

Creation of Cultural Routes - experiences from the Danube's Archaeological eLandscapes Project

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Experiences
from the
Danube's
Archaeological
eLandscapes
Project



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for the
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1

Cultural Routes of the Danube's Archaeological eLandscapes



From the
Danube's
Archaeological
eLandscapes
project to
sustainable
tourist
products —
how does
it work?

Jacqueline Balen

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Universalmuseum Joanneum

ARCHAEOLOGICAL HERITAGE, being a part of material cultural heritage, includes all remains of human existence. It consists of places associated with numerous manifestations of human activity, abandoned structures and remains of all kinds (including underwater sites), i.e. all tangible cultural material. Protecting and studying archaeological heritage helps with reconstructing the history of humanity and its relationship with the natural environment, for which archaeological excavations and discoveries through archaeological prospection are the main sources of knowledge. It represents a sensitive and non-renewable cultural resource. It is a fundamental record of past human activities. As such, it is important to protect and properly manage archaeological heritage, to enable scientists to study and interpret it for both current and future generations.

Archaeological heritage conceals a huge potential for the development of cultural tourism. Presented in the right way, it can be transformed into a sustainable cultural resource, capable of creating added value to the communities in which it is located. However, in a large number of cases this potential for cultural tourism is often wasted by insufficient visibility of the archaeological heritage to the general public.

The hope that archaeological heritage, and especially the archaeological landscapes of the Danube region, can become more visible at the regional, national and international level, and thus more attractive for its integration into the flows of sustainable tourism, represents the backbone of the Danube's Archaeological eLandscapes project. The project, which ran from June 2019 to December 2022, brought together institutions and experts from nine countries of the region (Austria, Bulgaria, Croatia, Hungary, Germany, Romania, Slovakia, Slovenia and Serbia), and consisted of 10 project partners and 12 associated strategic partner institutions, with the leading partner being the Universalmuseum Joanneum from Graz.

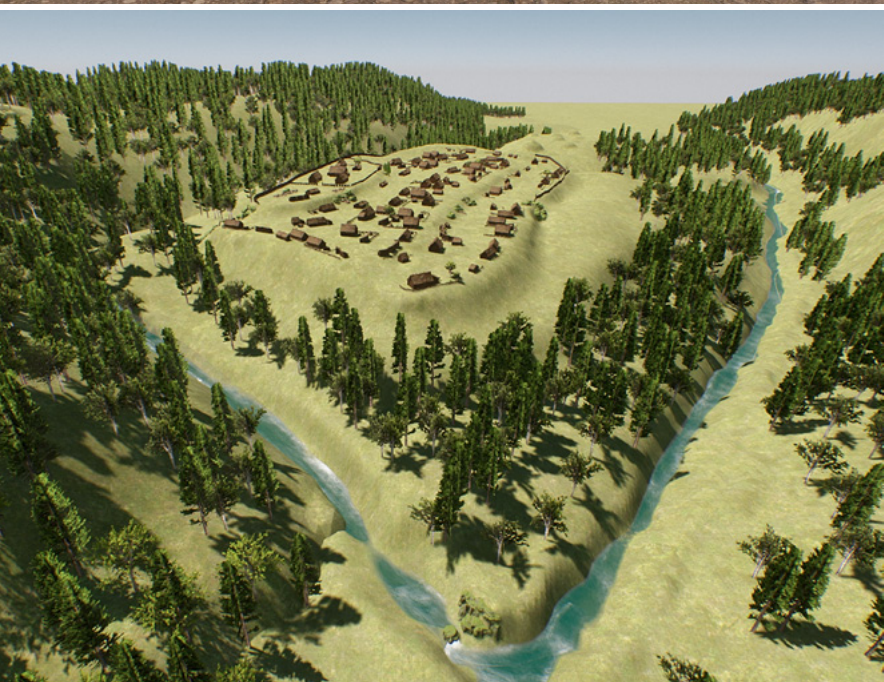




The fundamental question of the project was whether it is possible, with the help of new digital technologies (visualization and virtual and augmented reality), to give audiences insights into the complete context of archaeological heritage. At the root of this problem lies the fact that archaeological finds are usually located in museums, far from their findspots. On the other hand, sites are not isolated places in space, but are integrated into archaeological landscapes and are inextricably linked with the wider space in which they are located. Due to this disunity, and the fact that archaeological sites and landscapes often remain invisible, unlike objects exhibited in museums, the public is unable to form a complete picture of the archaeological heritage and realize its true value and potential. Another question is whether such a way of presenting heritage to these audiences would be interesting, and how the visualizations created in this way could help in increasing the visibility of archaeological heritage and, ultimately, contribute to the development of sustainable cultural tourism.



Großklein
settlement
visualization
© UMJ



Kaptol
visualization
© M. VUKOVIĆ for AMZ



Viškovci
visualization
© M. MAĐERIĆ for AMZ

In order to get answers to these questions, three specific goals were defined. The first is focused on creating a common reference framework for the development of visualizations through the creation of a common strategy and standards. The second is oriented towards the development of professional human resources through partnership mobility and the positioning of museums as creative centres, i.e. places for the development of new ideas and approaches in the creative industry and cooperation with the interested public. The last one deals with increasing visibility through the process of developing the visualizations themselves and through the development of new cultural routes by creating and strengthening cooperation at the local, regional and international level.

STORIES OF



THE Journey Into Lost Landscapes PAST



The project Danube's Archaeological eLandscapes is implemented under the Danube Transnational Programme, funded by the European Regional Development and IPA fund. ERDF: 2,118,635.56 EUR IPA: 21,335.00 EUR Programme co-funded by the European Union

One of the focuses of the Danube's Archaeological eLandscapes project was creating an Action plan on museum involvement in landscapes (<https://www.interreg-danube.eu/approved-projects/danube-s-archaeological-elandscapes>). Museums often focus on their collections and exhibitions and are not *per se* active outside their facilities. Nevertheless, museums and landscapes are strongly interdependent, more than it is perceivable at first glance. Landscapes offer the opportunity for museums to contextualise objects and enable people to better understand and value heritage. Landscapes also offer new content on a permanent basis, and this can be used by museums to attract visitors. Museums are interpreters of history and transmitters of knowledge and therefore can offer landscapes the needed stage to present themselves and invite new groups of people to visit them. A successful connection between sustainable tourism, heritage research and interpretation appears to be the future of heritage and landscape preservation.

As such, there are some basic principles that museums today should follow:




1. The museum space can be creative when involving the audience. This approach offers completely new perspectives for many different institutions in the region.
2. Involving the general public in the early development stages of visualizations creation raises awareness of the need to work on monument protection, as well as the value of cultural heritage itself.
3. Accordingly, understanding cultural heritage also increases the need for its protection and sustainable use within the communities where it is located.

As cultural heritage presents a sensitive and non-renewable cultural resource, such prospects establish important new ground. By utilizing these possibilities, various heritage institutions, could develop their enormous potential in the cultural tourism sector and greatly improve the visibility of archaeological heritage in the general public's view. This not only benefits cultural heritage, but creates added value to local communities, economic growth in various sectors by enriching the offer, changes the perception of museums which are often viewed as distant and aids innovation and sustainability.

One of the key features was shifting the focus from individual sites to complex landscapes. This in turn created the need to come up with a new perspective on how to research, protect, present and promote. Museums, which often hold objects connected to these landscapes and past civilizations, play a crucial role in this environment. It can act as a vital conduit as a heritage preserver, interpreter, and is one of the best equipped agents to tackle challenges, contextualise objects and attract visitors as a hotspot for cultural tourism content.


Danube's Archaeological eLandscapes

Virtual archaeological landscapes of the Danube region

The project Danube's Archaeological eLandscapes is implemented under the Danube Transnational Programme, funded by the European Regional Development and IPA fund.

ERDF: 2,118,635.56 EUR
IPA: 21,335.00 EUR

Interreg 
Danube Transnational Programme
Danube's Archaeological eLandscapes

Programme co-funded by the European Union

The purpose of the Action Plan of the project was to provide feedback, good practice examples and offer propositions to various interested parties. Thus, the document provides invaluable assistance to anyone starting the process, helps jump over a few hurdles based on actual experience and encompasses the complete framework. For example, it lays out several recommendations for activities in cultural landscapes which might prove to be a valuable asset to future planners:

1. Establish negotiation processes between different interest groups and the values of individual groups that inhabit or own the landscape
2. In making decisions about the future of cultural landscapes, the needs and values of the local community should be taken into account
3. In complex and dynamic, i.e. living cultural landscapes, the process of originality protection must be sufficiently adaptable to its dynamic features
4. The concept of sustainable development and its relationship to the management of cultural landscapes should include economic, social and cultural interests
5. The protection of cultural landscapes requires a balance between the associated biophysical and cultural resources
6. Future activities should be carried out according to laws and planning methods for the protection of cultural landscape values



What are Cultural Routes and How to Create Them

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A CULTURAL ROUTE is a cultural, educational and tourism project of cooperation between several different partners with the aim of developing and promoting itineraries or a network of itineraries based on historical routes, a cultural concept or phenomenon that transcends local borders and contributes to the understanding and respect of common values.

Cultural Routes present a form of time travel, whereby the passenger transcends both time and space of the various countries and cultures of present-day Europe. In such instances, cultural heritage is not only kept alive but is shared across borders for all interested stakeholders. Curious passengers are brought together and invited to explore inter-connected networks of heritage, places and history, thereby bringing to life the core values of the Council of Europe: human rights, intercultural dialogue, mutual exchanges across borders and cultural diversity. How was/is this envisaged? Each cultural route provides a number of activities open to all ages and social groups; be it educational, for recreation and relaxation, or somewhere in between. In order to achieve such conditions, routes must be developed and attuned in a sustainable and responsible manner, offering local products and everything else to suit the traveler's tastes. A cultural route must be viewed through the lenses of both culture and tourism, with all the required traits, information, content, accommodation or catering services. If a question arises of how is this possible, it is sufficient to take a look at the broad range of topics and themes that made it into cultural routes: from Vikings to Phoenicians, Mozart or Saint Martin, olive trees, cemeteries, prehistoric rock art, the Habsburgs, fairy tales, the Iron Age in the Danube region, and many more.





Cooperating with local stakeholders
© I. HORVAT FOR AMZ



How to create a cultural route?

Fortunately, developing a cultural route and interpreting cultural heritage has nowadays become a relatively straightforward process. Experts have often come together, offering advice, guidelines or frameworks for potential future cultural route enthusiasts and professionals. In order to create a new route, one has only to look beyond new topics, landscapes, religious themes, gastronomical, musical or literary features which have already been covered. The requisite high standards for cultural route certification provides not only various topics, but also guarantees excellence of the highest order for the five main priority fields of action: co-operation in research and development; enhancement of memory, history and European heritage; cultural and educational exchanges for young Europeans; contemporary cultural and artistic practice; cultural tourism and sustainable cultural development. The result is a phenomenal mixture of European cultures, stretching across borders, encouraging the development of lesser-known destinations, facilitating synergies between local, regional and/or national stakeholders for all social and economic beneficiaries in a sustainable and progressive form of tourism management.



Recreating
Hallstatt cuisine
© I. HORVAT FOR AMZ



But how does one create a cultural route? Nowadays there are several key features to the whole process. Firstly, the creator(s) must think of the purpose of the route, answering the question “why?” and focusing first on the stages of the development, rather than the end products. The priority thematic base should be established within the context of European countries, history and common values, defined by heritage that binds and balances other similar topics. Additionally, it needs to be grounded within and conducted according to theoretical and practical interdisciplinary research. Furthermore, the theme needs to be unique and specific enough, with several key cultural, national focal points, interconnected with offers from the catering industry. Reasons might also include a new meaning for local communities, potential stakeholders and partners, fostering local regional identity, knowledge dissemination and consolidation, developing a new tourist offer in line with the topic, ensuring sustainability or creating value.

Secondly, creators of a route need to consider the scope of the entire project. Will the route pertain to a local or broader level (regional, national, supranational)? Will it satisfy conditions for each level, bearing in mind various concepts and their differences such as routes, tours, itineraries, cultural routes etc.? Furthermore, a clear management structure needs to be established from the very beginning (legal ownership framework, technology needs, administration, etc.). For all of these, creators need to consider which experts to include from the very beginning; institutions (such as galleries, museums, cultural centers, etc.), organizations, companies, or other persons of interest, in order to benefit the process as a whole.

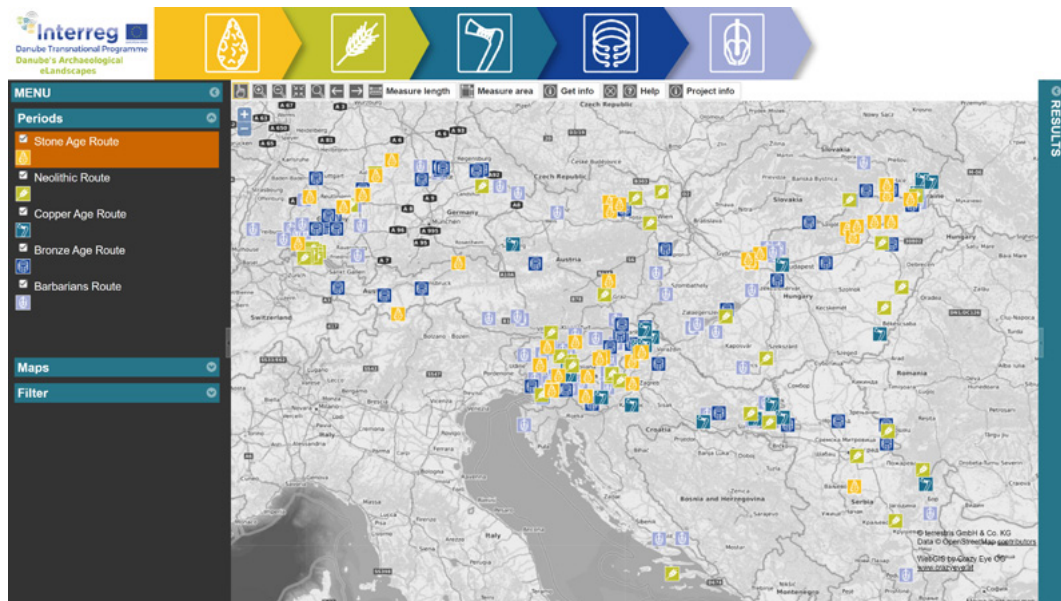


Bicycle trip from
the centre of Veszprém
to the Villa Romana Baláca
© HUNGARIAN NATIONAL MUSEUM



Süttő
© ESZTER FEJÉR

After laying the groundwork, a bestselling story can be developed, all the while bearing in mind the need to connect specific target groups/audiences, offer unique and interesting experiences and have a meaningful local influence. These foundations will take several years to establish, and can involve numerous trials and errors in order to explore the best possible solutions for particular interests or groups. It should encompass a multitude of things: different languages, signs, interpretations, info points, local or educational guides, hospitality services, etc., within a common, encompassing visual identity. One example could be the establishment of a heritage link with a community who may have shown little interest (or even hostile views) towards cultural heritage, such as is sometimes the case with farming communities who must contend with upstanding monuments when ploughing their fields. It is up to the creators and route management to turn this view around and demonstrate the benefits of the routes and its content to the local community. The creators must facilitate a form of motivation for the stakeholder. A proper research campaign undertaken beforehand, studying and processing the market, will prove invaluable in such environments. One example is a large museum and a local artisan, who, at first glance, might not see eye to eye. However, by developing a plan whereby the museum presents the cultural heritage from the area, and in doing so sells the artisan's products in its shop, an understanding between the two stakeholders can be established. This way, the artisan not only benefits from the sale of their work, but can also offer unique tours from his or her own point of view on what inspired him/her from the museum's collections or local cultural heritage. Thus, a sustainable, revolving cycle of cooperation is established between the stakeholders.



Database layout created for the needs of the DAEL project, with route suggestions (made by M. Fera)

In theory, this process seems fairly straightforward, but how does it translate into practice? There are a number of examples of good practice currently being employed by one of the existing 48 Cultural Routes, as well as other similar projects. In the last couple of years, for pandemic related reasons and the advancement of technology, the focus has turned to digital practice. 3D models, visualizations for VR glasses or touchscreen applications, have proven to be especially efficient and attractive to audiences, and these approaches enrich cultural heritage in novel and popular ways. As people spend increasing amounts of their time on electronic devices, this shift towards digital technology has been a logical one in order to offer content and increased value from some of the leading heritage institutions. It also exemplifies how modern technology can be used in such an environment. Others might also opt for a digital solution to enrich other, extant, experiences. For example, a digital bicycle map or treasure hunt might be created for a particular region, which connects and guides visitors through various heritage points. In this sense, however, the actual site and leisure activity are the main foci. Additionally, such examples could involve the setting up of info panels providing not only necessary information, but also offering additional information via QR codes or AR technology. Moreover, the usage of such digital tools enables professionals to gather data and feedback based directly on user experiences. These inputs can provide a creative insight and change the direction of how certain parts of the route are presented.

PROJECT INFO

The project's major goal is to make archaeological landscapes of the Danube region more visible and thereby more attractive for its integration into sustainable cultural tourism, regionally, nationally and internationally. Following the Iron Age Danube route the international partners in the project Danube's Archaeological eLandscapes identified heritage elements that are illustrative of common European memory, history and heritage.

Based on archaeological heritage from 5 different periods the following routes can be explored in this web database:

Palaeolithic (Stone Age route), Neolithic (Neolithic route), Copper Age (Copper Age Route), Bronze Age (Bronze Age route) and Late Antiquity and Early Medieval Period (Barbarian's route).

Click on an icon to explore a period!

EXPLORE DATABASE

| STONE AGE ROUTE: HUNTERS AND GATHERERS | NEOLITHIC ROUTE: FIRST FARMERS AND EARLY HERDERS | COPPER AGE ROUTE: THE DAWN OF METALLURGY | BRONZE AGE ROUTE: MINERS AND TRADERS | BARBARIANS ROUTE: THE FALL OF ROME AND THE RISE OF REALMS |
|--|--|--|--|--|
| <p>The river Danube is one of Europe's great natural highways and passes through a great swathe of central and eastern Europe, connecting nations, peoples and cultures. During the last Ice Age beasts roamed this land, which attracted human hunters: Neanderthals and our own species.</p> <p>With the end of the Ice Age in the 10th millennium BC, many of these megafauna vanished forever. Within a few centuries, the landscape was cloaked in dense forests, and the Danube provided one of the few easily navigable routes through this tree covered landscape.</p>  | <p>In the 6th millennium BC agriculture was introduced from the Middle East and the Danube played a central role of the transmission of farming through eastern and central Europe. The forests were felled, the landscape opened up to provide farmland for the people of the New Stone Age.</p> <p>With a surplus supply of food the Danube's population began to grow, settlements became increasingly permanent, pottery was manufactured, inequalities emerged and excess food enabled specialisations.</p>  | <p>Next to materials of stone, wood and bone, which had been used for thousands of years, first metalworking techniques in Europe emerged in the 5th-3rd millennium BC. This allowed production and distribution of new everyday objects, tools and weapons. For a select few in society, there was the chance to acquire objects made from more exotic, luxurious products fashioned from copper and gold.</p> <p>Just as with the spread of agriculture, the Danube provided a crucial conduit to transmit these metals and the knowledge of how to work them.</p>  | <p>Around 2200 BC a major development occurred. No longer were metals worked in their base form. Now they were mixed to form a shimmering alloy: bronze.</p> <p>Combined with the introduction of the wheel and horse, this was a period of profound changes. Fortified settlements were built, elite women donned elaborate costumes, and a warrior elite rode to battle wielding bronze spears and swords.</p>  | <p>By the 5th and 6th century AD the Roman Empire was in a terminal decline. Its former Danubian provinces were occupied and settled by a variety of peoples. They were not simple barbarians, they produced beautiful metalwork and textiles, and constructed impressive settlements.</p> <p>These Germanic, Slavic, Turkic and, later, Hungarian peoples would lay the foundation for the medieval Danube. The kingdoms and empires formed in this crucible would be the immediate ancestors to the nation states that emerged in the last 500 years, and give the Danube its modern political, cultural and linguistic boundaries.</p>  |

In order to provide further assistance to future route developers, we offer some short guidelines, experience and suggestion to start off. For more comprehensive and detailed guidelines throughout the process the Action Plan of the Danube's Archaeological eLandscapes project (<https://www.interreg-danube.eu/approved-projects/danube-s-archaeological-landscapes>)

Walkthrough activities expected in creating a cultural route:

- Define a theme
- Identify heritage
- Create a network
- Coordinate common activities
- Ensure a common visibility

Theme is everything! How to enhance it for a Cultural Route?

- Build a personal story around the theme — with detailed scientific data
- Interpretation — use research and translation of scientific data into storytelling for written, oral, interactive, virtual... interpretation
- Identify USP (Unique Selling Proposition) features, compatibility models, key historic links — with other locations for packaging
- Presentation — define presentation standards & identity standards

Finally, always bear in mind, cultural routes should be sustainable!

Here are only a few suggestions:

- link between inhabitants and tourists,
- link between tourism and values,
- link — connecting the partners and destinations
- local and European promotion
- new benefit for local communities

Database layout created for the needs of the DAeL project, with route suggestions (made by M. Fera)



← TUMULI

Recommendations

Martin Fera
University of Vienna



SUSTAINABLE TOURISTIC VALUE FROM DIGITIZATION OF ARCHAEOLOGICAL HERITAGE

Digital approaches to the promotion of
archaeological landscapes in the Danube region

For any cultural route there are many general elements that need to be considered; based on Pattanaro and Pistocchi (Pattanaro et al. 2016, Table 1) five general points should be addressed in the development of a Cultural Route:

1. Justification:

A justification for the proposed Routes can both be seen in attempts for the protection of cultural heritage as the economic development of regions in a sustainable way.

2. Goals:

Development goals and objectives need to be made clearly visible to decision-makers and stakeholders and the benefit must be achievable to make it attractive to potential partners. Here a well working cooperation among actors is necessary and one of the tasks for an executive part of a dedicated network. First steps have been set by the workshops organised by the partners of the project in all countries during the year 2022. Further activities are necessary to identify and establish sustainable organisations who can take over the task of developing the goals of the individual routes further.

3. Inventory:

The inventory should include a list of assets and include as much information as available. The data collection has tried to consider the accessibility, the infrastructure and responsible management organisations in this first step, but clearly further measures are necessary.

4. Market potential:

To show potential partners and decision-makers the benefits of being included in such a network in-depth market research on the attractiveness of the theme, the touristic target groups and potential economic impact is needed. For this further funding should be sought.

5. Commercialisation of the itinerary:

Many individual steps are necessary to bring the Cultural Route from a valuable data collection of potential partners to an itinerary, where major points as accessibility and assets have been checked with partners and suggested stops and tourist facilities are chosen based on that. Here funding mechanisms are necessary and appropriate monitoring tools to assure the attractiveness for partners in a long-term.



Cultural route
of the Council of Europe
Itinéraire culturel
du Conseil de l'Europe



Cultural Routes of the Council of Europe

Tatjana Horvatić

Ministry of Culture and Media, Croatia

Kulturne rute Vijeća Europe u Republici Hrvatskoj

Cultural Routes of the Council of Europe
in the Republic of Croatia

2021



Cultural route
of the Council of Europe
Itinéraire culturel
du Conseil de l'Europe



THE COUNCIL OF EUROPE launched the Cultural Routes program of the Council of Europe in 1987 with the aim of presenting the common cultural heritage, understanding the European cultural identity better and shaping the common cultural space.

In addition to the preservation of natural and cultural heritage, the program promotes sustainable development, encourages education and cultural exchange, and by enriching the cultural tourism offer, it promotes less attractive and little-known destinations by supporting their cultural, social and economic development.

Cultural routes support the fundamental principles of the Council of Europe: human rights, democracy, cultural diversity and intercultural dialogue.

Each route represents European values that are common to at least three countries, and as a result of scientific research by a multidisciplinary team of experts from different European regions, it contributes to the interpretation of the diversity of contemporary Europe by portraying European memory, history, heritage and identity.

In 2010, the Committee of Ministers of the Council of Europe adopted the Enlarged Partial Agreement on Cultural Routes (EPA) to enable better cooperation between member states. The EPA Governing Board is responsible for the adoption of the Council of Europe Cultural Route certificates, which is a proof and guarantee of excellence. Under the auspices of the Council of Europe, cultural routes are managed by the European Institute for Cultural Routes in Luxembourg. The Governing Board consists of representatives of the member states from the ministries competent for culture and/or tourism, whereby one representative of each state has the right to vote. The Congress of Local and Regional Authorities of the Council of Europe, the European Parliament, the European Commission, UNWTO (World Tourism Organization), UNESCO and the Organization for Economic Cooperation and Development (OECD) participate in its work.

Since the Council of Europe proposed the Santiago de Compostela Pilgrimage Route to become the first cultural route in 1987, a total of 48 Council of Europe cultural routes have been certified to date.

The certification "Cultural Route of the Council of Europe" is a guarantee of excellence. The networks implement innovative activities and projects pertaining to five main priority fields of action: co-operation in research and development; enhancement of memory, history and European heritage; cultural and educational exchanges for young Europeans; contemporary cultural and artistic practice; cultural tourism and sustainable cultural development.

Through its program, the Council of Europe offers a model for transnational cultural and tourism management and allows synergies between national, regional and local authorities and a wide range of associations and socio-economic actors.



Iron Age Danube Route

Marta Rakvin

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THE IRON AGE DANUBE ROUTE addresses one of the most fragile, though imposing and attractive prehistoric archaeological phenomenon, the Iron Age landscapes. Characterized by monumental structures, such as burial mound cemeteries, flat cemeteries, fortified hilltop settlements and *oppida*, as well as elements indicating the complex organization of space, Iron Age landscapes belong to the period between the 9th and the end of the 1st century BC. The Iron Age is a period marked by an extraordinary corpus of tangible, as well as intangible heritage, which is kept in numerous museums of the Danube region, including the most important regional and national institutions. In addition, the Danube region is made up of a variety of natural landscapes. The diversity of these landscapes had an impact on the different cultures present in the regions, both in the past and today. Along the Iron Age Danube Route, travellers can discover archaeological and open-air museums, reconstructed houses and tumuli, as well as archaeological trails. Modern technology allows visitors to experience life as it was almost 3,000 years ago.

The first concept for the Iron Age Danube Route stemmed from the Danube Transnational Programme 'Monumentalized Early Iron Age Landscapes in the Danube River Basin' INTERREG project, a RegioStars finalist for 2018. Twenty partner institutions from Austria, Croatia, Hungary, Slovakia and Slovenia that collaborated on the project put forward the idea of joint approach to researching, managing and protecting complex prehistoric landscapes. After the Iron-Age-Danube project ended, the partnership continued with the support of the Routes4U project of the Council of Europe.





Heuneburg
tumulus
© GUENTHER BAYERL



Tumulus
Großklein, Austria
© UMJ



Tumulus at
the Sutto site,
Hungary
© ELTEFHAS
ZOLTAN CZAJLIK

Compiling existing sources of knowledge and creating a strong interdisciplinary and international network of expert institutions from Austria, Croatia, Hungary and Slovenia in the fields of archaeology, cultural heritage protection, tourism, as well as local stakeholders, the Iron Age Danube Route Association was founded in July 2020 with the aim of further development and management of the IADR.

The Iron Age Danube Route Association serves as a platform within which the partnership established in this way will make this valuable archaeological heritage more visible and accessible, while creating economic and cultural added value to the local population of the region.

Along with the efforts of the Iron Age Danube Route Association, the Iron Age Danube Route is advanced through the Interreg Danube Transnational project ‘Virtual archaeological landscapes of the Danube region’ (July 2020–December 2022). This project centres around making archaeological landscapes of the Danube region more visible and attractive for their successful integration into sustainable cultural tourism on regional, national and international levels.

In May 2021 the Iron Age Danube Route became a certified Cultural Route of the Council of Europe. The Route joined the family of over 45 Cultural Routes of the Council of Europe, which provide a wealth of leisure and educational activities for all citizens across Europe and beyond and are key resources for responsible tourism and sustainable development. With its efforts internationally acknowledged through this certificate of excellence, opened many new and exciting opportunities for the Route, its members and partners, as well as the responsibility to further develop its vision better promote, protect and research our common Iron Age heritage.

Since then the Route's partnership expanded and is currently encompassing Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Germany, Hungary, Romania and Slovenia with 31 partner institutions consisting of prominent national and regional museums, universities, institutes, institutions and local authority bodies.



Cultural route
of the Council of Europe
Itinéraire culturel
du Conseil de l'Europe





2

Towards a European Cultural Route of Neanderthals

Homo sapiens
neanderthalensis —
Mr. N
© NEANDERTHAL MUSEUM





The European Neanderthal Route Initiative

Sanjin Mihelić

Archaeological Museum in Zagreb



Cultural Route is a cultural, educational, heritage and tourism co-operation project aiming at the development and promotion of an itinerary or a series of itineraries based on a historic route, a cultural concept, figure or phenomenon with a transnational importance and significance for the understanding and respect of common European values.

Council of Europe (2013)
*Resolution CM/Res(2013)66 confirming the establishment
of the Enlarged Partial Agreement on Cultural Routes (EPA).*



Visiting Krapina,
DAeL Mobility Action &
iNEAL training school
© S. COPAK for AMZ

CULTURAL ROUTES generally function as networks of stakeholders interested in joint management, valorisation and promotion of specific cultural and/or natural phenomena, often covering large distances. The model has gained prominence in the past few decades, particularly following the launch of the Council of Europe's programme of cultural routes and the certification of the first routes in late 1980s and early 1990s. To date, the programme has certified several dozen cultural routes — as of 2022, a total of 48.

A European cultural route is eligible for certification by the Council of Europe if it satisfies the following criteria:

- involve a theme that is representative of **European values** and common to **at least three countries** in Europe;
- be the subject of transnational, multidisciplinary **scientific research**;
- enhance **European memory, history and heritage** and contribute to interpretation of Europe's present-day diversity;
- support **cultural and educational exchanges** for young people;
- develop exemplary and innovative projects in the field of **cultural tourism** and **sustainable cultural development**;
- develop **tourist products and services** aimed at different groups.

For a number of years it has been evident that the Neanderthals — whom we tend to think of as the First Masters of Europe — lend themselves extremely well as potential subjects of a cultural route that would cover almost all of Europe, extending even beyond our continent to parts of Asia. Such a cultural route would fully appraise the wide spectrum of present-day perspectives on Neanderthals, from the public appreciation of their role as long-gone partial ancestors of modern Eurasian populations to the valorisation of their legacy in broader cultural terms, including for instance the cultural tourism angle. In addition to the work and ideas developed within the Danube's Archaeological eLandscapes Project, an initiative to establish such a route — the **European Neanderthal Route** — has recently been launched by the network of scholars and cultural managers gathered around the COST Action entitled Integrating Neanderthal Legacy: From Past to Present, abbreviated as iNEAL.

The initiative dedicates special attention to potential positive impacts different aspects of Neanderthal heritage, like museum displays or archaeological sites may have on the socio-economic development of a given community through mediation of tourism. This perspective underscores the public and touristic attractiveness of tangible and intangible aspects of the Neanderthal story, while exhibits and heritage sites are considered as tourist resources. Consequently, their management and valorisation for purposes of tourism enter the domain of destination management, as a continuous process in which tourism industry, administration at various levels, and other stakeholders develop a destination with a view to fulfil a shared vision of its future. In addition to this, as part of its work on the establishment of the cultural route on Neanderthals, the iNEAL Action seeks to develop a package of informational, educational and didactic tools to be used for communicating topics relating to various facets of Neanderthal heritage. The package will be designed to cater for different publics, from general public, schools, civil society and local communities, tourism sector, heritage institutions, small and medium enterprises, and all others interested in these topics.

As part of the preparation for the creation of a Neanderthal cultural route, the iNEAL Action organized a *Training School on Valorization of Neanderthal heritage through the creation of cultural routes* in Zagreb in November 2021.





Visiting Krapina,
DAeL Mobility Action &
iNEAL training school
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The European Neanderthal Route **Initiative** is open to all persons and entities who share the vision to establish the **European Neanderthal Route** and are willing to participate in the creation and organization of a broad network of stakeholders interested in the preservation, promotion, presentation, management and valorisation of Neanderthal heritage across the continent.

For more information please contact: smihelic@amz.hr



Neandertals— First Masters of Europe

Ivor Janković

Institute for Anthropological Research



At the site of the
original discovery
© NEANDERTHAL MUSEUM

WHO ARE THE NEANDERTALS? What is their role in our own evolution? Are they just extinct relatives that once roamed the Eurasian landscape that, once the first members of our own subspecies, *Homo sapiens sapiens* spread out of the African homeland, disappeared without a trace? These (and many other) questions about Neandertals have been hotly debated ever since the discovery of the first recognized Neandertal in a small cave in Germany's Neander Valley in 1856. Since then, their physical remains (i.e fossils), as well as abundant traces of their daily activities (tools, remains of animals they hunted, and other traces of their presence at archaeological sites) have been discovered throughout Europe and parts of Asia. Indeed, the archaeological and biological data on Neandertals are more abundant than for any other prehistoric human group before the emergence of anatomically modern humans, offering us a solid basis for study of their biology and culture. In recent times, the rising field of paleogenomics entered the story — and changed the way we think about these ancient humans forever. So what can we say about them, after more than 160 years of scientific study?

The story of Neandertals begins in August 1856, when workers came across strange looking human bones while removing cave sediment from the Small Feldhofer Cave in the Neander Valley near Düsseldorf, Germany. It was just before the publication of Charles Darwin's famous work *On the Origin of Species* (1859), and soon evolution became one of the main topics, not only among scientists, but also among the general public. For this reason, the discovery of the bones in Neander Valley caused great interest. For those who opposed Darwin's theory, they interpreted the unusual anatomy as the result of disease or unusual adaptations of recent humans. On the other hand, supporters of evolutionary thought used that finding as a basis of the thesis that humans had gone through evolutionary changes in the past.

Be that as it may, the scientific name *Homo neanderthalensis*, which some experts still use today, was officially proposed by William King in 1864, and since then it has become an indispensable synonym for almost all the ancient inhabitants of Europe, often in a negative context. It is hard to find someone who has not said 'Neandertal' at least once, whether it was in scientifically based discussions or in a conversation about the behaviour of some sports fan groups. However, even the negative publicity resulted in the fact that Neandertals, at least as a term, needs no introduction. But our knowledge of Neandertals shows them to be far more than a derogatory stereotype. This is because, fortunately, the Neandertals left behind many traces. From archaeological finds and sites where they stayed for a longer or shorter time and carried out many daily activities there (leaving traces of their culture, such as stone tools, the remains of hunting animals or hearths), up to the anthropological findings of their bones themselves. Our insight into the Neandertals has been enriched in recent times by the results of ancient DNA analysis (DNA isolated directly from the bones of Neandertals, and more recently from the sediments at their sites).



Fortunately for science, soon after the discovery in the Neander Valley, a series of new finds that we now attribute to Neandertals came from sites all over Europe (and parts of Western and Central Asia). As soon as the early twentieth century, Neandertal bones were discovered in a large number of European sites, some discovered before (but not recognized until after) the Neander Valley specimen: Belgium (Engis Cave, 1829/30), Gibraltar (Forbes Quarry, 1848), Germany (Kleine Feldhofer Grotte, 1856, Taubach, 1887, Ehringsdorf, 1908), Belgium (La Naulette, 1866, Spy, 1886), Czech Republic (Šipka, 1880, Ochoz, 1905), Spain (Bañolas, 1887), Croatia (Hušnjakovo Hill in Krapina, 1899), and France (La-Chapelle-aux-Saints, 1908, Le Moustier, 1908, La Quina, 1908 and La Ferrassie, 1908). These discoveries laid the foundation for the scientific study of Neandertals already in the early period of the development of a new scientific discipline — paleoanthropology. Of course, research continues, and it is estimated that today we have the remains of the bones of around 500 different Neandertals of both sexes and of different ages, from different geographical areas and over a longer period of time (sometimes consisting of almost complete skeletons, and sometimes these are isolated bones or pieces of bones). This allows us a qualitative insight into many aspects of their evolutionary development, adaptations, physical and cultural characteristics and differences, and so on. The remains of Neandertals have been found in almost all parts of Europe (Belgium, Gibraltar, Germany, the Czech Republic, Spain, Croatia, France, Slovakia, Hungary, Italy, Poland, Greece, Bulgaria, Serbia, Ukraine, Russia), and further to West and Central Asia (Iraq, Iran, Israel, Syria, Uzbekistan and Russia). If we add archaeological sites where the remains of their material culture were found, the number of sites increases drastically.

All this allows us to present a great deal of knowledge about them. However, caution is required, since, just as there is no 'typical' representative of anatomically modern humans (*Homo sapiens sapiens*) — because we are all part of a polytypic species whose members differ in their individual, as well as some common characteristics of populations in certain areas, the same can be said of all past human groups. There never was a 'typical Neandertal' who could represent all the diversity of characteristics seen in Neandertals over space and time. But it is possible to talk about a number of features (especially anatomical details) that are much more common in Neandertals than in earlier human groups, or in the so-called anatomically modern humans. If you were to put a 'typical' Neandertal and a 'typical' modern European side by side (which is certainly partly wrong, since most of the physical characteristics of modern Europeans actually represent adaptations that occurred in Africa, where our ancient ancestors came from), it is possible to see certain differences.

Lateral view of
a Neandertal skull
from La Ferrassie
© IVOR JANKOVIC



The Neandertal skull is relatively low and elongated, with low but robust regions above the eyes that are adorned with the so-called supraorbital arches or torus. The entire middle part of the face is very prominent, and the nasal cavity is large. The back of the skull has a protrusion on the occipital bone, and if we look at the skull of a Neandertal from the back, we will see that it is oval in shape (in contrast to the slightly narrower skull of anatomically modern humans, which has a more pentagonal shape). The skull itself is of large dimensions, although the size of the brain does not differ much from that of early modern humans. Other often mentioned characteristics of Neandertals are visible in the lower jaw and teeth. Most Neandertal mandibles have no chin (although some of the later Neandertal specimens do have the beginnings of this feature). Furthermore, Neandertals, unlike most of us, had no problem with the sometimes painful process during the growth of their wisdom teeth (in contemporary humans, this often results in a need for medical treatment). Between the vertical part of the jaw and the wisdom tooth on most Neandertal mandibles, there is enough space that the process of dental growth passed without major problems. Furthermore, there are certain details in the anatomy of the molars (they often have an enlarged pulp chamber resulting in fusion of the roots — a condition called taurodontism, as well as some other differences in the features of the crown of the teeth), all teeth are large, and the incisors of the upper jaw are often shovel-shaped.

Apart from those seen in the skull and lower jaw, there are also differences in anatomical details of the postcranial skeleton. Perhaps the most evident is the overall robustness of the Neandertal built. The results of various analyses show that Neandertals were about twice as strong as contemporary humans (we base this on very pronounced muscle attachments and thickness of the cortical bone). Furthermore, strong muscle grips and strong bones speak of the importance of physical activities in the Neandertal lifestyle. Neandertals were very active and often moved, carrying all their necessities with them while hunting prey. Their hunting strategy also required a high energy investment and close (sometimes very dangerous) encounters with prey. Unlike modern human groups of the Upper Paleolithic, archaeological findings tell us that Neandertals usually did not hunt from distance (they did not have projectile launchers or bows and arrows), but used heavy and massive spears that could be thrown from close range, or used for stabbing. Many injuries visible on their bones can be explained as a result of hunting accidents. For the above reasons, increased energy consumption required a rich protein diet — analyses of archaeological and zooarchaeological findings, as well as analyses of stable isotopes, show that the Neandertals based their diet heavily on meat (this does not mean that they did not also consume some plants). In fact Neandertal diets differ depending on geographic and ecological factors. Meat was always important but some Mediterranean Neandertals consumed a good deal of fish, birds and other sea resources. Also temperately-adapted Neandertals ate more plants than did their cold steppe-adapted cousins.



Only some, perhaps the most noticeable, features of Neandertal anatomy are listed here. However, it is evident that there are differences in anatomical details between Neandertals and anatomically modern humans. But modern science does not strive (and must not strive) simply to enumerate differences in the details of anatomy (or behaviour). Based on the sheer number of anatomical differences between the skull and skeleton of Neandertals and modern humans, it is incorrect to claim that Neandertals are a separate species. Before such details are used for taxonomic purposes, it is necessary to explain why these differences exist. If we approach this in this way, then it soon becomes apparent that a large part of these details are actually the evolutionary heritage from earlier human groups, from which the Neandertals evolved. Furthermore, a part of the features are the result of adaptations related to lifestyle or climatic conditions. Finally, archaeological and genetic data tell us that there were always relatively few Neandertals, which caused certain features to become more frequent and prevalent than would be the case in larger communities. Examples of this can also be found in modern human groups, and they are the result of relative isolation (think of populations with a high percentage of red hair or some other characteristics).

As can be read in the earlier text, Neandertal bones were found in a large number of European, as well as Asian sites. But even though the fund of fossil remains of the Neandertals themselves is relatively numerous (especially compared to earlier humans), there is an even greater number of localities that tell us about their life and behaviour on these sites based on cultural remains. The remains of the material culture that, at least in Europe, is associated with Neandertals, is called Mousterian, after the site of Le Moustier in France. Mousterian is characterized by a much larger number of standardized types of stone tools (according to the French scientist F. Bordes, there are 64 basic types), and the production itself is much more complex than in earlier cultures. The most common type consists of the so-called scrapers — tools that could be used for various activities, from scraping leather, to woodworking, cutting, etc. On some sites, although rarer, finds made of wood (spears) and of bone or horn were also found.

Since Neandertals are distinguished primarily on the basis of their characteristic anatomical details, in order to get closer to the answer when they first appear on the evolutionary scene, it is necessary to study the fossil finds of their predecessors, especially those from the Middle and Early Upper Pleistocene. It is within these pre-Neandertal European groups that we can observe a series of changes in anatomy and an increase in 'Neandertal' features over time. Thus, the appearance of some characteristics that later become typical for Neandertals is already visible in finds dated between 500,000 and 300,000 years before the present, such as Vértesszöllös in Hungary, Petralona in Greece, Arago in France, Steinheim in Germany, Swanscombe in England and Sima de Los Huesos in Spain.

Skull of
a Neandertal Child,
Teshik Tash
© JAMES C. M. AHERN



At somewhat younger sites, such as Ehringsdorf in Germany (about 250,000 years before the present), Biache-Saint-Vaast in France (190–160,000 BP), Apidima 2 in Greece (about 160,000 BP), these features become more numerous, to the extent that some experts already count them among the earliest examples of Neandertals. In any case, from about 200,000 years before the present, until the appearance of the first anatomically modern humans during the Upper Paleolithic, Neandertals are the only humans on the European scene. Truly the First Masters of Europe! But although they can rightly be called the first real European phenomenon (in the sense that they evolved there), part of the Neandertal groups at some point, for reasons known only to them, spread outside their home area — first to West Asia, and later to parts of Central Asia. However, unlike in Europe, Neandertals were not the only humans there. Findings and sites like those in the Levant show that they shared that area with the first anatomically modern arrivals from Africa. It is even more interesting to point out that archaeological analyses do not show significant differences in the behaviour of those two populations. Among the most famous Neandertal sites in Asia are the Amud, Kebara and Tabūn caves in Israel, Dederiyeh in Syria, Shanidar in Iraq, Bitsun in Iran. Until recently, it was thought that the findings from the Teshik Tash cave in Uzbekistan represented the easternmost limit of the Neandertal area, but recent research (primarily based on the results of ancient DNA analysis) testifies that some Neandertal groups even spread to the Altai Mountains in Siberia (Denisova and Okladnikov caves), and met some other indigenous populations there (for now, most scientists call them by their popular, not scientific name — Denisovans).

Neandertals, during more than a hundred thousand years of their European reign (and, as we mentioned, a part of Asia), went through many trials. Climatic changes and oscillations (as well as the geographical distribution of Neandertals) during the different phases of the Pleistocene meant that some Neandertals lived in a drastically different environment and ecosystem than other groups. Some lived during periods of warm climate, which allowed them to spread to areas that were covered by the ice sheet during colder periods. On the contrary, during periods of cold climate, the expansion of glaciers caused the sea level to fall (it is estimated that the sea level sometimes varied by more than a hundred meters), and the Neandertals used areas that are hidden from our view today. That this is so is evidenced by findings such as the discovery of a Neandertal skull from the undersea of the North Sea near the Dutch coast, as well as the recently investigated site of Kaštel Štafilić-Resnik in Croatia, where stone tools made by Neandertals were found. Who knows how many more interesting discoveries await future underwater archaeologists and speleologists! But all this tells us the very important fact that when thinking about Neandertals (as well as other human groups during the long period of human evolution), it is necessary to think about many other factors that influenced them.



Reconstruction of
a young Neanderthal
© KRAPINA NEANDERTHAL MUSEUM

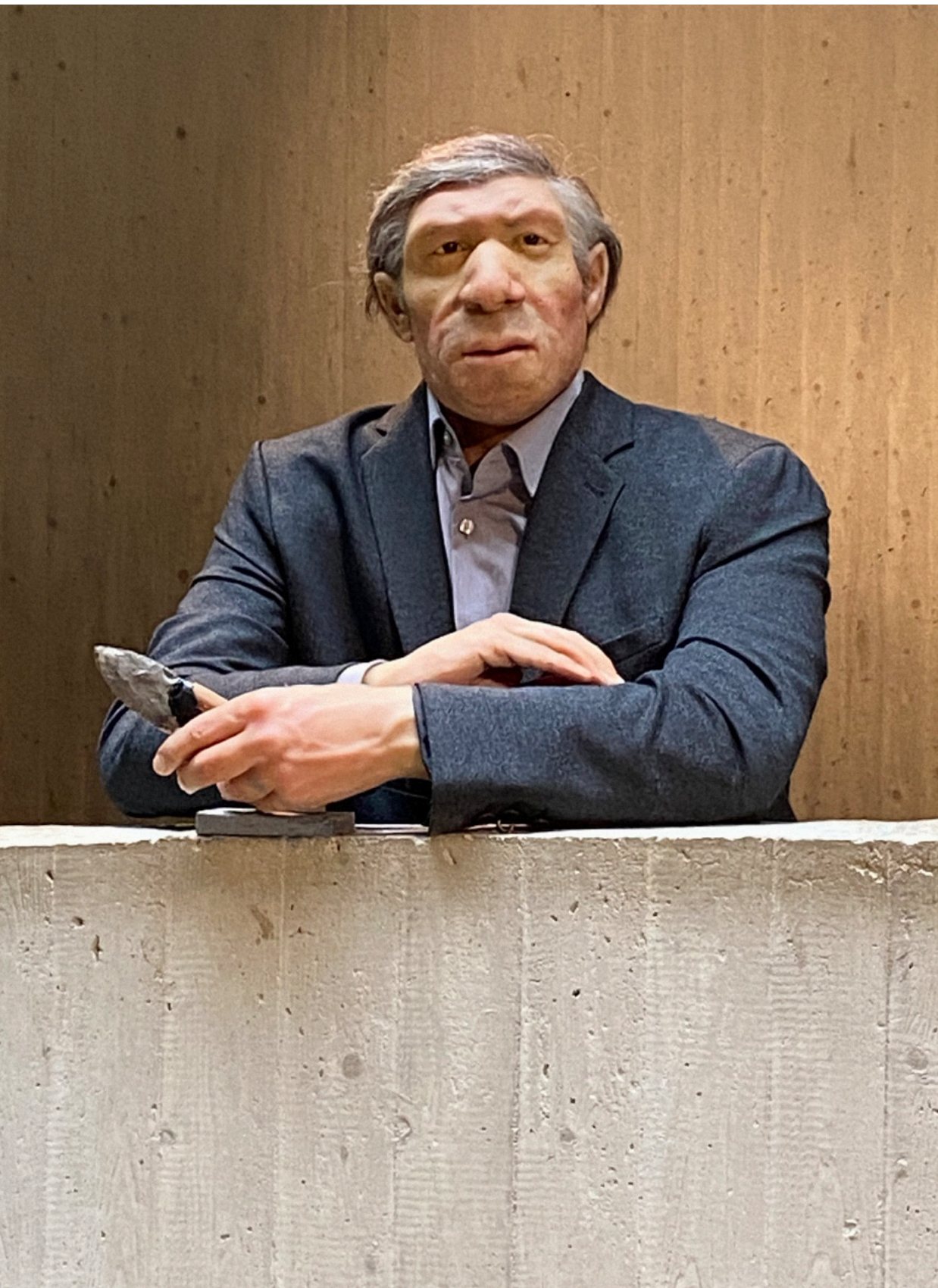
One of the main questions that scientists ask is when (and for what reasons) did the Neandertals disappear? If we base the disappearance of the Neandertals on the disappearance of their characteristic appearance and anatomy, then it is possible to confirm that they disappeared in the period between approximately 42,000 and 35,000 years before the present. This is also the period when groups of Upper Paleolithic hunter-gatherers, people who did not differ much from us in appearance, came to Europe for the first time. It is very likely that there were numerous encounters between these two prehistoric populations, which raises many interesting questions about the nature of these contacts. For this reason, it is crucial to have a precise insight into the time frames of the sites of late Neandertals and early anatomically modern humans. Unfortunately, despite the great progress in the field of radiometric dating, we still do not have enough precise data that could reliably resolve the question of the duration of coexistence of Neandertals and anatomically modern humans in Europe.

Based on recent analyses, the last Neandertals lived at several European sites, dated to about 40,000 years before present, including Vindija Cave in Croatia, Zafaraya and Las Palomas Caves in Spain, Grunta de Oliviera in Portugal, La Roche à Pierrot (Saint-Césaire) and Grotte du Renne (Arcy-sur-Cure) in France and the Belgian localities of Spy, Engis and Fonds-du-Forêt. It is interesting that many of the fossil finds mentioned above, although they undoubtedly belong to Neandertals, have some features that slightly distinguish them from earlier, classic members of that group. This is particularly visible in the gracility and some other details of the skull and skeleton (for example, in the finds from the caves of Vindija in Croatia and Saint-Césaire in France). It is also interesting to mention that at least some of these 'late' Neandertals seem to start behaving differently than their predecessors. Namely, within the Neandertal burial from the cave of La Roche à Pierrot (Saint-Césaire), various decorative items characteristic of the Upper Paleolithic were found. Similar objects were also found at the site of Grotte du Renne (Arcy-sur-Cure). Furthermore, in Italy, Poland, the Czech Republic (especially Moravia), Slovakia and Hungary there are so-called transitional cultures with characteristics of the Middle and Upper Paleolithic, which may testify to contacts and exchanges of information between Neandertals and early modern humans.



As we saw at the beginning of our story about Neandertals, discussions about their role in the genealogy of modern humans has been the subject of interest of scientists and the wider public since the very discovery at the eponymous site in 1856. Despite the large amount of finds and sites, the arguments of two opposing scientific camps (one who considered the Neandertals, at least partially, our ancestors, and those who rejected any role for them in the genesis of later Europeans and considered them an extinct species) were mainly based on archaeological and anthropological evidence, and with some luck were supported by the results of radiometric dating. The taxonomic and phylogenetic status of Neandertals (whether they are a separate species, *Homo neanderthalensis*, or a subspecies of our species — *Homo sapiens neanderthalensis*) still remained the subject of sometimes rather heated debates and disagreements. During the more than one hundred and sixty-year tradition of the development of the paleoanthropological science, many explanations and models have been proposed related to the question of the origin and appearance of our species, as well as the fate of Neandertals (as well as other human groups in the past). Most of them can be reduced to three basic (most famous) theoretical models, better known by the names: Out of Africa, Multiregional model of evolution, and the Assimilation model. According to the Out-of-Africa model, the earliest development of anatomically modern humans takes place in Africa, where most of the anatomical features of modern humans appear in the period between 200,000 and 150,000 years before the present. According to this model, about a hundred thousand years ago a part of these anatomically modern groups left Africa, and went first to the Near East, and later to other areas (they started coming to Europe about forty thousand years ago). What is important to emphasize is that scientists who adhere to this model believe that these new, anatomically modern newcomers completely replaced the natives — including the local Neandertals. According to the classic version of this model, Neandertals are an extinct branch and have nothing to do with us.

The Multiregional Model is the exact opposite of the first. This model considers that since the first human groups left their African homeland (and by that we mean the humans most often referred to as *Homo erectus*, almost two million years ago, not anatomically modern humans), there has been sufficient contact between populations from different regions which caused local populations to evolve in the same direction, i.e. in the direction of anatomical modernity (with, of course, certain local characteristics). According to this model, Neandertals are only a part of a wider group of humanity and not a separate species.



The third—the Assimilation—model agrees with the Out-of-Africa model that the earliest signs of anatomical modernity can be found on that continent, so the basis of our evolutionary substrate is Africa. But it disagrees about what happened after those first anatomically modern humans left their ancestral homeland. According to the Assimilation Model, these anatomically modern newcomers at least partially mix with the natives. Since the indigenous populations were smaller, and groups of anatomically modern people continue to arrive, the indigenous people are actually being assimilated into the modern gene pool by mixing with them. In this model, Neandertals (and other groups in other geographical areas) never actually disappear — and become a part of us.

Starting in 1997, when the mitochondrial DNA sequence was successfully isolated for the first time from the original Neandertal specimen from the Neander Valley (mitochondrial DNA is transmitted through the maternal line, is present in large quantities, and has a faster rate of mutation), it seemed that the genetic research supported the Out-of-Africa model and that Neandertals died out without any contribution to later human groups. Although some scientists pointed out that due to transmission through the maternal line it is not possible to provide a sufficiently precise insight into past events and possible mixing, over the next ten years increasingly more people accepted this explanation — the Neandertals themselves are an extinct branch on the tree of human evolution. But in 2010, a real shock followed! Then, for the first time, a complete Neandertal genome was successfully isolated on several Neandertal bones from the Croatian site of Vindija Cave. The results showed that there is between 1 and 4% Neandertal genetic heritage in modern Eurasian populations (living people). That research caused a veritable avalanche of new analyses of fossil finds, as well as great progress in the development of analysis methodology, speed and precision. Today, we have several genomes of archaic populations (not only Neandertals, but also some anatomically modern people from the Upper Paleolithic, as well as other archaic populations, for example the Denisovans). It became clear that if there is a pattern to the encounters between natives and newcomers, it is one in which encounters end in creation of new life, not only death and conflict. Most of today's inhabitants of Eurasia carry a part of the Neandertal heritage, and thus the Neandertals never really disappeared. They still live in us and future research, aimed at a better understanding of what this legacy brings us, will have a great impact in the development of personalized medicine and benefit us, living humans, in many ways. It is therefore not a great surprise that the Nobel prize for physiology and medicine for 2022 was awarded for the work on paleogenomic research on Neandertals. There is still much to learn about the Neandertals, but we can learn a lot from them as well.



Two Outstanding Neanderthal Museums — Mettmann and Krapina





Neanderthal Museum — Mettmann, Germany





New attractions invite visitors to the Neanderthal World of Discovery

Since 1996, the Neanderthal Museum has been located at the legendary site where the Neanderthal who gave his species its name was found in 1856. This special place with its world-famous find is an occasion to reflect on human evolution.

The mission

The Neanderthal Museum is dedicated to presenting the history of humans. However, it does not remain in the past, but keeps up with the times and always finds new ways to inspire the approximately 145,000 visitors a year for the Stone Age. The team of the Neanderthal Museum makes a great contribution to cultural education with contemporary educational formats such as dialogue-based guided tours-analogue or online-and exciting workshops. With about 4000 events a year, the Neanderthal Museum has long since become a recognised extracurricular place of learning.

In the meantime, the permanent exhibition has undergone three revisions. For the 25th anniversary of the Neanderthal Museum in October 2021, the focus was on encounters between different humans, our human diversity and climate change. In addition to newly created stagings, tactile exhibits and vividly narrated audio texts, the revision also took the aspect of sustainability into account. Existing exhibition elements were updated and redesigned and thus integrated into the new narrative. This approach not only keeps the permanent exhibition up-to-date in terms of content, but also gives it a contemporary and fresh appearance.

Current topics from the museum world are processed in the exhibition and in the programmes offered, as are research topics. With the NMsee research project, a decisive contribution was made to increasing the perception of inclusion in the team. Within the project, a floor guidance system for the blind and people with visual impairments was installed in the permanent exhibition. At selected stations, tactile objects create a special access to the topics of human history and are a gain for all guests. The mobile game Neanderthal:Memories is another special offer for blind people and people with visual impairments. With the help of the app, they can independently “play” their way through the permanent exhibition. The development of the inclusive exhibition elements and the mobile game took place in close cooperation with the target group.

Digital offers in the museum are in vogue and the Neanderthal Museum can no longer be imagined without them. In addition to very successful online tours, the team has launched a new project. In the project “Ice Age Worlds”, a mobile game was developed that offers children low-threshold access to the topic of the Ice Age. In a playful way, children are introduced to the landscape, climate, animals and living conditions in the Ice Age. During the development of the game, surveys and play tests were carried out with children in order to work together with them on the content, functionality and implementation of the game. The game is offered free of charge by the museum and is based on the content of the permanent exhibition.

Always being close to the needs and wishes of the visitors is part of the mission statement of the Neanderthal Museum. Regular evaluations with different questions give the team important feedback and tips that are taken into account in future planning and projects.



New attraction in the Neandertal

Since December 2022, guests of the Neandertal Museum can marvel at a new highlight: the Höhlenblick Adventure Tower. The tower is an open steel structure on the Neandertal Discovery Site Feldhofer Grotte, which was completely destroyed by lime mining in the 19th century. The 22-metre-high tower can be accessed barrier-free through alternating inner and outer ramps over 360 metres. The ascent is almost effortless, accompanied by short audio stories from contemporary witnesses of the valley's history at the turning points of the ramps. The tower's landmark is the skull-shaped dome above the upper platform. The oversized skull of the Neanderthal is about nine metres long and weighs a proud six tons.

The Höhlenblick Adventure Tower adds an exciting experience to the excursion into Neandertal. At last, visitors can climb the lost gorge and stand at the top where the Neanderthal's cave once was. From here you can look down on the opposite side of the valley, just as the Neanderthal once did from the lost Feldhofer Grotte cave. Below the top platform, those with a head for heights climb through a net tunnel and can feel how deep the former Neanderthal gorge was.

The 16 bones of the Neanderthal are presented as a tactile exhibit in the centre of the uppermost platform. A QR code triggers a 360-degree video of the Feldhofer Grotte cave. You can see the burial scene, the laying down of the famous Neanderthal in the cave.

“Telescopes” on the edge of the upper platform enable a great augmented reality experience journey that takes you back to the time of the Neanderthals. Visitors look into the deep Ice Age gorge and observe Neanderthals hunting bison, see their everyday life at the campsite in front of Neander Cave, spot herds of mammoths in the distance and witness when the mighty cave lion takes the leap to snatch a giant deer.

In cooperation with the design office Art & Com from Berlin, three core messages were worked out to be conveyed by the sensual staging:

- I stood at the top where the Neanderthal's cave was!
- The Neander Valley used to be a deep gorge!
- The Neanderthals buried their dead in the cave!



Stone Age
Workshop
© NEANDERTHAL MUSEUM



Neandertal World of Discovery

The new highlight completes the Neandertal World of Discovery. The Stone Age can be experienced in the beautiful Neandertal nature reserve. Europe's largest Stone Age Playground is located directly opposite the museum. An exciting adventure landscape with lots of opportunities for climbing and romping extends over more than 2250 m². Special highlights are the nine-metre-high climbing tower with tunnel slide and the driftwood landscape. A visit to the playground can be perfectly combined with a picnic in the countryside.

The Ice Age Animal Park is worth a wonderful walk, not only for the museum's youngest guests. Wild horses, bison and aurochs, which were part of the Neandertal hunt and are kept in a species-appropriate manner in the Neandertal, can be observed in large outdoor enclosures. The Ice Age Animal Park was founded and is maintained by the Neandertal Nature Conservation Association.

The building of the former Neandertal Museum (1937-1996) now houses the Stone Age Workshop. Here visitors can try out Stone Age techniques, test their skills with self-made prehistoric hunting weapons and learn how to make a fire. With its anthropological workshops, the extracurricular place of learning offers a welcome change for school classes and other groups.

The Art Trail "MenschenSpuren" (traces of people) leads along the Düssel on a romantic circular path for almost 200 metres. The various works of art encourage self-reflection on human nature and are thus intended to lead to a new way of looking at nature. The stories of the ten internationally renowned artists can be listened to at audio stations along the Art Trail.

The Neandertal Museum is pleased to be able to offer its guests new attractions in and around the museum. The opening of the Höhlenblick Adventure Tower has added another highlight to the Neandertal World of Discovery and made it a top tourist destination between the Ruhr and Rhineland regions.





Krapina Neanderthal Museum — Croatia



A NEW EUROPEAN MUSEUM opened in 2010 at an iconic place of European prehistory, next to the ancient habitat of the Krapina prehistoric man, which will bring you back to the world of the Neanderthals and our primitive beginnings with its multimedia content.

The Krapina Neanderthal Museum is located near the world famous site of 'Hušnjakovo', where Dragutin Gorjanović Kramberger discovered the Krapina prehistoric man in 1899. Some nine hundred human fossil bones were found in the cave's sandstone deposits, which were 8 meters high. This is the largest and most abundant collection of Neanderthal fossils collected at a single site. The bones belong to the remains of several dozen individuals, both male and female, from 2 to 40 years of age.





The Museum's architecture evokes the habitat of the prehistoric man: the Museum building is incorporated in the surrounding countryside, nestled between two hills, with only the front, coated with yellow Miocene sand, visible. The interior of the Museum is made of concrete, and is made to mimic stone, thus reinforcing the effect of a prehistoric habitat, while the visitor, just like the Neanderthal man used to, can observe the surroundings.



Developing the Neanderthal Route through the iNEAL Network

Ivor Janković

Institute for Anthropological Research, Zagreb

Sanjin Mihelić

Archaeological Museum in Zagreb

Homo sapiens
neanderthalensis —
Mr. N
(Ausschnitt mit Mädchen)
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THE ENERGY INVESTED INTO THE CREATION of cultural routes through the work on the Danube's Archaeological eLandscapes Project will certainly not be lost once the project has ended. As regards the work on the establishment of a cultural route dedicated to the Neandertals, this endeavour will continue within the framework of the iNEAL Action. But, what is this Action and how it came into being? Also, what it stands for and what are its goals? Let us first explain, and then also invite you to join its ranks.



As a direct beneficiary of a century and a half's research on Neandertals, our present-day scholarly community has at its disposal a vast amount of data pertaining to an incredibly diverse spectrum of facets of this long-lost relative *and* predecessor of ours.

Let us remember that the Neandertals are the first human population that can be truly recognized as a pan-European phenomenon. Since the discovery in a small cave in the Neander valley in Germany in 1856 (thus giving us both scientific and colloquial name for this ancient group of humans) the sites with their skeletal remains and/or cultural finds have been discovered all over Europe (and parts of Asia) and cover a period of more than 250,000 years.

However, in over the 150 years of Neandertal research, scientific methods, technological and methodological aspects, theory and practices have developed at different paces—and sometimes followed several trajectories—in different countries. As such, it can often be difficult to evaluate and compare various datasets dealing with Neandertal legacy, whether biological, cultural or other. Likewise, for numerous reasons, problems exist in relation to access to data and information for various sites and finds. In addition, the research questions asked by different groups and scholars from not only separate disciplines, but sometimes from the same disciplines but following diverse traditions, as well as from a variety of countries, are often difficult to compare, even if their goal is the same.

These overall shortcomings in Neandertal research and in the general management of Neandertal heritage have recently been addressed by an international initiative—a COST programme Action entitled '**Integrating Neandertal Legacy: From Past to Present**'—which aims to collate a long-term network of scientists with the goal of creating a usable and inclusive, inter- and multidisciplinary database and data sharing platform for all those interested in Neandertals.



Recent decades saw a rapid rise in communication of scientists from, for example, former “Eastern” and those from the “Western Bloc”. However, this is very much still based on individual connections and related to specific analyses and work. Thus, in order to compare data on various aspects of Neandertal legacy from Europe, it is crucial to build a long-term network of scientists that, in turn will help create a usable and inclusive, inter- and multidisciplinary database and data sharing platform for all interested in Neandertals.

In addition, iNEAL Action seeks to promote dialogue between scientists (with special attention given to early career investigators), and invite scientists from all relevant fields and disciplines, beyond the core group (such as scientists interested in dating methods and chronology, paleoenvironmental analysis, palynology, trace analysis etc.). In such a way, datasets will be created with a specific purpose of inclusiveness, thus providing data from various disciplines that can be incorporated to create a more detailed picture of Neandertals in temporal and spatial dimensions.

Another important aspect of the iNEAL Action is promoting awareness among various stakeholder groups of the importance of Neandertal heritage as an asset in education, tourism as well as other broader socio-economic spheres. At present, a lot of effort is being invested in research, presentation and interpretation of Neandertal heritage sites and other tangible remains like museum exhibits, however, there is a palpable lack of networking at higher-order levels, as well as across the stakeholder spectrum, which this Action aims to remedy.



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The intention is to build on the existing initiatives, including localized success stories in the heritage sector, like the Mettmann Neanderthal Museum, or the Krapina Neanderthal Museum, as regards musealised sites or interpretative centres and museums, to collaborative endeavours that would bring together a number of partners across Europe.

What all these efforts are lacking is the inclusion of stakeholders other than academia, i.e. those that would create a more tangible link with real life: local communities, local and regional governments, private sector, SME's, tourism sector etc., who have long been disenfranchised in matters of management of archaeological heritage in general, and Neandertals in particular. In education, primary and secondary-school curricula in many countries might greatly benefit from more elaborate and school-children friendly didactic tools, which are at the core of the Action's agenda.



In summary, iNEAL brings together a wide variety of researchers, both from different countries, as well as from different fields of research in order to:

- get a more detailed and much broader insight into various aspects of Neandertals (biology, including genomics, cultural aspects, geographic, environmental settings etc.) across space and over time;
- create a data sharing platform, making it easier to detect data of interest, as well as identifying major gaps, resulting in new research questions, collaborations and projects;
- stimulate international collaboration of scientists and create a wide network and platform for communication;
- build a new outreach platform between scientists and scientific research and other interested parties (general public, small and medium enterprises, local communities, tourist workers etc.) creating a positive environment and basis for integrating Neandertal legacy into present;
- address the career development of early career investigators. Through participation in working groups, a number of short-term scientific missions and training schools, they will get training in various disciplines and develop a firm understanding of specific current practices that will help them in their future research.



iNEAL members during
the 2nd Working Groups meeting
at Eberhard Karls University
in Tuebingen, 11–12th October 2021

And, last but certainly not least, it is within the iNEAL that we intend to bring together all those interested in creating a **European cultural route on Neanderthals**, as a means to best preserve, promote, present, manage and valorize the heritage of these First Masters of Europe!



Neanderthalerin
Nahaufnahme
Outdoor
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Online Resources

Interested in cultural routes?
Take a look at some indispensable resources:

ICOMOS Charter on Cultural Routes:

https://www.icomos.org/images/DOCUMENTS/Charters/culturalroutes_e.pdf

Handbook: Management of tourist visits on thematic cultural routes:

https://mint.gov.hr/UserDocsImages/arhiva/Upravljanje_turist_posjetima.pdf

Cultural Routes of the Council of Europe:

<https://www.coe.int/en/web/cultural-routes>

Available DAeL publications:

https://issuu.com/danubes_archaeological_landscapes

Iron Age Danube Route Magazine:

<https://www.ironagedanuberoute.com/iadr-magazine-2>

Cultural Routes of the Council of Europe in the Republic of Croatia:

https://mint.gov.hr/UserDocsImages/2022_sustainable/220429_Kulturne_rute_VEU2021.pdf

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