – the roots; the earthly world – the trunk and the lower branches; and the heavenly world – the upper branches and tree top); the crown of the tree is covered by a ladder-like border that joins the earth to the heavens (the ladder); the crowns of the trees have three tops (fundamental number), and the crowns of the mutually connected trees together have seven endings (holy shamanic number). The

<sup>137</sup> VINSKI 1955, 244, considered these bands to be related to the lid of the quiver. For the data and an approximate reconstruction, see DEMO 1996, 45–46, 74–75; DEMO 2007a, 131–132, 148 Pl. 7:8.1–4.

<sup>138</sup> A rare example of the walls of the top, mouth, and neck of a quiver similarly covered with bone panels comes from the cemetery of Karos – Eperjesszög II, found in one of the rider graves richest in finds (gr. 52), RÉVÉSZ 1996, 308 Pl. 85; *Budapest* 1996, 101 Fig. 33.



**Fig. 22.** Fragments of the bone plating of the neck of the quiver from gr. 232 (1:1).

interior field of each tree is filled with a different (?) decorative composition:<sup>139</sup> for instance, the first lateral group consists of four rhomboid fields with a diamond-shaped (?) decoration in the center (four doors, stages, junctures); the central group consists of four small circles with a dot in the center arranged opposite each other along the edges of a large circle with a diamond-shaped decoration in the center (**Fig. 22; Pl. 14**).

In contrast to this, the exterior panels of the walls of the rim of the quiver were decorated with two parallel, perpendicularly placed bands filled with an unequal number of circular-dot patterns of various sizes (2a1, 2a3): the rear row of larger circular-dot patterns appears to be identical on both panels and contains fifteen circular-dot patterns separated by pairs of triangles whose tops are inclined towards each other (15 items); the incised front row of smaller circular-dot patterns separated by pairs of triangles whose tops are inclined towards each other on the right, more shortly preserved panel was more dense and numerous (15 visible items), and on the left panel, covered by corrosion, but better preserved in length, the front row of circular-dot patterns is more scarce and less numerous (5 items visible). The same tiny circular-dot motif can also be found on a fragment of a narrow band-shaped panel of the outside surface of the right wall of the quiver mouth (2a.2). The motif of tiny circular-dot patterns is a very widespread decorative motif of the 10<sup>th</sup> and 11<sup>th</sup> centuries, and is not unique merely to the bone panels of quivers found in Hungary and Slovakia,<sup>140</sup> but also in these areas appears on other products of bone or horn,<sup>141</sup> as well as on metal objects, such as a ring with a stepped crown,<sup>142</sup> an open-ended ring of banded profile,<sup>143</sup> a banded bracelet with broadened endings,<sup>144</sup> and a banded bracelet with a spiral terminal,<sup>145</sup> as well as bracelets with a rhomboid section and a heavy weight system.<sup>146</sup> More massive circular-dot patterns appear rarely, but they can be found on some two-part pendants.<sup>147</sup>

Of the external panel of the upper wall (2a.4) only an incomplete half has been preserved of a stylized motif of an owl head, such as can also be noted on the bone panels of the early Hungarian saddle from the cemetery of Gádoros–Boszkai ut. (gr. 3) in the central Tisza valley of Hungary,<sup>148</sup> but the motif of an owl head is much more frequent, diversely varied, and considerably present on various types of Bijelo Brdo two-part pendants of the 10<sup>th</sup> and 11<sup>th</sup> centuries,<sup>149</sup> and on the somewhat similarly dated appliques.<sup>150</sup>

<sup>139</sup> Because of the damage and partial preservation of the panel, only part of the decorative composition is visible, with two of the probably three originally depicted trees, DEMO 2007a, 131–132, 149 Pl. 8:8.1.5

<sup>140</sup> *Piliny – Lesbegy*, gr. 1 (H): HAMPEL 1905, 449, Pl. 335:5; *Sered – Mačianski vršky I*, gr. I/52 (Sk): TOČÍK 1968, 42 no. 6, 96 Pl. XXX:5–6.8; *Sered – Mačianski vršky II*, gr. 7/55 (Sk): TOČÍK 1968, 54 br. 8, 113 Pl. XLVII:14; *Szeged – Algyő*, gr. 25 (H): KURTI 1996, 153 Fig. 3:7–8; *Szarkadkeresztúr – Barna tanya*, gr. 81 (H): MEDGYESI 1993, 501 Pl. IX:2–3; *Szentes – Borbásföld*, gr. 20 (H): RÉVÉSZ 1996a, 332 Fig. 17:1–9;

<sup>141</sup> The bone panel of a case for a reflex bow was also decorated with a circle and dot pattern, cf. *Rétközberencs – Parom – domb*, gr. 1: ISTVÁNOVITS 2003, 336–337, 664 Pl. 162:1/1. For this type of object and their purpose, see RÉVÉSZ 1996, 154–157 (with citations).

<sup>142</sup> For rings with a stepped crown, see here pp. 518–521. – For the circular-dot pattern on certain other forms of bronze rings, cf. *Malé Kosihy – Horné Konopnice*, gr. 369: HANULIAK 1994, 51 Fig. 46:57c.

<sup>143</sup> *Ibrány – Esbó – halom*, gr. 25: ISTVÁNOVITS 2003, 567 Pl. 55:25/10.

<sup>144</sup> *Csákberény – homokbánya*, gr. 21: HAMPEL 1907, 161–162; *Fábiánsebestyén – Csárdahalom*, chance find, gr. 4: HAMPEL 1907, 165, Pl. 54:A; 166 no. 1 (with a drawing).

<sup>145</sup> *Kistokaj – homokbánya*, gr. 4, 45, chance find: VÉGH 1993, 78 Fig. 6a, 91 Fig. 6, 96 Fig. 23:13.

<sup>146</sup> *Gerendás – Gyecshalom*, chance find: HAMPEL 1905, 856, Pl. 510:7a–b = HAMPEL 1907, 167, Pl. 56:7a–b; *Ibrány – Esbó – halom*, gr. 25: ISTVÁNOVITS 2003, 74 no. 8, 567 Pl. 55:b.b.

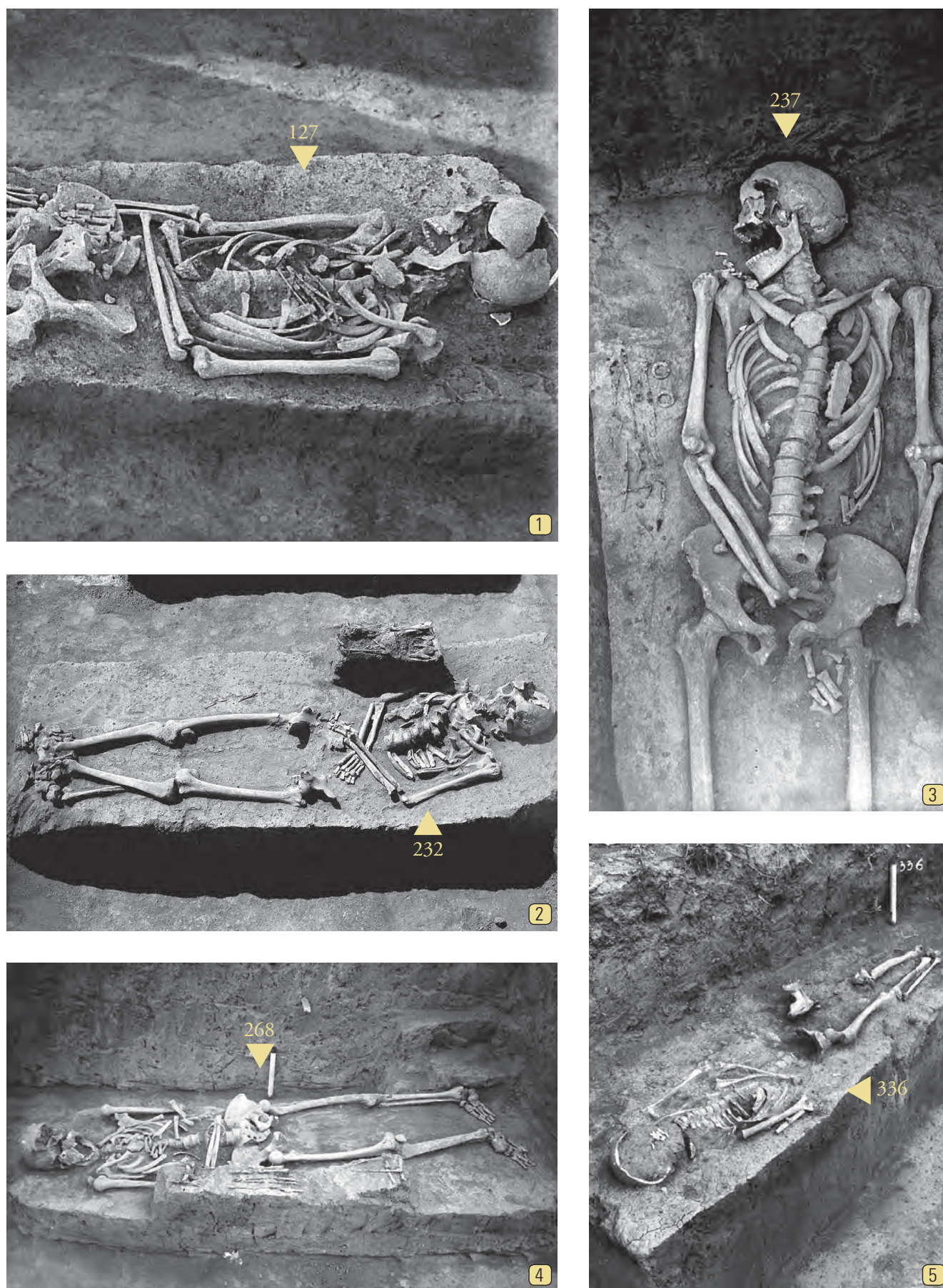
<sup>147</sup> E.g. *Kecskemét – Cédulaháza*, female grave: HAMPEL 1905, 543–544, Pl. 378:1a.2.

<sup>148</sup> BÁLINT 1974, 20–21, 23, 25–28, 32, 35, 40; BÁLINT 1991, 46, 48–49 (Pl. VII–IX).

<sup>149</sup> For individual types of two-part pendants with a stylized depiction of an owl head, see DEMO 1983, 284–286 (types 7–10); BÁLINT 1991, 125, 131, 133.

<sup>150</sup> *Szentes – Naphegy*, chance find: HAMPEL 1905, 588 no. 7, Pl. 399:7.





**Fig. 23.** Finds of quivers and their positions in the graves. **1** – Gr. 127 (detail). **2** – Gr. 232. **3** – Gr. 237. **4** – Gr. 268. **5** – Gr. 336.

The remains of the upright lateral reinforcing rods of the upper part of the quiver indicate the existence of two structurally different renderings of the frame in the area of the mouth and neck. They are represented at Lijevo Bara with an equal number of examples, so that the quivers with upright lateral rods with an L-shaped ending were found in graves 232 and 237, and quivers with upright lateral rods without an L-shaped ending in graves 127 and 268. Quivers with upright lateral rods with an L-shaped ending appear in two variants: outfitted with bone panels on the mouth and neck (gr. 232) and without bone panels (gr. 237).

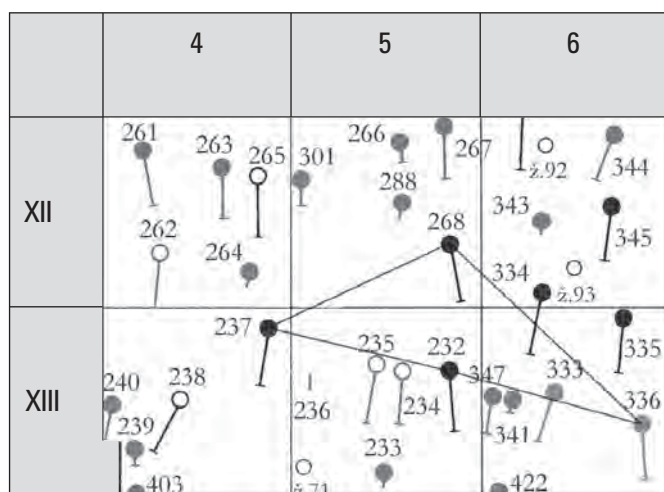


Fig. 24. The southeastern zone of burial with the position of the "triangular group" of archers (quad. XII/4–6 and XIII/4–6).

Most of the quivers come from the graves of young or youngish men, whose ages probably ranged between 20–30 (gr. 127, 268) or 30–40 (gr. 237), and one quiver was found in a grave of a man between 40 and 50 years old (gr. 232), while in only one case neither the sex nor the age of the deceased could be established (gr. 336). All five quivers were, however, found in each grave by the upper part of the skeleton.<sup>151</sup> Four quivers were located on the right side of the skeletons, in the area from the shoulder to the pelvis (gr. 232, 237, 336) or from the upper part of the upper arm to the leg at knee height (gr. 268):<sup>152</sup> in two cases above the skeletal remains (gr. 232) or above the skeletal remains and in a length measuring ca. 80 cm (gr. 268), at the height of the skeletal remains (gr. 237), or with merely the occasional corresponding part and with scarce signs of the existence of a quiver "that was destroyed during digging" (gr. 336).<sup>153</sup> Of the fifth quiver (gr. 127), the only one that could have been placed on the left side of the deceased, on the skeleton or by its upper part, all that remained were a few iron reinforcing rods found "on the chest" of the deceased,<sup>154</sup> in an evidently unauthentic and nonfunctional arrangement (Fig. 23).

Four quivers come from graves located in the central part of the southeastern zone of burial (zone I), where they were arranged in the form of an imaginary triangle, at its apex the grave richest in finds (gr. 268), and at its base three similarly oriented graves equally distant from one another (gr. 237, 232, 336). The fifth quiver found in gr. 127 was located in a line with the graves at the base of the triangle, but considerably more to the north, beyond the southeastern zone of burial and fairly distant (around 18 m) from the nearest graves of the "triangular group" of archers. In chronological terms, the graves of the "triangular group" of archers, considering their central position within the southeastern zone of burial, certainly belonged to the earlier period of utilization of the Vukovar cemetery, which occurred only in the period between the beginning of the second half and the end of the second third of the 10<sup>th</sup> century (Fig. 24).<sup>155</sup>

<sup>151</sup> VINSKI 1955, 244; VINSKI 1959, 105. – According to the location of the quiver find in the grave, the existence is evident of two basic positions and several variants of them: 1. *Quivers by the upper part of the skeleton, from the shoulder downwards, in two variants* – a) placed by the left shoulder and left arm of the deceased (e.g. *Algyő – Olajkút*, gr. 25: KÜRTI 1996, 151 Fig. 1); b) placed by the right shoulder and right arm of the deceased (gr. 232, 237, 268, 336); 2. *Quivers by the lower part of the skeleton, from the waist downwards, in three variants* – a) the first placed by the left thigh and leg of the deceased (e.g. *Letkés – Téglaégető II*, gr. 71: BAKAY 1978, 115 Fig. 151:6); b) the second by the right thigh and leg of the deceased (e.g. *Sreda nad Bodrogom – Bálványhegy*, gr. 2: ERDÉLYI 1964, 22 Fig. 9); c) the third, and rarest, between the legs of the deceased (e.g. *Ikervár – Virág utca*, gr. 65: HAJMÁSI-KISS 2000, 101 Fig. 27).

<sup>152</sup> The position of the quiver is similar in the partly preserved warrior grave from Kiskunfélegyháza – Radnóti ut. 48 in the central Tisza basin (Bács – Kiskun County), dated to the period around the middle of the 10<sup>th</sup> century, TÓTH 1974, 113 Fig. 4, 126.

<sup>153</sup> *Zapisknik*, no. 336/25 August 1953.

<sup>154</sup> *Zapisknik*, no. 127/15 September 1952. – The find of a quiver placed obliquely across the upper part of a skeleton was noted, for example, at the cemetery of Tiszaeszlár – Bashalom in the upper Tisza basin (Szabolcs – Szatmár County), DIENES 1956, 246, 251 Fig. 5:B (gr. B).

<sup>155</sup> In relation to this, the dating of the quiver from gr. 232 to the first third of the 10<sup>th</sup> century or the end of the first third of the 10<sup>th</sup> century, as was suggested by STRAUB 1999, 412–413, 419, 421, seems unlikely. The only possibility for such an early dating for its origin would involve a hypothesis about some possible multi-generational utilization. The question remains, naturally, in terms of quivers, to what extent something like that would really be likely, and accordingly how much it would actually be possible.

## 4.3. Jewellery

4.3. Jewellery	Numbers		Grave finds			Graves acc. to sex				Chance finds
	items	%	items	%	graves	m/m?	f/f?	ch	sex?	
1. Jewellery for the head and hair	112	31.46	105	31.53	67*	10	35*	16	6	7
1. Circlets	10	92.86	98	93.33	64	10	32	16	6	6
2. Earrings	8	7.14	7	6.67	4	–	4	–	–	1
3. Pendants on a circlet (glass, metal)	4	100.00	4	100.00	3*	–	2	1*	–	–
1. Pendants of glass	1	25.00	1	25.99	1	–	1	–	–	–
1. Bead	1	100.00	1	100.00	1	–	1	–	–	–
2. Metal pendants	3	75.00	3	75.00	2	–	1	1	–	–
1. Hoops	3	100.00	3	100.00	2	–	1	1	–	–
2. Jewellery for the neck and chest	59	16.57	51	15.32	42*	–	13*	25*	4	8
1. Torcs	24	40.68	17	33.33	17	–	9	7	1	7
2. Necklaces (compound objects)	35	59.32	34	66.67	33	–	8	22	3	1
3. Pendants on necklaces and torcs	479	100.00	459	100.00	34*	–	8	23	3	20
1. Pendants of glass and amber	454	94.78	438	95.42	29	–	8	19	2	16
1. Beads	454	100.00	438	100.00	29	–	8	19	2	16
2. Metal pendants	25	5.22	21	100.00	16	–	2	12	2	4
1. Cross	2	8.00	2	9.52	2	–	–	2	–	–
2. Lunula	1	4.00	–	–	–	–	–	–	–	–
3. Globular bell pendant	7	28.00	5	23.81	3	–	2	1	–	2
4. Bell/bell-shaped pendant	1	4.00	1	4.76	1	–	–	1	–	–
5. Coins	5	20.00	5	23.81	5	–	–	4	1	–
6. Other pendants (hoops, 5 ex.; fibula; spike; mount; wire)	9	36.00	6	28.57	8	–	1	6	1	1
3. Jewellery for the hands	185	51.97	177	53.15	107*	20*	56*	20*	111*	8
1. Bracelets	62	33.51	58	32.77	42	2	26	10	4	4
2. Rings	123	66.49	119	67.23	90	21	49	11	9	4
Total (torcs + necklaces):	356	100.00	333	100.00	144*	24	62	43	15	23
Total (torcs + pendants):	804	100.00	762	100.00	144*	24	62	43	15	42

\*4.3.1. – 4.3.1. – More than one object of various variants of jewellery for the head and hair come from one grave (circlet and earring): gr. 66/f (1+3). – More than one pendant on a circlet comes from one grave (metal pendants): gr. 102/ch (2).

4.3.2. – More than one object of various variants of jewellery for the neck and chest come from 9 graves (torcs and necklaces; 1+1, if not listed otherwise): gr. 115/f, 138/f, 217/f, 326/f (1+2), 355/ch, 383/ch, 394/f, 409/ch, 412/ch.

– More than one object of the same group of jewellery for the neck and chest come from one grave (necklace): gr. 326/f (2).

4.3.3. – More than one object from different groups of jewellery for the hand come from 25 graves: (bracelets and rings; 1+1, if not listed otherwise): gr. 13/ch (2+1), 33/f, 48/f (2+2), 49/f, 66/f, 92/m, 93/f (2+4), 108/f?, 115/f (1+2), 122/f, 159/f (2+2), 211/f (2+2), 217/f (2+3), 268/m, 292/f, 316/f (2+3), 326/f (2+3), 365/f?, 374/f?, 394/f, 426/f (2+1), 440/f, 444/f (2+1), I-1951/? (2+1), III-1951/?.

Note: The bracelet from gr. 208-2/f, ch (the grave of a mother and child) is shown as a find from a female grave.

Jewellery represents the most numerous group of objects from the grave inventory. A small part of the jewellery consists of finds from destroyed graves (6.48%), while most of the jewellery consists of objects found in 144 of the total of 438 medieval graves, hence the graves with jewellery have an almost one-third share measuring 32.87%. Almost half of the graves with jewellery are female or probably female graves (48.06%), jewellery was a little rarer but still numerous and frequent in child graves (33.33%), while it was least numerous and common in male or probably male graves (18.61%).

The jewellery consists of three groups of objects, each represented by two basic types: jewellery for the head and hair is composed of circlets and earrings, jewellery for the neck and chest is composed of torcs and necklaces, and jewellery for the hands and arms is composed of bracelets and rings. Jewellery for the hands and arms is the most numerous and is represented by a share of more than half (51.97%), followed by jewellery for the head, which is less numerous and less diverse, with a share of less than one third (31.46%), while the jewellery for the neck and chest, although varied in composition, is the least numerous (16.57%). Among the jewellery for the hands and arms, rings and their numerous types and variants predominate with an almost two-thirds majority (123 items), while a share of somewhat less than one third was noted for the less diverse types and variants of bracelets (62 items). A slight range of representation of the basic types exists

in the group of jewellery for the neck and chest, where necklaces and their variants as opposed to torcs and their variants have a ratio of 3:2. In the group of jewellery for the head and hair, the predominance of circlets in relation to earrings can almost be considered absolute (98.86%).

Jewellery for the neck and chest was found exclusively in female and child graves, with jewellery for the hands and arms represented in female and child graves, and in a smaller number of male graves.

### 4.3.1. Jewellery for the head and hair

#### 4.3.1.1. Circlets (open-ended)

Circlets with open and usually merely cut, but sometimes tapered or even pointed ends, made of a single piece of wire are the simplest form of jewellery used for ornamentation of the head or hair of the inhabitants of the Bijelo Brdo cultural circle. They were worn at Lijeva Bara by men, women, and children, as earrings or as temple-rings connected to a band and braided into the hair, as individual decorations or as a pair, more often identical and more rarely with some other type of circlet or earring (large numbers of circlets were rarely found in the same grave). The most numerous examples were made of bronze wire (72.12%), circlets of silver wire were considerably more rare (25.96%), and examples made from iron wire were quite rare and exceptional (1.92%). As a rule, the wire had a circular section, and only occasionally circular-oval, oval, or semicircular sections (only present among the circlets without an ending). Among the graves with finds, the graves with circlets with open ends had a high proportion of 34.55%.

Circlets with open ends are represented by both basic groups (**Table 14**): the most frequent are circlets without an ending (75%), while a quarter consists of the rarer, but typologically more diverse circlets with variously formed endings (25%). Circlets with one or two pendants are rare (2.88%), represented only in the group of circlets without an ending (3.85%). Circlets with endings are represented by the not particularly numerous S- and O-circlets (23.08%), and only one pair of circlets with a spiral ending (gr. 252/ch).

**Table 14**

The representation of circlets without endings and circlets with endings, and variants of both groups.

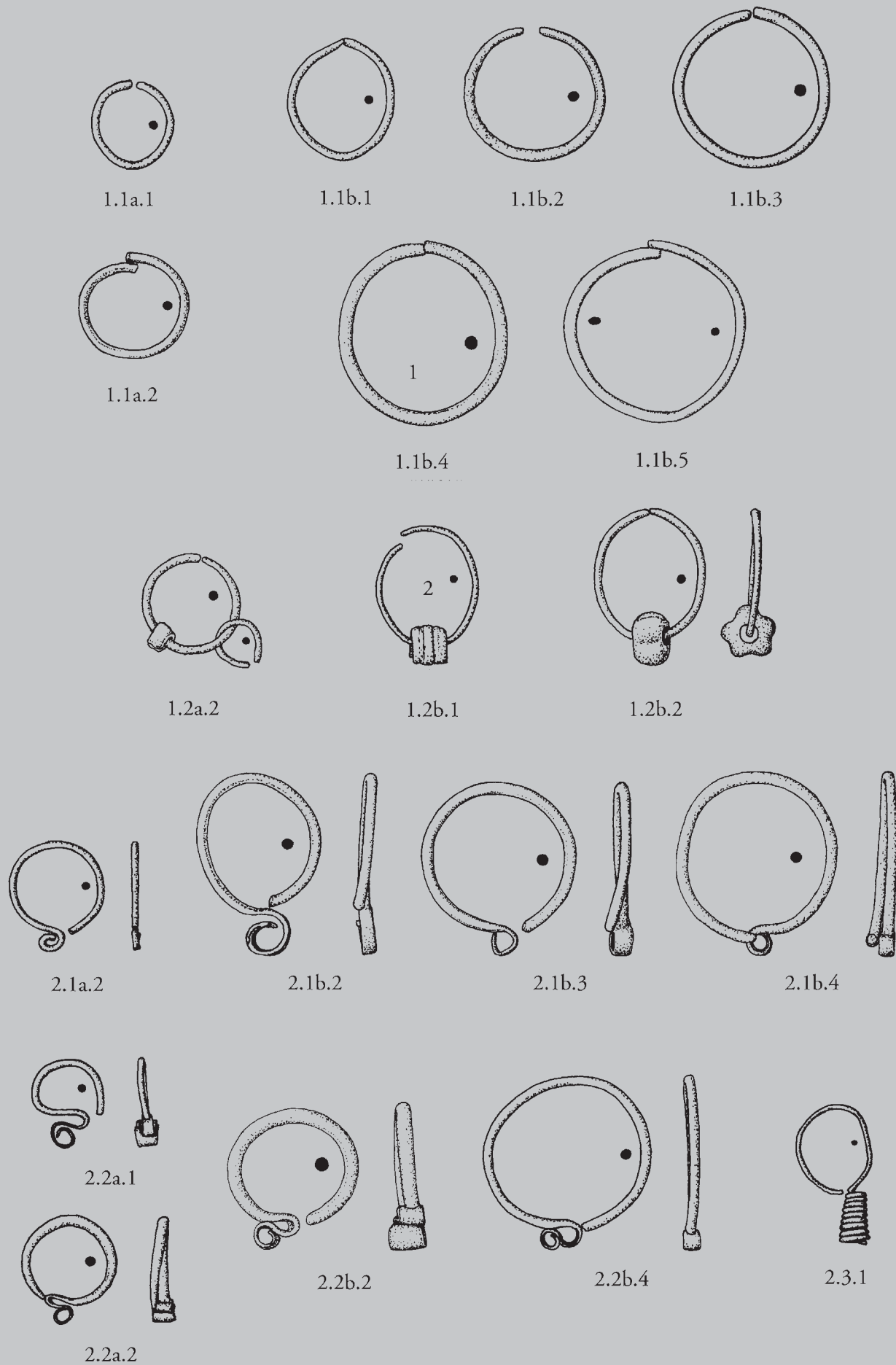
4.3.1.1. Circlets (open ends)	Total	Metal			Grave finds		From destroyed graves
		AR	AE	Fe	circlets	graves	
1. Circlets without an ending	78	20	56	2	76	50*	2
1. without a pendant	75	20	53	2	73	48	2
2. with a pendant/pendants	3	–	3	–	3	3	–
2. Circlets with an ending	26	7	19	–	22	17	4
1. O-circlet	10	2	8	–	10	8	–
2. S-circlet	14	5	9	–	10	8	4
3. Circlet with a spiral ending	2	–	2	–	2	1	–
Total:	104	27	75	2	98	67*	6

\*4.3.3.1. – More than one object of different variants of circlets (with open ends) comes from 3 graves: a circlet without a pendant and an O-circlet (gr. 90/m; 109/f); a circlet with a pendant and an O-circlet (gr. 422/f).

4.3.3.1.1. – More than one object of identical variants of circlets without an ending comes from one grave: 2 circlets without a pendant and a circlet with a pendant (gr. 33/f).

The basic characteristics of most of these circlets, with or without an ending, are contained in the metrological values of the span of the circlet and the diameter of the wire, i.e. in the length and thickness of the wire used to make the circlet. On the basis of these data it is possible to further classify both basic groups of circlets (1–2) and most of their variants (1.1–2 and 2.1–2) – with the exception of the circlets with a spiral ending that widens towards the bottom (2.3.1) – into small-format (a) and large-format (b) specimens, according to the parameters applied at one point to S-circlets from the group of circlets with an ending (**Fig. 25**).<sup>156</sup>

<sup>156</sup> GIESLER 1981, 38–40 (especially p. 40 Fig. 7).



**Fig. 25.** Represented types of small-format (a) and large-format (b) circlets without an ending (**1**), with and without a pendant (**1.1a–1.2b**), and circlets with an ending (**2**) and their numerous variants (**4.3.1.1a–2.3**). **1.1a** – Circlets without an ending, small-format, bronze, silver (1.1a.1 – II.4/1, bronze: gr. 291/f; 1.1a.2 – II.5/2, silver: gr. 23/ch). **1.1b** – Circlets without an ending, large-format, bronze, silver (1.1b.1 – I.6/2, bronze: gr. 109/f; gr. 23; 1.1b.2 – I.7/2, silver: gr. 66/f; 1.1b.3 – I.8/3, bronze: gr. 263/f; 1.1b.4 – I.9/5, bronze: gr. 93/f; 1.1b.5 – I.10/53 – gr. 413/?). **1.2a** – Circlets without an ending, with one or more pendants, small-format, bronze (1.2a.2 – II.5/3, bronze: gr. 102/ch). **1.2b** – Circlets without an ending, with one or more pendants, large-format, bronze 1.2b.1: I.6/7, bronze: gr. 422/f; 1.2b.2: I.7/3, bronze: gr. 33/f). **2.1a** – Circlet with an ending, O-circlet, small-format, bronze (2.1a.2 – II.5/2, bronze – gr. 69/f). **2.1b** – Circlets with an ending, O-circlet, large-format, bronze, silver (2.1b.2 – I.7/3, bronze: gr. 255/f?; 2.1b.3: gr. I.8/3, silver: gr. 229/m; 2.1b.4 – I.9/3, bronze: gr. 90/m). **2.2a** – Circlets with an ending, S-circlet, small-format, bronze, silver (2.2a.1 – II.4/1, bronze: gr. 393/ch; 2.2a.2 – II.5/3, silver: gr. 315/f). **2.2b** – Circlets with an ending, S-circlet, large-format, bronze, silver (2.2b.2 – I.7/5, silver: gr. 137/?; 2.2b.4 – I.9/2, bronze: gr. 349/ch). **2.3** – Circlet with a spiral ending, bronze (2.3.1, the ending widened towards the bottom, bronze: gr. 252/ch).

## 4.3.1.1.1. Circlets without an ending

 4.3.1.1.1.1. Circlets without an ending (without a pendant)  
(G. 13)

No.	Inv. AMZ	Metal	Ø circlet (cm)			2π (cm)	Wire section	Ø wire (cm)	Terminals	Weight (g)	Grave (sex)	Side of head
			max.	med.	min.							
a) <i>Small-format</i>												
<i>Type II.4/1</i>												
1.	2469	AE	1.28	1.12	0.97	3.53	cir.	0.13	cut	0.287	33/f	r/l
2.	2806/1	AE	1.40	1.23	1.07	3.87	cir.	0.14	cut	0.354	386/m	r/l
3.	2693	AE	1.56	1.51	1.47	4.75	cir.	0.14	cut	0.518	291/f?	l
4.	2460	AE	1.80	1.35	0.91	4.25	cir.	0.14	cut	0.365	30/ch	r/l
<i>Type II.4/2</i>												
5.	2806/2	AE	1.44	1.08	0.73	3.40	cir.	0.16	cut	0.326	386/m	r/l
6.	2669	AE	1.57	1.49	1.41	4.68	cir.	0.16	cut	0.572	264/ch	r
7.	2508	AR	1.54	1.42	1.31	4.47	cir.	0.16	cut	0.545	66/f	l
<i>Type II.4/3</i>												
8.	2425	AR	0.74	0.66	0.58	2.07	cir.	0.19–0.12	cut/ tapered	0.866	4/f	r
<i>Type II.5/1</i>												
9.	2891	AR	–	1.92	–	5.06	cir.	0.10	?	0.342	III-1951/?	?
10.	2792	AR	–	ca.1.90	–	ca. 5.96	cir.	0.12	tapered	0.310	377/m?	r
11.	2484	AE	1.97	1.86	1.76	5.86	cir.	0.12	cut	0.570	48/f	?
12.	2577	AE	2.10	1.82	1.54	5.71	cir.	0.13	cut	0.638	125/f	l
13.	2459	AE	1.99	1.84	1.69	5.78	cir.	0.14	cut	0.59	30/ch	r/l
14.	2823	AE	–	1.96	–	5.10	cir.	0.14	?	0.434	402/ch	r
<i>Type II.5/2</i>												
15.	2449/1	AR	1.98	1.90	1.82	5.97	cir.	0.18	cut	1.337	23/ch	r/l
16.	2449/2	AR	1.93	1.89	1.85	5.93	cir.	0.18	cut	1.375	23/ch	r/l
<i>Type II.5/3</i>												
17.	2615	AE	1.84	1.66	1.48	5.21	cir.	0.20	cut	0.838	192/ch	?
<i>Type II.5/5</i>												
18.	2763	AE	1.70	1.63	1.57	5.13	semicir.	$\frac{0.30-0.23}{0.18-0.13}$	cut/ tapered	1.616	347/ch	r
19.	2713	AE	1.85	1.62	1.40	5.10	semicir.	$\frac{0.30-0.20}{0.27-0.15}$	cut	1.286	313/f	l
b) <i>Large-format</i>												
<i>Type I.6/1</i>												
20.	2466	AE	2.28	2.16	2.05	6.80	cir.	0.14	cut	0.915	33/f	r/l
21.	2559/1	AE	2.06	1.99	1.93	6.26	cir.	0.14	cut	0.735	112/ch	r/l
22.	2559/2	AE	2.10	1.99	1.93	6.26	cir.	0.14	cut	0.798	112/ch	r/l
<i>Type I.6/2</i>												
23.	2401	AE	2.30	2.22	2.14	6.97	cir.	0.15	cut	1.011	Srnić	?
24.	2498	AE	2.06	1.99	1.93	6.26	cir.	0.15	cut	0.746	60/f	
25.	2568	AE	–	ca.2.22	–	ca. 6.97	cir.	0.16	?	0.541	115/f	r
26.	2557/1	AE	2.16	2.03	1.90	6.37	cir.	0.16	cut	0.867	109/f	r/l
27.	2557/2	AE	2.10	2.02	1.94	6.34	cir.	0.16	cut/ pointed	0.856	109/f	r/l
28.	2887/2	AR	2.14	2.02	1.90	6.34	cir.	0.16	cut/ pointed	1.126	II-1951/?	r/l
29.	2774	AE	–	ca.2.00	–	ca. 6.28	cir.	0.16–0.12	? /pointed	0.528	355/ch	r
30.	2887/1	AR	2.17	2.07	1.97	6.49	cir.	0.17	cut	1.317	II-1951/?	r/l
31.	2605	AE	2.23	2.14	2.05	6.72	cir.	0.18	cut	1.051	164/f	?
32.	2594	AR	2.19	2.05	1.91	6.44	cir.	0.18	cut	1.417	139/f	l

An Early Medieval Cemetery of the Bijelo Brdo Culture: Vukovar – Lijevo Bara

No.	Inv. AMZ	Metal	Ø cirlet (cm)			2rπ (cm)	Wire section	Ø wire (cm)	Terminals	Weight (g)	Grave (sex)	Side of head
			max.	med.	min.							
<i>Type I.6/3</i>												
33.	2604	AE	2.30	2.17	2.04	6.81	cir.	0.19	cut	1.122	164/f	?
34.	2791/1	AE	2.26	2.14	2.03	6.73	cir.	0.20	cut/ pointed	1.415	374/f	r/l
35.	2791/2	AE	2.22	2.13	2.04	6.68	cir.	0.20	cut/ pointed	1.611	374/f	r/l
36.	2868/1	AR	–	ca. 2.00	–	ca. 6.28	cir.	0.22	(cut?)	1.227	439/?	r
37.	2868/2	AE	–	ca. 2.00	–	ca. 6.28	cir.	0.22	(cut?)	0.608	439/?	?
<i>Type I.6/4</i>												
38.	2803	AR	1.97	1.92	1.88	6.04	cir.	0.25	cut	1.709	384/m	l
<i>Type I.7/2</i>												
39.	2716	AE	2.61	2.46	2.32	7.72	cir.	0.15	cut	1.153	314/f	l
40.	2507	AR	2.26	2.25	2.24	7.06	cir.	0.16	cut/ pointed	1.241	66/f	l
41.	2701	AE	2.27	2.33	2.40	7.33	cir.	0.17	cut	1.242	298/f	l
42.	2463	AE	2.64	2.48	2.33	7.80	cir.	0.18	cut	1.579	31/f?	l
<i>Type I.7/3</i>												
43.	2483/1	Fe	2.60	2.53	2.47	7.94	cir.	0.20	cut	1.249	48/f	r/l
44.	2483/2	Fe	2.58	2.53	2.48	7.94	cir.	0.20	cut	1.374	48/f	r/l
45.	2712	AE	2.71	2.53	2.35	7.94	cir.	0.20	cut	1.458	313/f?	r
46.	2509	AR	2.55	2.50	2.45	7.85	cir.	0.20	cut/ tapered	2.017	66/f	r
47.	2478	AE	2.55	2.46	2.38	7.72	cir.	0.20	cut/ pointed	1.919	45/ch	r
48.	2663	AR	2.60	2.48	2.37	7.80	cir.	0.21	cut	2.326	260/f?	l
<i>Type I.7/4</i>												
49.	2892	AE	2.58	2.51	2.44	7.88	oval	0.24–0.18	cut	1.671	bl. XII/5	?
50.	2876	AR	2.46	2.45	2.44	7.69	cir.	0.24	cut	2.476	444/f	?
<i>Type I.7/5</i>												
51.	2688	AE	2.65	2.43	2.22	7.46	cir.	0.28–0.26	cut	2.680	283/m	r/l
<i>Type I.7/6</i>												
52.	2452	AE	2.49	2.42	2.32	7.60	cir.	0.35–0.20	cut/ tapered	4.003	26/f	l
<i>Type I.8/2</i>												
53.	2618	AE	3.08	2.74	2.40	8.60	cir.	0.15	cut	1.340	196/?	r/l
54.	2612	AE	2.85	2.69	2.54	8.45	cir.	0.16	cut	1.527	183/f	r/l
<i>Type I.8/3</i>												
55.	2665	AE	2.84	2.81	2.78	8.82	cir.	0.19	cut	2.052	263/f	r
56.	2529	AE	2.87	2.67	2.48	8.40	cir.	0.19	cut	1.662	90/m	?
57.	2634	AE	2.89	2.73	2.58	8.58	cir.	0.21	cut	2.557	218/f	r/l
58.	2759	AR	2.83	2.69	2.55	8.44	cir.	0.21	cut	2.624	344/f	r/l
59.	2532	AE	2.85	2.74	2.64	8.61	cir.	0.22	cut	2.067	92/m	r/l
60.	2531	AE	2.90	2.69	2.48	8.45	cir.	0.22	cut	2.142	92/m	r/l
61.	2840	AE	2.67	2.57	2.47	8.06	cir.-oval	$\frac{0.22-0.12}{0.19}$	cut	1.679	413/?	r/l
<i>Type I.8/4</i>												
62.	2617	AE	2.83	2.68	2.53	8.41	oval	0.23/0.20	cut	2.329	196/?	r/l
63.	2728	AR	2.88	2.85	2.83	8.96	cir.	0.26	cut	3.979	316/f	r/l
64.	2727	AR	2.90	2.81	2.73	8.83	cir.	0.26	cut	4.004	316/f	r/l
<i>Type I.8/5</i>												
65.	2758	AR	2.97	2.86	2.76	8.99	cir.	0.28/0.20	cut/ tapered	3.986	344/f	r/l
66.	2689	AE	3.00	2.63	2.27	8.27	cir.	0.28/0.15	cut/ tapered	2.841	283/m	r/l
<i>Type I.8/6</i>												
67.	2611	AE	2.68	2.59	2.51	8.14	semicir.	$\frac{0.36-0.27}{0.22-0.12}$	cut/ pointed	4.194	183/f	r/l

No.	Inv. AMZ	Metal	Ø circllet (cm)			2rπ (cm)	Wire section	Ø wire (cm)	Terminals	Weight (g)	Grave (sex)	Side of head
			max.	med.	min.							
<i>Type I.9/2</i>												
68.	2472	AE	3.02	2.89	2.77	9.07	cir.	0.17	cut	1.520	40/m?	l
<i>Type I.9/5</i>												
69.	2527	AE	3.16	3.00	2.85	9.43	oval	0.27–0.21	cut	3.320	93/f	r/l
70.	2633	AE	3.12	3.06	3.00	9.60	cir.	0.28	cut	3.845	218/f	r/l
71.	2526	AE	3.27	3.15	3.03	9.89	oval	0.29–0.25	cut	4.241	93/f	r/l
<i>Type I.9/6</i>												
72.	2681	AE	3.31	3.17	3.03	9.95	semicir.	$\frac{0.36-0.26}{0.30-0.23}$	cut	4.857	279/f?	r/l
73.	2682	AE	3.37	3.16	2.95	9.92	semicir.	$\frac{0.43-0.32}{0.34-0.27}$	cut	5.853	279/f?	r/l
<i>Type I.10/3</i>												
74.	2839	AE	3.20	3.20	3.20	10.04	cir.-oval	$\frac{0.22-0.12}{0.16}$	cut	1.173	413/?	r/l
<i>Undetermined</i>												
75.	2784	AE	–	–	–	–	cir.	0.15	?	0.120	364/f	r

[[cir. = circular; cir.-oval = circular-oval; semicir. = semicircular]

*\*Napomene:*

- 9. Fragment of a circllet (a quarter missing).
- 14. Fragment of a circllet (a small part missing).
- 25. Fragment of a circllet (only half preserved).
- 29. Fragment of a circllet (a third missing).
- 36. Fragment of a circllet (broken into three parts); silver with considerable lead.
- 37. Fragment of a circllet (broken into two parts); silver with considerable lead.
- 49. "In quadrant XIII/5 a bronze circllet was found during filling", *Diary, ad 26 Aug. 1953.*
- 75. Fragment of a circllet (two-thirds missing).

Of the 75 circllets without endings (and without pendants) found at Lijeva Bara, only two circllets are chance finds from destroyed grave units. The remaining 73 circllets come from a total of 48 archaeologically excavated graves (ratio 1.52:1): 25 graves with finds of only one circllet (52.08%),<sup>157</sup> 21 graves with finds of two circllets (43.75%),<sup>158</sup> while only 2 graves have finds of three circllets (4.17%).<sup>159</sup> Among the graves with finds, the graves with circllets without an ending measure a very high share of 25.13%.

Most of these circllets were made of bronze wire (70.66%), while a quarter were made of silver wire (26.67%), and only gr. 48/f contained a pair of circllets made of iron wire (2.67%).<sup>160</sup> Circllets made of bronze, silver, or iron wire with a circular section predominate (85.14%), but the bronze circles include examples made from wire with a semicircular section (6.67%), an oval section (5.33%), and the very unusual and rare circllets made of wire with a circular-oval section (2.67%). All of these less usual variants of wire section belong to the group of large-format circllets (type I.6–10), while among the small-format circllets, other than circllets of bronze and silver with a circular section, only examples made from bronze wire have a semicircular section. The ends of the wires in many cases are simply cut, but variants also appear with cut and tapered ends, cut and pointed ends, and in only one example both ends of the circllet are tapered (gr. 377/m?). Pointed ends appear only on several variants of large-format circllets (type I.6–8), but there this is more characteristic for circllets made of bronze than for circllets made of silver.

Circllets without an ending (and without a pendant) were found mostly in female or probably female graves, where they were considerably more numerous (62.79%) than finds that come from male or probably male and child graves together (37.21%). They were found in a fairly equal number on the left side (45.20%) and the right side of the skull (44.45%), but the presence of circllets on the left side of the skull is more emphasized for female or probably female

<sup>157</sup> Graves: 4/f, 26/f, 31/f?, 40/m, 45/ch, 60/f, 90/m, 115/f, 125/f, 139/f, 192/ch, 260/f?, 263/f, 264/ch, 291/f?, 298/f, 314/f, 347/ch, 355/ch, 364/f, 377/m?, 384/m?, 402/ch, 422/f, 444/f, and III-51/?. The list does not include graves with finds of circllets with one (gr. 402) or two pendants (gr. 102).

<sup>158</sup> Graves: 23/ch, 30/ch, 33/f, 92/m, 93/f, 109/f, 112/ch, 164/f, 183/f, 196/?, 218/f, 279/f?, 283/m, 313/f?, 316/f, 344/f, 374/f?, 386/m, 413/?, 439/?, and II-1951/?.

<sup>159</sup> Graves: 48/f and 66/f. The list does not include gr. 33/f, where in addition to a pair of circllets without an ending, one circllet with a pendant (bead-pendant) was also found.

<sup>160</sup> At the cemetery of Bijelo Brdo – Ul. Venecija fragments of iron circllets found by the head, by the temples, or on the forehead of the skeletons were attributed to gr. 79 (MSO = Museum of Slavonia, Osijek), and gr. 186 and 188 (AMZ), see BRUNŠMID 1904, 58, 64, 73 (it was noted for the example from gr. 186 that it fell apart upon discovery).



**Table 15**

Graves with finds of circlets without endings and their representation according to the sex of the skeleton and the position by the skull

Graves with finds of circlets			The representation of circlet(s) in graves							
Sex of the deceased	State		State		Position of the find by the skull					
	graves	%	circlets	%	right		left		unknown	
Determined	43	89.58	64	87.67	28	43.74	30	46.88	6	9.38
male	7	16.28	10	15.63	4	40.00	5	50.00	1	10.00
female	27	62.79	42	65.63	16	38.10	22	52.27	4	9.52
child	9	20.93	12	18.74	8	66.67	3	25.00	1	8.33
Undetermined	5	10.42	9	12.33	4	44.45	3	33.33	2	22.22
Total:	48	100.00	73	100.00	32	43.84	33	45.20	8	10.96

**Table 16**

The representation of small-format and large-format circlets without an ending according to format, metal, and wire section.

Circlets without an ending (types and metal)	State		Variants of wire section							
	no.	%	cir.	cir.-ov.	oval	semicir.				
Determined	74	98.67	63	85.13	2	2.70	4	5.41	5	6.76
<i>small-format (type II.4–5)</i>	19	25.68	17	89.47	–	–	–	–	2	10.53
AR	6	31.58	6	100.00	–	–	–	–	–	–
AE	13	68.42	11	84.61	–	–	–	–	2	15.39
Fe	–	–	–	–	–	–	–	–	–	–
<i>large-format (type I.6–10)</i>	55	74.32	46	83.64	2	3.64	4	7.27	3	5.45
AR	14	25.45	14	100.00	–	–	–	–	–	–
AE	39	70.91	30	76.92	2	5.13	4	10.26	3	7.69
Fe	2	3.64	2	100.00	–	–	–	–	–	–
Undetermined (AE)	1	133	1	100.00	–	–	–	–	–	–
Total:	75	100.00	64	85.33	2	2.67	4	5.33	5	6.67

graves (52.88%), and male or probably male graves (50%), while the child graves exhibit a major predominance of circlets found on the right side of the skull (66.67%). The reason for this is the greater frequency of female and probably female graves with finds of two circlets (11 graves) or even three circlets (2 graves),<sup>161</sup> which is almost four times less among male<sup>162</sup> and child graves<sup>163</sup> (Table 15).

Large-format circlets predominate (type I.6–10), while the small-format circlets are barely above a quarter (type II.4–5). In both of these groups, however, the examples made of bronze predominate, but there are more silver examples among the small-format circlets (somewhat less than two thirds), than among the large-format circlets (somewhat less than one quarter). A circular section wire is the basic characteristic of both groups, but it can be noted that the variety of wire sections is more evident for the large format circlets (Table 16).

Circlets without endings were discovered as the only finds in nine graves (18.75%): six graves with one circlet each (gr. 4/f, 45/ch, 192/ch, 264/f, 291/? and 377/m?), and three graves with a pair of circlets each (gr. 112/ch, 283/m, and 439/?). Almost half of these graves are child graves (gr. 45, 112, 192, and 264), while a large number of the remaining child graves in addition to one or more circlets also contain only a ring or two: an open-ended ring of banded section (gr. 164), an open-ended ring of banded section and a decorated ring of arched section (gr. 30), a ring with a crown of the "Vukovar – Bijelo Brdo type" (gr. 402), and a quite heavy closed ring of semicircular section (gr. 26). A less numerous group of child graves contained along with a circlet a torc and two-part pendant (gr. 23), a torc, small bells or globular pendants, the upper part of a two-part pendant, and an appliqué element (gr. 355), and a necklace of beads and metal pendants along with (found in the same grave at an undetermined position) a massive gilded silver ring with a crown of the "Vukovar – Budakeszi" type (gr. 347).<sup>164</sup>

<sup>161</sup> Graves: 33/f, 93/f, 109/f, 164/f, 183/f, 218/f, 279/? , 313/? , 316/f, 344/f, and 374/? . For graves with three circlets, see here p. 442 n. 159.

<sup>162</sup> Graves: 92/m, 283/m, and 386/m.

<sup>163</sup> Graves 23/ch, 30/ch, and 112/ch. – In three graves with finds of two circlets, the sex of the deceased was not established (gr. 196/? , 413/? , and II-1951/?).

<sup>164</sup> See here p. 530 n. 547

In male or probably male graves, other than the graves in which they were the only grave finds (gr. 283 and 377), circlets without an ending were found either with a ring with a crown of the "Vukovar – Bijelo Brdo" type (gr. 384 and 386) or with an arrow (gr. 40), as well as with an O-circlet and open-ended ring of oval section (gr. 90), and with an open-ended ring of semicircular section, an open-ended bracelet of circular section wire, and two knives (gr. 92). In female or probably female graves, circlets without endings are rarely the only grave find (gr. 4 and 291), and they are most often found with rings (a quarter of the graves)<sup>165</sup> and bracelets (more than a third of the graves).<sup>166</sup> They are considerably less common with torcs (gr. 31, 66, 115, 298, and 444) and necklaces of beads with or without metal pendants (gr. 48, 115, and 347), and are rarely found with other types of circlets, whether a circlet without an ending with a bead-pendant (gr. 13), a circlet with a joint (gr. 48), or a pair of O-circlets (gr. 109). To this not particularly diverse selection of finds can be added one or more metal pendants (gr. 260, 344, and 355), iron awls (gr. 139 and 444) and iron buckles (gr. 263 and 344), a fragment of silver cuff end (gr. 344), a bead and bead-pendant (gr. 263 and 279), a spindle-whorl (gr. 218) and a pot (gr. 60), and in one case cattle bones were found (gr. 49).

4.3.1.1.1.2. Circlets without an ending with one or more pendants  
(G. 13 dif.; H. 18d, 18d dif.)

No.	Inv. AMZ	Metal	Ø circlet (cm)			2π (cm)	Form of wire	Ø wire (cm)	Ends	Weight (g)	Grave (sex)	Side of head
			max.	med.	min.							
a) Small-format												
<i>Type II.5/3 – with pendants (a circlet and a banded circularly formed circlet)</i>												
1.	2549	AE	1.85	1.84	1.83	5.78	cir.	0.19	cut/tapered	0.962	102/ch	l
b) Large-format												
<i>Type I.6/1 – with a pendant (a banded ovally formed circlet)</i>												
2.	2850	AE	2.24	2.06	1.89	6.48	cir.	0.14	cut	0.745	422/f	l
<i>Type I.7/3 – with a pendant (a bead)</i>												
3.	2465	AE	2.49	2.27	2.05	7.13	cir.	0.19	cut/tapered	1.390	33/f	l

[cir. = circular]

The circlets of this group are multipart objects, the main section being a small-format or large-format open circlet without an ending onto which one or more pendants were hung. The range of pendants is not particularly large, and the usual variants include three circular open circlets of rounded (gr. 102/ch) or banded section (gr. 102/ch, 422/f) and one bead (gr. 33/f).<sup>167</sup>

Among the jewellery of the Bijelo Brdo cultural sphere, circlets without an ending with one or more pendants are not common in Croatia,<sup>168</sup> nor are they common in Bosnia & Herzegovina,<sup>169</sup> Hungary,<sup>170</sup> and Slovakia.<sup>171</sup> They were found in only three graves at Lijeva Bara: in one female grave together with two bronze large-format circlets without endings (gr. 33/f), in another female grave together with a silver large-format O-circlet and an open bronze ring with a triangular section (gr. 422/f), and in a single child grave together with a necklace of beads (gr. 102/ch). In all three graves, they were found on the left side of the heads, and judging from the position of the graves in which they were found, they would belong to the jewellery forms from the end of the 10<sup>th</sup> and beginning of the 11<sup>th</sup> centuries.<sup>172</sup>

<sup>165</sup> In 28 female or probably female graves with circlets without endings, only in 7 graves were rings not found (gr. 31, 109, 139, 183, 218, 260, and 344).

<sup>166</sup> Together with circlets without an ending, bracelets were found in 10 female or probably female graves (gr. 31, 48, 66, 93, 115, 139, 183, 316, 374, and 444).

<sup>167</sup> In addition to circular pendants, various hoops, spirally wound wires, cowry-snail shells, and so forth appear as pendants on circlets. An interesting example is the use of a button pendant on a circlet from the cemetery of Segvár – Oromdülő, CSALLÁNY 1934, 240, LXIX:29.

<sup>168</sup> Zagreb – Stenjevec/Sv. Marija, gr. 113/f; Zagreb 1994, 159 no. 430; SIMONI 2004, 35–36 no. 6.

<sup>169</sup> Petoševci – Bagruša, gr. 73; ŽERAVICA 1986, 142, Pl. V:1. Gomjenica – Baltine bare, gr. 216; MILETIĆ 1967, 107, Pl. XXVIII (gr. 216).

<sup>170</sup> Dunaujváros – Öreghegy, gr. 35; HORVÁTH 1979, 283, Pl. IV:7. Ikervár – Vinág utca, gr. 70, 117, and 121; HAJMÁSI – KISS 2000, 53, 61–62, Pl. 34:70/3, 45:117/1, 49:122/1 (gr. 70, 117, and 121). Rád – Kisbegy, gr. 12; PATAY 1957, 62, Pl. XIV:20–21 (gr. 12). Sárbogárd – Forrás dűlő, gr. 30; ÉRY 1968, 128, Pl. XXXIII:4 (gr. 30). Szegvár – Oromdülő, chance find; CSALLÁNY 1934, 240, Pl. LXIX:29. Székesfehérvár – Demkőhegy, gr. 20; BAKAY 1967, 69, Pl. XXI:18. Szentés – Szentlászló, gr. 90 and 107; SZÉLL 1941, 247 (Pl. VIIB:22), 248 Pl. VIIB:9, 261–262; Szolnok – Szanda Beke Pál halom III, gr. 9; MADARAS 2006, 224 Pl. 9:1.

<sup>171</sup> Bučany – Vinohrady, gr. 45; HANULIAK 1993, 89, 95 (Fig. 14:14). Čakajovce – Kostolné, gr. 493 and 703; REJHOLCOVÁ 1995, 54, 78, Pl. LXXIX:1–2, Tab. CXI:4. Chotin – železnička postaja, gr. 53 and 62; DUŠEK 1955, 250–251, 260 (Fig. 14.17, 262 Fig. 64); TOČÍK 1968, 27–28, 84, Pl. XVIII:12–13 (gr. 3=53), Pl. XVIII:27 (gr. 12=62). Malé Kosihy – Horné Konopnice, gr. 309 and 492; HANULIAK 1994, 132, 137, 203 Pl. LXIV:A/2–3, 230 Pl. XCI:B/1. Nesvady – Rókalyuk, gr. 6; NEVIZÁNSKY – RATOMIRSKÁ 1991, 262, 266 (Fig. 7:1).

<sup>172</sup> In the Bulgarian – Byzantine cultural circle, circlets with pendants were particularly common at early medieval cemeteries in Macedonia, MANEVA 1992, 41–43, 46–47: Demir kapija – Crkvište, 51 (145, Pl. 19:31/13); Openica – Crvenica, grave find (172, Pl. 13:45/3); Rosoman – Palikura, gr. 15 (237, Pl. 19:95/21); Sredno Nerezi – Gradište, gr. 4 (221 Fig. 27a, Pl. 19:83/1a,b); Varoš – Markovi kulí, gr. 37 and 103 (190–191, Pl. 19:57/28, 19:57/45). Dunje – Krstevi, gr. 29 and 64; MANEVA 1996, 192, 197. Vitolište – Zadna reka/Grmajte, gr. 27 and 35; KEPESKA 1995, 29–31, Fig. 12 and 14.

4.3.1.1.1.3. Pendants on circlets without an ending  
(H. –, 27 dif., 37a,c)

No.	Inv. AMZ	Material	Form of pendant	Pendant dimensions (cm)					Wt. (g)	Gr. sex
				d <sub>1</sub> / Ø / dim.	d <sub>2</sub> / Ø wire	ht.	w.	th.		
1.	2465/2	glass	bead, ribbed (27 dif.)	0.95/0.76	0.45	0.75	–	–	1.328	33/f
2.	2549/2	AE	circlet, open (–)	1.10/1.07	0.16	–	–	–	0.327	102/ch
3.	2549/3	AE	circlet, open (37a)	0.50	–	(0.50)	0.35	0.14	0.215	102/ch
4.	2850/2	AE	circlet, open (37c)	0.75/0.70	–	(0.75)	0.46	0.12	0.773	422/f

## \*Notes:

1. Globular-flattened, yellowish brown.
2. Circular form; circular section wire.
3. Circular form, banded section; fragment of the hoop of a medieval ring (undecorated).
4. Oval form, banded section; fragment of the hoop of a medieval ring (decorated: a plaited pattern between double rows of pseudo-twisted wire).

Metal and glass objects appear as pendants on the circlets. The metal objects were primarily open circular bronze hoops, one made from a thin circular section wire (gr. 102/ch), while the other two were made from fragments of the cast hoops of early medieval rings of banded section (gr. 102/ch, 422/f). The single globular-flattened ribbed glass bead (5 ribs) was probably also an item of early medieval secondary use (gr. 33/f).

## 4.3.1.1.2. Circlets with an ending

Circlets with an ending were made from a single piece of bronze or silver wire. The ending on some has both a decorative and functional role, while on others it is merely decorative and resembles a pendant in appearance (such as the circlets with a spiral ending). Circlets with an ending were present in 17 graves, their share among the graves with finds being a not too large 8.90%.

4.3.1.1.2.1. O-circlets  
(V. IV/5; H. 12a)

No.	Inv. AMZ	Metal	Height of circlet	Ø circlet (cm)			2rπ (cm)	Ø wire (cm)	O-w. (cm)	Wt. (g)	Grave/ sex	Side of head
				max.	med.	min.						
<i>a) Small-format</i>												
<i>Type II.5/2</i>												
1.	2510	AE	2.05	1.69	1.69	1.69	5.31	0.15	0.15	0.813	69/f	(r)
<i>b) Large-format</i>												
<i>Type I.7/3</i>												
2.	2661	AE	3.29	2.43	2.29	2.15	7.19	0.20	0.37	2.070	255/f	r
<i>Type I.8/2</i>												
3.	2779/1	AE	3.08	2.91	2.82	2.74	8.85	0.17	0.25	1.795	358/m	r/l
4.	2779/2	AE	3.08	2.84	2.84	2.84	8.91	0.17	0.24	1.433	358/m	r/l
<i>Type I.8/3</i>												
5.	2851	AR	2.83	2.95	2.74	2.53	8.60	0.23	0.29	3.203	422/f	r
6.	2638	AR	3.10	2.80	2.75	2.70	8.63	0.20	0.37	2.596	229/m	r
<i>Type I.9/3</i>												
7.	2525	AE	3.30	3.15	3.00	2.85	9.42	0.21	0.275	2.802	90/m	?
<i>Type I.9/4</i>												
8.	2687	AE	3.42	3.10	2.97	2.84	9.33	0.26	0.32	2.878	282/ch	r
9.	2556/2	AE	3.30	3.12	3.01	2.90	9.45	0.25	0.43	3.396	109/f	r/l
10.	2556/1	AE	3.53	3.16	3.15	3.14	9.89	0.25	0.40	3.579	109/f	r/l

## \*Notes:

1. The O-ending is not hammered; the circlet was found below the right collarbone.
7. In a pair with a circlet without an ending (G. 13-I.8/3).

O-circlets<sup>173</sup> are represented by 10 examples from only 8 graves,<sup>174</sup> making up among the graves with finds a small 4.19%. O-circlets were represented in larger amounts in female or probably female graves (50%), while they were somewhat less common in male graves (37.5%), and only one example was found in one child grave (12.5%). Most often (and almost as a rule) they were discovered on the right side of the head or in the area of the right collarbone of the deceased (77.78%).

All ten O-circlets were made from circular section wire cut on one end and on the other end bent outwards in the shape of the letter "O" with an ending either hammered into a band (most examples)<sup>175</sup> or unworked (gr. 69). The ratio of the width of the hammered O-ending and the diameter of the wire range from 1.23:1, the amount of the smallest measured ration on a large-format circlet of type G. I,9/4 (gr. 282/ch), to 1.85:1, the amount of the greatest measured ration on a large-format circlet of type G. I,8/3 (gr. 229/m). The collective index (mean value) of the width of the endings measured on O-circlets is 1.48, which is not even 40 percent of the index of the width of the hammered endings measured on the S-circlets (Table 17).

Table 17

Index of the widths of the hammered endings of the O-circlets and S-circlets (ratio of the width of the ending and the diameter of the wire)

No.	Grave/sex (S-AMZ)	O-circlet index of the ending	No.	Grave/sex (S-AMZ)	S-circlet index of the ending
1.	282/ch	1.23	1.	349/ch	1.70
2.	422/f	1.26	2.	297/f?	1.90
3.	90/m	1.31	3.	417/m	2.07
4.	358/ch (S-2779/2)	1.41	4.	(Srnić, S-2404)	2.14
5.	358/ch (S-2779/1)	1.47	5.	XIII/6a	2.22
6.	255/f?	1.50	6.	315/ch (S-2720)	2.26
7.	109/f (S-2556/1)	1.60	7.	391/ch	2.36
8.	109/f (S-2556/2)	1.72	8.	137/? (S-2584)	2.37
9.	229/m	1.85	9.	137/? (S-2583)	2.44
			10.	(Srnić, S-2403)	2.50
			11.	29/ch	2.67
			12.	(Srnić, S-2402)	3.22
			13.	393/ch	3.28
Collective ratio of 9 circlets (7 graves): 1.48*			Collective ratio of 13 circlets (8 graves): 2.395*		

\* Not included: The O-circlet from gr. 69/f (not hammered) and the S-circlet from gr. 315/ch (S-2721; ending damaged)

Only in two graves were O-circlets worn in a pair – with one example on each side of the skull (gr. 358/m) or together with a pair of identically arranged plain circlets (gr. 109/f). In two graves one O-circlet was paired with one example of a circlet without an ending (gr. 90/m) or with a circlet with a pendant of curved bronze sheet metal (gr. 422/f). In three graves, O-circlets were the only grave goods (37.5%), found next to the skull or near the right side of the skull of one child skeleton (gr. 282) and two female or probably female skeletons (gr. 69, 255).

O-circlets were found in a greater number by deceased individuals with one or both forearms placed on the upper part of the body (gr. 69/f, 109/f, 358/m, 422/f),<sup>176</sup> and only slightly less numerous were examples of O-circlets found by deceased individuals with forearms along the trunk or on the lower part of the body (gr. 90/m, 229/m, 255/f?).<sup>177</sup>

In contrast to the S-circlets, large-format specimens of O-circlets (type I,7–9) are considerably more numerous than small-format ones (type II,4–5), and bronze examples are more common than silver O-circlets (Table 18).

<sup>173</sup> No uniform term is used in the professional literature for this type of earring. For some of the terms, see SZŐKE 1962, 35 (pödrött végű karikák); VÁŇA 1954, 62 (záušnice...s jedním koncem svonutým u...očko); DOSTAL 1966, 31 (náušnice s očkem); TÖRÖK 1962, 43 (Haarringe mit zurückgedrehtem Ende); KOROŠEC 1950, 57 (obroček sa spiralno zanko); KOROŠEC 1975, 189 (obroček sa spiralno pentljo); ŽERAVICA 1986, 168 (karičice sa spiralnim zavojem).

<sup>174</sup> DEMO 1996, 47.

<sup>175</sup> On most of the O-circlets the ending is only slightly hammered, so it appears thick (gr. 90/m, 109/f, 255/f?, 282/ch, 358/m, 422/f), while in two cases it was heavily hammered, so that it was thin and mostly at the level of the well hammered endings such as are known for the S-circlets (gr. 229/m, 422/f).

<sup>176</sup> Represented forearm position groups were III/8 (gr. 69/f), III/12 (gr. 109/f), and III/13a (gr. 358/m), and group V/15 (gr. 422/f).

<sup>177</sup> All deceased with forearm positions of group I/7a.

O-circlets represent a jewellery form widespread among the western Slavs from somewhat prior to AD 900 to ca. 1050 or later,<sup>178</sup> and among the Slavs in the western and southern parts of Pannonia, they were known even before the appearance of the Bijelo Brdo Culture.<sup>179</sup> Among Bijelo Brdo finds, the appearance of O-circlets is dated to the second half of the 10<sup>th</sup> century, while they had already gone out of fashion in the 11<sup>th</sup> century.<sup>180</sup> The examples found at Lijeva Bara, together with a very heavy open-ended ring of oval section (gr. 90) and a closed ring of semicircular section (gr. 358), indicate the beginning or the first decades of the 11<sup>th</sup> century.<sup>181</sup>

4.3.1.1.2.2. S-circlets  
(G. I–II)

No.	Inv. AMZ	Metal	Height of circlet	Ø circlet (cm)			2rπ (cm)	Ø wire (cm)	S-width (cm)	Weight (g)	Grave/sex	Side of head
				max.	med.	min.						
<i>a) Small-format</i>												
G. II.4/1												
1.	2699	AR	1.32	1.26	1.15	1.04	3.61	0.10	0.19*	0.261	297/f?	r
2.	2814	AE	1.57	1.35	1.28	1.21	4.02	0.125	0.41	0.525	393/ch	l
G. II.4/2												
3.	2912	AE	1.54	1.145	1.14	1.13	3.58	0.165	0.39	0.723	391/ch	l
G. II.4/3												
4.	2402	AE	1.72	1.725	1.43	1.12	4.49	0.205	0.66	1.272	Srnić	–
5.	2404	AE	–	1.73	1.54	1.355	4.84	0.210	0.45*	1.134	Srnić	–
G. II.5/1												
6.	2846	AE	2.05	1.95	1.72	1.49	5.40	0.14	0.29	0.718	417/m	r
G. II.5/2												
7.	2898	AR	–	1.76	1.67	1.59	5.26	0.18	0.40*	0.710	Quad. XIII/6	–
8.	2403	AE	2.43	1.90	1.74	1.59	5.48	0.16	0.40	1.045	Srnić	–
9.	2453	AE	1.94	1.72	1.64	1.55	5.15	0.165	0.44	0.827	29/ch	r
G. II.5/3												
10.	2720	AR	2.04	1.69	1.69	1.69	5.31**	0.19	0.43	1.370	315/f	l
11.	2721	AE	–	1.72	1.66	1.60	5.21	0.19	–	1.002	315/f	(l)
<i>b) Large-format</i>												
G. I.7/5												
12.	2583	AR	2.71	2.44	2.32	2.20	7.28	0.27	0.66	4.374	137/?	r/l
13.	2584	AR	2.60	2.35	2.27	2.20	7.14	0.27	0.64	4.121	137/?	r/l
G. I.9/2												
14.	2766	AE	3.05	2.99	2.90	2.80	9.106	0.18	0.32	1.766	349/ch	l

\*Notes:

1. S-ending damaged.

5. S-ending damaged.

7. S-ending damaged; found at a depth of 0.25 m.

10. End of the circlet pointed.

11. The S-circlet was found on the left side of the rib cage.

S-circlets are represented by 14 examples, and they are somewhat more numerous than the related O-circlets: 10 S-circlets come from 8 graves, one example from an undetermined grave unit, and three S-circlets are chance finds gathered during the archaeological excavations. Among the graves with finds, graves with S-circlets compose a small 4.19%. Most of the S-circlets found in graves were discovered by the skeletons of children and women, and only one example was found in a male grave. In contrast to O-circlets, most S-circlets were found on the left side of the skull or on the left side of the rib cage of the deceased (60%).

<sup>178</sup> MUSIANOWICZ 1949, 127–132, 192–195; VÁŇA 1954, 62; KÓČKA-KRENZ 1993, 45–46.

<sup>179</sup> For their appearance and continuity from the first half of the 9<sup>th</sup> century to the beginning of the 10<sup>th</sup> century, SZŐKE 1992, 846–847.

<sup>180</sup> SZŐKE 1962, 37.

<sup>181</sup> Examples from sites south of the Mura, Drava and Sava are of an even later date, as for instance some O-circlets at the cemetery of Ptuj-Grad/Turnirski prostor appear in the same grave unit together with jewellery forms from the second third of the 10<sup>th</sup> century (gr. 192), cf. KOROŠEC 1950, Fig. 48. A similar situation is apparent at sites in the Bosnian Sava region.

All 14 S-circlets were made of circular section wire that on one end was cut (most specimens), and more rarely tapered and pointed (gr. 315/ch; S-2720), and on the other end was hammered into a band and bent outwards in the shape of the letter S. Most S-circlets are made of bronze and only a few specimens were made of silver (Table 18).

**Table 18**

Table showing the representation of small-format and large-format bronze and silver O-circlets and S-circlets.

	O-circlet		S-circlet		Total:
	Amount	%	Amount	%	
Small-format (G. II.4–5)	1	10.00	11	78.57	12
AR	–	–	3	27.27	3
AE	1	100.00	8	72.73	9
Large-format (G. I.7–9)	9	90.00	3	21.43	12
AR	2	22.22	2	66.67	4
AE	7	77.78	1	33.33	8
Total:	10	100.00	14	100.00	24

Small-format circlets of wire with a thin diameter predominate (G. II,4/1–3 and G. II,5/1–3), most of them made of bronze, while for the less numerous large-format S-circlets, this was diametrically opposite (G. I,7–9). The small-format S-circlets primarily come from child and female or probably female graves, and only one example was found in a male grave, on the right side of the skull of the deceased individual (gr. 417/m).

The ratio of the width of the hammered S-ending and the diameter of the wire varies in a range from 1.70:1, the amount of the smallest measured ratio on one large-format circlet of type G. I,9/2 (gr. 349), to 3.28:1, the amount of the largest measured ratio on one small-format circlet of type G. II,4/1 (gr. 393). The great majority of the hammered S-endings were wider than the diameter of the wire (69.23%), so that the mean value of thirteen S-circlets reached a figure of 2.395. In relation to the hammered endings of the O-circlets, the widening of the hammered ending of the S-circlets shows an increase of more than 60% (Table 17).

At Lijevo Bara the S-circlets were most often found in graves together with rings, particularly with open-ended rings of banded section (gr. 349/ch, 417/m) and rings with a cellular crown for decorative stones (gr. 297/?, 315/ch), as well as with open-ended rings of oval (gr. 315/ch) and rhomboid section (gr. 137/?). In two cases, S-circlets were found together with a torc (gr. 349/ch, 391/ch) and with button-like appliques (gr. 349/ch, 417/m), but more rarely with beads, a button-pendant (gr. 29/ch, 349/ch), and with objects of bone and iron (gr. 29/ch). In only one case was a S-circlet discovered as the only find in a grave (gr. 393/ch). No other form of circlet or earring was found in the graves with S-circlets.

S-circlets were found in a considerably greater number alongside deceased individuals with one or both forearms placed on the upper part of the body (gr. 137/?, 297/?, 315/ch, 349/ch, 417/m),<sup>182</sup> and in only one case by a deceased individual with the forearms placed by the lower part of the body (gr. 29/ch).<sup>183</sup>

Finds of S-circlets were noted exclusively in graves located in the southern part of the excavated area of the cemetery, and the few large-format examples were located as follows: one bronze circlet in the southwestern part of the cemetery (gr. 349/ch),<sup>184</sup> and the only pair of silver S-circlets in a grave in the far eastern part of the cemetery (gr. 137/?). The emphasized scarcity of finds of S-circlets and O-circlets is an indicator of an evidently poor acceptance of these temple rings and the manner in which they were used to dress hair in the period when the cemetery at Lijevo Bara was in use.<sup>185</sup>

<sup>182</sup> Forearm position groups III/3 (gr. 297/?), III/11 (gr. 137/?), III/13a (gr. 349/ch, 417/m), and group IV/19 (gr. 315/ch).

<sup>183</sup> Group I/1.

<sup>184</sup> Two bronze small-format S-circlets of very similar metrological characteristics were purchased for the AMZ as finds from Lijevo Bara (G. II.4/3), and it is likely that they composed a pair in one of the destroyed graves.

<sup>185</sup> For the cemetery at Lijevo Bara, a long ago suggested observation about the appearance and distribution of S-circlets in the southern parts of the Bijelo Brdo cultural circle might well apply, MESTERHÁZY 1965, 112.

4.3.1.1.2.3. Circlets with a spiral ending  
(G. 19)

No.	Inv. AMZ	Metal	Circlet			Pendant			Spirals (number)	Weight (g)	Grave/ (sex)	Side of head
			ht.	w.	Ø wire	ht.	Ø upper	Ø lower				
1.	2658/1	AE	2.57	1.35	0.10	0.93	0.40	0.60	10	0.869	252/ch	r
2.	2658/2	AE	2.53	0.98	0.10	0.87	0.40	0.60	8	0.559	252/ch	l

Circlets with a spiral ending represent a sporadic find in the graves of the Bijelo Brdo cultural sphere,<sup>186</sup> where it appears that they are not much more than a reminiscence of similar jewellery forms originating in the Avaric-Slavic circle of the late 8<sup>th</sup> and beginning of the 9<sup>th</sup> centuries, which were widespread among the early Slavic inhabitants of the Early Carolingian period in eastern Austria and western Hungary during the 9<sup>th</sup> and the beginning of the 10<sup>th</sup> centuries.<sup>187</sup> Just like their late Avaric and early Slavic predecessors, the Bijelo Brdo circlets with a spiral ending appear in several variants, but the most numerous type are the circlets whose ending broadens towards the bottom, circlets with a cylindrical ending are a somewhat scarcer, and an example with a ending that narrows towards the bottom was confirmed by only one grave find (Rákóczifalva – Kastélydomb).<sup>188</sup>

The greatest number of Bijelo Brdo circlets with a spiral ending comes from the cemetery of Bijelo Brdo – Ul. Venecija (13 specimens from 7 graves),<sup>189</sup> less than half as many circlets come from the cemetery of Ptuj-Grad/Turnirski prostor [Ptuj-Castle/Tournament Grounds] (5 specimens from 3 graves),<sup>190</sup> and at other Bijelo Brdo Culture cemeteries, whether in Bosnia & Herzegovina,<sup>191</sup> Serbian Vojvodina,<sup>192</sup> Hungary,<sup>193</sup> Romanian Transylvania,<sup>194</sup> or Slovakia,<sup>195</sup> such circlets were usually found in only one of the graves (with one or two examples). The zone of densest representation is marked by the sites in the line Osijek – Vijenac I. Meštrovića — Bijelo Brdo – Ul. Venecija — Bogojevo – Ul. Biboja — Vukovar – Lijevo Bara, with finds of a total of 18 circlets (Fig. 26).<sup>196</sup>

<sup>186</sup> A list of finds and sites of circlets with a spiral ending attributed to the Bijelo Brdo cultural circle was presented by GIESLER 1981, 129 n. 219. This list can be only somewhat expanded with the few grave finds from Bosnia and Herzegovina, Serbia, Hungary, and Slovakia – Čakajevci – Kostolné, gr. 111, 475: REJHOLCOVÁ 1995, 12, 52, Pl. XXVI:11, LXXVI:4; *Majs – Udvari rétek*, gr. 67: KISS 1983, 82, 324 Pl. 16:67; *Petoševci – Bagruša*, gr. 12: ŽERAVICA 1986, 134, Pl. II:19; *Püspökladány – Eperjesvölgy*, gr. 182: NEPPER 1993, 104; *Rákóczifalva – Kastélydomb*, gr. 6: SELMECSI – MADARAS 1980, 146, 159 Pl. VIII; *Sárrétudvari – Hízófield*, gr. 134: NEPPER 1993, 104; *Subotica – Verusić-B*, gr. 109: SZEKERES – SZEKERES 1996, 43, Pl. XXXVI:12; *Szegvár – Oromdülő*, gr. 370: BENDE – LÖRINCZY 1997, 256 Fig. 11. – A chance find from Osijek must be included among the Bijelo Brdo circlets with a spiral ending (the site of Osijek – Vijenac I. Meštrovića, previously Osijek – Vijenac B. Kidriča), also the site of a rare example of a Bijelo Brdo S-circlet with a double S-ending. For basic data about this site and the finds, see BULAT 1968, 11–12, Pl. I:1–2; RADIĆ 1997, 85 no. 9c (with earlier literature).

<sup>187</sup> Much has been written about the origin and distribution of circlets with a spiral ending, primarily in Polish and Hungarian works, as well as in Czech, Slovak, and Slovenian literature, and in the recent period in Croatian texts, e.g. MUSIANOWICZ 1949, 181–187 (type X) and SZYMAŃSKI 1962, 207–217; FÉHÉR 1957, 280–281, KRALOVÁNSZKY 1959, 329–330, 334, 347–348 and SZŐKE 1962, 38–42; HRUBÝ 1955, 266 and ČILINSKÁ 1975, 65, 76–77 (type VIIIa; with dates a little earlier than usual); KOROŠEC 1957, 175–180; SOKOL 2006, 195–198. For a recapitulation of the often contrary opinions of the earlier generation of Hungarian archaeologists ranging from G. Fehér and A. Kraloványzki to B. Szőke and G. Török, see SÓS 1963, pp. 303–308. Of more recent contributions to this subject, with suitable typological divisions and numerous useful observations, see SZŐKE 1992a, 117–121 (with earlier literature).

<sup>188</sup> SZELMECZI – MADARAS 1980, 159 Pl. VIII (gr. 6).

<sup>189</sup> The AMZ has 8 examples from 4 graves (gr. 62/?, 70/ch, 81/ch, and 221/ch), and the MSO 5 examples from 3 graves (gr. 66/?, 72/?, and 86/ch), cf. BRUNŠMID 1904, 56–57, 59; ERCEGOVIĆ 1957, 168, 174 Fig. 32.

<sup>190</sup> Graves 193, 270, and 296: KOROŠEC 1950, 170, 192, 196–197, Fig. 49, 88, and 95.

<sup>191</sup> *Petoševci – Bagruša*, gr. 12: ŽERAVICA 1986, 134, Pl. II:19.

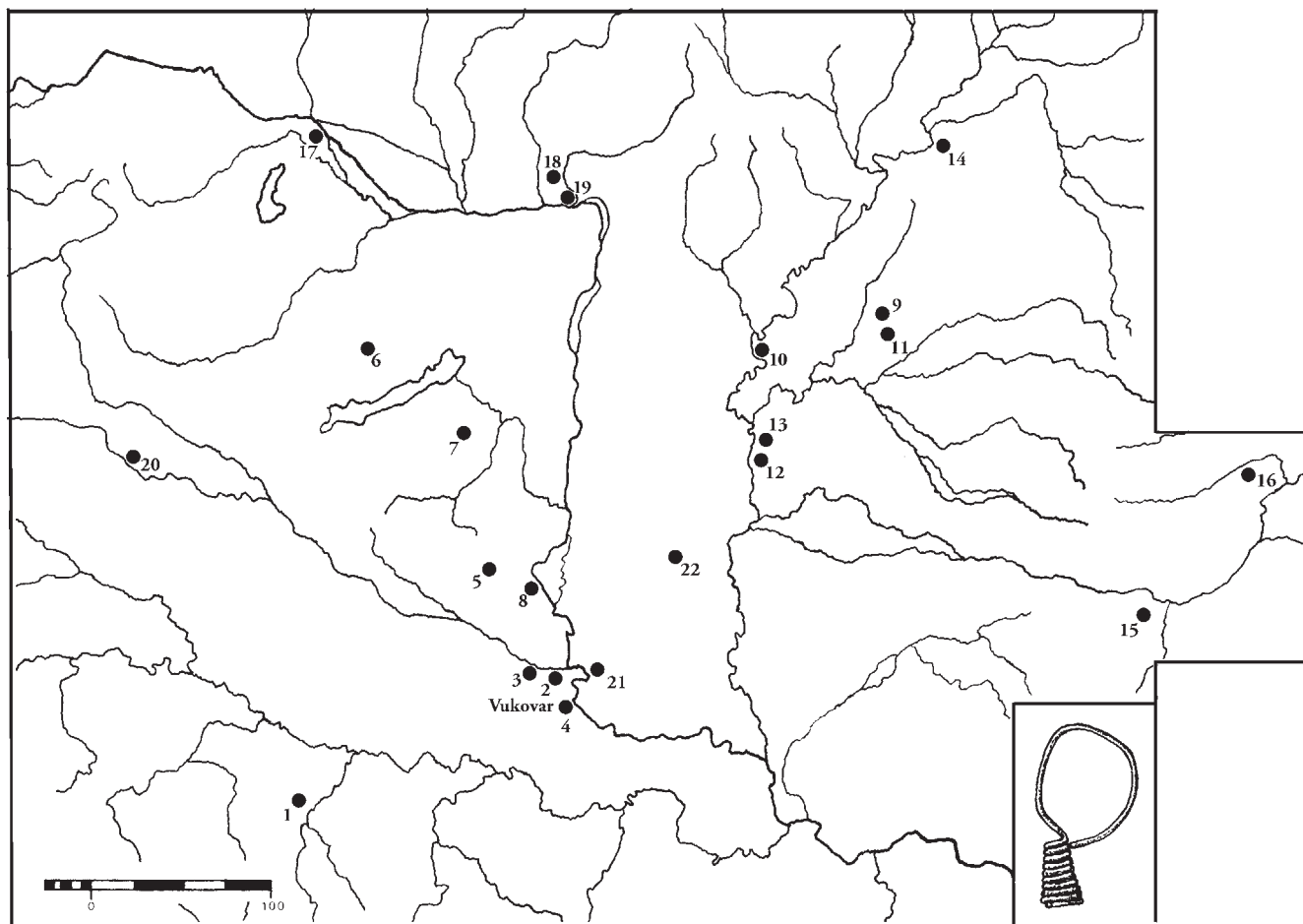
<sup>192</sup> *Bogajevo – Ul. Biboja*, gr. 3: STANOJEV 1989, 24, 26 no. 116–117. *Subotica – Verusić-B*, gr. 109: SZEKERES – SZEKERES 1996, 43, Pl. XXXVI:12.

<sup>193</sup> *Ellend – Nagyödör dűlő*, gr. 110: DOMBAY 1961, 142, Pl. XVII:21–22. *Halimba – Cseres*, gr. 47: TÖRÖK 1962, 146, Pl. XXIV. *Majs – Udvari rétek*, gr. 67: KISS 1983, 82, 324 Pl. 16:67. *Püspökladány – Eperjesvölgy*, gr. 182: NEPPER 1993, 104; NEPPER 2002, (2) 181 Pl. 175:7. *Rákóczifalva – Kastélydomb*, gr. 6: SELMECSI – MADARAS 1980, 146, 159 Pl. VIII. *Sárrétudvari – Hízófield*, gr. 134: NEPPER 1993, 104. *Szegvár – Oromdülő*, gr. 370: BENDE – LÖRINCZY 1997, 209, 230, 256 Fig. 11:9. *Szentés – Szentlászló*, gr. 74: SZÉLL 1941, 259 Pl. VI/A:15; *Tiszabercel – Ráctemető*, gr. 14: ISTVÁNOVITS 2003, 194, 286, 686 Pl. 184:14/3.

<sup>194</sup> *Hunedoara – Kincseshegy*, gr. 27: ROSKA 1913, 170 Fig. 3:17, 195. *Moldovenesti – Várhegy*, gr. 33: ROSKA 1914, 130 Fig. 5:6, 174.

<sup>195</sup> *Bratislava – Rusovce/Kovácsova ul.*, gr. 96: FÉHÉR 1957, 279, Pl. XXVII:9–10; *Čhlaba – Parlagok*, gr. 1/67: NEVIZÁNSKY 2006, 292, 315 Pl. XIII:10. – An exception, however, is represented by the cemetery of Čakajevci – Kostolné, where earrings with spiral, conically shaped pendants were found in as many as three graves, REJHOLCOVÁ 1995, 116 Pl. XXVI:11 (gr. 111), 164 Pl. LXXIV:11 (gr. 476), 166 Pl. LXXVI:4 (gr. 475). An earring with a straight spiral pendant from the same cemetery was of an earlier date, op.cit., 186 Pl. XCVI:4 (gr. 603).

<sup>196</sup> For the supposed find of circlets with a spiral pendant from the early medieval cemetery of Zagreb – Kaptol dated to the 11<sup>th</sup> century (sic!), see VINSKI 1952, 30, 51–52, Fig. 11; VINSKI 1960, 54, 64, Fig. 53. For data showing that the cemetery from which the circlets came was actually of an earlier date, see DEMO 2007, 23–25, 117–119. – In addition to examples from Bijelo Brdo cemeteries in the north of Croatia, circlets with a spiral ending also appear among grave finds in Dalmatia, in the south of Croatia, where it is considered that they originated or were in use



**Fig. 26.** Sites of discovery of circlets with a spiral ending at Bijelo Brdo cemeteries in Bosnia & Herzegovina, Croatia, Hungary, Romania, Slovakia, Slovenia, and Serbia (sites mentioned in the text). **1** – Petoševci – Bagruša (BiH; Laktaši District). **2** – Bijelo Brdo – Ul. Venecija (Hr; Osječko-Baranjska County). **3** – Osijek – Vijenac I. Meštrovića (Hr; Osječko-Baranjska County). **4** – Vukovar – Lijeva Bara (Hr; Vukovarsko-Srijemska County). **5** Ellend – Nagyödör dűlő (H; Baranya County). **6** Halimba – Cseres (H; Veszprém County). **7** Koppányszántó – church (H; Tolna County). **8** Majs – Udvari rétek (H; Baranya County). **9** Püspökladány – Eperjesvölgy (H; Hajdú-Bihar County). **10** – Rákóczifalva – Kastélydomb (H; Szolnok County). **11** – Sárrétudvari – Hízófield (H; Hajdú-Bihar County). **12** – Szegvár – Oromdűlő (H; Csongrád County). **13** – Szentes – Szentlászló (H; Csongrád County). **14** – Tiszabercel – Ráctemető (H; Szabolcs-Szatmár County). **15** – Hunedoara – Kincseshegy (Ro; Vest District). **16** – Moldovenesti – Várhegy (Ro; Cluj County). **17** – Bratislava – Rusovce/Kováčsova ul. (Sk; Bratislava District). **18** – Čakajovce – Kostolné (Sk; Nitra District). **19** – Čhl'aba – Parlagok (Sk; okr. Nové Zámky District). **20** – Ptuj-Grad/Turnirski prostor (Slo; Ptuj District). **21** – Bogojevo – Ul. Biboja (Srb; Odžaci District). **22** – Subotica-Verusić-B (Srb; Subotica District).

The metrological data for the 13 circlets from the sites in the zone of the greatest density in the Croatian Danube basin and the 5 circlets from the cemetery of Ptuj-Grad/Turnirski prostor in northeastern Slovenia show that the height of the circlets with a spiral ending varies in a range from 1.80 cm to 3.20 cm, with the average measuring 2.42 cm. Circlets shorter than 2 cm are rare, as also are circlets longer than 3 cm. The height of the pendant varies in a range from 0.63 cm to 1.00 cm, with an average of 0.79 cm, and the number of spirals ranges from 3 or 4 to 7 or 8, and Bijelo Brdo circlets with a greater number of spirals can be considered less common (e.g. Petoševci – Bagruša, gr. 12).<sup>197</sup> All of the example were made of circular section wire, the diameter of the wire varying in a range from 1 mm to 1.7 mm, and it can be established that diameters greater than 1.5 mm were rare and less common (**Table 19**).

Circlets with a spiral ending usually were found in child graves (young girls), and only occasionally among the archaeological material of the more varied female graves. Circlets with a spiral ending appear only rarely as the only grave find (Bijelo Brdo – Ul. Venecija, gr. 86; Ptuj-Grad/Turnirski prostor, gr. 270). There are often found in grave units with circlets with and without endings (more frequently with S-circlets, rarely with O-circlets), with various forms of open and closed rings, and rings with a crown, including decorated or undecorated rings with a stepped crown (Bijelo Brdo – Ul. Venecija,

during the 10<sup>th</sup> century – *Nin* – *Sv. Križ*, gr. 89 and 162: BELOŠEVIĆ 1999, 122, 131–132, Pl. XX:17 and XXI:2; *Plavno* – *Medine*, from destroyed graves: JELOVINA 1976, 104, Pl. LXXI:13; *Stranče* – *Gorica*, gr. 5: CETINIĆ 1998, 177, Pl. 18:6. For individual circlets with a spiral ending displaying Bijelo Brdo characteristics in the Byzantine – Bulgarian circle in Bulgaria and Serbia, see *Donji Milanovac* – *Veliki Gradac*, ancient Taliatae (Sr), gr. 42: MINIĆ 1970, 236, 242; RADIČEVIĆ 2007, 89, 90 Fig. 1:1; *Mihajlovo* (Bg), gr. 5: VÁŽAROVA 1976, 247, 248 Fig. 155:10–11 = VÁŽAROVA 1971, 6 Fig. 5 (published as a find from the cemetery of Galiče – Bosovi kamāni); *Ravna* – *Slog* (Sr), gr. 129: JOVANOVIĆ – VUKSAN 2005, 200, 207, 269; *Ritopek* – *unknown site* (Sr): BAJALOVIĆ-HADŽI-PEŠIĆ 1984, 55 no. 4, Pl. I:4, XVII:1.

<sup>197</sup> ŽERAVICA 1986, Pl. II:19.



Table 19

Metrological data for circlets with a spiral ending from the cemeteries of Bijelo Brdo – Ul. Venecija (only examples in the AMZ) and Osijek – Vijenac I. Meštrovića in Croatia, circlets from the cemetery of Ptuj-Grad/Turnirski prostor in Slovenia, and circlets from the cemetery of Bogojevo – Ul. Biboja in Serbia (Sr).

No.	Site, grave/chance find <sup>198</sup>	Location/ inv. no.	Metal	Circlet			Pendant			Spirals (number)	Weight (g)	Side of head
				ht.	w.	Ø wire	ht.	Ø-up.	Ø-low.			
1.	Bijelo Brdo, gr. 62	AMZ S-235	AE	1.89	–	0.12	0.63	0.40	0.54	4/5	0.501	(l)
2.	Bijelo Brdo, gr. 62	AMZ S-240	AE	–	–	0.12	–	–	–	–	0.213	(l)
3.	Bijelo Brdo, gr. 70	AMZ S-245	AE	2.26	1.64	0.16	0.75	0.53	0.66	4/5	0.972	l
4.	Bijelo Brdo, gr. 70	AMZ S-246	AE	2.30	1.64	0.15	0.73	0.57	0.63	4/5	1.095	l
5.	Bijelo Brdo, gr. 70	AMZ S-248	AE	–	1.55	0.17	–	–	–	–	0.476	l
6.	Bijelo Brdo, gr. 81	AMZ S-275	AE	2.14	1.11	0.12	0.83	0.36	0.52	6/7	0.660	r
7.	Bijelo Brdo, gr. 81	AMZ S-276	AE	–	–	0.12	0.67	0.35	0.59	6/7	0.326	r
8.	Bijelo Brdo, gr. 221	AMZ S-568	AE	2.28	–	0.12	0.77	0.36	0.60	5/6	0.780	–
9.	Ptuj, gr. 193	PMP 384	AE	3.20	2.30	–	1.00	–	0.60	5	–	r
10.	Ptuj, gr. 193	PMP 385	AE	2.80	1.70	–	0.80	–	0.50	5	–	l
11.	Ptuj, gr. 270	PMP 504	AE	2.30	1.60	0.15	0.90	–	0.70	6	–	r
12.	Ptuj, gr. 270	PMP 504	AE	1.80	1.50	0.12	0.70	–	0.60	5	–	(l)
13.	Ptuj, gr. 296	PMP 521	AE	2.70	2.00	–	0.70	–	0.50	5	–	l
14.	Osijek – I. Meštrovića	MSO 3021c	AE	2.80	2.00	0.10	–	–	–	–	0.9	–
15.	Bogojevo, gr. 3	GMSo	AE	2.20	–	0.10	–	–	–	–	–	–
16.	Bogojevo, gr. 3	GMSo	AE	2.50	–	0.15	–	–	–	–	–	–

Notes: 1. Circlet incomplete (missing part of the circlet); found on the left side of the chest. – 2. Fragment of a circlet (missing the pendant and a large part of the circlet); found on the left side of the chest. – 3. Circlet incomplete (missing part of the circlet). – 4. Broken into two parts; the weight approximate (remains of recent gluing). – 5. Fragment of a circlet (missing the pendant and part of the circlet). – 6. Broken into two parts. – 7. Circlet incomplete (hoop missing); pendant deformed. – 8. Circlet incomplete (missing part of the circlet). – 9. Broken into two parts. – 12. Found on the left flank of the skeleton.

gr. 62; Ptuj-Grad/Turnirski prostor, gr. 296), and a rings with a cellular crown for a decorative stone of the "Bijelo Brdo – Vukovar type" (Bijelo Brdo – Ul. Venecija, gr. 62). They are also fairly commonly found with lighter weight torcs (Bijelo Brdo – Ul. Venecija, gr. 70 and 72; Ptuj-Grad/Turnirski prostor, gr. 193)<sup>199</sup> – as well as with necklaces that in addition to beads sometimes have added specimens of Roman bronze coins (Bijelo Brdo – Ul. Venecija; gr. 81; Ptuj-Grad/Turnirski prostor, gr. 193). So far they have not been found at all with open-ended bracelets of circular, semicircular, or square section wire, but they have been documented with open-ended bracelets of banded section and rounded (G. 2)<sup>200</sup> or cylindrical endings (G. 3),<sup>201</sup> with open-ended bracelets of coiled wire (G. 5),<sup>202</sup> with bracelets of coiled wire with a hook and eye for fastening (G. 6),<sup>203</sup> with open-ended bracelets with animal heads (G. 8), and with bracelets of rhomboid section wire (G. 7),<sup>204</sup> along with which were registered the only examples of circlets with a spiral ending dated by a coin of the Hungarian King Andrew I (1041–1060) to the end of the first half and beginning of the second half of the 11<sup>th</sup> century (Ellend – Nagygödör-dűlő, gr. 110).<sup>205</sup> At the same time this also represents the final date for the use and continuity of such circlets, as their appearance most probably falls at the end of the 10<sup>th</sup> or beginning of the 11<sup>th</sup> centuries, and their use reached its peak in the first quarter or first third of the 11<sup>th</sup> century. One of their production centers was probably located in the southern Slavonic region located along the lower Drava River.<sup>206</sup>

<sup>198</sup> The data about the circlets from the cemetery of Bijelo Brdo – Ul. Venecija refer to examples in the AMZ and their present state of preservation. Hence the data differ somewhat from those in earlier publications, cf. BRUNŠMID 1904, 56 (gr. 62), 57 (gr. 70), 59 (gr. 81); ERCEGOVIĆ 1958, 168. For circlets from the cemetery of Ptuj-Grad/Turnirski prostor, the metrological data is from KOROŠEC 1950, 170 (gr. 193), 192 (gr. 270), and 196 (gr. 296), and the inventory numbers Inv.PMP according to KOROŠEC 1999, 21, 24–25. Incomplete metrological data for the circlets from the site of Osijek – Vijenac I. Meštrovića were published by RADIĆ 1997, 85 no. 9c. For circlets from the cemetery of Bogojevo – Ul. Biboja, see STANOJEVIĆ 1989, 124 nos. 116–117.

<sup>199</sup> For a similar combination in Romania (Transylvania) at the cemetery of Hunedoara – Vajdahunyad, gr. 27: ROSKA 1913, 170 (Fig. 3:17.18.21), 195.

<sup>200</sup> Chlaba – Parlagok, gr. 1/67 (Sk): NEVIZÁNSKY 2006, 292, 315 (Pl. XIII:10).

<sup>201</sup> Szentes – Szentlászló, gr. 74 (H): SZÉLL 1941, 238, 243 Pl. VIA:7–16; FEHÉR 1957, 279, Pl. XXVIII.

<sup>202</sup> Čakajevce – Kostolné, gr. 475 (Sk): REJHOLCOVÁ 1995, 52, 166 (Pl. LXXVI:4).

<sup>203</sup> Bratislava – Rusovce/Kováčova ul., gr. 96 (H): FÉHÉR 1957, 279, Pl. XXVII; SZÓKE 1962, 40 no. 5, Pl. IX:3.

<sup>204</sup> Rákóczi falva – Kastélydomb, gr. 6 (H): SELMECSI – MADARAS 1980, 146, 159 (Pl. VIII).

<sup>205</sup> DOMBAY 1961, p. 142, Pl. XVII:20–25.

<sup>206</sup> DEMO 1996, 48.

At Lijevo Bara a pair of circlets with a spiral ending broadening towards the bottom was found in child grave 252 together with a necklace of clay beads that had as pendants a late Roman perforated bronze coin (*centenionalis*, Valentinianus I) and a damaged bronze La Tène fibula with a bent-back foot (Pl. 11:2–3). The grave is located in the northeastern part of the excavated area in a section of the cemetery belonging to the beginning and first decades of the 11<sup>th</sup> century.

### 4.3.1.2. Earrings with a raceme pendant

#### 4.3.1.2.1. Earrings with a raceme pendant with filigree and granulation (G. 17a; G. 17a dif.)

No.	Inv. AMZ	Metal	Earring			Joints		Pendant		No. granules w. upper/lower	Weight (g)	Side of head	Grave (sex)
			ht.	w.	Ø wire	Ø	no./gran.	ht.	w.				
1.	2505	AR	–	2.72	0.18	0.48	4x6	–	–	–	1.997	r	66/f
2.	2406–7	AR	–	–	0.18	0.57	4x6	(3.21)	1.16	1.4/1.3,1.7	6.725	–	Srnić

\*Notes:  
 1. A fragment, missing the pendant and three joints (earring used secondarily).  
 2. S-2406–7 = S-3288; damaged; the hoop broken into several parts, one joint missing (S-2407); height of the lower part of the pendant 3.03 cm (S-2406); height of the upper part of the pendant 0.77 cm (S-2407).

Silver filigree earrings are represented by only two damaged and partially preserved examples: one broken into several pieces but with a well preserved pendant, parts of the hoop, and most of the joints (three of four), purchased for the AMZ as a chance find from a destroyed grave several decades prior to the first archaeological excavations,<sup>207</sup> while the second, missing the raceme pendant and most of the joints, was found in the grave of a young female (gr. 66), on the right side of the skull in secondary use (as a circlet without an ending), together with a large-format circlet without an ending (G. 13-I,7/3).<sup>208</sup> The same grave find also contained another two circlets with open ends (one small-format and one large-format), an open torc of smooth wire with ends bent outwards in the shape of the letter "S", two open-ended bracelets, and a ring of the "Vukovar – Bijelo Brdo" type, and considering that this earring was in secondary use, in its original form it would have originated at some time during the second half of the 10<sup>th</sup> century, and only after remodeling did it arrive in secondary use in grave 66 at the beginning of the 11<sup>th</sup> century (Fig. 27:1.1–2).

Despite the partial state of preservation, it is probable that at least one if not both Vukovar examples belong to the same group of earrings, called earrings of the "Volhynia – Kiev" type in the archaeological literature,<sup>209</sup> or simply earrings of the "Volhynia" type.<sup>210</sup> The basic characteristics of these earrings consist of the workmanship and formation of the pendant, which in the upper part is composed of two and in the lower part of three horizontal rows of circular or flattened granules of various number and size, separated from one another by smooth or curved filigree wire. Only rare examples are decorated with granulation, where in the center or the lower section of the pendant, between two rows of granules, is a large barrel-shaped bead. The hoop of the earrings is usually decorated with two pairs of joints composed of a horizontal row of circular or flattened granules reinforced on the upper and lower side with smooth or curved filigree wire (Fig. 28).

While the necessary typological details can neither be determined nor established for the entirely denuded and furthermore secondarily used earring from grave 66, the accidentally discovered and better preserved Vukovar example of an earring of the "Volhynia – Kiev" type belongs to a rare variant of these earrings where the lower part of the pendant is dominated by a barrel-shaped bead decorated with granulation and a motif of upright rhombs. The distribution range of this variant, despite its scarcity, is extremely large, as in addition to the Pannonian plain, the extent includes the Ukraine, where several examples were found in hoards or grave finds at Jurkovci,<sup>211</sup> Kopijevka,<sup>212</sup> and Peresopnica

<sup>207</sup> VINSKI 1970, 60 n. 84a, Pl. V:2; DEMO 1996, 47 n. 112.

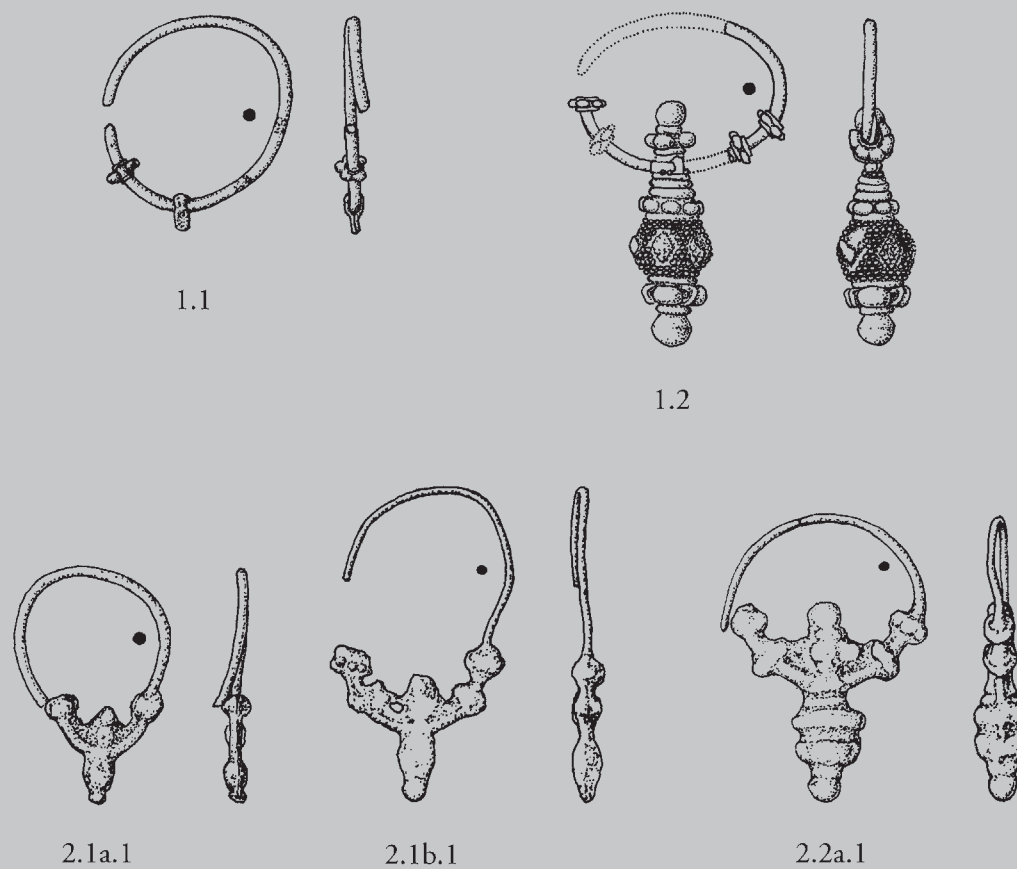
<sup>208</sup> VINSKI 1965, 240, 253 Fig. 31; VINSKI 1959, 103, Pl. XXXIX:31; DEMO 1996, 47 n. 112.

<sup>209</sup> JAKIMOWICZ 1933, 121, 135, TaPlb. XXIII:2, who dated them to the 11<sup>th</sup> and beginning of the 12<sup>th</sup> centuries.

<sup>210</sup> GOLUBEVA 1949, 103–108. In the Slavic south, the thesis about a Volhynian origin was developed and advanced by VINSKI 1970, 59–70.

<sup>211</sup> KORZUHINA 1954, 84, Pl. VI:9; VINSKI 1970, Pl. VII:3. According to the typological-chronological system of raceme earrings from hoards of the 9<sup>th</sup>–11<sup>th</sup> centuries in Poland, the origin of earrings with "Volhynia – Kiev" characteristics (Dek. 3a and 3b), should be located in northeastern Hungary, Moldavia, Russian Volhynia, and the Ukraine, and following these models they were later produced in workshops located in the Balkans, DEKÓWNA 1979, 160 (Dek. 3a). – The Balkan products with "Volhynia – Kiev" characteristics, recognizable from the numerous wound filigree wires in the upper section of the lower raceme pendant, are most numerous in Serbia (ERCEGOVIĆ-PAVLOVIĆ 1972, 44, 56 Fig. 8), but they also appear in northern Croatia in the region between the Sava and Drava Rivers, where at present they can be traced only at certain cemeteries, e.g. *Kloštar Podravski – Pesci*, destroyed grave: VINSKI 1970, Tab. V:9; *Zagreb – Stenjevec/Sv. Marija*, gr. 106; *Zagreb* 1994, 51, 159 br. 429; *Zvonimirovo – Veliko polje*, gr. 17 and 19; TOMIČIĆ 1997, 50–51 = TOMIČIĆ 1999, 97, 113–114; TOMIČIĆ 2003, 551 (Fig. 2). In Macedonia (Dunje – Krstevi, gr. 1) and in Bulgaria (Mirkovo) finds of such earrings are very rare, see MANEVA 1996, 196 Fig. 12:7; VÁŽAROVA 1976, 327, 328 Fig. 204:1–2.

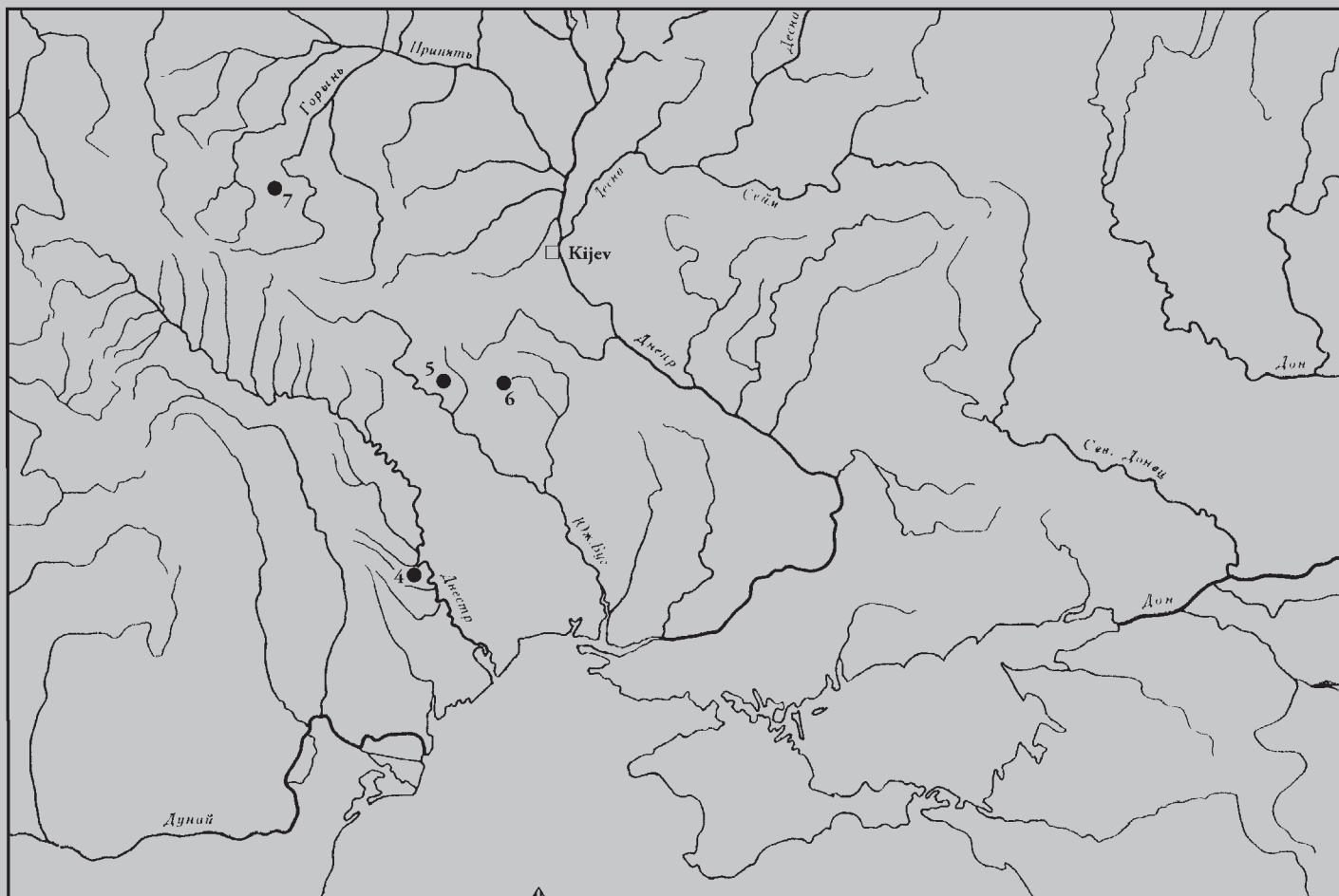
<sup>212</sup> LINKA-GEPPENER 1948, 184–187, Pl. II:1–3,7, Pl. III:14; VINSKI 1970, Pl. VII: 2.



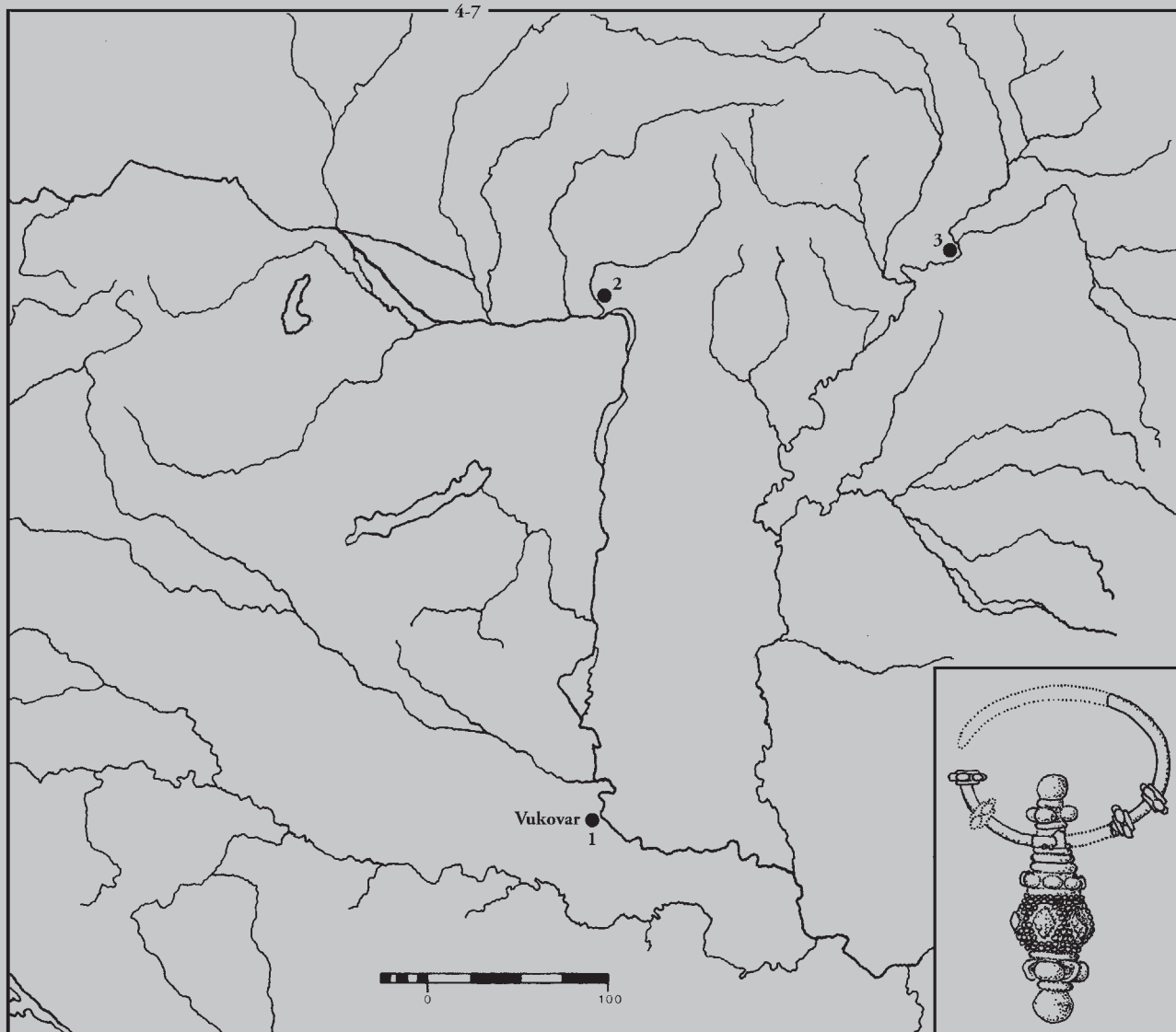
**Fig. 27.** The represented types and variants of earrings with a raceme pendant (4.3.1.2.1–2). **1** – Earrings of the "Volhynia – Kiev" type with a raceme pendant, silver, filigree, granulation (1.1 – an earring, incomplete: gr. 66/f; 1.2 – an earring with a raceme pendant and central barrel-shaped bead: chance find, S-2406–7). **2** – Earrings with a raceme pendant, bronze, silver, cast (2.1a.1 – an earring with an oval pendant and a pair of joints, bronze, cast: gr. 62/f; 2.1b.1 – an earring with an oval pendant and two pairs of joints, bronze, cast: gr. 440/f; 2.2a.1 – an earring of the "Volhynia – Kiev" type with two pairs of joints, silver, cast: gr. 426/f).



**Fig. 28.** A raceme earring of the "Volhynia – Kiev" type with a central barrel-shaped bead (M 3:1).



454





**Fig. 29.** Finds of raceme earrings of the "Volhynia – Kiev" type with a central barrel-shaped bead decorated with a motif of upright rhombs made with granulation from Croatia, Hungary, Moldavia, and Ukraine. **1** – Vukovar – Lijevo Bara, chance find, S-2406–7 (Hr; Vukovarsko-Srijemska County). **2** – Szob – Kiserdő, gr. 69 (H; Pest County). **3** – Tokaj, hoard find (H; Borsod – Abaúj – Zemplén County). **4** – Brănești (Md; Orhei Region), grave find. **5** – Jurkovci, hoard find (Ua; Vinnytska Region). **6** – Kopijevka, hoard find (Ua; Vinnytska Region). **7** – Peresopnica, grave find (Ua; Zhitomirska Region).

(kurgan 29).<sup>213</sup> In the Pannonian plain, the southernmost example comes from the cemetery of Vukovar – Lijevo Bara in the Croatian Danube basin,<sup>214</sup> followed by finds from the cemetery of Szob – Kiserdő (gr. 69)<sup>215</sup> at the Danube bend, and a hoard find from Tokaj in northeastern Hungary.<sup>216</sup> Beyond these two zones, in the lower Dniester in the central eastern part of Moldavia (Brănești), in a direction which more or less evidently leads to or from Byzantine Dobruđa,<sup>217</sup> a fragmentary grave find was noted of a raceme earring with a barrel-shaped central bead (**Fig. 29**).

<sup>213</sup> MELJNIK 1901, 540–542, Pl. VI:10; VINSKI 1970, Pl. VII:9. – For somewhat different silver raceme earrings with a central barrel-shaped bead and a motif of upright granulated rhombs from a hoard discovered in 1884 in Boršovka in northwestern Ukraine (Volhynia province), see TOLSTOJ – KONDAKOV 1897, 64, 68 Fig. 66–67.

<sup>214</sup> In contrast to the earrings from the Ukrainian and Hungarian sites, the upper section of the lower part of the pendant of the Vukovar earring seems to be the only one decorated, reinforced and strengthened by a triple coil of smooth wire.

<sup>215</sup> BAKAY 1978, 38, 41, Pl. XXII:17, Pl. XXIII.

<sup>216</sup> HAMPEL 1905, 491 Fig. D:8–9; KÁDÁR 1961, 198, Pl. VIII:4, 8 (?); MESTERHÁZY 1994, 216 Fig. 11:4 (?), 217 Fig. 12:3, completed a revision long ago begun (NÉMETH 1969, 189–199) and definitely necessary of the material from the so-called Tokaj hoard, dividing it into six groups, so that today a somewhat damaged group of raceme earrings is the only one attributed today to the actual Tokaj find.

<sup>217</sup> TENTIUC 1996, 254 Fig. 11.

4.3.1.2.2. Cast earrings with a raceme pendant  
 (G. 14b, 14b/17b dif., 17b)

No.	Inv. AMZ	Metal	Earring			Number of joints	Decoration		Pendant		Weight (g)	Side of head	Grave/ (sex)
			ht.	w.	Ø wire		ht.	w.	ht.	w.			
<i>1a – Oval pendant with a pair of joints (G. 14b)</i>													
1.	2501	AE	3.10	2.12	0.17	2	1.55	1.53	1.90	0.43	2.084	r	62/f
2.	2500	AE	3.08	2.12	0.17	2	1.47	1.56	1.72	0.43	2.163	l	62/f
<i>1b – Oval pendant with two pairs of joints (G. 14b/17b dif.)</i>													
3.	2869/1	AE	4.15	2.34	0.12	4	2.00	2.36	1.62	0.54	2.885	l	440/f
4.	2869/2	AE	–	–	–	4	2.00	2.16	1,78	0.55	2.455	(l)	440/f
<i>2a – "Volhynia – Kiev" type with two pairs of joints (G. 17b)</i>													
5.	2858/1	AR	3.95	–	0.17	4	2.68	2.68	2.68	1.00	8.477	r/l	426/f
6.	2858/2	AR	3.85	2.71	0.14	4	2.71	2.68	2.71	1.00	9.282	r/l	426/f

Cast earrings with a raceme pendant represent a frequent jewellery form among the grave finds of the Bijelo Brdo cultural circle in the regions around the Mura, Drava, and Sava, and particularly south of them and south of the Danube in eastern Slavonia and Srijem. This makes it all the more interesting that only three pairs of such earrings come from Lijevo Bara, all three from the graves of young women (gr. 62, 426, 440), where they were found as the only decorations on the head or by the head of the skeleton (Fig. 27:2.1a–2a; Pl. 15:1–3).

The finds from northern Croatia show that the cast raceme earrings were usually composed of two sections cast together in a two-part mould: a previously chosen open circlet of smooth wire of circular section (not rarely of a different metal) placed in the mould, and the decorative part joined and cast together with it in the shape of the Greek letter Ψ. More or less clearly, but depending on the quality of workmanship of the mould, the basic characteristic can be recognized in a shorter upper and longer lower raceme pendant with one or more pairs of joints on both arches. The formation of the decorative part is reminiscent of the luxurious models made with filigree and granulation according to which these more or less successful cast examples were produced.

At Lijevo Bara, despite the small number of finds, two forms of the decorative parts of the cast raceme earrings were represented, both with arches that in appearance imitate smooth wire of circular section:

- 1 – Earrings with an ovoid lower raceme pendant (Fig. 27:2.1a–b.1; Pl. 15:1,3),
  - a) with one pair of joints on the arch of the decorative part of the earring (gr. 62/f),
  - b) with two pairs of joints on the decorative part of the earring (gr. 440/f);
- 2 – Earrings with a raceme pendant of the "Volhynia – Kiev" type (Fig. 27:2.2a.1; Pl. 15:2),
  - a) with two pairs of joints on the arches of the decorative part of the earring (gr. 426/f).

Bijelo Brdo cast raceme earrings with an ovoid lower pendant and one pair of joints on the arches (type 1a) were modeled after various gold and silver raceme earrings decorated with granulation and filigree as confirmed among the grave finds, individual finds, and hoards of the 9<sup>th</sup> century, particularly those in the south of Croatia (Dalmatia)<sup>218</sup> and in Slovakia,<sup>219</sup> but also elsewhere. The diversity of the originals led to the appearance of numerous variants of cast raceme earrings, some from sites in Hungary even dated to the period before AD 970 (e.g. Halimba – Cseres, Kistokaj – Homokbanya),<sup>220</sup> and attributed to Balkan production centers in the lower Danube basin.<sup>221</sup> The pair from Vukovar, although similar to these, were of more rustic workmanship and have better analogies to earrings from the Bijelo Brdo Culture cemeteries in the area between the Mura, Drava, and Sava Rivers, and to graves that most often were not earlier than the beginning of the 11<sup>th</sup> century (e.g. Gomjenica – Baltine bare, Kloštar Podravski – Pesci, Ptuj-Grad/Turnirski prostor, Zvonimirovo – Veliko polje).<sup>222</sup>

<sup>218</sup> BELOŠEVIĆ 1984, 41–46, 53–56, Pl. I–IV, [Eng. 52].

<sup>219</sup> DOSTAL 1996, 35–37.

<sup>220</sup> TÖRÖK 1962, 24–25, all examples are attributed to graves of the 1<sup>st</sup> phase of cemetery occupation (gr. 514, 778, 841, 848, 882, and 918). Similar earrings were found at the cemetery of Kiskokaj – Homokbanya (Borsod – Abaúj – Zemplén County), dated to the period from the arrival of the Hungarians to the sixties and seventies of the 10<sup>th</sup> century, see VÉGH 1993, 103.

<sup>221</sup> MESTERHÁZY 1991, 175–176 (Me. 13).

<sup>222</sup> Gomjenica – Baltine bare, gr. 161: MILETIĆ 1967, 101–102. Kloštar Podravski – Pesci, from destroyed graves: VINSKI 1971, Pl. IV:12–13. Ptuj-Grad/Turnirski prostor, gr. 193: KOROŠEČ, 170–172, Fig. 49; KOROŠEČ 1999, 21, Pl. 21:3–5, 22:2–5 (gr. 193). Zvonimirovo – Veliko polje, gr. 9: TOMIČIĆ 1997, 47 Fig. 29 = TOMIČIĆ 1999, 96, 110 (gr. 9).

The two pairs of joints on the other pair of cast raceme earrings with an ovoid lower pendant (gr. 440) represents a characteristic that ties them, because of a similarity with one example frequently cited in the literature from the cemetery of Prša – Bércz (gr. 76),<sup>223</sup> to the unbelievably early middle of the 10<sup>th</sup> century,<sup>224</sup> or in fact to a period almost a quarter century later.<sup>225</sup> For the earrings from Vukovar – which spatially have closer and more numerous analogies among the Bijelo Brdo finds from Bosnia & Herzegovina (Mahovljani – Luke, Petoševci – Bagruša)<sup>226</sup> and Croatia (Kloštar Podravski – Pesci, Sisak – Kupa, Zvonimirovo – Veliko polje),<sup>227</sup> as well as among the finds from the Byzantine-Bulgarian cultural sphere in Serbia (Veliko Gradište – Grad, Ram-vicinity, Niš – Glasija)<sup>228</sup> – such a dating would be far too early. Such a conclusion would be indicated, among other things, by the remaining grave finds, which consisted, in addition to a bronze bracelet with cut and tapered ends and two fragments of an iron awl, of a silver ring of semi-circular section (De. 2.1a), the heaviest example (6.301 g) from this not particularly numerous group of rings at Lijevo Bara (11 specimens).<sup>229</sup>

The "Volhynia – Kiev" type of cast raceme earrings (De. 2a) encompasses a broad range of products with similar traits, but a diverse quality and degree of similarity to the original forms of silver earrings made with filigree and granulation. The finds south of the Mura, Drava, and Sava represent the region of their greatest distribution and quite long continuity, which in some cases extends into the period after the middle or even at the end of the second third of the 11<sup>th</sup> century, when only individual examples were still found in graves (e.g. Sv. Juraj u Trnju – Sv. Juraj, gr. 6),<sup>230</sup> and not in pairs, or in pairs together with simple circlets or circlets with an ending or other variants of cast raceme earrings. Furthermore, in these areas the raceme earrings of the "Volhynia – Kiev" type appear in graves that definitely are not earlier than the 11<sup>th</sup> century, and judging from the accompanying finds, such earrings achieved their greatest popularity in the second, third, and fourth decades of the 11<sup>th</sup> century. The pair from Vukovar (gr. 426), although with recognizable "Volhynia – Kiev" characteristics, differ from products usual for the 11<sup>th</sup> century, as is indicated by the exceptionally emphasized "verism", the unusually large weight of these earrings, the accompanying finds, including a pair of light-weight bracelets with one end cut and the other end tapered, as well as the position and location of the grave within the cemetery. Hence it can be suggested that the origin of this pair of cast earrings from Vukovar should be sought beyond the Bijelo Brdo cultural sphere.<sup>231</sup>

In fact, all three pairs of raceme earrings at the Vukovar site come from graves buried in the eastern part of the excavated area of the cemetery: two pairs come from graves located in the eastern and southeastern zone of burial (gr. 62 and 426), and one pair from a grave located along the southern edge of the eastern part of the northern zone of burial (gr. 440). The position of the graves within individual zones has chronological significance, and shows that the pair of cast raceme earrings of the "Volhynia – Kiev" type (De. 2a) were deposited in the earth at Lijevo Bara during the last two decades of the 10<sup>th</sup> century (gr. 426), and that both variants of the cast raceme earrings with an ovoid lower pendant were created later (De. 1a–b) and belonged to graves from the beginning or the first decades of the 11<sup>th</sup> century (gr. 62 and 440).

<sup>223</sup> TOČÍK 1968, 38, 93 Pl. XXVII:36. The cemetery of Prša – Bércz is complex in character, and in addition to graves from the Migration Period in the 5<sup>th</sup> century, numerous Avaro-Slavic graves from the 7<sup>th</sup> and 8<sup>th</sup> centuries, and Bijelo Brdo graves from the 11<sup>th</sup> century (TOČÍK – DRENKO 1950, 159–174, 290; TOČÍK 1963, 121–1198, Pl. I–XXI), it also contains a small number of graves with Early Hungarian characteristics (gr. 42, 43, 76, 100, 101, and 103).

<sup>224</sup> BÁLINT 1991, 178–182.

<sup>225</sup> GIESLER 1981, 93, 103, 116.

<sup>226</sup> *Mahovljani – Luke*, from destroyed graves: MILETIĆ 1980, 147, Pl. XI. *Petoševci – Bagruša*, gr. 11, 18, and 19: ŽERAVICA 1986, 133–135, Tab. II:5,10; III:2, 4. At the cemetery of Petoševci – Bagruša, raceme earrings with an oval lower part and two pairs of joints (type 1b) are five times more rare than variants with one pair of joints (type 1a), while both variants appear together in only one grave (gr. 11).

<sup>227</sup> *Kloštar Podravski – Pesci*, from destroyed graves: BRUNŠMID 1904, Fig. 33:5. *Sisak – Kupa*, chance find: BURKOWSKY 1999, 91 (above), 138 no. 325 (chance find); FILIPEC 2001, 90, 92, 107 Pl. I:3. *Zvonimirovo – Veliko polje*, gr. 17: TOMIČIĆ 1997, 50 Fig. 35, 78 Fig. 54 = TOMIČIĆ 1999, 113 Pl. 8:1–2, 116 Pl. 11:2 (gr. 17).

<sup>228</sup> *Veliko Gradište – Grad*, a hoard of gold and silver jewellery: MINIĆ – TOMIĆ 1974, 125 no. 3, Pl. I:3; *Beograd* 1982, 80 no. 515. *Ram-vicinity*: ČUNJAK 1986, 85 (Fig. 4). *Niš – Glasija*, gr. 17: ERCEGOVIĆ-PAVLOVIĆ 1977, 95, Pl. V:3 (gr. 17). – In Bulgaria, for example, a pair of earrings found at the cemetery of Donji Lukovit – Gigantskite grobišta (gr. 80), VĀŽAROVA 1976, 206, 207 (Fig. 128:4a–b), described as made of bronze, would probably belong to this variant of raceme earrings.

<sup>229</sup> At Lijevo Bara were found 7 undecorated rings of semicircular section (5 silver and 2 bronze).

<sup>230</sup> This, as well as other finds from gr. 6 have been published several times, but without descriptions and metrological data, cf. TOMIČIĆ 1990, 119 Fig. 4 (below); TOMIČIĆ 1999a, 51 Tab. I:2. – A form of cast bronze raceme earrings, such as those found in northern Hungary at the cemetery of Piliny – Sirmánhegy in gr. 54, dated by a coin of King Béla I (1060–1063), belong to the end of the second third of the 11<sup>th</sup> century, see NYÁRY 1902, 233.

<sup>231</sup> Related examples of cast silver earrings found during excavations at Korosten in the Ukraine (Žitomerska province), were shown by Andrei W. Petrauskas (Institute of Archaeology, National Ukrainian Academy of Sciences, Kiev, Ukraine) as slides accompanying his paper "A Byzantine Solidus from Excavations by Bogdan Zvizdetsky in Ancient Iskorosten", given at the conference "Byzantine Coins in Central Europe between the 5th and 10th Centuries / Monety bizantyńskie w Europie Środkowej między V a X wiekiem", held in Crakow, Poland in April 2007.

### 4.3.2. Jewellery for the neck and chest

Jewellery for the neck and chest comprises a not very large group of objects, dominated numerically by necklaces with various pendants, and the somewhat less numerous torcs. They were found in 42 female or child graves, and among the graves with finds have a share of 22.10% (similar to graves with finds of bracelets).

#### 4.3.2.1. Torcs

A total of 24 torcs come from Lijevo Bara:<sup>232</sup> 7 torcs were acquired by purchase, and the remaining 17 were excavated from female or child graves during the archaeological excavations in 1951–1953.<sup>233</sup> In relation to the total number of excavated early medieval graves, such a representation of torcs is very high (**Table 20**), although among the graves with finds, graves with torcs represent only 8.90%,<sup>234</sup> and that is only 3.88% of all archaeologically investigated early medieval graves at the site.

All the torcs from excavated grave units were found in a functional position, and not in a single one of 17 graves were they the only grave find,<sup>235</sup> while they appeared together with other finds in a total of 16 combinations. They were commonly an addition to ornamentation of the neck and chest, most often necklaces of glass beads, necklaces of beads and metal pendants, or single bead-pendants (gr. 391/ch), and sometimes they were found with other types of decorative objects, such as two-part pendants (gr. 23/ch) or a button-pendant (gr. 444/f). They were frequently found in graves together with ornamentation of the hands, more with rings (10 graves)<sup>236</sup> than with bracelets (7 graves), and with decorations for the head, they were more commonly found with simple circlets (7 graves), than with (rare at Lijevo Bara) S-circlets (gr. 349/ch and 391/ch). Quite exceptionally, in one case a grave with a torc also contained an iron awl (gr. 444/f), and in another case two small bronze belt chapes (gr. 409/ch).

<sup>232</sup> In addition to these, the AMZ collection contains another torc found at Vukovar, but it is not known whether it also perhaps came from Lijevo Bara (S-2385). Together with one O-circlet and one S-circlet (S-2386 and S-2387), it was donated to the museum by the noble Aleksandar Krajčović, apothecary and mayor of Vukovar, at some point between 1880 and 1886, DEMO 1996, 17, 69 no. 8a–c, 110.

<sup>233</sup> DEMO 1996, 48.

<sup>234</sup> Graves with torcs: 23/ch, 31/f, 66/f, 115/f, 138/f, 159/f, 217/f, 298/f, 326/f, 349/ch, 355/ch, 383/ch, 391/ch, 409/ch, 412/ch, 444/f, and I-1951/?.

<sup>235</sup> Torcs discovered as the only finds in a grave are not common, e.g. *Ellend – Nagyödör dűlő*, gr. 223: DOMBAY 1961, 147, Pl. XXI:4; *Sarud – Pócsoltésé*, gr. 6: SZABÓ 1976, 18, 31 (Fig. 12); *Szabolcs – Petőfi ut.*, gr. 172: KOVÁCS 1994, 45–46; *Szegvár – Oromdűlő*, gr. 519: BENDE – LŐRINCZY 1997, 265.

<sup>236</sup> They were most often found with rings with a crown – more often with rings with a crown for an inset stone (De. 3.16) than with rings with a metal crown (De. 3.15) – late forms of open rings (De. 1.6a, 16.d, 1.9), and some forms of closed rings (De. 2.10b and 2.13), and to a lesser extent with early types of open rings, mostly with a banded section (De. 1.2a). The only ring with an arched section (De. 1.5b) was found in a grave together with a torc (gr. 298), and the decoration and metal of which it was made clearly confirm its assignment to the later period of the manufacture and utilization of rings of arched section.

<sup>237</sup> KOROŠEC 1999, 59, 124, mentions in one place finds of 15 torcs (Slovenian text), and in another 16 torcs (German text), leaving out of the lists the torcs found in gr. 64/1910 (op. cit., 16, Pl. 6:64/18), and gr. 395/1978 (op. cit., 27, Pl. 41:395/9).

<sup>238</sup> For the excavation of the cemetery and the grave finds, SKRABAR 1910, 119–134, Pl. I–V (excavations in 1909); KOROŠEC 1950 (excavations in 1946–1947); TUŠEK 1981, 13–20, Pl. 1–4 (excav. 1978); KOROŠEC 1981, 25–34, Pl. 1–6 (excav. 1979); JEVREMOV – TOMANIČ – JEVREMOV – CIGLENEČKI 1993, 223–230, Pl. 1–2 (excav. 1988); TOMANIČ – JEVREMOV 1993, 581–593, Pl. I–4 (ex. 1971, 1987–1988). – The cemetery of Ptuj-Grad/Turnirski prostor was used throughout a long period – with interruptions, from the late Roman period and the Migration period to the early medieval period, i.e. from the 4<sup>th</sup>/5<sup>th</sup> to the 11<sup>th</sup> centuries (KOROŠEC 1966, 179–189; KOROŠEC 1968, 287–291; KOROŠEC 1972, 13–30; KOROŠEC 1983, 37–43; KOROŠEC 1985, 337–349; JEVREMOV – TOMANIČ – JEVREMOV – CIGLENEČKI 1993, 223–230; CIGLENEČKI 1993, 511; KOROŠEC 1996, 405–415; KOROŠEC 1999, 14–31). Hence it can be reliably claimed that at this archaeologically still not completely excavated terrain, burial took place in three chronological periods: at the end of the 4<sup>th</sup> century and beginning of the 5<sup>th</sup> in a small cemetery of late Antiquity, located in the northeastern part of the investigated area of Turnirski prostor/Tournament grounds, and in the extensive early medieval cemetery of the second half of the 9<sup>th</sup> century and first half of the 10<sup>th</sup>, and the no less extensive Bijelo Brdo cemetery from the second half of the 10<sup>th</sup> and first half of the 11<sup>th</sup> centuries. These two early medieval cemeteries partly overlap, but it is evident that the cemetery of the 9<sup>th</sup> and 10<sup>th</sup> centuries to a great extent covered the western half, and the later Bijelo Brdo cemetery the eastern half of the Turnirski prostor site (a small group of graves with Bijelo Brdo finds was also located in the southwestern part of the cemetery from the 9<sup>th</sup> and 10<sup>th</sup> centuries). On the basis of the grave goods, 86 graves belong to the period of Bijelo Brdo burial: gr. 6, 10, 11, 12, 13, 19, 20, 23, 25, 37, 42, 43, 45, 48, 50, 51, 52, 55, 58, 60, 64, 65 i 66 (= 23 graves, excav. In 1909); gr. 71, 77, 81, 90, 97, 99, 100, 104, 109, 113, 120, 122, 125, 143, 150, 156, 170, 171, 173, 175, 176, 178, 181, 183, 188, 189, 191, 192, 193, 199, 204, 205, 208, 209, 210, 214, 215, 220, 221, 222, 224, 225, 226, 228, 230, 231, 236, 237, 239, 244, 269, 270, 275, 286, 295, 296, 323, and 338 (= 58 graves, excav. 1946–1947); gr. 385 = 1/78, 386 = 2/78 and 395 = 11/78 (= 3 graves, excav. 1978); gr. 399 = 3/79 (= 1 grave, excav. 1979); gr. 420 (= 1 grave, excav. 1988). – For an overview into the later Roman finds from Turnirski prostor and corresponding literature, see CIGLENEČKI 1987, 55 (no. 47).

<sup>239</sup> On the basis of earlier texts and descriptions of the site (KOVAČIČ 1907, 229–233; KOVAČIČ 1908, 176–185), a reconstructed number of the early medieval graves investigated during archaeological excavations in 1908 was published by KOROŠEC 1947, 39–44 (39 graves). As it is actually apparent from this earlier literature that at Cirkevca during the excavations in 1907 and 1908 a certain number of evidently late medieval graves had been found among the remains of the Roman villa (e.g. the burial rite), the reconstructed number of early medieval graves is not reliable, as it is probably too large. On the basis of the grave finds, at least 8 graves excavated in 1908 belonged to the horizon of Bijelo Brdo burial: gr. 8, 9, 12, 13, 25, 34, 36, and 39 (excav. 1908). – Numerous burials from the high and late Middle Ages were uncovered by later archaeological excavations carried out at Cirkevca in 1993/1994, when in addition to a Roman period villa and early medieval burials, quite numerous graves from the high and late medieval periods were uncovered (258 graves), which certainly must have been arranged around some demolished medieval church. About this, as well as



Table 20

The representation of torcs and the ratios of the total number of graves and graves with finds of torcs at Bijelo Brdo Culture cemeteries in Bosnia & Herzegovina (BiH), Croatia (Hr), Hungary (H), Slovenia (Slo), Slovakia (Sk), and Romania (Ro). These data do not include chance finds, finds without a clear grave character, or finds of torcs from destroyed graves. **1** – BRUNŠMID 1904, 47, 52–76 (gr. 5, 6, 25, 55, 56, 65, 70, 72, 78, 80, 93, 107, 156, 161, 174, 182, 183, 184, 188, 192, 196 i 211); ERCEGOVIĆ 1958, 166 (gr. 217). **2** – ŠKRABAR 1910, 130 (gr. 50, 64 i 65); KOROŠEC 1950, 76–77, 134–138 (gr. 77, 100, 104, 175, 192, 193, 210, 215, 224, 230, 237 i 287); TUŠEK 1981, 16–17, 19 (gr. 385 = 1/78 i 395 = 11/78)].<sup>237</sup> **3** – BAKAY 1967, 45–46, 48 (gr. 1, 2, 4 i 10). **4** – KOROŠEC 1947, 40, 44 (gr. 12); KNIFIC 2005, 170 Fig. 5:12, 171 (gr. 54)]. **5** – ALÁDAR 1914, 121–124 (gr. 2); ROSKA 1914, 128, 131–132, 140 (gr. 16, 18 i 42). **6** – SZABÓ 1976, 18–19, 23–25, 31–32. **7** – DEMO 1996, 48. **8** – BAKAY 1968, 61–64, 70 (gr. 3, 9, 33 i 88). **9** – NYÁRY 1902, 229, 232, 238 (gr. 17, 48, 64); NYÁRY 1904, 61–62, 65 (gr. 16, 17 i 37). **10** – DOMBAY 1962, 71–74, 78–79 (gr. 28, 29, 33, 59, 134 i 141). **11** – BAKAY 1978, 93, 96, 107, 109–112 (gr. 5, 55, 60). **12** – KISS 1983, 208–236 (gr. 9, 53, 114, 199, 374, 385, 492, 512, 515, 532, 559, 560, 572, 626, 681, 685, 705, 709, 714, 723, 772, 774, 782, 858, 880, 952, 982, 985, 1018, 1089, 1126). **13** – DRAGOTÁ 2006, 222, 229, 237, 240 (gr. 63, 94, 129, 142). **14** – BAKAY 1978, 10–11, 44, 47 (gr. 5 i 73). **15** – ISTVÁNOVITS 2003, 558, 578, 594, 596–7, 602, 604 (gr. 25, 140, 195, 197a, 204, 205). **16** – NEPPER 2002, (2) 32, 36–37, 39, 43, 91 (gr. 9, 40, 40, 61, 77, 212). **17** – NEPPER 2002, (2) 133, 145, 174, 197, 200, 204, 212, 213, 216, 219, 221 (gr. 8, 37, 146, 269, 270, 289, 312, 450, 460, 500, 521, 542). **18** – NEPPER 2002, (2) 294, 313, 315, 330 (gr. 157, 162, 197, 200, 248). **19** – ROSKA 1913, 170, 175, 197 (gr. 27). **20** – SZÉLL 1941, 234, 239, 241, 243 (gr. 26 i 76). **21** – SZÉLL 1941, 252, 254 (gr. 65). **22** – KOVÁCS 1994, 46, 51–52, 72, 74–75, 115 (gr. 172, 214, 335 i 341). **23** – DOMBAY 1961, 38, 147, 149 (gr. 32, 223 i 259). **24** – BAKAY 1978, 70–72, 170 (gr. 33). **25** – HANULIAK 1994, 44 (gr. 127, 231 i 403). **26** – DOMBAY 1961, 151 (gr. 65). **27** – MILETIĆ 1967, 85, 129–130 (gr. 23). **28** – TÖRÖK 1962, 40–41, 152, 155–156 (gr. 399, 534 i 607). **29** – BENTE – LŐRINCZY 1997, 201–240, 242 (gr. 519). **30** – NEMESKÉRI – LIPTÁK – SZŐKE 1953, 211–279; KRALOVÁNSKY 1968, 85. **31** – MILETIĆ 1980. **32** – ŽERAVICA 1986. **33** – SZŐKE – VÁNDOR 1987. **34** – SIMONI 2004

Group	Ratio group	Site	State (county or district)	No. of burials	No. of torcs	Ratio
Ia	5–15	1 Bijelo Brdo – Ul. Venecija	Hr (Osječko-Baranjska County)	223	23	9.70
		[2 Ptujski Grad/Turnirski prostor	Slo (Ptuj District)	ca. 172	17	ca. 10.12] <sup>238</sup>
		3 Székesfehérvár – Demkóhegy	H (Féher County)	41	4	10.25
		[4 Središće ob Dravi – Cirkevca	Slo (Sevnica District)	ca. 21	2	ca. 10.5] <sup>239</sup>
Ib	>15–30	5 Moldovenești – Várhegy	R (Turda County)	57	4	14.25
		6 Sarud – Pöcstöltése	H (Heves County)	64	3	21.33
		7 Vukovar – Lijevo Bara	Hr (Vukovarsko-Srijemska County)	438	17	25.76
		8 Székesfehérvár – Szárazrét	H (Féher County)	105	4	26.25
		9 Piliny – Sirmányhegy	H (Nógrád County)	160	6	26.67
II	>30–60	10 Pécs – Vasas	H (Baranya County)	161	6	26.83
		11 Letkés – Tégláégető II	H (Pest County)	91	3	30.33
		12 Majs – Udvari réték	H (Baranya County)	1130	31	36.45
		13 Alba Iulia – Str. Brîndușei	R (Alba County)	147	4	36.75
		14 Szob – Kiserdő	H (Pest County)	82	2	41.00
		15 Ibrány – Esbó-halom	H (Szabolcs – Szatmár-Bereg County)	270	6	45.00
		16 Hajdúszoboszló – Árkoshalom	H (Hajdú-Bihar County)	276	6	46.00
		17 Püspökladány – Eperjesvölgy	H (Hajdú-Bihar County)	637	12	53.08
		18 Sárrétudvari – Hizóföld	H (Hajdú-Bihar County)	269	5	53.80
		19 Hunedoara – Kincseshegy	R (Hunedoara County)	54	1	54.00
IIIa	>60–120	20 Szentés – Szentlászló	H (Csongrád County)	109	2	54.50
		21 Csanytelek – Dilitor	H (Csongrád County)	65	1	65.00
		22 Szabolcs – Petőfi ut.	H (Szabolcs-Szatmár County)	391	5	78.20
		23 Ellend – Nagygödör-dűlő	H (Baranya County)	269	3	89.67
		24 Letkés – Tégláégető I	H (Pest County)	94	1	94.00
IIIb	>120–240	25 Malé Kosihiy – Horné Konopnice	Sk (Nové Zámky District)	436	4	109.00
		26 Ellend – Szilfai-dűlő	H (Baranya County)	178	1	178.00
IV	>240	27 Gomjenica – Baltine bare	BiH (Prijedor District)	243	1	243.00
		28 Halimba – Cseres	H (Veszprém County)	932	3	310.67
V	–	29 Szegvár – Oromdűlő	H (Csongrád County)	372	1	372.00
		30 Kérpuszta – Keréktábla	H (Somogy County)	388/395	–	–
		31 Mahovljani – Luke/Kužno groblje	BiH (Laktaši District)	95	–	–
		32 Petoševci – Bagruša	BiH (Laktaši District)	161	–	–
V	–	33 Pusztaszentlászló – Deáksűrű	H (Zala County)	203	–	–
		34 Zagreb – Stenjevec/Sv. Marija	Hr (City of Zagreb)	193	–	–

Note: The sites noted in square brackets contain approximate data based on a hypothesized sample, formed from the number of graves with recognizable Bijelo Brdo finds, increased by an equal number of hypothesized graves without Bijelo Brdo finds.

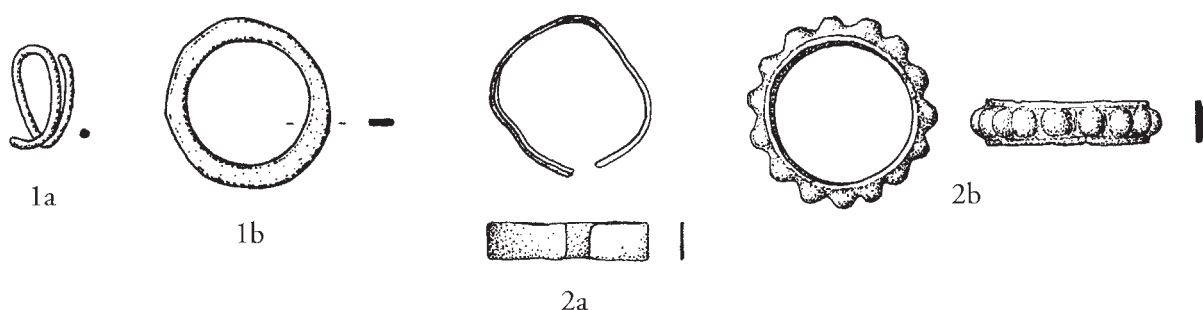
the newly uncovered early medieval graves, not all the data has yet been published, although some details are discussed by T.Kn., s.v. "Središće ob Dravi", *EncSlo* 12, 1998, 247; KNIFIC 2005, 161–177. For a torc from one of the graves excavated during the campaign in 1993/1994 (gr. 54), see also: VOMER-GOJKOVIĆ – KOLAR 1993, 75 (the site there called: Središće ob Dravi – Grabe); KNIFIC 2001, 116–117 no. 1 (gr. 54).

**Table 21**

The list of graves with finds and types of torcs (according to: De./G.), and data on sex, age, and the skeletal characteristics of their owner (length)<sup>240</sup>

No.	Grave	Sex (f/ch)	Age		Skeleton length (cm)	Torcs (types)	
			Zapismik	M. Šlaus		Demo	G
1	23	ch	–	< 6	108	1.1.1.2b/nn	1b
2	31	f?	–	20–25	135	1.1.1.2a/no	1b
3	66	f	–	17–20	155	2.1.1.2	–
4	115	f	–	20–25	151	1.1.1.1a/nn	1b
5	138	f	–	–	–	1.1.1.1a/nn	1a
6	159	f	–	30–50	153	1.1.1.2a/nu	1a
7	217	f	–	20–25	143	1.1.1.1a/nn	1a
8	298	f	–	20–35	176	1.1.1.1a/nn	1a
9	326	f	–	13–17	148	1.1.1.2b/nu	1a
10	349	ch	ca. 12	12–15	98	1.1.1.3c/nd	1a
11	355	ch	12–15	–	110	1.1.1.1a/nn	1a
12	383	ch	ca. 15	12–15	128	1.1.1.1a/nn	1a
13	391	ch	–	–	–	1.2.1.3.1	–
14	409	ch	ca. 12	–	123	1.1.1.1a/nd	1a
15	412	ch	ca. 5	–	80	1.1.1.1a/nn	1a
16	444	f	–	–	>98	1.1.1.2/nd	1b
17	I–1951	?	–	–	–	1.1.1.2b/nk	1b

Torcs at Lijevo Bara, without exception, were a jewellery form specific to female and child graves.<sup>241</sup> They appeared in equal numbers in the graves of young female individuals no older than 25 (46.15%) as well as in the graves of children not older than 15 (46.15%). Only one example (7.70%) comes from the grave of a female aged 30 or more years old (Table 21).



**Fig. 30.** Types of metal pendants hung from torcs, bronze. **1** – Circlets (1a – open, circular section: gr. 391/ch; 1b – closed, banded section: S-2390/2); **2** – Rings (2a – open ring, banded section: gr. 326/f; 2b – closed ring with wart-like protrusions: gr. 326/f).

The custom of hanging a ring and an open or closed circlet-pendant on torcs was noted in three cases at Lijevo Bara (Fig. 30): On one torc of spirally twisted wire were hung two rings (gr. 326/f), on another torc of twisted wire an irregularly formed closed bronze circlet of banded section was placed to serve as a pendant (S-2390/1), and on a torc of wire thinned towards the ends an open circlet of thin wire with overlapping ends was placed and served as a pendant (gr. 391/ch).<sup>242</sup>

<sup>240</sup> For this table, the sex and age of the deceased have been taken to a lesser extent from the excavation grave records (*Zapismik*), and to a greater extent from the observations of the forensic anthropologist Mario Šlaus, PhD (HAZU).

<sup>241</sup> Torcs are a true rarity in male graves of the Bijelo Brdo cultural circle. For the find from the cemetery of *Piliny – Sirmányhegy*, gr. 16/1902: NYÁRY 1904, 61–62.

<sup>242</sup> As a rule the suspension of pendants first consists of rings (one, two, or more specimens), and only after that other objects, such as beads, circlets and S-circlets, or other kinds of pendants chosen specifically for this purpose.

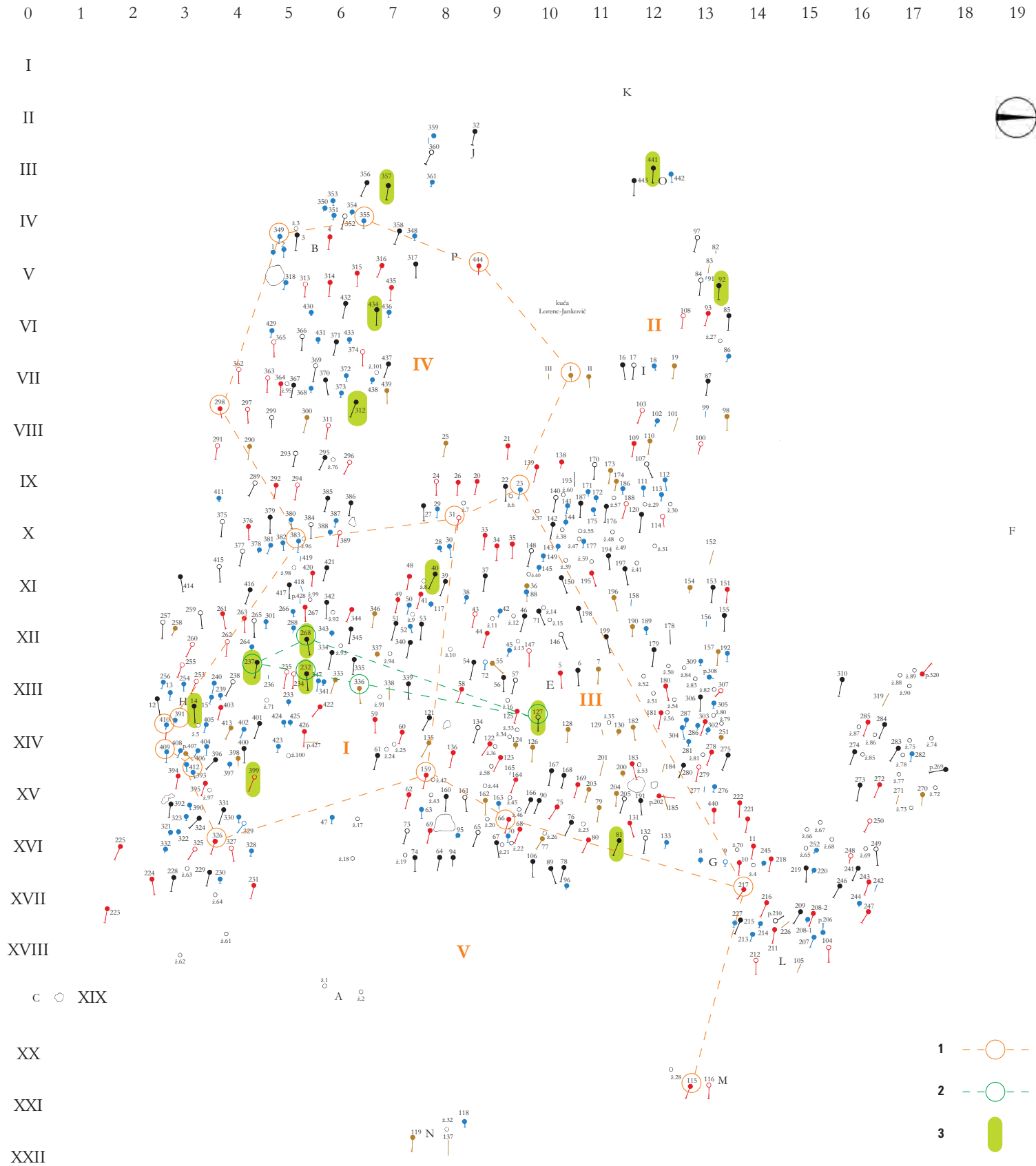


Fig. 31. Zones defined by finds of torcs (zones I-V). 1 – Graves with finds of torcs. 2 – Graves with finds of quivers. 3 – Graves with finds of arrows.

The location of graves with finds of torcs is particularly interesting, as the graves with torcs form a group of irregular ovals concentrically arranged in relation to earlier graves and burials. Particularly visible are three such zones located in the southern and central parts of the excavated area of the cemetery (zone I, III and IV), and the existence of a fourth zone can be noted in the eastern part of the cemetery (zone V), where in the easternmost section in grave 115/f the youngest torc was found, at the same time also the heaviest one discovered at Lijevo Bara (**Fig. 31**):

1. The *southeastern zone* consists of gr. 159/f, 326/f, 412/ch, 409/ch, 391/ch, 383/ch, and 31/f?, which encircle the earliest nucleus of this part of the cemetery with graves 268/m, 237/m, 232/m, and 336/? in the center (zone I);
2. The *southwestern zone* consists of gr. I-1951/?, 138/f, 23/ch, 31/f?, 383/ch, 298/f, 349/ch, 355/ch, and 444/f, which encircle an earlier nucleus with graves 312/m and 434/m in the center (zone IV); at graves 31/f? and 383/ch, the southwestern zone touches and overlaps with the southeastern zone of burial (zone I);
3. The *central zone* is the most completely excavated, but is probably not entirely defined in its northern section, and is composed of graves 217/f, 66/f, 159/f, 31/f?, 23/ch and 138/f (zone III);
4. The *eastern zone* on primarily uninvestigated land is marked by finds of torcs in graves 326/f and 159/f, and graves 66/f, 217/f and 115/f (zone V);
5. The *northern zone* (zone II) encompasses the extensive and partially excavated part of the terrain located north of the southwestern (zone IV), central (zone III), and eastern zones of burial (zone V); in the northern zone, other than at points of contact with other zones, not a single torc was discovered; its large extent means that the northern zone can be divided into western and eastern sections.

Such an arrangement of finds shows that torcs did not appear particularly early at Lijevo Bara, that they belonged to later periods of burial, and that they appeared at a time when individual sections of the cemetery had already been occupied by burials, i.e. in a period immediately before and immediately after the year 1000. Thanks to this, torcs play a special role in establishing the chronology of finds in the material culture circa AD 1000 and later, as well as for understanding the creation, development, and extension of the cemetery. Among the torcs themselves, the increase in the weight and diameter or the thickness of the wire (or wires) has a distinct chronological significance, so that the lighter torcs are earlier in relative chronology terms, while the heavier torcs had a later relative chronology origin. The diversity of forms and their typological variants also contribute to the chronology, but are further of great importance for noting and recognizing regional characteristics, as well as trade and exchange between individual regions.

Three types of torcs appear in the Bijelo Brdo cultural circle, and the most usual type of torcs that fasten predominated greatly, more often examples made by spirally twisting one or more wires with a circular section of equal or different thickness than torcs made of only one wire or circular or rhomboid section. Torcs with open ends, just like closed torcs, were sporadic and rare.

## 1. Torcs that fasten,

### 1.1. With a hook and eye,

#### 1.1.1. Twisted from one or more wires of circular section and equal thickness (**Fig. 32:1**),

1.1.1.1a One triply bent wire (gr. 115/f, 138/f, 217/f, 298/f, 355/ch, 383/ch, 409/ch, 412/ch, S-2390/1);

1.1.1.2a Two doubly bent and reversely inserted wires (gr. 31/f?, 159/f, 444/f, S-2392 and S-2393);<sup>243</sup>

1.1.1.2b One single and one doubly bent wires (gr. 23/ch, 326/f, I-1951/?);

1.1.1.3b Two single and one doubly bent wires;

1.1.1.3c Three single wires (gr. 349/ch);

[1.1.1.4c Four single wires].\*

#### 1.1.2. Twisted from several wires of circular section and different thickness,

1.1.2.1a Triple bent thick wire and two (or three pairs) of single thin wires;

1.1.2.2a Two doubly bent and reversely inserted thick wires and two (or three) pairs of single thin wires;

1.1.2.2b One single and one doubly bent thick wire and two (or three) pairs of single thin wires;

1.1.2.3b Two single and one doubly bent thick wire and two (or three) pairs of single thin wires;<sup>244</sup>

1.1.2.3c Three single thick wires and two or three pairs of single thin wires;

### 1.2. With two hooks,

#### 1.2.1. Circular section wire (**Fig. 32:2a–b**),

1.2.1.1 Uniform thickness;<sup>245</sup>

<sup>243</sup> In this variant a different arrangement of wires is possible, recognizable at the spot of the closed hook (2a2), as is shown by the recently published finds of two damaged torcs from the vicinity of Požarevac in the Serbian Danube basin (Trnjane, Kostolac). For these finds in more detail: MILOVIĆ 2001, 211–213, Pl. I:1, III:1, who in his publication of the above Serbian finds in an intellectually unacceptable manner avoids any citation of recent works of Croatian and Slovenian archaeologists when discussing finds from Croatia and Slovenia (Bijelo Brdo, Vukovar – Lijevo Bara, Ptuj-Grad).

<sup>244</sup> A further division of each of these variants is possible on the basis of the number of pairs of single bent thin wires.

<sup>245</sup> *Alba Iulia – Str. Brîndușei*, gr. 142: DRAGOTĂ 2006, 240 (Pl. XXX:2); DRAGOTĂ – OȚA – RUSTOIU 2006, 310 (type I A3), 318 Fig. 1:3. *Bač – Pješčara*, chance find: GUBITZA 1910, 171, Fig i (with little metrological data); STANOJEV 1989, 22–23 no. 114; KOVÁCS 1991, 405

- 1.2.1.2 Tapered towards the ends (S-2418);<sup>246</sup>
- 1.2.1.3 Tapered towards the end and hammered flat;
  - 1.2.1.3.1 Banded ending decorated (gr. 391/ch);<sup>247</sup>
  - 1.2.1.3.2 Banded ending undecorated;<sup>248</sup>
- 1.2.2. Rhomboid section wire,
  - 1.2.2.1 Uniform thickness;
  - 1.2.2.2 Tapered towards the ends;<sup>249</sup>
- 1.2.3. Woven from several wires of circular section and uniform thickness,<sup>250</sup>
  - 1.2.3.1 Four single wires.<sup>251</sup>
- 2. *Open-ended torcs*,
  - 2.1. *Circular section wire*,
    - 2.1.1. Tapered towards the ends (Fig. 32:3),
      - 2.1.1.1 Ends pointed;<sup>252</sup>
      - 2.1.1.2 Ends hammered and bent outwards in an "S" shape (gr. 66/f).<sup>253</sup>
- 3. *Closed torcs*,
  - 3.1. *With a rivet on the hammered ends*,
    - 3.1.1. Rhomboid section wire;<sup>254</sup>
  - 3.2. *Wound wire*,
    - 3.2.1. Several braided wires of circular section and uniform thickness.<sup>255</sup>

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[\*The notes in brackets presume the existence of such a torc variant; in parentheses are the grave and chance finds of torcs at Lijevo Bara]

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Among the 24 torcs found at Lijevo Bara, as many as 23 were torcs that fasten (95.83%), while only one torc had open ends bent outwards in an "S" shape (4.17%). Torcs with a hook and eye for fastening predominate with 21 examples (91.30%), and the remaining two examples were torcs with two hooks for fastening (8.70%); 21 of the torcs were produced by spirally twisting one, two, or three wires of circular section (87.50%), and only 3 torcs (12.50%) were made from a single, more or less thick wire of circular section (Fig. 32).

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no. 4. Bratislava – Rusovce/Kováčova ul., chance find (?): SZŐKE 1962, 93, Pl. XIII:1, no metrological data. Csanytelek – Dilitor, chance find: SZÉLL 1941, 251 Pl. X:17, 252, no metrological data. Hunedoara – Vajdahunyad, gr. 27: ROSKA 1913, 169, Fig 3: 18, 21, no metrological data. Majs – Udvari rétek, gr. 880: KISS 1983, 135, 163 (Fig 76:2); 389 Pl. 81, no metrological data. Mindszent – zemljište E. Korom, gr. 6: SZÉLL 1942, 130, Pl. IX:22, no metrological data. Moldoveneșt – Várhegy, gr. 18: ROSKA 1914, 131, 139 Fig. 6:1, no metrological data. Nové Zámky – kombinát "Slovlik": REJHOLCOVÁ 1974, 441, 457 Pl. IX:10, with partial metrological data. Sárretudvari – Hizó föld, gr. 248: NEPPER 2002, (1) 347 no. 1, (2) 330 Pl. 324:5. Slavonski Brod – unknown site, chance find: AMZ, S-2061; unpublished; Ø 10.95/10.22 cm; Ø wire 0.22 cm; wt. 12.205 g. Szakcs – Deák Ferenc ut. 6, gr. 5: MÉSZÁROS 1962, 204–205. Szegvár – Oromdűlő, gr. 519: BENDE – LŐRINCZY 1997, 216, 243–244, 265 Fig. 20:2. Szekesfehérvár – Százszret, gr. 88: BAKAY 1968, 70, Pl. XXI:1, no metrological data. Temișoara – Csőkaerdő, chance find: RADULESCU-GÁLL 2001, 155, 158, Fig. 3:2,5.

<sup>246</sup> Rád – Kisbegy, gr. 4: PATAY 1957, 61, Pl. XIV:13, with partial metrological data. Sarud – Pócsoltése, gr. 6: SZABÓ 1976, 18, 31 (Fig. 12), with partial metrological data; SZABÓ 1980, 53 (Fig. 2). Vukovar – Lijevo Bara, chance find (S-2418): DEMO 1996, 70 no. 10.2.

<sup>247</sup> Vukovar – Lijevo Bara, gr. 391/ch: DEMO 1996, 85 no. 42.2.

<sup>248</sup> Malé Kosihy – Horné Konopnice, gr. 301: HANULIAK 1994, 42 Fig. 40:21c, 44, 131, 201 Pl. LXII:A/3, with partial metrological data.

<sup>249</sup> Alba Iulia – Str. Brîndușei, gr. 129: DRAGOTĂ 2006, 237 (Pl. XXVII:4); DRAGOTĂ – OȚA – RUSTOIU 2006, 311 (type I B2), 318 Fig. 1:5. PINTER – DRAGOTĂ – ŢIPLIC 2006, 131 (Pl. IX:4). Arad – Földvari puszta, sporadic find: RÉTHY 1898, 128, 129 Fig. III:3; HAMPEL 1905, 506, Pl. C:3. Bač – Pješčara, chance find: GUBITZA 1910, 171 (Fig. j), with partial metrological data; STANOJEV 1989, 22–23 no. 115; KOVÁCS 1991, 405 no. 4. Dăbâca – Delaul Cetății, settlement find: PASCU – RUSU – IAMBOR – EDROIU – GYULAI – WOLLMANN – MATEI 1968, 201, Fig. 4, no metrological data. Körösszegapáti – Pállapály, chance find: NEPPER 2002, (2) 127 Pl. 121 (the wire tapered towards the ends with a circular section). Szabolcs – Petőfi ut., gr. 282: KOVÁCS 1994, 64, 65 Fig. 18:1, 115, with partial metrological data. Szekesfehérvár – Sóstó, chance find: BAKAY 1968, 61, Pl. XXII:25, with partial metrological data.

<sup>250</sup> Further division is possible on the basis of the number of wires used.

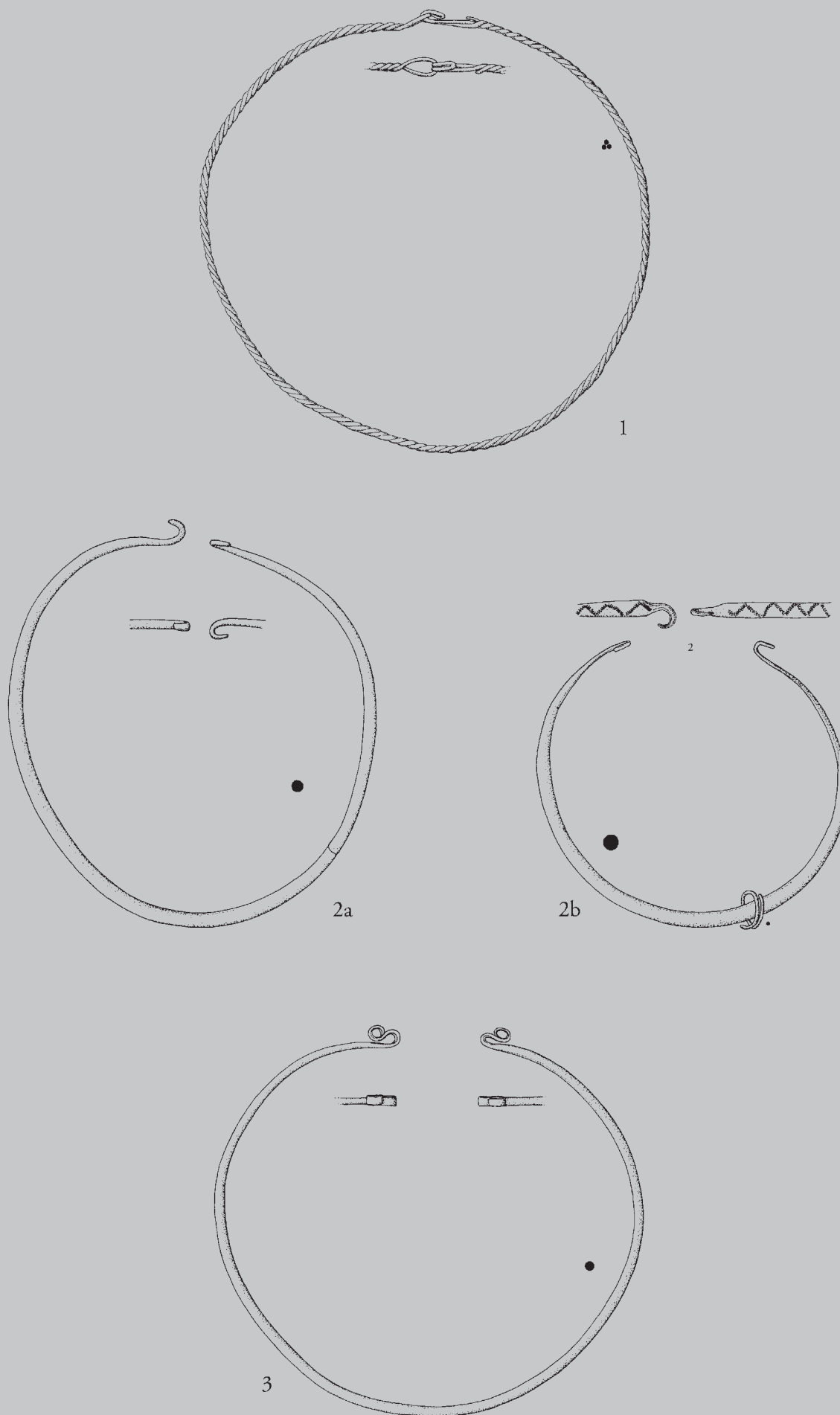
<sup>251</sup> Sarud – Pócsoltése, sporadic find: SZABÓ 1976, 34 (Fig. 14), 35, with partial metrological data; SZABÓ 1980, 55 (Fig. 4). Kloštar Podravski – Pesci, chance find, fragment of a torc (neck with coils and a hook for fastening; AMZ S-4059).

<sup>252</sup> Majs – Udvari rétek, gr. 723: KISS 1983, 125, 163 (Fig 76:2), 373 Pl. 65, torc published without any metrological data; Püspökladány – Eperjesvölgly, gr. 270: NEPPER 2002, (1) 172 no. 1, (2) 197 Pl. 191:4, with partial metrological data.

<sup>253</sup> Vukovar – Lijevo Bara, gr. 66: DEMO 1996, 48 Fig. 29, 89 no. 48:3. Rákóczi falva – Kastélydomb, gr. 7: SELMECSI – MADARAS 1980, 146, 159, Pl. VIII:3, without any metrological data.

<sup>254</sup> Piliny – Sirmánhegy, gr. 16/1902: NYÁRY 1904, 61 Fig. 16:1, with partial metrological data.

<sup>255</sup> Letkés – Téglaégető II, gr. 50: BAKAY 1978, 108, 111 Pl. LII:17, the torc published without any metrological data. – Further division is possible on the basis of the number of wires and the manner of their use (for example, four single wires or two single wires and one doubly bent wire of circular section, etc.).



**Fig. 32.** Types and variants of torcs (4.3.2.1.1-3). **1** – Torc with a hook and eye twisted from one or more wires of circular section, De. 1.1.1-2 (gr. 217/f); **2** – Torc with two hooks (2a. – wire of circular section tapered towards the ends, De. 1.2.1.2: Srnčić, S-2418; 2b. – wire of circular section tapered towards the ends and hammered into a band, the banded ending decorated, De. 1.2.1.3.1: gr. 391/ch); **3** – Torc with open ends, wire of circular section tapered towards the ends, the ends hammered flat and curved outwards in the shape of the letter "S", De. 2.1.1.2 (gr. 66/f).

### 4.3.2.1.1. Torcs that fasten

#### 4.3.2.1.1.1. Torcs with a hook and eye formed from one or more wires of circular section with identical thickness (G. 1a–b; H. 21b)

No.	Inv. AMZ	Metal	Type		Coils hook/eye	Ø torc (cm)			2rπ (cm)	Ø wires (cm)	Ø wires (cm)	Weight (g)	Grave/ (sex)
			De.	G.		max.	med.	min.					
<i>Type 1a – one triply bent wire</i>													
1.	2560	AE	1.1.1.1a/nn	1b	–/–	14.56	14.18	13.81	44.54	0.47/0.45	0.23	45.009	115/f
2.	2587	AE	1.1.1.1a/nn	1a	–/–	15.65	15.18	14.71	47.66	0.35	0.18	27.001	138/f
3.	2626	AE	1.1.1.1a/nn	1a	–/–	15.57	15.36	15.14	48.21	0.27	0.14	17.270	217/f
4.	2700	AE	1.1.1.1a/nn	1a	–/–	15.10	14.41	13.72	45.28	0.31	0.16	20.735	298/f
5.	2770	AE	1.1.1.1a/nn	1a	–/–	15.05	14.77	14.50	46.39	0.30	0.16	23.317	355/ch
6.	2800	AE	1.1.1.1a/nn	1a	–/–	15.20	15.01	15.00	47.41	0.32	0.17	26.446	383/ch
7.	2831	AE	1.1.1.1a/nd	1a	2/2	15.50	14.95	14.48	46.94	0.27	0.14	18.439	409/ch
8.	2905	AE	1.1.1.1a/nn	1a	–/–	15.00	14.35	13.70	45.06	0.35	0.17	30.284	412/ch
9.	2390/1	AE	1.1.1.1a/nn	1a	–/–	16.25	15.74	15.23	49.42	0.31	0.14	25.959	Srnić
<i>Type 2a – two doubly bent and reversely inserted wires</i>													
10.	2461	AE	1.1.1.2a/no	1b	5/5	15.24	15.24	15.24	47.85	0.44	0.19	40.359	31/f?
11.	3816 <sup>256</sup>	AE	1.1.1.2a/nu	1a	–/8	15.06	14.88	14.70	46.72	0.33	0.15	31.503	159/f
12.	2880	AE	1.1.1.2a/nd	1b	4/1	15.85	15.85	15.85	49.77	0.39	0.19/0.15	36.638	444/f
13.	2392	AE	1.1.1.2a/nx	1b	?/?	(16.50)	–	–	(51.18)	0.64	0.26	33.633	Srnić
14.	2393	AE	1.1.1.2a/nx	1b	?/?	–	–	–	–	0.70	0.28	20.843	Srnić
<i>Type 2b – one single and one doubly bent wire</i>													
15.	2446	AE	1.1.1.2b/nn	1b	–/–	16.60	15.81	15.02	49.64	0.36	0.19	33.428	23/ch
16.	2746	AE	1.1.1.2b/nu	1a	5/?	16.10	15.05	14.00	47.25	0.33	0.20	25.018	326/f
17.	2882	AE	1.1.1.2b/nk	1b	2/–	15.40	14.75	14.10	46.31	0.37	0.22	35.324	I-1951/?
<i>Type 3c – three single wires</i>													
18.	2765	AE	1.1.1.3c/nd	1a	3/3	16.10	15.96	15.82	50.11	0.33	0.18	21.007	349/ch
<i>Incomplete or partially preserved torcs of types 1a, 2a, 2b and 3c</i>													
19.	2389	AE	1.1.1.1a–3c/kn	1b	?/–	(15.50)	–	–	–	0.37	0.19	23.531	–
20.	2391	AE	1.1.1.1a–3c/ kun	1b	?/5	(15.63)	–	–	–	0.38	0.20	20.001	–
21.	2394	AE	1.1.1.1a–3c/un	1b	5/?	(11.82)	–	–	–	0.38	0.17	15.556	–

[Coils on the neck of the hooks and eyes of the torcs: nn – no coils; nk – coils at the hook; nu – coils at the eye; no – coils on both sides; nx – existence of coils unknown. Hooks and eyes: kun – hook and eye missing; kn – hook missing; un – eye missing]

*\*Notes:*


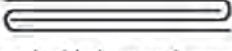
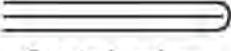
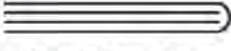
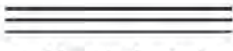

- |   |   |
|---|---|
| <p>9. A torc with a pendant in the form of a closed circlet (S-2390/2); a secondarily utilized prehistoric circlet.</p> <p>13. Fragment: the eye and half the torc are missing.</p> <p>14. Fragment: the hook, the eye, and most of the torc are missing.</p> <p>16. Broken and incomplete (a small part of the torc missing), two rings were hung from the torc.</p> | <p>19. Fragment: the hook and a third of the torc are missing; purchase, 1931–1935.</p> <p>20. Fragment: the hook and half the torc are missing; purchase, 1931–1935.</p> <p>21. Fragment: the eye and half the torc are missing; purchase, 1931–1935<sup>257</sup></p> |
|---|---|

<sup>256</sup> Previous inv. no. P-18181.

<sup>257</sup> VINSKI-GASPARINI 1954, 126, 127 Fig. 13 (left).

Torcs with a hook and eye for fastening made by spirally twisting one or more wires of uniform or different thicknesses are the most widespread, and because of their basic characteristics and manner of workmanship they represent an original torc form specific to the Bijelo Brdo cultural circle. With an apparently simple form and differences mainly noted to date in terms of the diameter of the wires,<sup>258</sup> the torcs nonetheless differ considerably from one another, first in the arrangement of wires prior to the spiral twisting, as well as in terms of weight, which is determined by the thickness and number of the wires used.

On the basis of differences in the thickness or diameter of the wires used in the manufacture of the torcs, two basic groups can be distinguished, three or four sub-groups, and a total of three variants, where only one or only two variants are present for each sub-group. Torcs made by twisting one or more bronze wires of uniform thickness are common and frequent (De. 1.1.1), and the occasional torcs more appropriate to later periods of the manufacture and utilization of this type of jewellery were made of wires of varied thicknesses, i.e. wires often of exceptionally thick section (large diameter), to which sometimes two and sometimes three pairs of twisted very thin bronze or silver wires were added during manufacture (De. 1.1.2). According to the number of utilized wires (1 to 4) both basic groups are further divided into three or four sub-groups (De. 1.1.1.1-4, i.e. 1.1.2.1-3), which in their use of single, doubly bent, or triply bent wires and their combinations create variants recognizable for two (a), one (b), or no (c) folds of the wires (**Fig. 33**).

Torcs of uniform thickness wire	a (two bends)	b (one bend)	c (no bend)
1.1.1.1 (one wire)	 Triply bent thick wire		
1.1.1.2 (two wires)	 Two doubly bent and reversely inserted wires	 One single and one doubly bent wire	
1.1.1.3 (three wires)		 Two single and one doubly bent wire	 (three single wires)
1.1.1.4 (four wires)			 (four single wires)

**Fig. 33.** The arrangement of wires in the manufacture of torcs with one or more wires of uniform thickness (De. 1.1.1.1a-4c): subgroups (1-4) and variants (a-c).

At Lijevo Bara only torcs made by twisting one or more wires of uniform thickness were found (type 1.1.1.1-3): half were torcs made from one triply bent wire (50%), somewhat less than half were torcs made from two wires (44.44%), and only one torc was made from three single wires (5.56%).<sup>259</sup> Among the torcs made from two wires, almost two-thirds were examples made of two doubly bent and reversely inserted wires (27.77%), as opposed to the rarer torcs with one single and one doubly bent wire (16.67%).

Because of difference in the length and arrangement of the wires during the twisting, sometimes on the neck of the hook (nk), eye (nu), or both hook and eye (no) rare single and most often multiple rows of transverse coils formed from the excess or deliberately remaining wire can be found, and these wound coils are a composite part of the torcs and most often the only decorative addition. Such coils at Lijevo Bara are very rare among torcs made from one triply bent wire (1:8), while among the torcs made from two or three wires, the appearance and frequency of the coils exhibits a completely opposite proportion. A greater frequency of coils, however, could be noted for the heavier torcs, and particularly for examples weighing 35-45 grams.<sup>260</sup>

<sup>258</sup> GIESLER 1981, 119-120, Pl. 1.

<sup>259</sup> The incomplete state of or partial damage to three torcs (nos. 19-21) meant it was not possible to determine to which of the sub-groups and variants they truly belonged.

<sup>260</sup> A similar tendency was exhibited by torcs from the cemetery of Bijelo Brdo - Ul. Venecija (on the basis of examples in the AMZ).



In addition to the workmanship, torcs also differ in terms of weight, and judging from the weight of torcs in the AMZ, this measures circa 10 gr for the lightest examples (Bijelo Brdo – Ul. Venecija, gr. 217),<sup>261</sup> while for the heaviest examples, the weight is more than ten times greater (Slavonski Brod – unknown site).<sup>262</sup> Such major differences in weight makes it clear that in the framework of a weight system there existed, in addition to the rare exceptionally light (I) and exceptionally heavy (V) torcs, the more numerous group of light (IIa–b) and heavy (IVa–b) torcs, as well as the less numerous but usually ubiquitous transitional examples (III). The latter are particularly common at the cemetery of Bijelo Brdo – Ul. Venecija, where burial took place throughout the entire second third of the 11<sup>th</sup> century (**Table 22**).

**Table 22**

The weight system of torcs wound from one or more wires from the sites of Vukovar – Lijevo Bara, Bijelo Brdo – Ul. Venecija, Kloštar Podravski – Pesci, and Slavonski Brod – unknown site.

Weight group	Weight (g)	(1) Vukovar Lijevo Bara		(2) Bijelo Brdo Ul. Venecija		(3) Kloštar Podravski Pesci		(4) Slavonski Brod unknown site	
		no.	%	no.	%	no.	%	no.	%
I	<25	6	28.11	4 <sup>263</sup>	23,53	–	–	–	–
IIa	>25–35	7	33.33	4 <sup>264</sup>	23,53	–	–	–	–
IIb	>35–45	2	9.52	2 <sup>265</sup>	11,76	–	–	–	–
	Undeterm.	3	14.29	–	–	–	–	–	–
		(12	57.14)	(6	35,29)	–	–	–	–
III	>45–55	1	4.76	2 <sup>266</sup>	11.76	–	–	–	–
IVa	>55–75	–	–	3 <sup>267</sup>	17.65	1	50.00	–	–
IVb	>75–95	–	–	2 <sup>268</sup>	11.76	1	50.00	–	–
	Undeterm.	2	9.52	–	–	–	–	–	–
		(2	9.52)	(5	29.41)	(2	100.00)	–	–
V	>95	–	–	–	–	–	–	1	(100.00)
		21	100.00	17	100.00	2	100.00	1	(100.00)

Notes: (1) Vukovar – Lijevo Bara – Among the 21 torcs of this group, complete data about the weight system are available for 16 torcs; this includes the torc from gr. 326/f (no. 16), where the extent of damage and the missing section could not significantly change its weight nor influence the weight system it belongs to. The remaining 5 torcs were placed in the category of undetermined because of missing pieces and considerable damage (nos. 13–14 and 19–21). (2) Bijelo Brdo – Ul. Venecija – The weight system was determined for 16 torcs in the AMZ and one torc in the Museum of Slavonia in Osijek/MSO (another 6 torcs from Bijelo Brdo are also in the MSO). The example in the MSO was added to the statistics, as thanks to a recent publication the necessary metrological data is now available (gr. 107).<sup>269</sup>

In contrast to the torcs of light weight, individual torcs of the heavy weight system (IVa, IVb, and V), recognizable from a wire or wires of large diameter (0.55–0.75 cm), are dated by coins to the reigns of kings Stephen I (1000–1038), Samuel Aba (1041–1044), Andrew I (1046–1061), and Bela I (1060–1063) – with examples from several sites in Hungary,<sup>270</sup> Romania,<sup>271</sup> and Croatia<sup>272</sup> – so it is generally considered that torcs with such characteristics were created and in use

<sup>261</sup> S-277 (the weight of this damaged and non-conserved torc is 10.277 g).

<sup>262</sup> S-2060 (wt. 107.89 g).

<sup>263</sup> Torcs from gr. 55, 56, 70 and 217.

<sup>264</sup> Torcs from gr. 78, 93, 184 and 188.

<sup>265</sup> Torcs from gr. 182 and 211.

<sup>266</sup> Torcs from gr. 174 and 183.

<sup>267</sup> Torcs from gr. 107 (MSO 2991), 192 and 196.

<sup>268</sup> Torcs from gr. 156 and 161.

<sup>269</sup> RADIĆ 1997, 87 no. 13

<sup>270</sup> *Csongrád – Máma*, gr. 5: SZÉLL 1941a, 171, Pl. XL:2. *Csanytelek – Dilitor*, gr. 61: POLL MÁRKINÉ 1934, 67 Fig. 17, 69 (= *Csongrád – Bokrospart*). *Sarud – Pócsoltése*, gr. 35 and 37: SZABÓ 1976, 23–24, 32 (Fig 13).

<sup>271</sup> *Moldovenești – Várhegy*, gr. 2: ALADÁR 1914, 121, 122 Fig. 4.

<sup>272</sup> *Bijelo Brdo – Ul. Venecija*, gr. 107: BRUNŠMID 1904, 33.

in the period between the twenties and the sixties of the 11<sup>th</sup> century.<sup>273</sup> In contrast to this, only two incomplete torcs of the heavier weight system come from Lijevo Bara, along with one torc of the transitional group with a wire diameter a little smaller than 0.50 cm (14.29%), and all the other torcs are in both groups of the lighter weight system (85.71%). As not a single grave unit is dated by coinage at Lijevo Bara, the suggested weight system reliably points to a chronological difference, placing the torcs of the lighter weight system among the relatively earlier forms (I, IIa, IIb, and III), and torcs with heavier weights among the relatively later forms (IVa, IVb, and V). Hence it can be hypothesized that in the absolute chronological sense, torcs of the lighter weight system belonged primarily to the period before the twenties of the 11<sup>th</sup> century, i.e. that they appeared prior to the year 1000, and that they continued in use during the greater part of the first quarter of the 11<sup>th</sup> century.<sup>274</sup>

According to the finds published to the present, among the torcs made from one or more wires of uniform thickness from the Croatian sites south of the Mura and Drava Rivers, in Međimurje (Donji Vidovec – unknown site),<sup>275</sup> Podravina (Kloštar Podravski – Pesci),<sup>276</sup> and southern Slavonia (Slavonski Brod – unknown site),<sup>277</sup> but also south of the Sava River in northwestern Bosnia and the Bosnian Sava basin (Gomjenica – Baltine bare, Kočićevo – Tučić),<sup>278</sup> only examples of the heavier weight system appear,<sup>279</sup> because of which it can be hypothesized that the use of torcs in the southern Pannonian region settled primarily by Slavic inhabitants corresponds to the period of the appearance of torcs of the heavier weight system. In contrast to this, at sites in northeastern Slovenia, where torcs generally speaking are common finds, examples of the lighter and heavier weight systems appear in equal numbers (Ptuj-Grad/Turnirski prostor,<sup>280</sup> Središče ob Dravi – Cirkevca),<sup>281</sup> as is also the case at the sites in the far east of Croatia, in eastern Slavonia (Bijelo Brdo – Ul. Venecija)<sup>282</sup> and in western Syrmia/Srijem (Vukovar – Lijevo Bara, Svinjarevci – Studenac).<sup>283</sup>

4.3.2.1.1.2. Torcs with two hooks of circular section wire  
(G. –; H. 21c dif.)

No.	Inv. AMZ	Metal	Type		Coils hook/eye	Ø torc (cm)			2π (cm)	Ø wires (cm)	Ø wires (cm)	Weight (g)	Grave/sex
			De.	G.		max.	med.	min.					
<i>Type 1.2 – wire tapered towards the ends</i>													
1.	2418	AE	1.2.1.2.	–	–	13.96	13.48	13.00	42.32	–	0.50/0.24	45.260	Srnić
<i>Type 1.3.1 – wire tapered towards the ends, hammered flat and decorated</i>													
2.	2811	AE	1.2.1.3.1.	–	–	10.83	–	–	34.00	–	0.50/0.32	33.990	391/ch

\*Note:

2. A torc with a pendant of thin spirally coiled wire.

<sup>273</sup> SZABÓ 1980, 52.

<sup>274</sup> For a considerably earlier appearance of torcs of one or more bent wires (around or even before the middle of the 10<sup>th</sup> century), cf. GIESLER 1981, 93, 116–117. For the Byzantine origin of and influence on the appearance of torcs in the Bijelo Brdo cultural circle and other problems related to this (such as Bulgarian diadems in the shape of torcs), see SZÓKE 1980, 127–128.

<sup>275</sup> HORVAT 1956, 21–23, Fig. 9 (Donji Vidovec – unknown site or Šenkovec – Sv. Jelena); TOMIČIĆ 1978, 216, 219 Fig. 9 (Šenkovec near Čakovec). The lack of Bijelo Brdo finds in the graves discovered around the church of Sv. Jelena (St. Helen) in Šenkovec near Čakovec is indicated both by older and more recent archaeological excavations. For more detail, LASZLOWSKI 1928, 244–259; VIDOVIĆ 1998, 61–78.

<sup>276</sup> BRUNŠMID 1904, 80 (two torcs from destroyed graves).

<sup>277</sup> Unpublished torc. It is mentioned without any information about the circumstances of discovery by ERCEGOVIĆ 1958, 183 no. 19. The citation about the existence of a torc from Surduka in eastern Srijem (Serbia), also in the AMZ (op. cit. 183 no. 22), should be ignored, as the preserved fragment evidently came from a bracelet (AMZ, S-2194).

<sup>278</sup> Gomjenica – Baltine bare, gr. 231: MILETIĆ 1967, 85, 129–130, Pl. IX. Kočićevo – Tučić, chance find: KOROŠEC-VRAČKO 1943, 271–272, 280 (torc from one of the destroyed graves); MILETIĆ 1963, 165 Fig. 9.

<sup>279</sup> The existence was noted, although it seems unlikely, of a torc made of silver wire (!), found somewhere at Glasinac to the southeast of Sarajevo, KOROŠEC 1947, 82, 134 n. 286 (the torc was supposedly in the private collection of the Sarajevo archaeologist Dr. Joso Petrović).

<sup>280</sup> ŠKRABAR 1910, 130 (gr. 50, 64, and 65); KOROŠEC 1950, 76–77, 134–138 (gr. 77, 100, 104, 175, 192, 193, 210, 215, 224, 230, 237, and 287); TUŠEK 1981, 16–17, 19 (gr. 385 = 1/78 and 395 = 11/78). – A certain, more or less emphasized, Hungarian influence or presence in Ptuj or in the vicinity towards the end of the reign of King Samuel Aba (1041–1044) is indicated by the priest and writer Simon of Kéza (second half of the 13<sup>th</sup> cent.), who recorded information about a battle between the armies of King Aba and the Austrian Marchduke Gottfried, the event having taken place somewhere nearby Ptuj, *Gesta Hungarorum*, CEMT 1, 132 (c. 48).

<sup>281</sup> KOROŠEC 1947, 40, 44 (gr. 12). For at least one find of a torc, see here n. 239.

<sup>282</sup> BRUNŠMID 1904, 47, 52–76 (gr. 5, 6, 25, 55, 56, 65, 70, 72, 78, 80, 93, 107, 156, 161, 174, 182, 183, 184, 188, 192, 196, and 211); ERCEGOVIĆ 1958, 166 (gr. 217).

<sup>283</sup> Vukovar – Lijevo Bara: DEMO 1996, 48. Svinjarevci – Studenac, chance find: HOERNES 1903, 285 Fig. 62–64 (three torcs from destroyed graves): BRUNŠMID 1904, 86 nos. 1–3.

Bijelo Brdo torcs with two hooks for fastening have very numerous predecessors in the Carpathian basin, particularly among the finds from middle Avaric and late Avaric cemeteries, where example predominate that are made from wire of (mostly) uniform thickness. Similar characteristics are exhibited by the two hundred and more years later, not particularly numerous torcs from several Bijelo Brdo cemeteries, including a torc from the cemetery of Moldevenești – Várhegy in Romanian Transylvania – the only example from this group dated by a coin to the reign of King Samuel Aba (1041–1044).<sup>284</sup> This suggests that Bijelo Brdo torcs with two hooks made of wire with a uniform thickness belong to the second quarter or even second third of the 11<sup>th</sup> century. The torcs from Lijevo Bara are certainly older than these, made of thicker wire that tapers towards the ends, and which in the first example immediately was formed into hooks (S-2418), while the wire of the second example was hammered into a band and the hook ends were then decorated on the outside with a dense double row of transverse incisions creating a zigzag motif (gr. 391/ch).

Analogies can be found for both torcs from Lijevo Bara at some sites quite distant from Vukovar (**Fig. 34**): torcs with wires tapered towards the ends (S-2390/1) at the cemetery of Rád – Kishegy (Nógrád County) and Sarud – Pócsoltés (Heves County) in northern Hungary,<sup>285</sup> and torcs with hammered endings (gr. 391/ch) at the cemetery of Malé Kosihy – Horné Konopnice in southern Slovakia (the southeastern part of the Slovakian Danubian basin).<sup>286</sup> The hammered endings of the latter indicate a pattern among Scandinavian models and their Russian copies created during the Viking period,<sup>287</sup> while the formation of the hooks on the Vukovar torc<sup>288</sup> exhibits a similarity with the mechanism used on torcs made of sheet metal or flat hammered wire represented among the grave finds of what is called the Komani Culture in northern Albania (Bukël, Kalaja Dalmaces).<sup>289</sup>

#### 4.3.2.1.2. Open-ended torcs

##### 4.3.2.1.2.1. Torcs of circular section wire with ends in the shape of the letter "S" (Vukovar – Rákóczi type)

No.	Inv. AMZ	Metal	Type		Coils hook/eye	Ø torc (cm)			2π (cm)	Ø wires (cm)	Ø wires (cm)	Weight (g)	Grave/sex
			De.	G.		max.	med.	min.					
1.	2502	AE	2.1.1.2	–	–	15.23	14.425	13.62	45.29	–	0.38/0.24	31.541	66/f

Open-ended torcs are rare among the torcs of the Bijelo Brdo Culture circle, and as a rule they were made from bronze wire of circular section, which at one end was tapered and pointed and at the other was hammered into the shape of the letter "S". An example of this latter variant was discovered at Lijevo Bara in gr. 66, located on the western edge of the eastern most poorly investigated zone of the distribution of torcs (zone V), in a part of the cemetery which in terms of origin is certainly later than both southern zones (zone I and IV), as well as the central zone of torc distribution (zone III). This torc with an ending in the shape of the letter "S" belonged to the skeleton of a young female individual (17–20 years old),<sup>290</sup> who in addition to the torc, had a bracelet on each arm, a ring with a crown of glass paste on a finger of the right hand (De. 3.16), and on each side of the head two silver circlets of varied dimensions, one of which had been reworked into a circlet, as originally it had been a filigree raceme earring of the "Volhynian – Kiev" type (all that remained was the hoop, one of the joints, and part of the clasp of the raceme decoration). The number of circlets indicates that the burial was not earlier than the beginning of the 11<sup>th</sup> century.

<sup>284</sup> ROSKA 1913, 132, 139, 171 (gr. 18).

<sup>285</sup> Rád – Kishegy, gr. 18: ROSKA 1913, 132, 139, 171 (gr. 18). Sarud – Pócsoltés, gr. 6: SZABÓ 1976, 18, 31 (Fig 12).

<sup>286</sup> HANULIAK 1994, 42 Fig. 40:21c, 44, 131, 201 Pl. LXII:A/3 (gr. 301, young female).

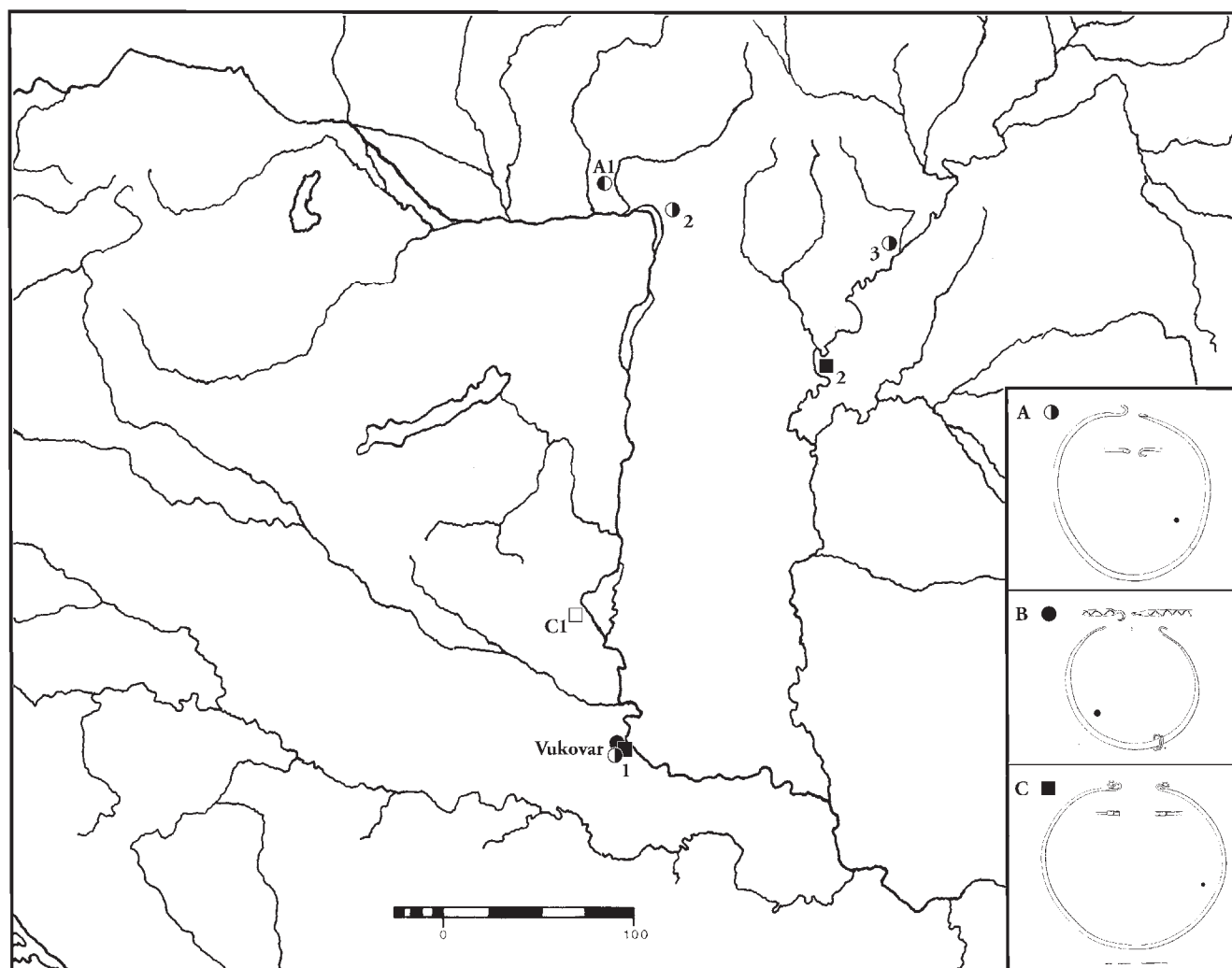
<sup>287</sup> One long known example of an imported torc comes from the site of Hlohovec (Hungarian Galgócs) in southwestern Slovakia (Trnava vicinity), HAMPEL 1905, 455–456, Pl. 338:5; FETTICH 1937, 225–226, Pl. LI:4; TOČÍK 1968, 26, 83 Pl. XVII:7.

<sup>288</sup> On the drawing of the torc from the cemetery of Malé Kosihy – Horné Konopnice, the mechanism for fastening is not completely recognizable, cf. HANULIAK 1994, 42 Fig. 40:21c, 201 Pl. LXII:A3.

<sup>289</sup> Bukël, gr. 21: ANAMALI 1971, 215, Pl. XIII:2. Kalaja Dalmaces chance find: IPEN 1907, 20 Fig. 32–33, 21; SPAHIU 1971, 243, 244 Fig. 8, calls such objects diadems.

<sup>290</sup> The sex and the age are cited according to the determinations of the anthropologist Mario Šlaus, PhD (HAZU).

The only analogy to the torc from grave 66 is offered by a find from the cemetery of Rákóczfalva – Kastélydombu in the central Tisza valley of Hungary (Fig. 34), where among numerous late Avaric burials at the same cemetery, several Bijelo Brdo Culture graves were also excavated, among them a grave with a torc of circular section wire with the ends hammered in the shape of the letter "S", and with accompanying finds consisting of a damaged bronze S-circlet and three beads (gr. 7).<sup>291</sup>



**Fig. 34.** Finds of rare types of fastened torcs and open-ended torcs at Bijelo Brdo cemeteries in Croatia, Hungary, and Slovakia. **A)** – Torcs that fasten, with two hooks, the circular section wire tapered towards the ends (De. 1.2.1.2): **1** – Vukovar – Lijeva Bara (Hr; Vukovarsko-Srijemska County), chance find, S-2418: DEMO 1996, 70 no. 10; **2** – Rád – Kishegy (H; Pest County), gr. 4: PATAY 1957, 61, Pl. XIV:13; **3** – Sarud – Pócsőtöl-tése (H; Heves County), gr. 6: SZABÓ 1976, 18, 31 (Fig. 12); SZABÓ 1980, 53 (Fig. 2). **A1** – Torcs that fasten, with two hooks, the circular section wire tapered towards the ends, the banded endings undecorated: **1** – Malé Kosihy – Horné Konopnice, gr. 301 (Sk; Nové Zámky District): HANULIAK 1994, 42 Fig. 40:21c, 44, 131, 201 Pl. LXII:A/3. **B)** Torcs that fasten, with two hooks, the circular section wire tapered towards the ends, the hammered banded endings decorated (De. 1.3.1.2): **1** – Vukovar – Lijeva Bara (Hr; Vukovarsko-Srijemska County), gr. 391/ch: DEMO 1996, 85 no. 42.2. **C)** Torcs with open ends, the circular section wire tapered towards the ends, the ends hammered and bent outwards in the shape of the letter "S" (De. 2.1.1.2): **1** – Vukovar – Lijeva Bara, (Hr; Vukovarsko-Srijemska County), gr. 66: DEMO 1996, 48 Fig. 29, 89 no. 48:3; **2** – Rákóczfalva – Kastélydomb (H; Szolnok County), gr. 7: SELMECSI – MADARAS 1980, 146, 159, Pl. VIII:3. **C1)** Torcs with open ends, the circular section wire tapered towards the ends, the ends pointed: **1** – Majs – Udvari rétek, gr. 723 (H; Baranya County): KISS 1983, 125, 163 (Fig. 76:2), 373 Pl. 65.

<sup>291</sup> SELMECSI – MADARAS 1980, 159 Pl. VIII:3 (the torc published without metrological data). Judging from the finds from the remaining Bijelo Brdo graves (descriptions of 10 graves), it can be hypothesized that gr. 7 (= 143) was located in the part of the cemetery with burials from the late 10<sup>th</sup> century and the first decades of the 11<sup>th</sup> century (e.g. S-circlets, a bracelet with animal heads, and a bracelet of rhomboid section).

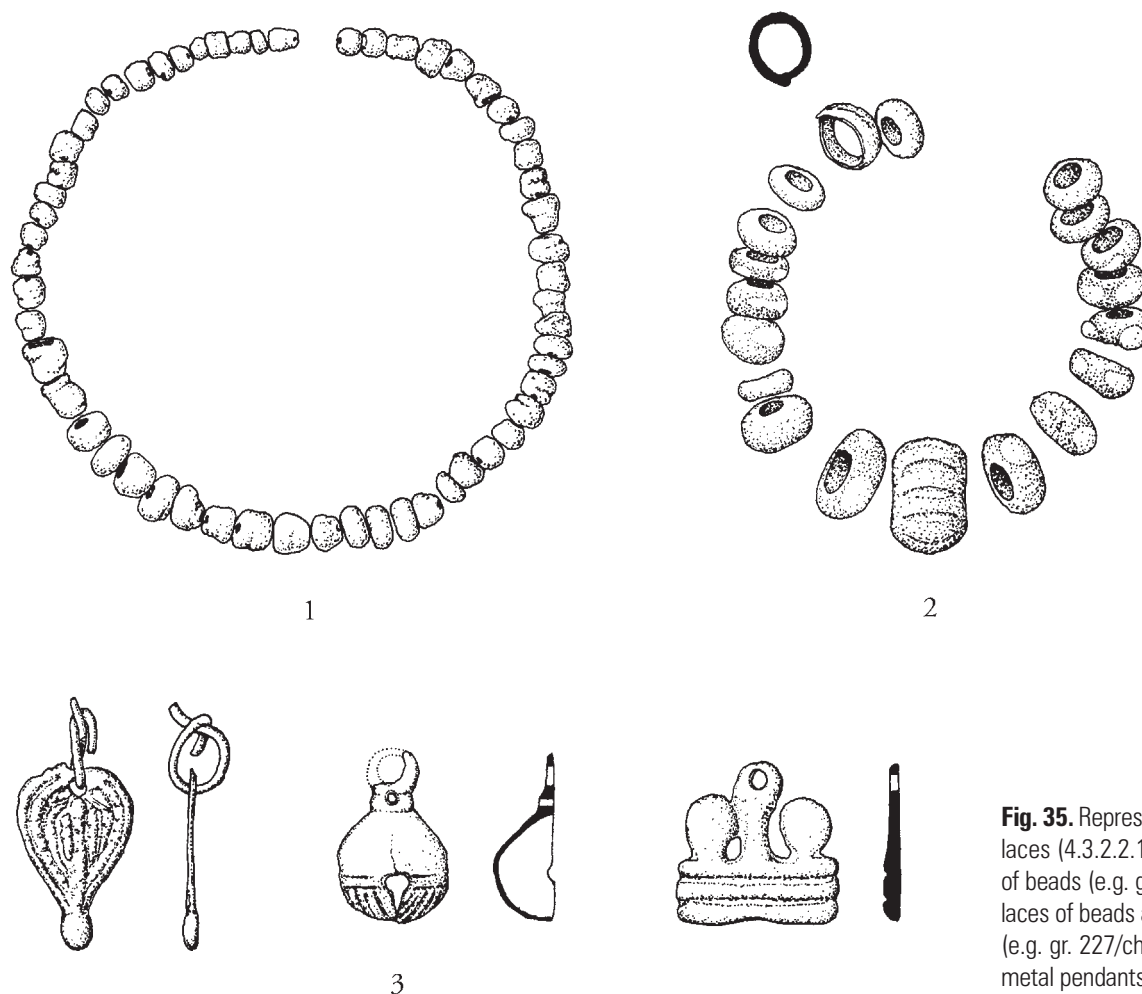
### 4.3.2.2. Necklaces (G. 40, 41b)

No.	Grave	Sex (f/ch/?)	Age of the deceased		Pendants on the necklace		Total pendants
			<i>Zapisnik</i>	M. Šlausu	beads	metal objects	
1.	2	ch	–	under 5 (?)	–	2	2
2.	29	ch	several years old	–	6	–	6
3.	42	ch	–	under 6	5	–	5
4.	48	f	–	+50	1	–	1
5.	52	ch	–	–	14	1	15
6.	102	ch	–	–	3	–	3
7.	108	f?	–	45–60	17	–	17
8.	115	f	–	20–25	114	2	116
9.	124	?	–	–	25	1	26
10.	138	f	–	–	37	–	37
11.	200	?	–	–	6	–	6
12.	217	f	–	20–25	59	–	59
13.	227	ch	–	under 6	18	1	19
14.	230	ch	–	5–12	1	–	1
15.	252	ch	3	–	27	2	29
16.	271	?	–	–	–	1	1
17.	279	f?	–	20–25	1	–	1
18.	322	ch	3–4	–	1	–	1
19.	326	f	–	13–17	12	–	12
20.	326	f	–	13–17	–	3	3
21.	347	ch	ca. 12	–	9	–	9
22.	378	ch	1–2	–	–	1	1
23.	382	ch	ca. 7–8	5–10	–	1	1
24.	383	ch	–	12–15	5	–	5
25.	387	ch	ca. 6–7	–	8	–	8
26.	388	ch	ca. 1–2	–	1	1	2
27.	391	ch	small child	–	1	–	1
28.	394	f	–	–	1	–	1
29.	408	ch	ca. 8–9	–	2	3	5
30.	409	ch	ca. 12	–	52	1	53
31.	412	ch	ca. 5	–	4	–	4
32.	424	ch	ca. 2	–	1	–	1
33.	425	ch	ca. 2	–	5	–	5
34.	429	ch	ca. 8–9	–	2	1	3
[35.	–	–	–	–	16	–	–]
Total pendants (grave finds):					438	21	459
Total pendants:					[454	21	475]

## \*Note:

35. S-2410/1 (purchased, 1931–1935); a button-pendant (S-2410/2) purchased together with a group of glass beads (16 beads).

A necklace is a decorative complex of identical or diverse pendants arranged in a string or connected otherwise into a unit that is tied, hung, and worn around the neck or on the chest. Three types of necklaces were found at Lijevo Bara, with 34 examples from 33 graves (two necklaces come from gr. 326/f), while for a group of pendants acquired prior to systematic archaeological excavations, composed of 16 glass beads and 1 button-pendant, it cannot be established with certainty that



**Fig. 35.** Represented types of necklaces (4.3.2.2.1-3). **1** – Necklaces of beads (e.g. gr. 217/f); **2** – Necklaces of beads and metal pendants (e.g. gr. 227/ch); **3** – Necklaces of metal pendants (e.g. gr. 326/f).

all of them in fact came from the same destroyed grave unit (S-2410/1-2). Necklaces composed of beads predominate with well over half the total and twenty sets (58.82%), and necklaces composed of beads and the occasional metal pendant make up nine sets (26.47%), while with only five sets the least numerous are necklaces composed of stringing varied but usually scarce metal pendants (14.71%). Among the graves with finds, the share of graves with necklaces measures a quite high 17.28 % (**Fig. 35**).

The basic components of most necklaces were beads, consisting of 437 glass beads and only 1 amber bead, while among the metal pendants on necklaces with beads and metal pendants or necklaces with only metal pendants the most common elements were perforated bronze (4) and gold coins (1), ring-shaped or circularly bent bronze bands and fragments of small bells (3 each), and silver and bronze rings (2) or bronze and lead crosses (2). Individual metal pendants consist of a bronze bell-shaped pendant, various diverse bronze objects turned into pendants (the lower section of a two-part pendant, a belt strap ending, a fibula, a wire with an O-shaped ending), and one heavier iron object (spike).

Necklaces of beads (20 examples) and necklaces of beads and metal pendants (9 examples) were composed of or contained at least one bead and at most 59 beads on necklaces made of beads (gr. 217/f) or 114 beads on necklaces of beads and metal pendants (gr. 115/f). More than half of the necklaces from Lijeva Bara do not contain more than 5 beads, and hence belong to the 1<sup>st</sup> degree of quantity (51.72%), a third of the necklaces contain 6 to 30 beads and belong to the 2<sup>nd</sup> degree of quantity (34.48%), while only four necklaces belong to the 3<sup>rd</sup> and 4<sup>th</sup> degrees of quantity, as they contained either more than 31 beads (gr. 138/f, 217/f, 409/ch) or less than 121 beads (gr. 115/f). The mean index of the number of beads is small and measures only 15.10 beads per necklace, so that for necklaces composed only of beads, the index is even one third less than the average, while for necklaces composed of beads and metal pendants it is doubled (**Table 23**).

Necklaces of beads and necklaces of beads and metal pendants are frequently found with torcs (gr. 115/f, 138/f, 217/f, 326/f, 383/ch, 391/ch, 409/ch, and 412/ch), with pairs of bracelets (gr. 48/f, 217/f, 326/f) or individual bracelets (gr. 108/f, 115/f, 382/ch, 383/ch, 394/ch), with various forms of rings (gr. 48/f, 108/f, 115/f, 138/f, 217/f, 279/f, 326/f, 347/ch, 394/f, 409/ch), and with pairs of button-pendants (gr. 52/ch, 115/f, 138/f, 347/ch) or individual examples (gr. 2/ch, 382/ch, 409/ch, 424/ch). They are more rarely found with small-format bronze circlets (gr. 48/f, 102/ch, 347/ch), large format bronze circlets (gr. 115/f, 279/f), and iron circlets (gr. 48/f), with small-format bronze S-circlets (gr. 29/ch, 391/ch) and bronze circlets with a spiral ending (gr. 252/ch), spangles for clothing (gr. 271/?, 425/ch), and belt clips (gr.

409/ch), and in individual cases with a thatching needle and iron file (gr. 29/ch), a fragment of metal (gr. 382/ch) and a cattle bone (gr. 48/f). In more than a quarter of the graves (9 graves), necklaces of beads, necklaces of beads and metal pendants, and necklaces with metal pendants were the only grave find (gr. 42/ch, 124/?, 200/?, 227/ch, 230/ch, 322/ch, 378/ch, 387/ch, 408/ch).

**Table 23**

The groups showing the quantity of beads and their percentages (1–5) for necklaces of beads (1) and necklaces of beads and metal pendants (2).

Groups/ quantity of beads (1a–5)	No. of beads on a necklace (1–240)	(1–2) Necklaces of beads with or w/out metal pendants		(1) Necklaces of beads (w/out metal pendants)		(2) Necklaces of beads and metal pendants	
1a	1	8	27.59	7	35.00	1	11.11
1b	2–5	7	51.72	5	25.00	2	22.22
2a	6–15	6	20.69	5	25.00	1	11.11
2b	16–30	4	13.79	1	5.00	3	33.34
3	31–60	3	10.34	2	10.00	1	11.11
4	61–120	1	3.45	–	–	1	11.11
5	121–240	–	–	–	–	–	–
Total necklaces:		29	100.00	9	(31.03)	20	(68.97)
Total beads:		438	100.00	183	(41.78)	255	(58.22)
Ratio:		15.10		9.15		28.33	

[Not included: the group of 16 beads (S-2410/1) and 1 button-pendant (S-2410/2)]

Necklaces were found primarily in child graves (73.33%), followed by female or probably female graves (26.67%).<sup>292</sup> These were most the graves of small children and young or younger women (to 25 years of age), and only in two cases were necklaces with one bead (gr. 48/f) or several beads (gr. 108/f?) found in the graves of women older than 45 and 50. The greatest number of pendants on a necklace was noted in the graves of young female deceased individuals.

#### 4.3.2.2.1. Necklaces of beads

Necklaces of beads were found in 20 graves, almost two thirds of them child graves (gr. 29, 42, 102, 230, 322, 326, 347, 383, 387, 391, 412, 424, 425), with a considerably smaller number of female (gr. 48, 138, 217, 279, 394) or probably female graves (gr. 108), and one grave with a skeleton of undetermined sex and age (gr. 200). The necklaces were composed of a minimum of 1 to a maximum of 59 beads (gr. 217/f), more than half of the necklaces belong to the 1<sup>st</sup> quantity group, and within this group in as many as seven graves the necklace was composed of only one bead (gr. 48/f, 230/ch, 279/f?, 322/ch, 391/ch, 394/f, 424/ch).

The total of 183 beads was composed of 182 glass beads and 1 amber bead (gr. 108/f?). For only one probably glass bead the shape could not be established (gr. 230/ch), while the remaining 182 beads appear in ten shapes (**Table 24**): as the most numerous, with over half of the total, flattened globular beads predominated (56.59%), almost a quarter were grits-shaped beads (24.17%), followed by annular beads (11.54%) and the fairly rare segmented beads (3.85%). The remaining five shapes were represented with one or two beads for a total of seven examples (3.85%).

Necklaces of beads are common in graves rich in finds. They are particularly frequent in graves with finds of rings (gr. 48/f, 108/f?, 138/f, 217/f, 279/f?, 326/f, 347/ch, 394/f), torcs (gr. 138/f, 217/f, 326/f, 383/ch, 391/ch, 412/ch), and with one or a pair of bracelets (gr. 48/f, 108/f?, 217/f, 326/f, 383/ch, 394/f), and they are less frequent in graves with finds of button-pendants (gr. 138, 326, 347, 424), circlets (gr. 48/f, 102/ch, 279/f?, 347/ch) or S-circlets (gr. 29/ch, 391/ch), and are rare or sporadic in graves with finds of a spangle for clothing (gr. 425/ch), thatching needle and file (gr. 29/ch), or together with another necklace, such as one composed of three metal pendants (gr. 326/f). Only a quarter of the necklaces of beads found by the body of the deceased represented the only grave finds (gr. 42/ch, 200/?, 230/ch, 322/ch, 387/ch).

<sup>292</sup> Three graves were not included where the sex of the deceased was not established (gr. 124, 200 and 271).

**Table 24**

Forms of beads represented on necklaces of beads (1) and necklaces of beads and metal pendants (2).

Forms of beads of glass and amber on necklaces of beads and necklaces of beads and metal pendants (grave finds)	(1)		(2)	
	Necklaces of beads		Necklaces of beads and metal pendants	
	no.	%	no.	%
01 segmented	7	3.85	32	12.54
02 globular	–	–	1	0.40
03 flattened globular	103	56.59	93	36.46
04 flattened globular, vertically ribbed	2	1.10	2	0.77
05 low cylindrical	–	–	3	1.17
06 high cylindrical	1	0.55	1	0.40
07 cylindrical, vertically ribbed	–	–	1	0.40
08 rod-shaped	–	–	1	0.40
09 biconical	1	0.55	1	0.40
10 rectangular prismatic	–	–	1	0.40
11 (small) annular	21	11.54	39	15.28
12 oval	–	–	1	0.40
13 cylindrical with a pinched end	2	1.10	1	0.40
14 grits-shaped	44	24.17	78	30.58
15 polygonal-irregular	1	0.55	–	–
Total (without the bead from gr. 230):	182	100.00	255	100.00

#### 4.3.2.2.2. Necklaces of beads and metal pendants

Necklaces of beads and metal pendants come from 9 graves (7 child and 1 female, and 1 of undetermined sex). They were rare in graves with a great number of other archaeological finds (gr. 115/f, 409/ch), and in three graves they were the only grave finds (gr. 124/?, 227/ch, 408/ch).

The necklaces of beads and metal pendants consisted of 255 beads in 14 different shapes. More than half were flattened globular (36.46%) and the less numerous annular beads (15.29%), which were usually supplemented by at least one bead more prominent in size or shape, such as: a flattened globular bead of an unspecified dark brown glass mass, decorated with an irregular intermittent line of yellowish white (gr. 52/ch) and a flattened globular transversely ribbed bead of honey brown glass (gr. 124/?), an opaque flattened globular ribbed pale green bead (gr. 227/ch), a transparent rectangular-prismatic violet bead (gr. 252/ch), and a long opaque cylindrical milk-white bead (gr. 409/ch). The necklaces characteristic for a slightly later period are considerably more rare, with grits-shaped beads (gr. 429/ch), and grits-shaped and segmented beads (gr. 115/f), which although they are present on only two necklaces exceed a 40% share. The secondary use of prehistoric beads, one colorless transparent with four cobalt-white "eyes" in two layers and one long cylindrical ribbed cobalt blue bead, is related to the existence of a necklace-amulet (gr. 408/ch).

In terms of the metal pendants, necklaces of beads and metal pendants form two groups: one on which one or two metal pendants composed part of a necklace together with pearls, more often of the 2<sup>nd</sup> quantity group (gr. 52/ch, 124/?, 227/ch, 252/ch), and more rarely the 3<sup>rd</sup> (gr. 409/ch) or 4<sup>th</sup> quantity group (gr. 115/f), and another less numerous group where the metal pendant represented one or two (gr. 388/ch), one of three (gr. 429/ch), or even three of a total of five pendants (gr. 408/ch). With the exception of the lead cross, almost all the other pendants were bronze objects of circular form (most often circlets of annular form, fragments of bell-pendants, a pierced Roman coin, and a ring with a step-shaped crown) or they were objects whose form surrounded an empty and hollow center, as was the case with a fragment of a late La Tène fibula and a piece of wire with an O-shaped ending. One quite exceptional example of a pendant was a fragment of an iron spike (**Table 25**).



Table 25

The amount of beads and the number of individual types of metal pendants on necklaces of beads and metal pendants.

No.	Pendants (glass, metal)	Graves (sex)									Total	
		52 (ch)	115 (f)	124 (?)	227 (ch)	252 (ch)	388 (ch)	408 (ch)	409 (ch)	429 (ch)	pendants	graves
1.	Beads ( <i>glass</i> )	14	114	25	18	27	1	2	52	2	255	9
2.	Cross ( <i>Pb</i> )	–	–	–	–	–	1	–	–	–	1	1
3.	Bell ( <i>AE</i> )	–	–	–	–	–	–	1	–	–	1	1
4.	Ring ( <i>AE</i> )	–	–	–	–	–	–	1	–	–	1	1
5.	Circlet, annular ( <i>AE</i> )	1	–	1	1	–	–	–	–	–	3	3
6.	Wire w/an O-ending ( <i>AE</i> )	–	–	–	–	–	–	–	–	1	1	1
7.	Fibula, fragment ( <i>AE</i> )	–	–	–	–	1	–	–	–	–	1	1
8.	Bell-pendant, fragment ( <i>AE</i> )	–	2	–	–	–	–	–	–	–	2	1
9.	Spike, fragment ( <i>Fe</i> )	–	–	–	–	–	–	1	–	–	1	1
10.	Coin, pierced ( <i>AE</i> )	–	–	–	–	1	–	–	1	–	2	2
Total pendants:		15	116	26	19	29	2	5	53	3	268	(9)

## 4.3.2.2.3. Necklaces of metal pendants (pectorals, necklace-talismans or amulets)

Necklaces of metal pendants were found in 5 graves. Most of these graves were located in the southern edge sections of the southwestern and southeastern zones of burial (gr. 2/ch, 326/f, 378/ch, 382/ch), and only one find of a necklace with a metal pendant (coin, *AE*) – considerably distant from the other finds – was noted in the northeastern part of the excavated area of the cemetery (gr. 271/?). In only one of these graves was a necklace with a metal pendant (a cross) the only grave find (gr. 378/ch).

Necklaces of metal pendants were usually composed of one pendant, and more rarely of two or three pendants (Table 26). In one case, the necklace was composed of three secondarily used pendants of various form and decoration, but all three were made of bronze (gr. 326/f), and in another case the necklace was composed of two pendants of circular form (gr. 2/ch), one gold (a coin, pierced three times), and the other silver (a ring). The remaining three necklaces each had only one bronze pendant: once a bronze cross with a depiction of Christ (gr. 378/ch), while twice a bronze perforated Roman coin was used as a circular pendant (gr. 271/?, 382/ch).

Table 26

The types and quantity of metal pendants used on necklaces of metal pendants.

No.	Pendants	Graves(sex)					Total	
		2 (ch)	271 (?)	326 (f)	378 (ch)	382 (ch)	pendants	graves
1.	Cross ( <i>AE</i> )	–	–	–	1	–	1	1
2.	Bell-pendant, fragment ( <i>AE</i> )	–	–	1	–	–	1	1
3.	Coin, perforated							
	a) <i>AV</i> (in 3 places)	1	–	–	–	–	1	1
	b) <i>AE</i> (in 1 place)	–	1	–	–	1	2	1
4.	Two-part pendant (lower part), perforated ( <i>AE</i> )	–	–	1	–	–	1	1
5.	Strap ending, perforated ( <i>AE</i> )	–	–	1	–	–	1	1
6.	Ring ( <i>AR</i> )	1	–	–	–	–	1	1
Total pendants:		2	1	3	1	1	8	(5)

### 4.3.2.3. Pendants (on necklaces and torcs)

#### 4.3.2.3.1. Pendants of glass and amber

##### 4.3.2.3.1.1. Beads

(G. 40, 41b)

No.	Grave (sex)	No. of beads	Forms of beads (glass and amber)																Metal pendants (no.)	
			01	02	03n/u	04	05	06	07	08	09	10	11n/u	12	13	14	15	16		
1.	29/ch	6	-	-	-/-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	
2.	42/ch	5	-	-	3/1	-	-	-	-	-	-	-	-	1/-	-	-	-	-	-	
3.	48/f	1	1	-	-	-	-	-	-	-	-	-	-	-/-	-	-	-	-	-	
4.	52/ch	14	-	-	12/1	-	1	-	-	-	-	-	-	-/-	-	-	-	-	-	
5.	102/ch	3	-	-	-/-	-	-	-	-	-	-	-	-	1/-	-	-	2	-	-	
6.	108/f?	17	1	-	1/10	1	-	-	-	-	-	-	-	3/-	-	-	-	1*	-	
7.	115/f	114	32	-	2/-	-	1	-	-	1	-	-	-	-/-	1	1	76	-	-	
8.	124/?	25	-	1	12/8	1	1	-	-	-	-	-	-	2/-	-	-	-	-	-	
9.	138/f	37	-	-	34/-	-	-	-	-	-	-	-	-	3/-	-	-	-	-	-	
10.	200/?	6	-	-	4/1	-	-	-	-	-	-	-	-	-/1	-	-	-	-	-	
11.	217/f	59	-	-	31/-	-	-	-	-	-	-	-	-	-/-	-	-	28	-	-	
12.	227/ch	18	-	-	5/9	1	-	-	-	-	-	-	-	1/2	-	-	-	-	-	
13.	230/ch	1	-	-	-/-	-	-	-	-	-	-	-	-	-/-	-	-	-	-	1*	
14.	252/ch	27	-	-	8/7	-	-	-	-	-	1	1	9/1	-	-	-	-	-	-	
15.	279/f?	1	-	-	-/-	-	-	-	-	-	1	-	-/-	-	-	-	-	-	-	
16.	322/ch	1	-	-	-/1	-	-	-	-	-	-	-	-	-/-	-	-	-	-	-	
17.	326/f	12	2	-	5/1*	1	-	-	-	-	-	-	-	3/-	-	-	-	-	-	
18.	347/ch	9	-	-	1/-	-	-	-	-	-	-	-	-	1/-	-	2	5	-	-	
19.	383/ch	5	3	-	-/-	-	-	1	-	-	-	-	-	-/-	-	-	1	-	-	
20.	387/ch	8	-	-	3/2	-	-	-	-	-	-	-	-	2/1	-	-	-	-	-	
21.	388/ch	1	-	-	-/-	-	-	-	-	-	-	-	-	1/-	-	-	-	-	-	
22.	391/ch	1	-	-	-/1	-	-	-	-	-	-	-	-	-/-	-	-	-	-	-	
23.	394/f	1	-	-	1/-	-	-	-	-	-	-	-	-	-/-	-	-	-	-	-	
24.	408/ch	2	-	-	-/1*	-	-	-	1*	-	-	-	-	-/-	-	-	-	-	-	
25.	409/ch	52	-	-	11/17	-	-	1	-	-	-	-	-	22/1	-	-	-	-	-	
26.	412/ch	4	-	-	2/-	-	-	-	-	-	-	-	-	-/-	-	-	2	-	-	
27.	424/ch	1	-	-	1/-	-	-	-	-	-	-	-	-	-/-	-	-	-	-	-	
28.	425/ch	5	-	-	-/-	-	-	-	-	-	-	-	-	4/1	-	-	-	-	-	
29.	429/ch	2	-	-	-/-	-	-	-	-	-	-	-	-	-/-	-	-	2	-	-	
<i>Total:</i> 438			39	1	136 / 60	4	3	2	1	1	2	1	53 / 7	1	3	122	1	1	9 graves	
96.48			8.90	0.23	44.75	0.91	0.68	0.46	0.23	0.23	0.46	0.23	13.70	0.23	0.68	27.85	0.23	0.23		
30.	S-2410/1	16	4	-	4/-	-	-	-	-	-	-	-	-	8/-	-	-	-	-	-	
<i>Total:</i> 454			43	1	140 / 60	4	3	2	1	1	2	1	61 / 7	1	3	122	1	1	(9 graves)	
100.00			9.47	0.22	44.04	0.88	0.65	0.44	0.22	0.22	0.44	0.22	14.98	0.22	0.65	26.87	0.22	0.22		

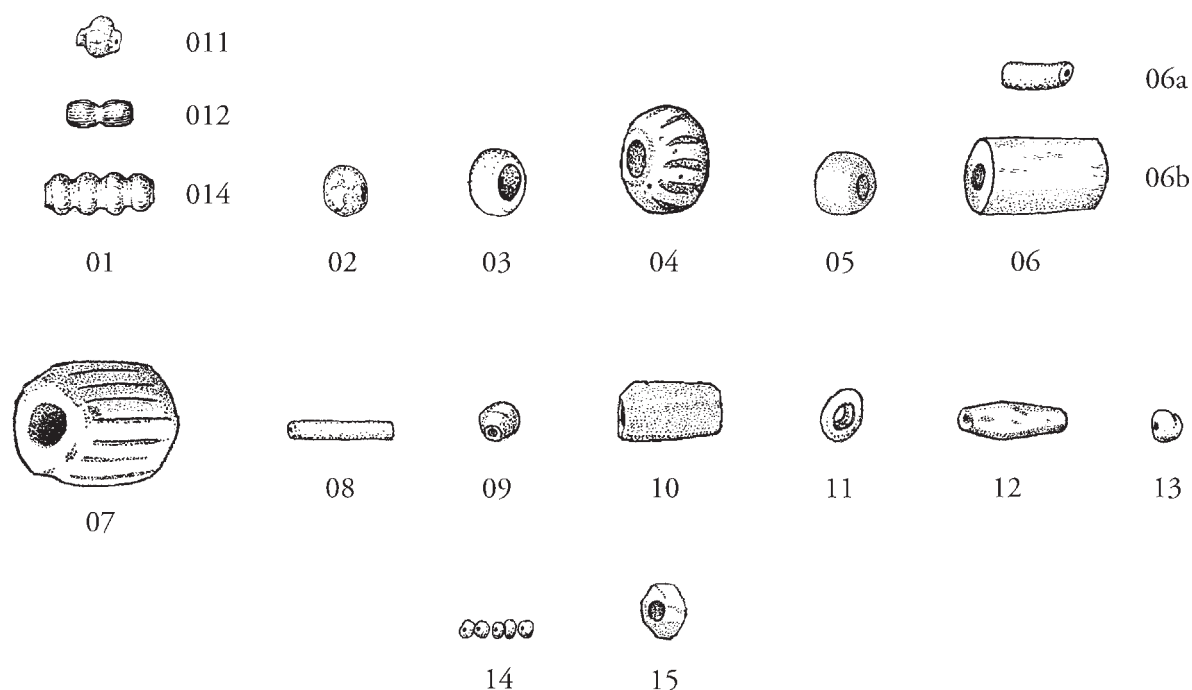
\*Notes:

- 6. An amber bead of polygonal-irregular shape (15).
- 13. The bead is not preserved (supposedly multicolored).
- 17. A prehistoric, secondarily used flattened globular bead decorated with an applied wavy line (03).
- 21. Bead lost; the shape established on the basis of the previously made drawing.

- 24. Prehistoric secondarily used beads: a flattened globular bead with four "eyes" in two layers (03) and a long cylindrical vertically ribbed bead (07).
- 30. Purchased, 1931–1935.

With their total of 454 specimens, beads are the most numerous group of necklace pendants: 438 beads come from 29 archaeologically excavated graves, and 16 beads were acquired by purchase before archaeological excavation began and it is not known whether they came from one or more destroyed Bijelo Brdo Culture graves. With the exception of a single damaged polygonal-irregular amber bead (gr. 108/f?),<sup>293</sup> all the other beads were made of glass or a glass mass.

The beads appear in a total of 15 forms, but more than 95% of all collected beads (433 pieces) are classified to only four forms: the most numerous beads and those threaded on the greatest number of necklaces were flattened globular undecorated and decorated beads (03), a third less numerous were grits-shaped beads (14), and considerably less numerous were annular undecorated and decorated beads (11) and the least numerous of these, segmented beads (01).<sup>294</sup> Among the remaining 11 forms, represented by only 21 beads (4.62%), only vertically ribbed flattened globular beads are a bit more numerous (04), along with short cylindrical beads (05) and cylindrical beads with a pinched end (13), while long cylindrical beads (06) and biconical beads (09) are represented by two beads each, and globular (02), vertically ribbed cylindrical (07), rod-shaped (08), rectangular-prismatic (10), oval (12) and irregular polygonal (15) forms of beads were represented with only a single example (Fig. 36).



**Fig. 36.** Types and variants of beads on necklaces from Lijevo Bara (4.3.2.3.1.1). **01** – Segmented (011 – single: gr. 115/f; 012 – double: gr. 48/f; 014 – quadruple: gr. 383/ch). **02** – Globular (gr. 124/?). **03** – Flattened globular (gr. 409/ch). **04** – Flattened globular, vertically ribbed (gr. 227/ch). **05** – Cylindrical, short (gr. 124/?). **06** – Cylindrical, long (06a – small: gr. 383/ch; 06b – large: gr. 409/ch). **07** – Cylindrical, vertically ribbed (gr. 408/ch). **08** – Rod-shaped (gr. 115/f). **09** – Biconical (gr. 279/f?). **10** – Rectangular-prismatic (gr. 252/ch). **11** – Annular, small (gr. 425/ch). **12** – Oval (gr. 115/f). **13** – Cylindrical with pinched ends (gr. 347/ch). **14** – Grits-shaped (gr. 115/f). **15** – Polygonal-irregular (gr. 108/f?).

*Segmented beads* (01) come from 5 graves (17.24%). Together with other forms of beads or as the only form of bead on necklaces were found one (gr. 48/f, 108/f?), two (gr. 326/f) or three (gr. 383/ch) or perhaps four segmented beads (S-2414), while 32 segmented beads were discovered on one necklace composed of numerous grits-shaped beads (76 pieces) and a smaller amount of individual examples of beads of other form (gr. 115/f). Among the segmented beads, single segmented beads predominate with 34 examples (gr. 115/f, 326/f, 383/ch, S-2410/1), four beads are double segmented (gr. 48/f, 108/f?, 115/f), and only one was a quadruple segmented bead (gr. 383/ch). A silver coating between two layers of glass could be noted on 6 beads (gr. 326/f, S-2414), and a gold coating between two layers of glass on 32 beads (gr. 115/f).

*Flattened globular beads* (03) were the most numerous form of bead, also represented on the largest number of necklaces and in the greatest number of graves. In these 20 graves (68.97%), 196 flattened globular beads were found, while a total of 200 such beads come from Lijevo Bara. Hence they were rarely found in the graves as the only bead of a necklace (gr. 322/ch, 391/ch, 394/f, 424/ch) or as the only flattened globular bead on a necklace composed of the same number (gr. 409) or a greater number of beads of another form (gr. 347/ch). Flattened globular beads were found in equal numbers







<sup>293</sup> A list of finds of amber beads from Bijelo Brdo sites has not yet been created. For an overview of amber finds in the early medieval period in Central Europe and the Czech Republic, see KRUPHANZLOVÁ 1992, 350–371; TOMKOVÁ 1998, 64–103 (mostly about finds from the 5<sup>th</sup>–6<sup>th</sup> to 9<sup>th</sup> centuries).

<sup>294</sup> For the classification system and categories of beads, see here pp. 30–31.

with another type of bead on only one of the necklaces (gr. 412/ch), and they were in a definite minority only on a necklace composed of numerous segmented and even more abundant grits-shaped beads (gr. 115/f), while on the remaining 12 necklaces, they were the predominant form (gr. 42/ch, 52/ch, 108/f?, 124/?, 138/f, 200/?, 217/f, 227/ch, 252/ch, 326/f, 387/ch, 409/ch). In most cases, they were joined on the necklaces with less numerous annular beads (11).

Somewhat less than a third of the beads of flattened globular form were decorated with either impressed or applied circular (101–2), linear (201–2), or combined circular and linear decorative motifs (301), such as are otherwise represented at Lijevo Bara in a fairly reduced form only on annular beads (Table 27). Among the decorated flattened globular beads, circular decorations composed of at least 1 to at most 5 dots predominate with more than half (51.72%), and linear decorative motifs are slightly less numerous, predominated by a motif of two wavy lines that cross three times (20102). A combination of circular and linear decorative motifs is somewhat more rare, consisting of dots in the fields of two lines that cross three times (301), which decorate only four beads, one on each of four necklaces (6.90%).

**Table 27**  
Circular (101), linear (201–2), and combined circular and linear decorative motifs (301) with variants impressed or applied to flattened globular (03) and annular beads (11).

Code	Dec.	Decoration description (code nos. of variant)	Graves (w/decorated beads)
101		Dot/dots: 1–5 dots; in regular (10101–10105) or irregular spacing (10112–10115)	108/f? (1), 124/? (2), 227/ch (10), 252/ch (2), 322/ch (1), 409/ch (16)
102		Eye/eyes: 4 eyes in two layers (10201)	408/ch (1)*
201	 	Wavy line: unbroken (20101) or interrupted (20111) Two wavy lines crossed three times (20102)	124/f? (1), 252/ch (1), 326/f (1)* 108/f? (8), 124/? (5), 200/? (2), 252/ch (5), 387/ch (2), 409/ch (2), 425/ch (1)
202		Irregular line: intermittent (20201)	52/ch (1), 227/ch (1)
301		Dot in a field of two lines crossed three times (30101)	42/ch (1), 108/f? (1), 387/ch (1), 391/ch (1)

[\*Secondarily used prehistoric beads]

Annular beads (11) were found in 14 graves (48.27%). From graves with finds of necklaces come 60 beads, but a total of 68 beads was found, so that they represent the second group in frequency of finds just after flattened globular beads, while in terms of quantity they are the third group, immediately after grits-shaped (14) and flattened globular beads (03). They were almost always threaded onto a necklace together with as a rule more numerous flattened globular beads and they were rarely found alone on a necklace (gr. 388/ch) or joined with some other form of bead (gr. 102/ch). Only slightly more than 10% of the annular beads are decorated with circular and linear, impressed or applied decorative motifs, but among them, in contrast to the flattened globular beads, the motif predominates of two wavy lines that cross three times (Table 28).

**Table 28**  
The representation of impressed and applied circular (101), linear (201–2), and combined circular and linear (301) decorative motifs on flattened globular (03) and annular beads (11).

Bead forms / decorative motifs	101	20101	20102	202	301	Total
Flattened globular (03)	30 (46.15)	2 (3.08)	21* (32.31)	1 (1.54)	4 (6.15)	58 (89.23)
Annular (11)	2 (3.08)	–	4 (6.15)	1 (1.54)	–	7 (10.77)
Total:	32 (49.23)	2 (3.08)	25 (38.46)	2 (3.08)	4 (6.15)	65* (100.00)

[\* Not incorporated secondarily used prehistoric bead, decorated with a wavy line (gr. 326)]

Grits-shaped beads (14) come from 8 graves (27.58%), but they are truly numerous only on two necklaces from rich female graves, located in the northeastern part of the cemetery (gr. 115/f and 217/f), while on necklaces from graves located primarily in the southern parts of the cemetery they were represented either with one example (gr. 383/ch) or with two (gr. 102/ch, 412/ch, 429/ch), five (gr. 347/ch) and at most six examples (gr. 29/ch).<sup>295</sup>

<sup>295</sup> Of the six gathered beads, only two are preserved today. The attribution of the beads to the group of grits-shaped beads is based on their drawing made immediately after the excavations of the cemetery at Lijevo Bara.

## 4.3.2.3.2. Metal pendants

## 4.3.2.3.2.1. Cross

(G. –; T. 45)

No.	Inv. AMZ	Metal	Ht. cross	Suspension (eye/hole)	Image of Christ (incised/relief)	Size of arms		Wt. (g)	Grave sex
						ht.	w.		
<i>a) w/out image of Christ</i>									
1.	2808	Pb	2.92	hole	–	2.92	2.07	7.024	388/ch
<i>b) w/ image of Christ</i>									
2.	2793	AE	3.83	eye	relief	3.10	2.38	4.939	378/ch

Two crosses were found at Lijevo Bara, both in child graves: one cast in bronze with an image of Christ crucified was found in the area of the rib cage of a poorly preserved and disturbed skeleton (gr. 378), and the other simple, ungainly, and irregular cast lead cross without any image or decoration was found together with a bead in the neck area (gr. 388).<sup>296</sup>

The bronze cross from gr. 378/ch belongs to a group of single piece cross-pendants with a vertically placed oval eye for suspension, arms widened at the ends, and a relief decorated front side, and a smooth and undecorated rear side, such as most frequently appear among the finds of cross-pendants in the graves of the Bijelo Brdo cultural sphere (**Fig. 37:1a; Pl. 16:1**).<sup>297</sup> The Vukovar cross is outstanding because of the formation of Christ's arms, which widen only at the elbow, and the *perisoma* – the short drapery around Christ's waist and thighs – would indicate the influence and decorative taste specific to depictions of Christ that had originated in the milieu of the Western Roman church.

In contrast to this, the cross from gr. 388/ch belongs to a group of small and undecorated lead cross-pendants with rounded arms and a hole for suspension in the upper, usually somewhat more elongated arm of the cross (**Fig. 37:1b; Pl. 16:2**).<sup>298</sup> Similar examples appear at a few Bijelo Brdo sites quite distant from one another in Croatia, Serbia, and Bulgaria, and they are distinguished only by the position of the hole for suspension, that on the cross from Vukovar, as well as on other individual specimens, joins the lateral sides of the upper arm of the cross (Mačvanska Mitrovica, Serbia; Silistra, Bulgaria),<sup>299</sup> while on others it joins the front and back of the upper arm of the cross (Popovec-Bregi).<sup>300</sup>

Graves 378/ch and 388/ch are not quite eight meters distant from one another. Both burials were located around the center of the southern part of the cemetery, at the juncture of the southwestern and southeastern zones of burial (zone I and IV), and it is certain that the crosses, together with the deceased that they accompanied, were deposited in the soil in the first decades of the 11<sup>th</sup> century. As both crosses were found in the graves of very small children, only 1–2 years old at the time of death, they certainly were not earlier than the beginning of the 11<sup>th</sup> century.

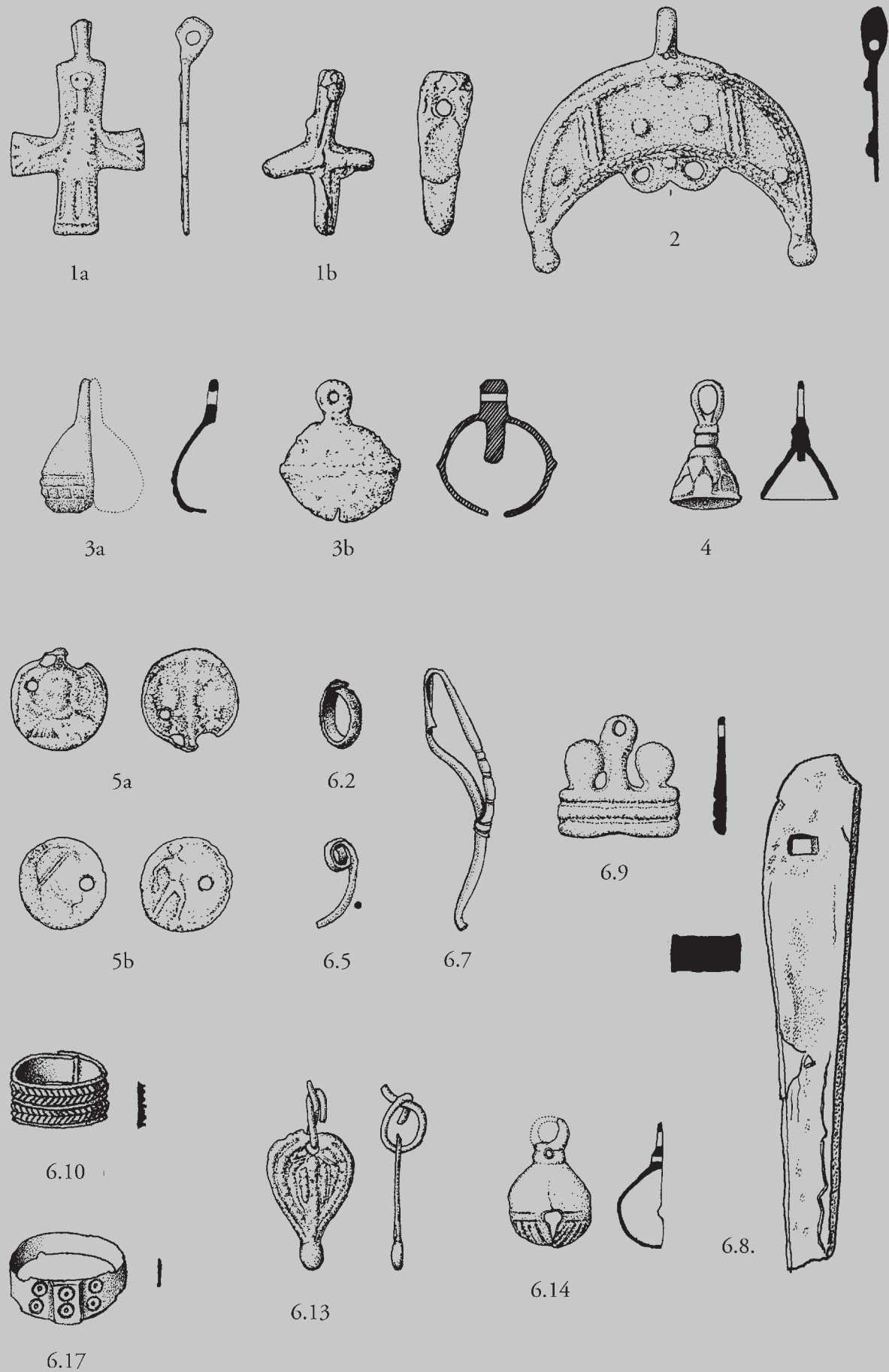
<sup>296</sup> A find of a cross-pendant and a single bead was noted in gr. 32 at the cemetery of Szegvár – Szőlőkalja in the Hungarian lower Tisza valley (Csongrád County), LŐRINCZY 1985, 144 (Fig. 3:8,10, 14–15), 147, 150 (Fig. 4).

<sup>297</sup> For this type of single piece cross-pendants in chance and grave finds of the Bijelo Brdo cultural circle from the first half of the 11<sup>th</sup> century, see LOVAG 1980, 363–372; LOVAG 1999, 12, 28–30 (nos. 27–36), 135. For rare grave finds and individual examples from museum collections in northern Croatia, see BRUNŠMID 1904, 79 Fig. 31:4 (Kloštar Podravski – Peski); VINSKI 1970, 53–56, Pl. IV:1–2 (Kloštar Podravski – Peski; Vukovar – Lijevo Bara, gr. 378). The collections of the Croatian Historical Museum in Zagreb, otherwise rich in cross-pendants, contain several examples with a depiction of the crucified Christ (dressed in a *colobium* or *perisoma*), such as have not yet been found among Bijelo Brdo grave finds, PAVIČIĆ 1994, 69 nos. 33–35, 70 nos. 36–37 (unknown site, 2 ex.; Vinča; Požega; Posavina). For examples with moulded arms and an inscribed cross (without a relief depiction of the crucified Christ), see PAVIČIĆ 1994, 65 no. 21 (unknown site); RADIĆ 2003, 15 Fig. 5 (Osijek – "Svilana", grave find).

<sup>298</sup> As parts of necklaces, small lead crosses appear in the Carpathian basin already in graves from the early Avaric period (early 7<sup>th</sup> century), KOVRIG 1963, 113–115. For such finds in the more recent period, BÓNA 2000, 144–146 (with earlier literature); VIDA 2002, 186, 189, 201, 203, 205–6.

<sup>299</sup> It can only be hypothesized for the lead cross from Mačvanska Mitrovica that it was found at the Bijelo Brdo cemetery there, since it was purchased in 1968 for the Muzej Srema/Museum of Sirmia in Sremska Mitrovica together with a group of early medieval jewellery from the collection of Ž. Kulić of Sremska Mitrovica, ERCEGOVIĆ-PAVLOVIĆ 1980, 59, 60, Pl. XXVI:17. A similar position of the hole for suspension can be noted on a lead cross from the early Avaric cemetery of Bačko Petrovo selo – Čik (gr. 17), BRUKNER 1968, 171–172, Pl. LIX:7; JANKOVIĆ – JANKOVIĆ 1990, 72 no. 13, 73. – For a similar lead cross from Silistra in the lower Bulgarian Danube basin (southern Dobruđa), see ATANASOV 1992, 257 Fig. 1:3, 262, 268.

<sup>300</sup> TOMIČIĆ 1993, 32, 36; TOMIČIĆ 1996, 100, 113 Pl. III/2:7, where the cross-pendant was noted as a chance find. – For one lead cross from Sremska Mitrovica published with a drawing but no other data whatsoever it is not possible to establish with certainty whether it belonged to the group of Bijelo Brdo cross-pendants: VINSKI 1970, 55, Pl. IV:5; STANOJEVIĆ 1970, 120 no. 651, which unjustifiably placed this cross in the SAMZ. For similar lead crosses from the region of the Bulgarian-Byzantine cultural circle, see ATANASOV 1992, 257 Fig. 4–6, 262, 268 (Silistra).



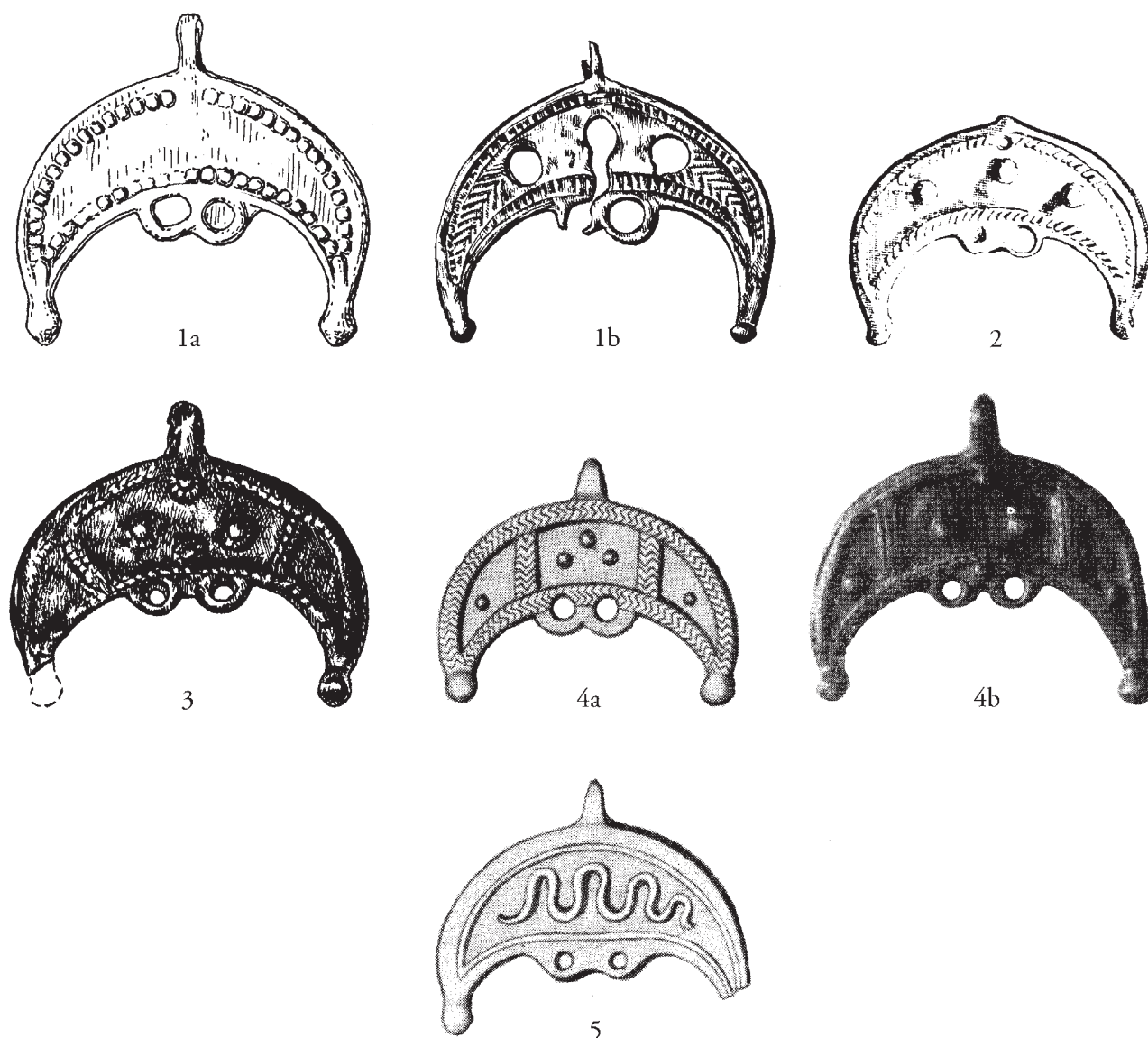
**Fig. 37.** Represented types and variants of metal pendants: gold, silver, bronze, iron, lead (4.3.2.3.2.1-6). **1** – Crosses, bronze, lead (1a – with a depiction of Christ, bronze: gr. 378/ch; 1b – w/out Christ, lead: gr. 388/ch). **2** – Lunula, silver (S-2400). **3** – Bell-pendants, bronze, iron (3a – bell-pendant, bronze: gr. 115/f; 3b – bell-pendant, iron: S-2408). **4** – Bell, bronze (gr. 408/ch). **5** – Coins, gold, bronze (5a – coin, gold: gr. 2/ch; 5b – coin, bronze: gr. 252/ch). **6** – Other pendants, bronze (6.2 – circlet, annular, bronze: gr. 124/?; 6.5 – spirally wound wire, bronze: gr. 429/ch; 6.7 – fibula, late La Tène, bronze: gr. 252/ch; 6.8 – spike, late Republican, iron: gr. 408/ch; 6.9 – belt mount, late Avaric, bronze: gr. 326/f; 6.10 – ring, open-ended, bronze: gr. 2/ch; 6.13 – two-part pendant, lower part, bronze: gr. 326/f; 6.14 – bell-pendant, fragment, bronze: gr. 326/f; 6.17 – ring with a crown, bronze: gr. 408/ch).

4.3.2.3.2.2. Lunula (crescent-shaped pendant)  
(G. 12; T. 12a)

No.	Inv. AMZ	Metal	Lunula decorated	Decorative additions			Shape of eye	Ht.	W.	Wt. (g)	Grave (sex)
				grains	spectacle	teardrop					
1.	2400	AR	yes	6	yes	yes	annular	4.72	5.12	10.527	Srnić

The only crescent-shaped pendant or *lunula* was a chance find from the period before the archaeological excavations took place. It probably, like most similar crescent-shaped pendants discovered at Bijelo Brdo culture cemeteries, served as a special pendant, as one of several pendants on an amulet necklace, or as the central decorative part of a necklace from some destroyed female or child graves (Fig. 37:2; Pl. 17).

Their crescent shape means that such pendants are considered a lunar symbol, characteristic for social communities dependent on cultivation of the land, and in relation to this they are usually closely connected to fertility cults.<sup>301</sup> Their presence in the Bijelo Brdo Culture is considered to result from the influence of the Eastern Slavs,<sup>302</sup> and they were first



**Fig. 38.** Lunula variants with spectacle-shaped additions from sites in Hungary and Slovakia (1–5). **1a** – Hurbanovo – Bohatá, gr. 36: REJHOLCOVÁ 1976, 224 Pl. V:5; **1b** – Majs – Udvari rétek, gr. 603/ch: Kiss 1983, 161 Fig. 74:2. **2** – Tápiószele – Szőlő, gr. 1: HAMPEL 1907, 209, Pl. 88:4; KRALOVÁNSKY 1959, 77 no. 31, Pl. XIII:11. **3** – Pécs – István tér: Kiss 1983, 258 Fig. 123:4. **4a** – Budapest – Csepel/Királyerdő: KRALOVÁNSKY 1959, 76 no. 4; Pl. XIII:9; **4b** – Pécs – Somogy, gr. 141: DOMBAY 1962, Pl. XII:2. **5** – Szentés – Nagyhegy: KRALOVÁNSKY 1959, 77 no. 26, Pl. XIII:14.

<sup>301</sup> KRALOVÁNSZKY 1967, 89; ERÝ 1968, 104.

<sup>302</sup> NIEDERLE 1925, 636–641. In Croatian literature, finds from the area of the former Roman Pannonia are also interpreted as the result of a continuity of antiquity into the medieval period, VINSKI-GASPARINI 1954, 126.

dated to the period between the last quarter of the 10<sup>th</sup> century and the first quarter of the 11<sup>th</sup> century.<sup>303</sup> Their continued use to around the middle of the 11<sup>th</sup> century<sup>304</sup> is confirmed by rare examples from sites in Hungary and Slovakia, dated by the coins of King Stephen (1000–1038),<sup>305</sup> Dux Bela (1048–1060),<sup>306</sup> and King Andrew (1046–1061),<sup>307</sup> so most probably the majority are not from later periods.<sup>308</sup>

Bijelo Brdo lunulae were cast in silver, bronze, or lead,<sup>309</sup> and some have traces of gilding. They can be decorated or undecorated on the front, with or without teardrop shaped endings on the terminals, and with a ring or tunnel shaped eye for suspension.<sup>310</sup> The Vukovar lunula is decorated, with a teardrop decoration on each end and an annular eye for suspension, but the lower central part of the lunula has an added spectacle-shaped element, similar in appearance to two parallel eyes for suspension. This detail connects it with a not large group of similarly shaped crescent pendants, sometimes decorated and sometimes not, frequently found at Bijelo Brdo sites in Hungarian Transdanubia (**Fig. 38**). The northernmost find of this type of lunula was noted at the cemetery of Hurbanovo – Bohatá in Slovakia,<sup>311</sup> and the southernmost at Lijeva Bara in the Croatian Danube basin. Judging from the example from Vukovar, the crescent pendants with teardrop endings and spectacle-shaped additions are earlier in relative chronological terms than lunula pendants without such additions. The lunula from Vukovar was in fact produced in the same mould as the lunula with a spectacle addition discovered at the cemetery of Pécs – Somogy in Hungarian Baranya (gr. 141).<sup>312</sup>

Crescent-shaped pendants are not frequent finds at Bijelo Brdo cemeteries in the Carpathian basin,<sup>313</sup> and the greatest number – 25 examples from 16 graves – comes from the cemetery of Majs – Udvari rétek in Hungarian Baranya (from 6 graves two lunulae, and from 13 graves one lunula).<sup>314</sup> South of the Mura, Drava, and Sava Rivers crescent-shaped pendants (25 examples) were found at 11 sites in Slovenia,<sup>315</sup> Croatia,<sup>316</sup> and Bosnia & Herzegovina,<sup>317</sup> and from the latter comes the southernmost known find, noted at the cemetery of Mihaljevići – Varošiste in the immediate vicinity of Sarajevo.<sup>318</sup>

At Bijelo Brdo cemeteries in Hungary, Slovakia, and Austria, usually only one lunula was found in a grave, and only occasionally were two lunulae found in a grave – more often of two different variants (Majs – Udvari rétek),<sup>319</sup> and more rarely a pair cast in the same mould.<sup>320</sup> Finds of two or more lunulae per grave have been noted to date exclusively at Bijelo Brdo cemeteries south of the Mura, Drava, and Sava Rivers in Slovenia, Croatia, and Bosnia & Herzegovina: three

<sup>303</sup> KRALOVÁNSZKY 1959a, 82.

<sup>304</sup> VÁŇA 1954, 60.

<sup>305</sup> *Püspökladány – Eperjesvölgy*, gr. 107: NEPPER 1993, 95, 96 Pl. V.

<sup>306</sup> *Malé Kosihy – Horné Konopnice*, gr. 147: HANULIAK 1994, 124, 173 Pl. XXXIV:A.

<sup>307</sup> *Tápiószéle – Szőlő*, gr. 1: HAMPEL 1907, 209, Pl. 88:4.

<sup>308</sup> GIESLER 1991, 130. – Reliable later examples, from the period around AD 1070, consist of only rare examples, like the pendant from the cemetery of Pusztaszentlászló – Deakúrú (Zala County), SZŐKE – VÁNDOR 1987, 45–46, 121 Fig. 80:6–7. For an example from the cemetery of Dunaújváros – Csetény (Fejér County) dated into the second third of the 12<sup>th</sup> century, see BÓNA 1978, 139 (gr. 174).

<sup>309</sup> A division of lunulae made by crimping, the application of filigree and granulation on a sheet metal background, and casting in bronze and lead was suggested by DOSTAL 1966, 54, 208 (with finds from the Czech Republic and Slovakia).

<sup>310</sup> VÁŇA 1954, 60, 71 (Pl. V:42–45), divided lunulae into three types – the first undecorated, and the remaining two decorated either with a wavy band or a serrated decorated. Both decorated types are usually supplemented with a pseudo-granulated motif.

<sup>311</sup> REJHOLCOVÁ 1976, 196, 214 Fig. 26, 224 Pl. V:5 (gr. 36).

<sup>312</sup> DOMBAY 1962, 78–79, Pl. XII:2 (gr. 141). In addition to this one, lunulae were discovered in another three graves (gr. 33, 118, 138) at the cemetery of Pécs – Somogy.

<sup>313</sup> The first finds from the Carpathian basin were listed, described, and systematically analyzed by KRALOVÁNSZKY 1959a, 76–82. His list was supplemented twenty years later by KISS 1985, 313–315. Several new and recently published finds were noted from western Hungary and Lower Austria, e.g. *Cserpeg – Szentkirály*, gr. 150: KISS-SOSZTARITS 2000, 28, 30, 33 (Fig. 17:12); Pl. 4:150/1, 92:4; *Ikervár – Virág utca*, gr. 52 and 97: HAJMÁSI – KISS 2000, 50, 57, 74, Pl. 23:52/2, 41:97/5; *Bruck and der Leitha – H. Czettel Gasse 21*, gr. 22: KREITNER 2000, 193.

<sup>314</sup> KISS 1983, 186 Fig. 98. 208–22.

<sup>315</sup> *Ptuj-Grad/Turnirski prostor*, gr. 385 (= gr. 1/78): TUŠEK 1981, 16–17, Pl. 1:5–9 (gr. 1/78); KOROŠEC 1999, 27, 63, Pl. 39:8–12 (gr. 385).

<sup>316</sup> *Bijelo Brdo – Ul. Venecija*, gr. 156 and 182: BRUNŠMID 1904, 35 Fig. 1–2, 67, 71–72. *Donji-Miholjac – Borik/Janjevci*, destroyed grave: BOJČIĆ 1984, 219 Fig. 8. *Donji Vidovec – nepoznato nalazište*: HORVAT 1956, 21–23, Fig. 8 (Donji Vidovec – unknown site or Šenkovec – Sv. Jelena); TOMIČIĆ 1975, 216, 218 Fig. 8:6–10 (Šenkovec near Čakovec). For the attribution of the site at Donji Vidovec, see here n. 275 (torcs); *Slavonski Brod – nepoznato nalazište*, chance find: VINSKI-GASPARINI 1954, 126 Sl. 12.

<sup>317</sup> *Gomjenica – Baltine bare*, gr. 23 and 100: MILETIĆ 1967, 85, 95, 132–133, Pl. IX i XIX. *Kočicevo – Tučić*, chance find: KOROŠEC-VRAČKO 1943, 277, 280; MILETIĆ 1963, 163 Fig. 8. *Mahovljani – Luke/Kužno groblje*, gr. 27: MILETIĆ 1980, 140, Pl. XII. *Petoševci – Bagruša*, gr. 141: ŽERAVICA 1986, Pl. VII:26–28.

<sup>318</sup> MILETIĆ 1956, 20–21, Pl. X (gr. 112).

<sup>319</sup> KISS 1983, 321 Pl. 13 (gr. 53), 367 Pl. 59 (gr. 681), 378 Pl. 70 (gr. 706), 384 Pl. 76 (gr. 806), 407 Pl. 99 (gr. 1126).

<sup>320</sup> *Majs – Udvari rétek*, gr. 1031: KISS 1983, 400 Pl. 92. *Pusztaszentlászló – Deakúrú*, gr. 203: SZŐKE – VÁNDOR 1987, 45–46, Fig. 80:6–7. *Malé Kosihy – Horné Konopnice*, gr. 127: HANULIAK 1994, 169 Pl. XXX:A1. – For a pair of lead lunulae from probably the same mould from the cemetery of Köttlach – Schwarz bank near Gloggnitz in Austria, see PITTIONI 1943, 15, Pl. IX:22–23.



examples from the same mould at the cemetery of Petoševci – Bagruša in the Bosnian Sava basin,<sup>321</sup> four examples from the same or different moulds at the cemetery of Gomjenica-Baltine bare in the Bosnian Sava basin,<sup>322</sup> and at an unknown site in Donji Vidovec in Croatian Međimurje,<sup>323</sup> while as many as five examples from the same or different moulds were found at the cemetery of Ptuj-Grad/Turnirski prostor in northeastern Slovenia.<sup>324</sup>

#### 4.3.2.3.2.3. Globular bell-pendants (G. 10; T. 10a; V. V/53)

No.	Inv. AMZ	Metal	Decorative motifs	Ht. (cm)	Length (cm)	Width (cm)	Wt. (g)	Grave/sex	Position of the find in the grave
1.	2565	AE	1.2a	2.42	1.80	(0.93/–)	3.690	115/f	"below right collarbone"
2.	2566	AE	–	2.31	1.50	(0.68/–)	2.207	115/f	"by the left ear"
3.	2743	AE	1.1a	(2.25)	1.44	(0.77/–)	1.763	326/f	"right side of the chest"
4.	2771/1–2	AE	–	2.04	1.47	1.32	3.106	355/ch	"bit lower below the neck"
5.	2771/3	AE	–	(2.13)	1.45	(0.67/–)	(1.437)	355/ch	"below the neck"
6.	2408	Fe	–	2.40	2.00	2.00	4.135	Srnić	–
7.	2413	AE	1.1b	2.10	1.58	1.25	4.123	Srnić	–

[Decorative motifs: 1.1a – Vertical incisions below a double row of grooved lines; 1.1b – Vertical incisions below a triple row of grooved lines; 1.2a – A horizontal row of eight rectangles below an incised horizontal line. Metrological data: in square brackets denote incompletely preserved examples]

\* Notes:

- |   |   |
|---|---|
| 1. Damaged (preserved half missing in the lower part).  | 5. Damaged (part of the eye broken off, the other half missing).  |
| 2. Damaged (half preserved).  | 6. Damaged (corroded, base broken off).   |
| 3. Damaged (the eye for suspension broken off the preserved half, below the eye a hole drilled for suspension; the other half missing). | 7. Damaged (the halves separated, part of the eye for suspension broken off, missing the piece for making noise). |
| 4. Damaged (the halves separated, part of the eye broken off).  |   |

Globular bell-pendants are represented with only 7 examples, 6 bronze and 1 iron (**Fig. 37:3a–b, 6.14; Pl. 16:3**). The iron bell-pendant and one of the bronze bell-pendants were chance finds from the period prior to the archaeological excavations, while the remaining five bronze bell-pendants were found in two female (gr. 115 and 326) and one child grave (gr. 355). Graves with bell-pendants represent a very small proportion among graves with finds, only 1.57%.

All the globular bell-pendants are multipart and in the lower part are longer or shorter, broader or narrower, and horizontally incised, but the examples made from bronze, in contrast to the iron bell-pendant, were composed of identical cast halves divided perpendicularly. The iron bell-pendant is composed of horizontally divided sheet halves with a banded circular eye for suspension on the upper half of the bell-pendant. Completely preserved specimens consist of one iron bell-pendant and two bronze ones, and all of the rest are more or less well-preserved halves of bronze bell-pendants, of which three halves from two graves were most probably in secondary use (gr. 115/f, 326/f). Equally numerous among the bronze globular bell-pendants are decorated (gr. 115/S-2565, 326/S-2413) and undecorated examples (gr. 115/S-2566, 355). More frequent among the decorated bell-pendants was the well-known motif of vertical incisions below two rows (gr. 326/f) or three rows of horizontally grooved lines (S-2413), as opposed to the rare decoration, noted only in eastern Slavonia (gr. 115/S-2565), consisting of a horizontal row of eight more or less regular square fields below a thinly incised horizontal line (**Fig. 39**).<sup>325</sup>

<sup>321</sup> ŽERAVICA 1986, Pl. VII:26–28 (gr. 141).

<sup>322</sup> MILETIĆ 1967, 132–133, Pl. IX (gr. 23).

<sup>323</sup> See here p. 468 n. 275.

<sup>324</sup> TUŠEK 1981, 16–17, Pl. 1:5–9 (gr. 1/78); KOROŠEC 1999, 27, 63, Pl. 39:8–12 (gr. 385 = 1/78).

<sup>325</sup> A completely preserved example decorated with an identically formed horizontal row of eight square fields was found at the cemetery of Bijelo Brdo – Ul. Venecija (AMZ S-463 – h. 2.60 cm; l. 1.85 cm, w. 0.95/0.93 cm; wt. 4.773/4.028 g, wt. bead 1.544 g), where it was found in gr. 183, rich in finds, together with a circular iron globular bell-pendant, BRUNŠMID 1904, 51 (Fig. 22:2), 72.

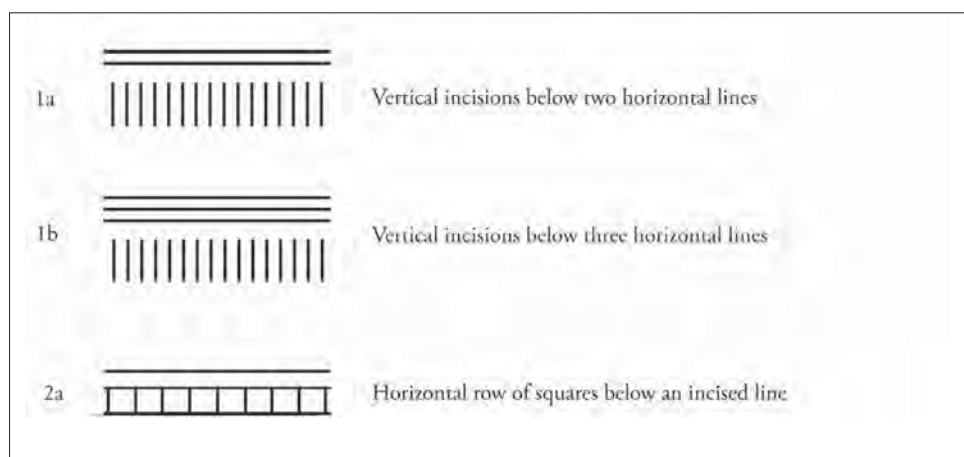


Fig. 39. Decorative motifs on bronze globular bell-pendants.

Judging from the position in which they were discovered during excavation, the globular bell-pendants from Lijevo Bara were used for various purposes: a) they decorated the collar of the upper part of clothing (shirt, tunic, or dress), given that they were found arranged in two rows below the neck together with a secondarily used upper section of a two-part pendant and a spangle (gr. 355/ch); b) they served as an addition to a necklace, where in one case they composed part of a tripartite group of metal pendants (amulets), found on the right side of the chest, considerably distant from a necklace of beads with which they were certainly not directly connected (gr. 326/f),<sup>326</sup> while in another case they served as a decorative part of a necklace where they were arranged with one pendant on the left and the other on the right side of the head (g. 115/f).

Table 29

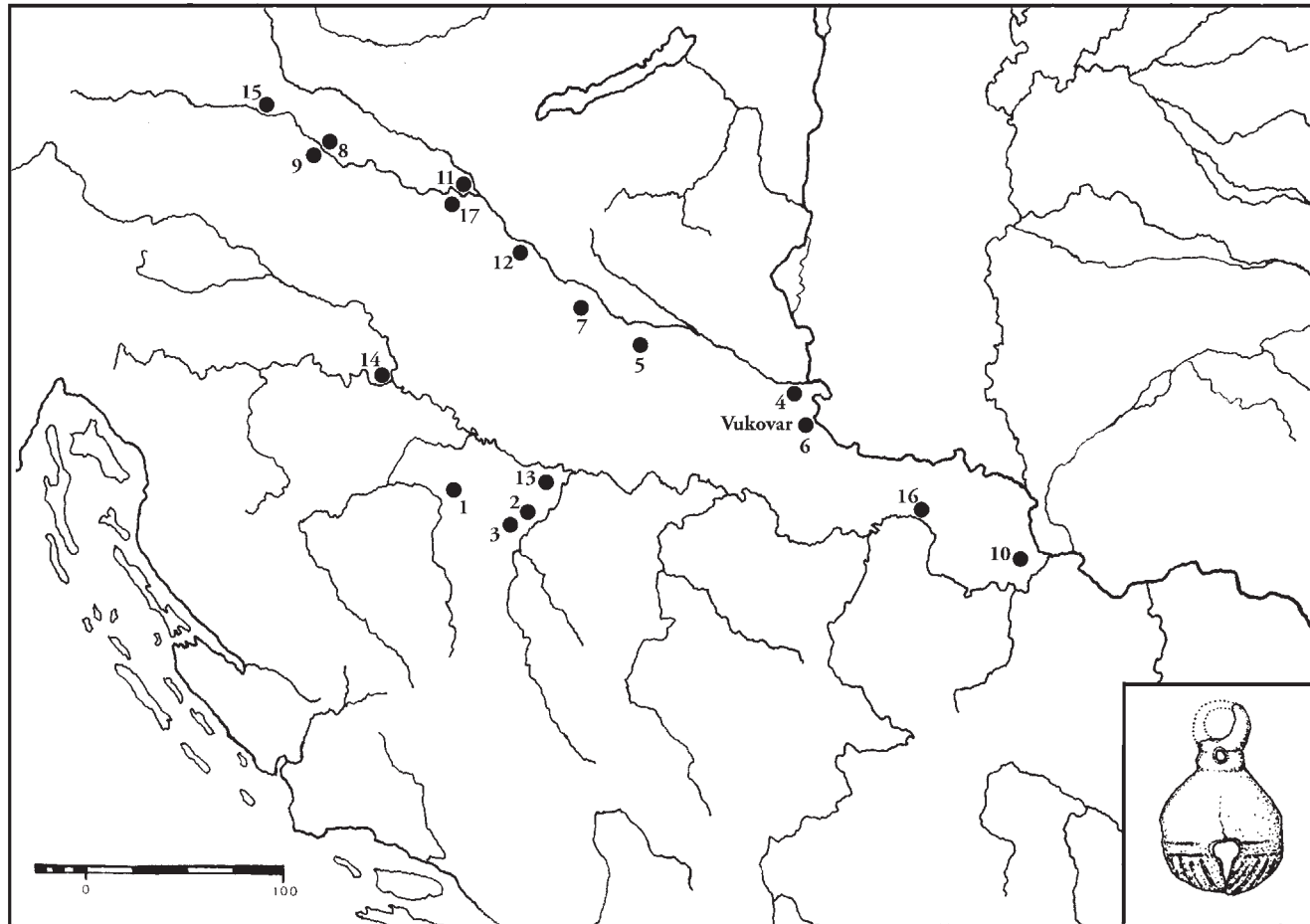
The numerical state of representation of globular bell-pendants in the graves of archaeologically excavated Bijelo Brdo cemeteries in the area between the Mura, Drava, Danube, and Sava Rivers (omitted from the table are unpublished grave finds and chance finds of globular bell-pendants or bell-pendants without the grave unit noted, Fig. 40:10-17)

Cemeteries between the Mura, Drava, Sava, & Danube in BiH (1-3), Hr (4-7), Slo (8)	No. of bell-pendants per grave								Total		Ratio
	1	2	3	4	5	8	9	11	bell-pendants	graves	
1. Gomjenica – Baltine bare	6	2	1	1	–	–	1	–	26	10	2.60
2. Mahovljani – Luke	2	–	–	–	1	1	–	–	15	4	3.75
3. Petoševci – Bagruša	1	1	–	–	–	–	–	1	14	3	4.67
<i>BiH – total: 8</i>	3	1	1	1	1	1	1	55	17	3.24	
4. Bijelo Brdo – Ul. Venecija	8	2	1	1	–	–	–	–	19	12	1.58
5. Josipovo – Mesarna	1	–	–	–	–	–	–	–	1	1	1.00
6. Vukovar – Lijevo Bara	1	2	–	–	–	–	–	–	5	3	1.67
7. Zvonimirovo – Veliko polje	–	1	–	–	–	–	–	–	2	1	1.00
<i>Hr – total: 10</i>	5	1	1	–	–	–	–	26	17	1.53	
8. Ptuj-Grad	3	3	–	2	–	–	–	–	17	8	2.13
9. Spodnja Hajdina – parc. 1133	1	–	–	–	–	–	–	–	1	1	1.00
<i>Slo – total: 4</i>	3	–	2	–	–	–	–	18	9	2.00	
<i>BiH, Hr and Slo – total:</i>	22	11	2	4	1	1	1	1	100	43	2.33

Globular bell-pendants come from graves that are rich in finds, and are quite distant from one another but are all located in the border sections of the cemetery, and it is clear that they belong to burials from the first decades of the 11<sup>th</sup> century.<sup>327</sup> Each of these three graves contained a torc – two examples belonged to different groups of the light and lightest weight systems (gr. 326/f and 355/ch), and only one torc belonged to the transitional weight system, and in relation to the previous two was the latest in terms of relative chronology (gr. 115/f).

<sup>326</sup> A similar purpose can probably be attributed to four globular bell-pendants and one bone pendant found on the stomach of the deceased female buried in gr. 107 at the cemetery of Bijelo Brdo – Ul. Venecija, BRUNŠMID 1904, 61 (the grave finds are kept in the Museum of Slavonia in Osijek).

<sup>327</sup> South of the Drava River, only globular bell-pendants from the cemeteries of Josipovo – Mesarna, gr. 9 (TOMIČIĆ 1990, 104) and Bijelo Brdo – Ul. Venecija, gr. 107 (BRUNŠMID 1904, 61) are dated by coins of Andrew I (1041-1060), and Andrew I and Bela I (1061-1063).



**Fig. 40.** Finds of globular bell-pendants at Bijelo Brdo cemeteries in the area between the Mura, Drava, Danube, and Sava Rivers. **1 (1–26)** – Gomjenica – Baltine bare (BiH; Prijedor District), gr. 19 (2 ex.), 23, 37a (2 ex.), 43 (9 ex.), 44 (4 ex.), 64 (3 ex.), 67, 98, 109, 141, 161: MILETIĆ 1967, 85, 87–88, 91–92, 95, 99, 101–102. 23, 46, 67, 98, 109 (in a file), 141, 161.<sup>328</sup> **2 (27–43)** – Mahovljani – Luke/Kužno groblje (BiH; Laktaši District), gr. 15 (5 ex.), 30 (8 ex.), 67, 76, chance finds (2 ex.): MILETIĆ 1980, 139, 141, 144–145. **3 (44–57)** – Petoševci – Bagruša (BiH; Prijedor District), gr. 67 (2 ex.), 138, 141 (11 ex.): ŽERAVICA 1986, 141, 150–151. **4 (58–76)** – Bijelo Brdo – Ul. Venecija (Hr; Osječko – Baranjska County), gr. 56, 107 (4 ex.), 125, 161, 173, 174 (2 ex.), 183 (2 ex.), 184, 188 (3 ex.), 192, 211, 225: BRUNŠMID 1904, 56, 61, 64, 69, 70–73, 75–76; ERCEGOVIĆ 1958, 168, 170. **5 (77–79)** – Josipovo – Mesarna (Hr; Virovitičko-Podravška County), gr. 9, chance finds (2 ex.): ŠEPER 1955, 55; TOMIČIĆ 1990, 104. **6 (80–86)** – Vukovar – Lijevo Bara (Hr; Vukovarsko-Srijemska County), gr. 115 (2 ex.), 326, 355 (2 ex.), chance finds (2 ex.): ERCEGOVIĆ 1958, 184 no. 30; DEMO 1996, 70, 79; TOMIČIĆ 1990, 141. **7 (87–88)** – Zvonimirovo – Veliko polje (Hr; Virovitičko-Podravška County), gr. 21 (2 ex.): TOMIČIĆ 1997, 52. **8 (89–105)** – Ptuj-Grad/Turnirski prostor (Slo; Ptuj District), gr. 37 (4 ex.), 50, 66 (2 ex.), 175, 181, 193 (2 ex.), 385 (2 ex.), 395 (4 ex.): SKRABAR 1910, 124, 128; KOROŠEC 1950, 163, 165, 171. **9 (106)** – Spodnja Hajdina-parc. 1133 (Slo; Ptuj District), gr. 2: SKRABAR 1912, 337; KOROŠEC 1947, 31. **10 (107–108)** – Batajnica – Velika humka (Srb; Beograd – Zemun District), gr. 7 (2 ex.): KOVAČEVIĆ-DIMITRIJEVIĆ 1959, 152; MARJANOVIĆ-VUJOVIĆ – TOMIĆ 1982, 49 nos. 158–160.<sup>329</sup> **11 (108)** – Donji Vidovec – unknown site (Hr; Međimurska County), chance find (1 ex.): HORVAT 1956, 23.<sup>330</sup> **12 (109–124)** – Kloštar Podravski – Pesci (Hr; Bjelovarsko-Bilogorska County), grave finds (15 ex.): BRUNŠMID 1904, 79–80.<sup>331</sup> **13 (125–126)** – Kočićevo – Tučić (BiH; Bosanska Gradiška District), chance finds (2 ex.): KOROŠEC-VRAČKO 1943, 279–280. **14 (127)** – Sisak – unknown site (Hr; Sisačko-Moslavačka County), chance find: ŠEPER 1944, 201, Pl. II:20.<sup>332</sup> **15 (128–130)** – Središće ob Dravi – Cirkevca (Slo; Sevnica District): chance finds (2 ex.), gr. 54/1993 (1 ex.): KOROŠEC 1947, 37; KNIFIC 2005, 170 fig. 5:15, 171. **16 (131–132)** – Sremska Mitrovica – unknown site (Srb; Sremska Mitrovica District), chance finds (2 ex.): ERCEGOVIĆ 1958, 183 no. 21; STANOJEV 1989, 120 nos. 653–654. **17 (133–134)** – Veliki Bukovec – unknown site (Hr; Varaždinska County), chance finds (3 ex.): BRUNŠMID 1904, 85.<sup>333</sup>

<sup>328</sup> MILETIĆ 1967, 132, mentioned the existence of 28 globular bell-pendants, but she arrived at this number by adding the button-pendants from gr. 23 and gr. 46 (one button in each grave).

<sup>329</sup> The publications not accompanied by illustrations.

<sup>330</sup> For the drawing of this globular bell-pendant, see TOMIČIĆ 1978, 216, 218 Fig. 8:4.

<sup>331</sup> Brunšmid's data about the existence of 15 bronze and 3 iron globular bell-pendants does not correspond to the present situation, as a total of only 15 globular bell-pendants have been preserved in the AMZ, including only one iron globular bell-pendant: S-1064, S-1069 (5 ex.), S-1076–1082, S-1205–1206.

<sup>332</sup> Cf. also, HORVAT 1954, 99, Fig. 4.

<sup>333</sup> Three globular bell-pendants are kept in the AMZ as finds from Veliki Bukovec (S-2314–2316).

It is usual at Bijelo Brdo cemeteries, particularly those in Hungary, to find only one globular bell-pendant in a grave, and rarely two or three,<sup>334</sup> so that the Vukovar grave finds with a ratio of 1.67 deviate from the situation where in Hungary they rarely achieve a representation of 1.27 or 1.33 and never exceed the large ratio for that region of 1.50 globular bell-pendants per grave.<sup>335</sup> South of the Drava and Sava the representation is not rarely more than the mentioned 1.50 globular bell-pendants per grave, and thanks to relatively common graves with finds of three, four, five, eight, nine, or even eleven bell-pendants it increases south of the Sava in the Bosnian Sava basin to a very high average ratio of 3.24 (Fig. 40; Table 29).<sup>336</sup>

4.3.2.3.2.4. Bell-shaped pendant (seal-amulet)  
(V. V/54)

No.	Inv. AMZ	Metal	Ht. pendant	Ht. susp.	Ht. bell	Ø bell	Wt. (g)	Grave sex	Position of the find in the grave
1.	2828	AE	2.06	1.21	0.85	1.3/1.24	2.608	408/ch	"by the left ear"

\* Note:

1. Above the rim a small, regularly drilled hole: secondary use as a seal-amulet.

Bells and bell-shaped pendants are generally speaking considered to have an apotropean significance in the sense of deflecting and chasing away evil spirits,<sup>337</sup> and the only such find at Lijevo Bara was found in a child grave (gr. 408), located in the southeastern edge section of the cemetery in a group of graves that belong to the early 11<sup>th</sup> century. The bell-shaped pendant was discovered on the left side of the chin of the skeleton, not by itself but in a row with another four objects, and evidently together with them represented part of a five-part necklace (amulet), composed of two glass beads, an iron spike, a bronze ring, and a bell-shaped pendant (Fig. 37:4; Pl. 16:3).

Bells or bell-shaped pendants were rare but not isolated finds at Bijelo Brdo cemeteries, as other than at the site of Lijevo Bara in Vukovar they were found at several cemeteries in Hungary<sup>338</sup> and Austria,<sup>339</sup> and one example comes from the cemetery of Ptuj-Grad/Turnirski prostor in northeastern Slovenia, where it was found in an unusual place, i.e. "in the embrace of the skeleton" (gr. 239),<sup>340</sup> and it was thought that perhaps it had originally hung from the belt (as was the case for some finds from the Avaric-Slavic period).<sup>341</sup> In Bijelo Brdo graves, bells or bell-shaped pendants were usually located in the area of the skull, neck, or the upper part of the chest, but as a decorative addition to a necklace of glass beads and metal pendants (pierced bronze Roman coin and 8 two-part pendants) three silver "perforated" bell-shaped pendants are mentioned from the cemetery of Mahovljani – Luke/Kužno groblje in the western Bosnian Sava River basin,<sup>342</sup> in a child grave buried at the end of the first third of the 11<sup>th</sup> century.

In terms of form and size, however, the bell-shaped pendant from Vukovar corresponds totally to the bell-shaped seal-amulets with a depiction of a bird from the Byzantine-Bulgarian cultural circle, dated to the 10<sup>th</sup>–11<sup>th</sup> centuries.<sup>343</sup>

<sup>334</sup> For a rare example of the find of three globular bell-pendants from the cemetery of Szombathely – Szent Marton in western Hungary (Madarosok) (Vas County), KISS-TÓTH 1994, 181 (Fig. 5:2–4), 187; KISS-TÓTH 2000, 249, Pl. 81:50/2–4 (gr. 50; a damaged and partly preserved skeleton with finds that in addition to the globular bell-pendants consisted of a bronze circlet and iron).

<sup>335</sup> An exhaustive list of finds of 180 globular bell-pendants from 50 sites in Hungary (149/44), Slovakia (14/4), and Croatia (17/1) was composed and published by KOVÁCS 1989a, 149–151, 153 n. 32. In his list, the sites south of the Mura and Drava were represented only by the finds of globular bell-pendants from the cemetery of Bijelo Brdo – Ul. Venecija in eastern Croatia (without the examples from gr. 125 and 225). For finds of globular bell-pendants south of the Mura, Drava, and Danube from medieval cemeteries of the 8<sup>th</sup>–15<sup>th</sup> centuries in Slovenia, Croatia, Bosnia & Herzegovina, Serbia, Macedonia, and Bulgaria, see JOVANOVIĆ 1996, 83–112. – Important observations about globular bell-pendants from the 7<sup>th</sup>–9<sup>th</sup> centuries from central European sites were made by STAŠŠIKOVÁ-ŠTUKOVSKÁ 1986, 225–231.

<sup>336</sup> As the only find in graves, globular bell-pendants were discovered only in several graves at Gomjenica (gr. 19, 37a, and 98) Mahovljani (gr. 76), and Petoševci (gr. 138). At the cemetery of Mahovljani – Luke/Kužno groblje the large number of globular bell-pendants in two graves was an indicator of its later origin (gr. 15 and 30).

<sup>337</sup> HANSMANN – KRISZ-RETTENBECK 1966, 250.

<sup>338</sup> *Ikervár – Virég utca*, gr. 130: HAJMÁSI – KISS 2000, 63, 73, 106 (Fig. 32:21), Pl. 53:130/2, 94:16. *Letkés – Iskola*, gr. 43: BAKAY 1978, 127, Pl. LVI:26. *Majs – Udvari réték*, gr. 506: KISS 1983, 161 (Fig. 74:6), 353, Pl. 45. *Szalkszentmárton – Paréjoshár*: HORVÁTH 1993, 340 (Fig. 9:11). *Székesfehérvár – Demkőhegy*, gr. 11: BAKAY 1967, 49, Pl. XXI:1 (with earlier literature).

<sup>339</sup> *Bruck an der Leitha – H. Czettel Gasse 21*, gr. 2: KREITNER 2000, 185 Fig. 5:9, 186.

<sup>340</sup> KOROŠEC 1950, 87, 186, Fig. 76.

<sup>341</sup> KOROŠEC 1999, 64–65 (n. 148), 99–100, Pl. 28:19, with a short passage on bell finds among Avaro-Slavic finds from the 8<sup>th</sup> century.

<sup>342</sup> For this interesting, certainly rare, find of "perforated" bell-shaped pendants (never adequately depicted with illustrations), see MILETIĆ 1980, 145, 155, Pl. XIX (gr. 78); MILETIĆ 1989, 184. Supposedly they would be most similar to bell-shaped pendants from the well-known hoard of silver jewellery from Drassburg (Hungarian Darufalva) in Austrian Burgenland, whose source was sought in the Volhynian-Rusian cultural circle, with an origin dated to the transition from the 10<sup>th</sup> to the 11<sup>th</sup> century, and its burial and hiding between AD 1010 and 1050: BÓNA 1964, 164–169, Pl. I–II (with analogies to hoards from Maszenice and Zalesie in Poland). A Byzantine origin was attributed to similar silver and gilded bell-shaped pendants from the site of Dăbica – Cetate near Cluj in Romanian Transylvania, PASCU – RUSU – IAMBOR – EDROIU – GYULAI – WOLLMANN – MATEI 1968, 200, Fig. 3:1–4.

<sup>343</sup> DAVIDSON 1962, 317, Pl. 128:2681, 2683 (Corinth); JOTOV 1991, 72–76 (Dobrič and Silistra).

4.3.2.3.2.5. Coinage  
(T. 44a, 44c)

<i>ROMAN EMPIRE</i>						
<i>Gallienus, sole rule (260–268)</i>						
1.	ant	260–268	Rom	RIC?	gr. 382/ch	"On the left collar bone" A necklace with a metal pendant: a coin (AE). <i>Other finds:</i> button-pendant (AE), bracelet (G. 5).
<i>Aurelianus (270–275)</i>						
2.	ant	?	?	RIC?	gr. 409/ch	"Below the neck" A necklace of beads and a metal pendant: 52 beads + a coin (AE). <i>Other finds:</i> torc (1a), button-pendant (AE), 2 rings (G. 25/26 and 38b) and 2 chapes.
<i>Maxentius (306–312)</i>						
3.	fol	309–312	Ost	RIC 35	gr. 271/?	"Around the middle of the grave" <sup>344</sup> A necklace with a metal pendant: coin (AE). <i>Other finds:</i> spangle (AE).
<i>Valentinianus I (364–375)</i>						
4.	cen	?	?	LRBC?	gr. 252/ch	"Below the first cervical vertebrae" A necklace of beads and metal pendants: 27 beads + late La Tène fibula (AE) + coin (AE). <i>Other finds:</i> a pair of circllets with a spiral ending (G. 19).
<i>BYZANTINE</i>						
<i>Constantine VII and Roman II (945–959)</i>						
5.	nom	945–959	Con	BNP 15–23	gr. 2/ch	"Below the upper cervical vertebrae" A necklace with metal pendants: ring (AR) + coin (AV). <i>Other finds:</i> button-pendant (AE).

## \*Notes:

1. S-2423; 18.3/13.8 mm; 1.29 g; ax. 7; pierced, clipped.
2. S-2657; 22/16.9 mm; 3.076 g; ax. 12; pierced. –  
Rv. *Concordia militum*.
3. S-2679; 26/23 mm; 5.617 g; ax. 6; pierced.

4. S-2797; 16/15 mm; 1.48 g; ax. 6; pierced, clipped. –  
Rv. *Gloria Romanorum*.
5. S-2833; 18/17 mm; 3.33 g; ax. 6; pierced in three places,  
chipped, clipped.

Coins were found in five graves: in four child graves (gr. 2, 252, 382, and 409), and in a grave where the sex or age of the deceased could not be determined (gr. 271).<sup>345</sup> Not in a single one of these graves was the coin deposited as an obol for the dead,<sup>346</sup> as in all five cases the coin was pierced along the edge in at least one place and was usually found in the neck area – in combination with glass beads, a silver ring, a bronze late La Tène fibula, and other items – and served as one of the decorative parts of a necklace. Hence two types of coins most available (from somewhere) at Lijevo Bara at that time were utilized:

1. *Roman bronze coins of the 3<sup>rd</sup> and 4<sup>th</sup> centuries (Fig. 37:5b)*, often very worn and pierced along the edge in only one place, were found in four graves; three of these of children. In two cases, the Roman coin was found together in the grave only with a single button-pendant (gr. 271/?, 382/ch), and in the other two examples (gr. 252/ch, 409/ch) the coin belonged to a necklace composed of beads and metal pendants, with other finds also discovered in the grave (earrings with a spiral ending<sup>347</sup> or a torc, two rings, and two belt chapes). The position of the hole for suspension shows that the recognizability of the depiction on the obverse or reverse held no particular value, perhaps because the coin could be interpreted in the religious sense as a symbolical image of the soul,<sup>348</sup> and the drilled hole as an opening towards the

<sup>344</sup> The exact position of the find was not established, as the skeleton was shallowly buried (0.30 cm), and was consequently poorly preserved, damaged, and somewhat disturbed.

<sup>345</sup> DEMO 1966, 51 (n. 141), where the information about the discovery of four coins was supplemented by a bronze coin of the Roman emperor Gallienus (260–268), found in gr. 382, not cited until then. Previously, as grave finds up to four coins were usually mentioned or described, see VINSKI 1955, 247–248; VINSKI 1959, 107; KOVÁCS 1976, 125 n. 11; KOVÁCS 1989, 77 nos. 445–448, 145, 149 n. 757, 151, Pl. XVII:445; TOMIČIĆ 1992, 146 (two coins).

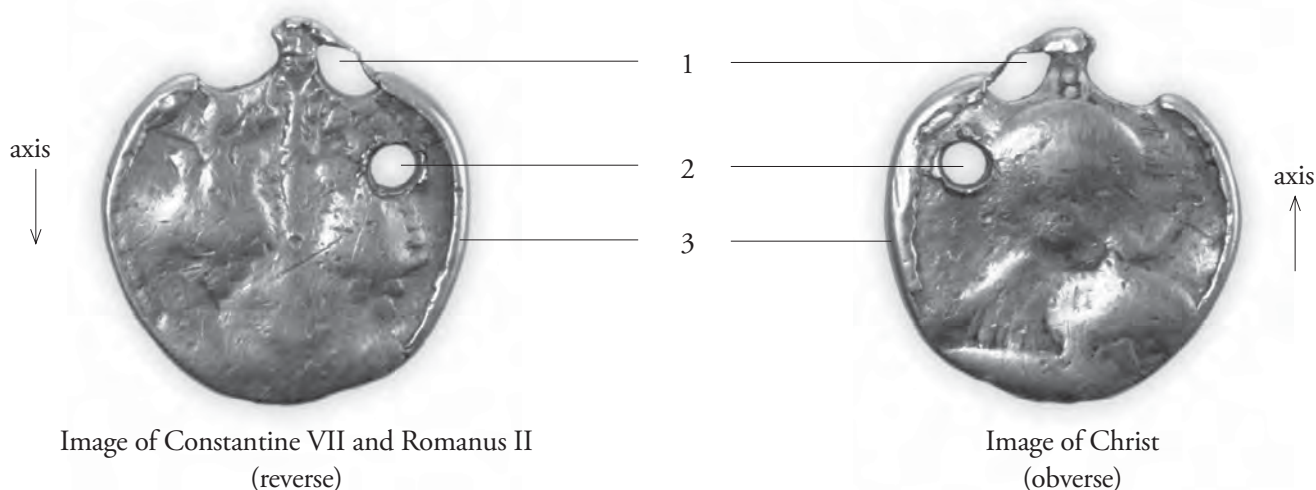
<sup>346</sup> About coinage as an obol of the dead, placed in the mouth or hand of the deceased, at early medieval, primarily Slavic cemeteries of the 11<sup>th</sup> century, evidently from a time when under the pressure of the recently accepted Christianity, the deeply engrained pagan grave rites were finally being eradicated, see RADOMÁRSKÝ 1955, 3–81; KOLNÍKOVÁ 1967, 189–245; VAVŘÍNEK 1970, 33–39.

<sup>347</sup> Pairs of earrings with a spiral ending and a necklace with perforated Roman coins can be noted at cemeteries not far from Vukovar in Croatia and Serbian Vojvodina: *Bijelo Brdo – Ul. Venecija*, gr. 81 (BRUNŠMID 1904, 59); *Bogojevo – Biboja ul.*, gr. 3 (STANOJEV 1989, p. 24).

<sup>348</sup> C.f. CHEVALIER – GHEERBRANT 1983, 434 (s.v. "Novac"/Coin), where a comparison is noted between a coin and the soul, where the soul bears the mark of God, just as a coin bears the mark of a ruler (according to the precepts of Angelus Silesius, 1624–1677, a German mystic from the Counter-Reformation).

interior and the unknown in a metaphysical sense or as an opening for fertility and birth in the biological sense.<sup>349</sup> The graves with finds of Roman bronze coins were located in the border sections of the excavated areas of the cemetery, i.e. in its northeastern (gr. 252/ch, 271/?), southern (gr. 382/ch), and southeastern sections (gr. 409/ch).

2. A Byzantine gold coin minted around the middle of the 10<sup>th</sup> century (Fig. 37:5a; Pl. 7:7,8), worn, cut, and partially broken off, was pierced on the edge in three places, so that the holes were arranged more or less next to one another, following the rim of the coin.<sup>350</sup> The upper part of the coin above the head of Christ (on the obverse) features a pair of symmetrically placed but irregularly shaped semicircular holes with smoothly worked edges, with the banded frame passing over them, semicircularly curved across the rim of the coin (covering approximately two thirds of the rim of the coin). The third hole was located to the left of the head of Christ, was circular, and seemingly was not in any direct connection with the first two holes, and in the chronological sense was most probably later (Fig. 41). The position and arrangement of the pair of symmetrically placed holes for suspension clearly show that, at a given moment, importance was attached to the visibility of the depiction of Christ on the front side of this quite worn coin.<sup>351</sup> This tendency was characteristic of almost all the grave finds that contained gold coins of the Byzantine rulers, whether original or counterfeit, minted in the span from Constantine VII and Romanus II (945–959),<sup>352</sup> through the reigns of Nicephorus II and Basil II (963–969),<sup>353</sup> to the early emissions of gold coinage of Basil II and Constantine VIII (976–1025).<sup>354</sup> Considering the evident mixing of pagan and Christian traits contained in the significance of an amulet on the one hand and the depiction of Christ on the other, the find from gr. 2/ch is a distinct example of pagan-Christian syncretism in a time that at the end of the 10<sup>th</sup> century was marked by various Byzantine influences. The coin was part of a necklace of metal pendants, composed of objects made from different metals (gold and silver). It was found in the child grave 2, located in the far southwestern section of the excavated area of the cemetery.



**Fig. 41.** Gold coin (nomisma) of the Byzantine emperors Constantine VII and Romanus II (945-969) minted in Constantinople (ca. 3:1). **1** – The pair of symmetrically placed semicircular holes with smoothly worked edges. **2** – The circular hole. **3** – The band of the frame semicircularly bent over the rim of the coin.

<sup>349</sup> CHEVALIER – GHEERBRANT 1983, 571 (s.v. "Rupa"/Hole). – That the custom of drilling coins did not merely have a functional significance, but also a religious background can be seen from examples of perforated coins of the Hungarian kings that were not used exclusively as pendants on necklaces, but were also found in graves as obols (e.g. in the mouth or fist), KOVÁCS 1989, 163–167.

<sup>350</sup> A similar arrangement and an identical number of holes (3) can be seen on a perforated Roman bronze coin that belonged to a necklace, together with two perforated fragments of a bronze fibula, found at the cemetery of Bijelo Brdo – Ul. Venecija, gr. 46/ch, BRUNŠMID 1904, 35 (Fig. 2:8), 55. – Other than on coins, the motif of three subsequently drilled holes can also be noted on other forms of pendants. One of three heart-shaped pendants of silver sheet metal from a partly preserved chain for the chest from the cemetery of Ptuj-Grad/Turnirski prostor was perforated in three places (gr. 13), see SKRABAR 1910, Pl. III:28; KOROŠEC 1985, 338 Fig. 1a; KOROŠEC 1999, Pl. 2:16a.

<sup>351</sup> Evidence that the tendency to emphasize the figure of Christ was not accidental and that it was related to the appearance of other symbols of Christianity is shown by a Byzantine gold coin (*nomisma*) suspended together with a bronze cross on a luxurious necklace-talisman found at the cemetery of Szob – Kiserdő (gr. 60/ch), BAKAY 1978, 30–32 (fig. 11–14), 37 (fig. 40); KOVÁCS 1989, 67 (fig. 12b), Pl. XIV:366.

<sup>352</sup> *Hodmezővásárhely – Kopáncs*, gr. 13/ch: KOVÁCS 1989, Pl. VII:113; *Kiszombor – cemetery B*, gr. 342/ch: op. cit., Pl. VII:198; *Szentes – Borbásföld*, gr. 1/m: op. cit., Pl. XIII:332. – An exception is represented by a find of a highly clipped but not perforated gold coin of Constantine VII Porphyrogenitus found at the cemetery of Hajdúszoboszló – Árkoshalom (gr. 109/m; rider grave): NEPPER 2002 (1), 74 no. 2; (2) 56 Pl. 109:2.

<sup>353</sup> *Unknown site*: KOVÁCS 1989, Pl. XX:909. The perforation of a silver Byzantine coin (*miliaresion*) of the same ruler should be interpreted in a similar manner, along with the emphasis on the cross on its obverse, KOVÁCS 1989, Pl. XV:383 (*Tiszaeslár – Dióskert*, gr. 17/ch).

<sup>354</sup> *Orosháza – Belső Monori tanyak*, gr. 3-1961/f: KOVÁCS 1989, Pl. X:255. – It is interesting to note that one specimen of the later series of gold coins of Nicephorus II and Basil II (936–969), and one gold coin of John Zimiskes (969–976), with an image of the emperor and the Madonna on the obverse and Christ on the reverse, were perforated so that hanging on a necklace, they would feature the obverse image, see KOVÁCS 1989, Pl. XX:911, 918 (unknown site).

The graves with pierced Roman coins are attributed to archaeological contexts usually dated to the second half of the 10<sup>th</sup> century and rarely in the early 11<sup>th</sup> century,<sup>355</sup> although the graves from Lijeva Bara in fact belong to the period around the year 1000 and the beginning of the 11<sup>th</sup> century (gr. 392/ch, 409/ch), while some could even be of later date (gr. 252/ch, 271/ch). The grave with the pierced, clipped, and worn Byzantine gold coin with the poorly visible image of Constantine VII Porphyrogenitus and his son Romanus II (945–959) was most probably itself from the period immediately before the year 1000, although some date and consider it not earlier than AD 960<sup>356</sup> or not later than the seventies of the 10<sup>th</sup> century.<sup>357</sup>

4.3.2.3.2.6. Other pendants (on necklaces and torcs)  
(G. –)

No.	(1) Necklace	(2) Torc	Inv. AMZ	Metal	Form of pendant	Dimensions of pendant			Wt. (g)	Grave/ sex
						Ht.=l./Ø	W.	Th./Ø		
1.	1	–	2490	AE	circlet, open	1.12/0.75	0.65	0.15	0.983	52/ch
2.	2	–	2575/2	AE	circlet, open	1.12/1.10	0.39	0.14	0.951	124/?
3.	3	–	2636/2	AE	circlet, open	0.99/0.85	0.42	0.13	0.667	227/ch
4.	–	1	2811/2	AE	circlet, open	1.44/1.18	–	(0.13)	0.696	391/ch
5.	4	–	2861	AE	wire w/ spiral coils	1.50/0.50	0.27	(0.13)	0.282	429/ch
<i>Secondarily used objects</i>										
<i>a) Prehistoric (early/late Iron Age)</i>										
6.	–	2	2390/2	AE	circlet, closed	2.28/2.15	0.33	0.13	1.228	Srnić
7.	5	–	2565	AE	fibula, fragment	–	–	–	1.828	252/ch
<i>b) Roman period (late Republican/early Imperial)</i>										
8.	6	–	2826	Fe	spike, fragment	9.20	1.67	0.84	53.029	408/ch
<i>b) Migration period (late Avaric period)</i>										
9.	7	–	2745	AE	mount, perforated	2.22	2.15	0.20	1.628	326/f
<i>c) Early medieval</i>										
[10.]	[8]	–	2421	AR	ring, open	1.71/1.65	0.77	0.14	2.870	2/ch
[11.]	[9]	–	2565	AE	glob. bell-pendant, half	2.42	1.80	0.93	3.690	115/f
[12.]	[10]	–	2566	AE	glob. bell-pendant, half	2.31	1.50	0.68	2.207	115/f
[13.]	[11]	–	2744	AE	two-part pendant, lower	2.48	1.60	0.115	1.628	326/f
[14.]	[12]	–	2743	AE	glob. bell-pendant, half	2.25	1.44	0.77	1.763	326/f
[15.]	–	[3]	2740	AE	ring, open	2.20/1.88	0.55	0.12	2.048	326/f
[16.]	–	[4]	2849	AE	ring, closed	2.46	0.63	0.54/0.20	5.157	326/f
[17.]	[13]	–	2827	AE	ring w/ crown	2.17	0.52	0.09	2.949	408/ch
[18.]	[14]	–	2828	AE	seal-amulet (bell-shaped pendant)	2.16	–	1.3/1.24	2.608	408/ch

[The objects listed as nos. 10–18 (all noted in square brackets) were described and classified into groups according to their original purpose.]

\*Notes:

- |  |  |
|--|--|
| 1. Oval form.  | 8. Pendant on a necklace of beads and metal pendants.        |
| 2. Circular form.  | 9. Pendant on a tripartite necklace of metal pendants.       |
| 3. Circular form.  | [10.] Pendant on a necklace of metal pendants.               |
| 4. Oval form; a wire of circular section, with overlapping ends.                 | [11–12.] Pendants on a necklace of beads and metal pendants. |
| 5. Ø O-ending: 0.50 cm.  | [13–14.] Pendant on a tripartite necklace of metal pendants. |
| 6. Circular form.  | [17.] Pendant on a necklace of beads and metal pendants.     |
| 7. L. 4.64 cm; ht. 1.19 cm; a pendant on a necklace of beads and metal pendants; | [18.] Pendant on a necklace of beads and metal pendants.     |

<sup>355</sup> KOVÁCS 1989, 153–154.

<sup>356</sup> SCHULZE-DÖRRLAMM 1991, 376 Fig. 2, 449 no. 5.

<sup>357</sup> KOVÁCS 1989, 141.

Together with beads or by themselves, various metal objects appear as pendants on necklaces, mostly circular and more rarely of elongated form, and mostly made of bronze and rarely of silver or iron. A small number of these objects were produced deliberately with the aim of serving as or being part of a pendant (circlets, wire with an O-shaped ending). Others, with minor modifications or even without them, were transformed into pendants with a simple change of role. The transformed and secondarily utilized objects consisted of four major subgroups of pendants: the first three subgroups are composed of objects that were not contemporary to the period of their secondary use, as they had been created in the prehistoric (late La Tène fibula), Roman (iron spike) or late Avaric (belt mount) periods; the fourth subgroup was composed of secondarily used objects from the period contemporary to the Bijelo Brdo Culture (rings, lower section of a two-part Bijelo Brdo pendant, halves of globular bell-pendants).

As the only metal pendant on a necklace of beads, in three cases (gr. 52/ch, 124/?, 227/ch) circular bronze circlets were discovered (**Fig. 37:6.2**), and in one case (gr. 429/ch), a bronze wire with a spirally coiled O-ending (**Fig. 37:6.5**). As one of two metal pendants on a necklace, together with beads and a Roman period pierced bronze coin (gr. 252/ch), a fragment of a late La Tène bow fibula was found (**Fig. 37:6.7; Pl. 11:3**).<sup>358</sup> In only one case, along with two glass beads three different metal pendants were threaded onto a necklace (gr. 408/ch), consisting in addition to a fragment of a Roman period iron spike of late Republican or early Imperial date (**Fig. 37:6.8**),<sup>359</sup> of a bronze bell-shaped pendant (**Fig. 37:4**) and a Bijelo Brdo Culture bronze ring with a stepped crown (**Fig. 37:6.17**). As the only pendants on a necklace of metal pendants, one grave contained a silver open-ended ring and a multiply pierced Byzantine gold coin (gr. 2/ch), and in another case three bronze objects secondarily used and turned into pendants (gr. 326/f): a rare form of a subsequently perforated late Avaric mount (**Fig. 37:6.9**),<sup>360</sup> a damaged and subsequently pierced lower section of a two-part pendant (**Fig. 37:6.13**), and a damaged half of a globular bell-pendant (**Fig. 37:6.14**).

Only circular objects appear as pendants on torcs, such as bronze rings and bronze circlets. The rings consist of a closed ring with wart-like extrusions (pseudo-granules) and an open ring of banded section (gr. 326/f), while among circlets both open (gr. 391/ch) and closed examples were discovered (S-2390/2).<sup>361</sup>

Metal pendants on necklaces and torcs were usually found in child graves and the graves of young female individuals located in the eastern parts of the cemetery (80%). Only two child graves were noted in the western part of the cemetery, located in the southern section of the southwestern zone of burial (gr. 2, 429).

<sup>358</sup> Fragments or even completely preserved examples of Roman period fibulae are not rare as pendants on Bijelo Brdo necklaces: e.g. Bijelo Brdo – Ul. Venecija in Croatia, gr. 46 and 183 (BRUNŠMID 1904, 55, 72), Majs – Udvari reték in Hungary, gr. 999 and 1068 (KISS 1983, 141, 147, 398, 402). – A similar purpose for fragments of certain other Roman period objects (padlock, drilled pieces of sigillata, and so forth) at early medieval Slavic sites in Slovakia was noted by KOLNÍK – REJHOLCOVÁ 1986, 343–356. A similar type of find from several early medieval graves of Dalmatian Croats was mentioned in passing by PETRINEC 2002, 219.

<sup>359</sup> For similar spikes, see BISHOP – COULSTON 1993, 63–64; DOLENZ 1998, 103–105, Pl. 26:M253–258.

<sup>360</sup> DEMO 1996, 51, 89 no. 50:5. Similar sections of late Avaric belt sets were found in Hungarian Baranya at the site of Terehgy – Márfai dögkút, gr. 1 (KISS 1977, 147–148, Pl. LIX:15) and in Slovakia at the site of Devínska Nová Ves – Murnice, gr. 305 (EISNER 1952, 78, Fig. 45:7). – Another part of a late Avaric belt set (the lower part of a two-part mount) appeared as a pendant on a necklace, for instance, at the cemetery of Ellend – Nagyödör in Hungarian Baranya, gr. 144 (DOMBAY 1961, 144, Pl. XIX:13).

<sup>361</sup> For a similarly formed closed circlet on the diadem of the deceased buried in the prehistoric skeleton grave 202 at Lijeva Bara, VINSKI 1955, 237, 252, Fig. 12; VINSKI 1959, 101, Pl. XXXVI:12; VINSKI-GASPARINI 1973, 122, 164, Pl. 125:11.



### 4.3.3. Jewellery for the hands

#### 4.3.3.1. Bracelets

4.3.3.1. Bracelet	State		Material				Grave finds		Sex of the deceased				Chance finds
	no.	%	AR	AE	Fe	?	objects	graves	m/m?	f/f?	ch	sex?	
1. Open bracelet	56	91.80	1	53	2	–	53	42	2	25	10	5	3
1. Banded section	1	1.79	–	1	–	–	1	1	–	1	–	–	–
2. Wire: cir., semicir. & square section	53	94.63	1	50	2	–	50	39	2	23	10	4	3
3. Wire: triangular section	1	1.79	–	1	–	–	1	1	–	–	–	1	–
4. Snake heads	1	1.79	–	1	–	–	1	1	–	1	–	–	–
2. Closed bracelet	3	4.92	–	3	–	–	3	3	–	3	–	–	–
1. Animal heads	1	33.33	–	1	–	–	1	1	–	1	–	–	–
2. Twisted wire: varied thickness	2	67.77	–	2	–	–	2	2	–	2	–	–	–
3. Bracelet that fastens	2	3.28	–	1	–	–	1	1	–	–	1	–	1
1. Twisted wire with a hook and eye	2	100.00	–	1	–	–	1	1	–	–	1	–	1
Total:	61	100.00	2	57	2	–	57	42*	2	26*	10	4*	4
4. Unknown	1	100.00	–	–	–	1	1	1	–	1	–	–	–
Total:	62	100.00	2	58	2	1	58	42*	2	26*	10	4*	4

4.3.3.1.1.1–4. – A pair of bracelets of different variants of open bracelets come from 3 graves: *a bracelet of banded section and a bracelet of circular section*, gr. 211/f; *a bracelet of circular section and a bracelet of triangular section*, gr. I-51/?; *a bracelet of circular section and a bracelet with snake heads*, gr. 444/f.

4.3.3.1.1.2. – A pair of bracelets of identical variants of open bracelets come from 11 graves: *bracelets of wire of circular, semicircular or square section*, gr. 13/ch, 31/f, 44/f, 48/f, 66/f, 86/ch, 93/f, 183/f, 217/f, 316/f, 426/f.

4.3.3.1.1./4.3.3.1.2.2. – A pair of bracelets of different groups of bracelets come from one grave: *an open bracelet of circular section and a closed bracelet of twisted wires of varied thickness*, gr. 159/f.

A total of 62 bracelets were found at Lijevo Bara – entirely preserved examples were more frequent, and damaged, i.e. broken, fragmentary, or partly preserved examples were rare,<sup>362</sup> while for one bracelet it was noted that it had already been damaged before the grave was uncovered and that it fell apart, so that its form remains unknown as it was not preserved (gr. 326).<sup>363</sup> During the archaeological excavations in 1951–53, 59 bracelets were discovered, and only 3 bracelets were acquired by purchase during the 1930s.<sup>364</sup> Of the above 59 bracelets, 53 examples come from 42 graves,<sup>365</sup> primarily of women and children, and the finds of bracelets noted in the graves of two male warriors are quite exceptional – in both cases a single bracelet was found on the right hand of the deceased (gr. 92 and 268).<sup>366</sup> Among the graves with finds, the graves with bracelets make up 21.99% (42 graves), which measures 9.59% of all archaeologically excavated early medieval graves at the site (438 graves).

<sup>362</sup> Four bracelets were broken into two parts (gr. 44/f, 86/ch, 208-2/f-ch, and I-1951/?), two bracelets were incomplete as they were missing the parts for fastening (gr. 382/ch, S-2419), and of three bracelets only a large or small section was preserved (gr. 66/f, 214/ch, S-2396).

<sup>363</sup> *Dnevnik*, ad 21 Aug. 1953. ("*fragments of a bracelet on the right arm*"); *Zapisnik*, no. 326/22 Aug. 1953. ("*a bracelet falling apart on the right arm*").

<sup>364</sup> S-AMZ: S-2395-6 and S-2419.

<sup>365</sup> Graves: 13/ch (2), 18/ch, 23/ch, 31/f (2), 33/f, 44/f (2), 48/f (2; one in a non-functional position), 49/f, 66/f (2), 86/ch (2), 92/m, 93/f (2), 103/f, 108/f, 115/f, 122/f, 139/f, 159/f (2), 183/f (2), 184/? , 186/ch, 208-2/f-ch, 211/f (2), 214/ch, 217/f (2), 268/m, 276/ch, 292/f, 316/f (2), 326/f (bracelet not preserved), 365/f, 374/f, 382/ch, 383/ch, 390/ch, 394/f, 426/f (2), 440/f, 444/f (2), I-1951/? (2), II-1951/? , III-1951/?.

<sup>366</sup> Finds of a single bracelet – more often on the right hand than the left – were common in the graves of the proto-Hungarian warrior group from Bolsije Tigani, see CHALIKOVA – CHALIKOV 1981, Pl. V (gr. 6), VIII (gr. 9), X (gr. 12), XII (gr. 14), XVIII (gr. 22), XX (gr. 24), XXIII (gr. 28), XXVIII (gr. 37), XXXA (gr. 41). In the Carpathian basin this custom was retained even after the arrival of the Hungarians, and hence later, i.e. at the end of the first half and in the second half of the 10<sup>th</sup> century, finds of bracelets in the graves of warriors and riders can still be found. A good example is offered in this sense by pairs of open-ended bracelets with tapered and cut ends (G. 4) from certain warrior graves in Hungary and Slovakia, e.g. *Szob – Kiserdő*, gr. 21 (BAKAY 1978, 17–20); *Dobrá – Ligahomok*, gr. 6 (DÓKOS 1900, 52–61; HAMPEL 1905, 637, 639–640 Taf. 424:18–19; RUTTKAY 1975, 139, gr. 6 = gr. 2; GIESLER 1981, 22–23).

Bracelets were more often found in the graves individually (25 graves), than in pairs (15 graves). Only in one grave were two bracelets found with one in a functional and the other in a non-functional position (gr. 44/f). Although bracelets worn as a pair – one on the left and one on the right forearm – compose almost half of all finds of this type of jewellery (49.18%), pairs of bracelets were found in only 13 female or probably female graves and in two child graves (35.71%). If bracelets were worn as a pair, the heavier bracelet was usually worn on the right arm (ca. 70%), and the lighter bracelet on the left (ca. 30% of examples). Pairs further usually consisted of bracelets of the same type or same variant – predominantly variants of wire bracelets of circular and square section (De. 1.2a i 1.2c),<sup>367</sup> found in 10 graves (71.14%), and other than them in only four cases do other forms appear (28.57%), i.e. an open bracelet of banded section (De. 1.1) and an open bracelet of wire with a triangular section (De. 1.3), and a closed bracelet of twisted wire (De. 2.6) and an open bracelet with snake heads (De. 1.4). When they were not worn in pairs, the bracelets were usually found on the right forearm (20 graves).<sup>368</sup> The only exceptions to this rule at Lijevo Bara were the finds from three child graves (gr. 18, 382 and 390) and one female grave, where the bracelet was found on the left arm (gr. 44). Only one bracelet was found in a non-functional position, broken into two parts and evidently placed during burial in the chest of the female buried in grave 44.<sup>369</sup> Five bracelets from four graves (gr. 184/?, 208-2/f-ch, I-1951/? and III-1951/?) lack data about the position in which they were found in the grave.

Of the 42 graves with a bracelet or a pair of bracelets, in only 9 graves were bracelets the only find (21.43%).<sup>370</sup> In the remaining 33 graves (78.57%) they represent rarely one of only two types of grave finds (4 graves), and much more frequently one of three or more types of grave goods (29 graves). Considering the female and child identity of most of these graves, the accompanying grave goods usually consisted of various forms of jewellery, i.e. decoration for the head (circlets, cast raceme earrings), decoration for the neck (torcs, necklaces, two-part pendants), or decoration for the hand (rings). Other than jewellery, sometimes graves with bracelets contained other grave goods such as a flint (gr. II-1951/?), a spindle-whorl (gr. 122/f), iron awls (gr. 139/f, 440/f, 444/f), and iron pincers (gr. 86/ch). In reliably male graves – in which during the second half of the 10<sup>th</sup> century bracelets became an ever more rare grave find – bracelets appeared together with jewellery for the head (circlets) and hand (rings), but also with weapons and objects of everyday use, i.e. a composite or reflex bow accompanied by a knife (gr. 92) or a quiver and arrows accompanied by a knife and flint (gr. 268). All of these objects appeared together with bracelets in a total of 27 combinations, where the most common accompanying grave finds were rings (38 examples in 18 combinations), followed by circlets and cast raceme earrings (33 examples in 14 combinations), and only after that torcs (8 examples in 8 combinations) and various kinds of necklaces (10 examples in 10 combinations). It should be noted that at Lijevo Bara bracelets were not found in any grave that contained O-circlets or S-circlets as jewellery for the head.

Among the bracelets, open bracelets predominate greatly (56 examples), and among them mostly bracelets of wire with a circular, semicircular, or square section, i.e. bracelets of type De. 1.2a–c (53 examples). Individual examples of other variants of open bracelets are somewhat rare, such as light bracelets of banded section and spirally coiled ends (De. 1.1), massive and heavy bracelets of triangular section wire (De. 1.3), or bracelets with ends in the shape of snake heads (De. 1.4). Closed bracelets are scarce (only 3) and were represented by two bracelets of two twisted wires of thick section and two twisted wires of thinner section (De. 2.5). Also scarce (2 examples) – and frequently found in child graves from the second third and third quarter of the 10<sup>th</sup> century – were bracelets that fasten made of three twisted wires with a hook and eye for fastening of type G. 5 (De. 3.7).

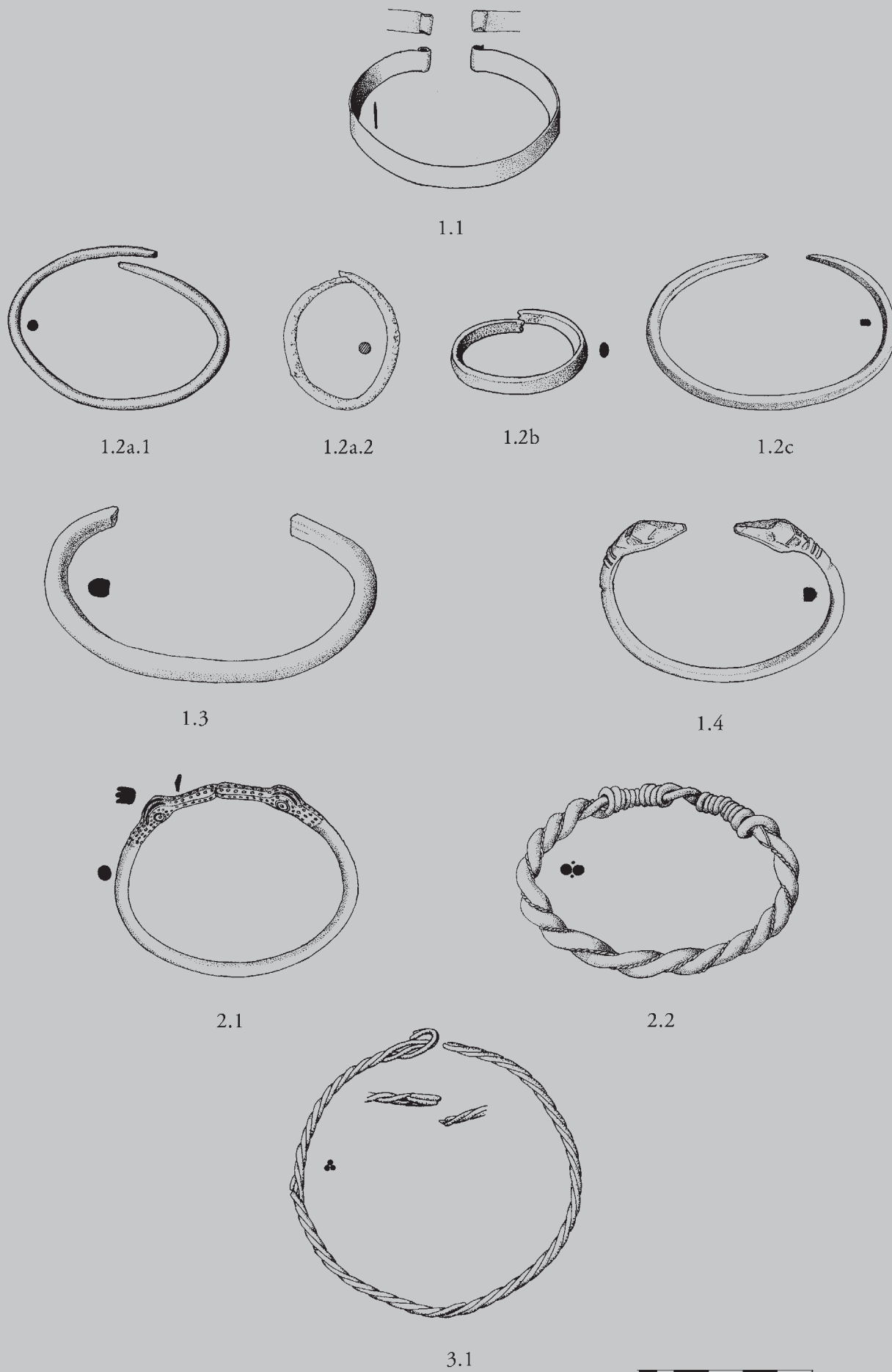
In terms of relative chronology, the tendency can be noted for heavy bracelets to be later, and lighter bracelets to be earlier, and for bracelets of wire with circular, semicircular or square section and pointed ends to be older than those with uniform and cut or tapered and cut endings, while closed bracelets represented the youngest group in relative chronological terms.

<sup>367</sup> Not included were gr. 44/f, as one of the bracelets was found in a non-functional position, and gr. 326/f, as one of the bracelets fell apart during the archaeological excavations and it could not be established to which type it belonged.

<sup>368</sup> Graves 23/ch, 33/f, 49/f, 92/m, 103/f, 108/f, 115/f, 122/f, 139/f, 186/ch, 214/ch, 268/m, 276/ch, 292/f, 365/f, 374/f, 383/ch, 394/f, 440/f, and II-1951/?

<sup>369</sup> *Zapisek*, no. 44/26 Aug. 1952. The bracelet was certainly broken either before or during the course of the burial into two parts (old break), and broken in this manner it was placed in the grave on the chest of the deceased. – The find of a bracelet in a non-functional position (i.e. placed by the head of a child skeleton) was also noted at the cemetery of Bijelo Brdo – Ul. Venecija, gr. 56: BRUNŠMID 1904, 56.

<sup>370</sup> These were all graves where the deceased wore only one bracelet on the right or left forearm made of bronze wire of circular section (gr. 18/ch, 44/f, 103/f, 184/?, 186/ch, 214/ch, 276/ch, and 390/ch), or one bracelet of iron wire of semicircular section (gr. 208-2/ch).



**Fig. 42.** Represented types and variants of bracelets (De. 1.1–4; 2.1–2; 3.1). **1** – Open bracelets, bronze, iron (1.1 – a bracelet of banded section with spirally everted endings, bronze: gr. 211/f; 1.2a1 – wire of circular section, bronze: gr. 440/f; 1.2a2 – wire of circular section, iron: quad. XIII/6a; 1.2b – wire of semi-circular section, bronze: gr. 208a/ch; 1.2c – wire of square section, bronze: gr. 93/f; 1.3 – wire of triangular section, bronze: gr. I-1951/?; 1.4 – wire of circular section, with snake heads on the ends, bronze: gr. 444/f). **2** – Closed bracelets, bronze (2.1 – circular section, with snake heads on the ends, bronze: gr. 374/f; 2.2 – twisted wire of various thicknesses, bronze: gr. 139/f). **3** – Bracelets that fasten, bronze (3.1 – twisted wire with a hook and eye for fastening, bronze: S-2419).

### 4.3.3.1.1. Open bracelets

#### 4.3.3.1.1.1. A bracelet of banded section with spirally everted endings (G. 2)

No.	Inv. AMZ	Metal	Type De. (= G. 2)	Ends of bracelet	Ø bracelet (cm)	Ø wire (cm)	Wt. (g)	Grave sex	Arm	Pair w/ type
1.	2622	AE	1.1	spirally everted	6.05/5.70	0.70x0.14	8.412	211/f	l	1.2a

The only bracelet with a hoop of banded section belonged to the group of bracelets with spirally everted endings, which in addition to decorative purposes could also have served for attachment, as some finds quite clearly show (**Fig. 42:1.1**).<sup>371</sup> The bracelet was not very wide, made of bronze and undecorated. It was worn in a pair with a bracelet of circular section wire, with open and cut ends (De. 1.2a),<sup>372</sup> which is not an unusual occurrence.<sup>373</sup> Although it is generally considered that such sheet metal bracelets appeared in the Carpathian basin already at the beginning of the 10<sup>th</sup> century<sup>374</sup> and that they remained in use throughout the entire first third of the 11<sup>th</sup> century,<sup>375</sup> the example from Vukovar certainly belongs to chronologically later bracelets of this type, i.e. those from the end of the 10<sup>th</sup> or beginning of the 11<sup>th</sup> century. This is confirmed by the position of grave 211, located in the northeastern part of the excavated area of the cemetery, and the finds of rings with later relative chronological characteristics, i.e. a ring with a stepped crown on the right hand (De. 3.14), and a closed ring with a semicircular section decorated with perpendicular incisions on the left hand (De. 2.1a.1).

#### 4.3.3.1.1.2. Bracelets of wire of circular, semicircular, or square section and pointed, tapered, or cut ends (G. 4)

No.	Inv. AMZ	Metal	Type De. (= G. 4)	Ends of bracelet one end /other end	Ø bracelet (cm)	Ø wire (cm)	Wt. (g)	Grave sex	Arm	Pair w/ type
1.	2431	AE	1.2a	pointed	6.55/6.23	0.39–0.15	12.113	13/ch	r	1.2a
2.	2432	AE	1.2a	pointed	7.52/6.27	0.33–0.15	10.882	13/ch	l	1.2a
3.	2439	AE	1.2a	uniform, tapered/cut	3.77/3.53	0.30–0.25	5.429	18/ch	l	–
4.	2447	AE	1.2a	tapered/cut	4.80/4.58	0.43–0.36	12.037	23/ch	r	–
5.	2462	AE	1.2a	tapered/cut	7.03/6.70	0.39–0.25	16.929	31/f	r	1.2a
6.	2893	AE	1.2a	tapered/cut, pointed	6.60/6.39	0.45–0.18	19.934	31/f	l	1.2a
7.	2464	AE	1.2a	tapered/cut	6.98/6.71	0.50–0.33	26.248	33/f	r	–
8.	2477	AE	1.2a	tapered/cut	6.89	0.48–0.28	25.296	44/f	–	1.2a
9.	2476	AE	1.2a	pointed	6.73/6.68	0.38–0.10	13.472	44/f	l	1.2a
10.	2480	AE	1.2a	tapered/cut	6.95/6.54	0.51–0.28	29.605	48/f	r	1.2a
11.	2479	AE	1.2a	tapered/cut	6.81/5.78	0.39–0.26	17.649	48/f	l	1.2a
12.	2485	AE	1.2a	uniform, tapered/cut	6.92/6.74	0.40–0.33	19.231	49/f	r	–
13.	2503	AE	1.2a	tapered/cut	6.96/6.89	0.50–0.42	28.167	66/f	r	1.2a
14.	2504	AE	1.2a	tapered/cut	ca. 7.30	0.40–0.27	10.420	66/f	l	1.2a
15.	2521	AE	1.2a	tapered/cut	–	0.40–0.30	18.903	86/ch	r	1.2a
16.	2520	AE	1.2a	pointed	5.53/5.00	0.41–0.10	13.123	86/ch	l	1.2a
17.	2530	AE	1.2a	uniform, tapered/cut	7.18/7.15	0.43–0.38	19.878	92/m	r	–
18.	2538	AE	1.2a.1	stanjeni/podrezani	7.61/7.39	0.51–0.30	30.244	93/f	r	1.2c.1
19.	2539	AE	1.2c.1	pointed	7.27/6.89	0.38–0.12	17.406	93/f	l	1.2a.1
20.	2551	AE	1.2a	tapered/cut	7.00/6.50	0.40–0.27	20.679	103/f	r	–

<sup>371</sup> REJHOLCOVÁ 1995, Pl. LIV:6a–c, where in gr. 336 a bracelet was found whose spiral endings were turned inwards and tied with two thin bronze circlets.

<sup>372</sup> DEMO 1996, 80. Claims about a rhomboid section of this bracelet do not correspond to the actual state (e.g. TOMIČIĆ 1992, 170).

<sup>373</sup> Similar combinations come from the neighboring area of Vukovar, Vojvodina, in Serbia: *Bogojevo – Biboja ulica*, gr. 5: CZIRÁKY 1900, 265–266; HAMPEL 1907, 167, Pl. 57:II; STANOJEV 1989, 24; KOVÁCS 1991, 406. For one certainly even less common combination from the end of the 10<sup>th</sup> or beginning of the 11<sup>th</sup> century consisting of a sheet-metal undecorated bracelet with spiral ends bent outwards (G. 2), an open-ended bracelet of rhomboid section wire (G. 7), and two S-circlets, a torc, a necklace of glass beads, and two rings (G. 25), see GÖMÖRI 1984, 91 (*Szakony*, gr. 28).

<sup>374</sup> VÁŇA 1954, 65; SZŐKE 1962, 96.

<sup>375</sup> GEISLER 1981, Pl. 53.

No.	Inv. AMZ	Metal	Type De. (= G. 4)	Ends of bracelet one end /other end	Ø bracelet (cm)	Ø wire (cm)	Wt. (g)	Grave sex	Arm	Pair w/ typ
21.	2553	AE	1.2a	pointed	6.57/6.16	0.41–0.10	17.384	108/f	r	–
22.	2563	AE	1.2a	uniform/cut	6.68/6.53	0.40	19.076	115/f	r	–
23.	2572	AE	1.2a	tapered/cut	6.68/6.53	0.38–0.25	15.348	122/f	r	–
24.	2600	AE	1.2a	tapered/cut	6.69/6.63	0.40–0.25	18.653	159/f	l	2.6
25.	2609	AE	1.2a	pointed	7.24/6.53	0.42–0.10	14.598	183/f	r	1.2a
26.	2610	AE	1.2a	tapered/cut	6.55/5.97	0.38–0.25	12.172	183/f	l	1.2a
27.	2613	AE	1.2a	tapered/cut	6.86/6.17	0.40–0.29	17.082	184/?	–	–
28.	2614	AE	1.2a	pointed	5.43/5.40	0.42–0.12	14.083	186/ch	r	–
29.	2903	AE	1.2a	tapered/cut	3.50	0.58–0.25	7.776	208-2/f,ch	–	–
30.	2621	AE	1.2a	tapered/cut	7.00/6.60	0.42–0.27	19.445	211/f	r	1.1
31.	2624	Fe	1.2a	–	ca. 3.70	0.45	2.917	214/ch	r	–
32.	2627	AE	1.2a	tapered/cut	6.73/6.50	0.42–0.25	18.024	217/f	r	1.2a
33.	2628	AE	1.2a	tapered/cut	7.06/6.64	0.38–0.24	16.020	217/f	l	1.2a
34.	2676	AE	1.2a	tapered/cut	6.68/5.78	0.40–0.24	17.771	268/m	r	–
35.	2680	AE	1.2a	uniform, tapered/cut	4.05/3.70	0.36–0.16	7.726	276/ch	r	–
36.	2694	AE	1.2a	tapered/cut	7.87/7.29	0.32–0.20	14.587	292/f	r	–
37.	2723	AE	1.2a.1	tapered/cut	6.87/6.63	0.44–0.37	24.997	316/f	dr	1.2a.1
38.	2722	AE	1.2a.1	tapered/cut	7.10/7.02	0.57–0.35	40.540	316/f	l	1.2a.1
39.	2738	AE	1.2c.1	tapered/cut	6.93/6.61	0.37–0.34	19.760	326/f	l	?
40.	2785	AE	1.2a	tapered/cut	7.50/7.03	0.52–0.30	36.670	365/?	r	–
41.	2801	AE	1.2a	tapered/cut	6.61/6.33	0.35–0.26	16.541	383/ch	r	–
42.	2810	AE	1.2a	tapered/cut	7.20/7.09	0.31–0.18	15.270	390/ch	l	–
43.	2815	AE	1.2a	stanjeni/podrezani	6.74/6.45	0.35–0.22	14.607	394/f	r	–
44.	2859	AE	1.2a	uniform, tapered/cut	5.90/5.30	0.38–0.22	12.271	426/f	l	1.2a
45.	2860	AE	1.2a	tapered/cut	7.38/6.61	0.32–0.20	12.831	426/f	r	1.2a
46.	2871	AE	1.2a	tapered/cut	6.16/5.80	0.35–0.28	14.992	440/f	r	–
47.	2875	AE	1.2a	tapered/cut	7.17/6.93	0.48–0.35	29.352	444/f	l	2.5
48.	2884	AE	1.2a	uniform/cut	7.60/6.88	0.50	33.301	I-1951/?	–	1.3
49.	2886	AR	1.2b	uniform/cut	7.50/6.77	0.59–0.38	35.156	II-1951/?	r	–
50.	2889	AE	1.2a	tapered/cut	6.30/6.27	0.38–0.30	17.895	III-1951/?	–	–
51.	2395	AE	1.2a	uniform, tapered/cut	5.23/4.77	0.39–0.29	11.703	Srnić	–	–
52.	2396	AE	1.2b	–	–	0.50–0.30	4.198	Srnić	–	–
53.	2896	Fe	1.2a	tapered/cut	3.83/3.40	0.39–0.27	6.836	quad XIII/6a	–	–

[Section: 2a = circular/oval; 2b = semicircular; 2c = square; 2a.1 and 2c.1 = decorated bracelets of circular and square section]

\*Notes:

2. Broken into two parts; found on the chest far from both fore-arms.  
 14. Fragment.  
 25. Wire of circular section.  
 29. Wire of oval section; bracelet attributed to the child skeleton of double gr. 208-1–2/f,ch (mother and child).

31. Fragment.  
 39. Square section, gently rounded on the outside.  
 51. Purchased for the AMZ (Srnić, Vukovar, 1935).  
 52. Fragment; purchased for the AMZ (Srnić, Vukovar, 1935).  
 53. Bent; found in the 4th digging level (ca. 75 cm) together with an incomplete S-cirlet (S-2898).<sup>376</sup>

Bracelets of wire with circular, semicircular or square section were the most highly represented type of open bracelets (Fig. 42:1.2a.1–1.2c): from 42 graves (39 systematically excavated) come 50 examples (ten pairs of the same type of bracelets), while 1 bracelet was a chance find discovered during excavation in 1953, and 2 bracelets were chance finds from graves destroyed considerably before the systematic archaeological excavations. Most of the bracelets were made of bronze (94.34%), two bracelets were made of iron (gr. 214/ch, S-2896), and only one bracelet was made of silver (gr. II-1951/?). Bracelets predominate of circular and oval section wire (92.44%), and a semicircular section and a square section and

<sup>376</sup> Dnevnik, ad 21.VIII.1953.

square section with a rounded exterior side were represented with two examples each (3.77%).<sup>377</sup> Bracelets with tapered and cut ends surpassed a two-thirds majority (64.71%), while there were even four times less numerous bracelets with pointed ends and even fewer examples of bracelets with uniform and cut ends. Pointed ends were characteristic only for bracelets of the lighter weight system, primarily for examples whose weight rarely exceeded more than 15 gr, while uniform and cut ends are characteristic for heavier bracelets, which indicates the converse relative chronological relationship of these two variants. In contrast to them, a central relative chronological position is occupied by the bracelets with tapered and cut ends, which as a rule weigh more than 15 or 20 g, while only occasionally does their weight measure more than 30 g or even surpass 40 g. The general proportions of the weights indicate a predominant representation of bracelets of the lighter weight system (79.59%), while bracelets of the middle and heavier weight systems make up only a quarter of the finds of this type of bracelet (Table 30).

**Table 30**

The representation of the various weight systems for bracelets of wire with circular, semicircular, or square (not included: fragments of bronze and iron bracelets from gr. 66/f, 214/ch and S-2396, and the iron bracelet S-2896).

Group light/medium/heavy	Weight system (g)	No. of specimens	%	Average weight (g)	Sex of the skeleton (number of bracelets)
I	>5-15	17	34.69	12.024	f (8); ch (8); - (1)
II	>15-25	22	44.90	18.358	f (12); f? (3); ch (3); m (2); - (2)
III	>25-35	7	14.29	28.887	f (6); - (1)
IV	>35-45	3	6.12	37.455	f (1); f? (1); - (1)
V	>45-55	-	-	-	-
	5.429-40.54	49	100.00	18.834	f (27); f? (4); ch (11); m (2); - (5)

Decoration rarely appears on bracelets of wire, and decorated examples are truly few and quite scarce (9.43%). Only the ends of the bracelets are decorated: in one case the decoration was a deep perpendicular groove (gr. 326/f), and the remaining three examples had five, six, or seven shallowly incised transverse lines (gr. 93/f, 316/f).<sup>378</sup> All four of these bracelets belong to variants with tapered and cut ends, but the examples decorated with transverse incisions primarily belong to the heavier bracelets and come from graves located in the western sections of the cemetery (gr. 93/f, 316/f), while the example with grooving on the ends of the bracelet comes from the lighter weight group and was found in a grave located in the southeastern section of the excavated area of the cemetery (gr. 326/f).

A total of 33 bracelets come from 22 female or probably female graves (71.74%),<sup>379</sup> 11 bracelets come from 9 child graves (23.91%), 2 bracelets come from 2 male graves (4.35%), while the remaining 4 bracelets are from graves where the sex of the deceased could not be established for various reasons.<sup>380</sup> Of the above 50 bracelets, as many as 25 examples were found as part of a pair with an identical or different type of bracelet (50%): 20 examples in a pair with the same type or a different variant of the same type of bracelet (80%), 4 bracelets as a pair with another type of bracelet (16%), and for only one example was it impossible to establish with what type of bracelet it made a pair (4%). With the exception of two child graves (gr. 13, 86), all the pairs of bracelets come from female graves.

An open bracelet of circular or semicircular section appears as the only grave find in only 9 graves (23.08%) – almost all located in the northern part of the cemetery (gr. 18/ch, 44/f, 103/f?, 184/?, 186/ch, 208-2/f-ch, 214/ch, 276/ch, 390/ch).<sup>381</sup> Much more often, bracelets appear with one, two, three, or four other grave goods, the most numerous being rings, circlets, and earrings, as well as torcs and necklaces of beads with or without metal pendants, and only after these come finds of weapons in male graves (bow, quiver, and arrows) and objects of various purpose in female graves (knife, awl, pincers, spindle-whorl, flint and fire-steel), among which objects related to ceremonies and beliefs can be noted (animal bone).

<sup>377</sup> DEMO 1996, 51-52.

<sup>378</sup> Bracelets decorated in this manner appear sporadically at other Bijelo Brdo sites, such as in the neighboring Vojvodina province of Serbia (*Banatsko Aranđelovo*, chance find: HAMPEL 1907, Pl. 20:C/5 = STANOJEV 1989, 15, 17 no. 34; *Bočar – Budak ekonomija*, gr. 8: STANOJEV 1989, 33, 35 no. 184), and in Hungary (*Budapest – Rakóspalota*, chance find: HAMPEL 1907, 193 Fig. 1; *Kecskemét – Cédulaháza*, child grave: HAMPEL 1905, 542, Pl. 377A:1; *Szeged – Óbálm*, gr. 11: BÁLINT 1968, 60, 63 Pl. VIII:1; *Szentes – Szentlászló*, gr. 87: SZÉLL 1941, 241, Pl. VIII:10,15; *Szob – Kiszerdő*, gr. 21: BAKAY 1978, 20, Pl. VIII:7), in Slovakia (*Čakajovce – Kostolné*, gr. 124: REJHOLCOVÁ 1995, 14-15, 119 Pl. XXIX:4; *Malé Kosihy – Horné Konopnice*, gr. 104: HANULIAK 1994, 162, Pl. XXIII:9), and in Romania (*Blandiana – în vii*, gr. 1: HOREDTE 1966, 176, 279 Fig. 19:2).

<sup>379</sup> The bracelet found by the child skeleton of the double grave 208-1,2/f-ch (grave of a mother and child) was assigned to the group of bracelets from female graves.

<sup>380</sup> The percentage representation does not include bracelets purchased for the AMZ in the 1930s, as they were chance finds from destroyed graves at Lijeva Bara long before the first archaeological excavations (S-2395 and S-2396).

<sup>381</sup> The only exception is gr. 390, located in the southwestern section of the excavated area of the cemetery.

## 4.3.3.1.1.3. Bracelet of triangular section wire (G. 7 dif.)

No.	Inv. AMZ	Metal	Type De. (= G. 7 dif.)	Ends of bracelet one end /other end	Ø bracelet (cm)	Ø wire (cm)	Wt. (g)	Grave sex	Hand	Pair w/ type
1.	2883	AE	1.3	uniform, tapered/cut	9.64/7.10	0.70–0.67	69.099	I-1951/?	–	1.2a

The bracelet from grave I-1951 was the heaviest bracelet discovered at Lijeva Bara. Thanks to its weight more than its triangular section (**Sl. 42:1.3; Pl. 6:2/right**), it is directly related to the many more frequent examples of heavy bracelets of rhomboid wire (sometime polygonal) that appeared around AD 1000 and continued to ca. 1050/1060, as is shown by finds dated by coins.<sup>382</sup> The section makes it close to the open bracelets of semicircular section (D-section), so it is likely that it belongs among early examples of the open bracelets of the heavy system and the period around the year 1000. The bracelet was found in a grave buried in the central western section of the excavated part of the cemetery together with a torc (De. 1b), a heavy example of a bracelet of circular section wire (De. 1.2a), and a silver ring with a crown and a hoop of filigree wire (De. 3.2).

## 4.3.3.1.1.4. Bracelet with snake heads (G. 8 dif.; K. 1a dif.)

No.	Inv. AMZ	Metal	Type De. (= G. 8 dif.)	Ends of bracelet	Ø bracelet (cm)	Ø wire (cm)	Wt. (g)	Grave sex	Arm	Pair w/ type
1.	2789	AE	1.4	snake heads	6.90/6.25	0.50	26.539	444/f	r	1.2a

\* Note:

1. Wire of circular section.

The only cast open bracelet with a smooth hoop and circular section, with relief emphasized, triangularly shaped, and easily recognizable snake heads on the ends (**Fig. 42:1.4; Pl. 18:3**) – a rarity among Bijelo Brdo jewellery<sup>383</sup> – was a product of the Byzantine-Bulgarian cultural circle and arrived in Vukovar from areas south of the Danube. There bracelets with similar traits, of circular, oval, semicircular or square section and varied stylistic formation, with more or less stylized and diversely decorated snake heads were a common jewellery form represented at early medieval cemeteries in Serbia<sup>384</sup> and Kosovo,<sup>385</sup> in Bugaria,<sup>386</sup> and in the Romanian Dobrudja,<sup>387</sup> and more rarely in the south or southwest, in Macedonia<sup>388</sup> and Albania.<sup>389</sup>

The bracelet from Vukovar with snake heads was found in gr. 444<sup>390</sup> on the right arm of a female skeleton with the forearms placed on the upper part of the trunk (v.14). It was found in the grave together with an open bracelet of circular section, a torc made of two doubly bent and oppositely inserted twisted wires of the lighter weight system type IIb, a silver ring of two twisted wires (G. 29), a fragment of an iron awl, and with a silver large-format circlet and a bronze mushroom-shaped button-pendant (the specific position in the grave was not established for the two latter objects). The grave was located on the northern edge of the southwestern zone of burial (zone IV), and accordingly would belong to the beginning of or the early 11<sup>th</sup> century.

<sup>382</sup> GIESLER 1981, Pl. 52:2 and 53. It is now possible to add to his list other grave finds dated by coins of King Stephen (1000–1038), Samuel Aba (1038–1041), and Andrew (1046–1061), e.g. *Majs – Udvari rétek*, gr. 475: KISS 1983, 107, 348; *Pőspökladány – Eperjesvölgy*, gr. 107: NEPPER 1993, 96–97; *Sarud – Pőstöltése*, gr. 35: SZABÓ 1976, 32; *Szőreg – Homokbánya*, gr. 35: BÁLINT 1991, 90, 92. – For the appearance of these bracelets dated only to the time around AD 1000, see SZABÓ 1980, 65 (Fig. 7).

<sup>383</sup> Although their appearance is not entirely recognizable, it seems that the snake heads are considerably less emphasized on the ends of bracelets found in Hungary (Nógrád County) at the cemetery of Létkes – Téglaegető II, gr. 54: BAKAY 1978, 107, Pl. L:15 (gr. 54).

<sup>384</sup> *Prahovo – Ideče*, gr. 50: JANKOVIĆ 1975, 237–238, Pl. VI:5. *Gradac – Doničko brdo*, destroyed grave: PETROVIĆ 1965, 286 Fig. 35:4,6.

<sup>385</sup> *Matičane – Breg*, gr. 97: JOVANOVIĆ – VUKSANOVIĆ 1981, Y 248/1:6.

<sup>386</sup> *Pliska – zapadni zid*, gr. 25: DONČEVA-PETKOVA 1984, 187 Fig. 7d, 191.

<sup>387</sup> *Păcuil lui Soare – uvrda*: DIACONU 1965, 309 Fig. 2:6, 316 Fig. 4:2; DIACONU 1972, 148 Fig. 60:2; *Garvăn – Bisericuța /Roman Dinogea*: BARNEA 1967, 291 Fig. 172:10. *Garvăn – Bisericuța*, gr. 9: BARNEA 1973, 301, 309 Fig. 9:12.

<sup>388</sup> *Varoš – St. Atanasius*: BABIĆ 1976, 136 Fig. 21 (St. Atanasius); MANEVA 1992, 201, Pl. 50:62/11. *Varoš – Potkuli*: BABIĆ 1976, 135 Fig. 20; MANEVA 1992, 198, Pl. 50:61/10.

<sup>389</sup> *Rehova – Šehin Thanas*, gr. 104: ALIU 1986, 236, 244 Pl. IV:71, 248 Pl. VIII:11.

<sup>390</sup> In the S-AMZ inventory book, the bracelet is noted among the finds from gr. 374 (sic!), and it is mentioned as such in several recent publications (e.g. TOMIČIĆ 1992, 145, Pl. XIII:1; DEMO 1996, 52 Fig. 34/left).

### 4.3.3.1.2. Closed bracelets

#### 4.3.3.1.2.1. Bracelet with animal heads (V. II/11; K. 2b)

No.	Inv. AMZ	Metal	Type De. (= V. II/11)	Ends of bracelet	Ø bracelet (cm)	Ø wire (cm)	Wt. (g)	Grave/sex	Arm	Pair w/ type
1.	2881	AE	2.1	animal heads	7.17/6.93	0.45	29.041	374/♀	r	–

\* Note:  
1. Wire of circular section.

A cast closed bracelet with two touching antithetically placed animal heads and a smooth hoop of circular section was found in gr. 374/♀ (**Fig. 42:2.1; Pl. 18:2**), located in the southwestern section of the excavated area of the cemetery,<sup>391</sup> one of only two bracelets of similar traits discovered at Bijelo Brdo Culture sites south of the Drava River.<sup>392</sup> Although it exhibits special features, both in the formation of the animal heads and in the manner of their decoration (rows of small impressed circles), this is a typical jewellery form of the Bijelo Brdo cultural circle, whose various forms and variants are assigned to the period from 970 to ca. 1050/1060.<sup>393</sup> The Vukovar example is rare among Bijelo Brdo grave finds because of the closed form of the animal mouths,<sup>394</sup> and because of the smooth hoop, examples with similar characteristics are considered an earlier type in terms of relative chronology,<sup>395</sup> and they have recently been dated to the period between the third quarter of the 10<sup>th</sup> century extending into the 11<sup>th</sup> century.<sup>396</sup>

This bracelet from Vukovar was found on the right arm of the deceased (♀), who in addition to the bracelet also wore a pair of large-format silver circlets on the head (G. I,6/3) and a bronze ring of the "Vukovar – Bijelo Brdo" type on a finger of the left hand (De. 3.16 = G. 38b). The rings of the "Vukovar – Bijelo Brdo" type and the forearms placed on the upper and lower parts of the trunk (v.12) indicate that the bracelet can be dated to the late 10<sup>th</sup> century. It was located to the south-east of gr. 444 with the find of an open bracelet with snake heads, at a distance of around twelve meters.

#### 4.3.3.1.2.2. Bracelets of twisted wires of different thickness (V. I/6 dif.)

No.	Inv. AMZ	Metal	Type De. (=V. I/6 dif.)	No. of wires/ ends of bracelet	Ø bracelet (cm)	Ø wire (cm)	Wt. (g)	Grave sex	Hand	Pair w/ type
1.	2593	AE	2.2	2+4/coils	7.97/7.64	0.61	48.666	139/f	r	–
2.	2599	AE	2.2	2+4/coils	7.45/7.37	0.53	34.624	159/f	r	1.2a

Closed bracelets of twisted wire of varied section – two thick and two thin wires – with transverse coils of thick and tapered wires towards the ends, are unique and almost without analogies among the bracelets of the Bijelo Brdo cultural circle (**Fig. 42:2.2; Pl. 10:2/right, 18:1**). The twisting of wires of varied section means that their models could have been diverse in the chronological and geographical sense,<sup>397</sup> while because of the transverse coiling on the ends, the bracelets from Vukovar display a similarity with certain closed bracelets from the cemetery of Vác – Héktápolna in Hungary (Pest County)<sup>398</sup> and Várşand – Movila dintre vii in Romania (Arad County),<sup>399</sup> which were not made from wires of varied section, but rather

<sup>391</sup> VINSKI 1955, 253, Fig. 27; VINSKI 1959, Pl. XXXVIII:27. In the S-AMZ inventory book, the bracelet is noted among the finds from gr. 444 (sic!), and it is mentioned as such in several recent publications (e.g. DEMO 1996, 52 Fig. 34/right).

<sup>392</sup> Other than the Vukovar bracelet, so far only two closed bracelets come from the region south of the Drava – both examples with widely opened animal mouths: one from Bijelo Brdo in eastern Slavonia (gr. 188), and the other from Kočičevo in the western part of the Bosnian Sava basin (chance find from destroyed graves): BRUNŠMID 1904, 48 (Fig. 21), 73; KOROŠEC-VRAČKO 1943, 272 Fig. 2, 280. Other than these, mention was made of a pair of cast open bracelets with a semicircular hoop ribbed on the outer side from the cemetery of Svinjarevci – Studenac in western Srijem (Croatia), HOERNES 1903, 285 Fig. 61. – In Hungary such bracelet were once considered connected to late Roman influences on the Slavic population settled there, and the Slavs were considered by some to be the bearers of this specific type of bracelet, FEHÉR 1957, 296–300.

<sup>393</sup> GIESLER 1981, Pl. 52–53.

<sup>394</sup> For similarly formed (but not similarly decorated) animal heads on a fragment of a bracelet from the cemetery of Sárszentágota – Óvoda, see HATHÁZI 1996, 246 Pl. 2 (upper left).

<sup>395</sup> GIESLER 1981, 124.

<sup>396</sup> KOVÁCS 1994, 139 no. 164, placed this bracelet from Vukovar in his type 2b (closed bracelets with a smooth hoop with poorly emphasized, as he calls them, animal heads).

<sup>397</sup> E.g. *Bolšoje Tigani*, gr. 27: CHALIKOVA – CHALIKOV 1981, 38, 120 = Pl. XXIIB:8, a bracelet of bronze wires of different section (dated from the second half of the 8<sup>th</sup> to the 9<sup>th</sup> century). In the Viking – Scandinavian cultural circle, coiling wires of different section into torcs and bracelets of precious metal also does not represent a rarity.

<sup>398</sup> HAMPEL 1905, 610 no. 2, Pl. 411:2; VÁŇA 1954, 57 (Pl. I:6), 65; SZŐKE 1962, 69, Pl. XI:3 (the wires tapered towards the ends).

<sup>399</sup> POPESCU 1956, 129 Fig. 83:2 (gr. 15).



from two thick twisted wires that more or less taper towards the ends, while the bracelet from the cemetery of Székesfehérvár – Demkóhegy in Hungary (Fejér County),<sup>400</sup> is similar to the Vukovar bracelets in the formation of the coils, but it was not made from twisted but from braided wire. The massive nature and weight of the Vukovar bracelets places them in the system of medium and heavy bracelets – with an average weight of 41.645 g – and they are certainly a later jewellery form in terms of relative chronology. This is indicated by their appearance, in one case (gr. 139/f) together with a silver large-format circlet (G. 13/I,6) and a fragment of an iron awl, and in another example (gr. 159/f – **Pl. 10:1–3**) together with a torc with coiled ends (De. 1a), a light bracelet of circular section wire with tapered and cut ends (De. 1.2a), an open-ended bronze ring of circular section (De. 1.6a), and a closed bronze ring of triangular section (De. 2.1b). In both cases, the bracelets were found on the right forearm of the deceased, whose forearms had been placed on the lower part of the trunk (v.7a and v.7b), in graves located in the central part of the cemetery and distant ca. 30 m from one another.<sup>401</sup>

### 4.3.3.1.3. Bracelets that fasten

#### 4.3.3.1.3.1. Bracelets of twisted wire with a hook and eye for fastening (G. 5)

No.	Inv. AMZ	Metal	Type De. (= G. 5)	Number of wires/ ends of bracelets	Ø bracelets (cm)	Ø wires (cm)	Wt. (g)	Grave sex	Hand	Pair w/ type
1.	2796	AE	3.1	3/ without coils	–	0.33	7.402	382/ch	l	–
2.	2419	AE	3.1	3/ without coils	8.20/7.80	0.26	9.382	Doriath	–	–

\* Note:

2. Purchased for the AMZ (Doriath, Vukovar, 1931).

Bracelets that fasten, made of triply twisted wire, were represented by only two examples: one was found in child grave 382, located in the central southern section of the excavated area of the cemetery, while the other was a chance find acquired for the AMZ considerably prior to the systematic archaeological excavations (**Fig. 42:3.1**). Both bracelets belong to the group with a hook and eye for fastening, which in the Carpathian basin are usually attributed to ethnic Hungarians and are dated to the first two thirds of the 10<sup>th</sup> century.<sup>402</sup> It is considered that they became rare in the last third of the 10<sup>th</sup> century, so that at the end of the 10<sup>th</sup> and beginning of the 11<sup>th</sup> century as a grave find they would have only had a more or less antiquarian character.<sup>403</sup>

This form of bracelet is common in Hungary – particularly in Székesfehérvár at the not inconsiderable number of sites there (Demkóhegy, Kanizsai út, Rádiótelep, Százrét)<sup>404</sup> – and is considerably rarer in Slovakia and Romanian Transylvania, while at sites south of the Drava River it is very rare and is connected primarily with the Croatian Danubian basin (eastern Slavonia and western Sirmia/Srijem).<sup>405</sup> Other than the examples from Lijevo Bara, another two bracelets of this group come from graves destroyed at Kriva Bara in Novi Vukovar (Ul. Kriva Bara),<sup>406</sup> a further two examples each come from Bijelo Brdo<sup>407</sup> and Vinkovci (south bank of the Bosut River),<sup>408</sup> while ten or more examples came from an unknown site in the vicinity of Vinkovci.<sup>409</sup> In the Slavonian region west of Osijek,<sup>410</sup> where finds of bracelets in general are rare, only a bracelet of twisted wire with a hook and eye for fastening was noted at the cemetery of Petoševci – Bagruša in the Bosnian Sava basin.<sup>411</sup> The very small weights of the examples from Lijevo Bara means that they belong to the system of lighter weight bracelets – the average weight measured only 8.392 g – hence they should be considered an earlier jewellery form in terms of the relative chronology.

<sup>400</sup> HAMPEL 1905, 423 Fig. 1198–9; VÁŇA 1954, 57 (Pl. I:7), 65; SZŐKE 1962, 69 Pl. XI:5; BAKAY 1967, 54, Pl. XXXI:3. Another example could be added here from the cemetery of Szarvas – Ószöllő/Lómer halom (Bihar County) in the Hungarian lower Tisza basin, KRECSMÁRIK 1910, 351, 377 (Fig. 1).

<sup>401</sup> DEMO 1996, 52, 80 no. 32, 90 no. 51:7.

<sup>402</sup> SZŐKE 1962, 67–68, Pl. XI:2.

<sup>403</sup> GIESLER 1981, 120; REJHOLCOVÁ 1995, 74.

<sup>404</sup> Székesfehérvár – Demkóhegy, gr. 13, 21, 25, 26, 28; BAKAY 1966, 49–51, Pl. XXI:5, XXIII:10, XXIV:14, XXVI:1, 7; Székesfehérvár – Rádiótelep, gr. 4: op.cit., 58, Pl. XL:4; Székesfehérvár – Kanizsai út, chance find: BAKAY 1968, 60 XIV:7; Székesfehérvár – Százrét, gr. 3, 55: op.cit., 62–63, Pl. XVII:6, XIX:2.

<sup>405</sup> For the only already slightly dated list of these bracelets, see KISS 1985, 234, 315–318. The list includes also includes bracelets of coiled wire without a hook for fastening, such as are common in the Bulgarian-Byzantine cultural circle in the 10<sup>th</sup> and 11<sup>th</sup> centuries.

<sup>406</sup> DORN 1980, 204, 206 no. 3, 214 = Pl. IV (Ø bracelet: 8.2 x 7 and 8.7 x 6.2 cm).

<sup>407</sup> BRUNŠMID 1904, 44 Fig. 12, 52 (gr. 5), 47 Fig. 20, 57 (gr. 67). Both bracelets are in the MSO.

<sup>408</sup> BRUNŠMID 1902, 157; DIMITRIJEVIĆ 1979, 194.

<sup>409</sup> DIMITRIJEVIĆ 1978, 194, 263, mentions as many as 12 to 15 such bracelets; they were all examples from the former private collection of the Medvedović family in Vinkovci (the collection later "disappeared").

<sup>410</sup> One bracelet of braided wire (without a more specific description) supposedly found in Osijek was mentioned ERCEGOVIĆ 1958, 182 no. 14. For the same example, Osijek 1997, 86 no. 11a (MSO, inv no. 5923). The bracelet apparently belongs to a group of coiled wire with eyes on the ends (= SZŐKE 1962, Pl. XIV:3).

<sup>411</sup> ŽERAVICA 1986, 134, 184–185, Pl. II:14.

### 4.3.3.2. Rings

4.3.3.2. Rings	State		Material		Grave finds		Sex of the deceased				Chance finds
	no.	%	AR	AE	objects	graves	m/m?	f/f?	ch	sex?	
1. Open-ended rings	68	55.28	9	59	66	60*	11*	33*	8*	8	2
1. With holes for a rivet	1	1.47	–	1	1	1	–	1	–	–	–
2. Banded section	24	35.29	3	21	24	23	4	10	5	4	–
3. Triangular section with a hoop of filigree wire	1	1.47	1	–	1	1	–	–	1	–	–
4. Semicircular or triangular section	8	11.75	1	7	8	8	4	3	1	–	–
5. Arched section	18	26.47	1	17	17	16	1	12	1	2	1
6. Circular or oval section	11	16.18	1	10	10	10	3	5	1	1	1
7. Oval section with coiled ends	1	1.47	–	1	1	1	–	1	–	–	–
8. Rhomboid, square, or polygonal section	3	4.41	1	2	3	3	1	1	–	1	–
9. Of coiled silver wire	1	1.47	1	–	1	1	–	1	–	–	–
2. Closed rings	16	13.01	7	9	16	14*	5	8*	–	1	–
1. Semicircular or triangular section	11	68.75	5	6	11	10	3	6	–	1	–
2. Semicircular section with transverse ribs	1	6.25	–	1	1	1	–	1	–	–	–
3. Triangular section; pattern of pseudo-coiled wires	2	12.50	2	–	2	2	1	1	–	–	–
4. With wart-like protrusions	2	12.50	–	2	2	2	1	1	–	–	–
3. Rings with a crown	39	31.71	4	35	37	33*	4	25*	4	1	2
1. With a stepped crown	3	7.69	–	3	3	3	–	2	1	–	–
2. With a crown and hoop of filigree wire	2	5.13	2	–	2	2	1	–	–	1	–
3. With an inset crown for a decorative element	31	79.49	–	31	29	27	3	22	2	–	2
4. With a crown of spirally wound wire	2	5.13	1	1	2	2	–	2	–	–	–
5. With a crown of rhomboid form	1	2.56	1	–	1	–	–	–	1	–	–
Total:	123	100.00	20	103	119	90*	21	49*	11*	9*	4

\* 4.3.3.2.1.2,5 – More than one ring of the same variant of open rings came from 2 graves: *rings of banded section* (2) – gr. 217/f; *rings of arched section* (2) – gr. 33/f.

4.3.3.2.1.1–2,5 – More than one ring of different variants of open rings came from 3 graves: *a ring of banded section and a ring of arched section* (1+1) – gr. 30/ch, 60/f; *a ring with a hole for a rivet, a ring of banded section, and a ring of arched section* (1+1+1) – gr. 93/f.

4.3.3.2.2.10 – More than one ring of the same variant of closed rings came from 1 grave: *rings of semicircular and triangular section* – gr. 7/?.

4.3.3.2.2.10,12 – More than one ring of different variants of closed rings came from 1 grave: *a ring of semicircular section and a rings of triangular section with a motif of seven rows of lengthwise pseudo-twisted wire* (1+1) – gr. 403/f.

4.3.3.2.3.14,16–17 – More than one ring of different variants of rings with a crown came from 2 graves: *a ring with a stepped crown and a ring with a crown of spirally wound wire* (1+1) – gr. 316/f; *a ring with an inset crown for a decorative element and a ring with a crown of spirally wound wire* (1+1) – gr. 151/f.

4.3.3.2.3.16 – More than one variant of ring from the same group of rings with a crown came from 2 graves: *rings with an inset crown for a decorative element* (2) – gr. 267/f, 315/f.

During the archaeological excavations in 1951–1953 at the site of Lijeva Bara 120 examples of different rings were gathered,<sup>412</sup> which together with 3 rings acquired for the museum in the 1930s makes a total of 123 rings. Among the 120 rings discovered during the excavations, 119 examples were noted in the field or museum documentation as having come from 90 graves (ratio: 1.32),<sup>413</sup> while for one ring discovered during the excavations in 1953 (De. 3.3a), the grave unit is not noted, rather merely the quadrant in which the ring was found during excavation (quad. VII/6d).<sup>414</sup> Rings made of bronze predominate (83.74%), as opposed to the considerably scarcer examples made from silver (16.26%).

<sup>412</sup> DEMO 1996, 53.

<sup>413</sup> Graves: 2/ch, 3/m, 7/? (3), 13/ch, 14/m, 20/f, 24/f?, 26/f, 30/ch (2), 33/f, 37/m, 48/f, 49/f, 59/f, 60/f, 62/f, 66/f, 74/m, 80/f, 90/m, 92/m, 93/f (4), 94/m, 97/m?, 108/f?, 110/? (2), 122/f, 125/f, 137/? (2), 138/f (2), 151/f (2), 159/f (2), 164/f, 165/ch, 174/? (2), 196/? (2), 211/f (2), 217/f (3), 222/f, 228/m, 229/m, 240/ch, 250/f?, 263/f, 267/f (2), 268/m, 279/f?, 292/f, 297/f?, 298/f, 313/f? (2), 314/f (2), 315/f (3), 316/f (3), 324/m, 326/f (3), 331/m, 333/? (2), 344/f, 347/ch, 349/ch, 358/m (2), 360/m?, 362/f?, 364/f, 365/f, 370/m, 374/f?, 379/m, 384/m?, 386/m, 394/f, 395/f, 402/ch, 403/f (2), 408/ch, 409/ch (2), 413/? (2), 415/m?, 417/m, 420/f, 422/f, 426/f, 435/f (2), 436/ch, 440/f, 444/f, 1-1951/?, III-1951/?. – For the silver ring with a crown (De. 3.18) from child gr. 347 no data exists in the field documentation, just a note in the museum documentation (information that it belonged to this grave unit was written in the S-AMZ inventory book as S-2762 = P-18341).

<sup>414</sup> The *Dnevnik*, ad 31 Aug. 1953, noted that in "*quadrant VII/6d, a bronze ring was found after removal [of the skeletons]*" (= S-2894). On the basis of this information, it can be presumed that the ring belonged to a skeleton from one of the graves discovered in that quadrant (e.g. gr. 369 or 370). In the S-AMZ inv. book, the ring was incorrectly listed among the finds from quad. XII/5, and this unrevised data already caused confusion in the literature (DEMO 1996, 53 n. 154), while in fact "*a bronze circlet was found while filling in quad. XII/5*", *Dnevnik*, ad 26 Aug. 1953. – It should be noted that

Individually or according to the grave units in which they appeared, rings are the most highly represented archaeological find. They were found in somewhat more than a fifth of the early medieval graves (20.55%), i.e. as much as 47.12% of the graves with archaeological finds. Two thirds of all examples come from female or probably female graves, and the remaining rings are more rare in child graves and more common and frequent in male or probably male graves.<sup>415</sup>

Only one ring was found in 68 graves, and in the remaining 22 graves two, three, or four rings were found (24.44%): in 16 graves two rings (72.72%),<sup>416</sup> in 5 graves three rings (22.72%),<sup>417</sup> and in only 1 grave four rings (g. 93/f). These were all, almost as a rule, female graves, with the exception of one child grave (gr. 30) and one male grave (gr. 358) – each with two rings. The graves with two or three rings were often very close to one another (in the same or neighboring quadrants), but it is noticeable that in the southwestern section of the cemetery as many as five graves with two or three rings (gr. 313/f?, 314/f, 315/f, 316/f, and 358/m) were buried in a row and in the immediate vicinity of one another.

The position and place of their discovery in the grave was not established for 11 rings from 9 graves.<sup>418</sup> Among the remaining 108 rings, 53 examples were found on the fingers of the right hand (49.07%), 46 examples were found on the fingers of the left hand (42.60%), and 9 rings were found in a non-functional position (8.33%).<sup>419</sup> some were placed in the grave during burial, others during the life or immediately after the death of the deceased during a period of mourning or before the burial were hung from a torc as part of a burial ritual, and other examples were used during the life of the deceased as pendants on a necklace-amulet (**Table 31**).

**Table 31**  
Graves with finds of rings in non-functional positions.

No.	Rings in a non-functional position (grave/sex, type De., metal)			Other ring in the grave (hand/type De.)	Other finds in the grave (other than rings)
A. Ring placed by the body:					
1. <i>Below the right ear</i>					
1.	13/ch	1.2a	(AE)	–	2 bracelets (G. 4)
2. <i>By the left ear</i>					
2.	159/f	1.6a	(AE)	left/2.1b	Torc (G. 1a) and 2 bracelets (G. 4, V. I/6 dif)
3. <i>Above the pelvis</i>					
3.	315/f	1.6b	(AE)	right/3.3a	2 circlets (13-I,8/4) and 2 bracelets (G. 4)
4.	315	3.3a	(AE)	as above	as above
4. <i>By the left shin</i>					
5.	364/f	3.3a	(AE)	–	Circlet (G. 13-?)
B. Ring hung on a torc:					
6.	326/f	1.2a	(AE)	left/3.3a	Torc (G. 1b), necklace of beads and metal pendants, and 2 bracelets (G. 4 and G.?)
7.	326	2.4	(AE)	as above	as above
C. Ring-pendant on a necklace:					
8.	2/ch	1.3	(AR)	–	Button-pendant, necklace of metal pendants (coin, AV)
9.	408/ch	3.1	(AE)	–	Necklace of beads and metal pendants (bell shaped pendant, spike)

in part of the field documentation for gr. 17 the existence was noted of traces of a green patina on the dislocated bones of the fingers of the left and right hands and the right forearm, but the existence of a ring or any other find was not archaeologically confirmed (*Zapiski*, no. 17, 13 Sept. 1951). Although traces of green patina were noted on some bones – a possible indicator of grave finds – I did not consider them statistically valid, as similar archaeologically unconfirmed grave finds could also have existed in graves where traces of patina were not established on the bones of a skeleton.

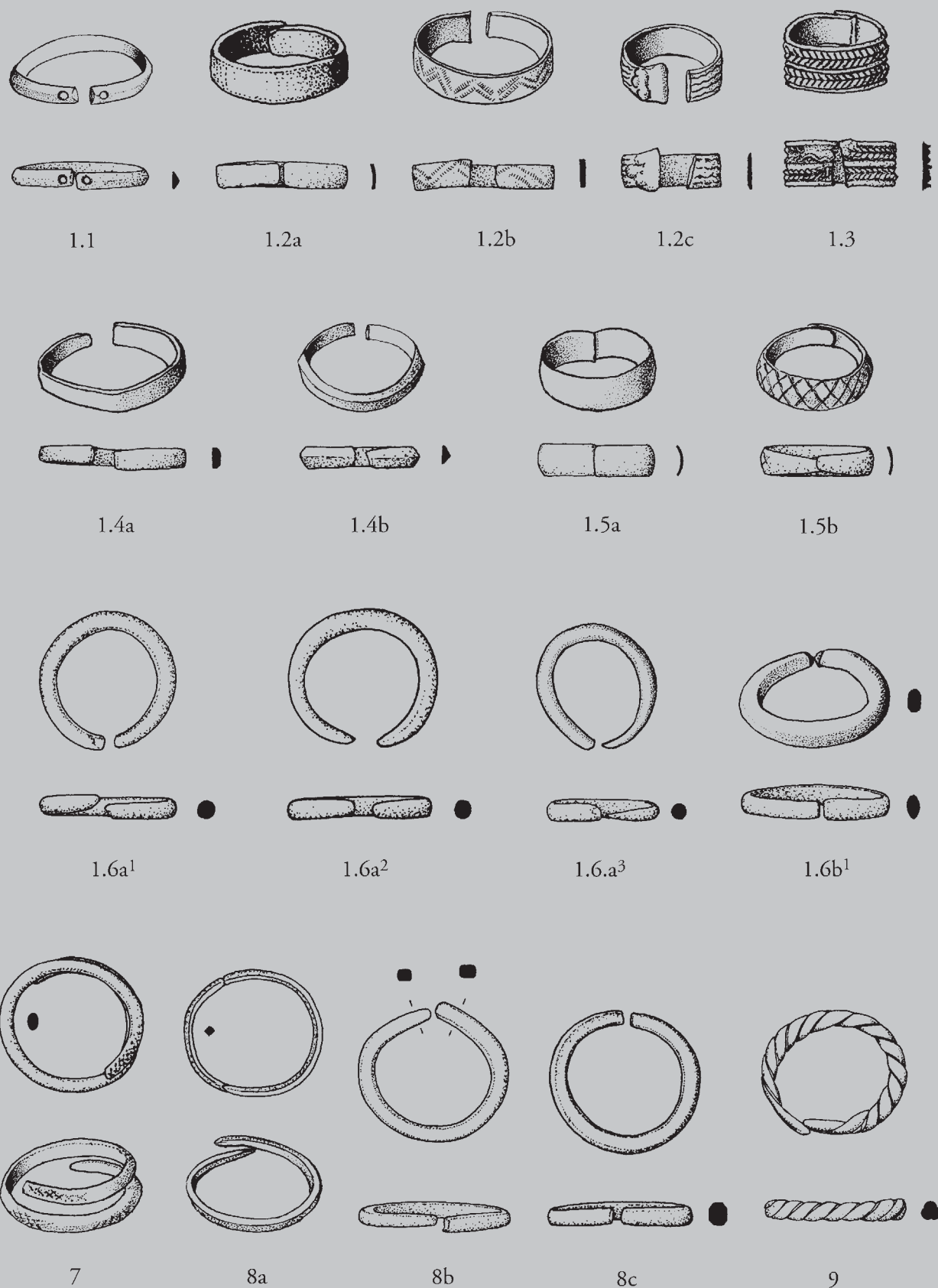
<sup>415</sup> In 9 graves (10.00%), where the sex of the deceased was not established, 11 rings were found (gr. 7/? with 3 rings).

<sup>416</sup> Graves: 30/ch, 33/f, 48/f, 60/f, 115/f, 138/f, 151/f, 159/f, 211/f, 267/f, 313/f?, 314/f, 358/m 403/f, 409/ch, and 435/f.

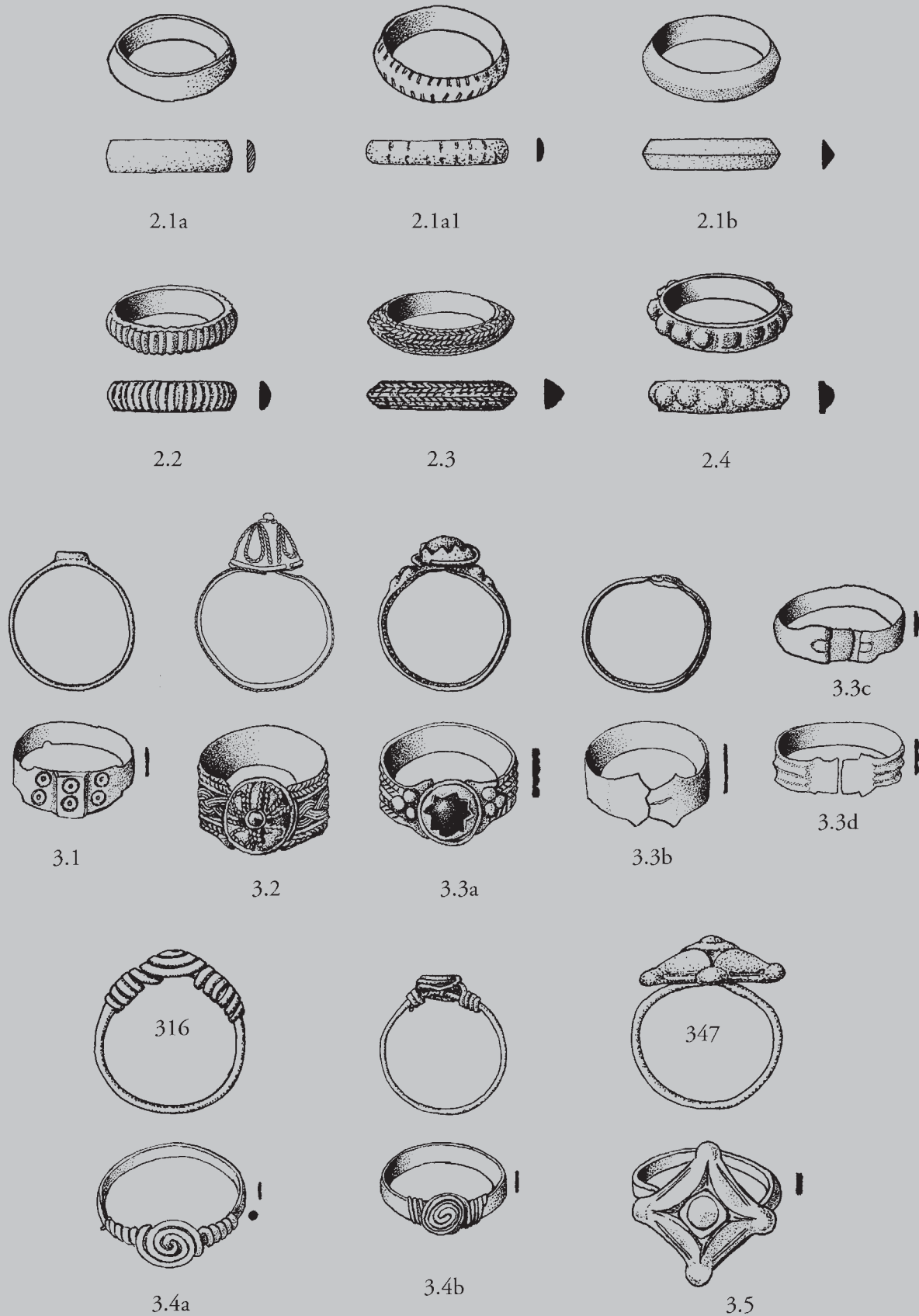
<sup>417</sup> Graves: 7/?, 217/f, 315/f, 316/f, 326/f.

<sup>418</sup> These were the rings from gr. 60/f (2 ex.), 138/f (2 ex.), 165/ch, 263/f, 250/f?, 297/f?, 347/ch, I-1951/?, and III-1951/?. – For the chance find of a ring in quad. VII/6d (S-2894), see n. 414.

<sup>419</sup> Because of the lack of data in the field documentation it was not possible to classify as a reliable non-functional find the massive silver ring that only the S-AMZ inv. book attributes to child grave 347 (ca. 12 years old). A somewhat different, but equally unclear situation existed in gr. 297/f?, where the crown of a ring was found by the head, while the hoop of the ring was discovered by the waist during removal of the skeleton.



**Fig. 43.** Represented types and variants of open rings (De. 1.1-9). **1.1** – A ring with holes for a rivet, bronze (gr. 93/f). **1.2** – A ring of banded section, bronze (1.2a – banded section, undecorated, bronze: gr. 48/f; 1.2b – banded section, decorated, bronze: gr. 164/f; 1.2c – banded section, reformed from a ring of another type, bronze: gr. 125/f). **1.3** – A ring of banded section with a hoop of filigree wire, silver (gr. 2/ch). **1.4** – A ring of semicircular or triangular section, bronze (1.4a – semicircular section, bronze: gr. 360/m?; 1.4b – triangular section, bronze: gr. 37/m). **1.5** – A ring of arched section, bronze (1.5a – undecorated: gr. 313/f?; 1.5b – decorated: gr. 33/f). **1.6** – A ring of circular or oval section and cut or tapered ends, bronze (1.6a<sup>1</sup> – circular section, cut ends, bronze: gr. 159/f; 1.6a<sup>2</sup> – circular section, one end tapered, one end cut, bronze: S-2398; 1.6a<sup>3</sup> – circular section, pointed ends, bronze: gr. 80/f; 1.6b<sup>1</sup> – oval section, cut ends, bronze: gr. 90/m). **1.7** – A ring of oval section with ends overlapping by half, bronze (gr. 279/f?). **1.8** – A ring of rhomboid, square, or polygonal section, bronze, silver (1.8a – rhomboid section, bronze: gr. 137/?; 1.8b – square section with the outer sides rounded, bronze: gr. 108/f?; 1.8c – polygonal section with the outer sides rounded, silver: gr. 370/m). **1.9** – A ring of three coiled wires, silver (gr. 444/f).



**Fig. 43a.** Represented types and variants of closed rings and rings with a crown, silver, bronze (De 2.1–4; De 3.1–5). **2** – Closed rings, silver, bronze (2.1a – semicircular section, undecorated, silver: gr. 3/m; 2.1.a1 – semicircular section, decorated, bronze: gr. 7/?; 2.1b – triangular section, undecorated, bronze: gr. 159/f; 2.2 – semicircular section with transverse ribbing, bronze: gr. 314/f; 2.3 – triangular section with lengthwise pseudo-coiled wires, silver: gr. 403/f; 2.4 – with wart-like protrusions, bronze: gr. 228/m). **3** – Rings with a crown, silver, bronze (3.1 – with a stepped crown, bronze: gr. 408/ch; 3.2. – with a crown and hoop of filigree wire, silver: gr. I-1951/?; 3.3a – with a inset crown for a decorative element, hoop of banded section, decorated, bronze: gr. 297/f?; 3.3b – with a inset crown for a decorative element, hoop of banded section, undecorated, bronze: gr. 292/f; 3.3c – with a inset crown for a decorative element, hoop of semicircular section, bronze: gr. 138/f; 3.3d – with a inset crown for a decorative element, hoop of three-ribbed section, bronze: gr. 409/ch; 3.4a – crown of spirally coiled wire, silver: gr. 316/f; 3.4b – crown of spirally coiled wire, bronze: gr. 151/f; 3.5 – crown of rhomboid shape, silver: gr. 347/ch).

At Lijevo Bara 3 basic groups and 18 types of rings were represented (Fig. 43-43a). More than half of all rings were rings of the open type (55.28%), almost a third were rings with a crown (31.71%), while the fewest were rings of the closed type (13.01%). Among the open rings, rings of banded section (De. 1.2a-b) and rings of arched section (De. 1.5a-b.) predominate, which together compose almost two thirds of all open rings (63.24%), or somewhat more than a third of all rings found at Lijevo Bara (34.96%). Among the closed rings, rings of semicircular or triangular section greatly predominate (De. 2.10a-b), but in the sum total their share does not even reach a tenth of all gathered rings. Among the closed rings, however, the share of rings made from silver is more prominent than in any other typological group (43.75%).<sup>420</sup> Among the rings with a crown, rings predominate with an undecorated or decorated hoop and an inset crown for a decorative element (De. 3.3a-d.), which are in fact the most highly represented type of ring (25.20%). There are several variants within this group, but examples are predominant of the "Vukovar – Bjelo Brdo" type (87.10%), which with a share of somewhat more than one fifth (21.95%) was the most numerous represented group of rings at Lijevo Bara (De. 3.3a).

**Table 32**

The types of rings and their variants classified according to the weight system: I – light; II – medium; III – heavy; IV – very heavy.

4.3.3.2 Rings	Weight system	I light (to 3 g)	II medium (3-5 g)	III heavy (5-7 g)	IV very heavy (more than 7 g)	Total no. of rings
1. Open rings						68
1. With holes for a rivet		1	–	–	–	1
2. Banded section		22	1	1	–	24
3. Triangular section with a hoop of filigree wire		1	–	–	–	1
4. Semicircular or triangular section		7	1	–	–	8
5. Arched section		14	4	–	–	18
6. Circular or oval section		1	6	4	–	11
7. Oval section with coiled ends		–	–	1	–	1
8. Rhomboid, square, or polygonal section		1	1	1	–	3
9. Of coiled silver wire		–	1	–	–	1
2. Closed rings						16
1. Semicircular or triangular section		2	5	4	–	11
2. Semicircular section with transverse ribs		–	1	–	–	1
3. Triangular section; pattern of pseudo-coiled wires		–	–	2	–	2
4. With wart-like protrusions		–	–	2	–	2
3. Rings with a crown						18*
1. With a stepped crown		3	–	–	–	3
2. With a crown and hoop of filigree wire		–	2	–	–	2
3. With an inset crown for a decorative element		1	7	2	–	10*
4. With a crown of spirally wound wire		1	1	–	–	2
5. With a crown of rhomboid form		–	–	–	1	1
	Total:	54	30	17	1	102
		(52.94%)	(29.41%)	(16.67%)	(0.98%)	100%

\* 4.3.3.2.3.3 – Only fully preserved examples from gr. 48/f, 122/f, 222/f, 297/f, 314/f, 315/f (2), 344/f, 364/f and 435/f.

<sup>420</sup> For rings with a crown and open rings the proportion of rings made of silver was 10.26% and 13.23%, respectively.

Both the lightest and heaviest rings came from child graves: the lightest ring is an open bronze ring of semicircular section weighing only 0.520 g (De. 1.4b; gr. 240/ch), and the heaviest ring is a massive composite silver gilt ring with a banded hoop and a crown of rhomboid section weighing 7.10 g (De. 3.5; gr. 347/ch). Within the framework of this truly large span are all of the rest, the fully preserved rings of the light (I; weight less than 3 g), medium (II; wt. 3–5 g), and heavy weight systems (III; wt. 5–7 g): the rings of the light weight system are represented by more than half (52.94%), the rings of the medium weight system are represented with almost thirty percent, while the rings of the heavy weight system did not number even a fifth even when united with the single example of a ring of the very heavy weight system discovered at Lijevo Bara (IV; more than 7 g; **Table 32**).

In terms of relative chronology, the earliest rings from the graves at Lijevo Bara would be two very light open rings from two warrior graves, buried at the end of the second third of the 10<sup>th</sup> century: a ring of semicircular section found in gr. 92/m, located in the northwestern part of the cemetery (De. 1.4a), and a ring of arched section found in gr. 268/m, located in the central southern area of the excavated area of the cemetery (De. 1.5a). Approximately contemporaneous to this in terms of origin, but from a child grave buried somewhat later than the above warrior graves (gr. 347),<sup>421</sup> is the earliest example of a ring with a crown, a silver gilt ring with a crown of rhomboid form of the "Vukovar – Budakeszi" type (De. 3.5).

As special features of other types, a secondary use can be noted of a ring with a crown, where the crown and part of its setting were removed from the banded hoop, which was then cut and reformed to serve again as a ring – this time as a ring of banded section (gr. 125/f). Even greater modifications were made to the banded hoop of another ring with a crown, but this one was remodelled so that a small part of it served as a pendant on a circlet (gr. 422/f).

#### 4.3.3.2.1. Open rings

##### 4.3.3.2.1.1. A ring with holes for a rivet (G. 20; De. 1.1)

No.	Inv. AMZ	Metal	Type De. (G. 20)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2541	AE	1.1	–	–	–	2.55/2.04	0.34	0.12	1.536	93/f	d

Rings with holes for a rivet are not common at the cemeteries of the Bijelo Brdo cultural circle, as they are considered an earlier and autochthonous jewellery form from the previous cultural-historical period (e.g. 9<sup>th</sup>–10<sup>th</sup> centuries).<sup>422</sup> The Vukovar example is made of bronze, has a triangular section hoop, and was neither widened, hammered, ground, thinned, or rounded by the holes for the rivet,<sup>423</sup> leading to the conclusion that the ends of the ring were perhaps never actually connected by a rivet (instead, for example, a wire may have been used), and hence this ring does not belong among recognizable or chronologically clear examples from this group.<sup>424</sup> Its weight places it in the group of very light rings (**Fig. 43:1.1**).

The ring came from a grave buried in the northwestern part of the excavated area of the cemetery. Together with another three rings – two are open rings with a banded section (De. 1.2a) and arched section (De. 1.5a), and one a ring with a crown (De. 3.3c) – it belonged on the fingers of the right hand of the female skeleton, whose forearms were placed on the lower part of the trunk (v.7). Other than the rings, a pair of large-format bronze circlets of oval section were found by the skeleton (De. 13/I,9), along with two bracelets of bronze wire (G. 4) – one heavy, with a circular section and cut and tapered ends (30.244 g), and the other lighter, with a square section and pointed ends (17.406 g). Accordingly, it can be suggested that the ring was part of a burial from the end of the 10<sup>th</sup> century.

<sup>421</sup> The warrior graves 237/m, 232/m, and 336/? (from west to east), form a row of burials 4–5 m distant from one another. The area between the graves was subsequently used for the burial of several mostly child and female graves (three graves each in each space), and very close to grave 237/m, on its eastern side, another child was buried (gr. 347).

<sup>422</sup> GIESLER 1981, 111.

<sup>423</sup> DEMO 1996, 53 (Fig. 35), 54, 90 no. 52.3.

<sup>424</sup> Such characteristics mean that the chronological determinants are irrelevant to it that were applied to the ring dated by a coin from the cemetery of Halimba – Cseres (gr. 775 and 859), because of which rings with a hole for a rivet are dated to the period around the middle and at the beginning of the last third of the 10<sup>th</sup> century, TÖRÖK 1962, 31–32; GIESLER 1981, Pl. 53:20. Among the Bijelo Brdo grave finds south of the Drava, chronologically comparative is only one ring found in the Bosnian Sava valley at the cemetery of Petoševci – Bagruša, gr. 124: ŽERAVICA 1986, 149, Pl. VI:4. – Different only because of the banded hoop, the example from Lijevo Bara is most similar to two rings from the cemetery of Püspökladány – Eperjesvölgy in the Hungarian upper Tisza basin (Hajdú – Bihar County), NEPPER 2002, (2) 183 Pl. 177:9–10 (gr. 198).

4.3.3.2.1.2. Rings of banded section  
(G. 21, 21 dif.; H. 45a, 45b; De. 1.2a–c)

No.	Inv. AMZ	Metal	Type De. (G. 21)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2426	AE	1.2b	–	–	–	2.00	0.76	0.10	1.827	7/?	l
2.	2430	AE	1.2a	–	–	–	1.50	0.64	0.10	1.601	13/ch	–
3.	2458	AE	1.2a	–	–	–	2.05/2.00	0.64–0.50	0.12	2.289	30/ch	r
4.	2482	AE	1.2a	–	–	–	2.00	0.52–0.44	0.10	1.721	48/f	l
5.	2496	AE	1.2b	–	–	–	2.00/1.77	0.59	0.09	1.967	60/f	–
6.	2543	AE	1.2a	–	–	–	2.04/2.01	3.32–2.23	0.19–0.15	1.849	93/f	r
7.	2576	AE	1.2c	–	–	–	1.70/1.58	0.55	0.17	2.512	125/f	l
8.	2590	AE	1.2a	–	–	–	1.82/1.64	0.53	0.10	1.574	138/f	–
9.	2606	AE	1.2b	–	–	–	2.41/2.01	0.47	0.12	2.743	164/f	r
10.	2607	AE	1.2a	–	–	–	1.60/1.40	0.58	0.09	1.521	165/ch	–
11.	2616	AE	1.2a	–	–	–	2.00/1.86	0.50–0.46	0.08	1.873	196/?	r
12.	2631	AE	1.2b	–	–	–	2.14/1.98	0.64	0.10	2.236	217/f	r
13.	2625	AE	1.2a	–	–	–	1.96/1.88	0.57	0.12	1.974	217/f	l
14.	2639	AR	1.2a	–	–	–	2.00/1.94	0.38–0.17	0.19–0.07	1.720	229/m	r
15.	2735	AE	1.2a	–	–	–	1.96/1.90	0.40	0.10	1.575	324/m	l
16.	2740	AE	1.2a	–	–	–	2.20/1.88	0.55	0.12	2.048	326/f	–
17.	2750	AE	1.2b	–	–	–	2.30/2.20	0.52–0.48	0.18–0.15	3.481	333/?	l
18.	2767	AE	1.2a	–	–	–	1.70/1.52	0.59	0.09	1.395	349/ch	l
19.	2777	AR	1.2a	–	–	–	2.35/2.24	0.52–0.48	0.27–0.20	5.544	358/m	l
20.	2841	AE	1.2a	–	–	–	1.94	0.52–0.48	0.11	1.597	413/?	l
21.	2844	AR	1.2a	–	–	–	1.95/1.70	0.58–0.50	0.10	1.820	417/m	l
22.	2847	AE	1.2a	–	–	–	2.13/2.00	0.67	0.08	1.912	420/f	l
23.	2866	AE	1.2b	–	–	–	1.83/1.80	0.54	0.09	2.130	435/f	r
24.	2867	AE	1.2a	–	–	–	1.55/1.38	0.47	0.10	1.842	436/ch	r

[Decoration: 2a = undecorated; 2b = decorated; 2c = remodeled from an other type of ring]

\* Notes:

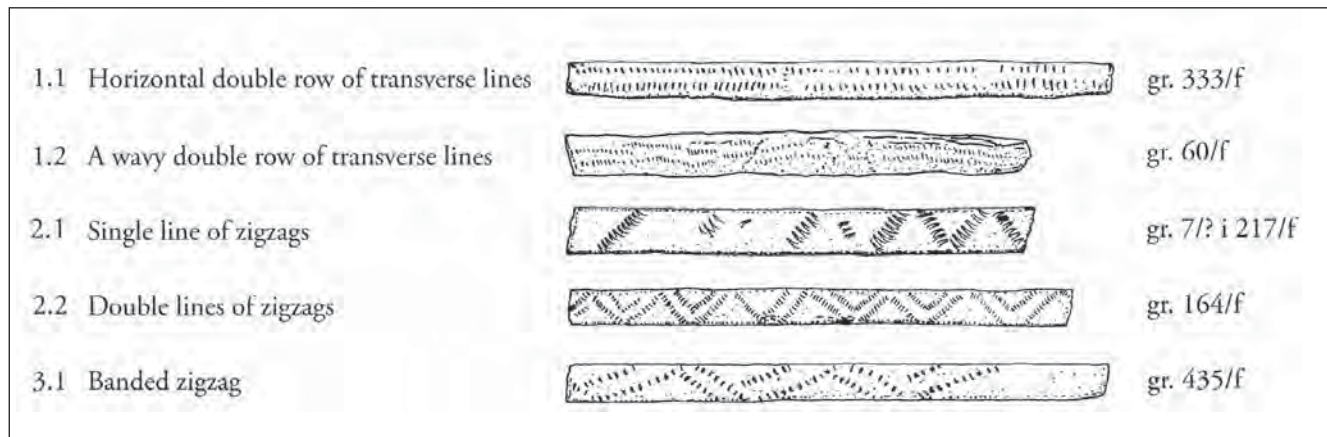
1. The single row of zigzags is visible only by the separated ends of the ring.
2. The ring was found below the right ear.
5. The data offered by the field and museum documentation do not permit it to be established with certainty which of the two rings found in this grave belonged to which hand (the other ring is De. 1.5b).
8. Whether the ring belonged to the fingers of the left or right hand cannot be determined because of the damage to the grave pit and almost all of the lower part of the skeleton (from the pelvis downwards).
10. It was not established on the fingers of which hand the ring belonged because of the disturbance to and poor preservation of the skeleton (it was not found in situ but rather on the ribs and collar bone).
16. The ring was hung from a torc.

The most numerous type in the framework of the large group of open rings is composed of 23, or in fact 24 rings with a banded section (**Fig. 43:1.2a–c**), as it also includes an unusual example of the secondary use of a ring with a crown, where the crown and part of the setting were removed so that the hoop – in and of itself of banded section and decorated – was subsequently transformed into an open ring of banded section (gr. 125/f). As a rule, almost all of these rings are made of bronze (87.5%), and the rare rings made of silver are all from a few male graves (gr. 229, 358, 417). Predominantly the rings have a width of the hoop ranging from 0.38 do 0.76 cm, a thickness of the hoop ranging from 0.07 do 0.12 cm, and a weight ranging from 1.395 to 2.743 g (87.5%). Much rarer, but not always proportionally heavier, are examples of rings of banded section made from bronze or silver bands from 0.19 to 0.27 cm thick (12.5%), among them the heavier bronze example weighs 3.481 g and belongs to the medium weight group (gr. 333/?), while the heaviest silver example with its 5.544 g belongs to the heavy weight group (gr. 358/m). Despite this, the average weight of the open rings of banded section was only 2.115 g, and they are accordingly placed in the category of light rings (I).<sup>425</sup>

The ends of the open rings of banded section are usually merely cut, of uniform width or narrower than the center of the hoop, and examples are quite exceptional when one or both ends are narrowed and rounded (gr. 60/f and 413/?; 229/m and

<sup>425</sup> Without the ring from gr. 125, the average weight of this group would be only a little less, measuring 2.097 g.





**Fig. 44.** Decorative motifs formed from rows of short and shallow transverse lines on rings of banded section (De. 1.2b). **1.1** – Horizontal double row of transverse lines (gr. 333/?). **1.2** – A wavy double row of transverse lines (gr. 60/f). **2.1** – Single line of zigzags (gr. 217/f). **2.2** – Double lines of zigzags (gr. 164/f). **3.1** – Banded zigzag (gr. 435/f).

417/m), or one of the ends is square and the other polygonal (gr. 358/m). Decorated rings with banded section are not common (De. 1.5b), as they make up only a little more than a fourth of the discovered rings of banded section (26.09%).<sup>426</sup> For decoration, only transverse, short and shallow incised lines are used, arranged in various forms of rows, so that it is possible to distinguish three groups and several variants (**Fig. 44**): two horizontal rows of transverse lines (gr. 333/?) and a wavy double line of transverse lines (gr. 60/f), single and double zigzags (gr. 7/?, 217/f, 164/f),<sup>427</sup> and the similar but differently worked double row of broken lines, arranged so that they create an appearance of a broken line, a banded zigzag (gr. 435/f).

Open rings of banded section were found in 23 graves, most in female graves (52.63%), and much more rarely in child graves (26.32%) and male graves (21.05%), while for 4 examples from 4 graves, the sex was not established for the skeletons. They more often belonged on the fingers of the left hand (55.56%), than the fingers of the right hand (44.44%), while in three cases it was not possible to determine whether the ring had originally been on the fingers of the right or left hand (gr. 60, 138, 165). Only two rings were not found on the fingers of the deceased (9.09%), as one was placed in the grave below the right ear of a female (?) child (gr. 13), and the other was found suspended from a torc together with a closed ring with wart-like extrusions (pseudo-granules) on most of the hoop (gr. 326/f).

Slightly less than half of all examples (45.83%) are rings that appear as one of two rings found in a grave (gr. 30/ch, 48/f, 60/f, 138/f, 358/m, 435/f), one of three (gr. 7/?, 217/f, 326/f), or one of four found in a grave (gr. 93/f), and only slightly more numerous examples (54.17%) were found in a grave as the only ring (gr. 13/ch, 125/f, 164/f, 196/?, 229/m, 324/m, 333/?, 349/ch, 413/?, 417/m) or as the only find in the grave (gr. 165/ch, 420/f, 436/ch).<sup>428</sup> Quite exceptionally and in only one case (gr. 217/f), in addition to a ring with a crown (De. 3.3a), two open rings of banded section were found (**Table 33**).

In the total of ten graves with finds of more than one ring, open rings of banded section were found mostly together with rings with a crown (42.86%) and closed rings of semicircular or banded section (28.57%), and individually and rarely with other kinds of rings of the open kind (28.57%). Predominant among the other archaeological finds with which rings of banded section most often appear are simple circlets (8 graves),<sup>429</sup> wire bracelets (5 graves),<sup>430</sup> torcs of triple braided wire (4 graves),<sup>431</sup> and necklaces of glass beads (with or without metal pendants),<sup>432</sup> and in rare cases accompanying finds included knives (gr. 324/m, 333/?), large or small fragments of pottery vessels (gr. 7/?, 60/f), bird and animal bones (gr. 30/ch, 48/f), large-format O-circlets (gr. 229/m), large-format S-circlets, and various appliqués (gr. 349/ch) and belt circlets (gr. 324/m).

<sup>426</sup> The percentage figures do not include the ring of banded section from gr. 125/f, as it was subsequently remodeled from a ring with a crown and bears on the hoop decoration characteristic for rings with a crown, to which it originally belonged (type 3.3a).

<sup>427</sup> A double row of zigzags is a frequent decoration of sheet bracelets with spirally coiled ends (G. 2), e.g. Bešeňov – Sirdülő, gr. 30: NEVIZÁNSKY 1979 397 Pl. IV:6.

<sup>428</sup> A total of 11 rings from 10 graves, as opposed to 13 rings from an equal number of graves.

<sup>429</sup> Large-format circlets were more common (gr. 48/f, 60/f, 93/f, 164/f, 196/?, 413/?), as opposed to the considerably more rare small-format circlets (gr. 30/ch, 48/f, 125/f).

<sup>430</sup> These are all graves with finds of a pair of bracelets. These were usually bracelets with tapered and cut ends (gr. 48/f, 217/f, 326/f), and more rarely bracelets with pointed ends (gr. 13/ch) or a combination of both endings (gr. 93/f). In only one case each was a pair of heavy bracelets noted (gr. 48/f) or a combination of one heavy and one light bracelet (gr. 93/f).

<sup>431</sup> Among the torcs with triple braided wire, two examples lacked transversely coiled wires on the ends (gr. 138/f, 217/f), and of the remaining two, one had transversely coiled wire by the loop on one of the ends (gr. 326/f), and the other had transversely coiled wires on both ends (gr. 349/ch).

<sup>432</sup> Gr. 138/f (glass beads and metal pendants), 217/f and 326/f (glass beads), te gr. 48/f (only one glass bead).

**Table 33**

The types of rings with which rings of banded section (De. 1.2) appear in the same grave units.

No.	Grave	No. of rings in the grave	Open rings			Closed rings		Rings w/crown 3.3
			1.2	1.1	1.5	2.1	2.4	
1	7/ch	3	1	–	–	2	–	–
2	30/ch	2	1	–	1	–	–	–
3	48/f	2	1	–	–	–	–	1
4	60/f	2	1	–	1	–	–	–
5	93/f	4	1	1	1	–	–	1
6	138/f	2	1	–	–	–	–	1
7	217/f	3	2	–	–	–	–	1
8	326/f	3	1	–	–	–	1	1
9	358/m	2	1	–	–	1	–	–
10	435/f	2	1	–	–	–	–	1
Total rings:		25	11	1	3	3	1	6

Open rings of banded profile were found more frequently by skeletons with one or both forearms placed on the upper part of the trunk (58.82%),<sup>433</sup> and more rarely by skeletons with forearms along the body or the lower part of the trunk (41.18%).<sup>434</sup> They were found in almost all parts of the excavated area of the cemetery, but the greatest concentration of finds was noticeable in the southeastern section of the site. The rare bronze rings decorated with shallow incisions (gr. 60/f, 164/f,<sup>435</sup> 333/?, 435/f) and the even rarer silver undecorated examples were discovered in graves located primarily in the southern half of the cemetery (gr. 229/m, 358/m, 417/m).<sup>436</sup>

4.3.3.2.1.3. A ring of banded section with a hoop of filigree wire  
(G. 21 dif.; De. 1.3)

No.	Inv. AMZ	Metal	Type De. (G. 21 dif.)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2421	AR	1.3	–	–	–	1.71/1.65	0.77	0.14	2.870	2/ch	–

\* Note:

1. It is not possible to establish with certainty whether the crown and setting had perhaps been removed from the hoop, and remodelled in this manner it became a open ring of banded section, which subsequently served as a pendant on a necklace of metal pendants.

The hoop of this rare ring, like the similar filigree hoops of two rings with metal crowns (De. 3.3a), is silver and double layered, i.e. composed by soldering smooth, coiled, or braided wires onto a thin sheet metal background.<sup>437</sup> The decoration consists of a central lengthwise rib of smooth wire, placed between a double row of coiled wire and a single row of smooth wire (**Fig. 43:1.3; Pl. 7:5–6**).

<sup>433</sup> Eleven rings from 10 graves: 217/f (v.9), 333/? (v.12), 349/ch, 358/m and 417/m (v.13), 48/f (v.14), 164/f (v.19), 7/? (v.20), 413/? (v.23), 60/f (v.24; the skeleton in a contracted position).

<sup>434</sup> Seven rings from 7 graves: 30/ch, 125/f, and 435/f (v.1), 420/f (v.6), and 13/ch, 93/f, and 229/m (v.7a). The above data, like the data from the previous notes, refer to 17 graves from a total of 23 graves with finds of open rings of banded section. The forearm position was not established in 6 graves: 138/f, 165/ch, 196/?, 324/m, 326/f, and 436/ch.

<sup>435</sup> The ring from this grave has several times been mentioned, described, and interpreted as a closed ring of banded section (G. 35), where it cannot be classified because of its morphology. For such an interpretation, with repercussions for the dating of the time, the grave where it was found, and the cemetery at Lijeva Bara, see TOMIČIĆ 1992, 162–164; TOMIČIĆ 1992a, 124 (Pl. 2).

<sup>436</sup> One of them, silver, and at the same time the heaviest example in the entire group, was found in a grave located near the western edge of the cemetery (gr. 358/m).

<sup>437</sup> Among the Bijelo Brdo rings, examples are more common with a single layered hoop (without the sheet background) of smooth and coiled bronze wire such as were in use from around the middle of the 9<sup>th</sup> century, as is indicated by an example from the cemetery of Halimba – Cseres (gr. 359), dated by a coin of King Andrew (1041–1060), TÖRÖK 1962, 163, Pl. LXXIV:359, XCIX:359. A similarly manufactured hoop of a ring could be dated similarly from the cemetery of Kloštar Podravski – Pesci in the Croatian Drava basin (BRUNŠMID 1904, 78, Fig. 30:15, a chance find from one of the destroyed graves), as well as an example composed of four soldered lengthwise bronze wires, found in gr. 5 at the cemetery of Vojlovica – Humka (Azotara) in Serbian Vojvodina (STANOJEVIĆ 1989, 40–42, no. 210). It is unclear, because of the poor photograph, if a bronze ring had the same manner of production from the cemetery of Pécs – Somogy, gr. 25: DOMBAY 1962, 71, Pl. II:1, XV:10.

The ring was found in a child grave, not by the fingers of the skeleton but rather at the height of the rib cage and dislocated cervical vertebrae, and also nearby a multiply perforated and radiate gold coin (*nomisma*) of the Byzantine emperors Constantine VII and Romanus II (945–959), with which it composed a necklace of metal pendants.<sup>438</sup> The grave was located in the southwestern part of the excavated area of the cemetery.

#### 4.3.3.2.1.4. Rings of semicircular and triangular section

(G. 22; H. 48a–b, 49; De. 1.4a–b)

zig-zags	Inv. AMZ	Metal	Type De. (G. 22)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w	th..			
1.	2470	AE	1.4b	–	–	–	2.14/2.11	0.42	0.15	1.592	37/m	r
2.	2533	AE	1.4a	–	–	–	2.44/2.11	0.40	0.13	1.276	92/m	r
3.	2545	AE	1.4a	–	–	–	2.24/2.00	0.30	0.13	1.250	94/m	r
4.	2653	AE	1.4a	–	–	–	1.7/1.6	0.30–0.23	0.10–0.06	0.520	240/ch	r
5.	2666	AE	1.4a	–	–	–	2.15/2.07	0.43–0.36	0.10	1.418	263/f	–
6.	2726	AR	1.4b	–	–	–	2.05	0.69	0.20	4.868	316/f	l
7.	2780	AE	1.4a	–	–	–	2.45/2.17	0.38–0.30	0.20–0.14	2.416	360/m?	l
8.	2852	AE	1.4b	–	–	–	2.18/1.67	0.48	0.19	2.573	422/f	l

[Section: 4a = semicircular; 4b = triangular]

*\*Note:*

5. Because of the position of the forearms (v.7a) and the destroyed fingers it was not possible to establish on which hand the ring belonged that was found between the pelvis and thighs.

Open rings of semicircular (De. 1.4a) or triangular section (De. 1.4b) were represented by 8 examples in an equal number of graves: rings of semicircular section are more frequent (62.5%), and rings of triangular section are rarer (37.5%). On the rings of triangular section, the ends are cut (gr. 37/m, 316/f, 422/f), while on the rings of semicircular section the ends are either rounded (gr. 240/ch, 263/f) or one end is cut and the other rounded (gr. 360/m?), the only exception being an example with tapered and pointed ends, found in one of the few definite warrior graves (gr. 92/m). Rings made of bronze predominate numerically (87.5%) and only one ring, the heaviest example of the entire group, was made of silver (gr. 316). Despite this quite heavy example of the medium weight group (4.868 g), the average weight measuring 1.989 g places the rings of semicircular or triangular section in the group of light rings, but the actual relation of the average weight of examples with semicircular section, which measures 1.376 g, and the average weight of examples with triangular section, which measures 3.542 g, indicates a possible chronological division: the rings of semicircular section would belong to the group of light rings (I) and would be earlier in terms of relative chronology, and the rings of triangular section would belong to the group of medium weight rings (II) and would be later in terms of relative chronology (**Fig. 43:1.4a–b**).

They are more numerous in male or probably male graves (50%), there are somewhat fewer examples from female graves (37.5%), and only one ring from this group was found in a child grave (12.5%). They were worn more often on the rings of the right hand (57.14%), and less on the fingers of the left hand (42.86%), and only the position of one example remained undetermined (gr. 316/f).

In this same grave find (gr. 316/f), the open ring of triangular section was accompanied only by a ring with a stepped crown (De. 3.1) and a ring with a crown of spirally wound wire (3.4). Considering other objects, open rings of semicircular or triangular section appear most often with large-format silver or bronze circlets without a pendant (gr. 316/f, gr. 92/m, and 263/f) or circlet with a pendant (gr. 422/f), more rarely with wire bracelets (gr. 92/m, 316/f)<sup>439</sup> and knives (gr. 92/m, 94/m), and individually with a large-format silver O-circlet (gr. 422/f), a buckle and a bead (gr. 263/f), a tightener/loosener tool (gr. 37/m), and quite exceptionally with the only established find of a composite bow at Lijevo Bara (gr. 92/m). In only two graves were open rings of semicircular and triangular section the only grave finds (gr. 240/ch, 360/m?).

<sup>438</sup> DEMO 1996, 49, 53, 84 no. 39.1–3. – For a banded hoop of a silver filigree ring remodelled into a pendant on a torc from the cemetery of Szentes – Szentlászló, gr. 26: SZÉLL 1941, 24, 258 Pl. IIIB:2a–b.

<sup>439</sup> One of the bracelets from gr. 316/f belongs to the group of heavy bracelets (40.54 g).

Open rings of semicircular and triangular section were more frequently found by skeletons with one or both forearms placed on the upper part of the trunk (62.5%)<sup>440</sup> than by skeletons with arms placed along the body or on the lower part of the trunk (37.5%).<sup>441</sup> They are scattered throughout the cemetery, but it can be noted that they are entirely missing in the northeastern section of the excavated area of the cemetery.

4.3.2.2.1.5. Rings of arched section  
(G. 24; H. 46a–b; De. 1.5a–b)

No.	Inv. AMZ	Metal	Type De. (G. 24)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2443	AE	1.5b	–	–	–	2.88	0.67	0.21	4.505	20/f	r
2.	2450	AE	1.5b	–	–	–	2.1/1.97	0.63	0.20	2.842	24/f?	r
3.	2457	AE	1.5b	–	–	–	2.97/1.92	0.55–0.30	0.14	2.004	30/ch	l
4.	2467	AE	1.5b	–	–	–	2.07/1.95	0.59–0.40	0.17	2.267	33/f	l
5.	2468	AE	1.5a	–	–	–	2.23/2.14	0.70	0.19	1.862	33	r
6.	2495	AE	1.5b	–	–	–	2.50/2.15	0.50–0.38	0.19	1.524	59/f	r
7.	2497	AE	1.5b	–	–	–	1.70	0.57	0.08	1.064	60/f	–
8.	2540	AE	1.5b	–	–	–	2.36/1.89	0.68	0.13	1.293	93/f	r
9.	2558	AE	1.5a	–	–	–	2.20/1.96	0.65–0.42	0.12	2.261	110/?	r
10.	2654	AE	1.5b	–	–	–	2.22/2.17	0.69–0.60	0.14	1.206	250/f?	–
11.	2677	AE	1.5a	–	–	–	2.07/1.97	0.66	0.13	1.312	268/m	l
12.	2877	AR	1.5b	–	–	–	2.18/2.05	0.64	0.15	2.731	298/f	r
13.	2711	AE	1.5a	–	–	–	1.96/1.82	0.58	0.12	1.471	313/f?	l
14.	2781	AE	1.5a	–	–	–	2.36/2.07	0.70–0.60	0.23	4.911	362/f?	r
15.	2816	AE	1.5b	–	–	–	2.17/1.99	0.57–0.47	0.18	2.853	394/f	r
16.	2818	AE	1.5b	–	–	–	1.98/1.90	0.57–0.42	0.14	2.041	395/f	l
17.	2890	AE	1.5b	–	–	–	2.16/2.02	0.67	0.22	4.151	III-1951/?	–
18.	2397	AE	1.5b	–	–	–	2.34/2.25	0.58	0.31	4.729	Srnić	–

[Decoration: 5a = undecorated; 5b = decorated]

\* Notes:

7. The data in the field and museum documentation do not permit it to be established with certainty which of the two rings found in that grave belonged to which hand (the other ring is De. 1.2b).  
 10. The ring was found in the soil above the middle of the skeleton that was damaged and disturbed by tree roots.  
 11. Damaged (broken into four parts).

Rings of arched section were represented by 18 examples (**Fig. 43:1.5a–b**): 17 were discovered during the archaeological excavations in 1951–1953, and one came from one of the graves destroyed in the 1930s (S-2397).<sup>442</sup> Almost all of the rings gathered during the archaeological excavations were found in female or probably female graves (85.70%), they are rare in child (7.15%) and male graves (7.15%), and the remaining two examples come from graves where the sex of the deceased remained undetermined (gr. 110, III-1951).

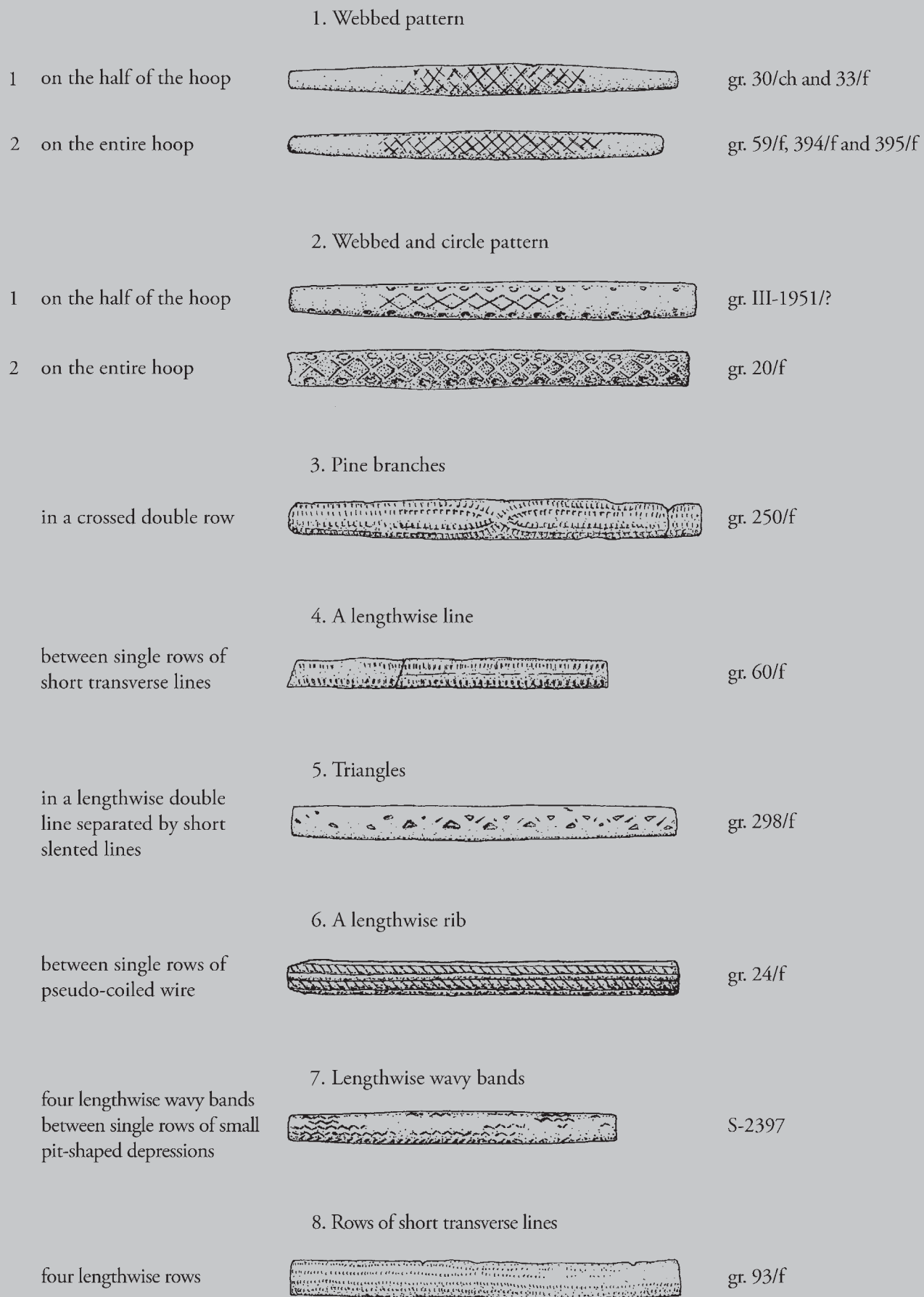
Bronze rings were greatly predominant as opposed to a single silver ring (5.56%), with decorated examples much more numerous (72.22%) as opposed to undecorated rings (27.78%). On the decorated rings (De. 1.5b) five groups and several variants of decorative motifs can be noted (**Fig. 45**). A webbed pattern predominates, with distinct differences in the formation and the surface covered by the decoration (53.85%), so that the hoop is in part or completely decorated by a webbed pattern located between single rows of circular hollows (III-1951/?; gr. 20/f) or a similar webbed pattern without the circular depressions sometimes covers one half (gr. 30/dj, 33/f) gr.) and sometimes even two thirds of the hoop (gr. 59/f, 394/f, 395/f).<sup>443</sup> Other than webbed decoration, individual examples appear of decorations with a pattern of pseudo-coiled wire (gr. 24/f?), four lines of wavy bands between single rows of small pit-shaped depressions (S-2397), a thin lengthwise line between single rows of transverse, short, shallow incised lines arranged along the

<sup>440</sup> Five rings from 5 graves: 37/m (v.12), 316/f (v.13b), 422/f (v.15), 360/m? (v.22), and 92/m (v.24).

<sup>441</sup> Three rings from 3 graves: 94/m (v.1) and 240/ch and 263/f (v.7).

<sup>442</sup> DEMO 1996, 70 no. 13.1.

<sup>443</sup> The webbed pattern was more or less worn from use on the rings from gr. 30, 33, 395, and III-1951.



**Fig. 45.** Decorative motifs on rings of arched section (De. 1.5b). **1** – Webbed pattern (1.1 – on half of the hoop: gr. 33/f; 1.2 – on two-thirds of the hoop: gr. 394/f). **2** – Web and circle pattern (2.1 – on half of the hoop: gr. III-51/?; 2.2 – on the entire hoop: gr. 20/f). **3** – Pine branches in a crossed double row (gr. 250/f?). **4** – A lengthwise line between single rows of short transverse lines on the edges (gr. 60/f). **5** – Triangles in a lengthwise double line separated by short slanted lines (gr. 298/f). **6** – A lengthwise rib between single rows of pseudo-coiled wire (gr. 24/f?). **7** – Four lengthwise wavy bands between single rows of small pit-shaped depressions (S-2397). **8** – Four lengthwise rows of short transverse lines (gr. 93/f).

edges of the hoop, (gr. 60/f), a double row of pine branches that cross in the middle of the hoop (gr. 250/f),<sup>444</sup> a lengthwise double row of triangles with a row of short slanted lines between them (gr. 298/m), and four lengthwise rows of short transverse lines (gr. 93/f). Special elements in formation include a rare example of a triangularly shaped exterior wall to the arched hoop of one of the rings (gr. 362/f?).

Although the width of the arched section rings ranges from 0.50 to 0.70 cm, the differences in the weight of individual examples are much greater, and vary in a range from only 1.064 to as much as 4.911 g. Despite this, the average weight of the entire type is only 2.502 g, which places rings of arched section in the category of light rings. Further, examples of the light weight system (I) weighing less than 3 g compose more than three quarters of all rings of arched section discovered at Lijeva Bara (77.78%), and a weight greater than 4 g, characteristic for the middle weight group (II), was measured for as many as 4 rings of arched section (22.22%). Among the heavier and chronologically later examples are rings decorated with a webbed pattern between single rows of circular hollows (gr. 20/f, III-1951/?), a ring decorated with four rows of wavy bands between single rows of small pit-shape depressions (S-2397), and a ring with a triangularly shaped exterior wall of the hoop (gr. 362/f?), which indicates a chronologically later position for rings decorated or formed in such a manner.

Rings of an arched section were more common on the fingers of the right hand (64.29%) than the fingers of the left hand (35.71%), and in only one grave were rings of arched section found on the fingers of both the left and right hands (gr. 33/f). For four examples (16.67%) it was not possible to determine the fingers of which hand they would have belonged, whether no reliable data about that existed in the field documentation (gr. 60/f),<sup>445</sup> or whether they came from more or less damaged graves (gr. 250/f?, III-1951/?), or even from a grave unit destroyed long before the systematic archaeological excavations (S-2397).

In the five graves with finds of more than one ring, rings of arched section appear mainly with open rings of banded section De. 1.2a (gr. 30/ch, 93/f) and 1.2b (gr. 93/f), in one case with a ring with holes for a rivet De. 1.1 (gr. 93/f), a closed ring of semicircular section De. 2.10a (gr. 313/f?), and a ring with a crown and hoop of semicircular section De. 3.16c (gr. 93/f).

In a third of the graves with finds of rings of arched section, these rings were the only grave finds (gr. 20/f, 24/f?, 59/f, 110/?, 250/f?). In graves with a greater number of grave finds, they usually appear together with large-format bronze circlets (gr. 33/f, 60/f, 93/f, 298/f, 313/f?), and small-format bronze (gr. 30/ch) and silver circlets (gr. III-1951/?), and bracelets of wire (gr. 33/f, 93/f, 268/m, 394/f and III-1951/?), and in individual cases in graves with finds of button-pendants (gr. 362/f?), beads (gr. 394/f), and large fragments of pottery vessels (gr. 60/f), and finds of bird bones (gr. 30/ch) and cattle bones (gr. 395/f). Only one ring of arched section comes from a male grave, and because of the position of the grave itself and because it was found with a knife, steel for tinder, quiver, and arrow, it belongs among the chronologically earlier examples of this group (gr. 268/m).

Rings of arched section are more frequent in the graves in which the deceased had one or both forearms placed on the upper part of the body (69.23%)<sup>446</sup> than in the graves where the forearms were placed along the body or on the lower part of the trunk (30.77%).<sup>447</sup> A tendency can be seen in their distribution for grouping according to weight and decoration, so that rings heavier than 4 g were found exclusively in the western sections of the cemetery (gr. 313/f?, 362/f?, III-1951/?), and decorated examples of identical or different variants were found in graves located near (gr. 20/f, III-1951/?, 24/f?) or very near one another (gr. 30/ch and 33/f, 59/f and 60/f, 394/f and 395/f). The only silver decorated example from this group belonged to a grave with a torc located in the southern or southwestern part of the excavated area of the cemetery (gr. 298/f), and on the basis of this, it can be considered a chronologically later ring and can be dated to the period around or just after the year 1000.

<sup>444</sup> A similar, but slightly more complicated double row of incised pine branches crossed so that in the upper section of the ring they create a rhomboid shaped field appears on a ring of arched section found in Slovakia at the cemetery of Zemné – Gúg (gr. 49), and one of the graves excavated at the beginning of the 20<sup>th</sup> century around the parish church of St. Mihovil/Michael in Mengeš in Slovenia contained a ring with a decorative pattern that covers the entire surface of the hoop, REJHOLCOVÁ 1979, 412, 427, Pl. VII:5 (Zemné); ŠMID 1908, 35, Pl. III:13; VUGA 1976, 37, 42, Fig. 7:1 (Mengeš). A simplified variant with an incised single row of a wavy pine branch can be noted on some open rings (semicircular or arched section?) found in Hungary, cf. TÖRÖK 1962, C:156 (Halimba – Cseres, gr. 156); KISS 1968, 71 (Sellye – Dobina dúlő, gr. 6).

<sup>445</sup> *Dnevnik*, ad 3 Sept. 1952; *Zapiski*, no. 60/29 Aug. 1952.

<sup>446</sup> Ten rings from 9 graves: 313/f? and 362/f? (v.8), 20/f, 110/? and 395/f (v.13), 268/m (v.18), 24/f? (v.22) and 33/f and 60/f (v.24; the skeleton in a contracted position

<sup>447</sup> Four rings from 4 graves: 30/ch (v.1), 394/f (v.2), and 59/f and 93/f (v.7). These data, as well as the data from the previous footnote, refer to 13 graves from a total of 16 graves with finds of rings of arched section. The position of the forearms was not established in 3 graves: 250/f?, 298/f, and III-1951/?.

4.3.3.2.1.6. Rings of circular and oval section with cut or tapered ends  
(G. 25, 25 dif., 26, 25/26 dif; De 1.6a–b)

No	Inv. AMZ	Metal	Type De. (G. 25–26)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2486	AE	1.6b	–	–	–	2.50/2.33	0.34	0.20	3.866	49/f	l
2.	2514	AE	1.6a	–	–	–	2.20/2.03	–	0.35–0.16	3.688	80/f	r
3.	2528	AE	1.6b	–	–	–	2.59/2.35	0.44	0.28	5.460	90/m	l
4.	2547	AE	1.6a	–	–	–	2.16/2.07	–	0.35–0.26	3.367	97/m?	l
5.	2567	AE	1.6a	–	–	–	2.20/2.04	–	0.21	1.831	115/f	r
6.	2601	AE	1.6a	–	–	–	2.40/2.35	–	0.35–0.30	4.318	159/f	–
7.	2608	AE	1.6a	–	–	–	2.05/2.03	–	0.34–0.27	3.155	174/?	l
8.	2719	AE	1.6b	–	–	–	2.40/2.20	0.45–0.38	0.33–0.28	5.086	315/f	–
9.	2834	AE	1.6a	–	–	–	2.02/1.86	–	0.36–0.23	3.225	409/ch	l
10.	2842	AR	1.6a	–	–	–	2.47	–	0.38–0.26	5.193	415/m?	r
11.	2398	AE	1.6a	–	–	–	2.61/2.41	–	0.44–0.33	5.932	Srnić	–

[Section: 6a = circular; 6b = oval]

## \*Notes:

6. The ring was found by the left ear.  
8. The ring was found together with another ring (De. 3.3a) on the right side above the pelvis (the forearms of the deceased were placed on the chest: v.19).

The rings of this group are represented by eleven examples (**Fig. 43:1.6a–b**), 8 of them rings of circular section type 1.6a,c–d (72.72%), while the remaining 3 are rings of oval section of type 1.6b (27.27%). The form of the ends is more varied than the section, which among the rings of oval section was exclusively cut (gr. 49/f, 90/m, 315/f), while among the rings of circular section, both ends were cut (gr. 115/f, 159/f, 174/?) or tapered and cut (gr. 415/m?, S-2398), or one of the ends was cut and the other tapered (gr. 97/m?, 409/ch) or pointed (gr. 80/f). With the exception of one silver ring of oval section with tapered and cut ends (gr. 415/m?), all the remaining examples were made of bronze (90.91%).

In addition to the simplicity of their workmanship, these rings are further distinguished by their quite considerable weight. With the exception of one example (gr. 115/f), the weights range from 3.225 to 5.932 g, so that their average weight exceeds 4.10 g, because of which these rings are placed in the groups of primarily middle (II) and heavy weight systems (III), and can be considered relatively late rings. It can be noted, however, that within this group of rings the average weight of a ring of circular section (3.839 g) was almost a quarter less than the average weight of a ring of oval section (4.804 g).

Of the eleven examples of rings of circular or oval section, only one ring was acquired by purchase (S-2398). The remaining ten examples were found in 5 female graves (55.56%), in three male or probably male graves (33.33%), and in only one child grave (11.11%), while in one grave the sex of the deceased was not determined (gr. 174). They were more often found on the fingers of the left hand (50%), than on those of the right (30%), and in two cases (20%) the rings were found elsewhere, once by the left ear of a female skeleton (gr. 159/f), and in another case on the right side above the pelvis (gr. 315/f).

Rings of circular or oval section are the only find in only three graves (gr. 80/f, 174/?, 415/m?), and much more frequently they appeared together with a large-format bronze circlet and an O-circlet (gr. 90/m), with a small-format silver and a small-format bronze S-circlet (gr. 315/f), with torcs of thin diameter (gr. 159/f, 409/ch) and larger diameter (gr. 115/f), with necklaces of beads and metal pendants (gr. 115/f, 409/ch), with bracelets of wire with cut ends (gr. 49/f, 115/f, 159/f) or with a rare bracelet of coiled bronze wires of different sections (gr. 159/f), and quite exceptionally and rarely with a pair of bronze belt loops (gr. 409/ch) or with an iron knife s (gr. 174/?). Only 4 rings (40%) were found in a grave together with another ring (gr. 115/f, 159/f, 409/ch) or another two rings (gr. 315/f).

They were found in equal numbers by skeletons with the arms placed on the upper part of the trunk (50%)<sup>448</sup> and by skeletons with the forearms placed alongside the body or on the lower part of the trunk (50%).<sup>449</sup> They were distributed throughout the entire excavate area of the cemetery, while the only silver example was found in a grave buried in the southern section (gr. 415/m?).

<sup>448</sup> Five rings from 5 graves: 80/f and 409/ch (v.9), 97/m? (v.13a), 315/f (v.19), and 415/m? (v.23).

<sup>449</sup> Five rings from 5 graves: 49/f (v.1), 174/? (v.2), and 90/m, 115/f, and 159/f (v.7).

4.3.3.2.1.7. A ring of oval section with overlapping ends (one halfway over another)  
(V. III/11; De. 1.7)

No.	Inv. br.	Metal	Type (V. III/11)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2683	AE	1.7	–	–	–	0.26–0.17	0.26	0.17	5.483	279/f?	l

The ring from grave 279 belongs to a large and very old family of spiral rings (Spiralfingerring)<sup>450</sup> sporadically present among the grave finds of the Bijelo Brdo cultural sphere, while in the early medieval period in the Carpathian basin they are present among late Avaric finds at the end of the 8<sup>th</sup> and in the first third of the 9<sup>th</sup> centuries.<sup>451</sup> The example from Vukovar is made from bronze wire of oval section, one end is cut and the other pointed, and the spiral has only one and a half coils. An identical number of spiral coils can be found on certain finds from Romania,<sup>452</sup> Hungary,<sup>453</sup> Austria,<sup>454</sup> and Slovakia,<sup>455</sup> and from the latter comes one example with an oval section (Zemné – Gúg).<sup>456</sup> In terms of weight, the ring belongs to the heavy weight system (III), and in terms of relative chronology it could be a later form of this type of jewellery (Fig. 43:1.7).

The ring was found in a grave buried in the northeastern part of the excavated area of the cemetery. It belonged to the fingers of the left hand of a most probably female skeleton with the forearms placed along the body and across the lower part of the trunk (v.6). In addition to the spiral ring, a pair of large-format, very heavy bronze circlets (De. 13/I,9) and one glass bead were found, and accordingly the grave can be only approximately dated to the period around or after the year 1000.

4.3.3.2.1.8. Rings of rhomboid, square, and polygonal section  
(G. 27, 27 dif., 28 dif.; de. 1.8a–c)

No.	Inv. AMZ	Metal	Type De. (G. 27–28)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2554	AE	1.8b	–	–	–	2.63/2.39	0.32–0.22	0.30	4.260	108/f?	r
2.	2585	AE	1.8a	–	–	–	2.20	0.20	0.20	1.325	137/?	l
3.	2788	AR	1.8c	–	–	–	2.58/2.45	0.36–0.33	0.35–0.27	5.908	370/m	r

[Section: 8a = rhomboid; 8b = square with the outside rounded; 8c = polygonal with the outside rounded]

This group consists of only 3 rings from 3 graves (Fig. 43:1.8a–c), and only one ring has a rhomboid section, pointed ends, and was made of quite light and not very thick wire (De. 1.8a), while the other two rings are more massive with different sections, in one case square and rounded on the exterior side (De. 1.8b), and in the second case polygonal and again rounded on the exterior side (De. 1.8c). The latter is the only example made of silver (33.33%). The weight of the lightest ring is more than four times less than the heaviest example (the average weight of the type measures 3.831 g), and it is apparent that the weight but also the shaping of the ends indicate two distinct, chronologically separate sub-types: the first relatively earlier sub-type, which includes the ring with pointed ends of the light weight system weighing less than 2 g (De. 1.8a), and the second relatively later sub-type, which includes rings of the middle (II) and heavy (III) weight systems weighing on average 5.084 g (De. 1.8b–c).

One ring each belonged to the fingers of the right hand of a male skeleton (gr. 370) and the right hand of a female skeleton (gr. 108), while only in one case was a ring found by the fingers of the left hand of a skeleton whose sex was not determined (gr. 137). All three rings were grave finds discovered by skeletons with one or both hands placed on the upper part of the body.<sup>457</sup>

<sup>450</sup> For the Roman period rings of this group, cf. HENKEL 1913, 222–223; BECKMANN 1969, 42–46 (group VI/38).

<sup>451</sup> SZÖKE 1992, 872 (for sites and literature).

<sup>452</sup> Várşand – Gyulavarsánd, destroyed grave: DOMINKOS 1908, 72 (Pl. I:A3), 74.

<sup>453</sup> Dunaiújváros – Öreghegy, gr. 1, 14, 15: HORVÁTH 1979, 294 Pl. II:1, 3 (gr. 1, 14), 295 Pl. III:4–5 (gr. 15). Hájduzóslószőlő – Árkoshalom, gr. 78: NEPPER 2002 (2), 45 Pl. 39. Királyszentistván – Petőfi u., gr. 87, 116: PINTÉR 2004, 116 Fig. 3, 117 Fig. 4. Koppányszántó, from destroyed graves: HAMPEL 1905, 607, Pl. 408:12. Sárrétudvari – Hizófold, gr. 22: NEPPER 2002, Pl. 227:15. Zalavár – Kőszégy I, gr. 51: TETTAMANTI 1971, 227 Fig. 8:2, 237.

<sup>454</sup> Leithe an der Bruck – H. Czettel Gasse 21, gr. 4: KREITNER 2000, 186, 187 Fig. 7:26/left.

<sup>455</sup> Malé Kosihy – Horne Konopnice, gr. 128, 398: HANULIAK 1994, Pl. XXIX:C1 (gr. 128), LXXVII:A2 (gr. 398).

<sup>456</sup> REJHOLCOVÁ 1979, Pl. V:18 (gr. 51).

<sup>457</sup> Three rings from 3 graves: 370/m (v.V/10), 137/? (v.III/11), and 108/f? (v.V/15).



The earliest example in terms of relative chronology was found with a necklace of glass beads and a bronze wire bracelet with pointed ends in the northwestern part of the excavated area of the cemetery (gr. 108). The chronologically later examples were found: one as the only grave find in the southwestern section of the cemetery (gr. 370/m), and the other with a pair of large-format, heavy silver S-circlets in the easternmost archaeologically excavated part of the cemetery (gr. 137/?).<sup>458</sup>

#### 4.3.3.2.1.9. A ring of silver twisted wire (G. 29; De. 1.9)

No.	Inv. AMZ	Metal	Type De. (G. 29)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2795	AR	1.9	–	–	–	2.48/2.19	0.36–0.29	0.33–0.22	4.063	444/f	r

The ring from grave 444/f – attributed in previous publications to grave 379<sup>459</sup> – belongs to the category of rings usually made of twisted silver wire, sometimes twisted bronze wire, and only rarely twisted gold wire (**Fig. 43:1.9; Pl. 20:4**).<sup>460</sup> The example from Vukovar is classified to the most numerous group of this type of ring, made by twisting three wires of oval or circular section, where on the ends two wires were usually thinned and hammered flat, while the third wire was cut before the end. The ring belongs in the medium weight system (II).

Grave 444 was excavated on the very last day of archaeological excavation at Lijevo Bara, it was located in the central western part of the excavated area of the cemetery, and the female skeleton buried in it had forearms placed on the upper part of the trunk (v.14). According to the data recorded in the field documentation, in addition to the ring found by the fingers of the right hand the grave finds consisted of a torc, an open-ended bracelet of circular section wire, a bracelet with snake head ends, and a fragment of an iron awl, along with a circlet and button-pendant that are not specified as finds in the same field documentation.<sup>461</sup>

Such rings are not particularly numerous at Bijelo Brdo cemeteries south of the Drava River, but they are nonetheless represented at several sites in an area ranging from Slovenia (Ptuj-Grad/Turnirski prostor)<sup>462</sup> and northwestern Croatia (Veliki Bukovec),<sup>463</sup> through the eastern Croatian Drava basin (Josipovo – Ciganka,<sup>464</sup> Zvonimirovo – Veliko polje<sup>465</sup>) and the Bosnian Sava basin (Gomjenica – Baltine bare),<sup>466</sup> to the Bijelo Brdo cemeteries not far from Vukovar in the Croatian Danube basin, Vera-bara Ačas<sup>467</sup> and Svinjarevci – Studenac.<sup>468</sup> These rings are more frequent in Hungary, particularly the eastern and southeastern regions, but the greatest number of individual examples come from Romanian Transylvania, where they are stylistically diverse and very numerous among the Bijelo Brdo finds from Alba Iulia (Karlsburg),<sup>469</sup> hence this could well be the location for one of their production centers.

Rings of silver twisted wire usually appear together in graves with silver S-circlets, considerably more frequently with small-format S-circlets, and rarely with large-format examples (e.g. Ptuj-Grad/Turnirski prostor, Gomjenica – Baltine bare), so it is quite evident that they belong among jewellery forms from the 11<sup>th</sup> century. Several examples are dated by coins of the Hungarian kings Andrew I (1046–1061),<sup>470</sup> Salamon (1061–1074),<sup>471</sup> and Ladislav (1077–1095),<sup>472</sup> hence they are often further specifically dated to the period around the middle and in the second half of the 11<sup>th</sup> century.<sup>473</sup>

<sup>458</sup> At the cemetery of Szombathely – Szent Márton (gr. 27) a massive example of an open ring of rhomboid section was found together with a knife in a grave dated by a coin of King Stephen (1000–1038), KISS – TÓTH 1994, 182 (Fig. 6:2).

<sup>459</sup> This unclear situation was already noted by DEMO 1996, 90 no. 52a.7. Not knowing of these dilemmas nor the problems that they have caused, and most probably only utilizing the data from the inventory book, the ring of twisted wire was attributed to grave 379 by TOMIČIĆ 1992, 160–161, Pl. XXI (drawn as a find discovered by the fingers of the left hand); and later TOMIČIĆ 1997, 83, with the note that in grave 379 that ring was found together with another ring (G. 31).

<sup>460</sup> For a rare golden example from the site of Hódmezővásárhely – Nagysziget in the Hungarian southern Tisza (Csongrád County), see *Budapest* 1996, 309 (Fig. 3, below), 310.

<sup>461</sup> As grave finds attributed to this grave they are noted only by the S-AMZ inventory book.

<sup>462</sup> SKRABAR 1910, 124, 128, Pl. II:15; KOROŠEC 1947, 25 Fig. 26 (gr. 37 and chance find); KOROŠEC 1950, 91, 148, Fig. 16 (gr. 97).

<sup>463</sup> BRUNŠMID 1907, 84 Fig. 37:1 (chance find).

<sup>464</sup> TOMIČIĆ 1990, 89, 102 (Pl. VIII:2); TOMIČIĆ 1997, 24 (gr. 5).

<sup>465</sup> TOMIČIĆ 1997, 94 (chance find).

<sup>466</sup> MILETIĆ 1967, 84, 135–136, Pl. XXXII:4 (gr. 10).

<sup>467</sup> RADIĆ 1997, 87 no. 12.d. The Bijelo Brdo cemetery and the finds from Vera were mentioned in passing by: PURIĆ 1897, 138; HOERNES 1903, 288; VINSKI 1970, 80 no. 10.

<sup>468</sup> BRUNŠMID 1907, 88 Fig. 39:4 (gr. 4).

<sup>469</sup> HORED T 1958, 57–58 (Fig. 14–15).

<sup>470</sup> *Ellend – Nagygyödör*, gr. 89: DOMBAY 1961, 141, Pl. XIX:16–20. *Majs – Udvari rétek*, gr. 322: KISS 1983, 97–98, 337, Pl. 29.

<sup>471</sup> *Halimba – Cseres*, gr. 412: TÖRÖK 1962, 164, Pl. LXXIX.

<sup>472</sup> *Moldovenesti – Várhegy*, gr. 55: ROSKA 1914, 142 (Fig. 3:7), 143, 177; *Somotore – Pastivsko*, gr. 19: PÁSTOR 1955, 280–281, 284 (Pl. II:17–18); *Subotica – Verusić/B*, gr. 148: SZEKERES – SZEKERES 1996, 48.

<sup>473</sup> GIESLER 1981, 113, Pl. 53.

### 4.3.3.2.2. Closed rings

#### 4.3.3.2.2.1. Rings of semicircular and triangular section (G. 31; H. 52a–b; De. 2.1a–b)

No	Inv. AMZ	Metal	Type De. (G. 31)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2424	AR	2.1a	–	–	–	2.21/2.20	0.66–0.50	0.20–0.18	3.901	3/m	r
2.	2427	AE	2.1b	–	–	–	2.45/2.35	0.56–0.48	0.34	5.744	7/?	r
3.	2428	AE	2.1a.1	–	–	–	2.18/2.16	0.50–0.45	0.23	4.036	7/?	r
4.	2451	AE	2.1a	–	–	–	2.24/2.05	0.62–0.45	0.27–0.24	5.129	26/f	l
5.	2602	AE	2.1b	–	–	–	2.30	0.57–0.54	0.20	3.410	159/f	l
6.	2620	AE	2.1a.1	–	–	–	2.38/2.26	0.48–0.41	0.19–0.17	3.329	211/f	l
7.	2741	AR	2.1a	–	–	–	2.14/2.09	0.50–0.38	0.20–0.18	2.855	313/f	l
8.	2749	AR	2.1a	–	–	–	2.29	0.53	0.29	3.481	331/m	r
9.	2778	AR	2.1a	–	–	–	2.24/2.23	0.45–0.40	0.14–0.11	2.461	358/m	r
10.	2824	AE	2.1a	–	–	–	2.40/2.35	0.57–0.47	0.24	6.205	403/f	r
11.	2872	AR	2.1a	–	–	–	2.48/2.42	0.43	0.35	6.301	440/f	r

[Section: 1a = semicircular; 1b = triangular; 1a.1 = decorated hoop of semicircular section]

Rings of this type are the simplest and most numerous group of rings of the closed type represented at Lijevo Bara (Fig. 43a:2.1a–b). All of the rings were cast, and the cast band of semicircular (De. 2.1a) or triangular section (De. 2.1b) was bent into a hoop of the required diameter. The hoop was soldered at the point of contact, and the join was more or less successfully ground, so that it can often be easily recognized because of the excessive thickening or the equally frequent emphasized narrowing. Examples cast in bronze were present at Lijevo Bara in somewhat greater numbers (54.55%) than those cast in silver or poor quality silver (45.45%), but rings with a semicircular section were considerably more numerous (82.82%), than the more rare examples with a triangular section (18.18%). Although decoration on rings of this type is not usual, two rings of semicircular section bear visible irregularly arranged shallow transverse incised lines (De. 2.1a.1), which on one ring cover the entire hoop (gr. 211), and on the other only the edges of the ring (gr. 7).

Despite the presence of two rings of light weight (I), the average weight for the entire type measured 4.26 g, and accordingly it consisted primarily of rings of the middle (II) and heavy weight systems (III). A difference is also evident in the average weight of rings of semicircular section made of silver and those made of bronze, as the weight for silver rings measures 3.80 g, and for bronze rings 4.68 g. The bronze rings of triangular section had an average weight of 4.58 g.

Eleven closed rings of semicircular and triangular section were found in a total of ten graves – six female or probably female (66.67%), three male (33.33%), and in only one grave the sex of the deceased was not determined (gr. 7).<sup>474</sup> They belonged to the fingers of the right hand in a greater number (63.64%), and less to the fingers of the left hand (36.36%), while in one case two rings were found on the fingers of the right hand (gr. 7/?) – one decorated and with a semicircular section (De. 2.1a.1), and the other with a triangular section (De. 2.1b).

**Table 34**

Grave finds of closed rings of semicircular and triangular closed rings (De. 2.1a–c), and the types and variants of rings with which they were found in the same grave units.

No.	Grave (sex)	No. of rings in grave	Closed rings		W/ crown 3.1	Open rings		
			2.1	2.13		1.2a	1.5a	1.6a
1	7/?	3	2	–	–	1	–	–
2	159/f	2	1	–	–	–	–	1
3	211/f	2	1	–	1	–	–	–
4	313/f?	2	1	–	–	–	1	–
5	358/m	2	1	–	–	1	–	–
6	403/f	2	1	1	–	–	–	–
Total:		13	7	1	1	2	1	1

<sup>474</sup> Three rings come from this grave, two of which are closed rings (G. 31).

The rings were usually found in graves with a large number of archaeological finds (two or more), and as the only grave good a ring of this type was found in only one case (gr. 3/m). They appear more rarely as the only ring found in a grave (gr. 3/m, 26/f, 331/m, 440/f), while more than half of all examples were found together with another one or two rings of the same or another group or type (Table 34). Closed rings of semicircular or triangular section appear together with other archaeological finds, such as bronze large-format circllets without an ending (gr. 26/f, 313/f?) small-format ones (gr. 313/f?), and bronze large-format O-circllets (gr. 358/m), and also with silver cast raceme earrings of the "Volhynia type" (gr. 440/f), with a torc made of two doubled wires with wrapped ends (gr. 159/f), with both heavy and light bracelets of bronze wire (gr. 159/f, 211/f, and 440/f), and with a bracelet of bronze sheet metal with the ends bent outwards (gr. 211/f), as well as an iron knife (gr. 331/m), an iron awl (gr. 440/f), and a small fragment of a pottery vessel (gr. 7/?).

Rings of this group were found in only two cases by skeletons with one or both forearms placed alongside the lower part of the body or on it (20%).<sup>475</sup> The bronze examples come from graves buried primarily around the middle or in the eastern part of the excavated area of the cemetery, while the silver examples (45.45%) were more frequent in the graves buried in the southwestern part of the cemetery (gr. 3/m, 313/f, 358/m), rather than in the southeastern (gr. 331/f) or northeastern sections of the cemetery, the source of the heaviest example of this group (gr. 440/f). Among the above, only graves 3/m and 313/f were located in the immediate vicinity of one another, and both contained silver rings of semicircular section. The scarcity of closed rings of triangular section, represented only by examples cast in bronze (gr. 7/? and 159/f), is one of the indicators that burial of the deceased in the excavated area of the cemetery at Lijevo Bara certainly ceased as early as during the first few decades of the 11<sup>th</sup> century.

#### 4.3.3.2.2.2. A ring of semicircular section with transverse ribbing (G. 33; H. 54a; De. 2.2)

No.	Inv. AMZ	Metal	Type De. (G. 33)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2715	AE	2.2	–	–	–	2.26/2.20	0.53	0.28	4.735	314/f	l

The bronze ring from grave 314 is the only closed ring of semicircular section at Lijevo Bara with dense transverse ribbing or grooves, and as a variant it must be distinguished from similar rings of triangular section, which are otherwise not present at this site (Fig. 43a:2.2). The ring can be classified as of middle weight (II), and it was found by the fingers of the left hand in a female grave buried in the southwestern part of the cemetery. In addition to this ring, the grave also contained a bronze large-format circllet (G. 13/I,7) and a ring with a crown for setting a decorative element of the "Vukovar – Bijelo Brdo" type (De. 3.16a). The forearms of the skeleton were placed one on the upper and one on the lower part of the trunk (v.9), and judging from the circumstances of the discovery of the ring with dense transverse ribbing it would have belonged to a grave buried at the end of the 10<sup>th</sup> century or beginning of the 11<sup>th</sup> century.<sup>476</sup>

#### 4.3.3.2.2.3. Rings of triangular section with a pattern of pseudo-twisted wire (V. III/17; De. 2.3)

No.	Inv. AMZ	Metal	Type De. (V. III/17)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2513	AR	2.3	–	–	–	2.58/2.53	0.52	0.37	6.389	74/m	r
2.	2825	AR	2.3	–	–	–	2.50	0.52	0.38–0.36	5.220	403/f	l

An incised decoration was present on two examples of cast silver rings of triangular section (poor quality silver), and its appearance imitated multiple lengthwise rows of pseudo-twisted wire (Fig. 43a:2.3). The weight of this type of ring is considerable, usually measuring more than 5 or even more than 6 g, and this places them among rings of the heavy weight system (III).<sup>477</sup>

<sup>475</sup> Two rings from 2 graves: 211/f (v.2), 159/f (v.7a). The remaining 9 rings from 8 graves were found by a skeleton with one or both forearms placed on the upper part of the body (80%): 313/f (v.8), 358/m (v.13), 403/f (v.13), 26/f (v.17), 3/m, 7/?, and 440/f (v.20) and 331/m (v.25).

<sup>476</sup> From their semicircular section and dense transverse ribs, such rings can also be recognized as sites south of the Drava River, such as at the cemetery of Gomjenica – Baltine bare (gr. 9) and Bijelo Brdo – Ul. Venecija (gr. 78, 225), although they have probably also been found elsewhere, but because of often incomplete publications they are inaccessible for detailed research and comparisons. For the above finds, MILETIĆ 1967, 84, Pl. XXXII:16 (Gomjenica; supposedly with more than one ring of identical traits); BRUNŠMID 1904, 58; ERCEGOVIĆ 1958, 168, 170 Fig. 17 (Bijelo Brdo).

<sup>477</sup> The examples from the cemetery of Bijelo Brdo – Ul. Venecija, both finds from gr. 183, weigh 5.816 g (S-456) and 6.245 gr (S-455). For the other finds from this grave, BRUNŠMID 1904, 72.

Both of the rings from Vukovar were found by the fingers of the right hand, one in a male grave as the only grave find (gr. 74), and the other in a female grave (gr. 403) together with a very heavy closed bronze ring of semicircular section (6.205 g).<sup>478</sup> On the first skeleton one forearm was placed on the upper part of the body (v.17), and on the second skeleton both forearms (v.13b), while the graves in which they were buried (some twenty meters from one another) were located in the southeastern part of the excavated area of the cemetery, and they could be classified to the beginning or first decades of the 11<sup>th</sup> century.

4.3.3.2.2.4. Rings with wart-like protrusions  
(V. III/33; H. 55b; De. 2.4)

No.	Inv. AMZ	Metal	Type De. (V. III/33)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2637	AE	2.4	–	–	–	2.42	0.59	0.35/0.23	5.378	228/m	r
2.	2849	AE	2.4	–	–	–	2.46	0.63	0.54/0.20	5.157	326/f	–

\* Note:

2. The ring was hung on a torc.

Only two rings from Vukovar can be classified as Bijelo Brdo cast rings from the 11<sup>th</sup> century that are recognizable in terms of the more or less regularly arranged wart-like semicircular or square protrusions that run lengthwise along the entire width, most of the width, or only in the central zone of the hoop and form the decoration of the outside of the hoop (**Fig. 43a:2.4; Pl. 11:1**). The Vukovar examples were made of bronze and belong to the variant decorated over most of the width of the hoop with a total of 15 wart-like protrusions, and they can be classified among the rings of the heavy weight system (III). They are so similar that it is probable that they came from the same mould.

One was found by the fingers of the right hand as the only find in a male grave (gr. 228),<sup>479</sup> while the other was found suspended from a torc (De. 1a) together with an open ring of banded section (De. 1.2a) in a female grave (gr. 326),<sup>480</sup> which in addition to these finds contained a necklace of glass beads and a necklace of metal pendants (secondarily used lower part of a two-part pendant, half of a small bell-pendant, and a late Avaric belt strap mount), two bronze bracelets (G. 4),<sup>481</sup> and a bronze ring with a crown of the "Vukovar – Bijelo Brdo" type (De. 3.3a). The position of the forearms could not be determined in either grave (because of disturbance), but it was noticeable that the graves were located very near to one another (not quite four meters apart) in the far southeastern part of the excavated area of the cemetery. The burials can be dated to the beginning or the first decades of the 11<sup>th</sup> century.

4.3.3.2.3. Rings with a crown

4.3.3.2.3.1. Rings with a stepped crown  
(G. 36; De. 3.1)

No.	Inv. AMZ	Metal	Type De. (G. 36)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2623	AE	3.1	2.37	0.71/0.64	0.28	2.25/2.18	0.40	0.10	2.603	211/f	r
2.	2725	AE	3.1	2.30	0.71/0.53	0.33	2.14	0.50–0.47	0.10	2.215	316/f	l
3.	2827	AE	3.1	2.37	0.81/0.65	0.32	2.17	0.52	0.09	2.949	408/ch	–

\* Note:

3. The ring was found in the area of the neck, where it served as a pendant (amulet) on a necklace of beads and metal pendants.

Rings with a square shaped and raised stepped crown are represented by only three examples from the same number of graves. They are all made of bronze with the usual decoration consisting of three or more incised circles with a dot in the center, either uniformly arranged (more common) or in various combinations of patterns (more rare), that decorate the crown of the ring and both its square shaped shoulders (**Fig. 43a:3.1; Tab. 20:2**). Among the ten decorative combinations

<sup>478</sup> DEMO 1996, 55, 90–91 no. 52b.13.

<sup>479</sup> VINSKI 1955, Fig. 38; DEMO 1996, 90 – 91 no. 52.11.

<sup>480</sup> The proper assignment of this ring to gr. 326/f was only established through the recent revision and analysis of the archaeological material from Lijeva Bara. In the previous archaeological literature, the same ring is occasionally attributed to the finds from gr. 422/f, hence this data needs to be revised (e.g. TOMIČIĆ 1992, 152; TOMIČIĆ 1992a, 124 (Pl. 2)).

<sup>481</sup> Only one example was preserved.

with circles and a dot in the center known to the present, three variants of three decorative groups were found at Lijeva Bara (groups I.1, II.1, and II.2): one ring belongs to the most common variant among Bijelo Brdo finds of decoration of circles incised in the combination 1+1+1 (gr. 211/f), the second belongs to the rare variant with 2+1+2 circles (gr. 316/f),<sup>482</sup> and the third variant with 2+2+2 circles is at present known only on the example from Lijeva Bara (gr. 408/ch).<sup>483</sup> The average weight of the Vukovar rings is 2.59 g, and accordingly they should be classified among light rings (I).

In the two female graves, the rings of this type were found once on the right hand (gr. 211), and the second time on the left hand of the deceased (gr. 316), while in the child grave, the ring was discovered below the neck, where it had arrived as part of a necklace of metal pendants (gr. 408).<sup>484</sup> In the above female graves, the rings with stepped crowns were worn individually (gr. 211) or in a pair with a silver open ring of triangular section of type 1.4b (gr. 316), and in addition to these, both deceased women wore on their left hand another more or less well made ring: the first a decorated closed bronze ring of semicircular section (De. 2.1a.1), and the other a massive silver ring with a spirally coiled crown (De. 3.4). Among other grave finds, rings with a stepped crown were found with a pair of large-format silver circlets (gr. 316/f), a pair of bracelets of circular section (gr. 316/f), or with a bracelet of bronze wire and a bracelet of bronze sheet metal (gr. 211/f), and a necklace of beads and metal pendants that contained two beads, a bronze bell-shaped pendant, and a sizeable fragment of an iron spike (gr. 408/ch).

In the two female graves, the forearms of the skeletons were found one alongside the lower part of the trunk and the other on the lower part of the trunk (gr. 211/f) or both forearms were placed on the upper part of the trunk (gr. 316/f),<sup>485</sup> while the position of the forearms in the child grave remained unknown. All three graves were very distant from each other, located in the edge sections of the excavated area of the cemetery,<sup>486</sup> but in positions where it was easy to determine the location in the framework of the zones of distribution of the torcs. In that sense, the examples from graves 316/f and 408/ch are earlier in terms of relative chronology than the ring found in grave 211/f.

Rings with a square, stepped, raised crown were most frequent at the Bijelo Brdo cemeteries in southwestern Slovakia<sup>487</sup> and in Hungary north of the knee of the Danube,<sup>488</sup> they were less numerous in western and southern Transdanubia,<sup>489</sup> they were present among the Bijelo Brdo finds south of the Drava in northeastern Slovenia,<sup>490</sup> in northwestern Bosnia,<sup>491</sup> and in eastern Croatia,<sup>492</sup> while they were rare in the border sections of the Bijelo Brdo cultural sphere in eastern Austria,<sup>493</sup> in the Hungarian lower Tisza basin,<sup>494</sup> and in Transylvania,<sup>495</sup> and as an isolated example far beyond the Bijelo

<sup>482</sup> For a similar example from Slovakia from the cemetery of Malé Kosihy – Horné Konopnice, gr. 58: HANULIAK 1994, 150 (Pl. XI/C:2).

<sup>483</sup> Combinations of 3+1+3 (1 ex.) and 3+2+3 (1 ex.) are represented so far only in Slovenia (*Truj-Grad/Turnirski prostor*, gr. 48 and 295: KOROŠEC 1999, Pl. 5:13, 33:6), and combinations of 4+2+4 (1 ex.), 4+4+4 (1 ex.), and 6+2+4 (2 ex.) so far only in Slovakia (*Nitra – Pod Zoborom*, gr. 14: ČAPLOVIČ 1954, 9, 28, 41 (Pl. VII:15); *Malé Kosihy – Horné Konopnice*, gr. 30: HANULIAK 1994, 118, 144 (Pl. V:B/5); *Nitra – Pod Zoborom*, chance find: ČAPLOVIČ 1954, 24 no. 18, 50 (Pl. XVI) and *Trnovec nad Váhom – Horný Jatov*, gr. 524: TOČÍK 1987, 225 (Fig. 27:4). – Only rare examples are undecorated, e.g. *Truj-Grad/Turnirski prostor* (Slo), gr. 296: KOROŠEC 1999, Pl. 33:14; *Matičane – Breg* (Sr), gr. 31: JOVANOVIĆ – VUKSANOVIĆ 1981, Y 243:5.

<sup>484</sup> DEMO 1996, 54, 80 (no. 33.3), 82 (no. 36.6), 91 (no. 52.20).

<sup>485</sup> Position of the forearms: v.2 (gr. 211/f) and v.13 (gr. 316/f). In gr. 408/ch the forearm position is unknown.

<sup>486</sup> The continuation of this type of ring into the first decades of the 11<sup>th</sup> century is clearly indicated by the find from Gomjenica near Prijedor, where one example was found in gr. 73, located on the northwestern edge of the cemetery, MILETIĆ 1967, 135.

<sup>487</sup> *Bešenov – Papföld*, chance find and gr. 132: SZŐKE – NEMESKÉRI 1954, 105, Pl. II: chance finds; KRASKOVSKÁ 1958, 430, 447 (Pl. VII:11). *Nitra – Mlynárce*, gr. 41: TOČÍK 1960, 274 (Fig. 4:9), 275 no. 4. *Nitra – Pod Zoborom*, gr. 14 and chance find: ČAPLOVIČ 1954, 9, 24 no. 18, 41 (Pl. VII:15), 50 (Pl. XVI). *Trnovec nad Váhom – Horný Jatov*, gr. 524: TOČÍK 1971, 181 no. 1, 258 (Pl. XLIV:14); TOČÍK 1987, 255 (Fig. 27:4). *Zemné – Gúg*, gr. 48 and 60: REJHOLCOVÁ 1979, 412 no. 1, 426 (Pl. V:13), 41 no. 1, 427 (Pl. VII:11). Rings with a stepped crown are most numerous at the cemetery of Malé Kosihy – Horné Konopnice (Sk), with 14 examples from 13 graves, HANULIAK 1994, 52 (gr. 3, 30, 39, 58, 112/2 ex., 127, 170, 238, 245, 387, 427, 434, 527).

<sup>488</sup> *Letkés – Teglaégető I*, gr. 32 and 64: BAKAY 1978, 66 (Pl. XXXI:14), 70, 84, 85 (Pl. XLI:1–4). *Letkés – Teglaégető II*, gr. 84: BAKAY 1978, 118, 119 (Pl. LIV:10). *Piliny – Sirmánbegy*, gr. 75/1901 and 26/1902: NYÁRI 1902, 240 (Fig. 9); NYÁRI 1904, 63, 64 (Fig. 2); HAMPEL 1905, 880, 883, Pl. 526:75/9, 528:26/2; HAMPEL 1907, 184, 187, Pl. 71:75/9, 73:26/2. *Szob – Koliba*, gr. 27: MIKES 1956, 118 no. 3a, 119 (Fig. 31), Pl. XXVI:20.

<sup>489</sup> *Bóly – Teglásrét*, chance find: KISS 1983, 53 (Fig. 19:2). *Halimba – Ceres*, gr. 56, 58, 212, 439, 692: TÖRÖK 1962, C:56, 58, 212, 439, 692. *Ikerár – Virág ut.*, gr. 66: HAJMASI – KISS 2000, 53, Pl. 33:66/9. *Majs – Udvari rétek*, gr. 13, 129, 626, 713, 723, 726, 983: KISS 1983, 319 (Pl. 11), 328 (Pl. 20), 363 (Pl. 55), 370 (Pl. 62), 373 (Pl. 65), 372 (Pl. 64), 394 (Pl. 86). *Szekesfehervár – Rádiótelep*, gr. 26: MAROSI 1926, 250 Fig. 82:1; BAKAY 1967, 58, Pl. XXXVII:20. *Vörs – Papkert – B*, gr. 133: KÖLTŐ – LENGYEL – PAP – SZENTPÉTERI 1992, 227 (Fig. 3:20), 230.

<sup>490</sup> *Truj-Grad/Turnirski prostor*, gr. 48 (2 ex.), 104, 220, 225, 231, 295, and 296: KOROŠEC 1999, Pl. 5:13–14, 11:14, 24:5, 24:8, 28:11, 33:6, 33:14.

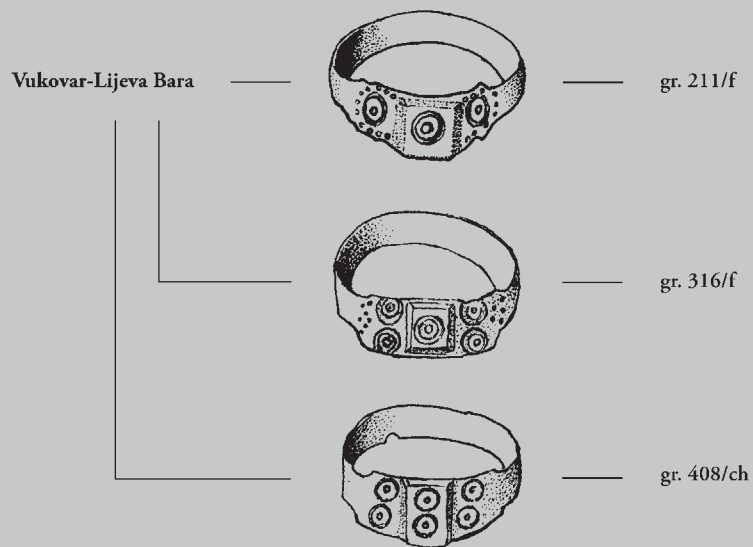
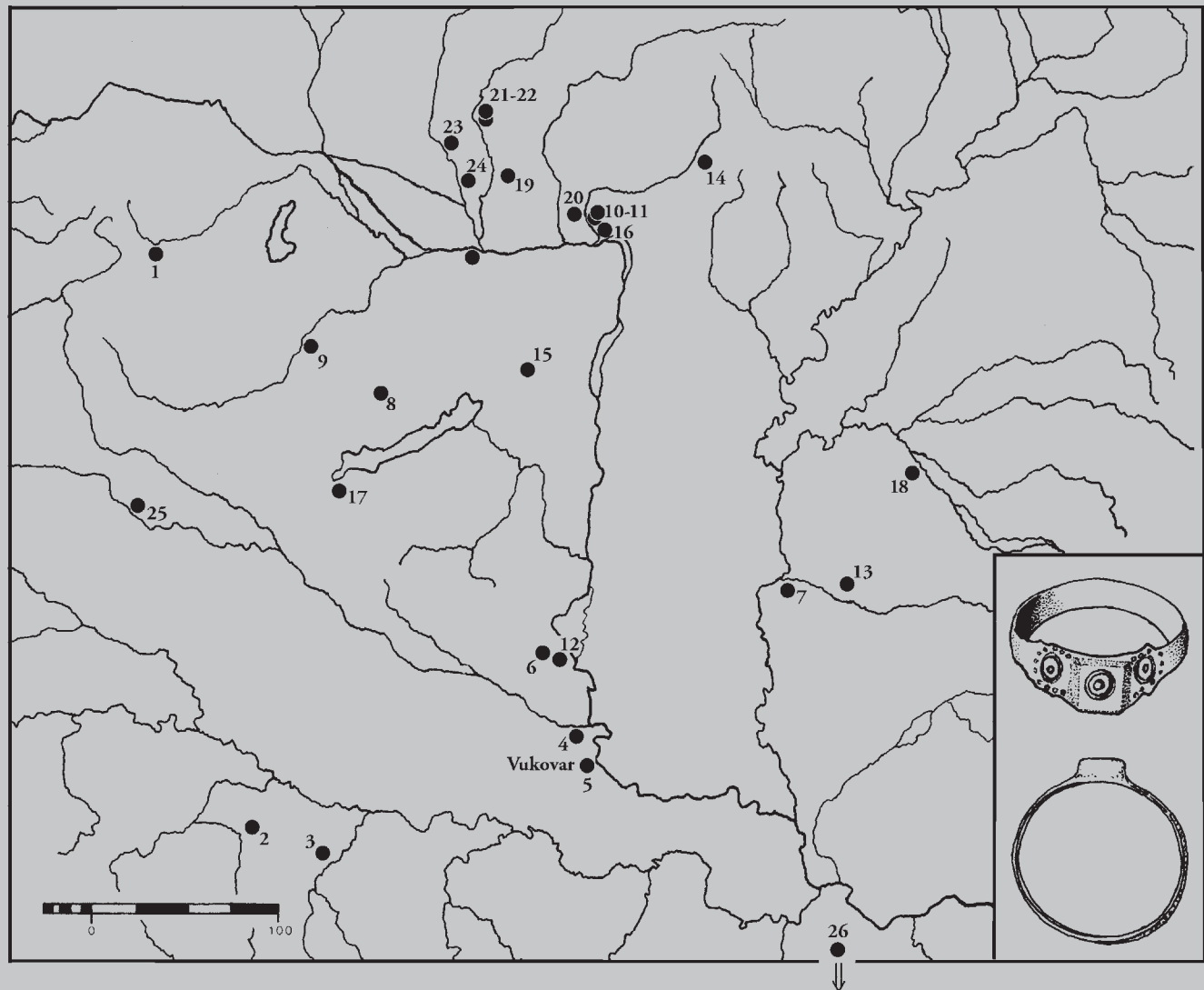
<sup>491</sup> *Gomjenica – Baltine bare*, gr. 73: MILETIĆ 1967, 92, 135, Pl. XXXII:8. *Mahovljani – Luke/Kužno groblje*, gr. 3: MILETIĆ, 1980, 138, 156, Pl. XII (because of the inadequate publication, the decorative combination is unknown).

<sup>492</sup> *Bijelo Brdo – Ul. Venecija*, gr. 62 and 156: BRUNŠMID, 41 Fig. 7:8–9, 56 (gr. 62), 67 (gr. 156). *Vukovar – Lijeva Bara*, gr. 211, 316, and 408: DEMO 1996, 80 no. 33:4 (gr. 211), 82 no. 36:6 (gr. 316), 91 no. 52:20 (gr. 408).

<sup>493</sup> *Köttlach – Leichenfeld*, chance find: PITTIONI 1943, 18 no. 8284a, Pl. IX:8; KOROŠEC 1979, 115, 222, Pl. 49:9a.

<sup>494</sup> *Deszk – groblje D*, unpublished finds: SZŐKE 1962, 98; FEHÉR – ÉRY – KRALOVÁNSKY, 31. *Nagylak – Csanádpalotai határ*, destroyed grave: BALINT 1991, 240 (Pl. LXII:10), 241–242 no. 181.

<sup>495</sup> *Várşand – Movila dintre vii*, gr. 58: POPESCU 1956, 131 (Fig. 87:9), 132; BÁLINT 1991, 233 (Pl. LX:7).



**Fig. 46.** Finds of rings with a stepped crown from Austria, Bosnia & Herzegovina, Croatia, Hungary, Romania, and Slovakia, and Kosovo (sites mentioned in the texts). **1 (1)** – Köttlach-Leichenfeld (A; Niederösterreich, Neukirchen District). **2 (2)** – Gomjenica – Baltine bare (BiH; Prijedor District). **3 (3–5)** – Mahovljani – Luke/Kužno groblje (BiH; Laktaši District), 3. **4 (6–7)** – Bijelo Brdo – Ul. Venecija (Hr; Osječko-Baranjska County), 2. **5 (8–10)** – Vukovar – Lijeva Bara (Hr; Vukovarsko-Srijemska County), 3. **6 (11)** – Bóly – Téglásrét (H; Baranya County). **7 (12)** – Deszk – groblje D (H; Csongrád County). **8 (13–17)** – Halimba – Ceres (H; Veszprém County), 5. **9 (18)** – Ikerár – Virág ut. (H; Vas County). **10 (19–20)** – Letkés – Teglaégető I. (H; Pest County), 2. **11 (21)** – Letkés – Teglaégető II. (H; Pest County). **12 (22–28)** – Majs – Udvari rétek (H; Baranya County), 7. **13 (29)** – Nagylak – Csanádpalotai határ (H; Csongrád County). **14 (30–31)** – Píliny – Sirmánhegy (H; Nógrád County), 2. **15 (32)** – Szekesfehérvár – Rádiótelep (H; Fejér County). **16 (33)** – Szob – Koliba (H; Pest County). **17 (34)** – Vörs – Papkert – B (H; Somogy County). **18 (35)** – Vărşand – Movila dintre vii (Ro; Arad County). **19 (36–37)** – Bešeňov – Papföld (Sk; Šurany District), 2 kom. **20 (38–51)** – Malé Kosiňy – Horné Konopnice (Sk; Nové Zámky District), 14 kom. **21 (52)** – Nitra – Mlynárce (Sk; Nitra District). **22 (53–54)** – Nitra – Pod Zoborom (Sk; Nitra District), 2 kom. **23 (55)** – Trnovec nad Váhom – Horný Jatov (Sk; Šaľa District). **24 (56–57)** – Zemné – Gúg (Sk; Nové Zámky District), 2. **25 (58–65)** – Ptuj-Grad/Turnirski prostor (Slo; Ptuj District), 8. **26 (66)** – Matiqan/Matičane – Breg (Ks; Prishtinë/Priština).

Brdo cultural circle, a ring found in Kosovo should be noted (Fig. 46).<sup>496</sup> Stepped rings of the decorative group I.1 are the most frequent and widely distributed, while examples of the decorative groups II.1–2, III.1–2, IV.2, IV.4, and VI.2 are much less common and are related, at present exclusively, to sites in southwestern Slovakia, northeastern Slovenia, and eastern Croatia (Table 35).<sup>497</sup> Rings with stepped crowns appear during the last third of the 10<sup>th</sup> century, i.e. around or after 970 AD, and individual cases continue up to the turn of the 10<sup>th</sup> and 11<sup>th</sup> centuries,<sup>498</sup> and it is considered that in the 11<sup>th</sup> century this type of ring had already disappeared completely.<sup>499</sup> The finds from Lijevo Bara suggest a briefer existence of this form, which appeared in Vukovar in the decades before and after the year 1000.<sup>500</sup>

**Table 35**

Decorative groups of rings with a stepped crown from sites in Austria, Bosnia & Herzegovina, Croatia, Hungary, Romania, Slovakia and Kosovo.

Decorative group	Arrangement of decoration	Site (number of rings)	Total rings	Percentage
0.1a	0+0+0	25; 26	2	3.64
0.1b	0+...+0	25	1	1.82
I.1	1+1+1	1; 2; 4 (2 ex.); 5; 6; 8 (5 ex.); 9; 10 (2 ex.); 11, 12 (2 ex.), 13; 14 (2 ex.); 16; 17; 18; 19; 20 (12 ex.); 24 (2 ex.); 25 (4 ex.)	43	78.16
II.1	2+1+2	5; 20	2	3.64
II.2	2+2+2	5	1	1.82
III.1	3+1+3	25	1	1.82
III.2	3+2+3	25	1	1.82
IV.1	–	–	–	–
IV.2	4+2+4	22	1	1.82
IV.3	–	–	–	–
IV.4	4+4+4	20	1	1.82
VI.1	–	–	–	–
VI.2	6+2+6	22; 23	2	3.64
(Total:			55	83.33)
Unknown	?	3 (3 ex.); 7; 12 (5 ex.); 15; 21	11	16.67
Total:			66	100.00

Note: The sites are marked with numbers identical to those on the list on Fig. 46. For sites with more than one ring, the number is noted in parentheses.

#### 4.3.3.2.3.2. Rings with a crown and hoop decorated with filigree wire (G. 38a; M. 16a; De. 3.2)

No.	Inv. AMZ	Metal	Type De. (G. 38a)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2885	AR	3.2	2.95	1.30	0.95	2.24	0.96	0.14	4.107	I-1951/?	–
2.	2794	AR	3.2/o	–	–	–	2.30/2.16	0.67–0.66	0.12	3.546	379/m	r

[Preserved only: o = hoop of the ring]

<sup>496</sup> *Matiqan/Matičane – Breg*, gr. 31: JOVANOVIĆ – VUKSANOVIĆ 1981, Y 243:5 (undecorated example).

<sup>497</sup> See here p. 519 n. 483.

<sup>498</sup> TÖRÖK 1962, 49–50; REJHOLZOVÁ 1979, 420.

<sup>499</sup> SZÖKE 1962, 98, Pl. XV:12. – For rings with a stepped crown (G. 36) dated mostly to the first half of the 11<sup>th</sup> century, see GIESLER 1981, 110, Pl. 53. Their even later dating to the 11<sup>th</sup> century and first decades of the 12<sup>th</sup> is stubbornly supported by TOMIČIĆ 1992a, 128 (Pl. 6); TOMIČIĆ 1993, 579 (Pl. 19).

<sup>500</sup> A ring with a stepped crown also belongs to the period after AD 1000 from gr. 62 at Bijelo Brdo – Ul. Venecija (together with an earring with a pyramidal pendant of spirally wound wire), and it is even two or three decades later than the example from gr. 156 (together with a torc of heavy weight, De. IVb). For these and other finds from the above graves, BRUNŠMID 1904, 56 (gr. 62), 67 (gr. 156).

Only two examples from Lijeva Bara can be noted among the rare finds of rings with a hoop decorated with filigree and a metal crown decorated with granulation (**Fig. 43a:3.2**): one entire example, very well preserved, and from a grave whose composition is reliable, although the skeleton at the time of discovery had already been disturbed and the archaeological finds had been gathered prior to systematic excavation (gr. I-1951/? – **Pl. 6:3, 7:1–4**), and the other lacking the crown and with the hoop broken into several parts (gr. 379/m – **Pl. 20:3**).<sup>501</sup>

The double layered hoops of these silver rings – like the secondarily used hoop of an open ring of filigree wire (gr. 2/ch) – were made by soldering smooth, twisted, or braided wires onto a thin sheet metal backing. Filigree decoration made in this manner is represented at Lijeva Bara by two variants: the first, more complicated and luxurious, is characterized by a three-banded interlaced pattern composed of three rows of smooth wires placed between single rows of smooth wire and double rows of twisted wires on each side (gr. I-1951/?), while the second simpler variant consisted of a lengthwise rib of smooth wire between a double row of twisted wire and a single row of smooth wire on each side, with a decoration added on the shoulders of the ring of six triangularly arranged granules (gr. 379/m). In contrast to the simpler version, which was also present at Vukovar several times on bronze rings with an inset crown for a decorative element (De. 3.3a), the hoop decorated with a filigree three-banded interlaced pattern is rare, with an analogy in Dalmatia, quite distant from Vukovar, where only one similar example was noted at the early Croatian cemetery of Knin – Sv. Spas (gr. 174).<sup>502</sup>

The only preserved crown had a domed shape and was composed of a sheet metal backing wound round with smooth wires and a sheet metal domed element with a soldered/applied decoration of twisted wires in the form of four arcades with a drop-shaped pattern in the center of each of them (**Pl. 7:1–3**). A large granule was placed on top of the domed crown, wound around with smooth wire (gr. I-1951/?). Similarly formed domed crowns are a common addition to many rings with a hoop decorated with filigree wire, and they appear in numerous variants in regions under the control of Byzantium or in its immediate vicinity (Bulgaria, Serbia and Kosovo, Albania, Macedonia, Romania),<sup>503</sup> while they also appear in individual examples in central Bosnia (Mihaljevići – Varošite, gr. 71)<sup>504</sup> and in southern Croatia at the end of the 10<sup>th</sup> century and in the first decades of the 11<sup>th</sup> century (Biskupija – Crkvina, gr. 29; Kašić – Mastirine, gr. 37; Stranče – Gorica, gr. 9).<sup>505</sup> These simple examples of a domed crown are similar in appearance to domed crowns with a hoop with a banded addition decorated with a row of horizontally arranged granules – other than in Russia,<sup>506</sup> Slovakia,<sup>507</sup> Hungary,<sup>508</sup> Serbian Vojvodina,<sup>509</sup> and Kosovo,<sup>510</sup> they are also represented at two Croatian sites south of the Drava in the Podravina region (Zvonimirovo – Veliko polje, gr. 17)<sup>511</sup> and in western Srijem (Svinjarevci – Studenac, gr. 15)<sup>512</sup> – which in the chronological sense are later and better correspond to finds from the second quarter or even the second third of the 11<sup>th</sup> century.<sup>513</sup>

The rings of silver filigree wire were found in one male grave (gr. 379) and judging from the other finds one possibly female grave (I-51/? – both graves being located around the middle of the western part of the excavated area of the cemetery. One example belonged on one of the fingers of the right hand and was the only grave find (gr. 379/m),<sup>514</sup>

<sup>501</sup> From the cemetery of Loka – Predloka/Sv. Janez Krstniki (gr. 33), in the Kras region above Koper in Slovenia, comes a several times published silver ring (without a crown) with a hoop decorated by a single banded interlace placed between a single row of twisted and a single row of smooth wire, see BOLTIN-TOME 1978, 131–133 (Pl. 1:B3); BOLTIN-TOME 1987, 205 (Pl. III:6).

<sup>502</sup> JELOVINA 1991, 146, 180 (Pl. XVIII:11), 215. In contrast to the ring from Vukovar, the three banded interlace on the hoop of the ring from Knin was framed by somewhat differently arranged rows of twisted and smooth wires.

<sup>503</sup> For these finds, with their frequency, considerable literature exists, so I will cite only important contributions: for a list of finds and a new approach to the problem, MESZTERHÁZY 1991, 156–161, 176 (with lit.); for high quality magnification and data on the numerous finds from the former Yugoslavia, JOVANOVIĆ 1988, 259–270 (with lit.); for the very numerous, not well known, and rarely mentioned finds from the cemetery of Rehova – Shën Thanas in Albania, ALIU 1986, 234, 241–248; for new and previously known finds from Macedonia, MANEVA 1992, 86, Pl. 80–81; KEPESKA 1996, 220–222 (with lit.); MANEVA 1996, 189 Fig. 5, 190 Fig. 6.

<sup>504</sup> MILETIĆ 1956, 16–17, Pl. IX:2, where the domed crown with filigree decoration (petals) was soldered onto a banded hoop decorated with channelling; MILETIĆ 1979, 301 (Fig. 2).

<sup>505</sup> *Biskupija – Crkvina*, gr. 29: JELOVINA 1976, Pl. XXIV:10. *Kašić – Manastirine*, gr. 37: JELOVINA 1982, 40, 61, Pl. II:37. *Stranče – Gorica*, gr. 9: CETINIĆ 1998, 220, Pl. 19:6 (it is not noted, although it is evident that more than one deceased individual was buried in the grave).

<sup>506</sup> *Kopijevka*: LINKA-GEPPENER 1948, 184, Pl. II:9 (Kopijevka). *Gušino*: KORZUHINA 1954, 87, Pl. VII:4 (Gušino).

<sup>507</sup> *Bodrogecs*: DÓKUS 1900, 44, 45 Fig. 6; HAMPEL 1905, II, 466 Fig. K (gold ring).

<sup>508</sup> *Szabolcs – Petőfi ut.*, gr. 94: KOVÁCS 1994, 33 Fig. 7:1, 80 Fig. 28:1, 141–142.

<sup>509</sup> *Bać – Pješčara*: GUBITZA 1910, 170 Fig. h; STANOJEV 1989, 23 no. 107 (only the crown was preserved of the ring).

<sup>510</sup> *Matičane – Breg*, gr. 16: JOVANOVIĆ-VUKSANOVIĆ 1981, Y240/2/2:11.

<sup>511</sup> TOMIČIĆ 1997, 46 Fig. 26, (gr. 4), 50, 79 Fig. 56 (gr. 17) = TOMIČIĆ 1999, 96, 107 Pl. 2 (gr. 4), 97, 116 Pl. 11:3 (gr. 17); TOMIČIĆ 2003, 551 (Fig. 2, 4:4); TOMIČIĆ 2004, 416–418.

<sup>512</sup> BRUNŠMID 1998, 88 Fig. 39:15.

<sup>513</sup> At the end of the second third of the 11<sup>th</sup> century, i.e. to AD 1065, are dated two gold rings with a domed crown and a banded addition decorated with granules, found in a hoard of coins and jewellery hidden in the walls of the Byzantine fortress of Garvăn-Bisericuța (*Dinogetia*) in Romanian Dobruđa. The hoard of coins and jewellery wrapped in a piece of fabric (carbonized at the time of discovery) was composed of 7 Byzantine gold coins of Basil II and Constantine VIII (976–1025), and 4 silver coins of Theodora (1055–1056) and Isaac I Komnenos (1057–1059), two silver four beaded earrings, two gold bracelets, three gold and one silver ring with a crown, two gold open rings (one of twisted and the other of braided wire) a silver tube, a small iron knife, and four spindle-whorls of red slate, COMȘA – BICHIR 1960, 223–244.

<sup>514</sup> See here p. 515 n. 459.



while it cannot be established for the other ring as to what hand it had belonged, as it was found in a grave that had been dug up in 1951 prior to the arrival of the archaeologists (gr. I-1951/?), and all that is known about the ring – although it was discovered in the presence of an archaeologist – is that it was found "in the region of the transition from the rib cage into the abdominal cavity."<sup>515</sup> In addition to the ring (Tab. 6:1–3), this grave also contained a torc of the light weight system (IIb), composed of one single and one doubly bent wire with transverse coils on one of the ends, and two heavy open-ended bracelets of different types (De. 1.2a and 1.3), of which the example with a triangular section (De. 1.3) was the heaviest bracelet discovered at Lijevo Bara (69.099 g).

4.3.3.2.3.3. Rings with an inset crown for a decorative element  
(G. 38b; M. 16b; De. 3.3)

No.	Inv. AMZ	Metal	Type De. (G. 38b)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
<i>a) Hoop of banded section, decorated (87.10%)</i>												
1.	2435	AE	3.3a/k	–	1.21	0.53	–	–	–	1.363	14/m	l
2.	2481	AE	3.3a	2.5	1.12	–	2.25	0.54	0.19	4.380	48/f	r
3.	2499	AE	3.3a/o	–	–	–	2.10/2.05	0.69	0.14	3.581	62/f	l
4.	2506	AE	3.3/o	–	–	–	2.31	0.74–0.42	0.15	2.480	66/f	r
5.	2564	AE	3.3a /o	–	–	–	2.10/2.00	0.56	0.15	3.312	115/f	l
6.	2573	AE	3.3a	2.48	0.85	–	2.22/2.03	0.54	0.14	3.334	122/f	l
7.	2597	AE	3.3a/o	–	–	–	2.25/2.00	0.51	0.17	3.261	151/f	r
8.	2630	AE	3.3a/o	–	–	–	2.22/2.15	0.55	0.13	3.087	217/f	r
9.	2635	AE	3.3a	2.37	1.10/1.03	–	2.10/1.93	0.98–0.60	0.12	2.767	222/f	r
10.	2670	AE	3.3a/o	–	–	–	1.98/1.96	0.50	0.11	2.170	267/f	r
11.	2671	AE	3.3a/o	–	–	–	1.88/1.79	0.50	0.12	1.875	267/f	r
12.	2698	AE	3.3a	2.57	1.10	0.55	2.20	0.60	0.13	4.458	297/f?	–
13.	2714	AE	3.3a	2.50	1.07	0.48	2.32/2.17	0.62	0.15	5.281	314/f	r
14.	2717	AE	3.3a	2.52	1.10	–	2.27	0.57	0.14	4.389	315/f	r
15.	2718	AE	3.3a	2.48	0.90	0.47	2.26	0.50	0.16	3.881	315/f	–
16.	2739	AE	3.3a/o	–	–	–	2.15	0.77	0.12	3.711	326/f	l
17.	2756	AE	3.3a	2.50	≥ 1.10	–	2.20	0.82	0.16	4.797	344/f	l
18.	2783	AE	3.3a	2.30	1.45	–	2.20/1.95	0.80–0.76	0.13	5.314	364/f	–
19.	2786	AE	3.3a /k	–	1.00	0.46	–	–	–	0.407	365/f?	r
20.	2790	AE	3.3a /o	–	–	–	2.20/2.05	0.64–0.54	0.16–0.13	3.695	374/f?	l
21.	2804	AE	3.3a /k	–	1.14	0.59	–	–	–	0.571	384/m?	l
22.	2805	AE	3.3a /o	–	–	–	2.26/1.93	0.79–0.74	0.11	3.334	386/m	l
23.	2822	AE	3.3a/o	–	–	–	2.20/2.00	0.75	0.12	4.171	402/ch	r
24.	2857	AE	3.3a/o	–	–	–	2.03/1.96	0.75	0.13	3.310	426/f	l
25.	2865	AE	3.3a	2.43	1.10/1.05	0.48	2.05/1.96	0.76	0.13	3.442	435/f	l
26.	2894	AE	3.3a/o	–	–	–	2.11/2.06	0.47	0.14	1.946	qu. VII/6d	–
27.	2399	AE	3.3a/o	–	–	–	2.45/2.18	0.78	0.14	5.417	Strnić	–
<i>b) Hoop of banded section, undecorated (3.23%)</i>												
28.	2695	AE	3.3b/o	–	–	–	2.20/1.90	0.48	0.09	1.811	292/f	l
<i>c) Hoop of semicircular section (6.44%)</i>												
29.	2542	AE	3.3c/o	–	–	–	2.06/1.83	0.30–0.28	0.12–0.09	1.232	93/f	r
30.	2589	AE	3.3c/o	–	–	–	2.13/1.76	0.41	0.10	2.109	138/f	–
<i>d) Hoop of three ribbed section (3.23%)</i>												
31.	2835	AE	3.3d/o	–	–	–	2.36/1.75	0.58	0.18	1.607	409/ch	l

[Preserved: o = hoop of the ring; k = crown of the ring]

\*Notes:

12. The position of the find is unclear, as it was noted that the crown of the ring had been found by the head, and the hoop of the ring by or around the waist.
15. The ring was found with another ring (De. 1.6b) placed on the right side above the pelvis (the forearms of the skeleton placed on the chest; v.19).
16. Found at pelvis height on the left, destroyed side of the skeleton, and it hence most probably belonged on the fingers of the left hand.
18. The ring was found by the inner side of the left shin.
30. It could not be established whether it belonged to the fingers of the left or right hand because of the damaged to the grave pit and almost the entire lower part of the skeleton (from the pelvis downwards).

<sup>515</sup> Archives of the AMZ, folder "Vukovar", file no. 159/1951 of 22 March 1951; DEMO 1996, 22.

The most prominent position among the rings found at Lijevo Bara belongs to rings with an inset crown for a decorative element because of the large number of examples and the diversity of the decorative details. This group of rings – if the hoop of another ring with a crown remodelled in the early medieval period into a ring of banded section is omitted (gr. 125/f) – was represented by 31 examples, 10 of them entirely or predominantly preserved (32.26%), 18 with only the hoop preserved (58.06%), and 3 with only the inset crown for a decorative element preserved (9.68%). Despite the missing parts and damage to many examples, the rings with an inset crown for a decorative element compose somewhat more than a quarter of all rings discovered at Lijevo Bara (25.20%).

Although the rings with an inset crown for a decorative element sometimes differ greatly, a common feature is that they are all made from two parts, though the joining (soldering) of two separately worked parts: the cast hoop, decorated or undecorated, with a banded, semicircular, or three-ribbed section, separated at the bezel with hammered ends, and a soldered cell-like crown with an inset bead of glass paste or a fired earthen mass (Fig. 43a:3.3a–d). The formation and decoration of the hoop allows for the distinction of two basic groups, several types, sub-types, and a series of variants, and the decoration or lack of decoration of the shoulders on the hoop of the ring (granules and their numbers or arrangement, forked thickenings, etc.) permits an additional classification in the framework of individual types, sub-types, and their variants. The finds from Vukovar – Lijevo Bara in terms of their relatively large numbers and the variety of the decorative variants are most comparable to the finds of rings with an inset crown discovered at the cemetery of Bijelo Brdo – Ul. Venecija,<sup>516</sup> where there were also several variants not present at Lijevo Bara (Table 36).

Table 36

The forms and decoration on the hoops of rings with an inset crown for a decorative stone represented among the finds from the cemeteries of Vukovar – Lijevo Bara and Bijelo Brdo – Ul. Venecija (De. 3.3a–d).

Hoop of the ring with an inset crown for a decorative stone (De. 3.3a–d)	Vukovar – Lijevo Bara	Bijelo Brdo – Ul. Venecija
1. <i>Decorated</i> , section		
1. <i>Banded</i> , the edges of the hoop		
a) <i>Profiled [P]</i> , the decoration:		
1. Two rows of pseudo-twisted wires [F2]	+	+
2. Three rows of pseudo-twisted wires [F3]	(+)	(+)
3. Five rows of pseudo-twisted wires [F5]	–	+
4. Five rows of lengthwise ribs	+	–
5. A rib between single rows of pseudo-twisted wires [F1-R1-F1]	+	–
6. A rib between double rows of pseudo-twisted wires [F2-R1-F2]	+	+
7. Lengthwise pseudo-braid [P11]	–	+
8. A pseudo-braid between double rows of pseudo-twisted wires [F2-P11-F2]	+	+
9. Two rows of pseudo-twisted wires between lengthwise ribs [R1-F2-R1]	+	–
b) <i>Unprofiled [Np]</i> , the decoration:		
1. Three rows of pseudo-twisted wires [F3]	+	–
2. Five rows of pseudo-twisted wires [F5]	+	+
3. A rib between single rows of pseudo-twisted wires [F1-R1-F1]	+	–
4. A rib between double rows of pseudo-twisted wires [F2-R1-F2]	+	+
5. A braid between double rows of pseudo-twisted wires [F2-P1-F2]	(+)	–
2. <i>Undecorated</i> , section		
1. <i>Banded</i>	+	+
2. <i>Semicircular</i>	+	–
3. <i>Three-ribbed</i>	+	+
<i>Note:</i> The decorative group 1.1a.2, represented at Lijevo Bara by a fragment of a ring of type De. 3.3b (gr. 125/f), is interesting as it is a rare example of subsequent remodeling into a ring of banded section (De. 1.2c). At Bijelo Brdo (gr. 174) a hoop of a cast bronze ring of arched section with a circular metal crown belonged to the same decorative. The decorative group 1.1b.5 was represented at Lijevo Bara by a fragment secondarily used as a pendant on a circllet found in gr. 422/f (G. 13). <sup>517</sup>		

<sup>516</sup> For an overview of the numbers and type of finds from Bijelo Brdo, primarily the material held by the AMZ, see BRUNŠMID 1904, 41–76; ERCEGOVIĆ 1958, 165–186.

<sup>517</sup> A circllet with a pendant, with no note about any special features of the pendant, was published by VINSKI 1955, 240, 253, Fig. 32; VINSKI 1959, Pl. XXXIX:32.

The *hoop* of the rings of banded section, profiled or unprofiled, recognizable primarily thanks to the decoration that in a cast technique imitates a filigree pattern of smooth, twisted, and braided wire,<sup>518</sup> is the basic characteristic of the great majority of rings with an inset crown for a decorative stone, represented at Lijevo Bara with as many as 27 examples (and at Bijelo Brdo no less than 15 examples).<sup>519</sup> Although individual examples have been found among the Bijelo Brdo Culture remains at sites distant from Vukovar and Bijelo Brdo in the Croatian Drava basin,<sup>520</sup> Slovenia,<sup>521</sup> Hungary,<sup>522</sup> Romania,<sup>523</sup> and south of the Sava River in the Bosnian Sava basin,<sup>524</sup> or were discovered at cemeteries closer to Vukovar and Bijelo Brdo, such as in Serbian Vojvodina<sup>525</sup> and the south of the Hungarian Transdanubian region,<sup>526</sup> the number of the examples gathered at the two Croatian sites permits a hypothesis about the local production of rings of this form.<sup>527</sup> The center of their production could well have been located in eastern Croatia, in its eastern Slavonian or Danubian section, in Vukovar and Bijelo Brdo or their vicinity, and accordingly this form of ring can be called the "Vukovar–Bijelo Brdo" type (Fig. 47; Pl. 19:3–4). The only example noted at Lijevo Bara of this kind of ring with an undecorated hoop of banded section can also be attributed to the same production center (gr. 292/f).<sup>528</sup> A hoop of three-ribbed section – often described as a hoop (or ring) with two horizontal grooves<sup>529</sup> – contrasts greatly with these, and was represented at Lijevo Bara by only one example, found by a child skeleton from a grave buried at the beginning of the 11<sup>th</sup> century (gr. 409).<sup>530</sup>

The *crowns* of the rings were preserved fully or partially, attached to the hoop or separated from it, in a total of 13 examples (40.94%). All of the preserved crowns were circular in form, with the inset cells made in only two, but quite different variants:

1. A tripartite cell was the most numerous; it was created by soldering the circular sheet metal backing and the walls of petal-shaped cut metal wound with wire (Pl. 19:3),<sup>531</sup> a hemispherical rounded decorative stone of glass paste or a fired earthen mass was inserted into the cell; 9 examples were preserved completely or with minor flaws (gr. 14/m, 48/f, 222/f, 297/f?, 314/f, 315/f; 2 rings, 384/m?, 435/f), and another 3 examples were preserved in the form of a decorative stone without the backing and the petal-shaped walls (gr. 122/f, 344/f, 365/f?); this was usual for rings with a decorated banded hoop.<sup>532</sup>
2. A single cast cell was composed of a double row of concentrically arranged pseudo-granules and a large decorative granule on each of the shoulders of the cell; it was represented with only one example, where the decorative stone was not preserved (gr. 364/f – Pl. 19:4).<sup>533</sup>

<sup>518</sup> The shoulders of the hoops, rarely ever undecorated (gr. 222, 267/S-2671, 364, 386, quad. VII/6d), were usually decorated with three or six pseudo-granulated elements arranged in the form of a reverse triangle, and sometimes an unusual forked pattern (gr. 66).

<sup>519</sup> The number of examples found at the cemetery of Bijelo Brdo – Ul. Venecija is not less than 15, as 12 specimens are kept by the AMZ (gr. 3, 62, 65, 67, 137, 182, 174/2 ex., 198, 225/2 ex., 228, 234), and at least three or four as grave or chance finds kept in the MSO are mentioned by BRUNŠMID 1904, 57–58, 64, 76 (gr. 65, 74, 128).

<sup>520</sup> *Kloštar Podravski – Pesci*, chance find (unpublished): AMZ S-1207 (fragment of the hoop; decoration: a rib between double rows of pseudo-twisted wire).

<sup>521</sup> *Kranj-farna cerkev*, gr. 171: KOROŠEC 1979, 118, 221, Pl. 63:2c. *Pruij-Grad/Turnirski prostor*, gr. 225: KOROŠEC 1950, 92–93 (Fig. 18), 181–182, Fig. 66; KOROŠEC 1999, 22, Pl. 24:225/7.

<sup>522</sup> *Szekéshérvár – Maroshegy*, chance find: BAKAY 1968, 59, Pl. XII:6 (fragment). *Szabadkigyós – Tangazdaság*, gr. 26: PÁLÓCSI-HORVÁTH 1971, 40–41 (addition on pp. 40–44: C. Bálint). For one example of this group cast in silver, see BAKAY, 58, Pl. VIII:11 (*Szekéshérvár – Maroshegy*, gr. 3).

<sup>523</sup> *Cluj*, chance find: HOREDT 1958, 60 Fig. 17:20, 141. *Blandiana – în vii*, chance find: HOREDT 1958, 113 Fig. 31:2, 139; HOREDT 1966, 276 Fig. 15:2.

<sup>524</sup> *Gomjenica – Baltine bare*, gr. 159: MILETIĆ 1967, 101, 136, where the ring was described, but without an accompanying drawing or photograph. *Kočičevo – Tučić*, from destroyed graves: KOROŠEC-VRAČKO 1943, 276 Fig. 9, 277. *Petoševci – Bagruša*, gr. 132: ŽERAVICA 1986, 149–150, 180–181, Pl. VI:19–20.

<sup>525</sup> *Bogajevo – Ul. Biboja*, gr. 5 and 33: STANOJEV 1989, 24–27.

<sup>526</sup> *Ellend – Nagyöndör-dűlő*, gr. 54 and 142: DOMBAY 1961, 139, Pl. XV:5, 142, Pl. XIX:1; DOMBAY 1962, Pl. XV:1,3. *Pécs – Somogy*, gr. 123: DOMBAY 1962, 77, Pl. X:1–2, XV:16. *Majs – Udvari rétek*, gr. 53 and 465: KISS 1983, 80–81, 162 Fig. 75:17, 322 Pl. 14, 106, 345 Pl. 37 (Majs).

<sup>527</sup> TOMIČIĆ 1992, 144; DEMO 1996, 53.

<sup>528</sup> Judging by the examples preserved in the AMZ (5 ex.), their share at the cemetery of Bijelo Brdo was even greater (one ring each in gr. 143, 196 and 225, and two rings in gr. 211).

<sup>529</sup> For an overview of terms, distribution, variety of form, dating, and earlier literature, DOSTAL 1965, 231–252. – A ring with a similar three-ribbed hoop, but a much broader crown comes, for example, from a cemetery dated to the 10<sup>th</sup> cent. at Nagyhalász – Zomborhegy in the Hungarian upper Tisza basin (Szabolcs – Szatmár County), KOVACS 1989c, 168, 171–172, 176 (gr. 2).

<sup>530</sup> At least two rings with a banded hoop of three-ribbed section – one with a preserved crown (gr. 174), and the other with an indented pattern decorated with grooves (gr. 220) – come from the cemetery of Bijelo Brdo – Ul. Venecija (in the AMZ), BRUNŠMID 1904, 70 (gr. 174); ERCEGOVIĆ 1958, 168, 174 Fig. 26 (gr. 220).

<sup>531</sup> A petal decoration with inset garnets can also be seen on the famous luxurious bracelet from Heves – Kapitányhegy, PATAKI 1939, 201 Pl. I:17, 202, 207.

<sup>532</sup> That identically shaped crowns were also soldered onto rings with an undecorated banded hoop is shown by finds from Bijelo Brdo – ul. Venecija, gr. 143 and 211: BRUNŠMID 1904, 66, 76.

<sup>533</sup> For two apparently similar examples from the cemetery of Bijelo Brdo – Ul. Venecija (one from gr. 128), BRUNŠMID 1904, 41 Fig. 7:1–2.

The *decorative stone* was preserved as a separate find or as the only remaining part of a total of 12 rings with a tripartite inset crown (38.71%). Examples predominate of opaque and rarely transparent glass paste (58.33%), with decorative stones of a dark color or dark blue (gr. 14/m, 344/f, 435/f) and blue (gr. 122/f), with individual examples of decorative stones of a transparent pale green (gr. 314/f), opaque green (gr. 48/f), and dark green (gr. 297/f?). The remaining examples (41.67%) had preserved "stones" of fired earthen masses (gr. 315/f: 2 rings, 365/f?, 384/m?), some of them with recognizable traces on the surface of silicate substances (gr. 222/f).

Among the 31 rings with an inset crown for a decorative stone, 29 of them come from 27 graves, and they appear almost as a rule, which is not the case for any other group of rings, with female or probably female skeletons: 24 rings from 22 graves (81.48%). One example each was found in two child graves (7.41%), and three rings were found in three male or probably male graves (11.11%).

They were more often found on the fingers of the left hand (48.15%) than on the fingers of the right hand (44.44%), and in two cases the rings did not belong to the fingers of the skeletons (7.41%), as they were found: one on the pelvis considerably distant from the hands and fingers of the skeleton (gr. 315/f), and the other by the left shin of the skeleton (gr. 364/f). For the other examples (4 rings), the position of the finds in the graves is either unknown (gr. 138/f, 297/f?) or the rings were chance finds from destroyed graves: one comes from one of the graves destroyed in the 1930s (S-2399), and the other was discovered in unclear circumstances during the excavations in 1953 (S-2894).<sup>534</sup>

In 15 graves, a ring with an inset crown for a decorative stone was the only ring found in the grave, while in 12 graves they were found with one, two, or even three more rings of the same or different type (**Table 37**). Various types of open rings predominate among the rings with which they most often appear together (80%), most often the chronologically earlier examples of open rings of banded section (58.33%) and considerably less different variants of the chronologically later open rings of circular or oval section (25%). Similarly, they rarely appear in the graves together with closed rings (13.33%) or with some other form of ring with a crown (6.67%).

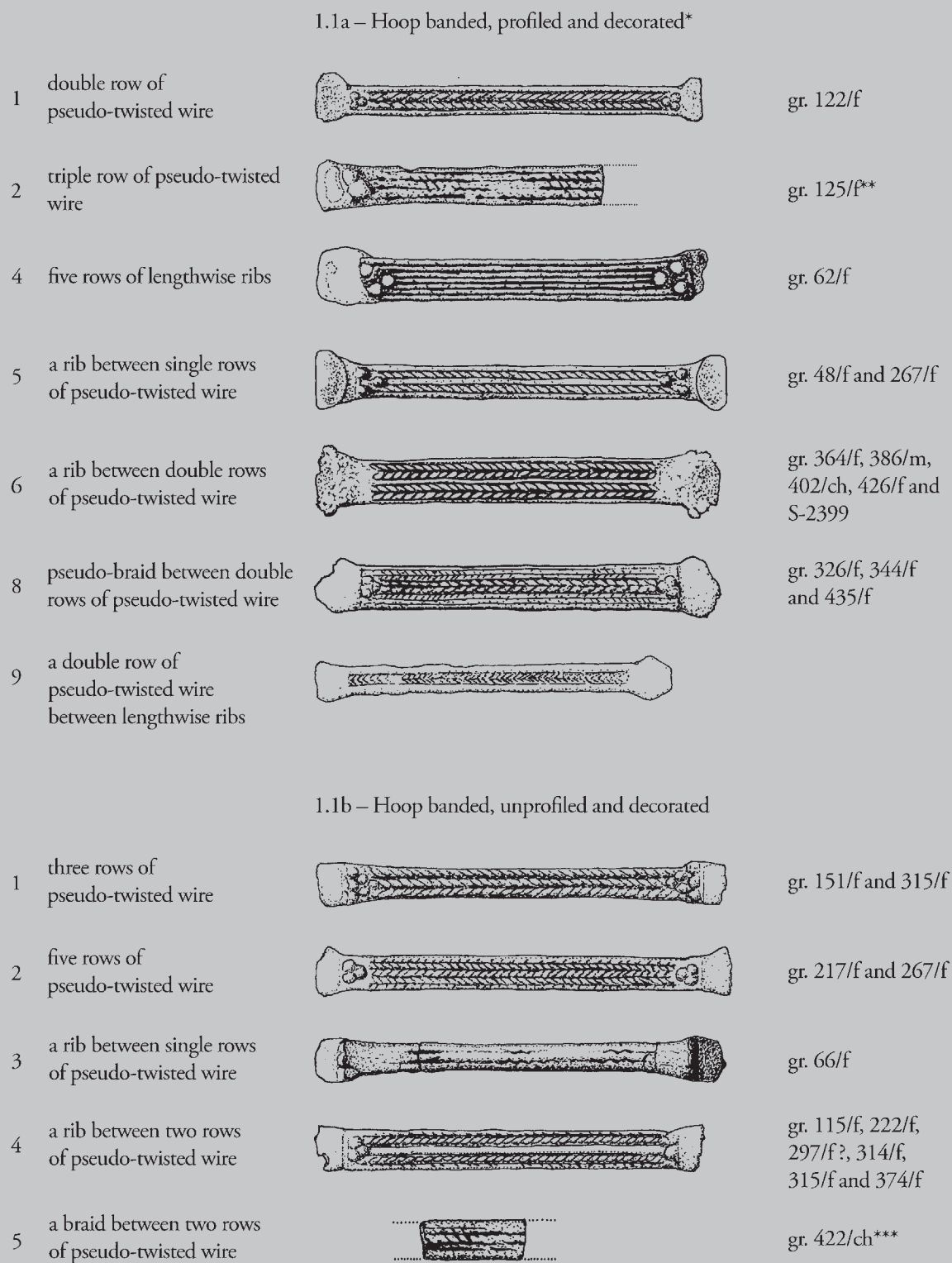
**Table 37**

Grave finds of rings with an inset crown for a decorative stone (De. 3.3a,c-d), and other types and variants of rings with which they appear in the same grave units. The rings from gr. 93/f and 138/f have an undecorated hoop of semicircular section (De. 3.3c), and the ring from gr. 409/ch has a three-ribbed section (De. 3.3d).

No.	Grave	No. of rings in the grave	W/ a crown		Closed		Open				
			3.3a,c-d	3.4	2.2	2.4	1.1	1.2	1.5	2.6a-b	2.6d
1	48/f	2	1	-	-	-	1	-	-	-	-
2	93/f	4	1	-	-	-	1	1	1	-	-
3	115/f	2	1	-	-	-	-	-	-	1	-
4	138/f	2	1	-	-	-	-	1	-	-	-
5	151/f	2	1	1	-	-	-	-	-	-	-
6	217/f	3	1	-	-	-	-	2	-	-	-
7	314/f	2	1	-	1	-	-	-	-	-	-
8	315/f	3	2	-	-	-	-	-	-	1	-
9	326/f	3	1	-	-	1	-	1	-	-	-
10	409/ch	2	1	-	-	-	-	-	-	-	1
11	435/f	2	1	-	-	-	-	1	-	-	-
Total:		27	12	1	1	1	1	7	1	2	1

It is interesting that not in a single grave was a ring with a crown found as the only grave find. They most often appear in combination with decorations for the head, i.e. with individual or pairs of circlets of iron, bronze, or silver (gr. 48/f, 66/f, 93/f, 115/f, 314/f, 344/f, 364/f, 374/f?, 384/m?, 386/m, 402/ch), with one silver S-cirlet (gr. 297/f?) or with a pair composed of one silver and one S-cirlet (gr. 315/f), with a pair of cast silver raceme earrings (gr. 426/f) and with a pair of bronze cast raceme earrings (gr. 62/f) or with a damaged or secondarily used silver raceme earring (gr. 66/f). Rings with a crown are also not rare in combination with decoration for the neck and hand, and they appear together

<sup>534</sup> The field diary (*Dnevnik*), ad 31 Aug. 1952, noted the find of this ring "in quad. VII/6d, found after removal" (of the skeletons). Because of such an imprecise note, the ring cannot be tied with certainty to any of the graves located in quad. VII/6d (gr. 369/m?, 370/m, 373/ch). In the S-AMZ inv. book, the ring was identified as a type G. 13 cirlet (S-2892) and was further incorrectly noted as a find from quad. XII/5.



\* The decorative motifs 1.1a.3 and 1.1a.7 are not present at Lijevo Bara (see here Fig. 46)

\*\* The hoop shortened and remodelled into a ring of banded section

\*\*\* The hoop shortened and remodelled into a pendant on a circlet without an ending

**Fig. 47.** Decorative motifs on profiled and unprofiled banded hoops of rings of the "Vukovar–Bijelo Brdo" type (De. 3.3a) found at Lijevo Bara. **1.1a** – Hoop banded, profiled, and decorated (1a.1 – double row of pseudo-twisted wire: gr. 122/f; 1a.2 – triple row of pseudo-twisted wire: gr. 125/f; 1a.4 – five rows of lengthwise ribs: gr. 62/f; 1a.5 – a rib between single rows of pseudo-twisted wire: gr. 48/f; 1a.6 – a rib between double rows of pseudo-twisted wire: gr. 364/f; 1a.8 – pseudo-braid between double rows of pseudo-twisted wire: gr. 326/f; 1a.9 – a double row of pseudo-twisted wire between lengthwise ribs: S-2894). **1.1b** – Hoop banded, unprofiled, and decorated (1b.1 – three rows of pseudo-twisted wire: gr. 151/f; 1b.2 – five rows of pseudo-twisted wire: gr. 217/f; 1b.3 – a rib between single rows of pseudo-twisted wire: gr. 66/f; 1b.4 – a rib between two rows of pseudo-twisted wire: gr. 115/f; 1b.5 – a braid between two rows of pseudo-twisted wire: gr. 422/ch).

with torcs made of three twisted (gr. 138/f, 217/f, 326/f, 409/ch) or with torcs of smooth wire of circular section with S-shaped endings (gr. 66/f), with a bead, necklaces of beads, and necklaces of beads and metal pendants (gr. 48/f, 115/f, 138/f, 217/f, 326/f, 409/ch), or with open-ended bracelets of smooth wire with cut, tapered, or pointed ends (gr. 48/f, 66/f, 93/f, 115/f, 122/f, 217/f, 292/f, 326/f, 365/f?, 426/f), and in only one case together with an open-ended bracelet with snake head ends (gr. 374/f?). Rings with a crown are rarely, however, found with finds such as a leaf-shaped buckle with a hook for fastening and an unpreserved fragment of a silver cuff end (gr. 344/f), an arrowhead (gr. 14/m), and a spindle-whorl (gr. 122/f), and even what was most probably a cattle bone placed in a grave (gr. 48/f).

Rings with a decorated banded hoop predominated in graves located in the southern section of the excavated area of the cemetery, where they were often found in graves located close and very close to one another (gr. 314/f and 315/f; 364/f and 365/f; 374/f? and 435/f; 384/m? and 386/m; 14/m, 402/ch and 409/ch; 267/f and 344/f). In the north-eastern part of the excavated area these rings were rare (gr. 115/f, 151/f, 217/f, 222/f), and none at all were found in the graves located in the northwestern part of the cemetery. In fact, in the northwestern part of the cemetery, in graves fairly distant from one another, only rings with an undecorated hoop of semicircular section were found (gr. 93/f and 138/f), and only a ring with a three-ribbed hoop (gr. 409/ch) was found in the southeastern part of the excavated area of the cemetery.

Recently silver filigree examples from sites in Hungary, with rare exceptions (e.g. Gátér), have been attributed primarily to the second half of the 10<sup>th</sup> century, and only their "counterfeits" made of bronze are dated to the 11<sup>th</sup> century.<sup>535</sup> Such products, tentatively referred to as "counterfeits", made up the majority of the Vukovar rings with an inset crown for a decorative stone. The fact that these rings appear more often together with torcs, necklaces of beads, and silver and bronze raceme earrings, as well as with the occasional silver circlet or even S-circlet, clearly indicates the necessity that their appearance and use at Lijevo Bara be dated to the last decades of the 10<sup>th</sup> century and the first decades of the 11<sup>th</sup> century.<sup>536</sup> Further support for this would be their almost three-quarter majority relation to skeletons whose forearms were placed on the upper part of the body (72%), as opposed to the immeasurably less numerous examples found by skeletons with their forearms placed alongside the body or on the lower part of the trunk (28%). The earliest example in terms of the relative chronology of a ring with an inset crown for a decorative stone might be one of the rare male graves in which the crown of a ring of this group was found together with an arrowhead with a rhomboid blade (gr. 14/m).

#### 4.3.3.2.3.4. Rings with a crown of spirally coiled wire (Be. IV/16; Gu. 6d; De. 3.4)

No.	Inv. AMZ	Metal	Type De. (Be. IV/16)	Ht. ring	Crown of the ring		Hoop of the ring			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2598	AE	3.4	2.35	0.85/0.65*	0.28	2.13	0.39	0.10	2.127	151/f	r
2.	2724	AR	3.4	2.77	1.21/0.93*	0.37	2.56	0.35	0.12	4.263	316/f	r

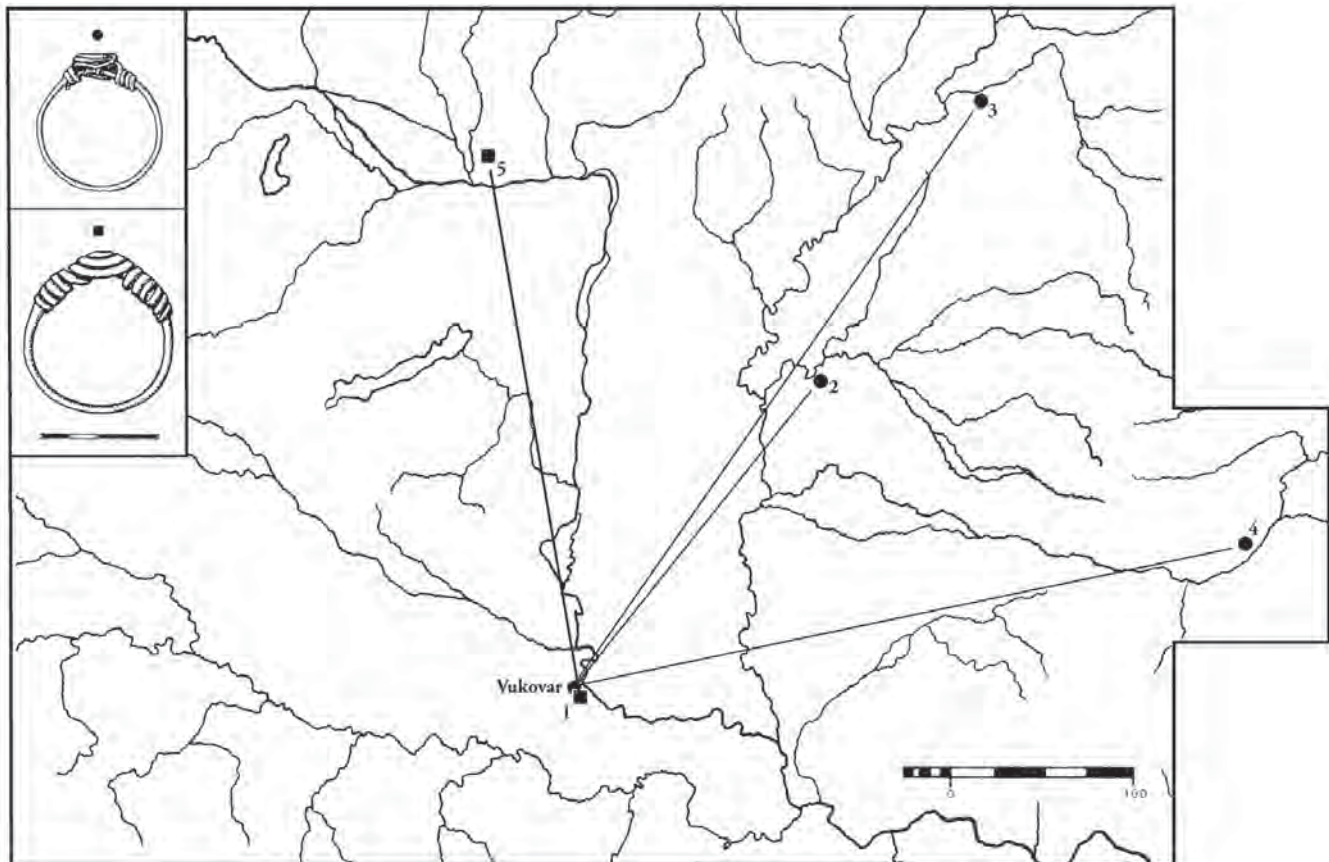
\*Notes:

1. Ø wire 0.08 cm (crown of spirally coiled wire).
2. Ø wire 0.14 cm (crown of spirally coiled wire).

A specific type of ring found at Lijevo Bara consists of two rings with a crown of spirally wound wire discovered in two female graves (**Fig. 43a:3.4a–b; Pl. 19:1–2**). Although both rings were characterized by a banded hoop and spirally formed crown, on the silver ring, the hoop and crown were made from the same piece of wire, which in the lower half of the hoop was hammered into a band (gr. 316), while on the bronze ring, the banded hoop and the crown were two parts of the same whole, connected by coils of wire and attached with a wire drawn through holes on the ends of an apparently normal hoop of open type (gr. 151). The rings also belong to different weight systems – the bronze example to the light group (I), and the silver example to the middle weight group (II).

<sup>535</sup> MESTERHAZY 1991, 160, 176 (with literature). Not particularly interested in the "counterfeits" made of bronze, from sites south of the Drava River he noted only the occasional example of these (e.g. Junuzovci = Kočićevo – Tučić, south of the Sava in the northwestern part of Bosnia and Herzegovina).

<sup>536</sup> The finds from the cemetery of Halimba – Cseres (Hungary, Veszprém County; gr. 359, 405, 423) belong to the second quarter of the 11<sup>th</sup> century: TÖRÖK 1962, 50, 106, 153, Pl. XLIV and C; 163 Pl. LXXIV:359 and XCIX:359 (dated by a coin of King Andrew, 1041–1061); 164, Pl. LXXXV:423.



**Fig. 48.** Finds of rings with a crown of spirally wound wire in Croatia, Hungary, Romania, and Slovakia (sites mentioned in the text). **1** – Vukovar – Lijeva Bara (Hr; Vukovarsko-Srijemska County). **2** – Szarvas – unknown site (H; Békés County). **3** – Tiszabercel – Újsor (H; Szabolcs – Szatmár – Bereg County). **4** – Blandiana – în vii (Ro; Alba County). **5** – Svätý Peter (Dolný Peter) – Malé Luky (Sk; Komárno District).

Both rings were found on the fingers of the right hand: the bronze example on the right hand together with a ring with an inset crown for a decorative stone (De. 3.3a) in a grave without any other finds (gr. 151), and the silver ring by the skeleton in a grave that in addition to an open ring of triangular section (De. 1.4b) and a ring with a stepped crown (De. 3.1) worn on the left hand, also contained a pair of silver circlets, and two bracelets with tapered ends worn on the right and left forearms (gr. 316). In both graves the forearms of the skeletons were placed on the upper part of the trunk (v.13 and v.14).

The ring from grave 316 (**Pl. 19:2**), made of silver, massive, and with an elegant design, was presented soon after its discovery, when it was considered a product created "according to earlier prehistoric traditions",<sup>537</sup> in contrast to the apparently simpler bronze ring from grave 151 (**Pl. 19:1**), which was – despite evident similarities with rings from the cemeteries of Blandiana-în vii (= Blandiana B) in Romanian Transylvania,<sup>538</sup> Tiszabercel – Újsora in the Hungarian Upper Tisza basin (Szabolcs – Szatmár-Bereg County),<sup>539</sup> and Szarvasa in the Hungarian Lower Tisza basin (Békés County)<sup>540</sup> – only much later mentioned for the first time and described in more detail (**Fig. 48**).<sup>541</sup>

Both Vukovar rings, considering the specifics of the decoration, are harking back to the tradition of the late Iron Age, as was similarly shown and confirmed on not a few Roman period rings (Be. IV/16; Gu. 6d).<sup>542</sup> Individual examples of rings with a crown of spirally coiled wire from the early medieval period, in addition to the above mentioned finds from Romania and Hungary, were also noted from northern Germany (Soltau)<sup>543</sup> and Slovakia (Dolný Peter),<sup>544</sup> where, like the examples from Vukovar, they were dated to the end of the 10<sup>th</sup> century or in the early 11<sup>th</sup> century. Another examples

<sup>537</sup> VINSKI 1955, 247.

<sup>538</sup> HORED T 1966, 283 Fig. 23:12 (gr. 1).

<sup>539</sup> ISTVÁNOVITS 2003, 201, 304 Fig. 157:5, 696 Pl. 194:21/4 (gr. 21?).

<sup>540</sup> KRECSMÁRIK 1910, 65–66 Fig. 3:2. The same spiral decoration can be seen on a closed bracelet of bronze braised wire found at the same cemetery, op. cit. 351, 377.

<sup>541</sup> DEMO 1996, 53–54, 91 no. 52.15. – Although of all the material from the site of Lijeva Bara, Tomičić devoted the most attention to the rings, the rings with spirally coiled crowns found in gr. 151/f and 316/f were not mentioned at all, TOMIČIĆ 1992, 140–144, 152–166.

<sup>542</sup> BECKMANN 1969, 34, Pl. 1:14, Pl. 11 (with an overview of earlier literature); GUIRAUD 1989, 193 Fig. 36, 194 Fig. 39. For this kind of ring in relation to late Iron Age (La Tène), Roman, and some medieval finds, see CZARNECKA 1989, 11–17.

<sup>543</sup> CRONE 1983, 259–260, Pl. 29.

<sup>544</sup> Svätý Peter (Dolný Peter) – Malé Luky, gr. 7: DUŠEK 1964, 202 Fig. 3:5; TOČÍK 1968, 21, 86 (Pl. XX:13); TOČÍK 1987, 211–212, Fig. 19:6.

comes from Bulgaria (Gradišteto near Simeonovgrad),<sup>545</sup> and the quite numerous finds from the area of the former USSR (Boltinskaja, Novgorod, Pekunovo, Voznesenskiji Posad, etc.) – some among them also dated by coins – are usually dated to the middle or the period around the middle of the 11<sup>th</sup> century.<sup>546</sup>

4.3.3.2.3.5. A ring with a crown of rhomboid form  
(G. –; De. 3.5 = type "Vukovar – Budakeszi")

No.	Inv. AMZ	Metal	Type De. (G. –)	Ht. ring	Crown of the ring		Obruč prstena			Wt. (g)	Grave (sex)	Hand
					Ø/dim.	ht.	Ø	w.	th.			
1.	2762	AR	3.5	2.78	1.95/1.90	0.84	2.50/2.38	0.30	0.16–0.14	7.100	347/ch	–

The ring recorded among the finds from child grave 347 is one of two rings discovered at Lijeva Bara during the archaeological excavations in 1951–53 for which no notes exist in the field documentation.<sup>547</sup> The two-part ring belongs to the very heavy weight group (IV), with a hoop of banded section, with the ends thinned and hammered for a probably rounded bezel, where in place of a rounded crown, a silver gilt crown of rhomboid form was soldered (**Fig. 43a:3.5; Pl. 20:1**).<sup>548</sup> The rhomboid appearance of the crown with a circular protrusion in the center and four circular decorations on the corners is similar to the crown of a silver ring from the cemetery at Budakeszi – Baracsokos dűlő (not far from Budapest), found in a rich female grave, dated to a period not later than the middle of the 10<sup>th</sup> century.<sup>549</sup> Nonetheless, a slightly later date would be suggested for the ring from Lijeva Bara, as grave 347/ch, to which the ring with a rhomboid crown should belong, was located just next to warrior grave 232/m, the central grave in the so-called "triangular group" of archers.

<sup>545</sup> *Simeonovgrad – Gradišteto*, grave find: KAPELNIKOVA 1989, 54 Fig. 10:v. – One partly preserved ring with a spiral crown is discussed by MARJANOVIĆ-VUJOVIĆ 1989, pp. 31–32 (the poor quality drawing of the ring barely shows anything).

<sup>546</sup> RAVDINA 1988, 8 (Pl. 1:25), 10 (Pl. 3:2), 15 (Pl. 8:9), 27–28, 35, 95–96. The continuation of this form up to the beginning of the second third of the 12<sup>th</sup> century is confirmed by examples from the Archangel hoard, cf. NOSOV – OVYSANNIKOV – POTIN 1992, 11–12, Fig. 10–11. – It should be noted that a similar combination of spiral coils and the spiral closures of their ends can be seen on Viking bracelets created in Ireland according to Scandinavian models in the period from AD 850 to 950, see *Copenhagen* 1992, 323 No. 363i.

<sup>547</sup> The field records *Zapiski*, no. 347/25 Aug. 1953 and *Dnevnik*, ad. 24 Aug. 1953, which provide data about the archaeological objects found in grave 374, agree in their descriptions of the grave finds, and neither of them mention any example of a massive silver gilded ring. This grave find is recognized and described only by the S-AMZ inventory book as the object noted under number S-2762 (ex P-18341).

<sup>548</sup> DEMO 1996, 53 Fig. 35 (third row, center), 54, 91 no. 52.18 (secondarily used decoration for clothing?).

<sup>549</sup> ERDÉLYI 1994, 147 Fig. 12/a, 149 Fig. 12/b (center, right), noted that gr. 39 in addition to the mentioned silver ring contained a circlet (G. 13), button-pendant (G. 11b), two sets of two-part pendants, two belt strap end mounts, and another silver ring.



## 4.4. Attire

4.4. Attire (parts of attire)	State		Grave finds			Chance finds	Sex of the deceased			
	no.	%	no.	%	graves		M/m?	f/f?	ch	?
1. Upper attire (parts)	64	76.19	40	66.67	22*	24	2	8	11*	1
1. Two-part pendants	27	42.19	7	17.50	4	20	–	1	3	–
2. Spangle (button-like appliqué)	12	18.75	10	25.00	5	2	1	–	3	1
3. Button-pendants	24	37.50	22	55.55	16	2	1	7	8	–
4. Cuff end	1	1.56	1	2.50	1	–	–	1	–	–
2. Belt (parts)	20	23.81	20	33.33	13*	–	8	2*	1*	2*
1. Buckle with a pin	3	15.00	3	15.00	2	–	2	–	–	–
2. Clasp with a hook	3	15.00	3	15.00	3	–	–	2	–	1
3. Belt mount	2	10.00	2	10.00	2	–	2	–	–	–
4. Strap end	3	15.00	3	15.00	3	–	2	–	–	1
5. Circler, for a belt	4	20.00	4	20.00	3	–	2	–	–	1
6. Belt chape	2	10.00	2	10.00	1	–	–	–	1	–
7. Bead, for a belt	3	15.00	3	15.00	3	–	2	1	–	–
Total:	84	100.00	60	100.00	33*	24	10*	10*	12*	2*

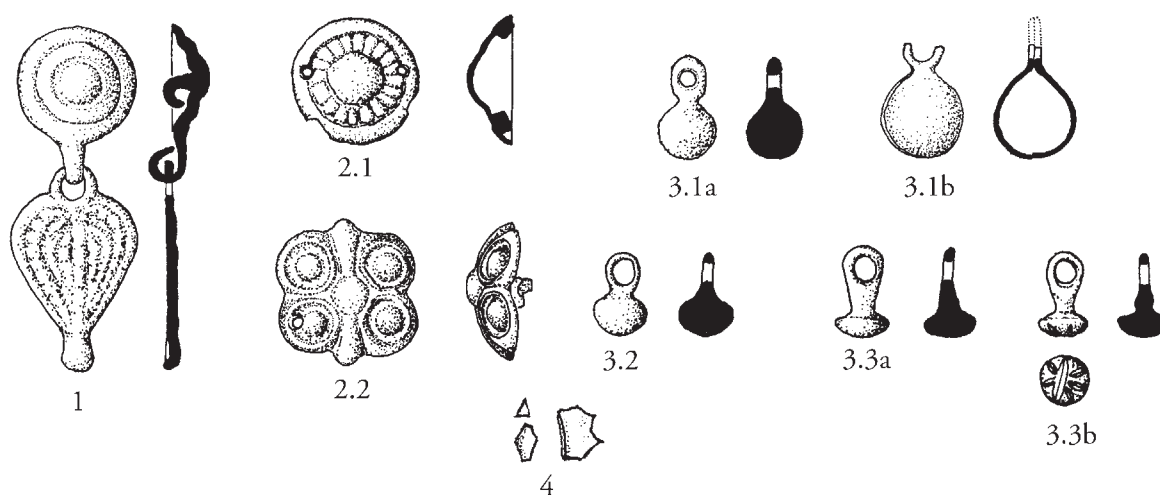
\* 4.4.1.1–4 – More than one attire element from the same group came from 7 graves: upper attire (2 graves) – *two-part pendant (secondary use), button- pendant and 5 spangles* (gr. 349/ch); *two-part pendant (secondary use) and spangle* (gr. 355/ch); belt (5 graves) – *belt mount and strap end* (gr. 53/m, 71/m); *strap end and belt circler* (gr. 336/?); *clasp with a hook and a belt bead* (gr. 263/f); *2 buckles with a pin* (gr. 237/m).

4.4.2.1–7 – More than one attire element from different groups came from 2 graves (upper attire and belt): *button- pendant, clasp with a hook, cuff end* (gr. 344/f); *button- pendant and 2 belt chapes* (gr. 409/ch).

The attire elements consist of 84 objects, the more frequent and numerous but less diverse parts of upper attire (76.19%), and the scarcer, but more varied belt parts (23.81%). Among the 84 objects, 60 of them come from 33 graves (7.53%), which among the graves with finds ranks an average 17.28% (ratio: 1.82).<sup>550</sup>

### 4.4.1. Upper attire

Elements of upper attire consist of 64 objects classified into four groups (Fig. 49): 27 often incompletely preserved two-part pendants (42.19%), 24 button-pendants (37.50%), 12 spangles (18.75%), and 1 cuff end (1.56%). Among these 64



**Fig. 49.** Upper attire elements, silver, bronze (4.4.1.1–4). **1** – Two-part pendants, bronze (gr. 23/ch). **2** – Spangle, bronze (2.1 – circular: gr. 355/ch; 2.2 – square: S-2411). **3** – Button-pendant, bronze (3.1a – circular, solid: gr. 41/f; 3.1b – circular, hollow, two-part: gr. 115/f; 3.2 – lenticular: gr. 52/ch; 3.3a – mushroom shaped, undecorated: gr. 292/f; 3.3b – mushroom shaped, decorated: gr. 347/ch). **4** – Cuff end, silver (gr. 344/f).

<sup>550</sup> Graves: 2/ch, 17/m?, 19/?, 23/ch, 41/f, 52/ch, 53/m, 71/m, 84/?, 115/f, 138/f, 237/m, 260/f, 263/f, 271/?, 280/m, 292/f, 324/m, 326/f, 336/?, 344/f, 347/ch, 349/ch, 355/ch, 362/f?, 367/m, 382/ch, 400/m, 409/ch, 417/m, 424/ch, 425/ch, 444/ch.

objects, only 40 of them (62.5%) come from a total of 22 graves (ratio: 1.82).<sup>551</sup> They were most often found in child graves (53.38%) and female or probably female graves (38.10%), while elements of upper attire were considerably scarcer in male graves. From all the graves with finds, the graves with upper attire elements consist of 11.52%.

#### 4.4.1.1. Two-part pendants (G. 9b; D. 13; B. I/a)

No.	Pendant		Inv. AMZ	Metal	Type (D.)	Upper pendant				Lower pendant			Weight pendant	Grave (sex)
	upper	lower				l.	w.	ht. <sup>1</sup>	ht. <sup>2</sup>	l.	w.	ht.		
1.	1.	1.	2448/1	AE	13	2.12	1.62	0.48	0.60	2.90	1.76	0.15	3.993	23/ch
2.	2.	2.	2448/2	AE	13	2.18	1.61	0.50	0.60	2.91	1.73	0.16	3.912	23/ch
3.	3.	3.	2448/3	AE	13	2.23	1.68	0.48	0.56	2.92	1.75	0.16	3.694	23/ch
4.	4.	4.	2448/4	AE	13	2.23	1.67	0.49	0.58	2.91	1.77	0.18	3.595	23/ch
5.	–	5.	2744	AE	13	–	–	–	–	(2.48)	1.60	0.115	(1.628)	326/f
6.	5.	–	2768/1	AE	–	(1.86)	(1.43)	0.33	0.50	–	–	–	(0.912)	349/ch
7.	6.	–	2772	AE	–	2.27	1.53	0.56	0.71	–	–	–	1.763	355/ch
8.	7.	6.	2414/1	AE	13	(1.87)	1.41	0.50	0.68	2.84	1.60	0.130	2.918	Srnić
9.	8.	7.	2414/2	AE	13	2.15	1.44	0.51	(0.60)	2.67	1.60	0.135	2.687	Srnić
10.	9.	8.	2414/3	AE	13	2.03	1.45	0.52	0.70	2.88	1.64	0.120	2.575	Srnić
11.	10.	9.	2414/4	AE	13	2.05	1.47	0.49	0.65	(2.45)	1.60	0.155	2.665	Srnić
12.	–	10.	2415/1	AE	13	–	–	–	–	2.88	1.63	0.135	1.576	Srnić
13.	–	11.	2415/2	AE	13	–	–	–	–	2.85	1.68	0.130	1.499	Srnić
14.	–	12.	2415/3	AE	13	–	–	–	–	2.82	1.61	0.130	1.451	Srnić
15.	–	13.	2415/4	AE	13	–	–	–	–	2.77	1.66	0.130	1.375	Srnić
16.	–	14.	2415/5	AE	13	–	–	–	–	2.91	1.60	0.125	1.223	Srnić
17.	11.	–	2416/1	AE	–	(1.72)	1.46	0.50	0.67	–	–	–	(1.223)	Srnić
18.	12.	–	2416/2	AE	–	(1.88)	1.44	0.44	0.71	–	–	–	(1.238)	Srnić
19.	13.	–	2416/3	AE	–	(2.00)	1.43	0.50	0.63	–	–	–	(1.063)	Srnić
20.	14.	–	2416/4	AE	–	(2.02)	1.46	0.45	0.60	–	–	–	(1.034)	Srnić
21.	15.	–	2416/5	AE	–	(1.87)	1.39	0.43	0.60	–	–	–	(1.067)	Srnić
22.	16.	–	2416/6	AE	–	(1.86)	1.47	0.47	–	–	–	–	(0.981)	Srnić
23.	17.	–	2416/7	AE	–	(1.90)	1.48	0.50	0.66	–	–	–	(0.943)	Srnić
24.	18.	–	2416/8	AE	–	(1.83)	1.45	0.52	–	–	–	–	(0.983)	Srnić
25.	19.	–	2416/9	AE	–	(1.40)	(1.40)	0.52	–	–	–	–	(0.873)	Srnić
26.	20.	–	2416/10	AE	–	(1.31)	1.30	0.50	0.78	–	–	–	(1.267)	Srnić
27.	21.	–	2416/11	AE	–	(1.52)	1.41	0.51	–	–	–	–	(1.210)	Srnić

[The metrological data for incomplete or damaged examples are noted in parentheses; ht.1 = without a loop; ht.2 = with a loop]

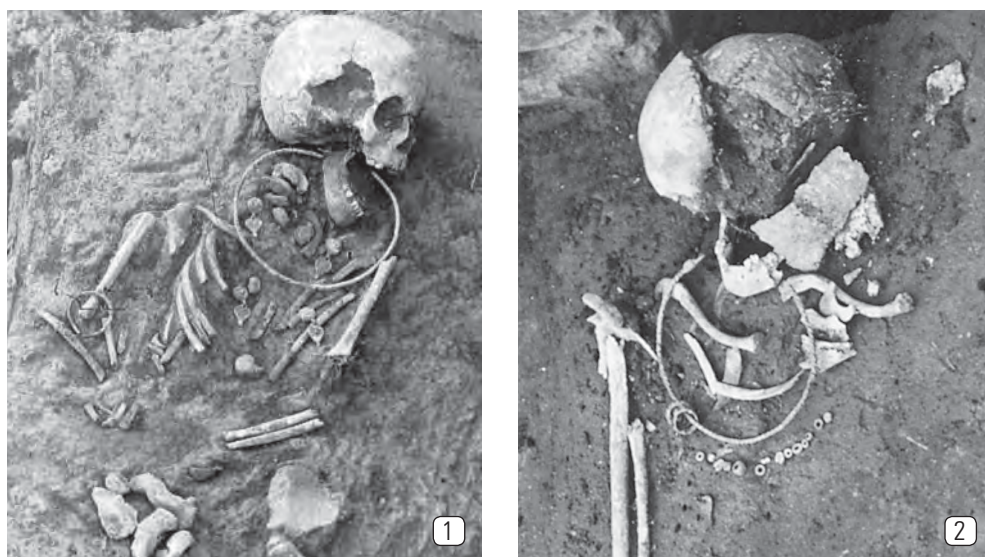
*\*Notes:*

- 5. Secondary use: a pendant on a necklace of metal pendants; the loop for suspension broken off, in the upper part of the pendant a perforated hole for suspension with remains of wire.
- 6. Secondary use.
- 7. Secondary use.

- 22–24. Secondary use; with two oppositely placed, subsequently perforated holes for attachment.
- 25–27. Secondary use; with one subsequently perforated hole for attachment.

Two-part pendants, entire or with only one of their two parts, were found in four graves (**Fig. 49:1**): Preserved in two graves completely (gr. 23/ch – **Pl. 8:3**) or only with the lower typologically recognizable part (gr. 326/f), while the other two graves contained one better preserved (gr. 355/ch), and one more poorly preserved secondarily used circular upper part of a pendant (gr. 349/ch). The remaining pendants were certainly chance finds from several destroyed and archaeologically unexcavated graves, as is indicated by several groups of entire or incomplete two-part pendants: 4 completely preserved two-part pendants (S-2414/1–4) and 5 lower typologically recognizable pendants (S-2415/1–5), as well as 11 identical circular upper pendants with more or less amounts of damage and missing the hooks for suspension. These 11

<sup>551</sup> Graves: 2/ch, 23/ch, 41/f, 52/ch, 115/f, 138/f, 260/f, 271/?, 280/m, 292/f, 326/f, 344/f, 347/ch, 349/ch, 355/ch, 362/f, 382/ch, 409/ch, 417/m, 424/ch, 425/ch, 444/ch.



**Fig. 50.** The positions of finds of two-part pendants. **1** – Gr. 23/ch (on the chest); **2** – Gr. 326/f (on the chest on the right side).

upper pendants contain 6 pendants subsequently repaired or remodelled for secondary use, 4 of the pendants with a pair of oppositely placed drilled holes for attachment by sewing (S-2416/6–9), and 2 pendants with only one hole for attachment, subsequently drilled along the right edge of the pendant (S-2416/10–11).

Despite the considerable number of individual examples or their sections, typologically recognizable pendants, complete or with the lower section preserved, were represented at Lijevo Bara by 14 examples. All belong to the same type of thin, cast, heart-shaped platelets with profiled edges, with a tear-drop shaped ending in the lower section and a raised, semicircular eye for suspension in the upper section, and a relief decoration of an upright row of tear-drops (egg-and-dart), framed with three rounded rows of similar tear-drop patterns (D. 13).<sup>552</sup> Despite the frequency of the finds, they are not a common archaeological find, as only five pendants come from two archaeologically excavated graves (gr. 23/ch, 326/f), which in terms of the total number of graves with finds barely exceeds the minimal amount of 1.05%.

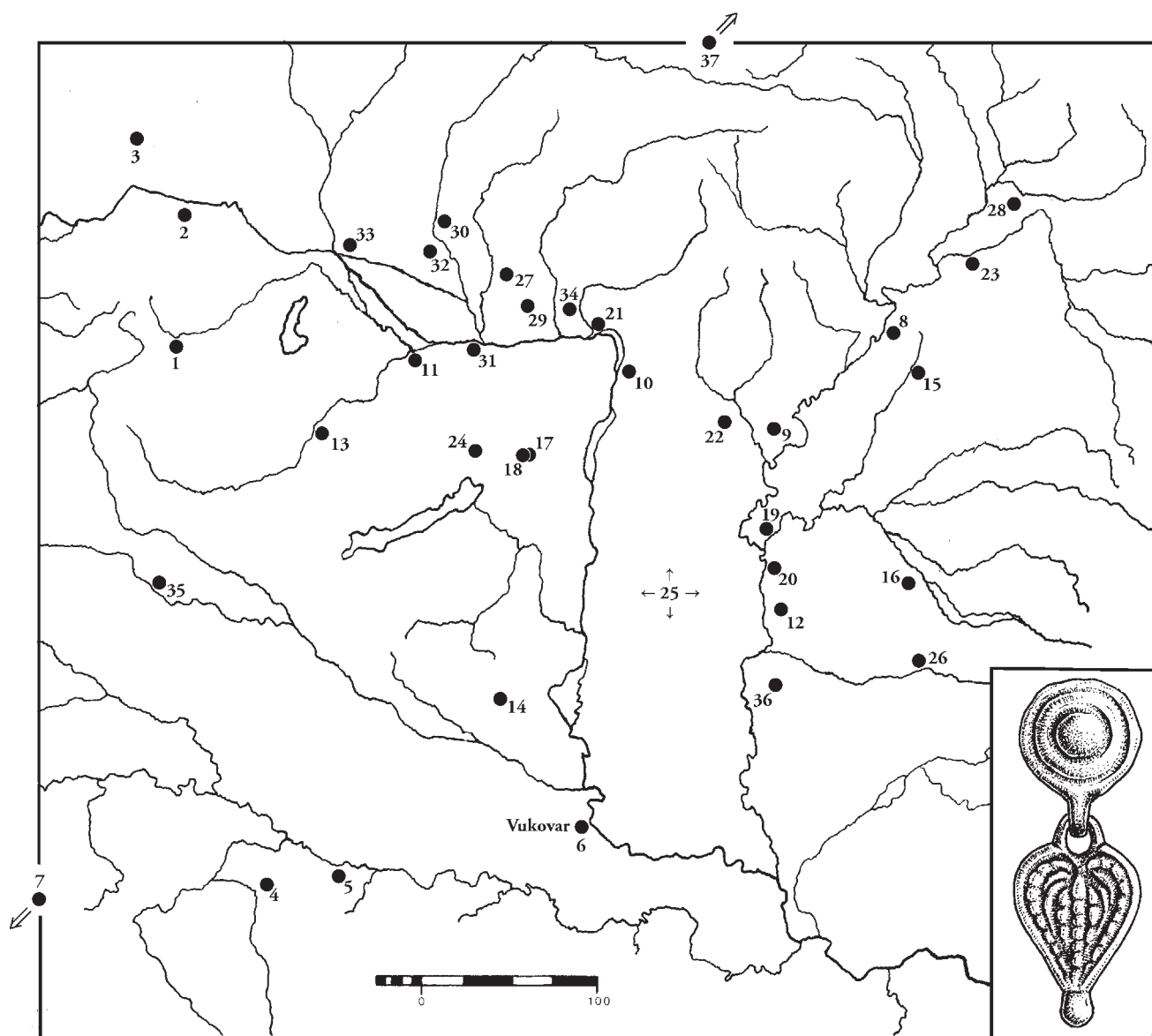
In the above two graves, the two-part pendants served two purposes: in one of the child graves they served as a decoration of the upper part of attire (gr. 23), where they were found on the chest orderly arranged on the left and right side in two perpendicular, approximately uniformly distant rows whose beginning was somewhere at neck height; and in the grave of a young female (gr. 326) a two-part pendant was used as one of the pendants in a three member group of somewhat scattered pendants discovered around the middle and in the lower part of the right side of the rib cage (**Fig. 50:1–2**).

These above graves belonged to the border sections of both southern zones of burial, and were quite distant from one another (ca. 45 m): the child grave was located in the northeastern part of the southwestern zone (gr. 23), while the grave of the young female was located in the southeastern part of the southeastern zone (gr. 326). They are characterized by finds of torcs coiled from one single and one doubly bent wire, and bronze bracelets of circular section wire (gr. 23/ch) and square section wire (gr. 326/f), to which in the child grave was added a pair of silver small-format circlets (G. II/5,2), and in the grave of the young female a necklace of fired clay and glass beads, and three bronze rings, consisting, in addition to an open ring of banded section (De. 1.2a) and a ring with a crown of the "Vukovar – Bijelo Brdo" type (De. 3.16a), as the chronologically latest find a closed ring with wart-like protrusions (De. 2.13). Although both graves on the basis of their positions in the cemetery zones belong to the early 11<sup>th</sup> century, the grave of the young female was later in terms of relative chronology, but only to the extent that would be reflected in the age difference between the two deceased individuals or perhaps the span in time between their two burials (one decade?).<sup>553</sup>

With its 14 pendants, the cemetery of Vukovar – Lijevo Bara in the Croatian Danube basin for decades has been the leading site of discovery for two-part pendants of a group that although it may not be the most numerous, is nonetheless certainly one of the most widely distributed groups of Bijelo Brdo two-part pendants in general (D. 13). The pendants of this group extend in the northeast all the way to Zelenče in the Ukraine, in the west very numerous examples were noted in eastern Austria at several sites in Lower Austria (Köttlach, Langenschönbichl – Rumpler, Thunau am Kamp), in the southwest the group extends to the cemetery of Pordenone – Palazzo Ricchieri in the western part of the Italian province of Friuli – Venezia – Giulia, so that according to current information at least 123 complete or partially preserved examples come from 37 sites primarily in central European countries (Austria, Bosnia & Herzegovina, Croatia, Italy, Hungary, Romania, Slovakia, and Slovenia) and two southern European and eastern European countries (Serbia and the Ukraine) (**Fig. 51**).

<sup>552</sup> DEMO 1983, 288.

<sup>553</sup> The presumed age of the skeleton in gr. 23/ch would be below 6 years old (?), and in female gr. 326/f would be between 13–17 years old (data thanks to Mario Šlaus, PhD, HAZU).



**Fig. 51.** Distribution map and list of the finds of pendants of type D. 13 at sites in Austria, Bosnia & Herzegovina, Croatia, Italy, Hungary, Romania, Slovakia, Slovenia, Serbia, and Ukraine). **1 (1–10)** – Köttlach – Leichenfeld (A; Niederösterreich, Neukirchen District), grave finds (10 ex.): FRANK 1854, 241, Pl. II:8; PITTIONI 1943, 16, Pl. X:8–17. **2 (11–21)** – Langenschönbichl – Rumlper (A; Niederösterreich, Tulln District), grave finds (11 ex.): FRIESINGER 1974, 75–76, 88, Pl. 23. **3 (22–23)** – Thunau am Kamp – Zigelei Winkelhofer (A; Niederösterreich, Horn District), grave finds (2 ex.): FRIESINGER 1965, 86, 105, Fig. 14:3–4. **4 (24)** – Gomjenica – Baltine bare (BiH; Prijedor District), gr. 100 (1 ex.): MILETIĆ 1967, 95, 131, Pl. XXVIII, XXXI:3. **5 (25–26)** – Kočićevo – Tučić (BiH; Bosanska Gradiška District), grave finds (2 ex.): KOROŠEC 1943, 278 (Fig. 12a–b), 280; MILETIĆ 1963, 164–165 (Fig. 9). **6 (27–40)** – Vukovar – Lijeva Bara (Hr; Vukovarsko-Srijemska County), gr. 23 (4 ex.), gr. 326 (1 ex.), destroyed graves (11 ex.): DEMO 1983, 288–289. **7 (41–42)** – Pordenone – Palazzo Ricchieri (I; Friuli – Venezia Giulia, Pordenone District), gr. 31 (2 ex.): MADER 1993, 252, 258, 287–288. **8 (43–46)** – Ároktő – Dongóhalom (H; Borsod – Abaúj-Zemplén County), gr. 4 (4 ex.): MEGAY 1956, 15, 17–19. **9 (47)** – Besenyszög – Hodmorszögpuszta (H; Szolnok County), grave find (1 ex.): HAMPÉL 1905 (2), 534, (3) Pl. 372 B:3. **10 (48)** – Dunakeszi (H; Pest County), chance find (1 ex.): BÁLINT 1991, 123 n. 231, 124 Pl. XXXVI:4, 242. **11 (49)** – Győrszentistván – Söprűshegy (H; Győr – Moson – Sopron County), gr. 8 (1 ex.): SZÓNYI-TOMKA 1985, 101, 106 Fig. 9:3. **12 (50–51)** – Hódmezővásárhely – Kopáncs (H; Csongrád County), gr. 17 (2 ex.): PÁRDU CZ 1943, 185–186, 192, Pl. LXIII:1–2.<sup>554</sup> **13 (52–60)** – Ikervár – Virág utca (H; Vas County), gr. 116 (5 ex.), gr. 117 (3 ex.): HAJMÁSI – KISS 2000, 60–61, Pl. 45:117/2–4, 48:116/4–8. **14 (60)** – Pécs – Somogy (H; Baranya County), gr. 118 (1 ex.): DOMBAY 1962, 76–77, Pl. IX:8. **15 (61–69)** – Püspökladány – Eperjesvölgly (H; Hajdú-Bihar County), gr. 47 (6 ex.), gr. 146 (3); *Budapest* 1996, 245, 249 Fig. 13; NEPPER 2002, (2) 148 Pl. 142:1–6, 174 Pl. 168:6–8.<sup>555</sup> **16 (70–75)** – Szabadkígyós – Tangazdaság (H; Békés County), gr. 1 (6 ex.): PÁLÓCZI-HORVÁTH 1971, 8–10. **17 (76–81)** – Székesfehérvár – Demkóhegy (H; Fejér County), gr. 22 (1 ex.), gr. 28 (1 ex.), gr. 35 (4 ex.): BAKAY 1967, 50–53, Pl. XXI:5,11, XXIX:25–28. **18 (82)** – Székesfehérvár – Maroshegy (H; Fejér County), chance find (1 ex.): HAMPÉL 1905, (1) 766 Fig. 2341, (2) 587, (3) Pl. 398 B:4. **19 (83)** – Szelevény (H; Szolnok County), chance find (1 ex.): BÁLINT 1991, 123 n. 231, 124 Pl. XXXVI:17. **20 (84–86)** – Szentes – Nagyhegy, Nagypatéi ut. (H; Csongrád County), gr. 2 (1 ex.), gr. 24 (2 ex.): FEHÉR-ÉRY-KRALOVÁNSKY 1962, 74 no. 1018; BÁLINT 1991, 123 n. 231, 124 Pl. XXXVI:19, 252 Pl. LXII:14–16, 255. **21 (87)** – Szob – Koliba (H; Pest County), gr. 25 (1 ex.): MIKES 1956, 116, Pl. XXVI:4. **22 (88)** – Tápiószéle (H; Pest County), chance find (1 ex.): BÁLINT 1991, 123 n. 231, 124 Pl. XXXVI:21. **23 (89)** – Tiszabercel – Újsor (H; Szabolcs – Szatmár-Bereg County), gr. 13 (1 ex.): KISS 1937, 246, Pl. XXII:3; ISTVÁNOVITS 2003, 200–201, 314 (Fig. 161:47), 319, 694 (Pl. 193:13/1–14 sic!). **24 (90–94)** – Várpalota – Semmelweis u. 55 (H; Veszprém County), gr. 13 (5 ex.): PERÉMI 1997, 43. **25 (95)** – Hungary, unknown site: HAMPÉL 1905, (1) 766 Fig. 2339. **26 (96)** – Arad – Földvári puzsta (Ro; Arad District), grave find (1 ex.): RÉTHY 1898, 129 Pl. III:7; HAMPÉL 1905, (2) 506 Fig. 7, 507; *Budapest* 1996, 300, 301 Fig. 7. **27 (97)** – Bešeňov – Papföld (Sk; Šurany District), gr. 18 (1 ex.): SZŐKE – NEMESKÉRI 1954, 111, 132 Pl. II. **28 (98–99)** – Dobrá – Ligahalom (Sk; Trebišov District), gr.

<sup>554</sup> For two-part pendants from this grave found on the head of the skeleton as a decoration of the head or a head covering (cap), BÁLINT 1991, 69–70.

<sup>555</sup> In the grave were discovered 6 two-part pendants and 2 upper pendant sections without the accompanying lower section.

2 (2 ex.): HAMPEL 1905 (1), 766 Fig. 2340, (2) 640–641, (3) Pl. 424 A:35–36.<sup>556</sup> **29 (100–102)** – Dubník – Bundaš (Sk; Nové Zámky District), gr. 14 (3 ex.): REJHOLCOVÁ 1988, 437, 443, 449 Pl. II:8–10. **30 (103)** – Dvorníky – Poláne (Sk; Trnava District), chance find (1 ex.): TOČÍK 1968, 123, Pl. LVII:16. **31 (104)** – Komárno, vicinity (Sk; Komárno District), chance find (1 ex.): TRUGLY 1995, 128–129, 218 Fig. 106:1. **32 (105–110)** – Matúškovo – Kertalja (Sk; Galanta District), chance find (6 ex.): TOČÍK 1992, 151 no. 1, 152 (Fig. 95:1–6). **33 (111–113)** – Rovinka – Nové pole (Sk; Bratislava – Vidieck District), gr. 4 (3 ex.): NĚMEJCOVÁ-PÁVUKOVÁ 1962, 658, 663 Fig. 227:3–4, 666. **34 (114–115)** – Malé Kosihy – Horné Konopnice (Sk; Nové Zámky District), gr. 55 (1 ex.), 98 (1 ex.): HANULIAK 1994, 43 Fig. 1:35a, 46, 14 Pl. X:D1, 160 Pl. XXI:E6. **35 (116)** – Ptuj-Grad/Turnirski prostor (Slo; Ptuj District), gr. 50 (1 ex.): SKRABAR 1910, 126; KOROŠEC 1947, 20 Fig. 17; KOROŠEC 1999, Pl. 5:50/28. **36 (117–122)** – Rabe – Kolodvor (Sr; SAP Vojvodina, Kneževac District), grave find (6 ex.): KOVÁCS 1993, 61 no. 5–10, Fig. 14:5–9. **37 (123)** – Zelenče – unknown site (Ua; Khmelnytska Region), chance find (1 ex.): BÁLINT 1991, 123 n. 231, 14 Pl. XXXVI:24.

Finds and sites from Hungary predominate in the total, which does not reflect anything more than the ingrained conception of the Hungarian identity of these and other groups and variants of two-part pendants.<sup>557</sup> The number of finds and the distribution of sites in Hungary indicates two unexpectedly distinct separate zones of distribution of pendants of type D. 13: an eastern zone with sites primarily east of the Tisza River in southern Hungary and neighboring regions, and in the central and upper Tisza basin (nos. 8–9, 12, 15–16, 19–20, 22–23, 26, 28, 36),<sup>558</sup> and a western zone with finds along the Danube in Hungarian Transdanubia, northwestern Hungary, and southwestern Slovakia (nos. 10–11, 13–14, 17–18, 21, 24, 27, 29–34). To the south of the Drava and Sava rivers, other than the exceptionally numerous two-part pendants from Vukovar (no. 6), pendants of type D. 13 are known with only one find in the northeastern part of Slovenia at the cemetery of Ptuj-Grad/Turnirski prostor (no. 35) and slightly more frequent finds in the Bosnian Sava basin at the cemetery of Gomjenica – Baltine bare and among the grave finds from Kočićevo. At these latter sites – in the first case definitely (no. 4), and in the second case very probably (no. 5) – they were part of larger decorative attire sets of various types of two-part pendants. Among the early medieval Slavic inhabitants of eastern Austria, two-part pendants of type D. 13 were not merely very numerous, but were also – just like the isolated find from northeastern Italy (no. 7) – to date the only represented group of two-part pendants (nos. 1–3).

**Table 38**

Numerical indicators of the presence of two-part pendants of type D. 13 in Austria, Bosnia & Herzegovina, Italy, Serbia, Hungary, Slovakia, and Slovenia [the data does not include the two-part pendants from an unknown site in Hungary (**Fig. 51:25**) and from Zelenče in the Ukraine (**Fig. 51:37**)].

Areas of distribution of sites and individual groups of finds	pendants (sites)	percentage pendants	actual index	reduced index	index ratio	
1. Hungary and Slovakia (+ Romania and Serbia)	75	(27)	63.56	2.14	2.78	0.79
1. Eastern zone of finds	34	(12)	28.81	0.97	2.83	0.34
2. Western zone of finds	41	(15)	34.75	1.17	2.73	0.43
2. Region south of the Mura, Drava, and Sava	18	(4)	15.25	0.51	4.50	0.11
1. South of the Mura (Slovenia)	1	(1)	0.85	0.03	1.00	0.03
2. South of the Drava (Croatia)	14	(1)	11.86	0.40	14.00	0.03
3. South of the Sava (Bosnia & Herzegovina)	3	(2)	2.54	0.08	1.50	0.05
3. Region west of Neusiedler See	25	(4)	21.19	0.71	6.25	0.11
1. Austria (Niederösterreich)	23	(3)	19.49	0.66	7.67	0.09
2. Italy (Friuli – Venezia – Giulia)	2	(1)	1.70	0.05	2.00	0.02
Total of pendants and sites:	118	(35)	100.00	3.73	4.51	0.83

The central zone of distribution of pendants of type D. 13 is Hungary and the neighboring regions in Slovakia, Romania, and Serbia (63.56%), but the finds from the countries south of the Mura, Drava, and Sava rivers, along with the finds from

<sup>556</sup> The earliest pendants of type D. 13, but also the earliest finds of two-part pendants in general, are considered to be the examples supposedly found in warrior grave 2, dated to the first half of the 10<sup>th</sup> century by Arabic dirhams, from the cemetery of Dobrá – Ligahalom in northeastern Slovakia, which despite very diverse grave finds is attributed to the period ca. AD 930/940 (SCHULZE-DÖRRLAMM 1991, 441, phase Ib of the Hungarian conquest of the Carpathian basin). A justified suspicion whether the two-part pendants and several other finds (a pair of circlets and a pair of open-ended bracelets) could actually be assigned to the above warrior grave 2 was directly expressed only by GIESLER 1981, 22–23. – A not very early appearance and dating of two-part pendants of type D. 13 would be indicated by some of their typological characteristics, primarily the teardrop ending in the lower section and the raised, semicircular loop for suspension in the upper part of the lower pendant.

<sup>557</sup> For views on the origin and dating of two-part pendants, VÁŇA 1954, 68, 70; DEMO 1983, 275; TOČÍK 1987, 213–214, 234 n. 73. – That the stimulus for the use and utilization of two-part pendants as a decorative addition to collars in the late 10<sup>th</sup> century could reflect influences or fashions imported from Byzantium was noted at one time by SCHULZE-DÖRRLAMM 1989, 415–422 (the example she used was appliqué elements from the female grave "h" from the cemetery of Tiszaeszlár – Bashalom in the Hungarian upper Tisza basin, Szabolcs – Szatmár-Bereg County).

<sup>558</sup> The chance find from Tápiószéle (no. 22) is the only possible trace of contact points between two Hungarian zones of distribution of two-part pendants of type D. 13 in the upper part of the region between the Danube and Tisza Rivers.

Austria and Italy are closer spatially to the Hungarian western zone of distribution, and taken together (78.81%) they indicate a production center of pendants of type D. 13 that at the end of the 10<sup>th</sup> century and in the first quarter of the 11<sup>th</sup> century probably would have been located in one of the more important early medieval settlements in the northern part of Hungarian Transdanubia (Table 38). It is also significant that the finds outside of the presumed central area of distribution, even when they are present in considerable numbers or percentages, regularly exhibit a distinctly low index ratio.

#### 4.4.1.2. Spangles (button-like appliquéés) (G. –; H. 61b dif., 62b, –)

No.	Inv. AMZ	Metal	Spangles on clothing				Shape loop	Wt. spangle	Grave (sex)	Circumstance of the find
			Form	Ø / dim.	ht. <sup>1</sup>	ht. <sup>2</sup>				
1.	2678	AE	cir.	1.30/1.25	0.22	(0.43)	band.	(0.579)	271/?	"middle of the grave to the chest bones"
2.	2768/2	AE	cir.	1.65/1.45	0.35	(0.53)	band.	1.233	349/ch	"...below the neck and...by the head"
3.	2768/3	AE	cir.	1.49/1.34	0.35	(0.58)	band.	0.988	349/ch	as above
4.	2768/4	AE	cir.	1.42/1.28	0.34	(0.55)	band.	0.887	349/ch	as above
5.	2768/5	AE	cir.	1.49/1.26	0.29	–	band.	0.742	349/ch	as above
6.	2768/6	AE	cir.	1.47/1.12	0.38	–	band.	0.7776	349/ch	as above
7.	2773	AR	cir.	1.69	0.50	–	band.	(1.268)	355/ch	"below the neck"
8.	2845/1	AR	cir.	1.57/1.48	0.27	0.68	flat	1.52	417/m	"right side of head...under the head"
9.	2845/2	AR	cir.	1.57/1.54	0.22	0.68	flat	0.862	417/m	as above
10.	2855	AR	cir.	1.60	0.33	0.57	band.	0.909	425/ch	"on the right side of the head"
11.	2411	AE	squ.	1.92/1.86	0.72	(1.00)	flat	4.182	Srnić	–
12.	2412	AE	cir.	1.93/1.86	0.72	0.89	band.	2.378	Srnić	–

[Forms of spangles: cir. – circular; squ. – square; shape of loop: band. – banded; the metrological data for incomplete or damaged examples are in parentheses; ht.<sup>1</sup> = w/out the loop; ht.<sup>2</sup> = with the loop]

\* Notes:

7. Two subsequently perforated holes (secondary use).

11. One subsequently perforated hole (secondary use).

Spangles (sewn appliquéés) are a scarce type of attire element at Lijeva Bara represented by only 12 examples: 2 spangles were chance finds, and the remaining 10 spangles were found in 6 graves, so that among the graves with finds, the graves with spangles compose a small 3.14%.

With the exception of four silver gilt spangles (gr. 355/ch, 417/m, 425/ch), most of the spangles were made of bronze, on which traces of gilding could also be noted (gr. 271/?, 349/ch). Spangles come mostly from child graves, and only two examples were found in a male grave (gr. 417).

Whether bronze or silver, the predominant shape of the spangles was circular and domed (91.67%), and the only bronze square and domed spangle belonged to a rare group of spangles whose square shape contained an image of two opposing owl heads (Fig. 49:2.1–2). All the silver spangles, but also the six gilded bronze spangles (gr. 271/?, 355/ch) were made of hammered thin sheet metal, while all the other examples were cast in bronze. The backs of the spangles usually had two soldered hooks, banded, semicircularly bent, and tapered towards the top for attachment by sewing, and only three spangles (25%) in place of the hooks have two perpendicularly soldered platelets with holes for sewing (gr. 417/m, S-2411).<sup>559</sup>

The graves usually contain one spangle arranged in the area of the neck or by the head (gr. 271/?, 355/ch, 425/ch), and such examples are usually considered to have served as a fastener for the upper part of a shirt.<sup>560</sup> Two graves contained finds of more than one spangle: in one case the finds of two spangles were noted in the area of the head (gr. 417/m), and in the other case even five spangles and the upper part of a two-part pendant used as a spangle were found (gr. 349/ch), composing a decorative attire set, located for the most part arranged on the chest (4 ex.) and individually on the shoulders of the skeleton (Fig. 52).<sup>561</sup> The two spangles with subsequently perforated holes, one (S-2411) or two (gr. 355/ch), are considered to have been secondarily used for the same or some other purpose.

<sup>559</sup> Similar platelets with a hole for sewing can be noted elsewhere, such as in Vojvodina, where they also appear on rhomboid appliqué elements found at the early medieval cemetery of Jazovo – Proleterska ul., gr. 6: STANOJEV 1989, 50 no. 241.

<sup>560</sup> HANULIAK 1984, 58.

<sup>561</sup> The arrangement of spangles on the chest and shoulders could be compared, although not fully, with a somewhat larger set of somewhat similarly arranged spangles found in grave gr. 4 of the cemetery of Červenik in southern Slovakia, TOČÍK 1968, 19 Fig. 7:2; BÁLINT 1991, 68 Pl. XX:4.



Fig. 52. The position of the spangles in gr. 349/ch (detail of the head and chest of the skeleton).

Most of the graves with spangles are located in the southern part of the cemetery, and only one spangle was found in the northeastern part of the cemetery, in one of the northernmost excavated graves (gr. 271/?). The graves with finds of one or two circular hammered spangles of silver sheet metal are located within both southern zones (gr. 417/m, 425/ch), which suggests that this type of spangle was earlier in terms of the relative chronology than the later more massive and heavy spangles, usually cast in bronze.

#### 4.4.1.3. Button-pendants (G. 11a–b, 11b dif.; H. 58a,c–d, 59)

No.	Inv. AMZ	Metal	Type	Ht. (cm)	Ø (cm)	Wt. (g)	Grave (sex)	Position in the grave	Types of necklaces in graves with button-pendants
1.	2422	AE	2	1.47	0.93	1.334	2/dj	"height of the right collarbone"	metal pendants
2.	2473	AE	1a	1.48	0.85/0.8	2.526	41/ž	?	–
3.	2474	AE	1a	1.47	0.85/0.82	2.526	41/ž	?	–
4.	2488	AE	2	1.17	0.80	1.904	52/dj	?	beads and metal pendant
5.	2489	AE	3a	1.22	0.70/0.68	1.213	52/dj	?	as above
6.	2561	AE	3a	1.05	0.67	0.72	115/ž	"above the left collarbone"	beads and metal pendant
7.	2569	AE	1b	1.72	1.15/1.09	1.989	115/ž	"on the spine...by...the jaw"	as above
8.	2591	AE	1a/p	1.54	0.99	2.614	138/ž	"on the chest"	necklace of beads
9.	2592	AE	1a	1.62	0.72	3.869	138/ž	as above	as above
10.	2664	AE	1b	1.88	1.16	2.049	260/ž?	"on the neck"	–
11.	2685	AE	1b	1.73	1.10	1.441	280/m	"in the middle of the pelvis"	–
12.	2696	AE	3a	1.20	0.82	1.171	292/ž	"near the left collarbone"	–
13.	2760	AE	2	1.40	0.95	2.518	344/ž	"on the stomach"	–
14.	2764/2	AE	1a	1.57	0.81	2.785	347/dj	"on the neck"	necklace of beads
15.	2764/3	AE	3a	1.29	0.88/0.85	1.785	347/dj	as above	as above
16.	2764/4	AE	3b	1.16	0.70	1.066	347/dj	as above	as above
17.	2769	AE	1a/p	1.43	0.65	1.599	349/dj	"on the neck"	–
18.	2782	AE	1a	1.70	1.07/1.00	5.006	362/ž	"on the neck"	–
19.	2798	AE	1a	1.33	0.74	1.762	382/dj	"on the left collarbone"	metal pendant
20.	2836	AE	3a	1.24	0.74	1.245	409/dj	"by the left ear"	beads and metal pendant
21.	2853	AE	2	1.30	0.88	2.042	424/dj	"on the chest"	necklace of beads
22.	2878	AE	3a	1.87	0.85/0.78	1.344	444/dj	?	–
23.	2904	AE	1a	1.18	0.67	1.293	?	?	–
24.	2410/2	AE	1b	1.93	0.95	0.804	?	?	–

[Types of button-pendants: 1a – circular, solid; 1b – circular, two-part, hollow; 2 – lenticular, solid; 3a – mushroom-shaped, solid, undecorated; 3b – mushroom-shaped, solid, decorated with a seven-point star; p – profiled at the juncture of the loop for hanging and the body of the button-pendant]

\*Notes:

- 1. Damaged (deformed, part of the body missing).
- 2–3. Subsequent find after removal of the skeleton.
- 4–5. Subsequent find after removal of the skeleton.
- 6. Damaged (corroded).
- 7. Damaged (the halves separated, on one half part of the loop broken off).
- 10. Damaged (the halves separated, on one half part of the loop broken off).
- 11. Incomplete (one half missing).
- 23. Damaged (part of the loop missing); S-AMZ, no data.
- 24. Damaged (half missing); purchase, 1931–1935.

The site at Lijevo Bara was the source of 24 bronze button-pendants, only one of which had been acquired prior to archaeological excavation. The remaining 23 buttons were gathered during the course of the three year campaign of archaeological excavations, but nonetheless data is lacking for one of them: 22 button-pendants come from 16 graves, more from child (8) than female graves (7), and only one example was found in the center of the skeleton's pelvic area in a male grave (gr. 280). Only one button-pendant was found in 11 graves (68.75%), two button-pendants were found in 4 graves (25%), and three button-pendants in only 1 grave (6.25%). Among the graves with finds, graves with button-pendants represented a relatively small, but not insignificant 8.38%.

Button-pendants served primarily for fastening the upper part of clothing, which certainly was not always of the same pattern, given that a different number of buttons were found most often in the area of the left or right collarbone, somewhat more rarely in the area of the neck, and only occasionally on the chest of the skeleton (gr. 424/ch), in the pelvic area (gr. 280/m), or on the abdomen of the skeleton (gr. 344/f).

The predominant type is the one-part solid button of circular, lenticular, or mushroom shape (83.33%), while only four buttons are hollow, two-part, and circular (gr. 115/f, 260/f, 280/m, S-2910). Among the solid buttons (20 ex.), circular forms are most numerous (45%), followed by mushroom-shaped buttons (35%), and the least numerous lenticular buttons (20%). The only decorated button-pendant was mushroom-shaped (gr. 347). The two-part hollow buttons consisted exclusively of examples of identical, vertically joined halves (**Fig. 49:3.1a–3.3b**).

With a weight ranging from 1.006 to 1.785 g and an average weight of only 1.304 g, mushroom-shaped buttons were the lightest, as a rule no heavier than 1.5 g. The average weight of lenticular buttons was around two-thirds greater (2.1546 g). The average weight of circular solid buttons was almost a third greater than the average weight of the lenticular buttons, but despite a weight range of 1.599 to 5.006 g, the average was only a relatively low 2.836 g.<sup>562</sup>

The position of the find in the grave is documented, noted, and known for 17 button-pendants (73.91%). Most of them were found on the upper part of the body on the collarbones or nearby the collarbones (29.40%) and on the neck below the jaw (41.18%), while finds of buttons were considerably more rare on the chests of the skeletons (17.65%) or found on the lower part of the body in the area of the stomach and in the center of the pelvic area (11.77%). The diversity of the positions indicates a dual purpose of the button-pendants, which in the case of finds in the area of the left collar bone is usually defined as a button for fastening a shirt, dress, or some kind of cloak, while discoveries in the area of the neck or chest are considered a probable indicator that it belonged to a necklace, most often those composed of beads and various pendants.

Only rare button-pendants at Lijevo Bara (one or two) were found in a grave as the only grave finds (gr. 41/f, 280/m). They were much more common in graves with torcs (gr. 115/f, 138/f, 349/ch, 409/ch, 444/ch) and in graves with necklaces of beads (gr. 138/f, 347/ch, 424/ch), necklaces of beads and metal pendants (gr. 52/ch, 115/ch, 409/ch), and necklaces with metal pendants (gr. 2/ch, 382/ch), with bronze or silver circlets (gr. 115/f, 347/ch, 444/f) and S-circlets (gr. 260/f, 344/f, 349/ch), and in graves with finds of bracelets, more often light in weight (gr. 292/f, 382/ch), and more rarely heavy (gr. 444/f). Most frequently, however, button-pendants were found in graves with rings, primarily with later types, such as rings with an inset crown for a decorative stone of the "Vukovar – Bijelo Brdo" type (gr. 138/f, 292/f, 344/f), rings of circular section (gr. 115/f, 409/ch), and a ring of silver twisted wire (gr. 444/f), and more rarely with rings of banded section (gr. 138/f, 349/ch), and once each with a ring of arched section (gr. 362/f) and a ring with a crown of rhomboid shape of the "Vukovar – Budakeszi" type (gr. 347/ch). In addition to the above, button-pendants were found with a perforated bronze Roman coin (gr. 382/ch, 409/ch), with globular bell-pendants (gr. 115/f), button-like spangles for clothing (gr. 349/ch), and an isolated glass bead (gr. 424/ch), as well as with the rare find of an iron clasp and the fragment of silver sheet metal found with it (gr. 344/f). Together with a hoop of a silver filigree ring, and a thrice-perforated Byzantine gold coin, one button-pendant was used as part of the tripartite necklace of metal pendants (gr. 2/ch).

The button-pendants came from graves located in the southwestern and southeastern zones of the cemetery, and outside of these two zones, they were found in only two graves (gr. 115/f, 280/m), both located in the northeastern part of the excavated area of the cemetery.

#### 4.4.1.4. Cuff end (G. –; H. 67)

The broken and unfortunately unpreserved fragment of silver sheet metal found in the abdomen area of the female skeleton buried in gr. 344 probably belonged to the wrist of the right hand, which was where cuff ends were usually discovered

<sup>562</sup> Because of damage, four button-pendants were not included: the mushroom-shaped button-pendant from gr. 115 (S-2561), the lenticular button-pendant from gr. 2 (S-2561) and one solid circular button-pendant (S-2904), and one hollow circular button-pendant, both of the latter lacking data about the find (S-2910).

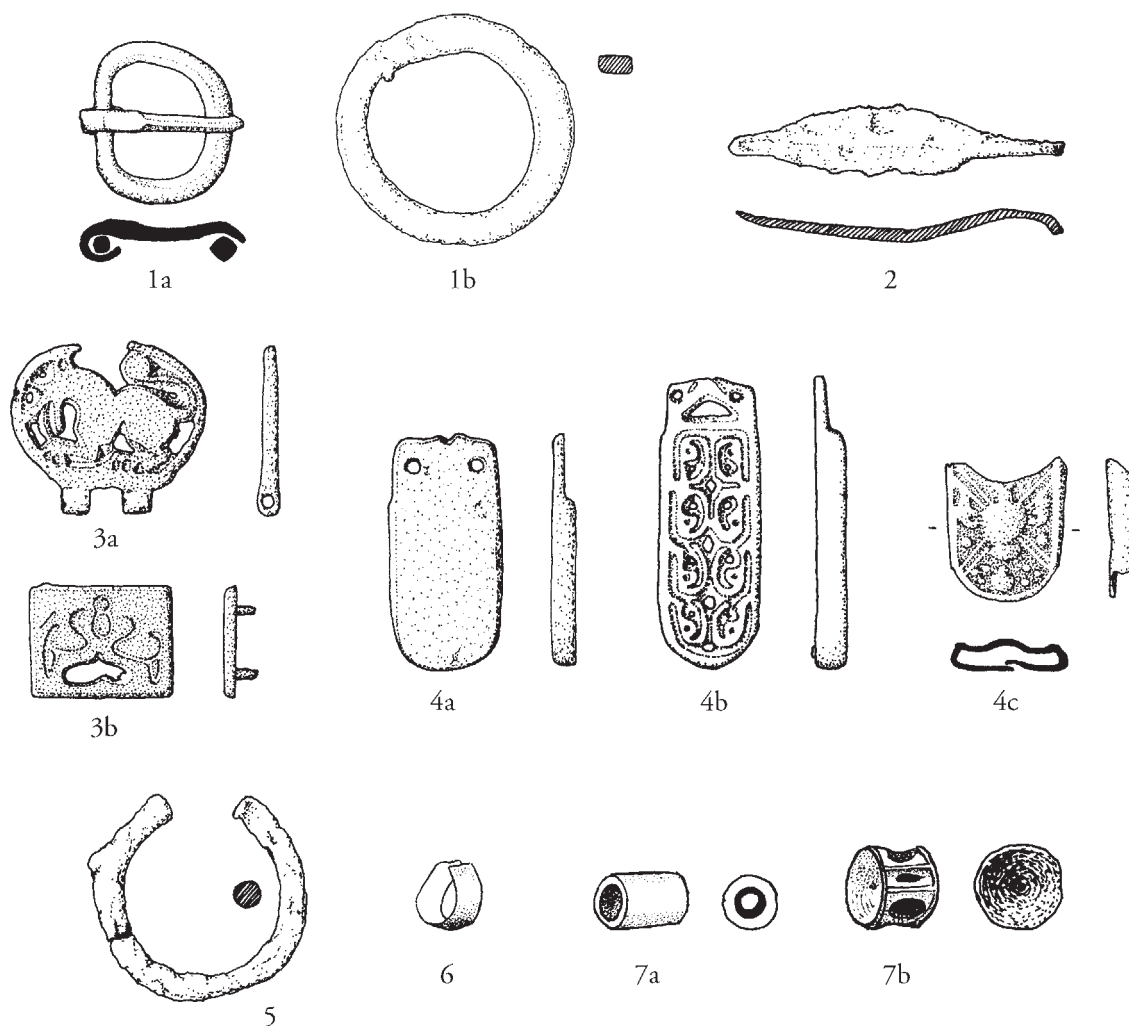


(Fig. 49:4).<sup>563</sup> These objects, adapted in appearance to the wrists, are rounded thin bands with open ends, made of thin and often poor quality silver sheet metal, with one or more holes for attachment perforated on the ends. The poor quality material from which they were made has caused them to be considered part of the funerary garments.<sup>564</sup> They are more often found in male warrior or rider graves, and in lesser numbers in female graves.<sup>565</sup>

The only find of a cuff end was noted at Lijevo Bara in the northwestern part of the southeastern zone of burial, in a grave that in addition to the cuff end contained a pair of large-format circlets (type I/8,5), a bronze lenticular button-pendant, a bronze ring of the "Vukovar – Bijelo Brdo" type, and a fragment of a rare iron leaf-shaped clasp with a hook for attachment.

#### 4.4.2. Belt elements

Belt elements consist of 20 objects found in 13 graves (ratio: 1.54), representing among graves with finds a small 6.81%.<sup>566</sup> The following came from mostly male or probably male graves (72.72%) and the occasional female or child grave: 3 buckles with a pin attached to the frame (15%), 3 clasps with a hook for attachment (15%), 2 belt mounts (10%), 3 strap ends (15%), 4 belt circlets (20%), 2 belt chapes (10%), and 3 beads of animal and fish bones (15%). All of this



**Fig. 53.** Belt elements, bronze, iron, bone (4.4.2.1–7). **1** – Buckles with a pin attached to the frame, bronze, iron (1a – D-shaped frame, bronze: gr. 400/m; 1b – circular frame, iron: gr. 237/m). **2** – Clasps with a hook for attachment, iron (gr. 344/f). **3** – Belt mounts, secondary use, bronze (3a – flat shape: gr. 71/m; 3b – square shape: gr. 53/m). **4** – Strap ends, secondary use, bronze (4a – undecorated half: gr. 71/m; 4b – decorated half: gr. 336/?; 4c – remodelled example: gr. 53/m). **5** – Belt circlets, iron (gr. 324/m). **6** – Belt chapes, bronze (gr. 409/ch). **7** – Beads, bone (7a – bead, animal bone: gr. 84/m?; 7b – bead, fish bone: gr. 367/m).

<sup>563</sup> For finds from Slovakia, Hungary, and Romania, particularly an interpretation of their purpose and possible origin, see REJHOLCOVÁ 1973, 211 (with earlier literature).

<sup>564</sup> NEVIZÁNSKY – RATOMIRSKÁ 1991, 274; HANULLAK 1994, 60.

<sup>565</sup> For a cuff end from one of the richer female graves at the cemetery of Marcelová in Slovakia, see LIPTAKOVÁ 1964, 239 Fig. 2:14, 240 (gr. 1).

<sup>566</sup> Graves: 17/m?, 19/? , 53/m, 71/m, 84/? , 237/m, 263/f, 324/m, 336/? , 344/f, 367/m, 400/m, 409/ch.

would indicate a somewhat greater proportion of belts made of fabric or string instead of leather.<sup>567</sup> A particularly unusual feature is the frequency of the secondary use of individual elements of late Avaric and early Hungarian belt sets and decorative elements of horse equipment (Fig. 53).

#### 4.4.2.1. Buckles with a pin attached to the frame (D-shaped frame, circular frame) (G. –; H. 64a)

No.	Inv. AMZ	Metal	Frame			Pin of the buckle			Wt. buckle	Grave (sex)	Circumstances of the find
			l.	w./ Ø	Ø/th.	l.	w.	th.			
1.	3817	Fe	–	3.12	0.25	–	–	–	6.851	237/m	by the skeleton
2.	3818	Fe	–	3.11	0.25	–	–	–	6.608	237/m	by the skeleton
3.	2440	AE	1.73	2.20	0.36–28	2.20	0.34–25	0.22–20	4.386	400/m	"on the pelvis on the left side"

\*Notes:

1–2. Circular frame; the grave finds consisted of: "two arrows, two circlets, and the frame of some wooden object" found "to the right of the skeleton, at shoulder height..." (Diary, ad 11 Aug. 1953), and "20 cm right of the upper arm and head" (Diary, ad 13 Aug. 1953; Records, no. 237/14 Aug. 1953).

3. D-shaped frame.

The only D-shaped buckle, single part, open, and with a very low frame with a moveable pin (Fig. 53:1a) – rare among grave finds of the Bijelo Brdo cultural sphere – comes from a male grave in which it was found "on the pelvis on the left side" as the only grave find (gr. 400).<sup>568</sup> It was made of bronze and not from iron, as was usual for Bijelo Brdo grave finds from the end of the 10<sup>th</sup> and beginning of the 11<sup>th</sup> century.<sup>569</sup> The grave in which the buckle was found was located in the southern part of the southeastern zone of burial (zone I).

The other two buckles were made of iron, with a closed frame, circular in shape with a rectangular section (Fig. 53:1b), and they were a part of the belt for hanging a quiver, next to which they were found (gr. 237/m).

#### 4.4.2.2. Clasp with a hook for fastening (belt hook) (G. –)

No.	Inv. AMZ	Metal	Shape of the body	Dimensions			Wt. clasp	Grave (sex)	Circumstances of the find
				l.	w.	th.			
1.	2440	Fe	straight/leaf-shaped	2.93	1.74	0.26	3.597	19/?	"in the pelvis area"
2.	2667	Fe	straight/rhomboid	5.54	1.01	0.20	2.283	263/f	"on the left side above the pelvis"
3.	2757	Fe	arched/leaf-shaped	4.48	0.90	0.16	1.613	344/f	"on the right side of the pelvis"

\*Notes:

1. Fragment, half of the body and loop missing.

2. Fragment, the loop and hook missing.

3. Fragment, the loop and hook missing.

Single part clasps with a hook for fastening consist of forms whose body consist of a thin oval or rhomboid, straight or arched, not particularly thin platelet, ending on one end with a loop bent upwards in the shape of the letter O or the letter S, and on the other end, on the opposite side, a bent hook for fastening (Fig. 53:2). Although such clasps are unusual among Bijelo Brdo culture material, at Lijeva Bara they were found in three graves: in one case in a grave located in the northwestern part of the cemetery (gr. 19/?), and in the other two examples, in graves located within the southeastern zone

<sup>567</sup> For similar observations much earlier, TÖRÖK 1962, 39.

<sup>568</sup> DEMO 1996, 55, 91 no. 53:1.

<sup>569</sup> TOČIĆ 1987, 199. – The bronze buckle from Vukovar can be joined by one supposedly secondarily used bronze buckle found in the Bosnian Sava Basin at the cemetery of Gomjenica – Baltine bare (gr. 39), MILETIĆ 1967, 87, 137, Pl. XXXII:18.

of burial (zone I), only some 10 meters distant from one another (gr. 263/f, 344/f). In the latter two graves, the clasps were found together with bronze and silver large-format circlets (type I,8/3 and I,8/5), with an open ring of semicircular section and a ring with a crown of the "Vukovar – Bijelo Brdo" type, and in the belt area together with a bone bead (gr. 263/f), and a button-pendant and an unpreserved fragment of silver sheet metal/cuff end (gr. 344/f).<sup>570</sup>

Finds of belt clasps shaped in this manner, frequently bronze, and more rarely iron or silver, are related to settlement sites of the Western Slavs, where they were found as grave goods in female and child graves.<sup>571</sup> Rare examples also appear at Bijelo Brdo cemeteries in Hungary, where they were apparently also found in female graves,<sup>572</sup> and the occasional example can be noted in the south of Croatia in the region of the Dalmatian Croats: in the Ravni Kotari region in the hinterland of Zadar, at the cemetery of Biljane Donje – Begovača, one damaged bronze example was found by the left arm of the skeleton (sic!) in a supposedly male grave (gr. 276),<sup>573</sup> and further to the north in Knin, at the cemetery of Knin – Brdo Spas, one damaged iron example was found by the right side of a female skeleton (gr. 217).<sup>574</sup>

#### 4.4.2.3. Belt mount (T. A6)

No.	Inv. AMZ	Metal	Dimenzije okova				Grave (sex)	Circumstances of the find
			l.	w.	th.	wt.		
1.	2491	AE	1.99	1.64	(0.45)	2.552	53/m	"on the right side on the chest"
2.	2511	AE	2.28	2.57	0.24	4.488	71/m	"on the stomach on the right side"

\* Notes:

1. Decorated with an incised design; th. of the platelet and rivets;
2. Incomplete (part of the mount broken off; pendant missing).

Belt mounts were found in two male graves (gr. 53, 71),<sup>575</sup> the first located in the northern part of the southeastern zone (gr. 53), and the second beyond it, 10 meters further north and almost in the very center of the excavated area of the cemetery (gr. 71). In both graves, the belt mounts were found in the waist area of the deceased, on the right side, and in one case on the stomach of the deceased (gr. 71), and in the other case slightly above the stomach and in the lower part of the chest of the deceased (gr. 53).

Both belt mounts were secondarily used cast mounts from different early medieval periods: one is an incomplete late Avaric (SPA I according to Daim) two-part bronze belt mount with an image of a griffon (**Fig. 53:3a; Pl. 9:3**), of which only the upper rounded section was used (gr. 71),<sup>576</sup> and the other was a square decorated belt mount of the Jumsk type (gr. 53/m),<sup>577</sup> unusual because of the carved decoration (tamghas?) around and above the heart-shaped perforation (**Fig. 53:3b; Pl. 9:1**). In contrast to late Avaric mounts, whose secondary use, although rare, is not unexpected considering their Pannonian origin, square mounts of the Jumsk type are of Asian origin, are very rare in the Carpathian basin, and are considered to belong either to the period of the arrival of the Hungarians (ca. 895/6),<sup>578</sup> or the period that more or less preceded this (9<sup>th</sup> century).<sup>579</sup> A belt mount identical to the one from Vukovar, dated to the 9<sup>th</sup>–10<sup>th</sup> centuries, was a chance find from the vicinity of Suvorova in the eastern Bulgarian Danube basin.<sup>580</sup>

<sup>570</sup> DEMO 1996, 55, 91 no. 53:2.

<sup>571</sup> KNORR 1970, 92–104; GABRIEL 1988, 206–209, 278–279; HEINDEL 1990, 29–32.

<sup>572</sup> *Gyula – Téglyvár*, gr. 79: BAKAY 1978, 179 Pl. LXIV:14 (all of the objects without any description whatsoever; in addition to a clasp with a hook for attachment – the material not cited – a button-pendant and a circlet were also found in the grave). *Hajdúszoboszló – Árkoshalom*, gr. 39: NEPPER 2002 (1), 65 no. 3; (2), 35 Pl. 29:8 (other than an iron clasp with a hook for attachment, a hollow bronze button-pendant and an iron circlet were found in the grave). *Székesfehérvár – Sárkereszturi ut.*, gr. 12: BAKAY 1966, Pl. XLV:9 (other than the bronze clasp with a hook for attachment a bracelet and 4 spangles in the shape of an owl head were found in the grave).

<sup>573</sup> JELOVINA – VRSALOVIĆ 1981, 85, 125–126, Pl. XIX (gr. 276), where the find was interpreted as a bronze heart-shaped arrowhead with a bent tang.

<sup>574</sup> JELOVINA 1991, 151, 217, Pl. XX:16. – Of settlement finds, an example was mentioned from the Byzantine fortress of Bisericuța – Garvăn, obj. 177 (Romanian Dobrudja): BARNEA 1967, 295 Fig 173:27, 299; BARNEA 1973, 303, Fig. 15:5 (bronze clasp).

<sup>575</sup> DEMO 1996, 55, 72, no. 18:1, 19:1. For the partial publication of these finds, see VINSKI 1962, 102.

<sup>576</sup> DAIM 1987, Pl. 3.

<sup>577</sup> SCHULZE-DÖRRLAMM 1991, 384–387, 454–455 (List 6).

<sup>578</sup> KOVÁCS 1981, 89–90.

<sup>579</sup> SCHULZE-DÖRRLAMM 1991, 387.

<sup>580</sup> PLETNJOV – PAVLOVA 2000, 27–29, 115, 135 no. 29, 193 Pl. II:29 (= Type AII/6c). – For two similarly decorated mounts of the *Jumsk type* from a destroyed warrior grave at Budaörs – Tűzkőhegy near Budimpešte (Pest County), IRÁSNÉ-MELIS 1992, 97 (Fig. 2:14–15), 98, 100.

#### 4.4.2.4. Strap ends (T. A6)

No.	Inv. AMZ	Metal	Dimensions of the strap ends				Grave (sex)	Circumstances of the find
			l.	w.	th.	wt.		
1.	2492	AE	1.84	1.58	0.44	2.033	53/m	"on the left side...above the stomach"
2.	2512	AE	3.14	1.95	0.35	5.788	71/m	"on the stomach... on the left side"
3.	2753	AE	3.83	1.32	0.38	6.358	336/?	–

\* Notes:

1. Shortened and remodelled; decorated.
2. Incomplete (second half missing); undecorated.
3. Incomplete (second half missing); decorated; found in the soil of the grave.

Strap ends were found in only three male or probably male graves (gr. 53, 71, 336),<sup>581</sup> but in each of them as a object secondarily used for the same purpose or as a partially remodelled object: in two graves parts of minor bronze strap ends from late Avaric belt sets were secondarily used as strap ends (gr. 71, 336; **Fig. 53:4a–b; Pl. 9:4**), and in one grave a remodeled, bronze, gilded harness end of early Hungarian horse equipment was reused as a belt strap end (gr. 53; **Sl. 53:4c; Pl. 9:2**). In two graves the strap ends were found in the waist area, as could be expected on the stomach on the left side of the deceased (gr. 53, 71), while for the third strap end the position of the find in the grave is not known (gr. 336).<sup>582</sup> All three graves were located in or gravitated towards the southeastern zone of burial (zone I), but graves 53 and 336 were located in the very center of the southeastern zone of burial, and grave 71 somewhat more to the north in the central zone of burial (zone III).

Only half of both late Avaric cast, two-part, side strap ends were present. One half belonged to the undecorated (?) side of a thickset strap end with a rounded bottom (gr. 71),<sup>583</sup> and the other to a group of slim strap ends decorated with a scaled pattern of tendrils such as are attributed to phase IIIa of the late Avaric period (according to Daim),<sup>584</sup> and other than at Lijeva Bara (gr. 336),<sup>585</sup> they have been noted throughout the Carpathian basin at a further thirty some sites.<sup>586</sup> The early Hungarian strap end for a harness was shortened at least by a third in relation to its probable original appearance.

#### 4.4.2.5. Circlet (belt) (G. –)

No.	Inv. AMZ	Metal	Diameter		Weight (g)	Grave (sex)	Circumstances of the find
			circlet	wire			
1.	2438	Pb	(2.50)	0.50	(2.966)	17/m	"under the left forearm"
2.	2736	Fe	(2.96)	0.45	(2.175)	324/m	"above the upper right arm"
3.	2737	Fe	3.50	0.60	5.091	324/m	"below the pelvis on the right side near the spine"
4.	2752	AE	ca. 3.785	0.35	7.303	336/?	"on the right side of the head"

\* Notes:

1. Fragment broken into three parts.
2. Fragment, half missing.
3. Broken into three parts.
4. Elongated irregular form (dim. 4.16/3.41 cm = Ø ca. 3.785 cm).

One lead and two iron circlets were found in the waist area in two male or probably male graves (gr. 17, 324), and the only bronze circlet on the right side of the head of a poorly preserved and considerably disturbed skeleton (gr. 336/?). Such circlets belonged on a belt, where – like the similar Avaric period belt circlets<sup>587</sup> – they were fixed to suspend and carry

<sup>581</sup> VINSKI 1955, 241; VINSKI 1959, 103–104.

<sup>582</sup> The field record *Zapisnik*, no. 336/25 Aug. 1953, noted "it was tossed out with the soil prior to cleaning of the skeleton."

<sup>583</sup> DEMO 1996, 55, 72 no. 19:2.

<sup>584</sup> DAIM 1987, Pl. 3.

<sup>585</sup> VINSKI 1955, Fig. 23; VINSKI 1959, Pl. XXXVIII:23; VINSKI 1962, 102.

<sup>586</sup> For the list of sites, see KISS 1996, 221 (Fig. 36:103), 226, 316 List 29.

<sup>587</sup> In more detail: LIPPERT 1969, 58.

one or more objects of everyday use (Fig. 53:5).<sup>588</sup> The lead circlet was found in a grave together with a secondarily used prehistoric flint scraper (gr. 17/m), and the two iron circlets were found together with an open bronze ring of banded section and an iron knife with a straight spine bent downwards towards the tip (gr. 324/m). The bronze circlet comes from a grave whose fill contained a late Avaric belt strap end, while during removal of the skeleton a fragment of an iron frame of a quiver was found, and the circlet was probably related to this (gr. 336/?).<sup>589</sup> The graves with belt circlets are located in different, very distant parts of the cemetery: the first in the northwestern part of the cemetery (gr. 17/m), the second two in the northern (gr. 336/?) and far southeastern sections of the southeastern zone of burial (gr. 324/m), and according to the latter – in contrast to the previous two – belonged to burials from the first decades of the 11<sup>th</sup> century.

#### 4.4.2.6. Belt chapes (G. –)

No.	Inv. AMZ	Metal	Dimensions of the chapes				Grave (sex)	Circumstances of the find
			diameter	ht.	th.	wt.		
1.	2837/1	AE	1.07/0.84	0.65	0.05–0.09	0.737	409/ch	"one each on the left and right sides of the pelvis..."
2.	2873/2	AE	1.00/0.92	0.47–0.38	0.12	0.773	409/ch	"one each on the left and right sides of the pelvis..."

Two chapes of non-uniform size and shape – one elliptical, and the other oval – were found in the waist area "on the left and right sides of the pelvis" of the child skeleton buried in gr. 409 (Sl. 53:6).<sup>590</sup> They were made from bronze bands of varied thickness with cut ends that overlap. The purpose of these bands is not entirely clear,<sup>591</sup> but the position in the grave indicates a connection with the belt, whether in a decorative or functional sense.

The grave with the belt chapes was located in the far southern part of the southeastern zone of burial (zone I), and considering the accompanying finds, it would have belonged to the early 11<sup>th</sup> century (torc, necklace of glass beads with a metal pendant, a button-pendant, a ring with a crown).

#### 4.4.2.7. Beads (belt) (V. V/37, V/37 dif.)

No.	Inv. AMZ	Material bone	Form of bead (from: Szilágy)	Dimensions				Grave (sex)	Position of the find in the grave
				Ø	d2	ht.	wt.		
1	2519	animal	03/06 1 12/06	0.77	0.38	1.00	0.925	84/m?	"on the right forearm"
2	2668	animal	03/06 1 12/06	0.74	0.43	1.13	0.818	263/f	"on the right side of the pelvis"
3	2900	fish	03/05 2 12	1.16	–	0.83	0.569	367/m	"by the right side of the pelvis"

\*Notes:

1. Position of the forearms: the right bent horizontally across the stomach, the left extended along the body (v.3).
2. Position of the forearms: bent at an angle downwards across the abdomen (v.7).
3. A caudal (tail) vertebra, unworked; position of the forearms: the right bent at an angle downwards across the abdomen, the left horizontally bent across the stomach (v.12).

At Lijeva Bara as many as three graves contained beads found in the waist area, on the pelvis or by the pelvis of the skeleton – one bead each in one female grave (gr. 263), one male grave, and one probably male grave (gr. 84, 367). All three beads were found on the right side of the waist or to the right of the pelvis of the skeletons, all were of small dimensions,

<sup>588</sup> MARJANOVIĆ-VUJOVIĆ 1989, 24, for the find from the early medieval cemetery of Beograd – beogradski Donji grad, western suburbium (gr. 34). For similar finds from the cemetery of Trnjane – Staro groblje in the lower Serbian Danube basin (the hinterland of Požarevac), MARJANOVIĆ-VUJOVIĆ 1984, 20, 52, 55, Pl. VI:6 (gr. 80), XXV:2–3 (gr. 326), XXVI:5 (gr. 342). – For rare examples of circlets from the cemetery of Majs – Udvari rétek, KISS 1983, 323 Pl. 15 (gr. 50), 365 Pl. 57 (gr. 670). For a circlet with a hook found in a female grave together with a knife not far from the head of the deceased at the cemetery of Halimba – Cseres (all in a non-functional position), see TÖRÖK 1962, 155, Pl. XXXI (gr. 536). A circlet on a knife handle can be recognized among the drawings of grave finds from the cemetery of Szentés – Szentlászló, SZÉLL 1941, Pl. V:19 (gr. 63).

<sup>589</sup> A similar purpose can be attributed to a bronze circlet of somewhat smaller diameter from the cemetery of Karos – Eperjesszög III, gr. 11: RÉVÉ-SZ 1996, 36, 343 (Pl. 120:25).

<sup>590</sup> DEMO 1996, 86 no. 43:7–7a (s.v. "Karika-privjesak").

<sup>591</sup> A similar belt chape noted at the cemetery of Dubník – Bundaš in the Danubian part of southern Slovakia was a chance find from one of the destroyed graves, REJHOLCOVÁ 1988, 439 no. 13, 450 (Pl. III:10).

very light, and of a cylindrical or mostly cylindrical shape: two were made of animal bones (gr. 84/m?, 263/f; **Fig. 53:7a**), and the third was an unworked caudal vertebra from a fish (gr. 367/m; **Fig. 53:7b**).<sup>592</sup> In the female grave the cylindrical bead of animal bone was found together with a large-format bronze cirlet, an open bronze ring of semicircular section, and an iron clasp with a hook for fastening (gr. 263), while a cylindrical bead of animal bone and a bead-vertebra were the only grave finds in one male grave (gr. 367) and one probably male grave (gr. 84). The graves with the animal bone beads were located in various parts of the cemetery, one in the western part of the northern zone of burial (gr. 84/m?), and the second in the southeastern zone of burial (gr. 263/f). The only example of a bead-vertebra came from a grave located in the southern part of the southwestern zone of burial (zone IV).

Finds of beads in the waist area have been noted in the female graves of the early phase of the late Avaric period,<sup>593</sup> but they are unusual and rare for the several centuries later cemeteries of the Bijelo Brdo cultural sphere,<sup>594</sup> where other kinds of pendants were usually found by the skeletons in the area of the belt (such as bronze globular bell-pendants).<sup>595</sup> The late Avaric finds of beads discovered in the waist area are considered talismans or decorative additions to leather or linen purses or even the belt attachments for them,<sup>596</sup> so the examples from Lijeva Bara, particularly because of the fish vertebra<sup>597</sup> – but also the globular bell pendants in those places where they were found – could have an identical or similar role assigned to them.

## 4.5. Objects of cult character

### 4.5.1. Pottery (fragments of pottery vessels)

(G. –; H. 70 dif.)

No.	Inv. AMZ	Dimensions of the vessel (cm)							Grave (sex)	Circumstances of the find
		ht.	ht.1	Ø1	Ø2	Ø3	Ø4	th.		
1.	3356	–	–	–	–	–	–	0.59	7/?	"nearby the skeleton"
2.	3469	15.4	10.8	14.33	11.9	16.1	7.96	0.51	60/ž	"in cremation grave 25... next to frag. Hallstatt pottery"

\* Notes:

1. Dim. 5.45 x 5.40 cm; *finds*: two bronze closed rings of triangular and semicircular section and one bronze open ring of banded section.

2. Dimensions of the vessel after reconstruction,<sup>598</sup> *finds*: a bronze cirlet (G. I,6/2) and two bronze open rings of banded and arched section.

<sup>592</sup> The identification of the caudal vertebra was made by Jakov Radović, MA, of the Croatian Natural History Museum in Zagreb (12 May 1999), and I would like to thank him very much on this occasion.

<sup>593</sup> GARAM 1995, 328, 331–333, cited data for the finds of belt beads from the Avaric cemetery of Tiszafüred – Majoros in the Hungarian central Tisza basin.

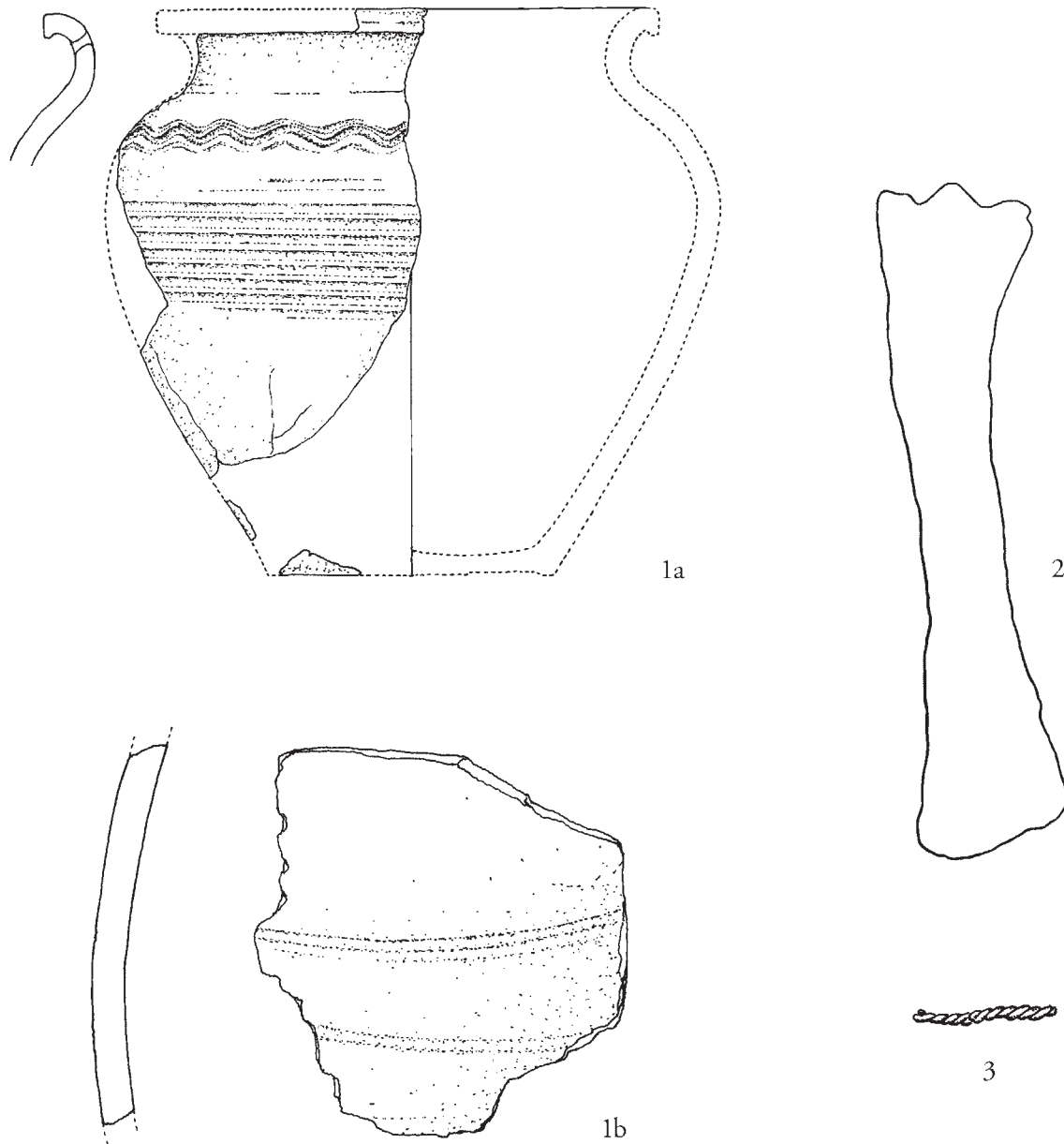
<sup>594</sup> For the find of glass beads "under the pelvis" of the skeleton from gr. 158 at Bijelo Brdo – Ul. Venecija, see BRUNŠMID 1904, 43 (Fig. 8:5), 68.

<sup>595</sup> At the cemetery of Gomjenica – Baltine bare a bronze globular bell-pendant was found in the waist area in one child grave and one male grave: in the first as the only grave find by the right pelvis bones (gr. 98), and in the other in a bone container together with a bone needle and iron knife (?) by the left pelvis bones (gr. 109). For the finds, MILETIĆ 1967, 95–96, 132, Pl. XX.

<sup>596</sup> GARAM 1995, 332.

<sup>597</sup> A similar position of two fish vertebrae was noted in Slovakia in a child grave at the cemetery of Somotor – pod Pastviskom, gr. 10: PÁSTOR 1955, 278, 284 Pl. I:12 (the cemetery dated from the second half of the 11<sup>th</sup> to the beginning of the 12<sup>th</sup> century). At the cemetery of Windegg – Donaubundesstrasse (Oberösterreich), dated to the first half of the 9<sup>th</sup> century, three fish vertebrae were found by the skeleton of a young male, where together with an iron awl, iron tighteners, and one other massive piece of iron, they supposedly represented the contents of a purse found on the inner side of the left forearm of the deceased (gr. 7), TOVARNIK 1977, 39 Fig. 4:5, 40 and 51. – Finds of fish vertebrae are much more common in the area of the neck or head of a skeleton. In Slovakia at the cemetery of Čakajovce – Kostolné fish vertebrae were found in the area of the chest and neck of a child (gr. 457), and were interpreted as amulets that were most probably hung on a necklace, REJHOLCOVÁ 1995, 50, 163 Pl. LXXIII:5–6, 82 and 115. A similar interpretation could be made of the find of a fish vertebra at the only partially excavated cemetery from the second half of the 10<sup>th</sup> century at Szegvár – Szőlőkalja in the Hungarian lower Tisza basin, where in the grave of a young female a fish vertebra was found near the right collarbone (gr. 44), LŐRINCZY 1985, 144 (Fig. 3:22), 147 and 149 (Fig. 7:6). The find of a fish vertebra was interpreted as part of a "probably larger necklace" from the cemetery of Kranj-farna cerkev in Slovenia (gr. 250), KOROŠEC 1979, 80, Pl. 21:5b. A necklace from the cemetery of Trnjane – Staro groblje in the Serbian Danube basin (vicinity of Požarevac) consisted in addition to beads and cowrie shells of a fish vertebra, whose appearance on the necklace was not interpreted as enriching the necklace with yet another decoration but rather a belief in the supernatural power of this object, MARJANOVIĆ-VUJOVIĆ 1984, 75, Pl. VI:3 (gr. 129). A fish vertebra can also be noted among the finds from the Bijelo Brdo and late medieval parish cemetery of Klisa – Kliško groblja south of Osijek in eastern Slavonia (Hr), but the context and circumstances of the find have not been published, BOJČIĆ 1984, 218 Fig. 6 (right, upper). – For fish vertebrae as pagan amulets noted at some Avar period graves in Hungary, VIDA 2002, 181, 187, 199 Pl. 4:1,3. In contrast to this, a complete or partially complete fish skeleton, as a reliable sign of the placement of traveling provisions, was noted, for example, in male grave 185 at the early Slavic cemetery of Gusen – Berglitzl in Upper Austria dated to the 9<sup>th</sup> century (TOVARNIK 1975, 57, 66, Pl. V:5) or in female grave 54 at the Avaro – Slavic cemetery of Pókaszepetk – Pókafai temető in western Hungary (SÓS – SALAMON 1995, 22, 141).

<sup>598</sup> The dimensions vary in relation to those measured prior to reconstruction, see DEMO 1996, 78 no. 29/4; SEKELJ-IVANČAN 2001, 90 n. 15 (type A.1a).



**Fig. 54.** Objects of cult character, pottery, bone (4.5.1.1–2). **1** – Pottery, fragments of pottery vessels (1a – large fragment of a vessel, M1:2: gr. 60/f; 1b – small fragment of a vessel, M1:1: gr. 7/?). **2** – Osteological remains of provisions for the deceased, bone, ca. M1:3 (gr. 346/?). – Object of unknown purpose, silver (4.6.1.1). **3** – Wire, fragment, silver, M1:1 (gr. 309/ch).

Pottery finds – in fact the fragments of shattered early medieval vessels – were noted in only two graves, both with finds and both located in the central part of the western half of the cemetery: the first in gr. 7/? (the skeleton on its back, extended), and the other in female gr. 60 (the skeleton on its side, contracted at the knees).<sup>599</sup> In both cases, insufficient attention was paid to the pottery fragments during excavation, so that the position of the finds in the grave was not specifically cited, but on the basis of the records and notes from the field it is apparent that one small "fragment of early medieval pottery with a decoration of straight lines" was found near the skeleton buried in gr. 7/? (quadrant XIII/11c–d),<sup>600</sup> while during the excavation of the prehistoric cremation grave 25, located adjacent to the leg of the female skeleton in medieval grave gr. 60/f (quadrant XIV/7a–b,d) they found "in addition to fragmentary Hallstatt pottery, also two large fragments of Slavic pottery of the "gradišne" type (phase IV according to Poulik)."<sup>601</sup>

The discovered pottery fragments would indicate the usual forms of small medieval pots, with walls decorated with a double row of grooved straight lines (gr. 7/?) or a combination of wavy and horizontal lines, supplemented by a relief image of a cross on the outside base of the vessel, and a grooved double row of wavy lines on the interior side of the rim, where holes for suspensions had been perforated from the inside towards the outside (gr. 60/f).

<sup>599</sup> DEMO 1996, 55, 78.

<sup>600</sup> The field diary *Dnevnik*, ad 6 Sept. 1951; DEMO 1996, 55 n. 173.

<sup>601</sup> The field diary *Dnevnik*, ad 30 Aug. 1952; DEMO 1996, 55 Fig. 38, 56, 78 no. 29/4. – VINSKI 1955, 240; VINSKI 1959, 103, set forth the claim that at Lijevo Bara "the otherwise typical Slavic pottery was not established" in a single grave, although he noted and recorded the finds of "several dislocated fragments" of early medieval pottery in the fill of quadrant XIV/7b–d, but did not succeed in comparing them to the data from the field diary and connecting them to the deceased buried in medieval grave 60/f.

It is common that the grave finds of fragments of deliberately shattered pottery vessels be attributed to burial rituals that had incorporated a funerary feast over the grave or in the vicinity of the deceased's grave. The ritual consisted of breaking the vessel(s), placing it in complete or partial form alongside the deceased, or tossing one or more fragments into the fill of the grave pit.<sup>602</sup> Although this custom was common in many early medieval Slavic regions and was certainly not entirely identical everywhere, at the Bijelo Brdo culture cemeteries it exhibits a recognizable chronological stratification, so that in contrast to the smaller pottery fragments placed in the Bijelo Brdo Culture graves dated the 11<sup>th</sup> century, as a rule one comes across large fragments of the rim, body, or base of the vessel in the earlier Bijelo Brdo graves.<sup>603</sup> This earlier manner of placing large fragments of a vessel can be seen by the foot of the skeleton in gr. 60/f (Fig. 54:1a), located within the southeastern zone of burial,<sup>604</sup> and the small pottery fragment found in gr. 7/ch (Fig. 54:1b), located in the northeastern part of the cemetery, certainly reflects the slightly later and perhaps even somewhat modified beliefs apparent in certain southern Pannonian areas, if not at the end of the 10<sup>th</sup> century, then certainly in the first decades of the 11<sup>th</sup> century.<sup>605</sup>

#### 4.5.2. Osteological remains of provisions for the deceased (mammals, birds) (G. –; H. 72)

No.	Inv. AMZ	Osteological remains of provisions			Grave (sex)	Circumstances of the find
		division	species	part of the skeleton		
1	–	mammal	–	shoulder-blade	28/ch	"near the left shin...the shoulder-blade of an animal" <sup>606</sup>
2	–	bird?	–	–	30/ch	"a little distant from the right arm... tiny bones (bird?)" <sup>607</sup>
3	–	mammal	cattle?	–	48/f	"above the left shoulder...bones, probably of cattle" <sup>608</sup>
4	–	bird?	–	–	132/m?	"(bird bones) found on the chest" <sup>609</sup>
5	–	mammal	horse	right tibia	346/?	"on the left side, 15 cm from the forearm" <sup>610</sup>
6	–	mammal	cattle	right metatarsus	395/f	"by the pelvis on the right side" <sup>611</sup>

\*Notes:

- The only find in the grave.
- Finds*: a pair of small-format bronze circlets (G. II,5/1) and open bronze rings of banded and arched section (decorated). (III), a ring with a crown of the Vukovar – Bijelo Brdo type and an open bronze ring of banded section.
- Finds*: a pair of iron large-format circlets (G. I,7/3) and one bronze small-format circlet (G. II,5/1), a necklace with one bead, a pair of bracelets with cut and tapered ends of light (II) and heavy weight
- The only find in the grave.
- The only find in the grave.
- Finds*: an open bronze ring of arched section (decorated).

<sup>602</sup> This is discussed in various manners by KARAMAN 1940, 27; POULÍK 1948, 77–79; HRUBÝ 1955, 100–101; EISNER 1966, 440.

<sup>603</sup> REJHOLCOVÁ 1995, 18, 103. – In contrast to the placement of fragments of deliberately broken vessels, during the second half of the 10<sup>th</sup> century, the custom was present in places of placing entire vessels as part of the travelling provisions. An example of the truly frequent placement of entire pottery vessels in graves at that time is offered, for example, by the cemetery of Tímár – Béke TSz majorja I–II in northeastern Hungary (Szabolcs-Szatmár County), KOVACS 1989a, 125–157.

<sup>604</sup> Additionally, from Novi Vukovar (Županijska Street) comes one more grave find of large pieces of a pottery vessel (nine fragments of the neck and walls) found in one of the few excavated graves of this second Bijelo Brdo cemetery in Vukovar discovered by chance in the 1960s. The position of the finds in the grave was not noted (gr. 3). For basic data about this and other finds (two rings and one S-circlet), see DORN 1980, 204, 208, 212 (Pl. II:2). Large fragments of two broken pottery vessels were found placed, one by the head, and the other by the right foot, by the child skeleton buried in gr. 107 at the cemetery of Petoševci – Bagruša south of the Sava River in the Bosnian Sava basin, ŽERAVICA 1986, 146–147. A find of a small pottery vessel with a broken off rim comes from the same cemetery, but it is not entirely clear whether it was placed in a damaged state in the grave or the damage occurred during archaeological excavation (gr. 99; adult male). The vessel contained provisions found in the form of tiny bones (op. cit. 145–146). A similar damage to the rim, however, was also present on two pottery vessels placed in graves 49 and 51 at the cemetery of Bijelo brdo – Ul. Venecija. In addition to this vessel, gr. 49 also contained a rim fragment from another pottery vessel, BRUNŠMID 1904, 36 (Fig. 4:1–2), 55.

<sup>605</sup> Small fragments of prehistoric, Roman period, and early medieval pottery vessels were often noted among the finds from the geographically nearby but chronologically somewhat later cemetery of Bijelo Brdo – Ul. Venecija, dated primarily to the 11<sup>th</sup> century, see BRUNŠMID 1904, 53–75 (gr. 24, 49, 57, 105, 145, 151, 162, 173, 175, 180, 181, 182, 183, 184, 185, 186, 189, 194, 196, 198, 200, 206 and 232). The mentioned finds from Bijelo Brdo, although recorded, partly described, and published, are only to a small extent preserved in the AMZ (part of these finds should be located in Osijek in the Museum of Slavonia). The finds from the cemetery of Gomjenica – Baltine bare in the Bosnian Sava basin (BiH) indicate a custom of placing small fragments of pottery vessels also at several southern Pannonian cemeteries created at the end of the 10<sup>th</sup> century and with continuity throughout the first decades of the 11<sup>th</sup> century. The fragments of pottery vessels were more often noted there in graves with a large number of finds (gr. 23, 43, 76, 103 and 192), and appeared quite rarely as the only grave find (gr. 89), MILETIĆ 1967, 85, 88, 93–95, 105, 133. A similar custom was also noted at the still unpublished complex cemetery of Đakovo – Svi Sveti in eastern Slavonia (Hr), where the Bijelo Brdo graves were mixed and overlaid with more numerous (?) late medieval burials. A different explanation was offered for the discovered fragments of early medieval pottery vessels discovered in the NBijelo Brdo graves there, FILIPEC 2002, 142–145.

<sup>606</sup> The field diary *Dnevnik*, ad 13 Sept. 1951. On the photographs of gr. 28 and 30 it is evident that the bones of the animal shoulder blade at some point prior to the photograph had been moved to the extent that they were mixed with the bird bones placed by the right elbow and forearm of the skeleton buried in gr. 30.

<sup>607</sup> The field diary *Dnevnik*, ad 13 Sept. 1951.



Food, primarily consisting of meat, belonged among the grave goods that were placed in the grave during the burial as traveling provisions for the deceased. Such remains, where the bones of domesticated chickens often predominate, and more rarely the bones of swine and other domestic animals (such as sheep, goats, cattle),<sup>612</sup> were found at Lijeva Bara in only six graves (1.37%), with a share among graves with finds of 3.14% (Fig. 54:2).<sup>613</sup> Here, however, the bones of mammals were found in four graves (gr. 28/ch, 48/f, 346/?, 395/f), with bird bones in only two graves (gr. 30/ch, 132/m?).<sup>614</sup> For four examples (gr. 28/ch, 30/ch, 48/f, 132/m?), the unpreserved osteological material and the insufficiently precise photographs of the grave meant that it was impossible to perform any paleo-zoological observations or analyses, and it was impossible to establish to what animal or bird species the bones would have belonged. In two cases, thanks to the photographs, it was possible to distinguish that in gr. 346/? by the left forearm of the deceased the right *tibia* of a larger animal had been found, most probably from a young horse, and on the right side of the pelvis in gr. 395/f the right *metatarsus* of a cow (Fig. 55:1–2).<sup>615</sup> For the remaining finds, it can only be suggested, as was the case at other contemporaneous cemeteries, that the bird bones could have been from domestic chickens (gr. 30/ch, 132/m?), the larger animal bones to cattle or swine (gr. 48/f), while the smaller animal bones would have been from sheep or goats (gr. 28/ch).

The bone remains of food in the form of meat were found at Lijeva Bara usually by a forearm or in the vicinity of a forearm or the pelvis of a skeleton, more often on the right (gr. 30/ch, 395/f) than the left side (gr. 346/?), while in individual cases, the bones were placed in the vicinity of the left shin (gr. 28/ch), on the chest (gr. 132/m?), or even above the left shoulder, nearby the head of the skeleton (gr. 48/f). In three cases, the osteological remains of the "travelling provisions" represented the only grave find (gr. 28/ch, 132/m?, 346/?), while in the other three cases, the bones were found in the grave along with other objects (gr. 30/ch, 48/f, 395/f), primarily jewellery characteristic for the later 10<sup>th</sup> century (heavy bracelets with cut and tapered ends, and rings with a crown of the Vukovar – Bijelo Brdo type).

Most of the graves with osteological remains of provisions were located in the southeastern zone of burial (83.33%), where they formed a not very large group of graves close to one another concentrated in the northwestern section of this zone (gr. 28/ch, 30/ch, 48/f, 346/?), with only one twenty-some meters distant grave located in the southern part of the southeastern zone of burial (gr. 395/f). Beyond this zone, the only osteological find of provisions came from a grave located in the northeastern part of the central zone of burial (gr. 132/m?).



Fig. 55. The position of finds of osteological remains of provisions for the deceased. 1 – Gr. 346/? (detail of the upper part of the body). 2 – Gr. 395/f (detail of the waist and lower part of the body).

<sup>608</sup> The field record *Zapisnik*, no. 48/27 Aug. 1952.

<sup>609</sup> The field record *Zapisnik*, no. 132/19 Sept. 1952.

<sup>610</sup> The field record *Zapisnik*, no. 346/25 Aug. 1953, mentions finds of animal foot bones "...on the left side, 15 cm from the forearm, at an 8 cm higher level".

<sup>611</sup> The existence of animal bones placed by the pelvis of the skeleton is confirmed only by the photograph of the grave (Fig. 55:2).

<sup>612</sup> AMBROS 1979, 166, with data referring to finds from the 6<sup>th</sup>–13<sup>th</sup> centuries in the Czech Republic and Slovakia.

<sup>613</sup> At Bijelo Brdo, for instance, the bone remains of food of meat were noted only in graves 9 and 105, and for the latter it was specifically noted that they were found "somewhat further above the head", BRUNŠMID 1904, 52 f., 61.

<sup>614</sup> DEMO 1996, 40, where only some of the graves noted here were mentioned. For finds of fish bones see here p. 544 n. 597.

<sup>615</sup> The bone material is not preserved. On the basis of the photographs, the identification of the animal bones from grave 346/? and 395/f was carried out in September 1998 by the recently deceased Dr. Mario Jurišić of the Department of Archaeology of the State Institution for the Protection of the Cultural and Natural Heritage, whom I remember with gratitude on this occasion. – A note should be mentioned here from the field diary (*Dnevnik*), marking the find in the earth above a leg of the skeleton in gr. 297/? of dislocated animal bones, which were said "not to represent an archaeological find" (ad. 17 and 19 Aug. 1953). A similar find was noted at the cemetery of Bijelo Brdo – Ul. Venecija, where dislocated horse bones were found near the leg of the skeleton in gr. 145, BRUNŠMID 1904, 66.

## 4.6. Object of unknown purpose

### 4.6.1. Wire

(G. –)

No.	Inv. AMZ	Metal	Dimensions of the fragment (cm)			Wt. (g)	Grave (sex)	Circumstances of the find
			l.	Ø wire	Ø role			
1.	2707	AR	2.19	0.20	0.10	0.242	309/ch	"on the chest"

\* *Note:*

1. A fragment, subsequently broken into two parts (l. 1.26 + 0.93 cm).

The only object of unknown purpose was a fragment of a curved silver wire of circular section, created by rolling up two thin wire rolls of circular section (**Fig. 54:3**). The object was discovered "on the chest" of a poorly preserved child skeleton (gr. 309),<sup>616</sup> but the majority of the finds, the position of the find in the grave, and the scarce data in the field documentation do not indicate its possible actual purpose.<sup>617</sup>

<sup>616</sup> The field diary *Dnevnik*, ad 19 Aug. 1953; *Zapisnik*, no. 309/21 Aug. 1953.

<sup>617</sup> A similarly formed silver wire was used to make the hoop of a damaged ring discovered at the cemetery of Čakajovce-Kostolné (Slovakia), in gr. 321A on a finger of the right hand of the female skeleton, REJHOLCOVÁ 1995, 34, 71, 143 (Pl. LIII:3).

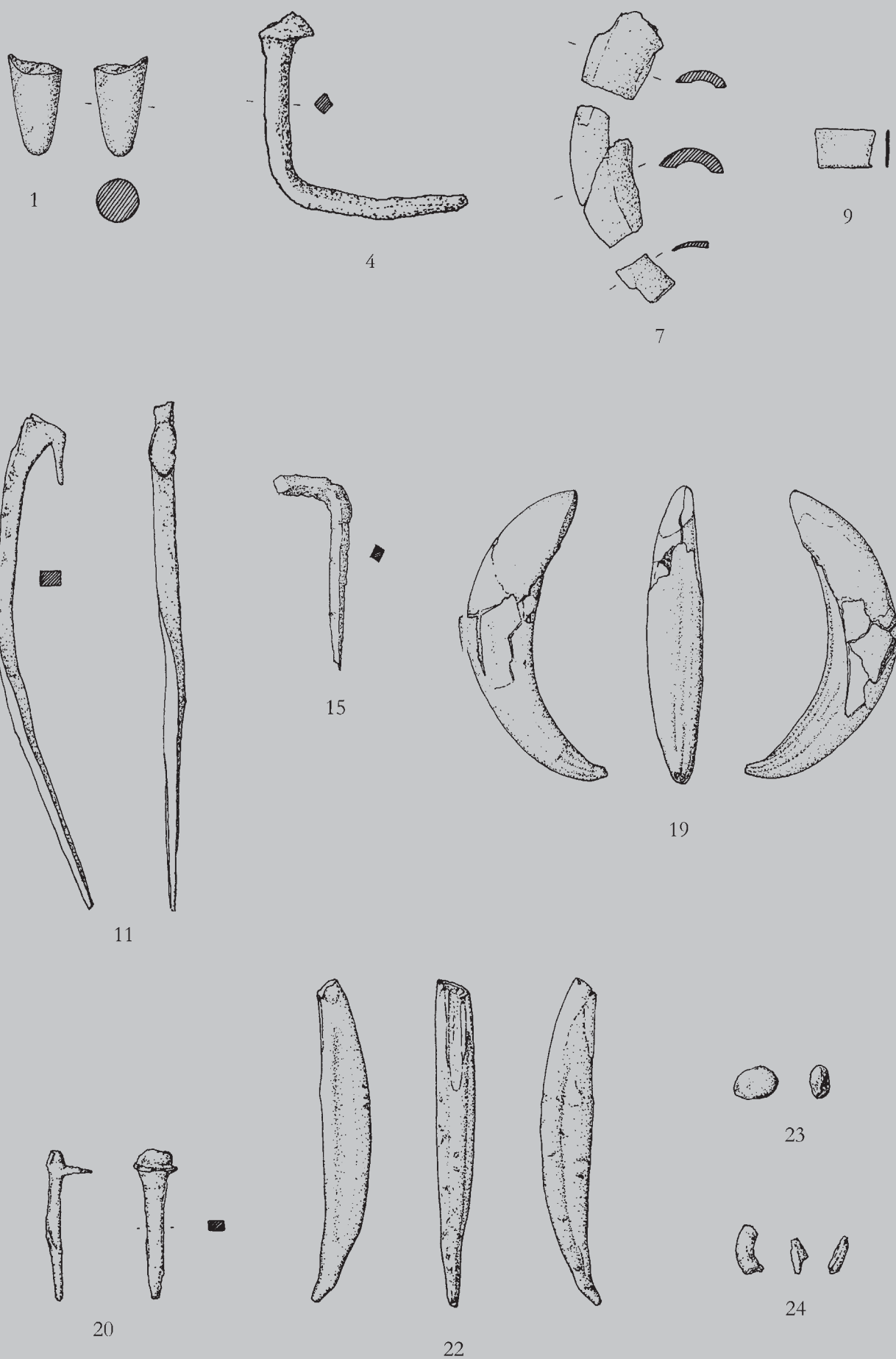
## 5. OTHER FINDS

During the archaeological excavations at Lijeva Bara in 1951–1953, the only elements that were systematically excavated were the prehistoric remains of a cemetery of the Dalj Culture group from the late Bronze Age and early Iron Age, and the early medieval cemetery belonging to the Bijelo Brdo Culture, while the scarce finds from the late Copper Age Kostolac Culture and the quite numerous finds from the late Iron Age were only subsequently recognized as archaeological remains from settlements.<sup>1</sup> The multilayered nature of the site and the occasional intermingling of the cultural strata caused objects of various prehistoric periods to be found next to or in the vicinity of the skeletons, as in the course of time they by chance became part of the contents of the early medieval grave pits, and during excavation they were listed in the inventory of the medieval graves.

### 5.1. Objects from previous cultural periods

No.	S-inv. AMZ	Other finds (amounts; metal)	Position of other finds in the grave (according to field documentation)	Medieval finds	Grave (sex); position of the grave
1.	2429	Antler, fragment	<i>by the left shin</i>	–	10/f; XVI/14d–XVII/14c
2–3.	2433	Pins (2)	<i>by the right side of the neck</i>	*	13/ch*; XIII/3d
4.	2434	Nail (Fe)	<i>above or by the head</i>	*	as above
5.	2441	Clump of ore	<i>by the right upper arm</i>	*	19/?*; VII/12a–b
6.	–	Object unknown purpose	<i>by the left shin</i>	*	as above
7.	2442	Object unknown purpose	unknown	*	as above
8.	P-AMZ	Pottery vessel, fragment	<i>by the leg of the skeleton</i>	*	as above
9.	2444	Platelet, fragment (AE)	<i>under the left forearm</i>	–	21/f; VIII/9b
10.	P-AMZ	Bowl with a handle	<i>by the right hip</i>	–	55/?; XIII/9c
11.	2493	Nail (Fe)	<i>on the surface of the grave</i>	–	56/m; XIII/9a–b
12.	P-AMZ	Urn, fragment	<i>by the left elbow</i>	–	67/m; XVI/8c–d
13.	P-AMZ	Fibula (Fe)	<i>in the stomach area</i>	*	94/m*; XVI/8b–XVII/8a
14.	2570	Slag (15 pieces)	<i>near the left thigh</i>	*	121/m*; XIV/8c
15.	2582	Nail (Fe)	<i>by the pelvis on the left side</i>	–	136/f; XIV/8b–XIV/9c
16.	2603	Shell, fragment	<i>by the leg</i>	–	163/ch; XV/9b–d
17.	–	Object unknown purpose	<i>by the leg</i>	*	222/f*; XVI/14c–XVI/14c
18.	P-AMZ	Bowl	<i>outer side of left shin</i>	–	226/?; XVIII/14a–XVIII/15c
19.	2640	Tooth, eyetooth, pig	<i>right outer side of pelvis</i>	–	231/f; XVII/4a
20.	2652	Nail (Fe)	<i>on the left side by the left foot</i>	*	238/m?*; XIII/4c–d
21.	2702	Graphite (2 pieces)	<i>by the left hand</i>	–	303/f; XIV/13a–d
22.	2708	Tooth, incisor, pig	<i>between the thigh bones</i>	–	310/m; XIII/16c–d

<sup>1</sup> For subsequently recognized finds and remains of settlement character, see: MAJNARIĆ-PANDŽIĆ 1970, 60. 118 n. 352; BALEN-LETUNIĆ 1996, 32–33; DEMO 1996, 31 and n. 75; DEMO 2003, 351–365.



**Fig. 56.** Objects from previous cultural periods (selected objects of metal and bone). **1** – Antler, fragment, bone (gr. 10/f). **4** – Nail, iron (gr. 13/ch). **7** – Object of unknown purpose, bone (gr. 19/?). **9** – Platelet, fragment, bronze (gr. 21/f). **11** – Nail, iron (gr. 67/m). **15** – Nail, iron (gr. 136/f). **19** – Tooth, eyetooth of a pig, bone (gr. 231/f). **20** – Nail, iron (gr. 238/m?). **22** – Tooth, incisor of a pig, bone (gr. 310/m). **23** – Nugget, metal, AE (gr. 318/ch). **24** – Nugget, metal, Pb (gr. 382/ch).

No.	S-inv. AMZ	Other finds (amounts; metal)	Position of other finds in the grave (according to field documentation)	Medieval finds	Grave (sex); position of the grave
23.	2730	Nugget, metal (AE)	on the left side near the ribs	–	318/ch; V/5d
24.	2799	Nugget, metal (Pb)	by the left thigh next to the pelvis	*	382/ch*; XI/5d
25.	2819	Vessel, fragment	unknown	–	396/m?; XIV/3b–XV/3a–4c
26.	2843	Slag (3 pieces)	by the left knee	–	416/m; XI/4b

[\* Medieval finds: gr. 13/ch – bracelet (2), ring; gr. 19/? – buckle; gr. 94/m – ring, knife; gr. 121/m – needle; gr. 222/f – ring; gr. 238/m? – knife; gr. 382/ch – button-pendant, coin, bracelet]

\* Notes:

- |   |   |
|---|---|
| <p>2–3. The pins with decorative beads of glass paste (9) were found in the soil "on the right side of the head by the crown and below the lower jaw on the left side of the head".</p> <p>4. Bent (at a right angle).</p> <p>6. Unknown material (metal?), supposedly shaped "like a flat bead, brown in color"; missing.</p> <p>7. Bone, worked, fragments.</p> <p>8. Described as a "bellied round vessel" it was found "at the depth of the second excavation layer" (ca. 50 cm).</p> <p>10. Damaged (early Iron Age).</p> <p>11. Bent (arched); incomplete (part of the head missing).</p> | <p>12. Damaged (early Iron Age; part of the inventory of the disturbed prehistoric cremation grave Ž<sub>21</sub>).</p> <p>13. Two-looped, corroded (early Iron Age).</p> <p>15. Bent (at a right angle); incomplete (head missing).</p> <p>16. An <i>unio</i> shell.</p> <p>17. Bone, worked; missing.</p> <p>18. Damaged (early Iron Age).</p> <p>20. Incomplete (broken off).</p> <p>23. Bead of melted bronze.</p> <p>25. Fragment of the wall of the body (late Iron Age).</p> |
|---|---|

Some of the objects discovered next to, above, below, or in general in the vicinity of the early medieval skeletons or in the fill of their graves belong to various strata of prehistoric periods whose archaeological remains, if they were recognized as such, were investigated at the same time as the early medieval cemetery of the Bijelo Brdo Culture (Fig. 56). Some of these objects were grave goods from destroyed or only partially preserved prehistoric cremation graves (such as bowls, an urn, a two-looped fibula, pin/pins), but both more numerous and diverse were those objects that came from the remains of prehistoric, primarily late Iron Age settlement structures destroyed or disturbed by the medieval burials (nails, slag, graphite, clumps of ore and nuggets of various metals, a fragment of a metal platelet, a fragment of a shell, a fragment of a pottery vessel, an antler tine, animal teeth, and other items).<sup>2</sup> The discovered objects were found in at least 21 medieval graves and in the majority of cases were the only find discovered in the grave (14 graves).<sup>3</sup>

<sup>2</sup> A selected list of objects, from: DEMO 2003, 358–359 (Fig. 4).

<sup>3</sup> Graves: 10/f, 21/f, 55/?, 56/m, 67/m, 136/f, 163/ch, 226/?, 231/f, 303/m, 310/m, 318/ch, 396/m?, 416/m.

# 6. THE CULTURAL AND HISTORICAL BACKGROUND TO THE ORIGIN AND UTILIZATION OF THE CEMETERY

## 6.1. The cultural and historical classification of the site

The Bijelo Brdo Culture is the official term for the multiethnic medieval archaeological material that in the north of Croatia, in the region between the Mura, Sava, Drava, and Danube rivers, comes mostly from skeleton graves arranged in more or less recognizable rows in cemeteries without churches, and is represented by various objects of similar traits characteristic for the Pannonian plain and sites in Hungary, southern and southwestern Slovakia, western Romania, northern and northwestern Serbia (Vojvodina and Srijem), northern and northwestern Bosnia, northeastern Slovenia, and eastern and southeastern Austria in the period from the second half and last third of the 10<sup>th</sup> century to the last quarter and end of the 11<sup>th</sup> century, and in places to the beginning and early 12<sup>th</sup> century. This cultural phenomenon of the later early medieval period and beginning of the developed Middle Ages was given its name by Czech archaeologists in the 1920s on the basis of the eponymous site at Bijelo Brdo in eastern Croatia (Slavonia).<sup>1</sup> Despite attempts made then and also later to depict the Pannonian plain as the starting point of the Bijelo Brdo Culture, and to present the Pannonian Slavs as its starters and main bearers, or, on the contrary, to deny the Slavs any importance or role and attribute the creation of the Bijelo Brdo Culture exclusively and only to the circumstances and period of the origin of the medieval Hungarian kingdom,<sup>2</sup> for Croatian medieval archaeology the Bijelo Brdo Culture is both title and content, and is useful and practical as in the typological and chronological sense it contributes to a more effective distinction of the archaeological material in the northern part of Croatia from the contemporary but often different archaeological material in the southern part of Croatia (Dalmatia).<sup>3</sup>

## 6.2. The period of the origin and utilization of the cemetery

### 6.2.1. Chronological determinants

Modern periodizations of the Bijelo Brdo Culture do exist,<sup>4</sup> but they are both inadequate and imperfect, however, they nonetheless clearly show that the cemetery discovered in Vukovar at the site known under the name of Lijeva Bara belonged to the earlier period of the Bijelo Brdo Culture. This means that among the collected archaeological material there are some, but in fact not numerous early Hungarian objects, such as individual types of weapons and military equipment (reflex bow, quivers, arrows) or certain early forms of jewellery (sheet-metal bracelets), but that finds of rider graves with the accompanying equipment and decoration are completely lacking, as well as sabers, purses, and belt sets of mounts and strap ends, metal decorations of kaftans and head-coverings, golden earrings, heart-shaped sheet-metal pendants, earrings with a pendant in the form of strung beads, gold or silver rings with a crown of precious stone or glass, and finds of perforated European silver coins.<sup>5</sup>

Moreover, for the chronological determination of the cemetery at Lijeva Bara, coin finds are of little help, as only one early medieval coin comes from a grave at the site. This is a thrice perforated, chipped, clipped, and worn gold Byzantine coin

<sup>1</sup> NIEDERLE 1920, 25–38; EISNER 1927, 579–588.

<sup>2</sup> BÁLINT 1994, 192 (with lit.).

<sup>3</sup> DEMO 1996, 41.

<sup>4</sup> VÁŇA 1954, 78–79, 96, 102; GIESLER 1981, 87–151; TOMIČIĆ 1992a, 115–118.

<sup>5</sup> For a list of the finds, distribution, and chronology of early Hungarian graves with finds of western European silver coins (two phases), see SCHULZE 1984, 500–505 (the interpretation of the Hungarian occupation of the Pannonian plain in the first half of the 10<sup>th</sup> century is based on this data).

of the emperor Constantine VII Porphyrogenitus (913–959) and his son Romanus II minted in Constantinople between AD 945 and 959. The coin was found in grave 2 on the skeleton of a child younger than 5 years old (?), where it evidently did not function as an obol placed in the grave of the deceased but rather as part of a necklace where it was hung as a pendant-amulet together with the hoop of a filigree decorated silver ring. As both objects evidently were deliberately transformed into pendants on the necklace, the chronological value of the Byzantine gold coin is negligible, as this was an object that had certainly been in secondary use for a long time.<sup>6</sup> On the other hand, the absence of finds of silver Arpád dynasty coins – in regions south of the Drava River so far no Arpád coins are known from grave finds earlier than the reign of King Peter I (1038–1041/1044–1046)<sup>7</sup> – deprives us of the possibility of determining absolute chronological elements for dating and establishing the upper limit to the continuity and use of the cemetery, but in terms of relative chronology it could be surmised that the appearance of the custom of placing Arpád coins as obols in Bijelo Brdo cemeteries south of the Drava River was delayed for a time, and that accordingly burial at Lijevo Bara had ceased before the appearance of this funerary custom, i.e. before the end of the fourth decade of the 11<sup>th</sup> century.

Graves with objects of everyday use, particularly knives, steels for tinder, and flints, are traditionally considered finds characteristic for the 10<sup>th</sup> century, so their relatively great amount and share among the grave goods would be a confirmation of the beginnings of this cemetery in Vukovar as early as during the last third of the 10<sup>th</sup> century. The same date is suggested by the finds of weaponry and military equipment (reflex bow and quivers) that are particularly important for determining the origin and development of the Vukovar cemetery, but also individual forms of jewellery for the head, particularly the very numerous circlets without an ending (78 ex.) and, thanks only to chance finds, an insignificant domination of S-circlets in relation to the representation of O-circlets (1.4:1).<sup>8</sup> The predominant numbers of circlets without an ending (75%) in relation to the much less numerous circlets with an ending (25%), just like the emphasized proportion of examples made of bronze in both groups (72.12%), are a significant characteristic of the cemetery at Lijevo Bara, and yet another indicator of its (distinct) connection with the jewellery forms of the 10<sup>th</sup> century.<sup>9</sup> The few raceme earrings, particularly cast examples, however, do not exhibit even a somewhat similar trend, as the pair of imported massive cast silver raceme earrings from grave 426/f are certainly earlier and belong to the last quarter of the 10<sup>th</sup> century in contrast to the local, simpler bronze cast raceme earrings from gr. 62/f and 440/f, which certainly belong to the beginning or early 11<sup>th</sup> century.

The most important role among the group of jewellery for the neck and chest is played by torcs, considerable numbers of which were gathered at Lijevo Bara, but more than the number of the finds themselves, the position of the graves with finds of torcs proved to be especially significant. It was also proven that torcs were not present at a particularly early date at Lijevo Bara, that they belonged to later periods of burial, and that they appeared at a time when individual parts of the cemetery had already been utilized for burials. This aided in uncovering the manner of the creation, development, and expansion of the cemetery (zones I–V), but also in establishing the chronology of the finds of the material culture around the year 1000 and later. Among the torcs themselves, the increase in the weight and the diameter or thickness of the wire (or wires) has a definite chronological significance, so that the torcs of lighter weight were earlier in terms of relative chronology (prior to 1020), while the torcs of heavier weight had a later relative chronological origin (after 1020), as is confirmed by one of the heaviest torcs from Vukovar found in a grave located on the very western edge of the investigated area of the cemetery (gr. 115/f). The chronological classification and determination of the origin and use of objects based on

<sup>6</sup> The finds of coins of the Byzantine emperor Constantine VII Porphyrogenitus and Romanus II (945–959) at archaeological sites in Hungary are interpreted first of all as Hungarian loot or even as part of Byzantine tribute to the Hungarians, but also as possible monetary gifts to distinguished Hungarians, as visitors to the Byzantine court of that time: KOVÁCS 1983, 146, 148; KOVÁCS 1989, 143.

<sup>7</sup> At the Bijelo Brdo cemeteries south of the Drava River, the earliest so far discovered find of an Arpád dynasty coin is a silver coin of Peter I found in gr. 141 at the cemetery of Bijelo Brdo – Ul. Venecija. This cemetery was also the source in this region of the greatest number of finds of Arpád dynasty coins minted in the span from Peter I (1038–1041; 1044–1046) and Andrew I (1046–1060) to Belá I (1060–1063), i.e. 8 coins from 6 graves (gr. 107/2 ex., 113, 141, 153, 165/2 ex., 199): BRUNŠMID 1904, 34 (Fig. 1–6), 61–62, 66–67, 69; MIRNIK 2005, 214, 238–239 (Pl. 10:1–3, 11:5–7). – Other than these, the finds are often mentioned of Arpád dynasty coins from another two Bijelo Brdo cemeteries: *Svinjarevci* – *Studenac*, gr. 21, 39, 41, 45, 56 + chance find (6 coins from 5 graves – Belá I, 1 ex.; Ladislaus I, 5 ex.): BRUNŠMID 1904, 89 (Fig. 40:1–5), 90; MIRNIK 2005, 217, 249 (Pl. 22:1–6); *Vinkovci* – *Meraja/Sv. Ilija*, gr. 18, 22, 27, 50, 55 (5 coins from 5 graves – Ladislaus I, 3 ex.; Stephen II, 2 ex.): DIMITRIJEVIĆ 1966, 74–77, Pl. 22:1, 12, 17–18. – As less well-known or more recent finds, Arpád dynasty silver coins should also be mentioned from the cemeteries of: *Borinci* – *Crkvište* (=Jarmina/Crkvište), a chance find from a destroyed grave (unknown ruler): DIMITRIJEVIĆ 1979, 195; *Čepin* – *Ovčara/Tursko groblje*, gr. 26 + chance find (Ladislaus I, 2 ex.): ŠIMIĆ 2002, 48; *Josipovo* – *Mesarna*, gr. 9 (Andrew I, 4 ex.): TOMIČIĆ 1990, 104; TOMIČIĆ 1997, 25; MIRNIK 2005, 216; *Zvonimirovo* – *Veliko polje*, gr. 31 (Ladislaus I): TOMIČIĆ 2000, 84; TOMIČIĆ 2002, 393–394.

<sup>8</sup> DEMO 1996, 47.

<sup>9</sup> The fact should not be forgotten that the circlets without an ending (G. 13) do not disappear from the repertory of the Bijelo Brdo jewellery forms at the end of the 10<sup>th</sup> century, rather they appear and continue, although in much lesser numbers, among the finds from the 11<sup>th</sup> century. This is confirmed, however, merely by silver examples of the circlets (sic) dated by Arpád dynasty coins: *Malé Kosihy* – *Horné Konopnice*, gr. 540 (Bela dux, 1048–1060): HANULIAK 1994, 238 Pl. XCIX:1–2; *Szarkadkeresztúr* – *Csapháter*, gr. 4 (Salomon, 1063–1074): MEDGYESI 1993, 496, 504 Pl. XII:1–2,5,9.

differences in the metal and the weight system of the objects is also applicable to other forms of jewellery, particularly jewellery for hands (equally for bracelets and rings) as the most numerous element in the jewellery group (51.97%). Similar observations can be applied to individual objects of upper attire elements, particularly bronze two-part pendants of the same typological groups (G. 9; D. 13; B. 1/a) that have been documented in the greatest numbers at Lijevo Bara, either preserved partially (the lower part) or completely.

Other than in terms of the relative chronology, the increase in weight of jewellery objects made of bronze or silver, as well as the gradual growth in representation of objects made of silver in relation to bronze, as confirmed throughout the Pannonian plain at many Bijelo Brdo cemeteries, is a sign of a gradual but omnipresent economic growth based on favorable climatic conditions, an improved social organization of the local and broader community, but also advanced forms of diverse production activities (agriculture and crafts).

## 6.2.2. The components and organization of the cemetery

The appearance of a radial expansion of graves around a certain beginning position (Majs – Udvari rétek)<sup>10</sup> or around several such approximately contemporaneous positions (Pusztaszentlászló – Deáksűrű),<sup>11</sup> which with time began to overlap and form a larger cemetery, represent only some of the seemingly not exactly scarce principles ruling the origin and development of the more extensive early medieval Bijelo Brdo Culture cemeteries excavated in Hungary. This existence of several beginning positions was crucial for the origin, development, and formation of the Bijelo Brdo Culture cemetery at Lijevo Bara in Vukovar, and it was made recognizable by graves with weapons or weapons and military equipment, as the probable first sites of burial. In this sense at least two possible and chronologically earliest beginning positions are evident, distant some 50 m from one another: the first of these two positions with weapons and military equipment or only military equipment in graves 268/m, 237/m, 232/m, and 336/? arranged in a triangle was located in the southeastern part of the cemetery (zone I), and the second with grave 92/m equipped with a reflex bow was located in the partially excavated western part of the northern zone of the cemetery (zone II). The third beginning position with grave 127/m outfitted with weapons and military equipment was located in the central section of the excavated area of the cemetery (zone III), located approximately 46 meters southeast of the first beginning position and approximately 22 meters northeast of the second beginning position.

Each of these three beginning positions with time formed its own zone of burial that sooner or later, widening more or less radially from the center outwards, overlapped with one of the neighboring zones. The overlapping of such perceived zones enabled recognition, however, of another two chronologically somewhat later zones of burial: one of them clearly defined by a belt of graves with torcs was located in the southwestern part of the cemetery (zone IV) with the beginning position of burial at the place of grave 312/m (arrow, knife) or perhaps gr. 434 (arrows), while the other, only excavated in spots and only partially recognizable thanks to several graves with torcs, was located in the eastern, most poorly known part of the Vukovar cemetery (zone V). As the cemetery in its eastern and northeastern sections extended beyond the noted zones with finds of torcs, and was never excavated in its entirety, it is likely that several other similar zones originally existed (**Fig. 31**).

## 6.2.3. The beliefs of the deceased

It is possible to speak of pagan or Christian beliefs represented in the early medieval cemeteries of the Bijelo Brdo cultural circle in the region between the Mura, Drava, Danube, and Sava Rivers only on the basis of data gathered through the excavation of graves. In the burial ritual, as has already been noted, the custom predominated of individual inhumation of the deceased by placement in a simple and not particularly deep grave pit oriented west-east, but with frequent and considerable deviation in the orientation. The deceased was placed in the grave dressed, fully extended, and most often on the back, with the arms arranged alongside the body or placed on the upper or lower sections of the body. Markers of the grave site and remembrance of the deceased among their nearest and dearest or in the local community to which they belonged in life certainly existed, given that graves disturbed by subsequent burials are truly rare. The burial rite and the funerary ceremony and customs can only be conjectured. Their actual existence and their practice is nonetheless indicated by the rare remains of animal bones and pottery or pottery fragments (provisions for the dead), as well as other objects found in the grave or the fill of the grave. The burial rituals of the second half or last third of the 10<sup>th</sup> century and the

<sup>10</sup> KISS 1983, 304.

<sup>11</sup> SZŐKE – VÁNDOR 1987, 152.



beginning and early 11<sup>th</sup> century, however, certainly included the custom of the frequent placement of the forearms on the upper part of the body of the deceased, which was both more represented and continued longer in the Bijelo Brdo Culture regions closer to Byzantium.

It is otherwise possible to form a judgment about the beliefs and spiritual life of the deceased on the basis of the grave finds in addition to the burial ritual. A smaller number of finds consisted of attire elements, funerary dress, or belt elements, with larger numbers of various forms of jewellery for the head, neck, and hands, which indicates that the fully dressed deceased were placed in the grave together with the objects that they usually wore, valued, or more or less constantly utilized in terms of objects of everyday use, weapons, and military equipment – all in the belief that in some other world to which they were traveling such objects would again be needed in order to display and prove their competence and skills or even to return and renew their former merit, distinction, and social status.

All of these objects point to an above all recognizable and almost omnipresent world view with its starting point in a belief in the afterworld onto which various other religious manifestations could be added about existence, as indicated by talismans and amulets – one naturally endowed with magical powers, the other sanctified by a person gifted with such powers – in the form of metal objects converted and remodelled in secondary use into pendants hung as a rule on necklaces and torcs. The choice of these metal objects was certainly not made by chance (rings, spiral wires, perforated gold and bronze coins, a globular bell-shaped pendant, a two-part pendant, part of a belt mount), nor was the choice coincidental of the objects discovered in the graves in non-functional positions (a ring by the head of the deceased, a knife on the chest and above the upper arm, arrows with the heads turned downwards). The presence of obvious shamanic symbolism and belief is recognizable only on the bone platelets of the quiver neck decorated with a symbolic depiction of the Tree of Life. The existence of funerary feasts or the placement of provisions for the deceased is indicated by the not particularly numerous finds of animal and bird bones (six graves) and fragments of pottery vessels (two graves).

In contrast to the numerous but also varied traces of pagan beliefs, Christianity was documented in the grave finds only by finds of cross-pendants, one with and the other without a depiction of Christ. The influence of the eastern Christian church, particularly that circulating in the second half of the 10<sup>th</sup> century from the Byzantine-Bulgarian cultural sphere in the direction of the Hungarian principedom, is considered responsible for the custom of placing the forearms of the deceased in various positions on the upper and lower parts of the body, as was documented by numerous examples at Lijevo Bara.

#### **6.2.4. Signs of economic activities and trade**

The objects preserved in graves are useful not merely in terms of their cultural and historical value, but also as indicators of the existence of certain economic activities and trade, as well as the social relations that characterized the everyday life of the local community and indicated its relations to nearby and more distant neighbors. This is yet more important if it is known that the Bijelo Brdo Culture was characterized by a rural and sedentary way of life based on agriculture and agricultural production, with the inevitable pottery production further dependant on this.

By chance or not it is actually objects related to agriculture that are the rarest grave finds at Bijelo Brdo Culture sites – other than those that had been defined as part of beliefs or religious rites – so it is not surprising that they are lacking in the graves excavated at Lijevo Bara. Hunting and fishing activities were also indicated by only a few rare items (bifurcated arrowhead, projectiles for a slingshot, fishhooks), while more numerous and diverse objects were related to crafts and trades, such as those the deceased individuals carried on their persons to the grave or were placed in the graves of their dead by craftsmen or tradesmen proud of their expertise and skill, but also tools and implements for making items out of reed and thatch (thatching needle), for rope-making (tightener/loosener), and for weaving, leather-working, wood-working, or working bone (spindle-whorls, scrapers, needle, awls, awl presses, files). The scarce finds of objects used in personal hygiene, which in the graves of the Bijelo Brdo Culture are also a true rarity (razors, pincers), could also be interpreted in this manner. It is thus apparent that craftsmen of various profiles lived and worked in the early medieval community of Vukovar quite early on, and that because of their talents and skills they were distinguished from the other members of the community, and hence for this reason (or some other today indecipherable reason), in the afterworld they attempted to acquire for themselves a suitable respect and to emphasize and retain what was evidently a different status in life.

The working of metal, particularly iron, at the local level is predicable and probable given the size of the cemetery (and hence probably the settlement as well) and the number of the discovered iron objects (knives, fire steels, arrowheads, files, quiver frames), but the production of objects from bronze or silver has so far been more difficult to recognize and prove if it is not paralleled by a noticeable amount of morphologically, typologically, and stylistically similar archaeological material. This was in fact the case with the cast bronze rings with an inset crown for a decorative stone (G. 38b; M. 16b; De. 3.3), which because of the great number of discovered finds and the diversity of decorative details occupy the most prominent position among the rings found at Lijevo Bara. Bronze rings with these same characteristics were also found in a

somewhat smaller number at the cemetery of Bijelo Brdo – Ul. Venecija near Vukovar, while beyond this region they are scarce and rare, and hence they can be termed rings of the "Vukovar – Bijelo Brdo" type and their production can be sought in the Croatian Danube basin in the vicinity of one of these two most important Bijelo Brdo Culture sites. Hence it would be justified to suggest that other, simpler forms of jewellery had also been manufactured in workshops in this region, primarily some of the rings of open type, and most probably torcs of coiled wire with a hook and eye for fastening.

The trade and exchange of merchandise and goods usually mark a reflection of the openness of a certain milieu and its willingness to utilize transportation connections with close or distant production or trade centers. The representation of related, similar, or identical archaeological material is more indicative than anything else. In this manner certain more rare forms of jewellery for the neck and hands arrived in Vukovar through trade or exchange from nearby or more distant regions of the Bijelo Brdo Culture, above all certain rare types of torcs and rings, such as a torc with two hooks for fastening tapered towards the ends (S-2418) or with hammered ends (gr. 391/ch) whose closest analogies were documented in grave finds from northern Hungary and southern Slovakia, a torc of circular section wire with hammered ends in the shape of the letter "S" (gr. 66/f) with an analogy in the Hungarian central Tisza basin, and a bronze ring with a crown of spirally wound wire (gr. 151/f) for which rare analogies can be found in the upper and lower Tisza basin of eastern Hungary and western Romania (Transylvania). A rare example of a lunular pendant with a spectacle-shaped addition (chance find), a jewellery form connected to the eastern Slavs, arrived in Vukovar either through or perhaps even from Hungarian Baranya. A similar route was followed by certain more numerous objects, such as bronze two-part pendants of the typological group D. 13 (G. 9; B. I/a), which to date have been represented at Vukovar with the greatest number of gathered examples in terms of Bijelo Brdo discoveries (gr. 23/ch, 326/f, S-2414–2416).

Arrivals from the Byzantine-Bulgarian cultural circle consisted of silver rings with a hoop decorated with filigree wire (gr. I-1951/?, 379/m), a bronze bracelet with snake head terminals (gr. 444/f), a seal-amulet secondarily remodeled into a bell-shaped pendant-amulet (gr. 408/ch), as well as a belt mount of the Jumsk type (gr. 53/m), which is actually of central Asian origin and perhaps somewhat earlier in date, but a direct analogy can be found in eastern Bulgaria in the lower Danube basin (Suvorovo). Further, the appearance and use of two-parts pendants as a decorative addition to female collars can be attributed to the influence of fashions coming from Byzantium during the 10<sup>th</sup> century.

An exceptional example of a silver raceme earring with a central barrel-shaped pendant element, a chance find from the period prior to archaeological excavation (S-3288), is a rare variant of the "Volhynia – Kiev" type earrings, and as such its origin and tradition could be sought in the Ukraine, as was also the case with a pair of massive silver cast raceme earrings with two pairs of joints unusual for the Danube basin (gr. 426/f).

One-part clasps with a hook for fastening are not typical Bijelo Brdo artifacts (gr. 19/m, 263/f, 344/f), and they could reflect connections with the regions of the Western Slavs, as such clasps can be found among finds at Bijelo Brdo cemeteries in Hungary, but also with the lands of the Dalmatian Croats, where such clasps, although rare, can also be found. A much greater number of possible solutions can be sought in determining the origin of the steel for tinder from Vukovar of ellipsoid-rectangular shape (gr. 89/m), related to oval or oval-rectangular fire steels that appeared at the beginning of the 11<sup>th</sup> century in the north of Europe, as well as in the east and southeastern parts of Europe. A similar direction should be sought for the origins and analogies of a massive silver ring with a crown of spirally wound wire (gr. 316/f) that certainly must have traveled a long distance to end up in Vukovar.

The frequency of objects in secondary use, discovered in considerable numbers, is not an unambiguous or easily explainable feature, as the reasons for this could equally be of an economic nature or be part of a hard to recognize element of the spiritual life of an individual or the community as a whole. There is no doubt that the latter category would include a given number of objects of prehistoric, Roman period, and medieval origin that were remodeled into pendant-amulets on necklaces or torcs (circlets, beads, a La Tène fibula; bronze coins; Byzantine coins, rings, globular bell-pendant, belt mount). For the remaining secondarily used objects, it could be considered that they had been war loot, some kind of "memorabilia", or even chance "archaeological" finds from that period (mounts, gr. 53/m, 71m/; strap ends, gr. 71/m, 336/?) inserted or added to an object then in use (such as a belt). For other objects it is quite evident that as the remains of earlier cultural-historical periods they had been found in the habitat of the local community or in its vicinity, and as well preserved and still usable objects they had been reused for the same reason and purpose that they had had long before (spindle-whorl, gr. 289/m?; flints, gr. 17/m?, 89/m, 148/m?, 317/m). The reasons for secondary use sometimes are much more prosaic, like replacing a lost spangle or applied element with another or replacing a spangle, for instance, with a similar object (the upper part of the two-part pendant; gr. 349/ch, 355/ch), or making decorative additions to a piece of jewellery (a bead threaded onto a circlet; gr. 422/f). Any evident economic reasons for the secondary use of objects are not recognizable, as conditions cannot be defined that usually would indicate the time or moment when "hard times" (i.e. a recession, as we would say today) occurred because of some specific situation in the community, when only existing resources could be utilized along with what was truly within reach. It could also be a question of a completely personal situation where the economic circumstances and social status of the individual and/or the community did not allow for much more than a modification of one's own or others' outworn objects and items.

### 6.3. The cemetery in the medieval landscape of Vukovar (traces of settlement)

According to some interpretations, the first information about the possible existence of an early medieval Slavic settlement at Vukovar in the middle of the 9<sup>th</sup> century would be related to King Louis I the German (840–876) and his deed from AD 846, granting Prince Pribina (845–861) full ownership over a hundred hamlets along the Vuka River (*concedit pleno iure Briwino centum mansos juxta fluvium Valchau*).<sup>12</sup> Although the identification of the name Valchau and the name of the Vuka River as one and the same can be doubted, interpreted in various manners, and debated, as no other such data whatsoever exists – no information is available about the settlements and populated places of the lower Pannonian principedom of Pribina's heir Kocelj (861–874) and particularly Braslav (880–896?) – not quite a century later, among the fortresses that the Hungarians had supposedly captured while returning from one of their plundering raids, for the first time, in addition to Zagreb (*Zabrag*) and Požega (*Posaga*), the fortress of Vukovar was mentioned, which was also then listed as having been captured by the Hungarians (*castrum Vlcou ceperunt*).<sup>13</sup> Croatian historiography also treated this text suspiciously, but the debate is limited to the period when the conquest supposedly occurred, and not the claim about the existence of the fortress cited in the text – as the news itself is later than the period to which it refers.<sup>14</sup> The questions, however, of who and when erected and organized the mentioned fortress or fortified Slavic settlement, in what circumstances this took place, and with what intentions and to what extent this was carried out have barely seen any attempt at an answer by Croatian historians. The only thing that is presumed or known is that at the end of the 9<sup>th</sup> century Prince Braslav had to defend his kingdom between the Drava and Sava Rivers (*regnum inter Dravum et Savum*) from the Hungarians and that he probably lost his life in battle with them,<sup>15</sup> but whether this was as early as AD 896 after the arrival of the Hungarians in the Pannonian plain or in AD 899 after the death of Arnulf, the Carantanian king of the eastern Franks, Holy Roman emperor, and king of Italy, or even a year or so later can only be conjectured. The Vukovar fortress may also be hypothesized as a settlement of some other Sklavinia, e.g. that of southern Great Moravia (*megale Moravia*), whose existence in the southeast of the Pannonian plain is gradually growing into a recognizable historiographic fact.<sup>16</sup> During the reign of King Tomislav (910–928?), Vukovar would have been within the Croatian kingdom according to the opinions of some Croatian historians,<sup>17</sup> and perhaps this might be the reason that the Hungarian raids in the direction of Byzantium were first noted only in the second third of the 10<sup>th</sup> century (934), continuing afterwards throughout this entire period (943, 959, 961),<sup>18</sup> and ending only in the year 970 after the major Byzantine victory in the battle at Arcadiopolis (Lüleburgaz) in the European part of Turkey. This year is most probably the *terminus ante quem* for the Hungarian occupation of the Croatian Danube basin and Vukovar itself.

Despite the numerous unknown historical factors, the data about the existence of the fortress or fortified Slavic settlement of Vukovar around the middle of the 10<sup>th</sup> century is important and indispensable as it marks a starting point in uncovering the historical topography of the early medieval landscape of Vukovar. The position of this original, but rarely noted by name Slavic early medieval settlement has been sought "on the right bank of the Vuka River" and located either "by the Vuka below the elevated banks of the Danube",<sup>19</sup> or on the "high, well-protected hill in the vicinity of the present day monastery and secondary school",<sup>20</sup> where from its dominating position on this "natural terrace above the Danube" the settlement would have grown and developed in a similar manner as examples "from the Western Slavic and Eastern Slavic worlds".<sup>21</sup> Archaeological confirmation of the latter location was offered by some fifteen fragments of early medieval settlement pottery dated to the period from the 10<sup>th</sup> to the 12<sup>th</sup> centuries, found at the Danube "bajer" (the hill, steep river bank, and land next to the bank) in Vukovar as far back as the end of the 19<sup>th</sup> century, and published only at the end of the 20<sup>th</sup> century.<sup>22</sup>

<sup>12</sup> On this, HAUPTMANN 1920, 241–248; KLAJČ 1983, 17–20. More recent Croatian historians have treated this claim with caution, see BUDAK 1994, 203; GOLDSTEIN 1995, 194. For contrasting opinions, see KOS 1906, 109 n. 1; ŠIŠIĆ 1925, 342–344; SÓS 1973, 35–41 (with a review of opinions and literature).

<sup>13</sup> SSRH 1 87–88 (cap. 43), the news is noted in the work *Gesta Hungarorum* by an anonymous clerk of King Belá III (end of the 12<sup>th</sup> century). – That in the middle of the 10<sup>th</sup> century in Zagreb on the hill of Kaptol there certainly existed an even earlier Slavic settlement (second half of the 8<sup>th</sup> century) was shown by finds discovered in 2002 at the site of Opatovina in front of the western portal to the Church of St. Francis, DEMO 2007, 26–30, 56, 121–122.

<sup>14</sup> KLAJČ 1975, 46, 277; KLAJČ 1983, 35; BUDAK 1994, 109; GOLDSTEIN 1995, 164, 282.

<sup>15</sup> KUKULJEVIĆ 1881, 9–10; ŠIŠIĆ 1925, 396–397; ŠTIH 1983, 172, 184–185, 187, 200; BUDAK 1994, 30, 105, 205; GOLDSTEIN 1995, 283.

<sup>16</sup> BOBA 1986, *ibidem*; KRISTÓ 1996, 191–203. – In the light of the existence of the noted early Slavic entity, it is both possible and necessary to view and interpret completely differently the period and circumstances that led to the Hungarian occupation of the Vukovar region.

<sup>17</sup> RAUKAR 1997, 118; BUDAK – RAUKAR 2006, 436 (map with the boundaries of the Croatian kingdom in the reign of King Tomislav).

<sup>18</sup> ANTONOPOULOS 1993, 254–267.

<sup>19</sup> PAVIČIĆ 1940, 41.

<sup>20</sup> KARAČ 1994, 141; KARAČ 1996, 250.

<sup>21</sup> TOMIČIĆ 1992a, 175.

<sup>22</sup> DEMO 1996, 61, 93 nos. 61:1–15.

# 7. LIST OF OBJECTS

## A) Objects from the grave inventories

**Arrows** (*Fe*) – 21 ex.: 14/m, 40/m, 81/m (2), 127/m?, 232/m (4), 237/m (2), 268/m, 312/m, 357/m (2), 399/f?, 434/m (2), 441/ch (3).

**double-winged head** – 1 ex.: 232/m (1);

**leaf-shaped head** – 1 ex.: 40/m;

**rhomboid head** – 19 ex.: 14/m, 81/m (2), 127/m?, 232/m (3), 237/m (2), 268/m, 312/m, 357 (2), 399/f?, 434/m (2), 441/ch (3).

**Awl** (*Fe, bone*) – 7 ex.: 22/m, 139/f, 253/f, 306/m (2), 440/f, 444/f;

**iron** – 5 ex.: 139/f, 306/m (2), 440/f, 444/f;

**circular section** – 4 ex.: 139/f, 306/m (2), 440/f;

**square section** – 1 ex.: 444/f;

**bone** – 2 ex.: 22/m, 253/f?;

**animal bone** (tubular bone) – 1 ex.: 22/m;

**fish bone** (bone from the head of a large fish) – 1 ex.: 253/f?.

**Beads**, of glass, amber, and bone – 458 ex.: 29/ch (6), 33/f (1); 42/ch (5), 48/f, 52/ch (14), 84/m?; 102/ch (3), 108/f? (17), 115/f (114), 124/? (25), 138/f (37), 200/? (6), 217/f (59), 227/ch (18), 230/ch, 252/ch (27), 263/f, 279/f?, 322/ch, 326/f (12), 347/ch (9), 367/m, 383/ch (5), 387/ch (8), 388/ch, 391/ch, 394/f, 408/ch (2), 409/ch (52), 412/ch (4), 424/ch, 425/ch (5), 429/ch (2), S-2410/1 (16; Srnić);

**pendant on an earring**, glass bead – 1 ex.: 33/f;

**pendants on necklaces**, glass beads (453) and amber bead (1) – 454 ex.: 29/ch (6), 42/ch (5), 48/f, 52/ch (14), 102/ch (3), 108/f? (17=16+1), 115/f (114), 124/? (25), 138/f (37), 200/? (6), 217/f (59), 227/ch (18), 230/ch, 252/ch (27), 279/f?, 322/ch, 326/f (12), 347/ch (9), 383/ch (5), 387/ch (8), 388/ch, 391/ch, 394/f, 408/ch (2), 409/ch (52), 412/ch (4), 424/ch, 425/ch (5), 429/ch (2), S-2410/1 (16; Srnić);

*Note:* 108/f? (1 – amber bead); 326/f (1 – secondarily used prehistoric bead, early Iron Age); 409/ch (1 – secondarily used prehistoric bead, late Bronze Age)

**pendants on a belt**, bone beads – 3 ex.: gr. 84/m?, 263/f, and 367/m.

**Bell (bell-shaped pendant)**, pendant on a necklace (*AE*) – 1 ex.: 408/ch.

**Belt chape** (*AE*) – 2 ex.: 409/ch.

**Bow**, sections of the bone laths – 1 ex.: 92/m.

**Bracelet** (*AR, AE, Fe*) – 62 ex.: 13/ch (2), 18/ch, 23/ch, 31/f? (2), 33/f, 44 (2), 48/f (2), 49/f, 66/f (2), 86/ch (2), 92/m, 93/m (2), 103/f?, 108/f?, 115/f, 122/f, 139/f, 159/f (2), 183/f (2), 184/?, 186/ch, 208-2/ch, 211/f (2), 214/ch, 217/f (2), 268/m, 276/ch, 292/f, 316/f (2), 326/f (2), 365/f?, 374/f?, 382/ch, 383/ch, 390/ch, 394/f, 426/ch (2), 440/f, 444/f (2), I-1951/? (2), II-1951/?, III-1951/?, S-2395 (Srnić), S-2396 (Srnić); S-2419 (Doriath); S-2896 (quad. XIII/6a);

*Note:* 326/f (1 – unpreserved)

**open** (*\*AR, AE, \*Fe*) – 55 ex.: 13/ch (2), 18/ch, 23/ch, 31/f? (2), 33/f, 44 (2), 48/f (2); 49/f, 66/f (2), 86/ch (2), 92/m, 93/m (2), 103/f?, 108/f?, 115/f, 122/f, 159/f, 183/f (2), 184/?, 186/ch, 208-2/ch, 211/f (2 ex.), 214/ch, 217/f (2), 268/m, 276/ch, 292/f, 316/f (2), 326/f; 365/f?, 383/ch, 390/ch, 394/f, 426/ch (2), 440/f, 444/f (2), I-1951/? (2), II-1951/?, III-1951/?, S-2395 (Srnić), S-2396 (Srnić); S-2896 (quad. XIII/6a);

- \*AR: II-1951/?;  
 \*Fe: 214/dj; S-2896 (quad. XIII/6a);  
**banded section** (AE) – 1 ex.: 211/f;  
**circular section** (AE, \*Fe) – 47 ex.: 13/ch (2), 18/ch, 23/ch, 31/f? (2), 33/f, 44 (2), 48/f (2); 49/f, 66/f (2), 86/ch (2), 92/m, 93/m, 103/f?, 108/f?, 115/f, 122/f, 159/f, 183/f (2), 184/?, 186/ch, 211/f, 214/ch, 217/f (2), 268/m, 276/ch, 292/f, 316/f (2), 365/f?, 383/ch, 390/ch, 394/f, 426/ch (2), 440/f, 444/f, I-1951/?, III-1951/?, S-2395 (Srnić); S-2896 (quad. XIII/6a);  
 \*Fe: 214/ch; S-2896;  
**semicircular section** (AE, AR\*) – 3 ex.: 208-2/ch, II-1951/?, S-2396 (Srnić);  
 \*AR: II-1951/?;  
**square section** (AE) – 2 ex.: 93/m, 326/f;  
**triangular section** (AE) – 1 ex.: I-1951/?;  
**with snake heads** (AE) – 1 ex.: 444/f;  
**closed** (AE) – 3 ex.: 139/f, 159/f, 374/f?;  
**with animal heads** (AE) – 1 ex.: 374/f?;  
**of coiled wire of different thicknesses** (AE) – 2 ex.: 139/f, 159/f;  
**fastened with a hook and eye** (AE) – 2 ex.: 382/ch; S-2419 (Doriath).  
**Buckle (clasp) with a hook for fastening** (Fe) – 2 ex.: 19/?, 263/f, 344/f;  
**leaf-shaped body** – 1 ex.: 19/?, 344/f;  
**rhomboid body** – 1 ex.: 263/f.  
**Buckle, with a pin attached to the frame** (AE, Fe) – 3 ex.: 237/m (2), 400/m;  
**to suspend a quiver, round frame** (Fe) – 2 ex.: 237/m (2);  
**belt, D-shaped frame** (AE) – 1 ex.: 400/m.  
**Button-pendant** (AE) – 24 ex.: 2/ch, 41/f (2), 52/ch (2), 115/f (2), 138/f (2), 260/f?, 280/m, 292/f, 344/f, 347/ch (3), 349/ch, 362/f?, 382/ch, 409/ch, 424/ch, 444/f, S-2904 (chance find, 1953), S-2410/2 (Srnić);  
**spherical, solid** – 9 ex.: 41/f (2), 138/f (2), 347/ch/, 349/ch, 362/f?, 382/ch, S-2904 (chance find, 1953);  
**spherical, hollow** – 4 ex.: 115/f, 260/f?, 280/m, S-2910 (Srnić);  
**lenticular, solid** – 4 ex.: 2/ch, 52/ch, 344/f, 424/ch;  
**mushroom-shaped, solid** – 7 ex.: 52/ch, 115/f, 292/f, 347/ch (2), 409/ch, 444/f.  
**Circlet** (AE, Pb, Fe) – 12 ex.: 17/m?, 52/ch, 102/ch (2), 124/?, 227/ch, 324/m (2), 336/?, 391/ch, 402/ch, S-2390/2 (Srnić);  
**belt** (AE\*, Pb\*, Fe\*) – 4 ex.: 17/m?, 324/m (2), 336/?;  
 \*AE (1): 336/?;  
 \*Pb (1): 17/m?;  
 \*Fe (2): 324/m (2);  
**hoop** (AE) – 8 ex.: 52/ch, 102/ch (2), 124/?, 227/ch, 391/ch, 422/f, S-2390/2 (Srnić);  
**on a circlet** – 3 ex.: 102/ch (2), 422/f;  
**on a necklace** – 3 ex.: 52/ch, 124/?, 227/ch;  
**on a torc** – 2 ex.: 391/ch, S-2390/2 (Srnić).  
**Circlet, with ending** (AR\*, AE) – 26 ex.: 29/ch, 69/f, 90/m, 109/f (2), 137/? (2), 229/m, 252/ch (2), 255/f?, 282/ch, 297/f?, 315/f (2), 349/ch, 358/m (2), 391/ch, 393/ch, 417/m, 422/f, S-2898 (quad. XIII/6a), S-2402 (Srnić), S-2403 (Srnić), S-2404 (Srnić);  
**O-circlet** (AR, AE) – 10 ex.: 69/f, 90/m, 109/f (2), 229/m, 255/f?, 282/ch, 358 (2), 422/f;  
 \*AR (2): 229/m, 422/f;  
**with an unhammered ending** (AE) – 1 ex.: 69/f;  
**S-circlet** (AR\*, AE) – 14 ex.: 29/ch, 137/? (2), 297/f?, 315/f (2), 349/ch, 391/ch, 393/ch, 417/m, S-2898 (quad. XIII/6a), S-2402 (Srnić), S-2403 (Srnić), S-2404 (Srnić);  
 \*AR (5): 137/? (2), 297/f?, 315/f, S-2898 (quad. XIII/6a);  
**with a spiral ending** (AE) – 2 ex.: 252/ch (2).  
**Circlet, without ending** (AR, AE, Fe) – 78 ex.: 4/f, 23/ch (2), 26/f, 30/f (2), 31/f?, 33/f (3), 40/m, 45/ch, 48/f (3), 60/f, 66/f (3), 90/m, 92/m (2), 93/m (2), 102/ch, 109/f (2), 112/ch (2), 115/f, 125/f, 139/f, 164/f (2), 183/f (2), 192/ch, 196/? (2), 218/f (2), 260/f?, 263/f, 264/ch, 279/f? (2), 283/m (2), 291/f?, 298/f, 313/f? (2), 314/f, 316/f (2), 344/f (2), 347/ch, 355/ch, 364/f, 374/f? (2), 377/m?, 384/m?, 386/m (2), 402/ch, 413/? (2), 422/f, 439/? (2), 444/f, II-1951/? (2), III-1951/?, S-2892 (quad. XII/5), S-2401 (Srnić);

**without a pendant** (*AR\**, *AE*, *Fe\**) – 75 ex.: 4/f, 23/ch (2), 26/f, 30/f (2), 31/f?, 33/f (2), 40/m, 45/ch, 48/f (3), 60/f, 66/f (3), 90/m, 92/m (2), 93/m (2), 109/f (2), 112/ch (2), 115/f, 125/f, 139/f, 164/f (2), 183/f (2), 192/ch, 196/? (2), 218/f (2), 260/f?, 263/f, 264/ch, 279/f? (2), 283/m (2), 291/f?, 298/f, 313/f? (2), 314/f, 316/f (2), 344/f (2), 347/ch, 355/ch, 364/f, 374/f? (2), 377/m?, 384/m?, 386/m (2), 402/ch, 413/? (2), 439/? (2), 444/f, II-1951/? (2), III-1951/?, S-2892 (quad. XII/5), S-2401 (Srnić);

\**AR* (19): 4/f, 23/ch (2), 66/f (3), 139/f, 260/f?, 316/f (2), 344/f (2), 377/m?, 384/m?, 439/?, 444/f, II-1951/? (2), III-1951/?;

\**Fe* (2): 48/f (2);

**with a pendant/pendants** (glass, *AE*) – 3 ex.: 33/f, 102/ch, 422/f;

**with one pendant** – 2 ex.: 33/f, 422/f;

**bead**, glass – 1 ex.: 33/f;

**metal pendant** (*AE*) – 1 ex.: 422/f;

**with several pendants** (*AE*) – 1 ex.: 102/ch;

**metal pendants** – 1 ex.: 102/ch.

**Coin-pendant** (*AV*, *AE*) – 5 ex.: 2/ch, 252/ch, 271/?, 382/ch, 409/ch;

**Roman** (*AE*) – 4 ex.: 252/ch, 271/?, 382/ch, 409/ch;

**Byzantine** (*AV*) – 1 ex.: 2/ch.

**Cross-pendant** (*AE*, *Pb*) – 2 ex.: 378/ch, 388/ch;

**with an image of Christ** (*AE*) – 1 ex.: 378/ch;

**without an image of Christ** (*Pb*) – 1 ex.: 388/ch.

**Cuff end** (*AR*) – 1 ex.: 344/f.

**Earring with a raceme pendant** (*AR\**, *AE*) – 8 ex.: 62/f (2), 66/f, 426/ch (2), 440/f (2), S-2406–7 (Srnić);

\**AR* (4): 62/f (2), 426/ch (2);

**granulation** (*AR*) – 2 ex.: 66/f; S-2406–7 (Srnić);

**cast** (*AR\**, *AE*) – 6 ex.: 62/f (2), 426/ch (2), 440/f (2);

\**AR* (2): 62/f (2), 440/f (2).

**Fibula**, prehistoric, secondary use (*AR*, *AE*) – 2 ex.: 89/m, 252/ch;

**pendant**, late Iron Age (*AE*) – 1 ex.: 252/ch;

**scraper**, late Bronze Age (*AR*) – 1 ex.: 89/m.

**File** (*Fe*) – 2 ex.: 29/ch, S-2895 (quad. XIII/3c).

**Fish-hook** (*Fe*) – 2 ex.: 288/ch (2).

**Flint** – 5 ex.: 17/m?, 89/m, 148/m?, 317/m, II-1951/?;

**with a steel for tinder** – 1 ex.: 89/m;

**without a steel for tinder** – 4 ex.: 17/m?, 148/m?, 317/m, II-1951/?;

**in a non-functional position**: 4 ex.: 17/m?, 148/m?, 317/m, II-1951/?.

**Globular bell-pendant** (*AE*, *Fe\**) – 7 ex.: 115/f (2), 326/f, 355/ch (2), S-2408 (Srnić), S-2413 (Srnić);

\**Fe* (1): S-2408 (Srnić);

**spangle**, undecorated (*AE*) – 2 ex.: 355/ch (2);

**pendant on a necklace** (*AE*) – 3 ex.: 115/f (2), 326/f;

decorated – 2 ex.: 115/f, 326/f;

undecorated – 1 ex.: 115/f;

**undetermined purpose** (*AE*, *Fe*) – 2 ex.: S-2408 (Srnić), S-2413 (Srnić);

decorated (*AE*) – 1 ex.: S-2413 (Srnić);

undecorated (*Fe*) – 1 ex.: S-2408 (Srnić).

**Knife** (*Fe*) – 23 ex.: 57/m?, 81/m, 92/m (2), 94/m, 97/m?, 127/m? (2), 235/f?, 238/f?, 268/m, 289/m?, 312/m, 324/m, 327/f?, 331/m, 342/m, 345/m, 366/m?, 421/m, S-2897 (quad. XIII/6d), S-3458–3459 (2; quad. XI/10);

**straight back** – 5 ex.: 57/m?, 81/m, 97/m?, 289/m?, S-2897 (quad. XIII/6d);

**straight back bent downwards towards the tip** – 13 ex.: 92/m (S-2534/6), 127/m? (2), 238/f?, 312/m, 324/m, 327/f?, 331/m, 342/m, 345/m, 366/m?, 421/m;

**rounded back** – 4 ex.: 92/m (S-2535), 235/f?, 268/m, S-3458 (quad. XI/10);

**undetermined** – 1 ex.: S-3459 (quad. XI/10).

**Loosener/tightener, see Tightener/loosener**

**Lunula** (*AE*) – 1 ex.: S-2400.

**Mount**, belt mount, part of a belt set, secondary use (*AE*) – 3 ex.: 53/m, 71/m, 326/f;

**Avaric** (*SPA*) – 2 ex.: 71/m, 326/f;

**Early Hungarian** – 1 ex.: 53/m.

**Necklace, with a bead/beads, beads and metal pendants, and with metal pendants** – 34 ex.: 2/ch, 29/ch, 42/ch, 48/f, 52/ch, 102/ch, 108/f?, 115/f, 124/?, 138/f, 200/?, 217/f, 227/ch, 230/ch, 252/ch, 271/?, 279/f?, 322/ch, 326/f (2), 347/ch, 378/ch, 382/ch, 383/ch, 387/ch, 388/ch, 391/ch, 394/f, 408/ch, 409/ch, 412/ch, 424/ch, 425/ch, 429/ch;  
*Note*: S-2410/1 (1 – classified elsewhere, see "Beads")

**necklaces of beads** – 20 ex.: 29/ch, 42/ch, 48/f, 102/ch, 108/f?, 138/f, 200/?, 217/f, 230/ch, 279/f?, 322/ch, 326/f, 347/ch, 383/ch, 387/ch, 391/ch, 394/f, 412/ch, 424/ch, 425/ch;

**necklaces of beads and metal pendants** – 9 ex.: 52/ch (14+1), 115/f (114+2), 124/? (25+1), 227/ch (18+1), 252/ch (27+2), 388/ch (1+1), 408/ch (2+3), 409/ch (52+1), 429/ch (2+1);

**necklaces of metal pendants** (\**AV*, \**AR*, *AE*) – 5 ex.: 2/ch (2), 271/?, 326/f (3), 382/ch, 378/ch;

\**AV* (1): 2/ch (1);

\**AR* (1): 2/ch (1).

**Needle** (*AE*\*, *Fe*\*) – 4 ex.: 121/m, 257/m?, 293/m?, 307/f? (not preserved);

\**AE* (2): 293/m?, 307/f? (not preserved);

\**Fe* (2): 121/m, 257/m?.

**Object of unknown purpose** (*AR*) – 1 ex.: 390/ch;

**wire**, doubly bent – 309/ch.

**Osteological remains of provisions for the deceased** – 6 ex.: 28/ch, 30/f, 48/f, 132/m?, 346/?, 395/f;

**mammal** – 4 ex.: 28/ch, 48/f, 346/?, 395/f;

**cattle** (?) – 2 ex.: 48/f, 395/f;

**horse** (?) – 1 ex.: 346/?;

**unknown species** – 1 ex.: 28/ch;

**bird** – 1 ex.: 132/m?;

**bird** (?) – 1 ex.: 30/f.

**Pendant** (*glass*, *AE*, *Pb*, *Fe*) – 484 ex.: 2/ch (2), 29/ch (6), 33/f (1); 42/ch (5), 48/f, 52/ch (15), 84/m?; 102/ch (3), 108/f? (17), 115/f (116), 124/? (26), 138/f (37), 200/? (6), 217/f (59), 227/ch (19), 230/ch, 252/ch (29), 263/f, 271/?, 279/f?, 322/ch, 326/f (17), 347/ch (9), 367/m, 378/ch, 382/ch, 383/ch (5), 387/ch (8), 388/ch (2), 391/ch (2), 394/f, 408/ch (5), 409/ch (53), 412/ch (4), 424/ch, 425/ch (5), 429/ch (3), S-2390/2 (Srnić); S-2400 (Srnić); S-2410/1 (16; Srnić);

**on circlets** – 4 ex.: 33/f, 102/ch (2), 422/f;

**bead**, glass – 1 ex.: 33/f;

**hoop**, circular section (*AE*) – 1 ex.: 102/ch;

**hoop**, banded section (*AE*) – 2 ex.: 102/ch;

**hoop**, banded section, secondary use of a fragment of the band of a ring (*AE*) – 1 ex.: 422/f;

**on necklaces** – 476 ex. = beads (454 ex.) + metal pendants (22 ex.);

**beads**, glass and amber = see "Beads"

**metal pendants** (*AE*, *Pb*, *Fe*) – 22 ex.: 2/ch (2), 52/ch, 115/f (2), 124/?, 227/ch, 252/ch (2), 271/?, 326/f (3), 378/ch, 382/ch, 388/ch, 408/ch (3); 409/ch, 429/ch, S-2400 (Srnić);

**two-part pendant**, lower part (*AE*) – 1 ex.: 326/f;

**fibula**, secondary use, prehistoric/La Tène (*AE*) – 1 ex.: 252/ch;

**strap-end** (belt), secondary, secondary use, migration period/late Avaric period (*AE*) – 1 ex.: 326/f;

**circlet** (*AE*) – 3 ex.: 52/ch, 124/?, 227/ch;

**spike**, secondary use, Roman period/late Republican or early Imperial (*Fe*) – 1 ex.: 408/ch;

**cross** (*AE*, *Pb*) – 2 ex.: 378/ch, 388/ch;

**with an image of Christ** (*AE*) – 1 ex.: 378/ch;

**without an image of Christ** (*Pb*) – 1 ex.: 388/ch.

**lunula** (*AE*) – 1 ex.: S-2400;

**coin** (*AV*, *AE*) – 5 ex.: 2/ch, 252/ch, 271/?, 382/ch, 409/ch;

**Roman** (*AE*) – 4 ex.: 252/ch, 271/?, 382/ch, 409/ch;

**Byzantine** (*AV*) – 1 ex.: 2/ch;

**globular bell-pendant** (*AE*) – 3 ex.: 115/f (2), 326/f;  
**ring** (*AR, AE*) – 2 ex.: 2/ch, 408/ch;  
     **open**, hoop secondarily used (*AR*) – 1 ex.: 2/ch;  
     **with a crown** (*AE*) – 1 ex.: 408/ch;  
**bell-shaped pendant** (*AE*) – 1 ex.: 408/ch;  
**wire with a spiral O-ending** (*AE*) – 1 ex.: 429/ch;  
**on torcs** (*AE*) – 4 ex.: 326/f (2), 391/ch, S-2390/2 (Srnić);  
     **hoop**, open (*AE*) – 1 ex.: 391/ch;  
     **hoop**, closed, secondary use, prehistoric/early Iron Age (*AE*) – 1 ex.: S-2390/2 (Srnić);  
**rings** (*AE*) – 2 ex.: 326/f (2);  
     **open**, banded section – 1 ex.: 326/f;  
     **closed**, with wart-like protrusions – 1 ex.: 326/f.

**Pincers** (*Fe*) – 1 ex.: 86/ch.

**Pot, fragment(s)** – 2 ex.: 7/?, 60/f;

**large fragments** – 1 ex.: 60/f.

**small fragment** – 1 ex.: 7/?;

**Press (for an awl)** – 2 ex.: 253/f?, 306/m;

**stone** – 1 ex.: 253/f?;

**bone** – 1 ex.: 306/m.

**Projectile for a slingshot** (*pottery*) – 2 ex.: 319/? (2).

**Quiver, parts** (*Fe; bone*) – 5 ex.: 127/m?, 232/m, 237/m, 268/m, 336/?;

**frames**, iron – 5 ex.: 127/m?, 232/m, 237/m, 268/m, 336/?;

**panels**, bone – 2 ex.: 232/m, 268/m.

**Razor** (*Fe*) – 1: 232/m.

**Ring** (*AR, AE*) – 123 ex.: 2/ch, 3/m, 7/? (3), 13/ch, 14/m, 20/f, 24/f?, 26/f, 30/f (2), 33/f (2), 37/m, 48/f (2), 49/f, 59/f, 60/f (2), 62/f, 66/f, 74/m, 80/f, 90/m, 92/m, 93/m (4), 94/m, 97/m?, 108/f?, 110/?, 115/f (2), 122/f, 125/f, 137/?, 138/f (2), 151/f (2), 159/f (2), 164/f, 165/ch, 174/?, 196/?, 211/f (2), 217/f (3), 222/f, 228/m, 229/m, 240/ch, 250/f?, 263/f, 267/f (2), 268/m, 279/f?, 292/f, 297/f?, 298/f, 313/f? (2), 314/f (2), 315/f (3), 316/f (3), 324/m, 326/f (3), 331/m, 333/?, 344/f, 347/ch, 349/ch, 358/m (2), 360/m?, 362/f?, 364/f, 365/f?, 370/m, 374/f?, 379/m, 384/m?, 386/m, 394/f, 395/f, 402/ch, 403/f (2), 408/ch, 409/ch (2), 413/?, 415/m?, 417/m, 420/f, 422/f, 426/ch, 435/f (2), 436/ch, 440/f, 444/f, I-1951/?, III-1951/?, S-2397 (Srnić), S-2398 (Srnić), S-2399 (Srnić), S-2894 (quad. VII/6d);

**open** (*AR\*, AE*) – 68 ex.: 2/ch, 7/?, 13/ch, 20/f, 24/f?, 30/f (2), 33/f (2), 37/m, 48/f, 49/f, 59/f, 60/f (2), 80/f, 90/m, 92/m, 93/m (3), 94/m, 97/m?, 108/f?, 110/?, 115/f, 125/f, 137/?, 138/f, 159/f, 164/f, 165/ch, 174/?, 196/?, 217/f (2), 229/m, 240/ch, 250/f?, 263/f, 268/m, 279/f?, 298/f, 313/f?, 315/f, 316/f, 324/m, 326/f, 333/?, 349/ch, 358/m, 360/m?, 362/f?, 370/m, 379/m, 394/f, 395/f, 409/ch, 413/?, 415/m?, 417/m, 420/f, 422/f, 435/f, 436/ch, III-1951/?, S-2397 (Srnić), S-2398 (Srnić);

    \**AR* (9): 2/ch, 229/m, 298/f, 316/f, 358/m, 370/m, 415/m?, 417/m, 444/f.

**secondary use** (*AE*) – 3 ex.: 2/ch, 125/f, 326/f;

**remodelling of early medieval ring** – 1 ex.: 125/f;

**pendant on a torc** – 1 ex.: 326/f;

**pendant on a necklace** – 1 ex.: 2/ch;

**closed** (*AR\*, AE*) – 16 ex.: 3/m, 7/? (2), 26/f, 74/m, 159/f, 211/f, 228, 313/f?, 314/f, 326/f, 331/m, 358/m, 403/f (2), 440/f;

    \**AR* (7): 3/m, 74/m, 313/f?, 331/m, 358/m, 403/f, 440/f.

**secondary use** (*AE*) – 1 ex.: 326/f;

**pendant on a torc** (*AE*) – 1 ex.: 326/f;

**with a crown** (*AR\*, AE*) – 39 ex.: 14/m, 48/f, 62/f, 66/f, 93/m, 115/f, 122/f, 138/f, 151/f (2), 211/f, 217/f, 222/f, 267/f (2), 292/f, 297/f?, 314/f, 315/f (2), 316/f (2), 326/f, 344/f, 347/ch, 364/f, 365/f?, 374/f?, 379/m, 384/m?, 386/m, 402/ch, 408/ch, 409/ch, 426/ch, 435/f, I-1951/?, S-2399 (Srnić), S-2894 (quad. VII/6d);

    \**AR* (4): 316/f, 347/ch; 379/m; I-1951/?

**secondary use** (*AE*) – 1 ex.: 408/ch;

**pendant on a necklace** (*AE*) – 1 ex.: 408/ch.

**Scraper**, secondary use, prehistoric fibula, fragment (*AR*) – 2 ex.: 89/m.



- Spangles** (*AE*) – 12 ex.: 271/?, 349/ch (5), 355/ch (1), 417/m (2), 425/ch, S-2411–2412 (Srnić);  
**circular** – 11 km: 271/?, 349/ch (5), 355/ch (1), 417/m (2), 425/ch, S-2411 (Srnić);  
**two-part pendant**, upper part, secondary use – 2 ex.: 349/ch, 355/ch.  
**square** – 1 ex.: S-2412 (Srnić).  
*Note:* 349/ch, 355/ch, 2416/6–11 (8 – otherwise classified, see here "**Two-part pendants**, upper part, secondary use").
- Spike, pendant on a necklace**, secondary use: Roman period spike, late Republic/early Empire (*Fe*) – 1 ex.: 408/ch.
- Spindle-whorl** (*pottery*) – 4 ex.: 122/f, 218/f, 281/ch, 289/m?.  
**biconical** – 3 ex.: 122/f, 218/f, 281/ch;  
**identical halves** – 1 ex.: 281/ch;  
**different halves** – 2 ex.: 122/f, 218/f;  
**conical**, secondarily used prehistoric spindle-whorl/Copper Age (Kostolac Culture) or late Bronze Age and early Iron Age – 1 ex.: 289/m?.
- Steel** (*Fe*) – 6 ex.: 81/m, 89/m, 101/?, 107/m?, 268/m, 342/m;  
**lyre-shaped**, without a flint – 4 ex.: 81/m, 107/m?, 268/m, 342/m;  
**with one arm bent backwards**, without a flint – 1 ex.: 101/?;  
**ellipsoid-rectangular shape**, with a flint – 1 ex.: 89/m.
- Strap-end**, mount at the end of a belt, secondary use (*AE*) – 3 ex.: 53/m, 71/m, 336/?;  
**belt** – 2 ex.: 71/m, 336/?;  
**Avaric** (late Avaric), secondary mount of a belt set – 2 ex.: 71/m, 336/?;  
**harness** – 1 ex.: 53/m;  
**Early Hungarian**, mount for the end of a horse harness, gilded – 1 ex.: 53/m.
- Thatching needle**, bone – 1 ex.: 29/ch.  
**rabbit**, lower part of the leg (humerus) – 1 ex.: 29/ch.
- Tightener/loosener**, bone (deer antler tine) – 1 ex.: 37/m.
- Torc** (*AE*) – 24 ex.: 23/ch, 31/f?, 66/f, 115/f, 138/f, 159/f, 217/f, 298/f, 326/f, 349/ch, 355/ch, 383/ch, 391/ch, 409/ch, 412/ch, 444/f, I-1951/?, S-2389 (Srnić), S-2390/1 (Srnić), S-2391 (Srnić), S-2392 (Srnić), S-2393 (Srnić), S-2394 (Srnić), S-2418 (Srnić);  
**with a fastening**, – 23 ex.: 23/ch, 31/f?, 66/f, 115/f, 138/f, 159/f, 217/f, 298/f, 326/f, 349/ch, 355/ch, 383/ch, 409/ch, 412/ch, 444/f, I-51/?, S-2389 (Srnić), S-2390/1 (Srnić), S-2391 (Srnić), S-2392 (Srnić), S-2393 (Srnić), S-2394 (Srnić); S-2418 (Srnić);  
**with a hook and eye**, made from one or more wires of circular section – 21 ex.: 23/ch, 31/f?, 115/f, 138/f, 159/f, 217/f, 298/f, 326/f, 349/ch, 355/ch, 383/ch, 409/ch, 412/ch, 444/f, I-51/?, S-2389 (Srnić), S-2390/1 (Srnić), S-2391 (Srnić), S-2392 (Srnić), S-2393 (Srnić), S-2394 (Srnić);  
**one triply bent wire** – 9 ex.: 115/f, 138/f, 217/f, 298/f, 355/ch, 383/ch, 409/ch, 412/ch, S-2390 (Srnić);  
**two doubly bent and oppositely arranged wires** – 5 ex.: 31/f?, 159/f, 444/f, S-2392 (Srnić), S-2393 (Srnić);  
**one single and one doubly bent wire** – 3 ex.: 23/ch, 326/f, I-1951/?);  
**three single wires** – 1 ex.: 349/ch;  
**incomplete and partially preserved torcs** – 3 ex.: S-2389 (Srnić), S-2391 (Srnić), S-2394 (Srnić);  
**with two hooks**, of circular section wire – 2 ex.: 66/f, S-2418 (Srnić);  
**tapered towards the ends** – 1 ex.: S-2418 (Srnić)  
**thinned and hammered flat towards the ends** – 1 ex.: 391/ch;  
**open**, of circular section wire (ends hammered, curved, bent into an S-shape) – 1 ex.: 66/f.
- Two-part pendant** (*AE*) – 27 ex.: 23/ch (4), 326/f, S-2414/1–4 (4; Srnić), S-2415/1–5 (5; Srnić); S-2416/1–11 (11; Srnić);  
**complete** – 8 ex.: 23/ch (4), S-2414/1–4 (4; Srnić);  
**lower part** – 6 ex.: 326/f, S-2415/1–5 (5; Srnić);  
**secondary use**, grave find – 1 ex.: 326/f;  
**secondary use**, chance find – 5 ex.: S-2415/1–5 (5; Srnić);  
**upper part** – 13 ex.: 349/ch, 355/ch, S-2146/1–11 (11; Srnić);  
**secondary use**, spangle, grave find – 2 ex.: 349/ch, 355/ch;  
**secondary use**, spangle, chance find – 6 ex.: S-2416/6–9 (4; Srnić), S-2416/10–11 (2; Srnić);  
**chance find** – 5 ex.: S-2416/1–5 (5; Srnić).

## B) Other finds

Some of the objects discovered next to, above, below, or in general in the vicinity of the early medieval skeletons or in the fill of their graves belong to various strata of prehistoric periods whose archaeological remains, if they were recognized as such, were investigated at the same time as the early medieval cemetery of the Bijelo Brdo Culture. Some of these objects were grave goods from destroyed or only partially preserved prehistoric cremation graves (such as bowls, an urn, a two-looped fibula, pin/pins), but both more numerous and diverse were those objects that came from the remains of prehistoric, primarily late Iron Age settlement structures destroyed or disturbed by the medieval burials (nails, slag, graphite, clumps of ore and nuggets of various metals, a fragment of a metal platelet, a fragment of a shell, a fragment of a pottery vessel, an antler tine, animal teeth, and other items).

**Antler**, horned animal (deer), fragment/tine – 1 ex.: 10/f.

**Fibula**, prehistoric, early Iron Age, two-looped (*Fe*) – 1 ex.: 94/m.

**Graphite** – 1 ex.: 303/f.

**Nail** (*Fe*) – 4 ex.: 13/ch, 56/m, 136/f, 238/f.

**Nuggets** – 3 ex.: 19/?, 318/ch, 382/ch;

**ore** – 1 ex.: 19/?

**metal** – 2 ex.: 318/ch, 382/ch;

**bronze** – 1 ex, 318/ch;

**lead** – 1 ex.: 382/ch.

**Object of unknown purpose** – 4 ex.: 19/? (2), 21/f, 222/f;

**bone**, worked, fragment/fragments – 2 ex.: 19/?, 222/f;

**metal**, platelet, fragment, AE (brass) – 1 ex.: 21/f;

**unknown material (metal?)**, bead (?), brown – 1 ex. 19/?

**Pin**, prehistoric, early Iron Age (*Fe*, *glass*) – 2 ex.: 13/ch (2).

**Shell**, unio, fragment, worked (ground?) – 1 ex.: 163/ch.

**Slag** – 2 ex.: 121/m, 416/m.

**Tooth**, animal, unworked (unpolished) – 2 ex.: 231/f, 310/m;

**eyetooth**, pig – 1 ex.: 231/f;

**incisor**, pig – 1 ex. 310/m.

**Vessel**, prehistoric (*pottery*) – 5 ex.: 19/?, 55/?, 67/m, 226/?, 396/m;

**Early Iron Age (Hallstatt)** – 4 ex.: 19/?, 55/?, 67/m, 226/?;

**fragment of the body** – 1 ex.: 19/?;

**bowl** – 1 ex.: 226/?;

**bowl**, with a handle – 1 ex.: 55/?;

**urn**, fragment (from cremation grave 21) – 1 ex.: 67/m.

**Late Iron Age (La Tène)** – 1 ex.: 19/?;

**fragment of the body**, ocher-red – 1 ex.: 396/m.

# 8. LIST OF ADDENDA, FIGURES, TABLES AND PLATES

## A) List of addenda

**Addendum 1.** The plan of the cemetery with the list of graves and quadrants.

**Addendum 2.** CD with the English translation: *An Early Medieval Cemetery of the Bijelo Brdo Culture: Vukovar – Lijevo Bara (10<sup>th</sup>–11<sup>th</sup> Centuries)*.

## B) List of figures

- Fig. 1.** The position of Vukovar and the County of Vukovar-Srijem. [p. 15]
- Fig. 2.** The map of Vukovar with the location of the archaeological site of Lijevo Bara (N 45°20'32–34" / E 19°00'36–39"). [p. 17]
- Fig. 3.** The site of Lijevo Bara with the area of archaeological excavations (the situation according to the plan from 1956; the names of the streets correspond to current usage; original scale 1:1000) [p. 19]
- Fig. 4.** The document from the Department of Philosophy and Social Sciences of the Yugoslav Academy of Science and Art in which the Archaeological Museum in Zagreb is denied funding for archaeological excavations in 1954. [p. 20]
- Fig. 5.** Variants of leg position among skeletons placed on the back. **1** – Gr. 44/f. **2** – Gr. 157/?. **3** – Gr. 363/f. [p. 391]
- Fig. 6.** Skeletons placed on the back with legs contracted on the right side. **1** – Gr. 25/?. **2** – Gr. 83/?. **3** – Gr. 242/ch. **4** – Gr. 329/ch. **5** – Gr. 131/f. [p. 392]
- Fig. 7.** The forearm positions: groups (I–V), variants (v.1–25), and the basic variants of individual groups (v.1, 7, 13, 19, 25). [p. 393]
- Fig. 8.** The frequency of orientations of the male, female, and child skeletons. [p. 397]
- Fig. 9.** The orientation of graves (skeletons) at several Bijelo Brdo cemeteries in Croatia (Vukovar – Lijevo Bara) and Hungary (Majs – Udvari rétek, Halimba – Ceres, Pusztaszentlászló – Deaksúrű). [p. 398]
- Fig. 10.** Hypothesized double graves. **1** – Gr. 83/? and 91/ch. **2** – Gr. 208-1,2/f, ch. **3** – Gr. 302/ch and 303/f. **4** – Gr. 424/ch and 425/dj. [p. 399]
- Fig. 11.** Superimposition in early medieval and prehistoric graves. **1** – Gr. 88/ch and 36/?. **2** – Gr. 89/m and 78/m. **3** – Gr. 286/ch and 303/f. **4** – Gr. 287/ch and 304/ch. **5** – Early medieval gr. 426/f and the lower part of the skeleton from prehistoric gr. 427p/ch. **6** – Early medieval gr. 185/? and the skull of the skeleton from prehistoric gr. 202p/f. [p. 401]
- Fig. 12.** Quadrants with early medieval graves damaged by recent period digging. **1** – above to below gr. 139/f, 138/f, 193/?, 170/m, and 173/? in quad. IX/10 and IX/11. **2** – above to below gr. 85/m and 93/f in quad. VI/13. **3** – above to below gr. 114/f and 120/m, and the undamaged prehistoric cremation gr. 29/ch, 31/f? and 30/ch in quad. X/12. **4** – left lower corner gr. 53/m in quad. XII/7 and XII/8. [p. 403]
- Fig. 13.** Graves with deliberately disturbed skeletons. **1** – Gr. 83/? (no finds). **2** – Gr. 135/? (no finds). **3** – Gr. 185/? (no finds). **4** – Gr. 285/f (no finds). **5** – Gr. 207/ch (no finds). **6** – Gr. 7/? (finds). **7** – Gr. 376/f (no finds). [p. 404]
- Fig. 14.** Represented types and variants of objects of everyday use, personal equipment (4.1.1.1–3). **1** – Knives, iron (1.1 – a knife with a straight spine: quad. XIII/6d, 1953; 1.2 – a knife with a straight back bent downwards toward the tip: gr. 345/m; 1.3 – a knife with a curved back: quad. XI/10, 1952). **2** – Fire-steels, iron (2.1a/a – lyre-shaped, flat base, arms raised at an angle: gr. 107/m; 2.1b/a – lyre-shaped, convex base, arms raised at an angle: gr. 81/m; 2.1a/b – lyre-shaped, flat base, arms curved like the letter "C": gr. 268/m; 2.2 – a fire-steel with one arm lowered at an angle: gr. 101/?; 2.3 – a fire-steel of elliptical-rectangular shape: gr. 89/m). **3** – A flint (gr. II-1951/?). [p. 411]
- Fig. 15.** Represented types and variants of objects of everyday use: tools and implements (4.1.2.1–8). **1** – Spindle-whorl, fired clay (1.1a – biconical, identical halves: gr. 281/ch; 1.1b – biconical, unequal halves: gr. 218/f; 1.2 – conical: gr. 289/m?). **2–4** – Thatching needle, awl, needle (2 – thatching needle, bone: gr. 29/ch; 3.1a – awl, bone, animal:

- gr. 22/m; 3.1b – awl, bone, fish: gr. 253/f?; 3.2 – awl, iron: gr. 306/m; 4.1 – needle, iron: gr. 257/m?; 4.2 needle, bronze: gr. 293/m?). **5** – Awl press (5.1a – stone: gr. 253/f?; 5.1b – bone: gr. 306/m). **6** – Tightener/loosener, bone (37/m). **7** – Scraper, silver, (89/m). **8** – File, iron (quad. XIII/3c, 1953.). [p. 416]
- Fig. 16.** Represented types and variants of objects of everyday use – hunting and fishing gear (4.1.3.1–2), cosmetic accessories (4.1.4.1–2). **3** – Hunting and fishing gear (3.1 – projectile for a slingshot, clay: gr. 319/?; 3.2 – hook, iron: gr. 288/ch). **4** – Cosmetic accessories (4.1 – razor, iron: gr. 232/m; 4.2 – pincers, iron: gr. 86/ch). [p. 421]
- Fig. 17.** The position of the pincers in gr. 86/ch (detail). [p. 423]
- Fig. 18.** Represented types of weapons and military equipment – archery weapons and equipment (4.2.1.1–3). **1** – Bow, bone plating (gr. 92/m). **2** – Arrowhead, iron (2.1 – rhomboid head: gr. 441/m; 2.2 – laurel-leaf head: gr. 127/m; 2.3 – double-winged head: gr. 232/m). **3** – Quiver (3.1 – reinforcing rods, iron: gr. 268/m; 3.1a – suspension parts, iron: gr. 237/m; 3.2 – paneling of mouth and neck, bone: gr. 232/m). [p. 425]
- Fig. 19.** Fragments of the covering laths of the reflex bow in gr. 92. **1** – The entire skeleton with the laths arranged on the trunk and to the right of the pelvis. **2** – Detail of the upper part of the body with partially visible laths and their somewhat different arrangement. [p. 426]
- Fig. 20.** Main forms of the upper bone laths of early Hungarian composite bows (from: DEMO 2005). **1** – Sárkadkeresztúr – Barna tanya (H; Békés County), gr. 81: MEDGYESI 1993, 499. **2** – Karos – Eperjesszög I (H; Borsod – Abaúj – Zemplén County), gr. 1/1936: RÉVÉSZ 1996, 227 Pl. 5:1. **3** – Karos – Eperjesszög III (H; Borsod – Abaúj – Zemplén County), gr. 14: RÉVÉSZ 1996, 355 Pl. 132:5–6. [p. 427]
- Fig. 21.** Reconstruction of the bone panels of the mouth of the quiver from grave 232 (1:1). [p. 433]
- Fig. 22.** Fragments of the bone plating of the neck of the quiver from gr. 232 (1:1). [p. 434]
- Fig. 23.** Finds of quivers and their positions in the graves. **1** – Gr. 127 (detail). **2** – Gr. 232. **3** – Gr. 237. **4** – Gr. 268. **5** – Gr. 336. [p. 435]
- Fig. 24.** The southeastern zone of burial with the position of the "triangular group" of archers (quad. XII/4–6 and XIII/4–6). [p. 436]
- Fig. 25.** Represented types of small-format (a) and large-format (b) circlets without an ending (1), with and without a pendant (1.1a–1.2b), and circlets with an ending (2) and their numerous variants (4.3.1.1a–2.3). **1.1a** – Circlets without an ending, small-format, bronze, silver (1.1a.1 – II.4/1, bronze: gr. 291/f; 1.1a.2 – II.5/2, silver: gr. 23/ch). **1.1b** – Circlets without an ending, large-format, bronze, silver (1.1b.1 – I.6/2, bronze: gr. 109/f; gr. 23; 1.1b.2 – I.7/2, silver: gr. 66/f; 1.1b.3 – I.8/3, bronze: gr. 263/f; 1.1b.4 – I.9/5, bronze: gr. 93/f; 1.1b.5 – I.10/53 – gr. 413/?). **1.2a** – Circlets without an ending, with one or more pendants, small-format, bronze (1.2a.2 – II.5/3, bronze: gr. 102/ch). **1.2b** – Circlets without an ending, with one or more pendants, large-format, bronze (1.2b.1: I.6/7, bronze: gr. 422/f; 1.2b.2: I.7/3, bronze: gr. 33/f). **2.1a** – Circlet with an ending, O-circlet, small-format, bronze (2.1a.2 – II.5/2, bronze – gr. 69/f). **2.1b** – Circlets with an ending, O-circlet, large-format, bronze, silver (2.1b.2 – I.7/3, bronze: gr. 255/f?; 2.1b.3: gr. I.8/3, silver: gr. 229/m; 2.1b.4 – I.9/3, bronze: gr. 90/m). **2.2a** – Circlets with an ending, S-circlet, small-format, bronze, silver (2.2a.1 – II.4/1, bronze: gr. 393/ch; 2.2a.2 – II.5/3, silver: gr. 315/f). **2.2b** – Circlets with an ending, S-circlet, large-format, bronze, silver (2.2b.2 – I.7/5, silver: gr. 137/?; 2.2b.4 – I.9/2, bronze: gr. 349/ch). **2.3** – Circlet with a spiral ending, bronze (2.3.1, the ending widened towards the bottom, bronze: gr. 252/ch). [p. 439]
- Fig. 26.** Sites of discovery of circlets with a spiral ending at Bijelo Brdo cemeteries in Bosnia & Herzegovina, Croatia, Hungary, Romania, Slovakia, Slovenia, and Serbia (sites mentioned in the text). **1** – Petoševci – Bagruša (BiH; Laktaši District). **2** – Bijelo Brdo – Ul. Venecija (Hr; Osječko-Baranjska County). **3** – Osijek – Vijenac I. Meštrovića (Hr; Osječko-Baranjska County). **4** – Vukovar – Lijeva Bara (Hr; Vukovarsko-Srijemska County). **5** Ellend – Nagygödör dűlő (H; Baranya County). **6** Halimba – Cseres (H; Veszprém County). **7** Koppányszántó – crkva (H; Tolna County). **8** Majs – Udvari rétek (H; Baranya County). **9** Püspökkladány – Eperjesvölgy (H; Hajdú-Bihar County). **10** – Rákóczipfalva – Kastélydomb (H; Szolnok County). **11** – Sárrétudvari – Hízófield (H; Hajdú-Bihar County). **12** – Szegvár – Oromdűlő (H; Csongrád County). **13** – Szentes – Szentlászló (H; Csongrád County). **14** – Tiszabercel – Ráctemető (H; Szabolcs-Szatmár County). **15** – Hunedoara – Kincseshegy (Ro; Vest District). **16** – Moldovenesti – Várhegy (Ro; Cluj County). **17** – Bratislava – Rusovce/Kovácsova ul. (Sk; Bratislava District). **18** – Čakajovce – Kostolné (Sk; Nitra District). **19** – Čhľaba – Parlagok (Sk; okr. Nové Zámky District). **20** – Ptuj-Grad/Turnirski prostor (Slo; Ptuj District). **21** – Bogojevo – Ul. Biboja (Srb; Odžaci District). **22** – Subotica-Verusić-B (Srb; Subotica District). [p. 450]
- Fig. 27.** The represented types and variants of earrings with a raceme pendant (4.3.1.2.1–2). **1** – Earrings of the "Volhynia – Kiev" type with a raceme pendant, silver, filigree, granulation (1.1 – an earring, incomplete: gr. 66/f; 1.2 – an earring with a raceme pendant and central barrel-shaped bead: chance find, S-2406–7). **2** – Earrings with a raceme pendant, bronze, silver, cast (2.1a.1 – an earring with an oval pendant and a pair of joints, bronze, cast: gr. 62/f; 2.1b.1 – an earring with an oval pendant and two pairs of joints, bronze, cast: gr. 440/f; 2.2a.1 – an earring of the "Volhynia – Kiev" type with two pairs of joints, silver, cast: gr. 426/f). [p. 453]
- Fig. 28.** A raceme earring of the "Volhynia – Kiev" type with a central barrel-shaped bead (M 3:1). [p. 453]
- Fig. 29.** Finds of raceme earrings of the "Volhynia – Kiev" type with a central barrel-shaped bead decorated with a motif of upright rhombs made with granulation from Croatia, Hungary, Moldavia, and Ukraine. **1** – Vukovar – Lijeva Bara, chance find, S-2406–7 (Hr; Vukovarsko-Srijemska County). **2** – Szob – Kiserdő, gr. 69 (H; Pest County). **3**

- Tokaj, hoard find (H; Borsod – Abauj – Zemplén County). **4** – Brănești (Md; Orhei Region), grave find. **5** – Jurkovići, hoard find (Ua; Vinnytska Region). **6** – Kopijevka, hoard find (Ua; Vinnytska Region). **7** – Peresopnica, grave find (Ua; Zhitomirska Region). [p. 455]
- Fig. 30.** Types of metal pendants hung from torcs, bronze. **1** – Circlets (1a – open, circular section: gr. 391/ch; 1b – closed, banded section: S-2390/2); **2** – Rings (2a – open ring, banded section: gr. 326/f; 2b – closed ring with wart-like protrusions: gr. 326/f). [p. 460]
- Fig. 31.** Zones defined by finds of torcs (zones I–V). **1** – Graves with finds of torcs. **2** – Graves with finds of quivers. **3** – Graves with finds of arrows. [p. 461]
- Fig. 32.** Types and variants of torcs (4.3.2.1.1–3). **1** – Torc with a hook and eye twisted from one or more wires of circular section, De. 1.1.1–2 (gr. 217/f); **2** – Torc with two hooks (2a. – wire of circular section tapered towards the ends, De. 1.2.1.2: Srnić, S-2418; 2b. – wire of circular section tapered towards the ends and hammered into a band, the banded ending decorated, De. 1.2.1.3.1: gr. 391/ch); **3** – Torc with open ends, wire of circular section tapered towards the ends, the ends hammered flat and curved outwards in the shape of the letter "S", De. 2.1.1.2 (gr. 66/f). [p. 464]
- Fig. 33.** The arrangement of wires in the manufacture of torcs with one or more wires of uniform thickness (De. 1.1.1.1a–4c): subgroups (1–4) and variants (a–c). [p. 466]
- Fig. 34.** Finds of rare types of fastened torcs and open-ended torcs at Bijelo Brdo cemeteries in Croatia, Hungary, and Slovakia. A) – Torcs that fasten, with two hooks, the circular section wire tapered towards the ends (De. 1.2.1.2): **1** – Vukovar – Lijeva Bara (Hr; Vukovarsko-Srijemska County), chance find, S-2418: DEMO 1996, 70 no. 10; **2** – Rád – Kishegy (H; Pest County), gr. 4: PATAY 1957, 61, Pl. XIV:13; **3** – Sarud – Pócsötöltsé (H; Heves County), gr. 6: SZABÓ 1976, 18, 31 (Fig. 12); SZABÓ 1980, 53 (Fig. 2). **A1** – Torcs that fasten, with two hooks, the circular section wire tapered towards the ends, the banded endings undecorated: **1** – Malé Kosihy – Horné Konopnice, gr. 301 (Sk; Nové Zámky District): HANULIAK 1994, 42 Fig. 40:21c, 44, 131, 201 Pl. LXII:A/3. **B**) Torcs that fasten, with two hooks, the circular section wire tapered towards the ends, the hammered banded endings decorated (De. 1.3.1.2): **1** – Vukovar – Lijeva Bara (Hr; Vukovarsko-Srijemska County), gr. 391/ch: DEMO 1996, 85 no. 42.2. **C**) Torcs with open ends, the circular section wire tapered towards the ends, the ends hammered and bent outwards in the shape of the letter "S" (De. 2.1.1.2): **1** – Vukovar – Lijeva Bara, (Hr; Vukovarsko-Srijemska County), gr. 66: DEMO 1996, 48 Fig. 29, 89 no. 48:3; **2** – Rákóczi-falva – Kastélydomb (H; Szolnok County), gr. 7: SELMECSI – MADARAS 1980, 146, 159, Pl. VIII:3. **C1**) Torcs with open ends, the circular section wire tapered towards the ends, the ends pointed: **1** – Majs – Udvari rétek, gr. 723 (H; Baranya County): KISS 1983, 125, 163 (Fig. 76:2), 373 Pl. 65. [p. 470]
- Fig. 35.** Represented types of necklaces (4.3.2.2.1–3). **1** – Necklaces of beads (e.g. gr. 217/f); **2** – Necklaces of beads and metal pendants (e.g. gr. 227/ch); **3** – Necklaces of metal pendants (e.g. gr. 326/f). [p. 472]
- Fig. 36.** Types and variants of beads on necklaces from Lijeva Bara (4.3.2.3.1.1). **01** – Segmented (011 – single: gr. 115/f; 012 – double: gr. 48/f; 014 – quadruple: gr. 383/ch). **02** – Globular (gr. 124/?). **03** – Flattened globular (gr. 409/ch). **04** – Flattened globular, vertically ribbed (gr. 227/ch). **05** – Cylindrical, short (gr. 124/?). **06** – Cylindrical, long (06a – small: gr. 383/ch; 06b – large: gr. 409/ch). **07** – Cylindrical, vertically ribbed (gr. 408/ch). **08** – Rod-shaped (gr. 115/f). **09** – Biconical (gr. 279/?). **10** – Rectangular-prismatic (gr. 252/ch). **11** – Annular, small (gr. 425/ch). **12** – Oval (gr. 115/f). **13** – Cylindrical with pinched ends (gr. 347/ch). **14** – Grits-shaped (gr. 115/f). **15** – Polygonal-irregular (gr. 108/?). [p. 477]
- Fig. 37.** Represented types and variants of metal pendants: gold, silver, bronze, iron, lead (4.3.2.3.2.1–6). **1** – Crosses, bronze, lead (1a – with a depiction of Christ, bronze: gr. 378/ch; 1b – w/out Christ, lead: gr. 388/ch). **2** – Lunula, silver (S-2400). **3** – Bell-pendants, bronze, iron (3a – bell-pendant, bronze: gr. 115/f; 3b – bell-pendant, iron: S-2408). **4** – Bell, bronze (gr. 408/ch). **5** – Coins, gold, bronze (5a – coin, gold: gr. 2/ch; 5b – coin, bronze: gr. 252/ch). **6** – Other pendants, bronze (6.2 – circlet, annular, bronze: gr. 124/?; 6.5 – spirally wound wire, bronze: gr. 429/ch; 6.7 – fibula, late La Tène, bronze: gr. 252/ch; 6.8 – spike, late Republican, iron: gr. 408/ch; 6.9 – belt mount, late Avaric, bronze: gr. 326/f; 6.10 – ring, open-ended, bronze: gr. 2/ch; 6.13 – two-part pendant, lower part, bronze: gr. 326/f; 6.14 – bell-pendant, fragment, bronze: gr. 326/f; 6.17 – ring with a crown, bronze: gr. 408/ch). [p. 480]
- Fig. 38.** Lunula variants with spectacle-shaped additions from sites in Hungary and Slovakia (1–5). **1a** – Hurbanovo – Bohatá, gr. 36: REJHOLCOVÁ 1976, 224 Pl. V:5; **1b** – Majs – Udvari rétek, gr. 603/ch: KISS 1983, 161 Fig. 74:2. **2** – Tápiószéle – Szőlő, gr. 1: HAMPEL 1907, 209, Pl. 88:4; KRALOVÁNSKY 1959, 77 no. 31, Pl. XIII:11. **3** – Pécs – István tér: KISS 1983, 258 Fig. 123:4. **4a** – Budapest – Csepel/Királyerdő: KRALOVÁNSKY 1959, 76 no. 4; Pl. XIII:9; **4b** – Pécs – Somogy, gr. 141: DOMBAY 1962, Pl. XII:2. **5** – Szentes – Nagyhegy: KRALOVÁNSKY 1959, 77 no. 26, Pl. XIII:14. [p. 481]
- Fig. 39.** Decorative motifs on bronze globular bell-pendants. [p. 484]
- Fig. 40.** Finds of globular bell-pendants at Bijelo Brdo cemeteries in the area between the Mura, Drava, Danube, and Sava Rivers. **1** (1–26) – Gomjenica – Baltine bare (BiH; Prijedor District), gr. 19 (2 ex.), 23, 37a (2 ex.), 43 (9 ex.), 44 (4 ex.), 64 (3 ex.), 67, 98, 109, 141, 161: MILETIĆ 1967, 85, 87–88, 91–92, 95, 99, 101–102. 23, 46, 67, 98, 109 (in a file), 141, 161. **2** (27–43) – Mahovljani – Luke/Kužno groblje (BiH; Laktaši District), gr. 15 (5 ex.), 30 (8 ex.), 67, 76, chance finds (2 ex.): MILETIĆ 1980, 139, 141, 144–145. **3** (44–57) – Petoševci – Bagruša (BiH; Prijedor District), gr. 67 (2 ex.), 138, 141 (11 ex.): ŽERAVICA 1986, 141, 150–151. **4** (58–76) – Bijelo Brdo – Ul. Venecija (Hr; Osječko – Baranjska County), gr. 56, 107 (4 ex.), 125, 161, 173, 174 (2 ex.), 183 (2 ex.), 184, 188

(3 ex.), 192, 211, 225; BRUNŠMID 1904, 56, 61, 64, 69, 70–73, 75–76; ERCEGOVIĆ 1958, 168, 170. **5 (77–79)** – Josipovo – Mesarna (Hr; Virovitičko-Podravka County), gr. 9, chance finds (2 ex.): ŠEPER 1955, 55; TOMIČIĆ 1990, 104. **6 (80–86)** – Vukovar – Lijeva Bara (Hr; Vukovarsko-Srijemska County), gr. 115 (2 ex.), 326, 355 (2 ex.), chance finds (2 ex.): ERCEGOVIĆ 1958, 184 no. 30; DEMO 1996, 70, 79; TOMIČIĆ 1990, 141. **7 (87–88)** – Zvonimirovo – Veliko polje (Hr; Virovitičko-Podravka County), gr. 21 (2 ex.): TOMIČIĆ 1997, 52. **8 (89–105)** – Ptuj-Grad/Turnirski prostor (Slo; Ptuj District), gr. 37 (4 ex.), 50, 66 (2 ex.), 175, 181, 193 (2 ex.), 385 (2 ex.), 395 (4 ex.): SKRABAR 1910, 124, 128; KOROŠEC 1950, 163, 165, 171. **9 (106)** – Spodnja Hajdina-parc. 1133 (Slo; Ptuj District), gr. 2: SKRABAR 1912, 337; KOROŠEC 1947, 31. **10 (107–108)** – Batajnica – Velika humka (Srb; Beograd – Zemun District), gr. 7 (2 ex.): KOVAČEVIĆ-DIMITRIJEVIĆ 1959, 152; MARJANOVIĆ-VUJOVIĆ – TOMIĆ 1982, 49 nos. 158–160. **11 (108)** – Donji Vidovec – unknown site (Hr; Međimurska County), chance find (1 ex.): HORVAT 1956, 23. **12 (109–124)** – Kloštar Podravski – Pesci (Hr; Bjelovarsko-Bilogorska County), grave finds (15 ex.): BRUNŠMID 1904, 79–80. **13 (125–126)** – Kočičevo – Tučić (BiH; Bosanska Gradiška District), chance finds (2 ex.): KOROŠEC-VRAČKO 1943, 279–280. **14 (127)** – Sisak – unknown site (Hr; Sisačko-Moslavačka County), chance find: ŠEPER 1944, 201, Pl. II:20. **15 (128–130)** – Središće ob Dravi – Cirkevca (Slo; Sevnica District): chance finds (2 ex.), gr. 54/1993 (1 ex.): KOROŠEC 1947, 37; KNIFIC 2005, 170 fig. 5:15, 171. **16 (131–132)** – Sremska Mitrovica – unknown site (Srb; Sremska Mitrovica District), chance finds (2 ex.): ERCEGOVIĆ 1958, 183 no. 21; STANOJEV 1989, 120 nos. 653–654. **17 (133–134)** – Veliki Bukovec – unknown site (Hr; Varaždinska County), chance finds (3 ex.): BRUNŠMID 1904, 85.]

[p. 485]

**Fig. 41.** Gold coin (nomisma) of the Byzantine emperors Constantine VII and Romanus II (945–969) minted in Constantinople (ca. 3:1). **1** – The pair of symmetrically placed semicircular holes with smoothly worked edges. **2** – The circular hole. **3** – The band of the frame semicircularly bent over the rim of the coin.

[p. 488]

**Fig. 42.** Represented types and variants of bracelets (De. 1.1–4; 2.1–2; 3.1). **1** – Open bracelets, bronze, iron (1.1 – a bracelet of banded section with spirally everted endings, bronze: gr. 211/f; 1.2a1 – wire of circular section, bronze: gr. 440/f; 1.2a2 – wire of circular section, iron: quad. XIII/6a; 1.2b – wire of semi-circular section, bronze: gr. 208a/ch; 1.2c – wire of square section, bronze: gr. 93/f; 1.3 – wire of triangular section, bronze: gr. I-1951/?; 1.4 – wire of circular section, with snake heads on the ends, bronze: gr. 444/f). **2** – Closed bracelets, bronze (2.1 – circular section, with snake heads on the ends, bronze: gr. 374/f; 2.2 – twisted wire of various thicknesses, bronze: gr. 139/f). **3** – Bracelets that fasten, bronze (3.1 – twisted wire with a hook and eye for fastening, bronze: S-2419).

[p. 493]

**Fig. 43.** Represented types and variants of open rings (De. 1.1–9). **1.1** – A ring with holes for a rivet, bronze (gr. 93/f). **1.2** – A ring of banded section, bronze (1.2a – banded section, undecorated, bronze: gr. 48/f; 1.2b – banded section, decorated, bronze: gr. 164/f; 1.2c – banded section, reformed from a ring of another type, bronze: gr. 125/f). **1.3** – A ring of banded section with a hoop of filigree wire, silver (gr. 2/ch). **1.4** – A ring of semicircular or triangular section, bronze (1.4a – semicircular section, bronze: gr. 360/m?; 1.4b – triangular section, bronze: gr. 37/m). **1.5** – A ring of arched section, bronze (1.5a – undecorated: gr. 313/f?; 1.5b – decorated: gr. 33/f). 1.6 – A ring of circular or oval section and cut or tapered ends, bronze (1.6a<sup>1</sup> – circular section, cut ends, bronze: gr. 159/f; 1.6a<sup>2</sup> – circular section, one end tapered, one end cut, bronze: S-2398; 1.6a<sup>3</sup> – circular section, pointed ends, bronze: gr. 80/f; 1.6b<sup>1</sup> – oval section, cut ends, bronze: gr. 90/m). **1.7** – A ring of oval section with ends overlapping by half, bronze (gr. 279/f). **1.8** – A ring of rhomboid, square, or polygonal section, bronze, silver (1.8a – rhomboid section, bronze: gr. 137/?; 1.8b – square section with the outer sides rounded, bronze: gr. 108/f?; 1.8c – polygonal section with the outer sides rounded, silver: gr. 370/m). **1.9** – A ring of three coiled wires, silver (gr. 444/f).

[p. 502]

**Fig. 43a.** Represented types and variants of closed rings and rings with a crown, silver, bronze (De 2.1–4; De. 3.1–5). **2** – Closed rings, silver, bronze (2.1a – semicircular section, undecorated, silver: gr. 3/m; 2.1a1 – semicircular section, decorated, bronze: gr. 7/?; 2.1b – triangular section, undecorated, bronze: gr. 159/f; 2.2 – semicircular section with transverse ribbing, bronze: gr. 314/f; 2.3 – triangular section with lengthwise pseudo-coiled wires, silver: gr. 403/f; 2.4 – with wart-like protrusions, bronze: gr. 228/m). **3** – Rings with a crown, silver, bronze (3.1 – with a stepped crown, bronze: gr. 408/ch; 3.2. – with a crown and hoop of filigree wire, silver: gr. I-1951/?; 3.3a – with an inset crown for a decorative element, hoop of banded section, decorated, bronze: gr. 297/f?; 3.3b – with an inset crown for a decorative element, hoop of banded section, undecorated, bronze: gr. 292/f; 3.3c – with an inset crown for a decorative element, hoop of semicircular section, bronze: gr. 138/f; 3.3d – with an inset crown for a decorative element, hoop of three-ribbed section, bronze: gr. 409/ch; 3.4a – crown of spirally coiled wire, silver: gr. 316/f; 3.4b – crown of spirally coiled wire, bronze: gr. 151/f; 3.5 – crown of rhomboid shape, silver: gr. 347/ch).

[p. 503]

**Fig. 44.** Decorative motifs formed from rows of short and shallow transverse lines on rings of banded section (De. 1.2b). **1.1** – Horizontal double row of transverse lines (gr. 333/?). **1.2** – A wavy double row of transverse lines (gr. 60/f). **2.1** – Single line of zigzags (gr. 217/f). **2.2** – Double lines of zigzags (gr. 164/f). **3.1** – Banded zigzag (gr. 435/f).

[p. 507]

**Fig. 45.** Decorative motifs on rings of arched section (De. 1.5b). **1** – Webbed pattern (1.1 – on half of the hoop: gr. 33/f; 1.2 – on two-thirds of the hoop: gr. 394/f). **2** – Web and circle pattern (2.1 – on half of the hoop: gr. III-51/?; 2.2 – on the entire hoop: gr. 20/f). **3** – Pine branches in a crossed double row (gr. 250/f). **4** – A lengthwise line between single rows of short transverse lines on the edges (gr. 60/f). **5** – Triangles in a lengthwise double line separated by short slanted lines (gr. 298/f). **6** – A lengthwise rib between single rows of pseudo-coiled wire (gr. 24/f). **7** – Four lengthwise wavy bands between single rows of small pit-shaped depressions (S-2397). **8** – Four lengthwise rows of short transverse lines (gr. 93/f).

[p. 511]

**Fig. 46.** Finds of rings with a stepped crown from Austria, Bosnia & Herzegovina, Croatia, Hungary, Romania, and Slovakia, and Kosovo (sites mentioned in the texts). **1 (1)** – Kötlach-Leichenfeld (A; Niederösterreich, Neukirchen

District). **2 (2)** – Gomjenica – Baltine bare (BiH; Prijedor District). **3 (3–5)** – Mahovljani – Luke/Kužno groblje (BiH; Laktaši District). **3. 4 (6–7)** – Bijelo Brdo – Ul. Venecija (Hr; Osječko-Baranjska County), **2. 5 (8–10)** – Vukovar – Lijeva Bara (Hr; Vukovarsko-Srijemska County), **3. 6 (11)** – Bóly – Téglásrét (H; Baranya County). **7 (12)** – Deszk – groblje D (H; Csongrád County). **8 (13–17)** – Halimba – Ceres (H; Veszprém County), **5. 9 (18)** – Ikerár – Virág ut. (H; Vas County). **10 (19–20)** – Letkés – Teglaégető I. (H; Pest County), **2. 11 (21)** – Letkés – Teglaégető II. (H; Pest County). **12 (22–28)** – Majs – Udvari rétek (H; Baranya County), **7. 13 (29)** – Nagylak – Csanádpalotai határ (H; Csongrád County). **14 (30–31)** – Piliny – Sirmánhegy (H; Nógrád County), **2. 15 (32)** – Szekesfehervár – Rádiótelep (H; Fejér County). **16 (33)** – Szob – Koliba (H; Pest County). **17 (34)** – Vörs – Papkert – B (H; Somogy County). **18 (35)** – Váršand – Movila dintre vii (Ro; Arad County). **19 (36–37)** – Bešeňov – Papföld (Sk; Šurany District), **2 kom. 20 (38–51)** – Malé Kosihy – Horné Konopnice (Sk; Nové Zámky District), **14 kom. 21 (52)** – Nitra – Mlynárce (Sk; Nitra District). **22 (53–54)** – Nitra – Pod Zoborom (Sk; Nitra District), **2 kom. 23 (55)** – Trnovec nad Váhom – Horný Jatov (Sk; Šaľa District). **24 (56–57)** – Zemné – Gúg (Sk; Nové Zámky District), **2. 25 (58–65)** – Ptuj-Grad/Turnirski prostor (Slo; Ptuj District), **8. 26 (66)** – Matiqan/Matricane – Breg (Ks; Prishtinë/Priština).

[p. 520]

**Fig. 47.** Decorative motifs on profiled and unprofiled banded hoops of rings of the "Vukovar–Bijelo Brdo" type (De. 3.3a) found at Lijeva Bara. **1.1a** – Hoop banded, profiled, and decorated (1a.1 – double row of pseudo-twisted wire: gr. 122/f; 1a.2 – triple row of pseudo-twisted wire: gr. 125/f; 1a.4 – five rows of lengthwise ribs: gr. 62/f; 1a.5 – a rib between single rows of pseudo-twisted wire: gr. 48/f; 1a.6 – a rib between double rows of pseudo-twisted wire: gr. 364/f; 1a.8 – pseudo-braid between double rows of pseudo-twisted wire: gr. 326/f; 1a.9 – a double row of pseudo-twisted wire between lengthwise ribs: S-2894). **1.1b** – Hoop banded, unprofiled, and decorated (1b.1 – three rows of pseudo-twisted wire: gr. 151/f; 1b.2 – five rows of pseudo-twisted wire: gr. 217/f; 1b.3 – a rib between single rows of pseudo-twisted wire: gr. 66/f; 1b.4 – a rib between two rows of pseudo-twisted wire: gr. 115/f; 1b.5 – a braid between two rows of pseudo-twisted wire: gr. 422/ch).

[p. 527]

**Fig. 48.** Finds of rings with a crown of spirally wound wire in Croatia, Hungary, Romania, and Slovakia (sites mentioned in the text). **1** – Vukovar – Lijeva Bara (Hr; Vukovarsko-Srijemska County). **2** – Szarvas – unknown site (H; Békés County). **3** – Tiszabercel – Újsor (H; Szabolcs – Szatmár – Bereg County). **4** – Blandiana – în vii (Ro; Alba County). **5** – Svätý Peter (Dolný Peter) – Malé Luky (Sk; Komárno District).

[p. 529]

**Fig. 49.** Upper attire elements, silver, bronze (4.4.1.1–4). **1** – Two-part pendants, bronze (gr. 23/ch). **2** – Spangle, bronze (2.1 – circular: gr. 355/ch; 2.2 – square: S-2411). **3** – Button-pendant, bronze (3.1a – circular, solid: gr. 41/f; 3.1b – circular, hollow, two-part: gr. 115/f; 3.2 – lenticular: gr. 52/ch; 3.3a – mushroom shaped, undecorated: gr. 292/f; 3.3b – mushroom shaped, decorated: gr. 347/ch). **4** – Cuff end, silver (gr. 344/f).

[p. 531]

**Fig. 50.** The positions of finds of two-part pendants. **1** – Gr. 23/ch (on the chest); **2** – Gr. 326/f (on the chest on the right side).

[p. 533]

**Fig. 51.** Distribution map and list of the finds of pendants of type D. 13 at sites in Austria, Bosnia & Herzegovina, Croatia, Italy, Hungary, Romania, Slovakia, Slovenia, Serbia, and Ukraine). **1 (1–10)** – Köttlach – Leichenfeld (A; Niederösterreich, Neukirchen District), grave finds (10 ex.): FRANCK 1854, 241, Pl. II:8; PITTIONI 1943, 16, Pl. X:8–17. **2 (11–21)** – Langenschönbichl – Rumpler (A; Niederösterreich, Tulln District), grave finds (11 ex.): FRIESINGER 1974, 75–76, 88, Pl. 23. **3 (22–23)** – Thunau am Kamp – Zigelei Winkelhofer (A; Niederösterreich, Horn District), grave finds (2 ex.): FRIESINGER 1965, 86, 105, Fig. 14:3–4. **4 (24)** – Gomjenica – Baltine bare (BiH; Prijedor District), gr. 100 (1 ex.): MILETIĆ 1967, 95, 131, Pl. XXVIII, XXXI:3. **5 (25–26)** – Kočićevo – Tučić (BiH; Bosanska Gradiška District), grave finds (2 ex.): KOROŠEC 1943, 278 (Fig. 12a–b), 280; MILETIĆ 1963, 164–165 (Fig. 9). **6 (27–40)** – Vukovar – Lijeva Bara (Hr; Vukovarsko-Srijemska County), gr. 23 (4 ex.), gr. 326 (1 ex.), destroyed graves (11 ex.): DEMO 1983, 288–289. **7 (41–42)** – Pordenone – Palazzo Ricchieri (I; Friuli – Venezia Giulia, Pordenone District), gr. 31 (2 ex.): MADER 1993, 252, 258, 287–288. **8 (43–46)** – Ároktó – Dongóhalom (H; Borsod – Abaúj-Zemplén County), gr. 4 (4 ex.): MEGAY 1956, 15, 17–19. **9 (47)** – Besenyszög – Hodmorszögpuszta (H; Szolnok County), grave find (1 ex.): HAMPEL 1905 (2), 534, (3) Pl. 372 B:3. **10 (48)** – Dunakeszi (H; Pest County), chance find (1 ex.): BÁLINT 1991, 123 n. 231, 124 Pl. XXXVI:4, 242. **11 (49)** – Györszentistván – Söprűshegy (H; Győr – Moson – Sopron County), gr. 8 (1 ex.): SZŐNYI-TOMKA 1985, 101, 106 Fig. 9:3. **12 (50–51)** – Hódmezővásárhely – Kopáncs (H; Csongrád County), gr. 17 (2 ex.): PÁRDUCZ 1943, 185–186, 192, Pl. LXIII:1–2. **13 (52–60)** – Ikervár – Virág utca (H; Vas County), gr. 116 (5 ex.), gr. 117 (3 ex.): HAJMÁSI – KISS 2000, 60–61, Pl. 45:117/2–4, 48:116/4–8. **14 (60)** – Pécs – Somogy (H; Baranya County), gr. 118 (1 ex.): DOMBAY 1962, 76–77, Pl. IX:8. **15 (61–69)** – Püspökladány – Eperjesvögly (H; Hajdú-Bihar County), gr. 47 (6 ex.), gr. 146 (3): *Budapest* 1996, 245, 249 Fig. 13; NEPPER 2002, (2) 148 Pl. 142:1–6, 174 Pl. 168:6–8. **16 (70–75)** – Szabadkígyós – Tangazdaság (H; Békés County), gr. 1 (6 ex.): PÁLÓCZI-HORVÁTH 1971, 8–10. **17 (76–81)** – Szekesfehervár – Demkóhegy (H; Fejér County), gr. 22 (1 ex.), gr. 28 (1 ex.), gr. 35 (4 ex.): BAKAY 1967, 50–53, Pl. XXI:5,11, XXIX:25–28. **18 (82)** – Szekesfehervár – Maroshegy (H; Fejér County), chance find (1 ex.): HAMPEL 1905, (1) 766 Fig. 2341, (2) 587, (3) Pl. 398 B:4. **19 (83)** – Szelevény (H; Szolnok County), chance find (1 ex.): BÁLINT 1991, 123 n. 231, 124 Pl. XXXVI:17. **20 (84–86)** – Szentes – Nagyhegy, Nagypatái ut. (H; Csongrád County), gr. 2 (1 ex.), gr. 24 (2 ex.): FEHÉR-ÉRY-KRALOVÁNSKY 1962, 74 no. 1018; BÁLINT 1991, 123 n. 231, 124 Pl. XXXVI:19, 252 Pl. LXII:14–16, 255. **21 (87)** – Szob – Koliba (H; Pest County), gr. 25 (1 ex.): MIKES 1956, 116, Pl. XXVI:4. **22 (88)** – Tápiószéle (H; Pest County), chance find (1 ex.): BÁLINT 1991, 123 n. 231, 124 Pl. XXXVI:21. **23 (89)** – Tiszabercel – Újsor (H; Szabolcs – Szatmár-Bereg County), gr. 13 (1 ex.): KISS 1937, 246, Pl. XXII:3; ISTVÁNOVITS 2003, 200–201, 314 (Fig. 161:47), 319, 694 (Pl. 193:13/1–14 sic!). **24 (90–94)** – Várpalota – Semmelweis u. 55 (H; Veszprém County), gr. 13 (5 ex.): PERÉMI 1997, 43. **25 (95)** – Hungary, un-

known site: HAMPEL 1905, (1) 766 Fig. 2339. **26 (96)** – Arad – Földvári puzsta (Ro; Arad District), grave find (1 ex.): RÉTHY 1898, 129 Pl. III:7; HAMPEL 1905, (2) 506 Fig. 7, 507; *Budapest* 1996, 300, 301 Fig. 7. **27 (97)** – Bešeňov – Papföld (Sk; Šurany District), gr. 18 (1 ex.): SZŐKE – NEMESKÉRI 1954, 111, 132 Pl. II. **28 (98–99)** – Dobrá – Ligahalom (Sk; Trebišov District), gr. 2 (2 ex.): HAMPEL 1905 (1), 766 Fig. 2340, (2) 640–641, (3) Pl. 424 A:35–36. **29 (100–102)** – Dubník – Bundaš (Sk; Nové Zámky District), gr. 14 (3 ex.): REJHOLCOVÁ 1988, 437, 443, 449 Pl. II:8–10. **30 (103)** – Dvorníky – Poláne (Sk; Trnava District), chance find (1 ex.): TOČÍK 1968, 123, Pl. LVII:16. **31 (104)** – Komárno, vicinity (Sk; Komárno District), chance find (1 ex.): TRUGLY 1995, 128–129, 218 Fig. 106:1. **32 (105–110)** – Matúškovo – Kertalja (Sk; Galanta District), chance find (6 ex.): TOČÍK 1992, 151 no. 1, 152 (Fig. 95:1–6). **33 (111–113)** – Rovinka – Nové pole (Sk; Bratislava – Vidiek District), gr. 4 (3 ex.): NĚMEJCOVÁ-PÁVUKOVÁ 1962, 658, 663 Fig. 227:3–4, 666. **34 (114–115)** – Malé Kosihy – Horné Konopnice (Sk; Nové Zámky District), gr. 55 (1 ex.), 98 (1 ex.): HANULIAK 1994, 43 Fig. 1:35a, 46, 14 Pl. X:D1, 160 Pl. XXI:E6. **35 (116)** – Ptuj-Grad/Turnirski prostor (Slo; Ptuj District), gr. 50 (1 ex.): SKRABAR 1910, 126; KOROŠEC 1947, 20 Fig. 17; KOROŠEC 1999, Pl. 5:50/28. **36 (117–122)** – Rabe – Kolodvor (Sr; SAP Vojvodina, Kneževac District), grave find (6 ex.): KOVÁCS 1993, 61 no. 5–10, Fig. 14:5–9. **37 (123)** – Zelenče – unknown site (Ua; Khmelnytska Region), chance find (1 ex.): BÁLINT 1991, 123 n. 231, 14 Pl. XXXVI:24.

[p. 534]

**Fig. 52.** The position of the spangles in gr. 349/ch (detail of the head and chest of the skeleton).

[p. 537]

**Fig. 53.** Belt elements, bronze, iron, bone (4.4.2.1–7). **1** – Buckles with a pin attached to the frame, bronze, iron (1a – D-shaped frame, bronze: gr. 400/m; 1b – circular frame, iron: gr. 237/m). **2** – Clasps with a hook for attachment, iron (gr. 344/f). **3** – Belt mounts, secondary use, bronze (3a – flat shape: gr. 71/m; 3b – square shape: gr. 53/m). **4** – Strap ends, secondary use, bronze (4a – undecorated half: gr. 71/m; 4b – decorated half: gr. 336/?; 4c – remodelled example: gr. 53/m). **5** – Belt circlets, iron (gr. 324/m). **6** – Belt chapes, bronze (gr. 409/ch). **7** – Beads, bone (7a – bead, animal bone: gr. 84/m?; 7b – bead, fish bone: gr. 367/m).

[p. 539]

**Fig. 54.** Objects of cult character, pottery, bone (4.5.1.1–2). **1** – Pottery, fragments of pottery vessels (1a – large fragment of a vessel, M1:2: gr. 60/f; 1b – small fragment of a vessel, M1:1: gr. 7/?). **2** – Osteological remains of provisions for the deceased, bone, ca. M1:3 (gr. 346/?). – Object of unknown purpose, silver (4.6.1.1). **3** – Wire, fragment, silver, M1:1 (gr. 309/ch).

[p. 545]

**Fig. 55.** The position of finds of osteological remains of provisions for the deceased. **1** – Gr. 346/? (detail of the upper part of the body). **2** – Gr. 395/f (detail of the waist and lower part of the body).

[p. 547]

**Fig. 56.** Objects from previous cultural periods (selected objects of metal and bone). **1** – Antler, fragment, bone (gr. 10/f). **4** – Nail, iron (gr. 13/ch). **7** – Object of unknown purpose, bone (gr. 19/?). **9** – Platelet, fragment, bronze (gr. 21/f). **11** – Nail, iron (gr. 67/m). **15** – Nail, iron (gr. 136/f). **19** – Tooth, eyetooth of a pig, bone (gr. 231/f). **20** – Nail, iron (gr. 238/m?). **22** – Tooth, incisor of a pig, bone (gr. 310/m). **23** – Nugget, metal, AE (gr. 318/ch). **24** – Nugget, metal, Pb (gr. 382/ch).

[p. 550]

### c) List of Tables

**Table 1** The basic parameters of the three year archaeological campaign at Lijeva Bara.

[p. 18]

**Table 2** Data from the earlier P-AMZ and later S-AMZ inventories referring to the finds of three, or two, arrows in gr. 92/m.

[p. 38]

**Table 3** The depth of the graves (relative) according to groups and the sex of the deceased.

[p. 388]

**Table 4** Examples of calculating the average depth (relative) and differences in the received results: (1) – the calculation of the average on the basis of the greatest values; (2) – the calculation of the average by singling out the most represented values and categories; (3) – the calculation of the average depth of all graves (by group).

[p. 389]

**Table 5** The position of the skeletons and their variants: numerical and percentage representation.

[p. 390]

**Table 6** Skeletons placed on the right or left side with extended legs (Szabó, type II.1) or contracted legs (Szabó, type II.2a).

[p. 392]

**Table 7** Forearm positions: numerical and percentage representation of variants and proportions among the sexes.

[p. 394]

**Table 8** Forearm positions (variants v.1–25 and groups of variants I–V) at selected Bijelo Brdo cemeteries in Croatia (1), Bosnia & Herzegovina (2–4), Hungary (5,6), and Slovakia (7), and at early medieval cemeteries in Slovenia (8) and Serbia (9,10).

[p. 395]

**Table 9** The orientation of skeletons according to the frequency of deviation.

[p. 397]

**Table 10** The orientation of early medieval and prehistoric skeletons in reference to the position of the rising sun.

[p. 398]

**Table 11** Examples of superimposed early medieval and prehistoric skeleton graves.

[p. 400]

**Table 12** Arrowheads in combination with other grave finds (weapons and military equipment, objects of everyday use, and jewellery).

[p. 429]

**Table 13** Quiver parts from graves at Vukovar–Lijeva Bara (iron reinforcing rods, bone panels, and suspension elements)

[p. 432]

**Table 14** The representation of circlets without endings and circlets with endings, and variants of both groups.

[p. 438]

**Table 15** Graves with finds of circlets without endings and their representation according to the sex of the skeleton and the position by the skull

[p. 443]



- Table 16** The representation of small-format and large-format circlets without an ending according to format, metal, and wire section. [p. 443]
- Table 17** Index of the widths of the hammered endings of the O-circlets and S-circlets (ratio of the width of the ending and the diameter of the wire) [p. 446]
- Table 18** Table showing the representation of small-format and large-format bronze and silver O-circlets and S-circlets. [p. 448]
- Table 19** Metrological data for circlets with a spiral ending from the cemeteries of Bijelo Brdo – Ul. Venecija (only examples in the AMZ) and Osijek – Vijenac I. Meštrovića in Croatia, circlets from the cemetery of Ptuj-Grad/Turniški prostor in Slovenia, and circlets from the cemetery of Bogojevo – Ul. Biboja in Serbia (Sr). [p. 451]
- Table 20** The representation of torcs and the ratios of the total number of graves and graves with finds of torcs at Bijelo Brdo Culture cemeteries in Bosnia & Herzegovina (BiH), Croatia (Hr), Hungary (H), Slovenia (Slo), Slovakia (Sk), and Romania (Ro). These data do not include chance finds, finds without a clear grave character, or finds of torcs from destroyed graves. **1** – BRUNŠMID 1904, 47, 52–76 (gr. 5, 6, 25, 55, 56, 65, 70, 72, 78, 80, 93, 107, 156, 161, 174, 182, 183, 184, 188, 192, 196 i 211); ERCEGOVIĆ 1958, 166 (gr. 217). [**2** – ŠKRABAR 1910, 130 (gr. 50, 64 i 65); KOROŠEC 1950, 76–77, 134–138 (gr. 77, 100, 104, 175, 192, 193, 210, 215, 224, 230, 237 i 287); TUŠEK 1981, 16–17, 19 (gr. 385 = 1/78 i 395 = 11/78)].<sup>237</sup> **3** – BAKAY 1967, 45–46, 48 (gr. 1, 2, 4 i 10). [**4** – KOROŠEC 1947, 40, 44 (gr. 12); KNIFIC 2005, 170 Fig. 5:12, 171 (gr. 54)]. **5** – ALÁDAR 1914, 121–124 (gr. 2); ROSKA 1914, 128, 131–132 140 (gr. 16, 18 i 42). **6** – SZABÓ 1976, 18–19, 23–25, 31–32. **7** – DEMO 1996, 48. **8** – BAKAY 1968, 61–64, 70 (gr. 3, 9, 33 i 88). **9** – NYÁRY 1902, 229, 232, 238 (gr. 17, 48, 64); NYÁRY 1904, 61–62, 65 (gr. 16, 17 i 37). **10** – DOMBAY 1962, 71–74, 78–79 (gr. 28, 29, 33, 59, 134 i 141). **11** – BAKAY 1978, 93, 96, 107, 109–112 (gr. 5, 55, 60). **12** – KISS 1983, 208–236 (gr. 9, 53, 114, 199, 374, 385, 492, 512, 515, 532, 559, 560, 572, 626, 681, 685, 705, 709, 714, 723, 772, 774, 782, 858, 880, 952, 982, 985, 1018, 1089, 1126). **13** – DRAGOTÁ 2006, 222, 229, 237, 240 (gr. 63, 94, 129, 142). **14** – BAKAY 1978, 10–11, 44, 47 (gr. 5 i 73). **15** – ISTVÁNOVITS 2003, 558, 578, 594, 596–7, 602, 604 (gr. 25, 140, 195, 197a, 204, 205). **16** – NEPPER 2002, (2) 32, 36–37, 39, 43, 91 (gr. 9, 40, 40, 61, 77, 212). **17** – NEPPER 2002, (2) 133, 145, 174, 197, 200, 204, 212, 213, 216, 219, 221 (gr. 8, 37, 146, 269, 270, 289, 312, 450, 460, 500, 521, 542). **18** – NEPPER 2002, (2) 294, 313, 315, 330 (gr. 157, 162, 197, 200, 248). **19** – ROSKA 1913, 170, 175, 197 (gr. 27). **20** – SZÉLL 1941, 234, 239, 241, 243 (gr. 26 i 76). **21** – SZÉLL 1941, 252, 254 (gr. 65). **22** – KOVÁCS 1994, 46, 51–52, 72, 74–75, 115 (gr. 172, 214, 335 i 341). **23** – DOMBAY 1961, 38, 147, 149 (gr. 32, 223 i 259). **24** – BAKAY 1978, 70–72, 170 (gr. 33). **25** – HANULIAK 1994, 44 (gr. 127, 231 i 403). **26** – DOMBAY 1961, 151 (gr. 65). **27** – MILETIĆ 1967, 85, 129–130 (gr. 23). **28** – TÖRÖK 1962, 40–41, 152, 155–156 (gr. 399, 534 i 607). **29** – BENDE – LŐRINCZY 1997, 201–240, 242 (gr. 519). **30** – NEMESKÉRI – LIPTÁK – SZŐKE 1953, 211–279; KRALOVÁNSKY 1968, 85. **31** – MILETIĆ 1980. **32** – ŽERAVICA 1986. **33** – SZŐKE – VÁNDOR 1987. **34** – SIMONI 2004 [p. 459]
- Table 21** The list of graves with finds and types of torcs (according to De./G.), and data on sex, age, and the skeletal characteristics of their owner (length). [p. 460]
- Table 22** The weight system of torcs wound from one or more wires from the sites of Vukovar – Lijevo Bara, Bijelo Brdo – Ul. Venecija, Kloštar Podravski – Pesci, and Slavonski Brod – unknown site. [p. 467]
- Table 23** The groups showing the quantity of beads and their percentages (1–5) for necklaces of beads (1) and necklaces of beads and metal pendants (2). [p. 473]
- Table 24** Forms of beads represented on necklaces of beads (1) and necklaces of beads and metal pendants (2). [p. 474]
- Table 25** The amount of beads and the number of individual types of metal pendants on necklaces of beads and metal pendants. [p. 475]
- Table 26** The types and quantity of metal pendants used on necklaces of metal pendants. [p. 475]
- Table 27** Circular (101), linear (201–2), and combined circular and linear decorative motifs (301) with variants impressed or applied to flattened globular (03) and annular beads (11). [p. 478]
- Table 28** The representation of impressed and applied circular (101), linear (201–2), and combined circular and linear (301) decorative motifs on flattened globular (03) and annular beads (11). [p. 478]
- Table 29** The numerical state of representation of globular bell-pendants in the graves of archaeologically excavated Bijelo Brdo cemeteries in the area between the Mura, Drava, Danube, and Sava Rivers (omitted from the table are unpublished grave finds and chance finds of globular bell-pendants or bell-pendants without the grave unit noted, Fig. 40:10–17) [p. 484]
- Table 30** The representation of the various weight systems for bracelets of wire with circular, semicircular, or square (not included: fragments of bronze and iron bracelets from gr. 66/f, 214/ch and S-2396, and the iron bracelet S-2896). [p. 496]
- Table 31** Graves with finds of rings in non-functional positions. [p. 501]
- Table 32** The types of rings and their variants classified according to the weight system: I – light; II – medium; III – heavy; IV – very heavy. [p. 504]
- Table 33** The types of rings with which rings of banded section (De. 1.2) appear in the same grave units. [p. 508]
- Table 34** Grave finds of closed rings of semicircular and triangular closed rings (De. 2.1a–c), and the types and variants of rings with which they were found in the same grave units. [p. 516]
- Table 35** Decorative groups of rings with a stepped crown from sites in Austria, Bosnia & Herzegovina, Croatia, Hungary, Romania, Slovakia and Kosovo. [p. 521]

- Table 36** The forms and decoration on the hoops of rings with an inset crown for a decorative stone represented among the finds from the cemeteries of Vukovar – Lijeva Bara and Bijelo Brdo – Ul. Venecija (De. 3.3a–d). [p. 524]
- Table 37** Grave finds of rings with an inset crown for a decorative stone (De. 3.3a,c–d), and other types and variants of rings with which they appear in the same grave units. The rings from gr. 93/f and 138/f have an undecorated hoop of semicircular section (De. 3.3c), and the ring from gr. 409/ch has a three-ribbed section (De. 3.3d). [p. 526]
- Table 38** Numerical indicators of the presence of two-part pendants of type D. 13 in Austria, Bosnia & Herzegovina, Italy, Serbia, Hungary, Slovakia, and Slovenia [the data does not include the two-part pendants from an unknown site in Hungary (**Fig. 51:25**) and from Zelenče in the Ukraine (**Fig. 51:37**)]. [p. 535]

## D) List of Plates

- Pl. 1.** Vukovar photographed from a tall structure near Slavija Square; 1951–1953. **1** – View of the Gymnasium (above) and part of Stjepan Radić Street leading towards Slavija Square (below). **2** – View of the beginning of Ban Josip Jelačić Street and the height of Najpar-bašće where construction of the new Vukovar watertower began in 1966. **3** – View of the intersection at Slavija Square, the beginning of present-day Vatikanska Street (left) and Stanko Vraz Street (right), and a grove of trees in front of the archaeological site of Lijeva Bara (in the background). [p. 630]
- Pl. 2.** The present appearance of the site of Vukovar – Lijeva Bara. **1** – Satellite photograph of the meadow bounded by Vatikanska Street with the position marked of the archaeological excavations in 1951–1953 (house numbers 40–43). **2** – View of the dwellings at 40–43 Vatikanska Street and the meadow in front of them in August 2009. [p. 631]
- Pl. 3.** Photographs of the site and directors and members of the archaeological team during the excavations in 1951–1953. **1** – The Lorenc-Janković house with quads. IX/8–9 and X/9; in the background the excavation directors Marcel Gorenc (left) and Dr. Zdenko Vinski (right); 1951. **2** – Marcel Gorenc, one of the directors of the archaeological excavations at Lijeva Bara, supervising the cleaning of gr. 394/f in quad. XV/3; 1953. **3** – The surveyor Ivan Reiser with assistants during geodetic mapping of the site; 1951. **4** – Drawing the skeleton from gr. 180/f in quad. XIII/12; 1952. **5** – View of quad. V/13 and VI/13 during excavation: gr. 83/? and 92/m in the foreground, gr. 93/m and 108/f? in the background; 1952. **6** – The archaeological team gathered around gr. 93/m; 1952. [p. 632]
- Pl. 4.** Sketched plan of quadrant I/1952, *Dnevnik* (field diary), ad 21 Aug. 1952. [p. 633]
- Pl. 5.** *Zapisnik* (field record), no. 444/3 Sept. 1953. [p. 634]
- Pl. 6.** The finds from gr. I-1951/?. **1** – A torc with a hook and eye for fastening, bronze. **2** – Open-ended bracelets of circular and triangular section, bronze. **3** – A ring with a crown and hoop of filigree wire, silver. [p. 635]
- Pl. 7.** A silver ring with a crown and hoop of filigree wire from gr. I-1951/? and part of the finds from gr. 2/ch. **1–4** – Detail of the crown and hoop of the silver ring with a crown from gr. I-1951/?. **5–6** – A silver ring with a hoop of filigree wire from gr. 2/ch (5 – in profile; 6 – detail of the hoop). **7–8** – Multiply perforated gold coin (*nomisma*) of the Byzantine emperors Constantine VII and Romanus II (945–969) from gr. 2/ch (7 – obverse; 8 – reverse). [p. 636]
- Pl. 8.** The finds from gr. 23/ch. **1** – A pair of open-ended circlets, silver. **2** – A torc with a hook and eye for fastening, bronze. **3** – Four Bijelo Brdo two-part pendants, bronze. **4** – An open-ended bracelet of circular section, bronze. [p. 637]
- Pl. 9.** Finds from gr. 53/m, 71/m, and 81/m. **1–2** – Gr. 53/m (1 – a Jumsk type mount, bronze; 2 – strap end mount, bronze). **3–4** – Gr. 71/m (3 – a pendant made from a late Avaric mount with a depiction of a griffon, bronze; 4 – a late Avaric secondary mount, bronze). **5–8** – Gr. 81/m (5 – a knife with a straight spine, iron; 6 – a lyre shaped fire-steel, iron; 7–8 – two rhomboid point arrowheads, iron). [p. 638]
- Pl. 10.** Finds from gr. 159/f. **1** – A torc with a hook and eye for fastening, bronze. **2** – A pair of bracelets, bronze (an open-ended bracelet of circular section, left; a closed bracelet of coiled wires of different sections, right). **3** – Two rings, bronze (an open ring of circular section, left; a closed ring of triangular section, right). [p. 639]
- Pl. 11.** Finds from gr. 228/m and 252/ch. **1** – Gr. 228/m (1 – a ring with wart-like protrusions, bronze). **2–3** – Gr. 252/ch (2 – a pair of circlets with spiral endings, bronze; 3 – a necklace of beads and metal pendants, glass, bronze). [p. 640]
- Pl. 12.** Objects of everyday use: fire-steels and slingshot projectiles from gr. 89/m, 101/?, 268/m, and 319/?. **1** – A fire-steel of ellipsoid-rectangular form, iron (gr. 89/m). **2** – A fire-steel with one arm bent backwards, iron (gr. 101/?). **3** – A lyre shaped fire-steel, iron (268/m). **4** – Projectiles for a slingshot (gr. 319/?). [p. 641]
- Pl. 13.** The upper pair of bone laths from the reflex bow found in gr. 92/m. [p. 642]
- Pl. 14.** The upper part of the rods and the bone panels of the mouth and neck of the quiver from gr. 232/m. [p. 643]
- Pl. 15.** Jewellery for the head: raceme earrings from gr. 61/f, 426/f, and 440/f. **1** – A pair of cast raceme earrings with a single pair of joints, bronze (gr. 62/f). **2** – A pair of massive cast raceme earrings with two pairs of joints, silver (gr. 426/f). **3** – A pair of cast raceme earrings with two pairs of joints, bronze (gr. 440/f). [p. 644]
- Pl. 16.** Jewellery for the neck and chest: pendants from gr. 378/ch, 388/ch, and 408/ch (different positions and details). **1** – Cross-pendant with an image of Christ, bronze (gr. 378/ch). **2** – Cross-pendant, lead (gr. 388/ch). **3** – bell-shaped pendant, bronze (gr. 408/ch). [p. 645]
- Pl. 17.** Lunular pendant, silver. **1** – Front. **2** – Back. [p. 646]

- Pl. 18.** Jewellery for the hands: bracelets from gr. 139/f, 374/f?, and 444/f (different positions and details). **1** – A closed bracelet of coiled wires with different sections, bronze (gr. 139/f). **2** – A closed bracelet with animal heads, bronze (gr. 374/f?). **3** – An open-ended bracelet with snake heads, bronze (gr. 444/f). [p. 647]
- Pl. 19.** Jewellery for the hands: rings from gr. 151/f, 315/f, 316/f, and 364/f (different positions). **1** – A ring with a crown of spirally wound wire, bronze (gr. 151/f). **2** – A ring with a crown of spirally wound wire, silver (gr. 316/f). **3** – A ring with an inset crown for a decorative stone of the "Vukovar – Bijelo Brdo" type, bronze (gr. 315/f). **4** – A ring with an inset crown for a decorative stone of the "Vukovar – Bijelo Brdo" type, bronze (gr. 364/f). [p. 648]
- Pl. 20.** Jewellery for the hands: rings from gr. 211/f, 347/ch, 379/m, and 444/f (different positions). **1** – A ring with a rhomboid crown, silver, gilded (gr. 347/ch). **2** – A ring with a step-like raised crown, bronze (gr. 211/f). **3** – A ring with a crown and hoop decorated with filigree wire, silver, incomplete (gr. 379/m). **4** – A ring of silver coiled wire (gr. 444/f). [p. 649]
- Pl. 21.** A vessel, pottery (gr. 60/f). **1–2** – The reconstructed appearance of the pot with the originally preserved fragments of the rim, neck, walls, and base. **3** – The base with a cross motif. [p. 650]

# 9. BIBLIOGRAPHY

## A) Abbreviations of periodicals and series

<i>AAASupplSzeged</i>	Acta Antiqua et Archaeologica Supplementum, Szeged
<i>ActaArchHung</i>	Acta Archaeologica Hungarica, Budapest
<i>ActaMN</i>	Acta Mvsei Napocensis, Cluj
<i>Alba Regia</i>	Alba Regia, Székesvehérvár
<i>Annales</i>	Annales, Koper
<i>Antaeus</i>	Antaeus, Budapest
<i>Aquileia Nostra</i>	Aquileia Nostra, Aquileia
<i>Apulum</i>	Apulum, Alba Iulia
<i>Arrabona</i>	Arrabona, Győr
<i>ArchAustr</i>	Archaeologia Austriaca, Wien
<i>ArchÉrt</i>	Archaeologia Értesítő, Budapest
<i>ArchKorr</i>	Archäologisches Korrespondenzblatt, Mainz
<i>ArchHung</i>	Archaeologia Hungarica, Budapest
<i>ArchIug</i>	Archaeologia Iugoslavica, Beograd
<i>ArchRozhl</i>	Archeologické Rozhledy, Praha
<i>AÖG</i>	Archiv für Kunde Österreichischer Geschichts-Quellen, Wien
<i>Argo</i>	Argo, Ljubljana
<i>ArhInstMon</i>	Arheološki institut, posebna izdanja, Beograd
<i>ArhKiev</i>	Arheologija (Akademija nauk ukrajinskoj RSR, Institut arheologii), Kiev
<i>ArhPregled</i>	Arheološki pregled, Beograd
<i>ArhSof</i>	Arheologija, Sofija
<i>ArhVes</i>	Arheološki vestnik, Ljubljana
<i>ARR</i>	Arheološki radovi i rasprave, Zagreb
<i>AVANS</i>	Archeologické výskumy a nálezy na Slovensku, Nitra
<i>Balcanoslavica</i>	Balcanoslavica, Prilep; Prilep – Beograd; Beograd
<i>BAR</i>	British Archaeological Reports, Oxford
<i>BJ</i>	Bonner Jahrbücher, Bonn
<i>BMMK</i>	A Békés Megyei Múzeumok Közleményei, Békéscsaba
<i>BNP</i>	Bibliothèque National de Paris, v.: MORRISSON
<i>BRGK</i>	Bericht der römisch-germanischen Kommission, Mainz
<i>BudRég</i>	Budapest Régiségei, Budapest
<i>Byzantinoslavica</i>	Byzantinoslavica, Prague
<i>Carniola</i>	Carniola, Laibach (= Ljubljana)
<i>CD</i>	v. SMIČIKLAS [ <i>CD</i> ]
<i>CEMT</i>	Central European Medieval Texts, Budapest
<i>CommArchHung</i>	Communicationes Archaeologicae Hungaricae, Budapest
<i>ČasSJKZ</i>	Časopis za slovenski jezik, književnost in zgodovino, Ljubljana
<i>ČZN</i>	Časopis za zgodovino in narodopisje, Maribor
<i>Dacia</i>	Dacia, București
<i>DDMÉ</i>	A Debreceni Déri Múzeum Évkönyve, Debrecen
<i>DelaSAZU</i>	Dela – Slovenska akademija znanosti in umetnosti, Ljubljana
<i>Diadora</i>	Diadora, Zadar
<i>DissMon</i>	Dissertationes Monographiae, Beograd
<i>DjelaSAZU</i>	Djela – Slovenska akademija znanosti i umjetnosti, Ljubljana

<i>DÖAW</i>	Denkschriften – Österreichische Akademie der Wissenschaften (phil.-hist. Kl.), Wien
<i>DolgKolozsvár</i>	Dologozatok az Erdélyi Nemzeti Múzeum Érem- és Régiségtárából, Kolozsvár
<i>DolgSzeged</i>	Dologozatok a Szegedi Tudományegyetem Régiségtudományi Intézetéből, Szeged
<i>EMÉ</i>	Az Egri Múzeum Évkönyve, Eger
<i>EncSlo</i>	Enciklopedija Slovenije, Ljubljana
<i>FolArch</i>	Folia Archaeologica, Budapest
<i>FontesArchHung</i>	Fontes Archaeologici Hungariae, Budapest
<i>FÖ</i>	Fundberichte aus Österreich, Wien
<i>Gallia</i>	Gallia, Paris
<i>GHZM</i>	Glasnik hrvatskih zemaljskih muzeja, Sarajevo
<i>GlasnikSAD</i>	Glasnik Srpskog arheološkog društva, Beograd
<i>GodGBg</i>	Godišnjak grada Beograda, Beograd
<i>GodMGSi</i>	Godišnjak muzeja grada Siska, Sisak
<i>GZM</i>	Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu, Sarajevo
<i>HadKozl</i>	Hadtörténelmi Közlemények, Budapest
<i>HistriaAnt</i>	Histria Antiqua, Pula
<i>HistriaArch (pos. izd.)</i>	Histria archaeologia (posebno izdanje/special edition), Pula
<i>HMRK</i>	Heves Megyei Régészeti Közlemények, Egger
<i>HOMÉ</i>	A Herman Ottó Múzeum Évkönyve, Miskolc
<i>HOMK</i>	A Herman Ottó Múzeum Közleményei, Miskolc
<i>Homo</i>	Homo, Göttingen – Zürich
<i>HrvKolo</i>	Hrvatsko kolo, Zagreb
<i>HrvSmotra</i>	Hrvatska smotra, Zagreb
<i>IAI</i>	Izvestija na Arheološkočeskija institut, Sofija
<i>Iliria</i>	Iliria, Tiranë
<i>InštArh</i>	Inštitut za arheologijo, Ljubljana
<i>InvArch</i>	Inventaria Archaeologica, Priština (Beograd), Beograd
<i>INMV</i>	Izvestija na Narodnija muzej Varna, Varna
<i>IzdHAD</i>	Izdanja Hrvatskog arheološkog društva, Zagreb, Pula
<i>JAMÉ</i>	A Nyíregyháza Josa András Múzeum Évkönyve, Nyíregyháza
<i>JbMuzLinz</i>	Jahrbuch des Oberösterreichischen Musealvereins, Linz
<i>JbRGZM</i>	Jahrbuch des römisch-germanischen Zentralmuseums Mainz, Mainz
<i>JMPÉ</i>	A Janus Pannonius Múzeum Évkönyve, Pécs
<i>IzdMGZ</i>	Izdanja Muzeja grada Zagreba (= Iz starog i novog Zagreba), Zagreb
<i>LRBC</i>	<i>Late Roman Bronze Coinage</i> , v.: CARSON-HILL-KENT
<i>LjetopisJAZU</i>	Ljetopis Jugoslavenske akademije znanosti i umjetnosti, Zagreb
<i>MacActaArch</i>	Macedoniae Acta Archaeologica, Skopje
<i>MAGW</i>	Mitteilungen der anthropologischen Gesellschaft in Wien, Wien
<i>MCA</i>	Materiale și cercetări arheologice, București
<i>MIA</i>	Materijali i issledovanija po arheologii SSSR, Moskva – Leningrad
<i>MFME</i>	A Móra Ferenz Múzeum Évkönyve, Szeged
<i>MFME-StudArch</i>	A Móra Ferenz Múzeum Évkönyve – Studia archaeologica, Szeged
<i>MPC</i>	Mitteilungen der prähistorischen Commission, Wien
<i>MPK</i>	Mitteilungen der prähistorischen Kommission, Wien
<i>NAME</i>	A Nyíregyházi Josa András Múzeum Évkönyve, Nyíregyháza
<i>NumListy</i>	Numismatické Listy, Praha
<i>NumVijesti</i>	Numizmatičke vijesti, Zagreb
<i>OglediVu</i>	Ogledi (časopis za kulturna i društvena pitanja), Vukovar
<i>Offa</i>	Offa, Neumünster
<i>OpArch</i>	Opisvula Archaeologica, Zagreb
<i>OsZb</i>	Osječki zbornik, Osijek
<i>PamArch</i>	Památky archeologické, Praha
<i>Peristil</i>	Peristil, Zagreb
<i>PodZb</i>	Podravski zbornik, Koprivnice
<i>Prilozi</i>	Prilozi, Zagreb
<i>PtujArhZb</i>	Ptujski arheološki zbornik (ob 100-letnici Muzeja in muzeološkog društva), Ptuj
<i>PtujZb</i>	Ptujski zbornik, Ptuj
<i>PZ</i>	Prähistorische Zeitschrift, Berlin
<i>RadJAZU</i>	Rad Jugoslavenske akademije znanosti i umjetnosti, Zagreb

<i>RadoviCentraJAZU</i>	Radovi centra za znanstveni rad Vinkovci (Jugoslavenska akademija znanosti i umjetnosti) Vinkovci
<i>RadoviFilFakZd</i>	Radovi, Filozofski fakultet – Zadar (razdio povijesnih znanosti), Zadar
<i>RIC</i>	<i>Roman Imperial Coinage</i> , London
<i>RVM</i>	Rad vojvođanskih muzeja, Novi Sad
<i>Rég Füz</i>	Régészeti Füzetek, Budapest
<i>RégTan</i>	Régészeti Tanulmányok, Budapest
<i>SaalbJb</i>	Saalburg Jahrbuch, Berlin
<i>Saeculum</i>	Saeculum, Freiburg
<i>Savaria</i>	Savaria, Szombathely
<i>SbNMP</i>	Sborník Národního musea v Praze (Rada A – Historie), Praha
<i>SbPFFBU</i>	Sborník prací filosofické fakultety brněnské university, Brno
<i>Scientific American</i>	Scientific American, New York
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<i>SHP</i>	Starohrvatska prosvjeta, Split
<i>Sirmium</i>	Sirmium (Arheološka istraživanja u Sremu/Recherches archéologiques en Syrmie), Beograd
<i>SlavAnt</i>	Slavia Antiqua, Poznań
<i>Slavica</i>	Slavica, Debrecen
<i>SlovArch</i>	Slovenská archeológia, Bratislava
<i>SSRH</i>	see SZENTPÉTERY [SSRH]
<i>Starinar</i>	Starinar, Beograd
<i>StudCom</i>	Studia Comitatus, Szentendre
<i>StudSlavHung</i>	Studia Slavica Academiae Scientiarum Hungaricae, Budapest
<i>SzolnokMMÉ</i>	A Szolnok Megyei Múzeumok Évkönyve, Szolnok
<i>ŠtudZvesti</i>	Študijné Zvesti, Nitra
<i>Thrac-Dacica</i>	Thrac-Dacia, București
<i>VAHD</i>	Vjesnik za arheologiju i historiju dalmatinsku, Split
<i>VAMZ</i>	Vjesnik arheološkog muzeja u Zagrebu, Zagreb
<i>VHAD n.s.</i>	Vjesnik hrvatskog arheološkog društva (nova serija), Zagreb
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<i>VMKH</i>	Vijesti muzealaca i konzervatora Hrvatske, Zagreb
<i>VMMK</i>	Vesprémi Megyei Múzeumok Közleményei, Veszprém
<i>WiadArch</i>	Wiadomości Archeologiczne, Warszawa
<i>WMBH</i>	Wissenschaftliche Mittheilungen aus Bosnien und der Herzegovina, Wien
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# 10. AN EARLY MEDIEVAL CEMETERY OF THE BIJELO BRDO CULTURE: VUKOVAR – LIJEVA BARA (10<sup>TH</sup>–11<sup>TH</sup> CENTURIES)\*<sup>1</sup>

## Summary

### THE SITE AND EXCAVATION OF THE MEDIEVAL CEMETERY

#### The location and position of the site

Vukovar, situated on the left bank of the Danube River at the mouth of the Vuka River, at the transitional point from the alluvial plains of the lower Drava River to the elevated loess plateau of the Danube, and at the easternmost point of the flat lands of eastern Croatia, is the administrative center of Vukovar – Srijem County, and one of only two urban settlements in the present-day Croatian Danube basin region. The city developed on the loess heights south of the influx of the Vuka into the Danube, and only in the 18th century did it cross the Vuka, expanding towards the north (Novi [New] Vukovar), so that even today it does not give the impression of a consistent and compact urban entity, but rather a several mile long belt of settlement right up against the Danube River (**Fig. 1**).

Vukovar was also the seat of a territorial unit equivalent to a county in the Middle Ages, mentioned for the first time in 1220 (*in comitatu de Wolkou*). The name of Thomas, son of Macharius (*Thoma de Wolkou*), the first known count (*iupanus*) of Vukovar was cited in 1221, and in 1231 – thus an entire decade later – the Slavic name of the town was written for the first time in historical sources, i.e. the fortress of Vuk, Vuko, or Vukovo (*castrum Valkow*). The present-day Hungarian term of Vukovar (*Wolkouar*) only appeared in the 14th century. Vukovar in this period had two churches (St. George and St. Lambert), two parishes, and it was the see of an archdeaconate. Weekly fairs were held in the town from the early 14th century (1345), and it was later declared a market town (1398). From 1526 to 1687, it was under Turkish occupation, and from the 18th century, it was part of the Kingdom of Croatia and Slavonia (within the Habsburg Empire), and from 1745 the administrative center of the County of Syrmia (Srijem). It was officially declared a town in 1919, and in 1991, during the Homeland War for the independence of the Republic of Croatia, it suffered enormous destruction, with most of its population expelled or resettled.

Archaeological evidence has proven that the city area was settled in continuity from the Neolithic period (*the Starčevo Culture*). Archaeological finds from Vukovar, most often individual and chance finds from the prehistoric cultures of the Eneolithic and early Bronze Ages (such as the *Vučedol* and *Vinkovci Cultures*), the Middle and Late Bronze Ages (the Slavonic variants of the *Vatin* and *Belegiš Cultural groups*), the early Iron Age (the *Urnfield Culture*, and the *Dalj Cultural group*), and various periods of the late Iron Age, are already quite well known, and many such finds have frequently been published in professional texts. Evidence for the Roman period inhabitants of Vukovar, however, is known only from a few isolated finds, or from the rare hoards of late Republican silver coins, or late Imperial bronze coins. Similarly rare are archaeological traces of the final stages of the Migration Period (the Avaro-Slavic period, 8th century), while the somewhat later early medieval finds of the 9th century are represented merely by the occasional artifact, as is also true for the quite sporadically collected later medieval finds of the 12th/13th–15th centuries from Vukovar. The most numerous and so far best known finds are those of the *Bijelo Brdo Culture* from the second half of the 10th century and the 11th, thanks primarily to the systematic archaeological excavations undertaken in 1951–1953 by the Archaeological Museum in Zagreb at the site known as Lijeva Bara, at that time located on the outskirts of the town (**Pl. 1:1–3; Fig. 2**).

#### The history of the site and the archaeological excavations

At the time of the archaeological excavations, the site at Lijeva Bara had already been known in the professional literature for almost half a century under the name "Gradac" or "Janković-Gradac" – not as an early medieval site, but instead as a prehistoric one, because of finds that were attributed to the *Vučedol Culture* of the Eneolithic. The existence of early me-

\* The English translation of the entire text can be found on the accompanying CD (in PDF format).



dieval finds as well as objects from several prehistoric periods remained unknown up to the 1930s, when what was then the National Archaeological and Historical Museum (today the Archaeological Museum in Zagreb) came into possession (both through purchase and through confiscation by the police) of a large quantity of prehistoric artifacts, but also various forms of jewellery from what is known as the *Bijelo Brdo Culture* (e.g. circlets and S-shaped circlets, torques, two-part pendants, bracelets, rings, etc.). However, it was the finds gathered in March 1951 during rescue excavations led by the museum curator Marcel Gorenc that were decisive for beginning archaeological investigation at Lijevo Bara. They did not merely confirm the existence of a cemetery of the *Bijelo Brdo Culture* (graves I–III/1951), but the noted "*prehistoric strata of the Dalj Culture... the settlement of some other culture... and the remains of another as yet unknown culture*" pointed to an exceptional cultural significance and a scientifically interesting multilayered site. Test excavations were followed by systematic field work at Lijevo Bara by the Archaeological Museum in Zagreb, beginning with the small segment uncovered in 1951, continuing with a greater surface area of trenches in 1952, and concluding with the major excavations of 1953 – all undertaken under the mutual leadership of Dr. Zdenko Vinski, Marcel Gorenc, and Ksenija Vinski-Gasparini (Fig. 3; Pl. 3:2, 6).

The excavation took place on the former land of the Janković family – at this point it already belonged to several owners – mainly on the land registry parcels 3806, 3807, and 3808, and also 3810 and 3811. Excavation began with the placement of a large number of test trenches, usually 6 x 1.5 meters in size (trenches A–J from 1951, trenches L, M and N from 1952, trenches K, O and P from 1953), meant to establish the extent of the site and verify the edges of the early medieval cemetery, so as to save any already endangered graves. Excavation was then continued by setting up a network of 5 x 5 meter quadrants with an interior division into four equal fields (a–d). Earthen partition walls 25 cm thick were left between the quadrants during excavation for drawing profiles and measuring the relative and absolute depths of the finds and graves, and were only removed when necessary (Pl. 3:1, 3–5).

During the three year campaign of archaeological excavation – with 92 days in the field and almost 1,150,000 Dinars spent – an area of no less than 3050 m<sup>2</sup> was investigated (Table 1). Discoveries included 438 early medieval inhumation graves belonging to the *Bijelo Brdo Culture*, 9 prehistoric inhumation graves, and 101 prehistoric cremation graves of the *Dalj* cultural group of the late Bronze and early Iron Ages (1000–550 BC). Today it is known that the site at Lijevo Bara in Vukovar served as the location, in addition to these two cemeteries, first for a settlement of members of the Eneolithic period *Kostolac Culture* (from the second half of the 4th millennium BC), and later, at the end of the late Iron Age, as a settlement of the Pannonian-Celtic *Cornacates* (the 1st cent. BC to the early 1st cent. AD).

The ratio of the documented early medieval graves and the excavated area exhibits a density of only 0.14 (ca. 1 grave per each 7m<sup>2</sup> of excavated area), while the density of the prehistoric cremation graves is more than four times less.

This site has unfortunately not been excavated in entirety (Fig. 4), and thus neither the true extent of the early mediaeval cemetery nor the entire period of its use are known. It can be hypothesized that the cemetery ended in the north around trench F (not a single skeleton was excavated there) although the researchers did come across the occasional animal or human bone in this trench, along with a fair amount of prehistoric pottery fragments in an ashy soil "*from Hallstatt cremation graves*". The southern boundary of the cemetery could not be established, as a vineyard extended in this section along the entire length of the excavated land, but just in this area, and particularly in its southwestern part, the boundary of the cemetery could be shifted some 50 meters further to the south. The western edge of the cemetery, as is shown by the entirely sterile trench K, was up against a steep slope where the land descends to an almost 10 meter lower height above sea level. To the east, the cemetery certainly extended towards the gardens of the houses in Croatian Independence Street/Ul. Hrvatske nezavisnosti (formerly 12 April 1945 Street), as both trenches extended in this direction (M and N) contained two or three early medieval inhumation graves (115/f and 116/f; 118/ch, 119/?, and 137/?), and one prehistoric cremation grave each (Ž<sub>28</sub>; Ž<sub>32</sub>). To the southeast in trench C, just like in trench A located somewhat to the north of it, the only finds were fragments of *La Tène* pottery and more or less apparent remains of the occasional cremation grave (such as Ž<sub>2</sub>). Thus the actual area of the cemetery of the *Bijelo Brdo culture* at Lijevo Bara could be twice as large as what was excavated archaeologically, and the number of ca. 1000 once hypothesized early mediaeval burials is very probable.

Through a fortuitous series of events, the position of the archaeological site at Lijevo Bara has remained preserved even to the present. Today it is a rather large grass-covered area of polygonal form, bordered on the north, west, and south by Vatikanska ulica (Vatican Street), and on the east by ulica Hrvatske nezavisnosti (Croatian Independence Street), on the far sides of which rows of dwellings are located, mostly two-story family houses with yards and gardens. The archaeologically excavated section was located in the northwestern part of this area on land that corresponds to the land registry plots of the owners of the dwelling structures with addresses at 40–43 Vatican Street, Vatican Street itself, and to the east of this an approximately equally extensive grassy zone owned by the City of Vukovar (Pl. 2:1–2).

## The location of the finds and the records

The archaeological finds from Lijevo Bara gathered during the 1951–1953 excavations are kept by the Archaeological Museum in Zagreb. Artifacts from the archaeologically investigated early medieval cemetery are kept in the Medieval Department.

Little is known of the fate of the osteological material, although it is known that the better preserved osteological remains were gathered during excavation and suitably placed in bags prepared for their storage. It is also known that at the end of the first excavation season 11 skeletons were collected and separated, and that at the end of the second season "four packed trunks with bones and urns were taken to the Vukovar Museum" and were later transferred to Zagreb. In 1953, after excavation was completed, the entire collected osteological material was located in storage in the Archaeological Museum in Zagreb, but as early as 1955, with the permission of the Yugoslav Academy of Sciences and Arts (today the Croatian Academy of Sciences and Arts), the remains were taken to the Anthropological Institute of the Medical Faculty of the University of Zagreb, so that they "could be conserved, reconstructed, and bio-statistically analyzed". Thirty years later, it could be concluded that the collected osteological material from Lijevo Bara consisted of at least 101 male and 57 female skeleton remains, primarily from early medieval graves (rarely and very fragmentarily from the few prehistoric inhumation graves).

The original field documentation possessed by the Medieval Department of the AMZ consists of: field diaries from 1951 and 1952, the field diary from 1953 (= *Diary*; Pl. 4), grave records (= *Record*) with orthogonal drawings of the majority of the total of 438 early medieval graves (M 1:20), vertical profiles of the trenches and quadrants excavated in 1952 and 1953, the plan of the coordinate system with the quadrant network and test trenches (M 1:500), the geodetic plan of the position at Lijevo Bara with the area of archaeological excavations drawn in (M 1:1000), and the general plan of the cemetery made to two different scales (M 1:100 and M 1:200), and photographs of the quadrants and a large number of individual graves.

## Publication

Reports referring to the excavation of the early medieval cemetery with more or less detailed data about the finds and results of the excavations were published on several occasions between 1952 and 1959, and subsequently in 1992, and 1996. Anthropological aspects presenting exclusively the metrical measurements of adult individuals were reported only once, and in an extremely summary form.

The archaeological finds from the prehistoric periods are mostly still unpublished.

## THE BURIAL RITE

### Surface marking of the graves

Although it is generally believed that the surface marking of early medieval graves encompassed first of all the formation of a small mound of elongated shape in a size similar to the grave pit, followed only occasionally and in some places by one or two wooden beams, poles, or planks being driven into the ground near the head or feet of the deceased, the early medieval graves at Lijevo Bara offered no direct confirmation whatsoever for any such marking. An indirect indicator of the existence of some form of grave markers would be the quite frequent identical orientation of graves buried in the immediate vicinity of one another or even directly adjacent, but also certain other common indicators of recognition of the site of a previous burial are not lacking, such as super-positioned burials, i.e. subsequent burial in the same grave pit (gr. 36/? and 88/ch) or even subsequent disturbance to the body of the deceased because of fear of vampirism (gr. 363/f?).

### Grave pits (forms, length and width, depth)

The grave pit was most often described in the field documentation as "a simple earthen grave that does not differ from the surrounding soil", and since no trace of the grave pits could be distinguished in the soil even today nothing more can be said about their existence or possible form.

The same conditions meant that it was not possible to determine even the basic dimensions of the grave pits. The only exception is the data noted for grave gr. 97/m?, where the outlines of its grave pit were recognizable and measured. The recorded length and width of the grave with the approximate dimensions of ca. 169x60 cm was barely sufficient for the burial of the deceased (length of the skeleton 160 cm). Considering the noted relative depth of the grave (80 cm), the volume of this grave pit measured around 0.768 m<sup>3</sup>.

The absolute depth measured according to mean sea level was measured and recorded in the grave log for only 86 medieval and 1 prehistoric skeleton grave (gr. 202p/f), i.e. for somewhat less than 20% of all excavated skeleton graves. Such a small amount of recorded data means that the absolute depths did not acquire the level necessary to be statistically valid.

The relative depth was measured in 435 early medieval graves (99.32%), and it varied in a range of exactly one meter, i.e. from the most shallow grave found at a depth of only 15 cm (gr. 270/?) to the deepest found at a depth of 115 cm (gr.

218/f). The relative depth of the early medieval burials measured on average 68.64 cm, and almost the same measurement (68.62 cm) was taken for the average depth of eight from the total of nine prehistoric skeleton graves recorded at Lijevo Bara (**Table 3**).

Adult individuals in the early medieval graves at Lijevo Bara were usually buried more deeply, so that skeletons of male and female deceased individuals were most often found at a depth between 56 and 95 cm, and the skeletons of children at a depth between 36 and 75 cm. The average relative depth of the graves of adult individuals of different sexes did not exhibit any major variation, as it ranged between 74.34 cm for male burials and 75.37 cm for female ones, while the burials of children were on average somewhat less than 20 cm shallower (**Table 4**). In terms of this, it can be noted that this does not match the lowest minimum standard of hygiene, which is considered a burial at a depth of no less than 80 cm, and the cemetery at Lijevo Bara even in this detail corresponds to the pattern of the relatively shallow burial of the deceased usual for row cemeteries from the second half of the 10th century onwards. The average relative depth, however, most probably corresponds to some early medieval measurement for depth (ell, foot, and so forth) whose proportions today remain poorly known, but in their heyday would definitely have been utilized for the burial of the deceased.

The deepest graves, both individually and on average, were found in the southern and southeastern parts of the cemetery, where they were protected from adverse weather conditions by the lay of the land, which gently rises from the north to the south. In the course of time, whether through water activity or wind, additional loess soil was deposited, which was certainly aided by the prevailing winds from the northern quadrant in the Vukovar region, in frequency most often as winds from the northwest and west, and in strength most often as winds from the north and northwest. In the more northerly parts of the cemetery, which was more subject to erosion because of weather factors and intensive working of the land (vineyards, orchards, crops, and vegetable gardens), the discovered graves were shallower and closer to the surface.

Almost all grave records are unanimous in declaring that at Lijevo Bara the deceased were placed directly in the earth without any traces of grave equipment, i.e. boards, panels, or coffins. The existing photographic field documentation entirely supports such observations.

## The position of the deceased (general information, position of the forearms, orientation of the deceased)

At Lijevo Bara a total of 448 skeletons were excavated from 447 inhumation graves: 446 skeletons come from individual graves, and only 2 skeletons were from a double grave of mother and child (gr. 208/1–2). Of 448 skeletons, 9 of them come from the same number of prehistoric graves (202p/f, 206p/ch, 210p/m?, 269p/m, 308p/ch, 320p/f, 407p/?, 427p/? and 428p/ch), and 439 skeletons from 438 early medieval graves. From the 439 early medieval skeletons, the position of the trunk was established for 413 skeletons (94.08%): 409 were found on their backs (93.17%), and only 4 skeletons were found on their sides (0.91%) – two on the right side with extended legs (gr. 43/f and 85/m), and two on the left side with contracted legs (gr. 60/f and 307/f?). 26 skeletons were destroyed or damaged so badly that the position of the trunk could not be determined (5.92%). Not a single example existed of the burial of the deceased placed face down (**Table 5**).

Highly predominant among the skeletons on the back were those with extended legs (398 skeletons from 397 graves), while interesting variants included: the skeleton from gr. 44/f (with finds) with spread arms and legs (**Fig. 5:1**), as well as the skeletons from gr. 55/? (no finds), 71/m (with finds), 363/f (no finds), and 375/m (no finds) with legs crossed at the feet (Szabó, I.2), and the skeleton from gr. 157/? (no finds) with the left leg extended and the right contracted and crossed at the foot (**Fig. 5:2**). A particularly interesting element was noted in gr. 363/f?, where the deceased female's legs were definitely extended during the original burial, and only after a subsequent digging up of the grave for fear of vampirism, were her legs placed in a crossed position (**Fig. 5:3**). Among the skeletons placed on the back with legs contracted on the right, the usual and common variant appears of skeletons with the legs placed on the ground (Szabó, I.3), such as were found in gr. 25/? and 83/?, and the child gr. 242 and 329, while only in female gr. 131 was a skeleton noted with contracted and raised legs, somewhat leaning to the right (Szabó, I.1b). It is interesting that not one of these five skeletons – in graves scattered throughout the cemetery – contained any finds of any other kind of grave good (**Fig. 6:1–5**).

For the primarily female (?) skeletons placed on the side – whether on the right side with extended legs (Szabó, type II.1) or on the left side with contracted legs (Szabó, II.2a), which is an already noted and well known rule – grave finds were noted in only two cases, i.e. in female gr. 60 (cirlet, two rings, and large fragments of a pot) and in the probably female gr. 307 (fragment of a bronze pin). Skeletons placed on the side exhibit more or less emphasized deviation to the N, although it can be noted that the skeletons on the right side and with extended legs at Lijevo Bara were oriented to the W, while skeletons placed on the left side were oriented WNW, and others to the NW (**Table 6**). The positions of the forearms for the skeletons found on the left side and with contracted legs (gr. 60/f, 307/f?) might even have a chronological value considering they belong to variants 23 and 24.

If the 26 destroyed skeletons and 4 skeletons found on the side are excluded, the analysis of the position of the forearms can be performed utilizing the data gathered for 409 skeletons lying on their backs. Of these 409 skeletons, the position of both forearms could be established for 296 skeletons (72.37%), while because of the destruction of one or both forearms, the position of the forearms remained undetermined in an additional 85 cases, i.e. for a total of 113 skeletons (27.36%). The more than half, and indeed even more than two-thirds of the skeletons with preserved forearms ensured that the data from Lijeva Bara in Vukovar have a specific statistic value (**Fig. 7**).

For the 296 skeletons available for statistical analysis, 24 of the total of 25 basic forearm positions were noted, i.e. all five unified groups (I–V). The number of variants meant that as many as 17 of them would be represented with figures of less than 5% (0.34–3.38%), that five variants (v. 2, 6, 8, 12 and 13) would be represented with figures of between 5 and 10% (5.97–9.46%), and that only two variants (v.1 and 7) would be represented with figures greater than 10%. For more than half of the variants, the percentage of male skeletons is predominant, for a third of the variants, the percentage of female skeletons predominates, and but in only one case child skeletons predominate (v.1). In groups I, II, and V male skeletons are almost twice as numerous, in group III male and female skeletons are represented in approximately the same proportions, although the male examples are somewhat more numerous, while female skeletons predominate only in group IV. Within individual groups, with the exception of group IV, almost as a rule the fundamental variants predominate in representation, i.e. those where both forearms were placed or found in the same position: v.7 in group II (56.57%), v.13 in group III (28.38%), and v.25 in group V (24.39%). Grave finds were contained, viewed on average, primarily in graves with the forearm variants of groups III, IV, and V (more than 50% of the graves), while in graves with the forearm variants of groups I and II grave finds were usually rarer by a fifth (**Table 7**).

On the basis of the representation of all five groups and the abundant numbers of their variants, the cemetery at Lijeva Bara can be placed among the Bijelo Brdo cemeteries with a distinctly heterogenous representation of forearm positions. This was common for the early medieval (and also later) cemeteries of the Byzantine-Bulgarian cultural sphere, where in the beginning period it is considered a reliable sign of Christianization. A similar interpretation is valid for the Hungarian principedom of the third quarter of the 10<sup>th</sup> century, and the appearance of an increased number of variants in the forearm positions is attributed to missionary activities and the influences on the burial ritual by the Byzantine church, particularly predominant in the eastern and southern regions of the Hungarian principedom immediately after the establishment of the first Hungarian-Byzantine political connections in 948 and 952. Accordingly – considering the geographic position of the site, and the emphasized diversity of the forearm positions – it can be claimed with certainty that the burial of the deceased at Lijeva Bara took place in a period marked by the powerful or even predominant influences of eastern Christianity.

For the cited period and area, the presence of all five groups and almost all of the variants united in them – variant 16 is the only one not represented – is a clear and specific indicator of the acceptance by an early medieval community of the burial customs of eastern Christianity. This becomes even more evident if we compare the percentage ratios of the first two groups (I–II) and their few variants marked by the placement of one or both arms along the body or on the pelvis of the deceased (49.32%) with the remaining three groups (III–V) marked by the placement of one or both hands on the upper part of the trunk (50.68%). The over fifty percent representation of these three groups (III–V) and their 9 variants makes the early medieval Bijelo Brdo cemetery of Vukovar close to some cemeteries from the area of medieval Braničevo in the Byzantine cultural sphere, where the groups III, IV, and V usually accounted for more than 2/3, and sometimes even more than 3/4 of all forearm positions (e.g. Beograd – Tvrđava/Donji grad; Trnjane – Staro groblje). In the southern Pannonian region, because of the small number of systematically investigated Bijelo Brdo cemeteries, at present it is only possible to note that the proportion of the III, IV, and V groups of forearm positions exhibits a tendency to decline in both the spatial and chronological sense: spatially, moving from east to west, and chronologically, moving from the middle of the 10<sup>th</sup> century towards the end of the 10<sup>th</sup> and the first decades of the 11<sup>th</sup> century (e.g. Petoševci – Bagruša, Mahovljani – Luka, Gomjenica – Baltine bare). At the partly contemporary Bijelo Brdo cemeteries located further to the north or west, the share of groups III, IV, and V is very small, and in percentage values is inversely proportional to the distance of the site from the nearest starting point for the spread of the funerary influences of the eastern church (in the north, for example, Bučány – Vinohrady in Slovakia; in the west, for example, Ptuj – Ptujski Grad in Slovenia). Similar percentages have been noted at later Bijelo Brdo cemeteries (e.g. Szabolcs – Petőfi ut., Pusztaszentlászló – Deáksűrű) that originated and were utilized primarily or exclusively during the 11<sup>th</sup> century and in the 12<sup>th</sup> century (**Table 8**).

The orientations were determined according to the axis of the skeletons, as the grave pits, as was already explained, could not be distinguished from the surrounding soil because of the disturbed prehistoric layer in which the deceased were buried. The early medieval skeletons were oriented in a W–E direction (head-feet) with greater or lesser deviations to the north and south, which is usual at the cemeteries of this period. Of the 439 early medieval skeletons, the orientation was established for as many as 421 skeletons (95.90%), in a range from 225° to 328° with the arithmetic mean at 276.5° and the average value of the orientations of all graves at 277.5° (**Table 9**). The range, however, if the two most extreme values were

to be omitted (gr. 55/? and 226/?), would be much smaller, and would measure between 245° and 315°. In the span that would then measure only 70 degrees instead of 103, and would be very close to the ideal span of 72 degrees (240.5° to 312.5°), deviations predominate to the south of the mean value acquired in this manner (280°).

Completely different data with by far more pronounced deviations towards the north are shown by comparisons or orientations north and south of 270°, i.e. from the west-east line, which at the same time is the line of correction. The percentage values for deviation to the north (271–328°) at Lijeva Bara measure a high 72.21% (304 skeletons), which can be considered a characteristic of Bijelo Brdo cemeteries created during the second half or the last third of the 10<sup>th</sup> century. At these cemeteries, the frequency of deviation towards the north replaced the similarly high percentage values of deviation towards the south, usual for cemeteries created and utilized during the second third of the of the 10<sup>th</sup> century, i.e. in the period from ca. 930 to ca. 960/970 (e.g. Letkés – Iskola, Halimba – Ceres I).

The orientations of male, female, and child skeletons are compared for a total of 373 skeletons: 131 male skeletons were oriented in a range of 245° to 314° (average at 279.5°), 115 female skeletons were oriented in a range of 251° to 312° (average at 281.5°), and 127 child skeletons were oriented in a range of 248° to 328° (average at 288°). The orientations of skeletons analyzed according to the existing sexual identity exhibit similar percentage values for the male and female skeletons, while only insignificant differences could be noted for the orientation of the child skeletons – exclusively in favor of a west-east direction, or rather the deviations covered by the range from 259° to 281° (**Fig. 8**).

If the old hypothesis about connections between the orientation of graves (or skeletons) with the position of the rising sun in a given season of the year were applied to Lijeva Bara, then the greatest mortality in the early medieval Vukovar settlement would have occurred in early spring or early fall (57.96%), declining in late autumn and in the winter (36.81%), and with the least mortality in late spring and during the summer (4.99%). This would further mean that almost 50% of the deaths would have occurred in the months of March and September, and that mortality would have been almost insignificant in December and January, i.e. less than 1% (**Table 10**).

Such or very similar indicators, only rarely different, were measured at other Bijelo Brdo cemeteries (**Fig. 9**). Hence claims about the orientation of graves being dependent on the position of the rising sun must be judged with considerable caution, and sometimes even rejected totally, not merely because of finds of plants in graves that according to this theory would have been dug in months when the growing season of the given plant species would have long passed, but also because of the influential factor of the geographical characteristics of individual sites (e.g. the surface relief), so that only after all of this, can burial customs, various religious concepts, and the always present ritual and cult traditions be considered.

## Graves with two or more deceased individuals (double burials, superimposed graves)

The lack of a recognizable grave pit means that the definition of double burials at Lijeva Bara results from a combination of the observations made in the field by the archaeologists at the time of excavation of the site and subsequent assumptions based on the data contained in the field documentation. In such circumstances, the existence of a double burial can be hypothesized only in four cases, in which (without changing the existing numbering of the graves) eight skeletons are mutually connected (1.82%) from a total of seven early medieval graves: the skeletons from gr. 83/? and 91/ch, where a quite young child was placed on the right side of an adult individual, adjacent to the feet of its otherwise contracted legs (**Fig. 10:1**); gr. 208 with the skeletons 208-1/f and 208-2/ch, where the child was placed to the right of the female skeleton at the height of her upper arm and upper part of the forearm (**Fig. 10:2**); the skeletons in grave 302/ch and 303/f, where the somewhat older child was placed to the left of the female skeleton at the height of her pelvis, thigh, and upper part of the lower leg (**Fig. 10:3**); and the skeletons in gr. 424 and 425 (**Fig. 10:4**), where two small children of approximately similar or the same age (ca. 2 years old) were buried near to one another. Double graves with the skeletons of a woman and child were most probably the burials of a mother and child, where the head of the mother in both cases (gr. 208-1/f and 303/f) was turned towards the child, whether the child was placed in the grave on her right side (gr. 208-2/ch) or left side (gr. 302/ch). With the exception of the child double grave (gr. 424 and 425), where in both cases beads and metal pendants representing parts of necklaces were noted as grave finds, none of the remaining three double burials contained any archaeological finds.

The overlapping or superimposition of graves appeared very rarely at Lijeva Bara, in only 6 cases, so that this encompassed a total of twelve early medieval graves, i.e. a minor 2.74% (**Fig. 11**). In four cases, the partial touching of graves (89/m and 78/m; 287/ch and 304/ch), and a small extent of overlapping (286/ch and 303/f; 400/m and 398/?) were noted, in two cases a larger extent of overlapping (251/? and 278/f), and a total overlapping of graves (88/ch and 36/?). The overlapping of early medieval and prehistoric skeleton graves was noted in only two cases (gr. 185/? and 202p/f; gr. 426/f and 427p/?). All of the above early medieval graves, with the exception of gr. 36/? and 88/ch, were found in the eastern half of the cemetery, and of the remaining ten graves, as many as six were uncovered in quadrant XIV/13 (**Table 11**).

## Destroyed and disturbed graves

In the course of time a considerable number of the early medieval graves at Lijeva Bara came to be located very close to the surface both because of agricultural cultivation of the land (vineyards, orchards) in the last hundred years and because of atmospheric and erosive activity. As many as 63 skeletons (14.48%) were found at a depth of less than 50 cm, and 139 of them at a depth of less than 60 cm (31.95%). In such circumstances, it could be expected that a not insignificant number of skeletons would be disturbed, damaged, or even completely destroyed, so that not even any relative entirety was preserved, much less an intact state. The destroyed skeletons (a total of 26) were predominantly the skeletons of children, particularly those buried shallowly, while the only damage recorded in the field documentation, attributed to the roots of trees, disturbed the skeletons in gr. 120/m, 226/?, 250/f, and 270/?, sometimes also causing evident damage, not noted in the field documentation, to some neighboring graves. The damage to the skeleton in gr. 338/? was the only one interpreted in the field documentation as having been caused by the digging of some animal or plowing.

Other than these, it is apparent that a transverse line of digging up the land in quad. IX/10 and IX/11 carried out nearby the house of Albina Lorinc-Janković in the recent period had caused damage to the skeletons in gr. 138/f, 139/f, 170/m?, 173/? and 193/? (**Fig. 12:1**), while some similar digging in quad. VI/13 damaged the skeletons in gr. 85/m and 93/f (**Fig. 12:2**), in quad. X/12 the skeletons in gr. 114/f and 120/m (**Fig. 12:3**), in quad. X/8 the skeleton in gr. 31/f?, and in quad. XVIII/14 – 15 the skeletons in gr. 212/f? and 105/?. Damage to the head or the upper parts of the body was suffered, almost as a rule, by skeletons found at a depth of less than 50 cm, but damage or disturbance to skeletons also occurred during the archaeological excavations themselves. The damage was mostly suffered by graves that were bisected by the dividing walls of the quadrants, but also by some of the graves that extended beyond the quadrants, so that it was necessary to excavate an additional trench, cutting, or niche.

All of this, as well as the meager and scarce observations noted in the existing field documentation, mean that it is difficult to determine to what extent the deliberate disturbance of the deceased was actually present at Lijeva Bara – this phenomenon was not rare at the Bijelo Brdo cemeteries of the 10<sup>th</sup> and 11<sup>th</sup> centuries, and it is interpreted as a defense and protection against vampirism. It was believed that vampirism usually occurred after burial, and protection was offered by a specific procedure known as "diminishing". Various parts of the body of the deceased were subjected to such acts: often the head was damaged or separated from the body, or because of the still existing vital organs, the upper parts of the body were frequently damaged or disturbed, but less so the lower parts or legs of the deceased, while sometimes the entire skeleton was destroyed. A reliable example of vampirism visible through disturbance to the legs of the deceased can be seen at Lijeva Bara only in gr. 363/f?, where the originally extended legs of the skeleton were subsequently moved, and on that occasion were placed in a crossed position (**Fig. 5:3**). Such beliefs could also be the cause, although sometimes with a little less certainty, of the disturbance to the skeleton in gr. 234/f?, the disturbance to the heads and the lower parts of the body in gr. 83/?, 135/?, 185/? and 285/f, and the disturbance to the arms or legs in gr. 207/ch and 376/f, or gr. 7/? (**Fig. 13**).

## The burial of horses or horse bones

The burial of a horse or horse bones, as part of any possible horseman's grave, was not established at all at Lijeva Bara. Part of the field documentation, however, mentioned for quad. VIII/4 first a find of "a horse skeleton" that lay "above the legs of the skeleton", and then "by the legs of grave 297...the dislocated bones of a horse", which was later claimed "did not represent an archaeological find". Nothing of this, unfortunately was either drawn or photographed, so the exact position of these bones could not be determined in relation to the skeleton from gr. 297/f? (finds: S-circlet and a ring with a crown).

The find of a left *tibia* of a young horse also cannot be classified as the burial of a horse or parts of a horse, as it was discovered as the only grave good representing a "traveling provision" by the right forearm of the skeleton in gr. 346/?.

## Burial rituals and beliefs (finds in nonfunctional positions)

Objects found in a nonfunctional position in graves consist of those whose place of discovery shows that they did not belong to the deceased, but rather had been placed in the grave during the funeral – before or after the placement of the deceased in the grave pit – as a direct contribution by the family or members of the family and individuals in a kinship or any other close relationship with the deceased. The most numerous objects of this type include rings: some of the rings found near the neck were hung on torcs (gr. 326/f, two examples) or together with other objects were part of a necklace

of metal pendants (gr. 2/ch, 408/ch), as individual finds were discovered by the head above the right ear (gr. 13/ch), next to the left ear (gr. 159/f), on the inner side of the left lower leg of the deceased (gr. 364/f), or on the right side above the pelvis but far away from the hands placed on the chest of the deceased (gr. 315/f, two rings). In one case, in circumstances that are difficult to explain, the crown of a ring was found on the left side of the head, while the hoop was found by the waist during removal of the skeleton (gr. 297/f?), and in another example, in similarly unclear circumstances, a massive silver ring was attributed to the finds from child gr. 347, whose size and diameter indubitably proved it could not have belonged on the fingers of a child (ca. 12 years old). Additionally, in terms of jewellery, only one bracelet broken into two parts was found in a nonfunctional position on the chest above the spine (gr. 44/f).

The appearance of certain other objects in a nonfunctional position elsewhere is not at all so clear and recognizable. Of objects of everyday use, it could be considered that some of the knives had been found in a nonfunctional position, one "on the chest" of the deceased together with the frames of a quiver and an arrow (gr. 127/m?), and another "above the upper right arm" (gr. 324/m), and of weapons in a nonfunctional position, in the grave fill 25 cm above a skeleton an arrow was found that most probably had been placed there during the filling of the grave (gr. 14/m), and two arrows were found in a grave placed in such a manner that their tips were facing down (gr. 357/m).

## OBJECTS FROM THE GRAVE INVENTORY

Objects of the grave inventory	Situation		Grave finds			Sex of the deceased				Chance finds
	no.	%	no.	%	graves	m/m?	f/f?	ch	sex?	
4.1. Objects of everyday use	62	11.50	58	11.88	44	28	9	4	3	4
4.2. Weapons and military equipment	28	5.20	28	5.74	14	12	1	–	1	–
4.3. Jewellery	356	66.05	333	68.24	144	24	62	43	15	23
(A: pendants on circlets	4	–	4	–	3	–	1	2	–	–)
(B: pendants on torcs and necklaces	479	–	459	–	20*	–	8	23	3	20)
4.4. Attire (attire elements)	84	15.58	60	12.29	33	10	9	11	3	24
4.5. Objects of cult character	8	1.48	8	1.64	8	2	1	3	2	–
4.6. Objects of unknown purpose	1	0.19	1	0.21	1	–	–	1	–	–
Total (without pendants):	539	100.00	488	100.00	191	56	68	47	20	51
Total (with pendants; w/out necklaces):	987	–	917	–	191	56	68	47	20	70

The grave inventory is composed of objects found in the grave on the deceased or next to the deceased, where they arrived as part of the funerary equipment of the deceased or as part of a funerary ceremony performed above the grave or in the vicinity of the grave before or during the burial. A small number of these objects were chance finds from destroyed graves (9.46%), while the major part consists of objects discovered in 191 out of a total of 438 medieval graves, so that the proportion of graves with objects in the grave inventories measures 43.61%. They are most common and numerous in female graves (39.77%), slightly less frequent and numerous in male graves (35.75%), and the least numerous in child graves (27.48%).

The objects in the grave inventories are classified into 5 groups according to purpose, and the group of objects of unknown purpose is represented by only a single object. With a more than two-thirds share, jewellery composes the most numerous group of grave goods (counted individually, with a more than 80% share), and the remaining third is composed of attire elements, the somewhat less numerous but more diverse objects of everyday use, the by half scarcer category of weaponry and military equipment, while objects with a cult character are represented by a small and almost symbolic share.

The representation of individual groups of objects of the grave inventory is determined to a great extent by the sex of the deceased: finds of weaponry and military equipment are tied to male graves (92.31%) and to a slightly lesser extent, so are objects of everyday use or most of them (68.29%); jewellery is the main inventory in female graves (48.06%), followed by child graves (33.33%), while in male graves it is much rarer and less varied; attire elements are more numerous in child graves (36.67%) and are only insignificantly less numerous or approximately equally represented in male and female graves (33.33%); the share of the rare and few objects with a cult character is more emphasized in child graves (50%) than in male or female graves.

## Objects of everyday use

Objects of everyday use	Objects		Material				Grave finds		Sex of the deceased				Chance finds
	no.	%	metal	clay	bone	stone	objects	graves	m/m?	f/f?	ch	sex?	
1. Personal equipment	34	54.84	29	–	–	5	31	25*	21*	2	1	1*	3
1. <i>Knife</i>	23	37.10	23	–	–	–	20	18	16	2	–	–	3
2.1. <i>Steel</i>	6	9.68	6	–	–	–	6	6	5	–	–	1	–
2.2. <i>Flint</i>	5	8.06	–	–	–	5	5	5	4	–	–	1	–
2. Tools and implements	22	35.48	12	4	5	1	21	17*	8	7*	2	–	1
1. <i>Spindle-whorl</i>	4	6.45	–	4	–	–	4	4	1	2	1	–	–
2. <i>Thatching needle</i>	1	1.615	–	–	1	–	1	1	–	–	1	–	–
3. <i>Awl</i>	7	11.28	5	–	2	–	7	6	2	4	–	–	–
4. <i>Needle</i>	4	6.45	4	–	–	–	4	4	3	1	–	–	–
5. <i>Awl press</i>	2	3.225	–	–	1	1	2	2	1	1	–	–	–
6. <i>Tightener/loosener</i>	1	1.615	–	–	1	–	1	1	1	–	–	–	–
7. <i>Scraper</i>	1	1.64	1	–	–	–	1	1	1	–	–	–	–
8. <i>File</i>	2	3.225	2	–	–	–	1	1	–	–	1	–	1
3. Hunting and fishing gear	4	6.45	2	2	–	–	4	2	–	–	1	1	–
1. <i>Projectile</i>	2	3.225	–	2	–	–	2	1	–	–	–	1	–
2. <i>Hook</i>	2	3.225	2	–	–	–	2	1	–	–	1	–	–
4. Cosmetic accessories	2	3.23	2	–	–	–	2	2	1	–	1	–	–
1. <i>Razor</i>	1	1.615	1	–	–	–	1	1	1	–	–	–	–
2. <i>Pincers</i>	1	1.615	1	–	–	–	1	1	–	–	1	–	–
Total:	62	100.00	45	6	5	6	58	44*	28*	9	4*	3*	4

The objects of everyday use include personal equipment, various tools, implements, and devices, hunting and fishing gear, and cosmetic accessories. Their presence in the early medieval graves of the Bijelo Brdo cultural sphere is interpreted as representing the existence of a pagan burial ritual that was still fairly widespread during the 11<sup>th</sup> century: whether as a symbol of a desire to drive off misfortune and sundry evils or to emphasize and stress the activities, skills, and capabilities related to the deceased (or to the parents of the deceased when such objects from child graves are in question).

Among the 62 objects of everyday use, personal equipment predominates with a representation of more than half, first with knives (37.10%), and a much smaller amount of fire steels (9.68%) and flints (8.06%). Tools, implements, and devices compose the second most numerous group of objects (35.48%), where awls, needles, and spindle-whorls predominate numerically, while with only one or two finds each are represented awl-presses and files, and a thatching needle, tightener/loosener, and scraper. Hunting and fishing gear is represented by two projectiles for slingshots and two hooks, while cosmetic accessories consisted of a razor and a pair of pincers (Fig. 14–17; Pl. 9:5–6, 12:1–4).

Objects made of metal predominate (72.58%), mostly of iron (knives, fire steels, awls, needles, files, hooks, razor, pincers), and rarely those made of bronze (needle) or silver (scraper), and objects made from clay (spindle-whorls, projectiles for a slingshot), bone (awl, thatching needle, tightener/loosener, awl press), and stone (flints, awl press) are rarer but are represented in approximately similar proportions.

Of the 62 objects of everyday use, 58 of them (93.55%) were discovered in 44 graves (ratio: 1.32), which among graves with finds achieves a share of a quite high 23.04%.

## Weapons and Military Equipment

Weapons and military equipment	Current state		Grave finds			Sex of the deceased				Chance find (no.)
	no.	%	no.	%	graves	m/m?	f/f?	ch	sex?	
4.2.1. Archery equipment	28	100.00	28	100.00	14*	12*	1	–	1	–
1. Reflex bow	1	3.57	1	3.57	1	1	–	–	–	–
2. Arrows (arrowheads)	22	78.57	22	78.57	13	12	1	–	–	–
3. Quivers	5	17.86	5	17.86	5	4	–	–	1	–
Total:	28	100.00	28	100.00	14*	12*	1	–	1	–



At Lijevo Bara weapons and military equipment are the most rare and least numerous group of objects from the grave inventory, represented only by archery weapons and equipment (28 items) collected exclusively from excavated graves (**Fig. 18:1–3**). Among the weapons and equipment of archers, arrows predominate (78.57%), with much less numerous quivers (17.86%) and only one reflex bow (3.57%). Weapons and military equipment were found in 14 mostly male or probably male graves (ratio: 2:1), so that their share among the graves with finds amounts to 7.33%.

The broken sections of the bone platelets or laths found by the skeleton of the young male (20–28 years old) buried in gr. 92 are the only archaeological traces of the existence of a composite or reflex bow (**Fig. 18:1; Pl. 13**). Of eleven fragments, nine belong to the upper pair of laths (1/1–5; 2/1–4), and the remaining two fragments found by the upper part of the right thigh, not preserved and today non-existent, should be attributed to the bone laths of the central section (grip) of the reflex bow (3–4/1). Despite the incomplete and generally poor preservation of the collected material, the covering laths exhibit clear structural characteristics of the early Hungarian reflex bow, where originally three pairs of laths arranged on the ends and the grip of the bow were in use (2+2+2). The body of the upper pair of laths from Vukovar has an arched curve and is uniformly tapered to the notch (nock) and the tip, which is a characteristic of typological group 1, the most common and richest in variants, of the covering plates of the early Hungarian reflex bows of the 10<sup>th</sup> and earlier 11<sup>th</sup> century (**Fig. 20**).

Arrowheads (*further*: arrows) were represented by 22 examples in 13 graves (ratio: 1.69). Finds from male or probably male graves predominate almost completely with only one example of an arrow found in one probably female grave (8.33%). Among the graves with finds, the share of graves with arrows achieves the above-average figure (for Bijelo Brdo cemeteries) of 6.81%. All of the arrows, without exception, are of the eastern type, which have a tang in place of a socket for hafting (**Fig. 18:2.1–3; Pl. 9:7–8**). Arrows with a rhomboid head predominate (81.81%), and the remaining less than a fifth consists of three arrows with a laurel-leaf head (13.64%) and one example of a double-winged or forked arrow (4.55%). At Lijevo Bara the majority of graves with arrows belong to the second half and last third of the 10<sup>th</sup> century, and only one find of an arrow from the southern part of the southeastern zone of burial can be dated to the end of the 10<sup>th</sup> and the decades of the 11<sup>th</sup> century, as it was found together with a ring of the "Vukovar – Bijelo Brdo" type (gr. 14).

Quivers were manufactured from material subject to rapid decay (leather, wood, bone, iron) so that usually all that remains of them in graves are relatively complete sections or fragments consisting of well or poorly preserved iron frames or rods with corresponding reinforcements, sometimes the mounts for the iron buckles used to attach the quivers to the belt (gr. 237), and only exceptionally fragments of the bone panels of the top, mouth, or neck of the quiver (gr. 232). Iron reinforcing rods for quivers were noted or found in five male graves (gr. 127, 232, 237, 268, 336), and their share among the graves with finds measures a small 2.62%.

In contrast to the walls of the quiver, made of leather and reinforced by iron rods, the upper surface of the wooden top of the quiver was sometimes covered by iron sheet metal, and only in rare cases – such as the finds from grave 232 – the upper and both side walls of the mouth of the quiver were covered by trapezoidal bone panels decorated with carvings (floral and geometric decorations). These were reinforced in the center by thin perpendicular iron rods and were attached to the wooden frame of the quiver top with symmetrically arranged pairs of iron nails. The wooden surfaces of the front face of the mouth of such decorated quivers were further covered with thin lengthwise bone bands. One rare find consists of a bone panel placed at the juncture of the frontal surface of the neck and the upper part of the frontal surface of the quiver itself, which in its upper section covered and with its leather backing joined the transverse iron rod of the neck of the quiver (**Fig. 21**).

This panel (2a.5), the most prominent on the quiver, but only partially preserved, is filled with a decoration whose dense symbolism illustrates the complexity of the shamanic world-view: the tree of life (evergreen, cypress?), reproduced three times (trinity, triplicity, triad); the tree connects three worlds (the underworld – the roots; the earthly world – the trunk and the lower branches; and the heavenly world – the upper branches and tree top); the crown of the tree is covered by a ladder-like border that joins the earth to the heavens (the ladder); the crowns of the trees have three tops (fundamental number), and the crowns of the mutually connected trees together have seven endings (holy shamanic number). The interior field of each tree is filled with a different (?) decorative composition: for instance, the first lateral group consists of four rhomboid fields with a diamond-shaped (?) decoration in the center (four doors, stages, junctures); the central group consists of four small circles with a dot in the center arranged opposite each other along the edges of a large circle with a diamond-shaped decoration in the center (**Fig. 22; Pl. 14**).

Most of the quivers come from the graves of young or youngish men, whose ages probably ranged between 20–30 (gr. 127, 268) or 30–40 (gr. 237), and one quiver was found in a grave of a man between 40 and 50 years old (gr. 232), while in only one case neither the sex nor the age of the deceased could be established (gr. 336). All five quivers were, however, found in each grave by the upper part of the skeleton.

Four quivers come from graves located in the central part of the southeastern zone of burial (zone I), where they were arranged in the form of an imaginary triangle, at its apex the grave richest in finds (gr. 268), and at its base three similarly

oriented graves equally distant from one another (gr. 237, 232, 336). The fifth quiver found in gr. 127 was located in a line with the graves at the base of the triangle, but considerably more to the north, beyond the southeastern zone of burial and fairly distant (around 18 m) from the nearest graves of the "triangular group" of archers. In chronological terms, the graves of the "triangular group" of archers, considering their central position within the southeastern zone of burial, certainly belonged to the earlier period of utilization of the Vukovar cemetery, which occurred only in the period between the beginning of the second half and the end of the second third of the 10<sup>th</sup> century (Fig. 24).

## Jewellery

Jewellery	Numbers		Grave finds			Graves acc. to sex				Chance finds
	items	%	items	%	graves	m/m?	f/f?	ch	sex?	
1. Jewellery for the head and hair	112	31.46	105	31.53	67*	10	35*	16	6	7
1. Circlets	10	92.86	98	93.33	64	10	32	16	6	6
2. Earrings	8	7.14	7	6.67	4	–	4	–	–	1
3. <i>Pendants on a circlet (glass, metal)</i>	4	100.00	4	100.00	3*	–	2	1*	–	–
1. <i>Pendants of glass</i>	1	25.00	1	25.99	1	–	1	–	–	–
1. <i>Bead</i>	1	100.00	1	100.00	1	–	1	–	–	–
2. <i>Metal pendants</i>	3	75.00	3	75.00	2	–	1	1	–	–
1. <i>Hoops</i>	3	100.00	3	100.00	2	–	1	1	–	–
2. Jewellery for the neck and chest	59	16.57	51	15.32	42*	–	13*	25*	4	8
1. Torcs	24	40.68	17	33.33	17	–	9	7	1	7
2. Necklaces (compound objects)	35	59.32	34	66.67	33	–	8	22	3	1
3. <i>Pendants on necklaces and torcs</i>	479	100.00	459	100.00	34*	–	8	23	3	20
1. <i>Pendants of glass and amber</i>	454	94.78	438	95.42	29	–	8	19	2	16
1. <i>Beads</i>	454	100.00	438	100.00	29	–	8	19	2	16
2. <i>Metal pendants</i>	25	5.22	21	100.00	16	–	2	12	2	4
1. <i>Cross</i>	2	8.00	2	9.52	2	–	–	2	–	–
2. <i>Lunula</i>	1	4.00	–	–	–	–	–	–	–	–
3. <i>Globular bell pendant</i>	7	28.00	5	23.81	3	–	2	1	–	2
4. <i>Bell/bell-shaped pendant</i>	1	4.00	1	4.76	1	–	–	1	–	–
5. <i>Coins</i>	5	20.00	5	23.81	5	–	–	4	1	–
6. <i>Other pendants (hoops, 5 ex.; fibula; spike; mount; wire)</i>	9	36.00	6	28.57	8	–	1	6	1	1
3. Jewellery for the hands	185	51.97	177	53.15	107*	20*	56*	20*	111*	8
1. Bracelets	62	33.51	58	32.77	42	2	26	10	4	4
2. Rings	123	66.49	119	67.23	90	21	49	11	9	4
Total (torcs + necklaces):	356	100.00	333	100.00	144*	24	62	43	15	23
Total (torcs + pendants):	804	100.00	762	100.00	144*	24	62	43	15	42

Jewellery represents the most numerous group of objects from the grave inventory. A small part of the jewellery consists of finds from destroyed graves (6.48%), while most of the jewellery consists of objects found in 144 of the total of 438 medieval graves, hence the graves with jewellery have an almost one-third share measuring 32.87%. Almost half of the graves with jewellery are female or probably female graves (48.06%), jewellery was a little rarer but still numerous and frequent in child graves (33.33%), while it was least numerous and common in male or probably male graves (18.61%).

The jewellery consists of three groups of objects, each represented by two basic types: jewellery for the head and hair is composed of circlets and earrings, jewellery for the neck and chest is composed of torcs and necklaces, and jewellery for the hands and arms is composed of bracelets and rings. Jewellery for the hands and arms is the most numerous and is represented by a share of more than half (51.97%), followed by jewellery for the head, which is less numerous and less diverse, with a share of less than one third (31.46%), while the jewellery for the neck and chest, although varied in composition, is the least numerous (16.57%). Among the jewellery for the hands and arms, rings and their numerous types and variants predominate with an almost two-thirds majority (123 items), while a share of somewhat less than one third was

noted for the less diverse types and variants of bracelets (62 items). A slight range of representation of the basic types exists in the group of jewellery for the neck and chest, where necklaces and their variants as opposed to torcs and their variants have a ratio of 3:2. In the group of jewellery for the head and hair, the predominance of circlets in relation to earrings can almost be considered absolute (98.86%).

Jewellery for the neck and chest was found exclusively in female and child graves, with jewellery for the hands and arms represented in female and child graves, and in a smaller number of male graves.

## Circlets

Circlets with open and usually merely cut, but sometimes tapered or even pointed ends, made of a single piece of wire are the simplest form of jewellery used for ornamentation of the head or hair of the inhabitants of the Bijelo Brdo cultural circle. They were worn at Lijevo Bara by men, women, and children, as earrings or as temple-rings connected to a band and braided into the hair, as individual decorations or as a pair, more often identical and more rarely with some other type of circlet or earring (large numbers of circlets were rarely found in the same grave). The most numerous examples were made of bronze wire (72.12%), circlets of silver wire were considerably more rare (25.96%), and examples made from iron wire were quite rare and exceptional (1.92%). As a rule, the wire had a circular section, and only occasionally circular-oval, oval, or semicircular sections (only present among the circlets without an ending). Among the graves with finds, the graves with circlets with open ends had a high proportion of 34.55%.

Circlets with open ends are represented by both basic groups (Table 14): the most frequent are circlets without an ending (75%), while a quarter consists of the rarer, but typologically more diverse circlets with variously formed endings (25%). Circlets with one or two pendants are rare (2.88%), represented only in the group of circlets without an ending (3.85%). Circlets with endings are represented by the not particularly numerous S- and O-circlets (23.08%), and only one pair of circlets with a spiral ending (gr. 252/ch).

**Table 14**

The representation of circlets without endings and circlets with endings, and variants of both groups.

4.3.1.1. Circlets (open ends)	Total	Metal			Grave finds		From destroyed graves
		<i>AR</i>	<i>AE</i>	<i>Fe</i>	circlets	graves	
1. Circlets without an ending	78	20	56	2	76	50*	2
1. without a pendant	75	20	53	2	73	48	2
2. with a pendant/pendants	3	–	3	–	3	3	–
2. Circlets with an ending	26	7	19	–	22	17	4
1. O-circlet	10	2	8	–	10	8	–
2. S-circlet	14	5	9	–	10	8	4
3. Circlet with a spiral ending	2	–	2	–	2	1	–
Total:	104	27	75	2	98	67*	6

The basic characteristics of most of these circlets, with or without an ending, are contained in the metrological values of the span of the circlet and the diameter of the wire, i.e. in the length and thickness of the wire used to make the circlet. On the basis of these data it is possible to further classify both basic groups of circlets (1–2) and most of their variants (1.1–2 and 2.1–2) – with the exception of the circlets with a spiral ending that widens towards the bottom (2.3.1) – into small-format (a) and large-format (b) specimens, according to the parameters applied at one point to S-circlets from the group of circlets with an ending (Fig. 25–26).

## Earrings with a raceme pendant (with filigree and granulation, cast)

Silver filigree earrings are represented by only two damaged and partially preserved examples: one broken into several pieces but with a well preserved pendant, parts of the hoop, and most of the joints (three of four), purchased for the AMZ as a chance find from a destroyed grave several decades prior to the first archaeological excavations, while the second, missing the raceme pendant and most of the joints, was found in the grave of a young female (gr. 66), on the right side of the skull in secondary use (as a circlet without an ending), together with a large-format circlet without an ending (G. 13-I,7/3). The same grave find also contained another two circlets with open ends (one small-format and one large-format), an open torc of smooth wire with ends bent outwards in the shape of the letter "S", two open-ended bracelets, and a ring of the

"Vukovar – Bijelo Brdo" type, and considering that this earring was in secondary use, in its original form it would have originated at some time during the second half of the 10<sup>th</sup> century, and only after remodeling did it arrive in secondary use in grave 66 at the beginning of the 11<sup>th</sup> century (**Fig. 27:1.1–2**).

Despite the partial state of preservation, it is probable that at least one if not both Vukovar examples belong to the same group of earrings, called earrings of the "Volhynia – Kiev" type in the archaeological literature, or simply earrings of the "Volhynia" type. The basic characteristics of these earrings consist of the workmanship and formation of the pendant, which in the upper part is composed of two and in the lower part of three horizontal rows of circular or flattened granules of various number and size, separated from one another by smooth or curved filigree wire. Only rare examples are decorated with granulation, where in the center or the lower section of the pendant, between two rows of granules, is a large barrel-shaped bead. The hoop of the earrings is usually decorated with two pairs of joints composed of a horizontal row of circular or flattened granules reinforced on the upper and lower side with smooth or curved filigree wire (**Fig. 28**).

While the necessary typological details can neither be determined nor established for the entirely denuded and furthermore secondarily used earring from grave 66, the accidentally discovered and better preserved Vukovar example of an earring of the "Volhynia – Kiev" type belongs to a rare variant of these earrings where the lower part of the pendant is dominated by a barrel-shaped bead decorated with granulation and a motif of upright rhombs. The distribution range of this variant, despite its scarcity, is extremely large, as in addition to the Pannonian plain, the extent includes the Ukraine, where several examples were found in hoards or grave finds at Jurkovci, Kopijevka, and Peresopnica (kurgan 29). In the Pannonian plain, the southernmost example comes from the cemetery of Vukovar – Lijeva Bara in the Croatian Danube basin, followed by finds from the cemetery of Szob – Kiserdő (gr. 69) at the Danube bend, and a hoard find from Tokaj in northeastern Hungary. Beyond these two zones, in the lower Dniester in the central eastern part of Moldavia (Brănești), in a direction which more or less evidently leads to or from Byzantine Dobruđa, a fragmentary grave find was noted of a raceme earring with a barrel-shaped central bead (**Fig. 29**).

Cast earrings with a raceme pendant represent a frequent jewellery form among the grave finds of the Bijelo Brdo cultural circle in the regions around the Mura, Drava, and Sava, and particularly south of them and south of the Danube in eastern Slavonia and Srijem. This makes it all the more interesting that only three pairs of such earrings come from Lijeva Bara, all three from the graves of young women (gr. 62, 426, 440), where they were found as the only decorations on the head or by the head of the skeleton (**Fig. 27:2.1a–2a; Pl. 15:1–3**).

The finds from northern Croatia show that the cast raceme earrings were usually composed of two sections cast together in a two-part mould: a previously chosen open circlet of smooth wire of circular section (not rarely of a different metal) placed in the mould, and the decorative part joined and cast together with it in the shape of the Greek letter  $\psi$ . More or less clearly, but depending on the quality of workmanship of the mould, the basic characteristic can be recognized in a shorter upper and longer lower raceme pendant with one or more pairs of joints on both arches. The formation of the decorative part is reminiscent of the luxurious models made with filigree and granulation according to which these more or less successful cast examples were produced.

At Lijeva Bara, despite the small number of finds, two forms of the decorative parts of the cast raceme earrings were represented, both with arches that in appearance imitate smooth wire of circular section:

- 1 – Earrings with an ovoid lower raceme pendant (**Fig. 27:2.1a–b.1; Pl. 15:1,3**),
  - a) with one pair of joints on the arch of the decorative part of the earring (gr. 62/f),
  - b) with two pairs of joints on the decorative part of the earring (gr. 440/f);
- 2 – Earrings with a raceme pendant of the "Volhynia – Kiev" type (**Fig. 27:2.2a.1; Pl. 15:2**),
  - a) with two pairs of joints on the arches of the decorative part of the earring (gr. 426/f).

The "Volhynia – Kiev" type of cast raceme earrings (De. 2a) encompasses a broad range of products with similar traits, but a diverse quality and degree of similarity to the original forms of silver earrings made with filigree and granulation. The finds south of the Mura, Drava, and Sava represent the region of their greatest distribution and quite long continuity, which in some cases extends into the period after the middle or even at the end of the second third of the 11<sup>th</sup> century, when only individual examples were still found in graves (e.g. Sv. Juraj u Trnju – Sv. Juraj, gr. 6), and not in pairs, or in pairs together with simple circlets or circlets with an ending or other variants of cast raceme earrings. Furthermore, in these areas the raceme earrings of the "Volhynia – Kiev" type appear in graves that definitely are not earlier than the 11<sup>th</sup> century, and judging from the accompanying finds, such earrings achieved their greatest popularity in the second, third, and fourth decades of the 11<sup>th</sup> century. The pair from Vukovar (gr. 426), although with recognizable "Volhynia – Kiev" characteristics, differ from products usual for the 11<sup>th</sup> century, as is indicated by the exceptionally emphasized "verism", the unusually large weight of these earrings, the accompanying finds, including a pair of light-weight bracelets with one end cut and the other end tapered, as well as the position and location of the grave within the cemetery. Hence it can be suggested that the origin of this pair of cast earrings from Vukovar should be sought beyond the Bijelo Brdo cultural sphere.

In fact, all three pairs of raceme earrings at the Vukovar site come from graves buried in the eastern part of the excavated area of the cemetery: two pairs come from graves located in the eastern and southeastern zone of burial (gr. 62 and 426), and one pair from a grave located along the southern edge of the eastern part of the northern zone of burial (gr. 440). The position of the graves within individual zones has chronological significance, and shows that the pair of cast raceme earrings of the "Volhynia – Kiev" type (De. 2a) were deposited in the earth at Lijevo Bara during the last two decades of the 10<sup>th</sup> century (gr. 426), and that both variants of the cast raceme earrings with an ovoid lower pendant were created later (De. 1a–b) and belonged to graves from the beginning or the first decades of the 11<sup>th</sup> century (gr. 62 and 440).

## Jewellery for the neck and chest

Jewellery for the neck and chest comprises a not very large group of objects, dominated numerically by necklaces with various pendants, and the somewhat less numerous torcs. They were found in 42 female or child graves, and among the graves with finds have a share of 22.10% (similar to graves with finds of bracelets).

### Torcs

A total of 24 torcs come from Lijevo Bara: 7 torcs were acquired by purchase, and the remaining 17 were excavated from female or child graves during the archaeological excavations in 1951–1953. In relation to the total number of excavated early medieval graves, such a representation of torcs is very high (**Table 20**), although among the graves with finds, graves with torcs represent only 8.90%, and that is only 3.88% of all archaeologically investigated early medieval graves at the site.

All the torcs from excavated grave units were found in a functional position, and not in a single one of 17 graves were they the only grave find, while they appeared together with other finds in a total of 16 combinations. They were commonly an addition to ornamentation of the neck and chest, most often necklaces of glass beads, necklaces of beads and metal pendants, or single bead-pendants (gr. 391/ch), and sometimes they were found with other types of decorative objects, such as two-part pendants (gr. 23/ch) or a button-pendant (gr. 444/f). They were frequently found in graves together with ornamentation of the hands, more with rings (10 graves) than with bracelets (7 graves), and with decorations for the head, they were more commonly found with simple circlets (7 graves), than with (rare at Lijevo Bara) S-circlets (gr. 349/ch and 391/ch). Quite exceptionally, in one case a grave with a torc also contained an iron awl (gr. 444/f), and in another case two small bronze belt chapes (gr. 409/ch).

Torcs at Lijevo Bara, without exception, were a jewellery form specific to female and child graves. They appeared in equal numbers in the graves of young female individuals no older than 25 (46.15%) as well as in the graves of children not older than 15 (46.15%). Only one example (7.70%) comes from the grave of a female aged 30 or more years old (**Table 21**).

The custom of hanging a ring and an open or closed circlet-pendant on torcs was noted in three cases at Lijevo Bara (**Fig. 30**): on one torc of spirally twisted wire were hung two rings (gr. 326/f), on another torc of twisted wire an irregularly formed closed bronze circlet of banded section was placed to serve as a pendant (S-2390/1), and on a torc of wire thinned towards the ends an open circlet of thin wire with overlapping ends was placed and served as a pendant (gr. 391/ch).

The location of graves with finds of torcs is particularly interesting, as the graves with torcs form a group of irregular ovals concentrically arranged in relation to earlier graves and burials. Particularly visible are three such zones located in the southern and central parts of the excavated area of the cemetery (zone I, III and IV), and the existence of a fourth zone can be noted in the eastern part of the cemetery (zone V), where in the easternmost section in grave 115/f the youngest torc was found, at the same time also the heaviest one discovered at Lijevo Bara (**Fig. 31**):

1. The southeastern zone consists of gr. 159/f, 326/f, 412/ch, 409/ch, 391/ch, 383/ch, and 31/f, which encircle the earliest nucleus of this part of the cemetery with graves 268/m, 237/m, 232/m, and 336/? in the center (zone I);
2. The southwestern zone consists of gr. I-1951/?, 138/f, 23/ch, 31/f, 383/ch, 298/f, 349/ch, 355/ch, and 444/f, which encircle an earlier nucleus with graves 312/m and 434/m in the center (zone IV); at graves 31/f and 383/ch, the southwestern zone touches and overlaps with the southeastern zone of burial (zone I);
3. The central zone is the most completely excavated, but is probably not entirely defined in its northern section, and is composed of graves 217/f, 66/f, 159/f, 31/f, 23/ch and 138/f (zone III);
4. The *eastern zone* on primarily uninvestigated land is marked by finds of torcs in graves 326/f and 159/f, and graves 66/f, 217/f and 115/f (zone V);
5. The *northern zone* (zone II) encompasses the extensive and partially excavated part of the terrain located north of the southwestern (zone IV), central (zone III), and eastern zones of burial (zone V); in the northern zone, other than at points of contact with other zones, not a single torc was discovered; its large extent means that the northern zone can be divided into western and eastern sections.

Such an arrangement of finds shows that torcs did not appear particularly early at Lijevo Bara, that they belonged to later periods of burial, and that they appeared at a time when individual sections of the cemetery had already been occupied by burials, i.e. in a period immediately before and immediately after the year 1000. Thanks to this, torcs play a special role in establishing the chronology of finds in the material culture circa AD 1000 and later, as well as for understanding the creation, development, and extension of the cemetery. Among the torcs themselves, the increase in the weight and diameter or the thickness of the wire (or wires) has a distinct chronological significance, so that the lighter torcs are earlier in relative chronology terms, while the heavier torcs had a later relative chronology origin. The diversity of forms and their typological variants also contribute to the chronology, but are further of great importance for noting and recognizing regional characteristics, as well as trade and exchange between individual regions.

Three types of torcs appear in the Bijelo Brdo cultural circle, and the most usual type of torcs that fasten predominated greatly, more often examples made by spirally twisting one or more wires with a circular section of equal or different thickness than torcs made of only one wire or circular or rhomboid section. Torcs with open ends, just like closed torcs, were sporadic and rare.

Among the 24 torcs found at Lijevo Bara, as many as 23 were torcs that fasten (95.83%), while only one torc had open ends bent outwards in an "S" shape (4.17%). Torcs with a hook and eye for fastening predominate with 21 examples (91.30%), and the remaining two examples were torcs with two hooks for fastening (8.70%); 21 of the torcs were produced by spirally twisting one, two, or three wires of circular section (87.50%), and only 3 torcs (12.50%) were made from a single, more or less thick wire of circular section (**Fig. 32–34**).

## Necklaces

A necklace is a decorative complex of identical or diverse pendants arranged in a string or connected otherwise into a unit that is tied, hung, and worn around the neck or on the chest. Three types of necklaces were found at Lijevo Bara, with 34 examples from 33 graves (two necklaces come from gr. 326/f), while for a group of pendants acquired prior to systematic archaeological excavations, composed of 16 glass beads and 1 button-pendant, it cannot be established with certainty that all of them in fact came from the same destroyed grave unit (S-2410/1–2). Necklaces composed of beads predominate with well over half the total and twenty sets (58.82%), and necklaces composed of beads and the occasional metal pendant make up nine sets (26.47%), while with only five sets the least numerous are necklaces composed of stringing varied but usually scarce metal pendants (14.71%). Among the graves with finds, the share of graves with necklaces measures a quite high 17.28 % (**Fig. 35**).

The basic components of most necklaces were beads, consisting of 437 glass beads and only 1 amber bead, while among the metal pendants on necklaces with beads and metal pendants or necklaces with only metal pendants the most common elements were perforated bronze (4) and gold coins (1), ring-shaped or circularly bent bronze bands and fragments of small bells (3 each), and silver and bronze rings (2) or bronze and lead crosses (2). Individual metal pendants consist of a bronze bell-shaped pendant, various diverse bronze objects turned into pendants (the lower section of a two-part pendant, a belt strap ending, a fibula, a wire with an O-shaped ending), and one heavier iron object (spike).

Necklaces of beads (20 examples) and necklaces of beads and metal pendants (9 examples) were composed of or contained at least one bead and at most 59 beads on necklaces made of beads (gr. 217/f) or 114 beads on necklaces of beads and metal pendants (gr. 115/f). More than half of the necklaces from Lijevo Bara do not contain more than 5 beads, and hence belong to the 1<sup>st</sup> degree of quantity (51.72%), a third of the necklaces contain 6 to 30 beads and belong to the 2<sup>nd</sup> degree of quantity (34.48%), while only four necklaces belong to the 3<sup>rd</sup> and 4<sup>th</sup> degrees of quantity, as they contained either more than 31 beads (gr. 138/f, 217/f, 409/ch) or less than 121 beads (gr. 115/f). The mean index of the number of beads is small and measures only 15.10 beads per necklace, so that for necklaces composed only of beads, the index is even one third less than the average, while for necklaces composed of beads and metal pendants it is doubled (**Table 23**).

Necklaces were found primarily in child graves (73.33%), followed by female or probably female graves (26.67%). These were most the graves of small children and young or younger women (to 25 years of age), and only in two cases were necklaces with one bead (gr. 48/f) or several beads (gr. 108/f?) found in the graves of women older than 45 and 50. The greatest number of pendants on a necklace was noted in the graves of young female deceased individuals.

Necklaces of beads and metal pendants come from 9 graves (7 child and 1 female, and 1 of undetermined sex). They were rare in graves with a great number of other archaeological finds (gr. 115/f, 409/ch), and in three graves they were the only grave finds (gr. 124/?, 227/ch, 408/ch).

Necklaces of metal pendants were found in 5 graves. Most of these graves were located in the southern edge sections of the southwestern and southeastern zones of burial (gr. 2/ch, 326/f, 378/ch, 382/ch), and only one find of a necklace with a metal pendant (coin, *AE*) – considerably distant from the other finds – was noted in the northeastern part of the excavated area of the cemetery (gr. 271/?). In only one of these graves was a necklace with a metal pendant (a cross) the only grave find (gr. 378/ch).

Necklaces of metal pendants were usually composed of one pendant, and more rarely of two or three pendants (Table 26). In one case, the necklace was composed of three secondarily used pendants of various form and decoration, but all three were made of bronze (gr. 326/f), and in another case the necklace was composed of two pendants of circular form (gr. 2/ch), one gold (a coin, pierced three times), and the other silver (a ring). The remaining three necklaces each had only one bronze pendant: once a bronze cross with a depiction of Christ (gr. 378/ch), while twice a bronze perforated Roman coin was used as a circular pendant (gr. 271/?, 382/ch).

### Pendants on necklaces and torcs (of glass and amber, metal pendants)

With their total of 454 specimens, beads are the most numerous group of necklace pendants: 438 beads come from 29 archaeologically excavated graves, and 16 beads were acquired by purchase before archaeological excavation began and it is not known whether they came from one or more destroyed Bijelo Brdo Culture graves. With the exception of a single damaged polygonal-irregular amber bead (gr. 108/f), all the other beads were made of glass or a glass mass.

The beads appear in a total of 15 forms, but more than 95% of all collected beads (433 pieces) are classified to only four forms: the most numerous beads and those threaded on the greatest number of necklaces were flattened globular undecorated and decorated beads (03), a third less numerous were grits-shaped beads (14), and considerably less numerous were annular undecorated and decorated beads (11) and the least numerous of these, segmented beads (01). Among the remaining 11 forms, represented by only 21 beads (4.62%), only vertically ribbed flattened globular beads are a bit more numerous (04), along with short cylindrical beads (05) and cylindrical beads with a pinched end (13), while long cylindrical beads (06) and biconical beads (09) are represented by two beads each, and globular (02), vertically ribbed cylindrical (07), rod-shaped (08), rectangular-prismatic (10), oval (12) and irregular polygonal (15) forms of beads were represented with only a single example (Fig. 36).

Of metal pendants, two crosses were found at Lijevo Bara, both in child graves: one cast in bronze with an image of Christ crucified was found in the area of the rib cage of a poorly preserved and disturbed skeleton (gr. 378), and the other simple, ungainly, and irregular cast lead cross without any image or decoration was found together with a bead in the neck area (gr. 388). The bronze cross from gr. 378/ch belongs to a group of single piece cross-pendants with a vertically placed oval eye for suspension, arms widened at the ends, and a relief decorated front side, and a smooth and undecorated rear side, such as most frequently appear among the finds of cross-pendants in the graves of the Bijelo Brdo cultural sphere (Fig. 37:1a; Pl. 16:1). The Vukovar cross is outstanding because of the formation of Christ's arms, which widen only at the elbow, and the *perizoma* – the short drapery around Christ's waist and thighs – would indicate the influence and decorative taste specific to depictions of Christ that had originated in the milieu of the Western Roman church. In contrast to this, the cross from gr. 388/ch belongs to a group of small and undecorated lead cross-pendants with rounded arms and a hole for suspension in the upper, usually somewhat more elongated arm of the cross (Fig. 37:1b; Pl. 16:2).

The only crescent-shaped pendant or *lunula* was a chance find from the period before the archaeological excavations took place. It probably, like most similar crescent-shaped pendants discovered at Bijelo Brdo culture cemeteries, served as a special pendant, as one of several pendants on an amulet necklace, or as the central decorative part of a necklace from some destroyed female or child graves (Fig. 37:2; Pl. 17:1–2). The Vukovar lunula is decorated, with a teardrop decoration on each end and an annular eye for suspension, but the lower central part of the lunula has an added spectacle-shaped element, similar in appearance to two parallel eyes for suspension. This detail connects it with a not large group of similarly shaped crescent pendants, sometimes decorated and sometimes not, frequently found at Bijelo Brdo sites in Hungarian Transdanubia (Fig. 38). The northernmost find of this type of lunula was noted at the cemetery of Hurbanovo – Bohátá in Slovakia, and the southernmost at Lijevo Bara in the Croatian Danube basin. Judging from the example from Vukovar, the crescent pendants with teardrop endings and spectacle-shaped additions are earlier in relative chronological terms than lunula pendants without such additions. The lunula from Vukovar was in fact produced in the same mould as the lunula with a spectacle addition discovered at the cemetery of Pécs – Somogy in Hungarian Baranya (gr. 141).

Globular bell-pendants are represented with only 7 examples, 6 bronze and 1 iron (Fig. 37:3a–b, 6.14). The iron bell-pendant and one of the bronze bell-pendants were chance finds from the period prior to the archaeological excavations, while the remaining five bronze bell-pendants were found in two female (gr. 115 and 326) and one child grave (gr. 355). Graves with bell-pendants represent a very small proportion among graves with finds, only 1.57%. Judging from the position in which they were discovered during excavation, the globular bell-pendants from Lijevo Bara were used for various purposes: a) they decorated the collar of the upper part of clothing (shirt, tunic, or dress), given that they were found arranged in two rows below the neck together with a secondarily used upper section of a two-part pendant and a spangle (gr. 355/ch); b) they served as an addition to a necklace, where in one case they composed part of a tripartite group of metal pendants (amulets), found on the right side of the chest, considerably distant from a necklace of beads with which they were certainly not directly connected (gr. 326/f), while in another case they served as a decorative part of a necklace where they were arranged with one pendant on the left and the other on the right side of the head (gr. 115/f). It is usual at Bijelo Brdo cemeteries, particularly those in Hungary, to find only one globular bell-pen-

dant in a grave, and rarely two or three, so that the Vukovar grave finds with a ratio of 1.67 deviate from the situation where in Hungary they rarely achieve a representation of 1.27 or 1.33 and never exceed the large ratio for that region of 1.50 globular bell-pendants per grave. South of the Drava and Sava the representation is not rarely more than the mentioned 1.50 globular bell-pendants per grave, and thanks to relatively common graves with finds of three, four, five, eight, nine, or even eleven bell-pendants it increases south of the Sava in the Bosnian Sava basin to a very high average ratio of 3.24 (Fig. 40; Table 29).

Bells and bell-shaped pendants are generally speaking considered to have an apotropean significance in the sense of deflecting and chasing away evil spirits, and the only such find at Lijevo Bara was found in a child grave (gr. 408), located in the southeastern edge section of the cemetery in a group of graves that belong to the early 11<sup>th</sup> century. In terms of form and size, however, the bell-shaped pendant from Vukovar corresponds totally to the bell-shaped seal-amulets with a depiction of a bird from the Byzantine-Bulgarian cultural circle, dated to the 10<sup>th</sup>–11<sup>th</sup> centuries (Fig. 37:4; Pl. 16:3).

Coins were found in five graves: in four child graves (gr. 2, 252, 382, and 409), and in a grave where the sex or age of the deceased could not be determined (gr. 271). Not in a single one of these graves was the coin deposited as an obol for the dead, as in all five cases the coin was pierced along the edge in at least one place and was usually found in the neck area – in combination with glass beads, a silver ring, a bronze late La Tène fibula, and other items – and served as one of the decorative parts of a necklace. The graves with pierced Roman coins are attributed to archaeological contexts usually dated to the second half of the 10<sup>th</sup> century and rarely in the early 11<sup>th</sup> century, although the graves from Lijevo Bara in fact belong to the period around the year 1000 and the beginning of the 11<sup>th</sup> century (gr. 392/ch, 409/ch), while some could even be of later date (gr. 252/ch, 271/ch). The grave with the pierced, clipped, and worn Byzantine gold coin with the poorly visible image of Constantine VII Porphyrogenitus and his son Romanus II (945–959) was most probably itself from the period immediately before the year 1000, although some date and consider it not earlier than AD 960 or not later than the seventies of the 10<sup>th</sup> century (Fig. 37:5b; Pl. 7:7–8).

A small number of these objects were produced deliberately with the aim of serving as or being part of a pendant (circlets, wire with an O-shaped ending). Others, with minor modifications or even without them, were transformed into pendants with a simple change of role. The transformed and secondarily utilized objects consisted of four major subgroups of pendants: the first three subgroups are composed of objects that were not contemporary to the period of their secondary use, as they had been created in the prehistoric (late La Tène fibula), Roman (iron spike) or late Avaric (belt mount) periods; the fourth subgroup was composed of secondarily used objects from the period contemporary to the Bijelo Brdo Culture (rings, lower section of a two-part Bijelo Brdo pendant, halves of globular bell-pendants). Only circular objects appear as pendants on torcs, such as bronze rings and bronze circlets. The rings consist of a closed ring with wart-like extrusions (pseudo-granules) and an open ring of banded section (gr. 326/f), while among circlets both open (gr. 391/ch) and closed examples were discovered (S-2390/2). Metal pendants on necklaces and torcs were usually found in child graves and the graves of young female individuals located in the eastern parts of the cemetery (80%).

## Jewellery for the hands

### Bracelets

Bracelet	State		Material				Grave finds		Sex of the deceased				Chance finds
	no.	%	AR	AE	Fe	?	objects	graves	m/m?	f/f?	ch	sex?	
1. Open bracelet	56	91.80	1	53	2	–	53	42	2	25	10	5	3
1. Banded section	1	1.79	–	1	–	–	1	1	–	1	–	–	–
2. Wire: cir., semicir. & square section	53	94.63	1	50	2	–	50	39	2	23	10	4	3
3. Wire: triangular section	1	1.79	–	1	–	–	1	1	–	–	–	1	–
4. Snake heads	1	1.79	–	1	–	–	1	1	–	1	–	–	–
2. Closed bracelet	3	4.92	–	3	–	–	3	3	–	3	–	–	–
1. Animal heads	1	33.33	–	1	–	–	1	1	–	1	–	–	–
2. Twisted wire: varied thickness	2	67.77	–	2	–	–	2	2	–	2	–	–	–
3. Bracelet that fastens	2	3.28	–	1	–	–	1	1	–	–	1	–	1
1. Twisted wire with a hook and eye	2	100.00	–	1	–	–	1	1	–	–	1	–	1
Total:	61	100.00	2	57	2	–	57	42*	2	26*	10	4*	4
4. Unknown	1	100.00	–	–	–	1	1	1	–	1	–	–	–
Total:	62	100.00	2	58	2	1	58	42*	2	26*	10	4*	4



A total of 62 bracelets were found at Lijevo Bara – entirely preserved examples were more frequent, and damaged, i.e. broken, fragmentary, or partly preserved examples were rare, while for one bracelet it was noted that it had already been damaged before the grave was uncovered and that it fell apart, so that its form remains unknown as it was not preserved (gr. 326). During the archaeological excavations in 1951–53, 59 bracelets were discovered, and only 3 bracelets were acquired by purchase during the 1930s. Of the above 59 bracelets, 53 examples come from 42 graves, primarily of women and children, and the finds of bracelets noted in the graves of two male warriors are quite exceptional – in both cases a single bracelet was found on the right hand of the deceased (gr. 92 and 268). Among the graves with finds, the graves with bracelets make up 21.99% (42 graves), which measures 9.59% of all archaeologically excavated early medieval graves at the site (438 graves).

Bracelets were more often found in the graves individually (25 graves), than in pairs (15 graves). Only in one grave were two bracelets found with one in a functional and the other in a non-functional position (gr. 44/f). Although bracelets worn as a pair – one on the left and one on the right forearm – compose almost half of all finds of this type of jewellery (49.18%), pairs of bracelets were found in only 13 female or probably female graves and in two child graves (35.71%). If bracelets were worn as a pair, the heavier bracelet was usually worn on the right arm (ca. 70%), and the lighter bracelet on the left (ca. 30% of examples). Pairs further usually consisted of bracelets of the same type or same variant – predominated by variants of wire bracelets of circular and square section (De. 1.2a i 1.2c), found in 10 graves (71.14%), and other than them in only four cases do other forms appear (28.57%), i.e. an open bracelet of banded section (De. 1.1) and an open bracelet of wire with a triangular section (De. 1.3), and a closed bracelet of twisted wire (De. 2.6) and an open bracelet with snake heads (De. 1.4). When they were not worn in pairs, the bracelets were usually found on the right forearm (20 graves). The only exceptions to this rule at Lijevo Bara were the finds from three child graves (gr. 18, 382 and 390) and one female grave, where the bracelet was found on the left arm (gr. 44). Only one bracelet was found in a non-functional position, broken into two parts and evidently placed during burial in the chest of the female buried in grave 44. Five bracelets from four graves (gr. 184/?, 208-2/f-ch, I-1951/? and III-1951/?) lack data about the position in which they were found in the grave (**Fig. 42; Pl. 18:1–3**).

Of the 42 graves with a bracelet or a pair of bracelets, in only 9 graves were bracelets the only find (21.43%). In the remaining 33 graves (78.57%) they represent rarely one of only two types of grave finds (4 graves), and much more frequently one of three or more types of grave goods (29 graves). Considering the female and child identity of most of these graves, the accompanying grave goods usually consisted of various forms of jewellery, i.e. decoration for the head (circlets, cast raceme earrings), decoration for the neck (torcs, necklaces, two-part pendants), or decoration for the hand (rings). Other than jewellery, sometimes graves with bracelets contained other grave goods such as a flint (gr. II-1951/?), a spindle-whorl (gr. 122/f), iron awls (gr. 139/f, 440/f, 444/f), and iron pincers (gr. 86/ch). In reliably male graves – in which during the second half of the 10<sup>th</sup> century bracelets became an ever more rare grave find – bracelets appeared together with jewellery for the head (circlets) and hand (rings), but also with weapons and objects of everyday use, i.e. a composite or reflex bow accompanied by a knife (gr. 92) or a quiver and arrows accompanied by a knife and flint (gr. 268). All of these objects appeared together with bracelets in a total of 27 combinations, where the most common accompanying grave finds were rings (38 examples in 18 combinations), followed by circlets and cast raceme earrings (33 examples in 14 combinations), and only after that torcs (8 examples in 8 combinations) and various kinds of necklaces (10 examples in 10 combinations). It should be noted that at Lijevo Bara bracelets were not found in any grave that contained O-circlets or S-circlets as jewellery for the head.

Among the bracelets, open bracelets predominate greatly (56 examples), and among them mostly bracelets of wire with a circular, semicircular, or square section, i.e. bracelets of type De. 1.2a–c (53 examples). Individual examples of other variants of open bracelets are somewhat rare, such as light bracelets of banded section and spirally coiled ends (De. 1.1), massive and heavy bracelets of triangular section wire (De. 1.3), or bracelets with ends in the shape of snake heads (De. 1.4). Closed bracelets are scarce (only 3) and were represented by two bracelets of two twisted wires of thick section and two twisted wires of thinner section (De. 2.5). Also scarce (2 examples) – and frequently found in child graves from the second third and third quarter of the 10<sup>th</sup> century – were bracelets that fasten made of three twisted wires with a hook and eye for fastening of type G. 5 (De. 3.7).

In terms of relative chronology, the tendency can be noted for heavy bracelets to be later, and lighter bracelets to be earlier, and for bracelets of wire with circular, semicircular or square section and pointed ends to be older than those with uniform and cut or tapered and cut endings, while closed bracelets represented the youngest group in relative chronological terms.

## Rings

Rings	State		Material		Grave finds		Sex of the deceased				Chance finds
	no.	%	AR	AE	objects	graves	m/m?	f/f?	ch	?	
1. Open-ended rings	68	55.28	9	59	66	60*	11*	33*	8*	8	2
1. With holes for a rivet	1	1.47	–	1	1	1	–	1	–	–	–
2. Banded section	24	35.29	3	21	24	23	4	10	5	4	–
3. Triangular section with a hoop of filigree wire	1	1.47	1	–	1	1	–	–	1	–	–
4. Semicircular or triangular section	8	11.75	1	7	8	8	4	3	1	–	–
5. Arched section	18	26.47	1	17	17	16	1	12	1	2	1
6. Circular or oval section	11	16.18	1	10	10	10	3	5	1	1	1
7. Oval section with coiled ends	1	1.47	–	1	1	1	–	1	–	–	–
8. Rhomboid, square, or polygonal section	3	4.41	1	2	3	3	1	1	–	1	–
9. Of coiled silver wire	1	1.47	1	–	1	1	–	1	–	–	–
2. Closed rings	16	13.01	7	9	16	14*	5	8*	–	1	–
1. Semicircular or triangular section	11	68.75	5	6	11	10	3	6	–	1	–
2. Semicircular section with transverse ribs	1	6.25	–	1	1	1	–	1	–	–	–
3. Triangular section; pattern of pseudo-coiled wires	2	12.50	2	–	2	2	1	1	–	–	–
4. With wart-like protrusions	2	12.50	–	2	2	2	1	1	–	–	–
3. Rings with a crown	39	31.71	4	35	37	33*	4	25*	4	1	2
1. With a stepped crown	3	7.69	–	3	3	3	–	2	1	–	–
2. With a crown and hoop of filigree wire	2	5.13	2	–	2	2	1	–	–	1	–
3. With an inset crown for a decorative element	31	79.49	–	31	29	27	3	22	2	–	2
4. With a crown of spirally wound wire	2	5.13	1	1	2	2	–	2	–	–	–
5. With a crown of rhomboid form	1	2.56	1	–	1	–	–	–	1	–	–
Total:	123	100.00	20	103	119	90*	21	49*	11*	9*	4

During the archaeological excavations in 1951–1953 at the site of Lijeva Bara 120 examples of different rings were gathered, which together with 3 rings acquired for the museum in the 1930s makes a total of 123 rings. Among the 120 rings discovered during the excavations, 119 examples were noted in the field or museum documentation as having come from 90 graves (ratio: 1.32), while for one ring discovered during the excavations in 1953 (De. 3.3a), the grave unit is not noted, rather merely the quadrant in which the ring was found during excavation (quad. VII/6d). Rings made of bronze predominate (83.74%), as opposed to the considerably scarcer examples made from silver (16.26%).

Individually or according to the grave units in which they appeared, rings are the most highly represented archaeological find. They were found in somewhat more than a fifth of the early medieval graves (20.55%), i.e. as much as 47.12% of the graves with archaeological finds. Two thirds of all examples come from female or probably female graves, and the remaining rings are more rare in child graves and more common and frequent in male or probably male graves.

At Lijeva Bara 3 basic groups and 18 types of rings were represented (Fig. 43–43a; Pl. 19–20). More than half of all rings were rings of the open type (55.28%), almost a third were rings with a crown (31.71%), while the fewest were rings of the closed type (13.01%). Among the open rings, rings of banded section (De. 1.2a–b) and rings of arched section (De. 1.5a–b.) predominate, which together compose almost two thirds of all open rings (63.24%), or somewhat more than a third of all rings found at Lijeva Bara (34.96%). Among the closed rings, rings of semicircular or triangular section greatly predominate (De. 2.10a–b), but in the sum total their share does not even reach a tenth of all gathered rings. Among the closed rings, however, the share of rings made from silver is more prominent than in any other typological group (43.75%). Among the rings with a crown, rings predominate with an undecorated or decorated hoop and an inset crown for a decorative element (De. 3.3a–d.), which are in fact the most highly represented type of ring (25.20%). There are several variants within this group, but examples are predominant of the "Vukovar – Bjelo Brdo" type (87.10%), which with a share of somewhat more than one fifth (21.95%) was the most numerous represented group of rings at Lijeva Bara (De. 3.3a).

Both the lightest and heaviest rings came from child graves: the lightest ring is an open bronze ring of semicircular section weighing only 0.520 g (De. 1.4b; gr. 240/ch), and the heaviest ring is a massive composite silver gilt ring with a banded hoop and a crown of rhomboid section weighing 7.10 g (De. 3.5; gr. 347/ch). Within the framework of this truly large span are all of the rest, the fully preserved rings of the light (I; weight less than 3 g), medium (II; wt. 3–5 g), and heavy weight systems (III; wt. 5–7 g): the rings of the light weight system are represented by more than half (52.94%), the rings

of the medium weight system are represented with almost thirty percent, while the rings of the heavy weight system did not number even a fifth even when united with the single example of a ring of the very heavy weight system discovered at Lijeva Bara (IV; more than 7 g; **Table 32**).

In terms of relative chronology, the earliest rings from the graves at Lijeva Bara would be two very light open rings from two warrior graves, buried at the end of the second third of the 10<sup>th</sup> century: a ring of semicircular section found in gr. 92/m, located in the northwestern part of the cemetery (De. 1.4a), and a ring of arched section found in gr. 268/m, located in the central southern area of the excavated area of the cemetery (De. 1.5a). Approximately contemporaneous to this in terms of origin, but from a child grave buried somewhat later than the above warrior graves (gr. 347), is the earliest example of a ring with a crown, a silver gilt ring with a crown of rhomboid form of the "Vukovar – Budakeszi" type (De. 3.5).

## Attire

Attire (parts of attire)	State		Grave finds			Chance finds	Sex of the deceased			
	no.	%	no.	%	graves		m/m?	f/f?	ch	?
1. Upper attire (parts)	64	76.19	40	66.67	22*	24	2	8	11*	1
1. Two-part pendants	27	42.19	7	17.50	4	20	–	1	3	–
2. Spangle (button-like appliqué)	12	18.75	10	25.00	5	2	1	–	3	1
3. Button-pendants	24	37.50	22	55.55	16	2	1	7	8	–
4. Cuff end	1	1.56	1	2.50	1	–	–	1	–	–
2. Belt (parts)	20	23.81	20	33.33	13*	–	8	2*	1*	2*
1. Buckle with a pin	3	15.00	3	15.00	2	–	2	–	–	–
2. Clasp with a hook	3	15.00	3	15.00	3	–	–	2	–	1
3. Belt mount	2	10.00	2	10.00	2	–	2	–	–	–
4. Strap end	3	15.00	3	15.00	3	–	2	–	–	1
5. Circlet, for a belt	4	20.00	4	20.00	3	–	2	–	–	1
6. Belt chape	2	10.00	2	10.00	1	–	–	–	1	–
7. Bead, for a belt	3	15.00	3	15.00	3	–	2	1	–	–
Total:	84	100.00	60	100.00	33*	24	10*	10*	12*	2*

The attire elements consist of 84 objects, the more frequent and numerous but less diverse parts of upper attire (76.19%), and the scarcer, but more varied belt parts (23.81%). Among the 84 objects, 60 of them come from 33 graves (7.53%), which among the graves with finds ranks an average 17.28% (ratio: 1.82).

### Upper attire

Elements of upper attire consist of 64 objects classified into four groups (**Fig. 49**): 27 often incompletely preserved two-part pendants (42.19%), 24 button-pendants (37.50%), 12 spangles (18.75%), and 1 cuff end (1.56%). Among these 64 objects, only 40 of them (62.5%) come from a total of 22 graves (ratio: 1.82). They were most often found in child graves (53.38%) and female or probably female graves (38.10%), while elements of upper attire were considerably scarcer in male graves. From all the graves with finds, the graves with upper attire elements consist of 11.52%.

Two-part pendants, entire or with only one of their two parts, were found in four graves (**Fig. 49:1**): Preserved in two graves completely (gr. 23/ch – **Pl. 8:3**) or only with the lower typologically recognizable part (gr. 326/f), while the other two graves contained one better preserved (gr. 355/ch), and one more poorly preserved secondarily used circular upper part of a pendant (gr. 349/ch). The remaining pendants were certainly chance finds from several destroyed and archaeologically unexcavated graves, as is indicated by several groups of entire or incomplete two-part pendants: 4 completely preserved two-part pendants (S-2414/1–4) and 5 lower typologically recognizable pendants (S-2415/1–5), as well as 11 identical circular upper pendants with more or less amounts of damage and missing the hooks for suspension. Despite the considerable number of individual examples or their sections, typologically recognizable pendants, complete or with the lower section preserved, were represented at Lijeva Bara by 14 examples. All belong to the same type of thin, cast, heart-shaped platelets with profiled edges, with a tear-drop shaped ending in the lower section and a raised, semicircular eye for suspension in the upper section, and a relief decoration of an upright row of tear-drops (egg-and-dart), framed with three rounded rows of similar tear-drop patterns (D. 13). With its 14 pendants, the cemetery of Vukovar – Lijeva Bara in the

Croatian Danube basin for decades has been the leading site of discovery for two-part pendants of a group that although it may not be the most numerous, is nonetheless certainly one of the most widely distributed groups of Bijelo Brdo two-part pendants in general (D. 13). The pendants of this group extend in the northeast all the way to Zelenče in the Ukraine, in the west very numerous examples were noted in eastern Austria at several sites in Lower Austria (Köttlach, Langenschönbichl – Rumpler, Thunau am Kamp), in the southwest the group extends to the cemetery of Pordenone – Palazzo Ricchieri in the western part of the Italian province of Friuli – Venezia – Giulia, so that according to current information at least 123 complete or partially preserved examples come from 37 sites primarily in central European countries (Austria, Bosnia & Herzegovina, Croatia, Italy, Hungary, Romania, Slovakia, and Slovenia) and two southern European and eastern European countries (Serbia and the Ukraine) (Fig. 51).

The site at Lijeva Bara was the source of 24 bronze button-pendants, only one of which had been acquired prior to archaeological excavation. The remaining 23 buttons were gathered during the course of the three year campaign of archaeological excavations, but nonetheless data is lacking for one of them: 22 button-pendants come from 16 graves, more from child (8) than female graves (7), and only one example was found in the center of the skeleton's pelvic area in a male grave (gr. 280). Only one button-pendant was found in 11 graves (68.75%), two button-pendants were found in 4 graves (25%), and three button-pendants in only 1 grave (6.25%). Among the graves with finds, graves with button-pendants represented a relatively small, but not insignificant 8.38% (Fig. 49:3.1a–3b).

Spangles (sewn appliqués) are a scarce type of attire element at Lijeva Bara represented by only 12 examples: 2 spangles were chance finds, and the remaining 10 spangles were found in 6 graves, so that among the graves with finds, the graves with spangles compose a small 3.14% (Fig. 49:2.1–2). With the exception of four silver gilt spangles (gr. 355/ch, 417/m, 425/ch), most of the spangles were made of bronze, on which traces of gilding could also be noted (gr. 271/?, 349/ch). Spangles come mostly from child graves, and only two examples were found in a male grave (gr. 417).

The broken and unfortunately unpreserved fragment of silver sheet metal found in the abdomen area of the female skeleton buried in gr. 344 probably belonged to the wrist of the right hand, which was where cuff ends were usually discovered (Fig. 49:4). These objects, adapted in appearance to the wrists, are rounded thin bands with open ends, made of thin and often poor quality silver sheet metal, with one or more holes for attachment perforated on the ends. The poor quality material from which they were made has caused them to be considered part of the funerary garments. They are more often found in male warrior or rider graves, and in lesser numbers in female graves.

## Belt elements

Belt elements consist of 20 objects found in 13 graves (ratio: 1.54), representing among graves with finds a small 6.81%. The following came from mostly male or probably male graves (72.72%) and the occasional female or child grave: 3 buckles with a pin attached to the frame (15%), 3 clasps with a hook for attachment (15%), 2 belt mounts (10%), 3 strap ends (15%), 4 belt circlets (20%), 2 belt chapes (10%), and 3 beads of animal and fish bones (15%). All of this would indicate a somewhat greater proportion of belts made of fabric or string instead of leather. A particularly unusual feature is the frequency of the secondary use of individual elements of late Avaric and early Hungarian belt sets and decorative elements of horse equipment (Fig. 53).

## Objects of cult character (pottery, osteological remains of provisions for the deceased)

Pottery finds – in fact the fragments of shattered early medieval vessels – were noted in only two graves, both with finds and both located in the central part of the western half of the cemetery: the first in gr. 7/? (the skeleton on its back, extended), and the other in female gr. 60 (the skeleton on its side, contracted at the knees).

The discovered pottery fragments would indicate the usual forms of small medieval pots, with walls decorated with a double row of grooved straight lines (gr. 7/?) or a combination of wavy and horizontal lines, supplemented by a relief image of a cross on the outside base of the vessel, and a grooved double row of wavy lines on the interior side of the rim, where holes for suspensions had been perforated from the inside towards the outside (gr. 60/f).

The earlier Slavic custom of placing large fragments of a vessel can be seen by the foot of the skeleton in gr. 60/f (Fig. 54:1a Pl. 60), located within the southeastern zone of burial, and the small pottery fragment found in gr. 7/ch (Fig. 54:1b), located in the northeastern part of the cemetery, certainly reflects the slightly later and perhaps even somewhat modified beliefs apparent in certain southern Pannonian areas, if not at the end of the 10<sup>th</sup> century, then certainly in the first decades of the 11<sup>th</sup> century.

Food, primarily consisting of meat, belonged among the grave goods that were placed in the grave during the burial as traveling provisions for the deceased. Such remains, where the bones of domesticated chickens often predominate, and more rarely the bones of swine and other domestic animals (such as sheep, goats, cattle), were found at Lijeva Bara in only six graves (1.37%), with a share among graves with finds of 3.14% (Fig. 54:2).

In three cases, the osteological remains of the "travelling provisions" represented the only grave find (gr. 28/ch, 132/m?, 346/?), while in the other three cases, the bones were found in the grave along with other objects (gr. 30/ch, 48/f, 395/f), primarily jewellery characteristic for the later 10<sup>th</sup> century (heavy bracelets with cut and tapered ends, and rings with a crown of the Vukovar – Bijelo Brdo type).

Most of the graves with osteological remains of provisions were located in the southeastern zone of burial (83.33%), where they formed a not very large group of graves close to one another concentrated in the northwestern section of this zone (gr. 28/ch, 30/ch, 48/f, 346/?), with only one twenty-some meters distant grave located in the southern part of the southeastern zone of burial (gr. 395/f). Beyond this zone, the only osteological find of provisions came from a grave located in the northeastern part of the central zone of burial (gr. 132/m?).

## OTHER FINDS

During the archaeological excavations at Lijevo Bara in 1951–1953, the only elements that were systematically excavated were the prehistoric remains of a cemetery of the Dalj Culture group from the late Bronze Age and early Iron Age, and the early medieval cemetery belonging to the Bijelo Brdo Culture, while the scarce finds from the late Copper Age Kostolac Culture and the quite numerous finds from the late Iron Age were only subsequently recognized as archaeological remains from settlements. The multilayered nature of the site and the occasional intermingling of the cultural strata caused objects of various prehistoric periods to be found next to or in the vicinity of the skeletons, as in the course of time they by chance became part of the contents of the early medieval grave pits, and during excavation they were listed in the inventory of the medieval graves (Fig. 56).

## THE CULTURAL AND HISTORICAL BACKGROUND TO THE ORIGIN AND UTILIZATION OF THE CEMETERY

### The cultural and historical classification of the site

The Bijelo Brdo Culture is the official term for the multiethnic medieval archaeological material that in the north of Croatia, in the region between the Mura, Sava, Drava, and Danube rivers, comes mostly from skeleton graves arranged in more or less recognizable rows in cemeteries without churches, and is represented by various objects of similar traits characteristic for the Pannonian plain and sites in Hungary, southern and southwestern Slovakia, western Romania, northern and northwestern Serbia (Vojvodina and Srijem), northern and northwestern Bosnia, northeastern Slovenia, and eastern and southeastern Austria in the period from the second half and last third of the 10<sup>th</sup> century to the last quarter and end of the 11<sup>th</sup> century, and in places to the beginning and early 12<sup>th</sup> century. This cultural phenomenon of the later early medieval period and beginning of the developed Middle Ages was given its name by Czech archaeologists in the 1920s on the basis of the eponymous site at Bijelo Brdo in eastern Croatia (Slavonia). Despite attempts made then and also later to depict the Pannonian plain as the starting point of the Bijelo Brdo Culture, and to present the Pannonian Slavs as its starters and main bearers, or, on the contrary, to deny the Slavs any importance or role and attribute the creation of the Bijelo Brdo Culture exclusively and only to the circumstances and period of the origin of the medieval Hungarian kingdom, for Croatian medieval archaeology the Bijelo Brdo Culture is both title and content, and is useful and practical as in the typological and chronological sense it contributes to a more effective distinction of the archaeological material in the northern part of Croatia from the contemporary but often different archaeological material in the southern part of Croatia (Dalmatia).

### The period of the origin and utilization of the cemetery

#### Chronological determinants

Modern periodizations of the Bijelo Brdo Culture do exist, but they are both inadequate and imperfect, however, they nonetheless clearly show that the cemetery discovered in Vukovar at the site known under the name of Lijevo Bara belonged to the earlier period of the Bijelo Brdo Culture. This means that among the collected archaeological material there are some, but in fact not numerous early Hungarian objects, such as individual types of weapons and military equipment (reflex bow, quivers, arrows) or certain early forms of jewellery (sheet-metal bracelets), but that finds of rider graves with the accompanying equipment and decoration are completely lacking, as well as sabers, purses, and belt sets of mounts and strap ends, metal decorations of kaftans and head-coverings, golden earrings, heart-shaped sheet-metal pendants, earrings with a pendant in the form of strung beads, gold or silver rings with a crown of precious stone or glass, and finds of perforated European silver coins.

Moreover, for the chronological determination of the cemetery at Lijevo Bara, coin finds are of little help, as only one early medieval coin comes from a grave at the site. This is a thrice perforated, chipped, clipped, and worn gold Byzantine coin of the emperor Constantine VII Porphyrogenitus (913–959) and his son Romanus II minted in Constantinople between AD 945 and 959. The coin was found in grave 2 on the skeleton of a child younger than 5 years old (?), where it evidently did not function as an obol placed in the grave of the deceased but rather as part of a necklace where it was hung as a pendant-amulet together with the hoop of a filigree decorated silver ring. As both objects evidently were deliberately transformed into pendants on the necklace, the chronological value of the Byzantine gold coin is negligible, as this was an object that had certainly been in secondary use for a long time. On the other hand, the absence of finds of silver Arpád dynasty coins – in regions south of the Drava River so far no Arpád coins are known from grave finds earlier than the reign of King Peter I (1038–1041/1044–1046) – deprives us of the possibility of determining absolute chronological elements for dating and establishing the upper limit to the continuity and use of the cemetery, but in terms of relative chronology it could be surmised that the appearance of the custom of placing Arpád coins as obols in Bijelo Brdo cemeteries south of the Drava River was delayed for a time, and that accordingly burial at Lijevo Bara had ceased before the appearance of this funerary custom, i.e. before the end of the fourth decade of the 11<sup>th</sup> century.

Graves with objects of everyday use, particularly knives, steels for tinder, and flints, are traditionally considered finds characteristic for the 10<sup>th</sup> century, so their relatively great amount and share among the grave goods would be a confirmation of the beginnings of this cemetery in Vukovar as early as during the last third of the 10<sup>th</sup> century. The same date is suggested by the finds of weaponry and military equipment (reflex bow and quivers) that are particularly important for determining the origin and development of the Vukovar cemetery, but also individual forms of jewellery for the head, particularly the very numerous circlets without an ending (78 ex.) and, thanks only to chance finds, an insignificant domination of S-circlets in relation to the representation of O-circlets (1.4:1). The predominant numbers of circlets without an ending (75%) in relation to the much less numerous circlets with an ending (25%), just like the emphasized proportion of examples made of bronze in both groups (72.12%), are a significant characteristic of the cemetery at Lijevo Bara, and yet another indicator of its (distinct) connection with the jewellery forms of the 10<sup>th</sup> century. The few raceme earrings, particularly cast examples, however, do not exhibit even a somewhat similar trend, as the pair of imported massive cast silver raceme earrings from grave 426/f are certainly earlier and belong to the last quarter of the 10<sup>th</sup> century in contrast to the local, simpler bronze cast raceme earrings from gr. 62/f and 440/f, which certainly belong to the beginning or early 11<sup>th</sup> century.

The most important role among the group of jewellery for the neck and chest is played by torcs, considerable numbers of which were gathered at Lijevo Bara, but more than the number of the finds themselves, the position of the graves with finds of torcs proved to be especially significant. It was also proven that torcs were not present at a particularly early date at Lijevo Bara, that they belonged to later periods of burial, and that they appeared at a time when individual parts of the cemetery had already been utilized for burials. This aided in uncovering the manner of the creation, development, and expansion of the cemetery (zones I–V), but also in establishing the chronology of the finds of the material culture around the year 1000 and later. Among the torcs themselves, the increase in the weight and the diameter or thickness of the wire (or wires) has a definite chronological significance, so that the torcs of lighter weight were earlier in terms of relative chronology (prior to 1020), while the torcs of heavier weight had a later relative chronological origin (after 1020), as is confirmed by one of the heaviest torcs from Vukovar found in a grave located on the very western edge of the investigated area of the cemetery (gr. 115/f). The chronological classification and determination of the origin and use of objects based on differences in the metal and the weight system of the objects is also applicable to other forms of jewellery, particularly jewellery for hands (equally for bracelets and rings) as the most numerous element in the jewellery group (51.97%). Similar observations can be applied to individual objects of upper attire elements, particularly bronze two-part pendants of the same typological groups (G. 9; D. 13; B. 1/a) that have been documented in the greatest numbers at Lijevo Bara, either preserved partially (the lower part) or completely.

Other than in terms of the relative chronology, the increase in weight of jewellery objects made of bronze or silver, as well as the gradual growth in representation of objects made of silver in relation to bronze, as confirmed throughout the Pannonian plain at many Bijelo Brdo cemeteries, is a sign of a gradual but omnipresent economic growth based on favorable climatic conditions, an improved social organization of the local and broader community, but also advanced forms of diverse production activities (agriculture and crafts).

## The components and organization of the cemetery

The appearance of a radial expansion of graves around a certain beginning position (Majs – Udvari rétek) or around several such approximately contemporaneous positions (Pusztaszentlászló – Deáksúrú), which with time began to overlap and form a larger cemetery, represent only some of the seemingly not exactly scarce principles ruling the origin and development of the more extensive early medieval Bijelo Brdo Culture cemeteries excavated in Hungary. This existence of sev-

eral beginning positions was crucial for the origin, development, and formation of the Bijelo Brdo Culture cemetery at Lijevo Bara in Vukovar, and it was made recognizable by graves with weapons or weapons and military equipment, as the probable first sites of burial. In this sense at least two possible and chronologically earliest beginning positions are evident, distant some 50 m from one another: the first of these two positions with weapons and military equipment or only military equipment in graves 268/m, 237/m, 232/m, and 336/? arranged in a triangle was located in the southeastern part of the cemetery (zone I), and the second with grave 92/m equipped with a reflex bow was located in the partially excavated western part of the northern zone of the cemetery (zone II). The third beginning position with grave 127/m outfitted with weapons and military equipment was located in the central section of the excavated area of the cemetery (zone III), located approximately 46 meters southeast of the first beginning position and approximately 22 meters northeast of the second beginning position.

Each of these three beginning positions with time formed its own zone of burial that sooner or later, widening more or less radially from the center outwards, overlapped with one of the neighboring zones. The overlapping of such perceived zones enabled recognition, however, of another two chronologically somewhat later zones of burial: one of them clearly defined by a belt of graves with torcs was located in the southwestern part of the cemetery (*zone IV*) with the beginning position of burial at the place of grave 312/m (arrow, knife) or perhaps gr. 434 (arrows), while the other, only excavated in spots and only partially recognizable thanks to several graves with torcs, was located in the eastern, most poorly known part of the Vukovar cemetery (*zone V*). As the cemetery in its eastern and northeastern sections extended beyond the noted zones with finds of torcs, and was never excavated in its entirety, it is likely that several other similar zones originally existed (**Fig. 31**).

## The beliefs of the deceased

It is possible to speak of pagan or Christian beliefs represented in the early medieval cemeteries of the Bijelo Brdo cultural circle in the region between the Mura, Drava, Danube, and Sava Rivers only on the basis of data gathered through the excavation of graves. In the burial ritual, as has already been noted, the custom predominated of individual inhumation of the deceased by placement in a simple and not particularly deep grave pit oriented west-east, but with frequent and considerable deviation in the orientation. The deceased was placed in the grave dressed, fully extended, and most often on the back, with the arms arranged alongside the body or placed on the upper or lower sections of the body. Markers of the grave site and remembrance of the deceased among their nearest and dearest or in the local community to which they belonged in life certainly existed, given that graves disturbed by subsequent burials are truly rare. The burial rite and the funerary ceremony and customs can only be conjectured. Their actual existence and their practice is nonetheless indicated by the rare remains of animal bones and pottery or pottery fragments (provisions for the dead), as well as other objects found in the grave or the fill of the grave. The burial rituals of the second half or last third of the 10<sup>th</sup> century and the beginning and early 11<sup>th</sup> century, however, certainly included the custom of the frequent placement of the forearms on the upper part of the body of the deceased, which was both more represented and continued longer in the Bijelo Brdo Culture regions closer to Byzantium.

It is otherwise possible to form a judgment about the beliefs and spiritual life of the deceased on the basis of the grave finds in addition to the burial ritual. A smaller number of finds consisted of attire elements, funerary dress, or belt elements, with larger numbers of various forms of jewellery for the head, neck, and hands, which indicates that the fully dressed deceased were placed in the grave together with the objects that they usually wore, valued, or more or less constantly utilized in terms of objects of everyday use, weapons, and military equipment – all in the belief that in some other world to which they were traveling such objects would again be needed in order to display and prove their competence and skills or even to return and renew their former merit, distinction, and social status.

All of these objects point to an above all recognizable and almost omnipresent world view with its starting point in a belief in the afterworld onto which various other religious manifestations could be added about existence, as indicated by talismans and amulets – one naturally endowed with magical powers, the other sanctified by a person gifted with such powers – in the form of metal objects converted and remodelled in secondary use into pendants hung as a rule on necklaces and torcs. The choice of these metal objects was certainly not made by chance (rings, spiral wires, perforated gold and bronze coins, a globular bell-shaped pendant, a two-part pendant, part of a belt mount), nor was the choice coincidental of the objects discovered in the graves in non-functional positions (a ring by the head of the deceased, a knife on the chest and above the upper arm, arrows with the heads turned downwards). The presence of obvious shamanic symbolism and belief is recognizable only on the bone platelets of the quiver neck decorated with a symbolic depiction of the Tree of Life. The existence of funerary feasts or the placement of provisions for the deceased is indicated by the not particularly numerous finds of animal and bird bones (six graves) and fragments of pottery vessels (two graves).

In contrast to the numerous but also varied traces of pagan beliefs, Christianity was documented in the grave finds only by finds of cross-pendants, one with and the other without a depiction of Christ. The influence of the eastern Christian

church, particularly that circulating in the second half of the 10<sup>th</sup> century from the Byzantine-Bulgarian cultural sphere in the direction of the Hungarian principedom, is considered responsible for the custom of placing the forearms of the deceased in various positions on the upper and lower parts of the body, as was documented by numerous examples at Lijeva Bara.

## Signs of economic activities and trade

The objects preserved in graves are useful not merely in terms of their cultural and historical value, but also as indicators of the existence of certain economic activities and trade, as well as the social relations that characterized the everyday life of the local community and indicated its relations to nearby and more distant neighbors. This is yet more important if it is known that the Bijelo Brdo Culture was characterized by a rural and sedentary way of life based on agriculture and agricultural production, with the inevitable pottery production further dependant on this.

By chance or not it is actually objects related to agriculture that are the rarest grave finds at Bijelo Brdo Culture sites – other than those that had been defined as part of beliefs or religious rites – so it is not surprising that they are lacking in the graves excavated at Lijeva Bara. Hunting and fishing activities were also indicated by only a few rare items (bifurcated arrowhead, projectiles for a slingshot, fishhooks), while more numerous and diverse objects were related to crafts and trades, such as those the deceased individuals carried on their persons to the grave or were placed in the graves of their dead by craftsmen or tradesmen proud of their expertise and skill, but also tools and implements for making items out of reed and thatch (thatching needle), for rope-making (tightener/loosener), and for weaving, leather-working, wood-working, or working bone (spindle-whorls, scrapers, needle, awls, awl presses, files). The scarce finds of objects used in personal hygiene, which in the graves of the Bijelo Brdo Culture are also a true rarity (razors, pincers), could also be interpreted in this manner. It is thus apparent that craftsmen of various profiles lived and worked in the early medieval community of Vukovar quite early on, and that because of their talents and skills they were distinguished from the other members of the community, and hence for this reason (or some other today indecipherable reason), in the afterworld they attempted to acquire for themselves a suitable respect and to emphasize and retain what was evidently a different status in life.

The working of metal, particularly iron, at the local level is predicable and probable given the size of the cemetery (and hence probably the settlement as well) and the number of the discovered iron objects (knives, fire steels, arrowheads, files, quiver frames), but the production of objects from bronze or silver has so far been more difficult to recognize and prove if it is not paralleled by a noticeable amount of morphologically, typologically, and stylistically similar archaeological material. This was in fact the case with the cast bronze rings with an inset crown for a decorative stone (G. 38b; M. 16b; De. 3.3), which because of the great number of discovered finds and the diversity of decorative details occupy the most prominent position among the rings found at Lijeva Bara. Bronze rings with these same characteristics were also found in a somewhat smaller number at the cemetery of Bijelo Brdo – Ul. Venecija near Vukovar, while beyond this region they are scarce and rare, and hence they can be termed rings of the "Vukovar – Bijelo Brdo" type and their production can be sought in the Croatian Danube basin in the vicinity of one of these two most important Bijelo Brdo Culture sites. Hence it would be justified to suggest that other, simpler forms of jewellery had also been manufactured in workshops in this region, primarily some of the rings of open type, and most probably torcs of coiled wire with a hook and eye for fastening.

The trade and exchange of merchandise and goods usually mark a reflection of the openness of a certain milieu and its willingness to utilize transportation connections with close or distant production or trade centers. The representation of related, similar, or identical archaeological material is more indicative than anything else. In this manner certain more rare forms of jewellery for the neck and hands arrived in Vukovar through trade or exchange from nearby or more distant regions of the Bijelo Brdo Culture, above all certain rare types of torcs and rings, such as a torc with two hooks for fastening tapered towards the ends (S-2418) or with hammered ends (gr. 391/ch) whose closest analogies were documented in grave finds from northern Hungary and southern Slovakia, a torc of circular section wire with hammered ends in the shape of the letter "S" (gr. 66/f) with an analogy in the Hungarian central Tisza basin, and a bronze ring with a crown of spirally wound wire (gr. 151/f) for which rare analogies can be found in the upper and lower Tisza basin of eastern Hungary and western Romania (Transylvania). A rare example of a lunular pendant with a spectacle-shaped addition (chance find), a jewellery form connected to the eastern Slavs, arrived in Vukovar either through or perhaps even from Hungarian Baranya. A similar route was followed by certain more numerous objects, such as bronze two-part pendants of the typological group D. 13 (G. 9; B. I/a), which to date have been represented at Vukovar with the greatest number of gathered examples in terms of Bijelo Brdo discoveries (gr. 23/ch, 326/f, S-2414–2416).

Arrivals from the Byzantine-Bulgarian cultural circle consisted of silver rings with a hoop decorated with filigree wire (gr. I-1951/?, 379/m), a bronze bracelet with snake head terminals (gr. 444/f), a seal-amulet secondarily remodeled into a bell-shaped pendant-amulet (gr. 408/ch), as well as a belt mount of the Jumsk type (gr. 53/m), which is actually of central Asian origin and perhaps somewhat earlier in date, but a direct analogy can be found in eastern Bulgaria in the lower Danube basin (Suvorovo). Further, the appearance and use of two-parts pendants as a decorative addition to female collars can be attributed to the influence of fashions coming from Byzantium during the 10<sup>th</sup> century.



An exceptional example of a silver raceme earring with a central barrel-shaped pendant element, a chance find from the period prior to archaeological excavation (S-3288), is a rare variant of the "Volhynia – Kiev" type earrings, and as such its origin and tradition could be sought in the Ukraine, as was also the case with a pair of massive silver cast raceme earrings with two pairs of joints unusual for the Danube basin (gr. 426/f).

One-part clasps with a hook for fastening are not typical Bijelo Brdo artifacts (gr. 19/m, 263/f, 344/f), and they could reflect connections with the regions of the Western Slavs, as such clasps can be found among finds at Bijelo Brdo cemeteries in Hungary, but also with the lands of the Dalmatian Croats, where such clasps, although rare, can also be found. A much greater number of possible solutions can be sought in determining the origin of the steel for tinder from Vukovar of ellipsoid-rectangular shape (gr. 89/m), related to oval or oval-rectangular fire steels that appeared at the beginning of the 11<sup>th</sup> century in the north of Europe, as well as in the east and southeastern parts of Europe. A similar direction should be sought for the origins and analogies of a massive silver ring with a crown of spirally wound wire (gr. 316/f) that certainly must have traveled a long distance to end up in Vukovar.

The frequency of objects in secondary use, discovered in considerable numbers, is not an unambiguous or easily explainable feature, as the reasons for this could equally be of an economic nature or be part of a hard to recognize element of the spiritual life of an individual or the community as a whole. There is no doubt that the latter category would include a given number of objects of prehistoric, Roman period, and medieval origin that were remodeled into pendant-amulets on necklaces or torcs (circlets, beads, a La Tène fibula; bronze coins; Byzantine coins, rings, globular bell-pendant, belt mount). For the remaining secondarily used objects, it could be considered that they had been war loot, some kind of "memorabilia", or even chance "archaeological" finds from that period (mounts, gr. 53/m, 71/m; strap ends, gr. 71/m, 336/?) inserted or added to an object then in use (such as a belt). For other objects it is quite evident that as the remains of earlier cultural-historical periods they had been found in the habitat of the local community or in its vicinity, and as well preserved and still usable objects they had been reused for the same reason and purpose that they had had long before (spindle-whorl, gr. 289/m?; flints, gr. 17/m?, 89/m, 148/m?, 317/m). The reasons for secondary use sometimes are much more prosaic, like replacing a lost spangle or applied element with another or replacing a spangle, for instance, with a similar object (the upper part of the two-part pendant; gr. 349/ch, 355/ch), or making decorative additions to a piece of jewelry (a bead threaded onto a circlet; gr. 422/f). Any evident economic reasons for the secondary use of objects are not recognizable, as conditions cannot be defined that usually would indicate the time or moment when "hard times" (i.e. a recession, as we would say today) occurred because of some specific situation in the community, when only existing resources could be utilized along with what was truly within reach. It could also be a question of a completely personal situation where the economic circumstances and social status of the individual and/or the community did not allow for much more than a modification of one's own or others' outworn objects and items.

## The cemetery in the medieval landscape of Vukovar (traces of settlement)

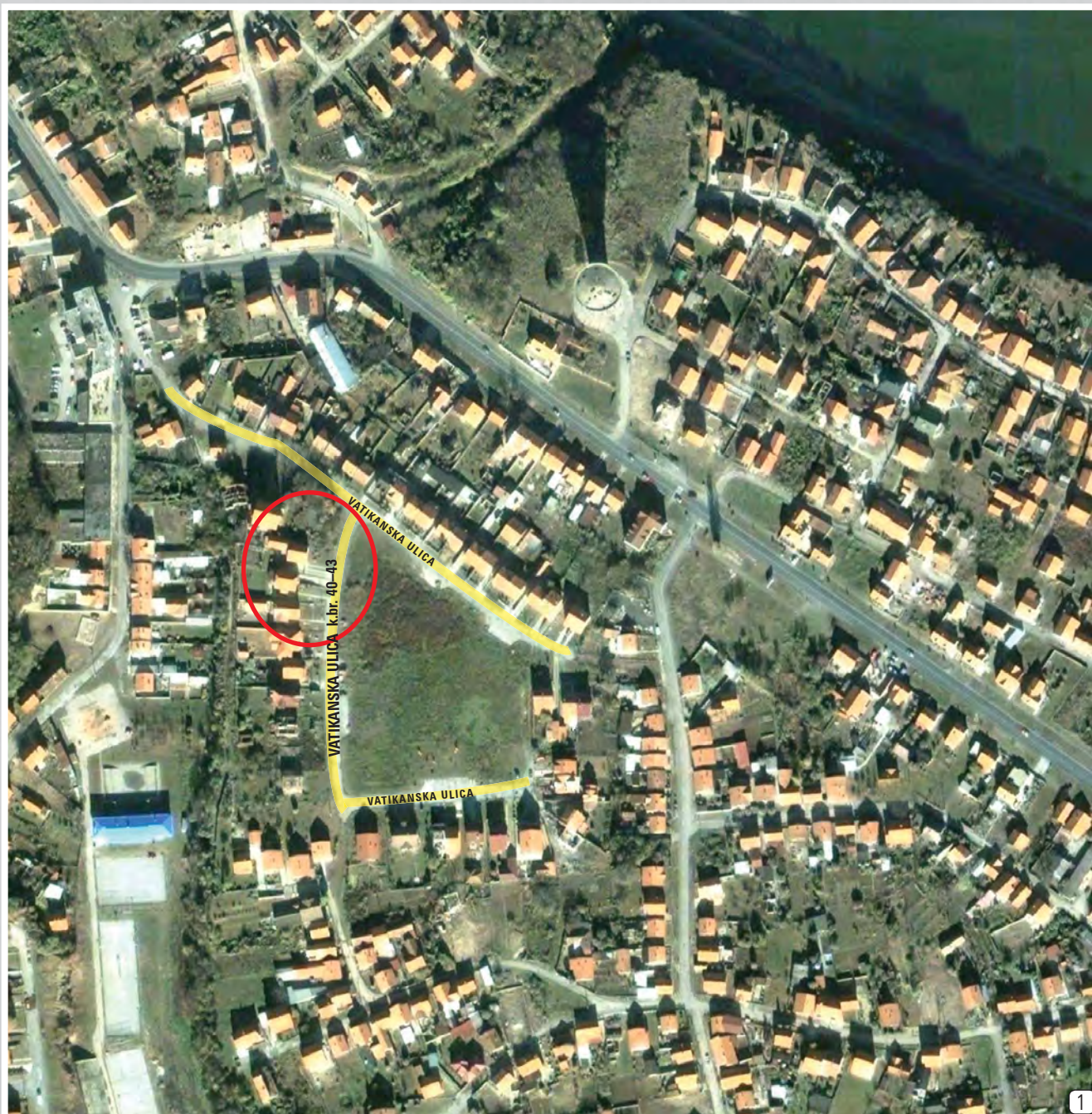
According to some interpretations, the first information about the possible existence of an early medieval Slavic settlement at Vukovar in the middle of the 9<sup>th</sup> century would be related to King Louis I the German (840–876) and his deed from AD 846, granting Prince Pribina (845–861) full ownership over a hundred hamlets along the Vuka River (*concedit pleno iure Briwino centum mansos juxta fluuium Valchau*). Although the identification of the name Valchau and the name of the Vuka River as one and the same can be doubted, interpreted in various manners, and debated, as no other such data whatsoever exists – no information is available about the settlements and populated places of the lower Pannonian principedom of Pribina's heir Kocelj (861–874) and particularly Braslav (880–896?) – not quite a century later, among the fortresses that the Hungarians had supposedly captured while returning from one of their plundering raids, for the first time, in addition to Zagreb (*Zabrag*) and Požega (*Posaga*), the fortress of Vukovar was mentioned, which was also then listed as having been captured by the Hungarians (*castrum Vlcou ceperunt*). Croatian historiography also treated this text suspiciously, but the debate is limited to the period when the conquest supposedly occurred, and not the claim about the existence of the fortress cited in the text – as the news itself is later than the period to which it refers. The questions, however, of who and when erected and organized the mentioned fortress or fortified Slavic settlement, in what circumstances this took place, and with what intentions and to what extent this was carried out have barely seen any attempt at an answer by Croatian historians. The only thing that is presumed or known is that at the end of the 9<sup>th</sup> century Prince Braslav had to defend his kingdom between the Drava and Sava Rivers (*regnum inter Dravum et Savum*) from the Hungarians and that he probably lost his life in battle with them, but whether this was as early as AD 896 after the arrival of the Hungarians in the Pannonian plain or in AD 899 after the death of Arnulf, the Carantanian king of the eastern Franks, Holy Roman emperor, and king of Italy, or even a year or so later can only be conjectured. The Vukovar fortress may also be hypothesized as a settlement of some other Sklavinia, e.g. that of southern Great Moravia (*megale Moravia*), whose existence in the southeast of the Pannonian plain is gradually growing into a recognizable historiographic fact. During the reign of King

Tomislav (910–928?), Vukovar would have been within the Croatian kingdom according to the opinions of some Croatian historians, and perhaps this might be the reason that the Hungarian raids in the direction of Byzantium were first noted only in the second third of the 10<sup>th</sup> century (934), continuing afterwards throughout this entire period (943, 959, 961), and ending only in the year 970 after the major Byzantine victory in the battle at Arcadiopolis (Lüleburgaz) in the European part of Turkey. This year is most probably the *terminus ante quem* for the Hungarian occupation of the Croatian Danube basin and Vukovar itself.

Despite the numerous unknown historical factors, the data about the existence of the fortress or fortified Slavic settlement of Vukovar around the middle of the 10<sup>th</sup> century is important and indispensable as it marks a starting point in uncovering the historical topography of the early medieval landscape of Vukovar. The position of this original, but rarely noted by name Slavic early medieval settlement has been sought "on the right bank of the Vuka River" and located either "by the Vuka below the elevated banks of the Danube", or on the "high, well-protected hill in the vicinity of the present day monastery and secondary school", where from its dominating position on this "natural terrace above the Danube" the settlement would have grown and developed in a similar manner as examples "from the Western Slavic and Eastern Slavic worlds". Archaeological confirmation of the latter location was offered by some fifteen fragments of early medieval settlement pottery dated to the period from the 10<sup>th</sup> to the 12<sup>th</sup> centuries, found at the Danube "bajer" (the hill, steep river bank, and land next to the bank) in Vukovar as far back as the end of the 19<sup>th</sup> century, and published only at the end of the 20<sup>th</sup> century.



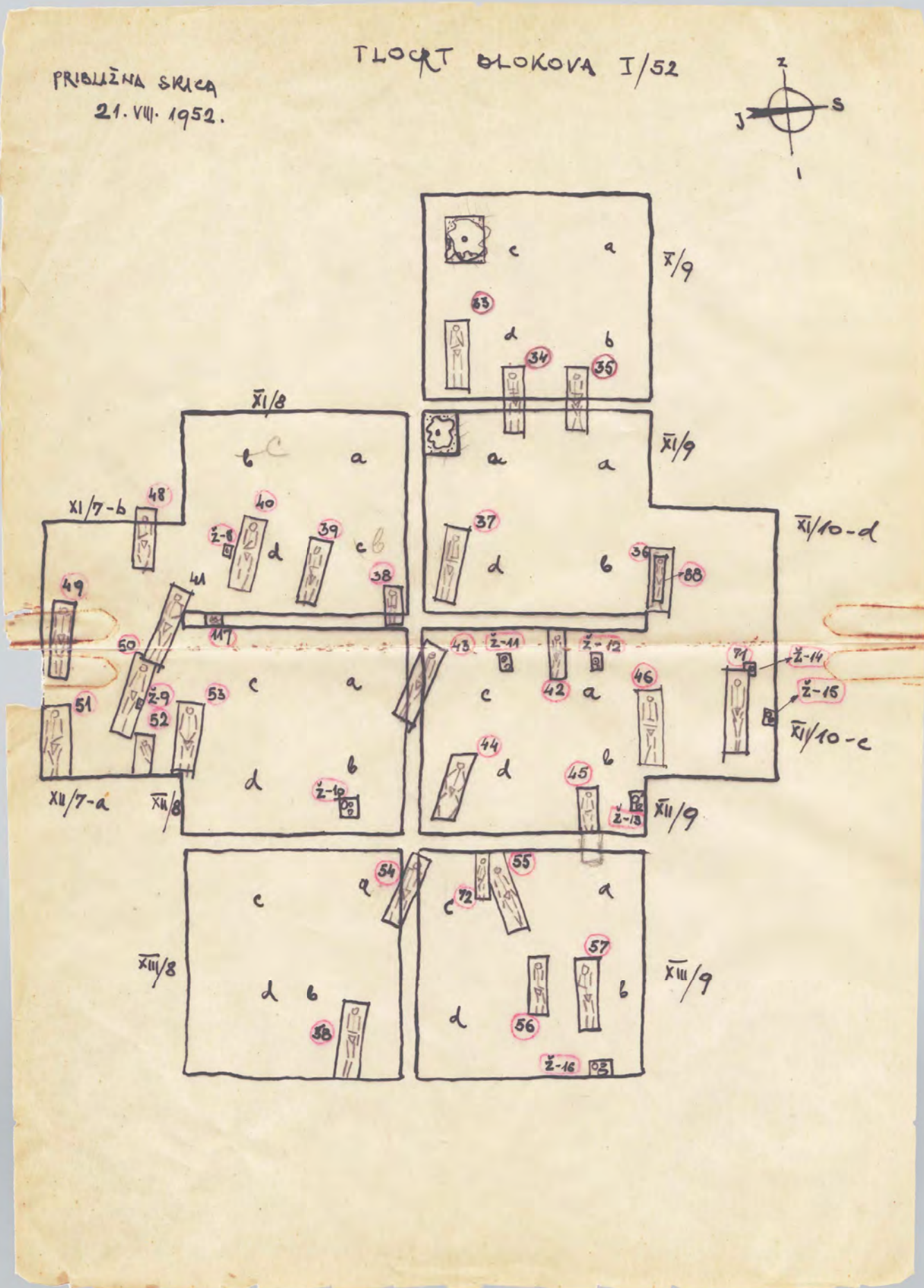




◀ **PI. 1.** Vukovar photographed from a tall structure near Slavija Square; 1951–1953. **1** – View of the Gymnasium (above) and part of Stjepan Radić Street leading towards Slavija Square (below). **2** – View of the beginning of Ban Josip Jelačić Street and the height of Najpar-bašće where construction of the new Vukovar watertower began in 1966. **3** – View of the intersection at Slavija Square, the beginning of present-day Vatikanska Street (left) and Stanko Vraz Street (right), and a grove of trees in front of the archaeological site of Lijeva Bara (in the background).

▲ **PI. 2.** The present appearance of the site of Vukovar – Lijeva Bara. **1** – Satellite photograph of the meadow bounded by Vatikanska Street with the position marked of the archaeological excavations in 1951–1953 (house numbers 40–43). **2** – View of the dwellings at 40–43 Vatikanska Street and the meadow in front of them in August 2009.





◀ **PI. 3.** Photographs of the site and directors and members of the archaeological team during the excavations in 1951–1953. **1** – The Lorenc-Janković house with quads. IX/8–9 and X/9; in the background the excavation directors Marcel Gorenc (left) and Dr. Zdenko Vinski (right); 1951. **2** – Marcel Gorenc, one of the directors of the archaeological excavations at Lijevo Bara, supervising the cleaning of gr. 394/f in quad. XV/3; 1953. **3** – The surveyor Ivan Reiser with assistants during geodetic mapping of the site; 1951. **4** – Drawing the skeleton from gr. 180/f in quad. XIII/12; 1952. **5** – View of quad. V/13 and VI/13 during excavation: gr. 83/? and 92/m in the foreground, gr. 93/m and 108/f? in the background; 1952. **6** – The archaeological team gathered around gr. 93/m; 1952.

▲ **PI. 4.** Sketched plan of quadrant I/1952, *Dnevnik* (field diary), ad 21 Aug. 1952.

ARHEOLOŠKI JUZEJ U ZAGREBU  
 Broj \_\_\_\_\_  
 Broj foto snimka \_\_\_\_\_

LOKALITET: Ušivar  
Kijevsko selo  
 Datum iskopavanja 18. 1953

GROBNI ZAPISNIK

1. Broj groba prema općem planu 444 (četini str. četredeset)

2. Položaj bloka ili sonde prema općem planu 1/9 pomirno selo, P<sup>1</sup>

3. Položaj unutar bloka ili sonde c-d

4. Dimenzije groba: u/dužina: 0,70 m

5. Dubina groba relativna 0,70 m

6. Dubina groba apsolutna \_\_\_\_\_

7. Stratiografija grobne rube ne razlikuje se od oblika obilnog terena

8. Obilježje kulturnog sloja got. ker. na prelozju i kalumirane i prapor

9. Arhitektura groba jednostavno zemljano nalva

10. Specijalna zapažanja got. je iskopan od glave do potkice bežara (suziča) gola je u stranu post. getromu lukom koji se ne dijeluje stranicu u tom grobu

11. Čvrste načina pokopavanja u nala trupne grobne opreme

12. Orijentacija skeleta \_\_\_\_\_

13. Broj skeleta u grobu jedan

14. Krozakel međudobni otkop skeleta \_\_\_\_\_

15. Dužina skeleta 0,98 m

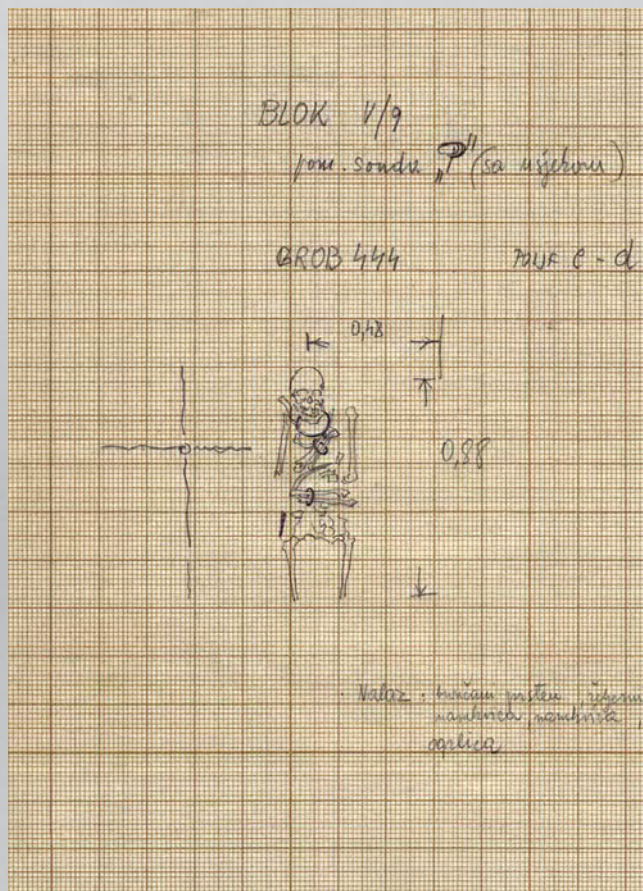
16. Položaj skeleta četini ker. impreguirano kožinom, glava - zapad, ruke - nitak, lijeva ruka prema sjeveru, lijeva ruka u položaju u kralježnici, ruke su na boku i položaju u kralježnici

17. Stanje očuvanosti skeleta Arheološki ostaci su u kralježnici, ruke su u položaju u kralježnici, ruke su u položaju u kralježnici

18. spol skeleta muški

19. Event. drugi otkopani nalazi u grobu \_\_\_\_\_

20. Specijalna zapažanja \_\_\_\_\_



1. Čvrsti prsteni, broj, opis i položaj: 1. bronzani prsten na vratu oko vrata

2. bronzani narukvice na desnoj i lijevoj ruci

3. bronzani narukvice na lijevoj i desnoj ruci

4. bronzani prsten na desnoj ruci

5. željezni nitak, fragment medvedje kralježnice

22. Specijalna zapažanja \_\_\_\_\_

Zapisnik zaključen i potpisan  
 u Dalman dne 3. IX 1953  
 Z.V.  
 P.S.

Pl. 5. Zapisnik (field record), no. 444/3 Sept. 1953.





**Pl. 6.** The finds from gr. I-1951/?. **1** – A torc with a hook and eye for fastening, bronze. **2** – Open-ended bracelets of circular and triangular section, bronze. **3** – A ring with a crown and hoop of filigree wire, silver.





▲ **Pl. 8.** The finds from gr. 23/ch.  
**1** – A pair of open-ended circlets, silver. **2** – A torc with a hook and eye for fastening, bronze. **3** – Four Bijelo Brdo two-part pendants, bronze. **4** – An open-ended bracelet of circular section, bronze.

◀ **Pl. 7.** A silver ring with a crown and hoop of filigree wire from gr. I-1951/? and part of the finds from gr. 2/ch. **1–4** – Detail of the crown and hoop of the silver ring with a crown from gr. I-1951/?. **5–6** – A silver ring with a hoop of filigree wire from gr. 2/ch (5 – in profile; 6 – detail of the hoop). **7–8** – Multiply perforated gold coin (*nomisma*) of the Byzantine emperors Constantine VII and Romanus II (945–969) from gr. 2/ch (7 – obverse; 8 – reverse).



**Pl. 9.** Finds from gr. 53/m, 71/m, and 81/m. **1-2** – Gr. 53/m (1 – a Jumsk type mount, bronze; 2 – strap end mount, bronze). **3-4** – Gr. 71/m (3 – a pendant made from a late Avaric mount with a depiction of a griffon, bronze; 4 – a late Avaric secondary mount, bronze). **5-8** – Gr. 81/m (5 – a knife with a straight spine, iron; 6 – a lyre shaped fire-steel, iron; 7-8 – two rhomboid point arrowheads, iron).



**Pl. 10.** Finds from gr. 159/f. **1** – A torc with a hook and eye for fastening, bronze. **2** – A pair of bracelets, bronze (an open-ended bracelet of circular section, left; a closed bracelet of coiled wires of different sections, right). **3** – Two rings, bronze (an open ring of circular section, left; a closed ring of triangular section, right).



▲ **Pl. 11.** Finds from gr. 228/m and 252/ch. **1** – Gr. 228/m (1 – a ring with wart-like protrusions, bronze). **2-3** – Gr. 252/ch (2 – a pair of circlets with spiral endings, bronze; 3 – a necklace of beads and metal pendants, glass, bronze).

**Pl. 12.** ►  
Objects of everyday use: fire-steels and slingshot projectiles from gr. 89/m, 101/?, 268/m, and 319/?. **1** – A fire-steel of ellipsoid-rectangular form, iron (gr. 89/m). **2** – A fire-steel with one arm bent backwards, iron (gr. 101/?). **3** – A lyre shaped fire-steel, iron (268/m). **4** – Projectiles for a slingshot (gr. 319/?).





**Pl. 13.** The upper pair of bone laths from the reflex bow found in gr. 92/m.





**Pl. 14.** The upper part of the rods and the bone panels of the mouth and neck of the quiver from gr. 232/m.



**Pl. 15.** Jewellery for the head: raceme earrings from gr. 61/f, 426/f, and 440/f. **1** – A pair of cast raceme earrings with a single pair of joints, bronze (gr. 62/f). **2** – A pair of massive cast raceme earrings with two pairs of joints, silver (gr. 426/f). **3** – A pair of cast raceme earrings with two pairs of joints, bronze (gr. 440/f).



**Pl. 16.** Jewellery for the neck and chest: pendants from gr. 378/ch, 388/ch, and 408/ch (different positions and details). **1** – Cross-pendant with an image of Christ, bronze (gr. 378/ch). **2** – Cross-pendant, lead (gr. 388/ch). **3** – bell-shaped pendant, bronze (gr. 408/ch).

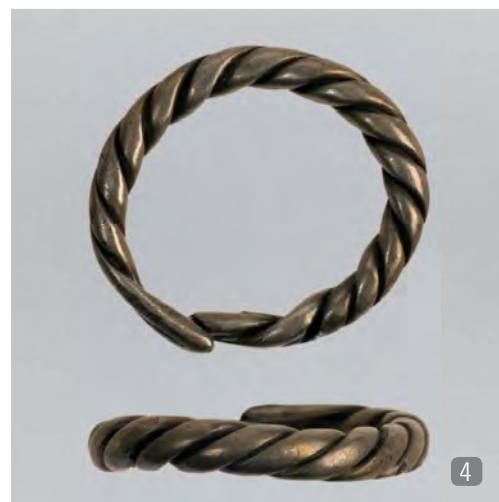


▲ **Pl. 17.** Lunular pendant, silver. **1** – Front. **2** – Back.

**Pl. 18.** ► Jewellery for the hands: bracelets from gr. 139/f, 374/f?, and 444/f (different positions and details). **1** – A closed bracelet of coiled wires with different sections, bronze (gr. 139/f). **2** – A closed bracelet with animal heads, bronze (gr. 374/f?). **3** – An open-ended bracelet with snake heads, bronze (gr. 444/f).







▲ **Pl. 20.** ▶

Jewellery for the hands: rings from gr. 211/f, 347/ch, 379/m, and 444/f (different positions). **1** – A ring with a rhomboid crown, silver, gilded (gr. 347/ch). **2** – A ring with a step-like raised crown, bronze (gr. 211/f). **3** – A ring with a crown and hoop decorated with filigree wire, silver, incomplete (gr. 379/m). **4** – A ring of silver coiled wire (gr. 444/f).

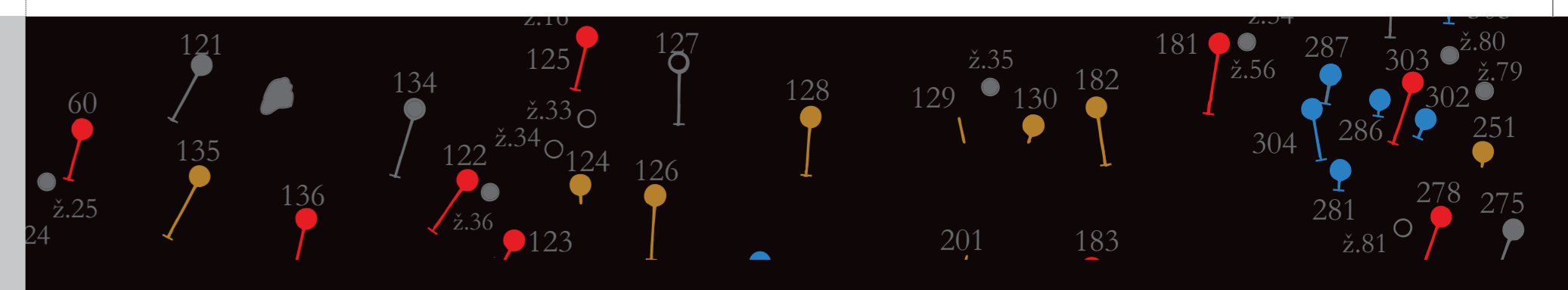
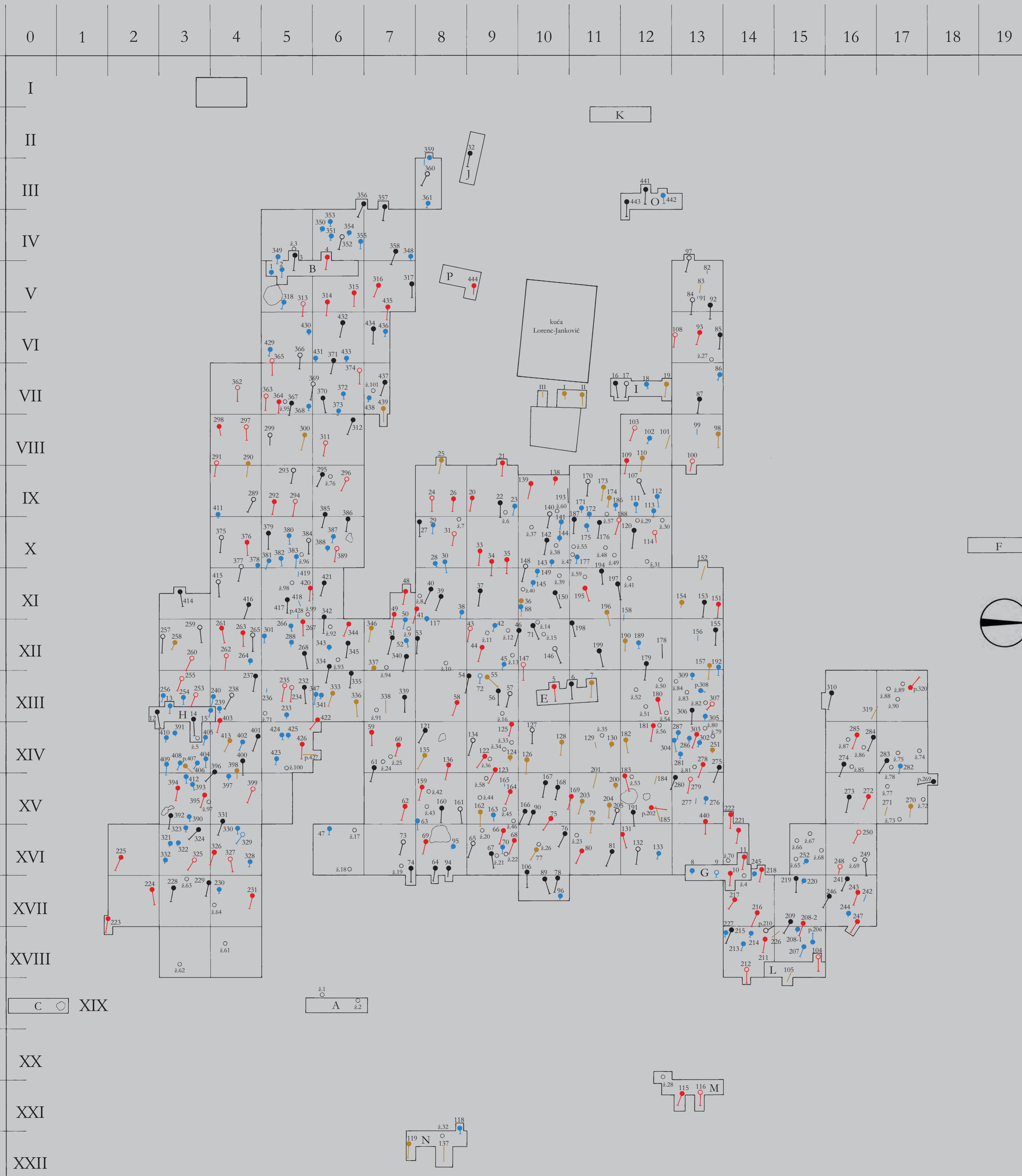
◀ **Pl. 19.** Jewellery for the hands: rings from gr. 151/f, 315/f, 316/f, and 364/f (different positions). **1** – A ring with a crown of spirally wound wire, bronze (gr. 151/f). **2** – A ring with a crown of spirally wound wire, silver (gr. 316/f). **3** – A ring with an inset crown for a decorative stone of the »Vukovar – Bijelo Brdo« type, bronze (gr. 315/f). **4** – A ring with an inset crown for a decorative stone of the »Vukovar – Bijelo Brdo« type, bronze (gr. 364/f).



**Pl. 21.** A vessel, pottery (gr. 60/f). **1-2** – The reconstructed appearance of the pot with the originally preserved fragments of the rim, neck, walls, and base. **3** – The base with a cross motif.







Srednjovjekovni skeletni i pretpovijesni paljevinski i skeletni grobovi  
 / Medieval inhumation graves and prehistoric cremation and inhumation graves

- muški / male
- ženski / female
- dječji / child
- puna dužina skeleta / full length of the skeleton
- ostaci pretpovijesnih ognjišta / remains of prehistoric hearths
- vjerojatno muški / probably male
- vjerojatno ženski / probably female
- spol nepoznat / unknown sex
- nepotpuna dužina skeleta / incomplete length of the skeleton
- ž. 1–101 – pretpovijesni paljevinski grobovi / prehistoric cremation graves

p. 202, 206, 210, 269, 308, 320, 407, 427, 428 – pretpovijesni skeletni grobovi  
 / prehistoric skeleton graves

A–P – probne sonde  
 / test trenches

# VUKOVAR – Lijeva Bara

ranosrednjovjekovno groblje  
 bjelobrdске kulture (10–11. st.)  
 An early medieval cemetery of the  
 Bijelo Brdo Culture (10<sup>th</sup>–11<sup>th</sup> centuries)

Opći plan groblja M 1:200 / Plan of the cemetery, 1:200



# Pretraživač položaja grobova u blokovima (grob/blok)

1 V/5c (= sonda B)	66 XVI/9a-XV/9b	131 XVI/12c	196 XI/11b-XII/11a	261 XII/4c	326 XVI/4d-XVI/3b
2 V/5c (= sonda B)	67 XVI/9b-d	132 XVI/12d	197 XI/11a-b	262 XII/4d-XIII/4c	327 XVI/4d
3 IV/5-V/5a (= sonda B)	68 XVI/9a-b	133 XVI/12b	198 XX/11c	263 XII/4a	328 XVI/4b
4 IV/6d-V/6c (= sonda B)	69 XVI/8c-d	134 XIV/8b-XIV/9c-d	199 XII/11a-b	264 XII/4b	329 XVI/4a
5 XIII/10a-b (= sonda E)	70 XVI/9a-b	135 XIV/8	200 XV/11a	265 XII/4a-b	330 XVI/4a
6 XIII/10a-b-XIII/11c-d (= sonda E)	71 XII/10c	136 XIV/8b-XV/8a	201 XV/11a-c-XIV/11b	266 XII/5a	331 XVI/4c-XV/4d
7 XIII/11c-d (= sonda E)	72 XIII/9c	137 XXII/8a-b (= sonda N)	202 XV/12b	267 XIII/5a	332 XVI/3d
8 XVI/13d (= sonda G)	73 XVI/7a-b	138 IX/10a	203 XV/11d	268 XII/5b	333 XIII/6c-d
9 XVI/14d-XVII/14c (= sonda G)	74 XVI/7b-XVII/7a	139 IX/10c	204 XV/11b	269 XV/17a	334 XII/6d-XIII/6c
10 XVI/14d-XVII/14c (= sonda G)	75 XV/10b-XVI/10a	140 IX/10b-X/10a	205 XV/11b	270 XV/17b	335 XIII/6a
11 XVI/14c-d (= sonda G)	76 XVI/10a	141 X/10a	206 XVIII/15a	271 XV/17d	336 XIII/6b
12 XIII/2b-XIII/3d-XIV/2a (= sonda H)	77 XVI/10c-d	142 X/10a-d	207 XVIII/15a-b	272 XV/16a-b	337 XII/7d
13 XIII/3d (= sonda H)	78 XVI/10b-XVII/10a	143 X/10b	208 XVII/15b-XVIII/15a	273 XV/16c-d	338 XIII/7d
14 XIII/3b-XIV/3a (= sonda H)	79 XV/11d-XVI/11c	144 X/10a	209 XVIII/15c-XVIII/15d	274 XIV/16d-XV/16c	339 XIII/7a-b
15 XIII/3b-XIII/4d (= sonda H)	80 XVI/11c-d	145 XI/10c	210 XVIII/14a-XVII/14b	275 XIV/13b-XV/13	340 XIII/7a
16 VII/11a-b (= sonda I)	81 XVI/11b	146 XII/10b	211 XVIII/14a-b	276 XV/13a-b	341 XIII/6c-d
17 VII/12c-d (= sonda I)	82 V/13a	147 XII/10d-XIII/10c	212 XVIII/14b-d	277 XV/13b-d	342 XII/6c-XI/6d
18 VII/12a-b (= sonda I)	83 V/13a-b	148 X/10d-XI/10c	213 XVIII/14c	278 XIV/13b-XV/13a	343 XII/6d
19 VII/12a-b (sonda I)	84 V/13d-VI/13c	149 XI/10c	214 XVIII/14a	279 XV/13c	344 XII/6a
20 IX/9d (= I-1951)	85 VI/13a-b	150 XI/10a-b	215 XVIII/14c	280 XV/13c	345 XII/6b
21 IX/9a-VIII/9b (= I)	86 VIII/13a	151 XI/13b	216 XVII/14b-XVIII/14a	281 XIV/13d	346 XII/7c
22 IX/9b (= I-1951)	87 VIII/13b-d	152 XI/13a	217 XVII/14d	282 XIV/17d-XV/17c	347 XIII/6c-d-XIII/5b
23 IX/9b (= I-1951)	88 XI/10d	153 XI/13b	218 XVIII/14a	283 XIV/17d-XV/17c	348 IV/7b
24 IX/8d (= I-1951)	89 XVI/10b-XVII/10a	154 XI/13d	219 XVII/15c-XVII/15d	284 XIV/16a-b	349 IV/5d-V/5c
25 IX/8c-VIII/8b-d (= II-1951)	90 XV/10d-XVI/10c	155 XII/13a	220 XVII/15a	285 XIV/16a-b	350 IV/6c
26 IX/8b (= II-1952)	91 V/13b	156 XII/13a	221 XVI/14c	286 XIV/13c	351 IV/6c-d
27 X/8c (= III-1951)	92 V/13b-VI/13a	157 XII/13b-XIII/13a	222 XVI/14c	287 XIV/13c	352 IV/6a-b
28 X/8b-XI/8a (= III-1951)	93 VI/13a-d	158 XI/12d	223 XVII/1b-2d-XVIII/1a-2c	288 XII/5a-b	353 IV/6c
29 X/8c (= III-1951)	94 XVI/8b	159 XV/8c-d	224 XVII/2a-b	289 IX/4b	354 IV/6a
30 X/8b-XI/8a (= III-1951)	95 XVI/8a	160 XV/8b-d	225 XVI/2d	290 IX/4a-VIII/4b	355 IV/6b
31 X/8a-b (= III-1951)	96 XVIII/10a	161 XV/8b	226 XVIII/15c-XVIII/14a	291 IX/4c-VIII/4d	356 IV/6a-III/6b-IV/7c-III/7d
32 II/9d-III/8a (= pomoćna sonda J)	97 V/13c	162 XV/9d	227 XVIII/14c	292 IX/5d	357 IV/7c-III/7d
33 X/9d	98 VIII/13a-b	163 XV/9b	228 XVII/3c	293 IX/5a	358 IV/7b-V/7a
34 X/9d-XI/9c	99 VIII/13c	164 XV/9a-b	229 XVII/3a	294 IX/5b-X/5a	359 III/8c-II/8d
35 X/9b-XI/9a	100 VIII/13d-IX/13c	165 XV/9a	230 XVII/4c	295 IX/6c	360 III/8c-d
36 XI/10d	101 VIII/12a-b	166 XV/10d-XVI/10c	231 XVII/4a-b	296 IX/6a	361 III/8d
37 XI/9c-d	102 VIII/12a-b	167 XV/10a-c	232 XIII/5a-b	297 VIII/4a-b	362 VII/4a-d
38 XI/8b	103 VIII/12c-d	168 XV/10a	233 XIII/5b-d	298 VIII/4c-d	363 VII/5d
39 XI/8b	104 XVIII/15b (= sonda L)	169 XV/10b-XV/11c	234 XIII/5a	299 VIII/5c-d	364 VII/5d
40 XI/8c	105 XVIII/15d-XIX/15c (= sonda L)	170 IX/11c-d	235 XIII/5c-d	300 VIII/5a-b	365 VII/5c-VI/5d
41 XI/8d-XI/7d	106 XVI/10d-XVII/1c	171 IX/11d	236 XIII/5c-d	301 XII/5c-XII/4a	366 VII/5a-VI/5b
42 XII/9a	107 IX/12c-d	172 XI/11c-X/11d	237 XIII/4a	302 XIV/13a	367 VII/5b-VIII/5a
43 XII/9c-XII/8a	108 VI/13c-d	173 IX/11a-b	238 XIII/4a-d	303 XIV/13a,c-d	368 VII/5b
44 XII/9d	109 VIII/12d-IX/12c	174 IX/11b	239 XIII/4d	304 XIV/12a-b- XIV/13c-d	369 VII/6c-d-VII/5a-b
45 XII/9b	110 VIII/12d-IX/12c	175 XI/11c	240 XIII/4c-d-XIII/3a-b	305 XIII/13b	370 VII/6d
46 XII/9a-XII/9c	111 IX/12d	176 X/11a	241 XVII/16c	306 XIII/13d-XIV/13c	371 VIII/6c-VI/6d
47 XVI/6c	112 IX/12a-b	177 X/11d	242 XVII/16a-b	307 XIII/13	372 VII/6b
48 XI/7a-b	113 IX/12b	178 XII/12a-b	243 XVII/16a-b	308 XIII/13a	373 VII/6b-d-VIIIa-c
49 XI/7b-XII/7a	114 X/12a-b	179 XIII/12a-c-XII/11b-d	244 XVII/16b	309 XIII/13c	374 VII/6a
50 XI/7b-XII/7a	115 XXI/13c-d (= sonda M)	180 XIII/12a-b	245 XVII/14c	310 XIII/16c-d	375 X/4c-d
51 XII/7a	116 XXI/13a-b (= sonda M)	181 XIV/12a	246 XVII/16c-d-XVII/15b	311 VIII/6c-d	376 X/4a-b
52 XII/7a	117 XI/8d-XII/8c	182 XIV/12c-d	247 XVII/16	312 VIII/6a	377 X/4b-XI/4a
53 XII/7a-XII/8c-d	118 XXI/8b-XXII/8a (= sonda N)	183 XV/12c	248 XVI/16d-XVIIc	313 V/5b-VI/5a	378 X/4b
54 XIII/8a-XIII/9c	119 XXI/7d-XXII/7c (= sonda N)	184 XV/12a	249 XVI/16b-XVII/16a	314 V/6d-VI/6c	379 X/5c-d
55 XIII/9c	120 X/12c-d	185 XV/12b	250 XVI/16a	315 V/6b	380 X/5a-c
56 XIII/9a-b	121 XIV/8c	186 IX/11b	251 XIV/13b	316 V/7c-d	381 X/5d
57 XIII/9a-b	122 XIV/9d	187 X/11c	252 XVI/15b	317 V/7a-c-V/8b-d	382 X/5d
58 XIII/8b	123 XIV/9b-XV/9a-c	188 X/11a	253 XIII/3a-b	318 V/5d	383 X/5b
59 XIV/7c	124 XIV/9b	189 XII/12c-d	254 XIII/3b-d	319 XIII/16b-XIII/17d	384 X/5a-b
60 XIV/7a-b	125 XIV/9a	190 XII/12c-d	255 XIII/3a-c	320 XIII/17a	385 X/6c-IX/6d
61 XIV/7d	126 XIV/10d-XV/10c	191 XV/12d-XVI/12c	256 XIII/3c-d	321 XIII/3c	386 X/6a
62 XV/7b	127 XIV/10c	192 XII/13b-XIII/13a	257 XII/3b-d	322 XVI/3c	387 X/6c
63 XVI/8c-XV/9d	128 XIV/10a-b	193 IX/10a-b-IX/10c-d	258 XII/3b-d	323 XVI/3a-c	388 X/6d
64 XVI/8d	129 XIV/11a-d	194 XI/11a	259 XII/3a	324 XVI/3a	389 X/6b-d
65 XVI/d	130 XIV/11a-b	195 XI/11c-d	260 XII/3b-XIII/3a	325 XVI/3b	390 XV/3b-d
					391 XIV/3c
					392 XV/3d-XVI/3c
					393 XV/3a
					394 XV/3c-d
					395 XV/3a-b
					396 XIV/4d-XV/4c-XV/3a
					397 XV/4c
					398 XV/4a-c
					399 XV/4a-b
					400 XIV/4b-XV/4a
					401 XIV/4a-b
					402 XIV/4a-b
					403 XIII/4c-XIV/4d
					404 XIV/3b
					405 XIV/3a
					406 XIV/3b
					407 XIV/3
					408 XIV/3d
					409 XIV/3d-XV/3c
					410 XIV/3c
					411 IX/4d
					412 XV/3a
					413 XIV/4c-d
					414 XI/3c-d
					415 XI/4c-d
					416 XI/4b
					417 XI/5b-d
					418 XI/5b
					419 XI/5a
					420 XI/5a-b
					421 XI/6c-d
					422 XI/5a-XIV/6d-XIII/6c
					423 XIV/5d
					424 XIV/5c
					425 XIV/5a-c
					426 XIV/5a-b
					427 XIV/5b-XIV/6d
					428 XI/5b
					429 V/5d
					430 VI/5a
					431 VI/5b
					432 VI/6a-b
					433 VI/6b
					434 VI/7c-d
					435 V/7c-VI/7d
					436 VI/7c-d
					437 VII/7c-d
					438 VII/7d
					439 VII/7d-VIII/7c
					440 XV/13b-XVI/13b
					441 III/12d (= sonda O)
					442 III/12b (= sonda O)
					443 III/12d-IV/12c (= sonda O)
					444 V/9c-d (= pomoćna sonda P)
					I-1951 ca. VII/11d (= put. izv. 159/51)
					II-1951 ca. VII/11b-VII/11d (= put. izv. 159/51)
					III-1951 ca. VII/10b-d (b.p.)

