

LIMES DANUVIUS - chances for a UNESCO World Heritage

Sonja JILEK / Eva KUTTNER

Limes Projektbüro Wien

Zusammenfassung: Die Grenzen des Römischen Reiches bilden ein einzigartiges archäologisches Bodendenkmal von internationaler Bedeutung, das sich auf über 5500 Kilometern quer durch Europa, den Nahen Osten und Nordafrika zieht. Diese äußerste Grenzlinie, die mehrere tausend Wachtposten und hunderte größere und kleinere Kastellplätze in insgesamt 18 Staaten umfasst, soll in einem gemeinsamen multinationalen UNESCO-Welterbe „Grenzen des Römischen Reiches“ zusammengefasst geschützt und präsentiert werden. Einzelne Teile des Monuments, wie der Hadrian's Wall in Nordengland, der Antoninus Wall in Schottland und der obergermanisch-raetische, 550 km lange Limesabschnitt in Deutschland sind bereits Welterbestätten. In den Donau-Limes Ländern gibt es hunderte von Militärplätzen in sehr unterschiedlichem Erhaltungszustand. Viele von ihnen sind Bodendenkmäler und oberirdisch für den Betrachter unsichtbar. Andere werden schon mehr als 120 Jahre wissenschaftlich erforscht und in Ruinenfreigeländen und Archäologieparks der Öffentlichkeit präsentiert. Jedes Jahr kommen mit Hilfe der Luftbild- bzw. der geophysikalischen Prospektion und der zahlreichen Rettungsgrabungen neue Anlagen hinzu. Alle diese Denkmäler entlang der Donau bilden zusammen mit den römischen Funden in den Limesmuseen einen großen archäologischen Schatz. Während einzelne am besten bekannte Ruinen der römischen Militärarchitektur durch Denkmalschutzgesetze geschützt sind, werden jedes Jahr viele archäologische Hinterlassenschaften vor allem in den städtischen, aber auch in ländlichen Regionen beschädigt oder unwiederbringlich zerstört.

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The “Frontiers of the Roman Empire World Heritage Site”

Within the framework of efforts to preserve the archaeological heritage of the Roman heritage in Europe, the frontiers of the Roman Empire, which form the single largest monument to this civilisation, became a very special role, especially within the context of the newly created multinational 'Frontiers of the Roman Empire World Heritage Site' (FRE WHS). This WHS forms a worldwide unique multinational Site created and accepted by the UNESCO Commission and all involved parties in 2005 (BREEZE, JILEK & THIEL 2005) (Fig. 1). It was set up as a serial phased WHS, which implicates that the individual countries sharing a section of the Roman Limes, can join. Beside the UK and Germany already four more countries (Austria, Slovakia, Hungary and Croatia) have indicated the intention to nominate their sections by putting it on the national Tentative Lists for the UNESCO inscription (BREEZE 2007; BREEZE & JILEK 2008, pp. 25–29).



Fig. 1 – The Roman empire in the second century AD (Copyright: FRE Project)

The only direct comparator to the frontiers of the Roman empire on the WHS list is the Great Wall of China. The frontiers of the Roman empire, though overall shorter than the Great Wall of China, had to respond to more varied conditions, both political and physical (VISY 2005). The monument encompasses both visible and buried archaeology and the archaeological deposits often invisible on the surface are an integral and significant part of the FRE WHS. Together they form an extensive historic landscape (JESCHKE 2008).

Efforts to preserve the Limes monuments as a historical witness for future generations certainly collide with the necessities of modern urban development and the utilization of our countryside (Fig. 2). Hundred thousands of Euros are spent year by year by regional and local communities to excavate and document this heritage. Rescue excavations have become the very basic instrument to acquire new information, which is afterwards stored in archives. This is more or less the case in every European country. Although the tasks and interests of the monument preservation institutions lay in

recording the monuments within their broad cultural and historical roots, this approach must necessarily be extended beyond the individual interests towards a wider relationship. It is vital to set up a commitment to achieve appropriate balance between preservation, conservation, access, the interests of local communities and sustainable economic use of our archaeological sites. So far information is available only for a small group of experts. During the last decade we can recognize a massive interest at the communal level for an increased use of the monuments. It is understandable that communities now want to benefit from this huge archaeological potential.



Fig. 2 – The remains of the gate of the legionary fortress in Budapest lie close to a densely populated city district (Photo: Zs. Visy)

The main target group beside cultural resource managers (monument preservation institutions, research and university institutions, museums) are the policy makers, the regional and local authorities administering and living within the distinctive archaeological area. They are involved in spatial planning and guarantee the sustainable development based on cultural and economic considerations. This group consists of policy makers from various institutions (protection of cultural landscape, planning authorities, rural development, regional management and agriculture) in different administrative levels (EU-wide, national, regional, local, owner of property). Among the many objectives of an enlarged WHS is the intention to optimise all available resources.

A new spatial planning approach in connection with the strategic environmental impact assessment could improve the effectiveness of cultural heritage protection policy (VAN LEUSEN & KAMERMANS

2005). A close cross-sector collaboration with agriculture, forestry, spatial planning and tourism will not only create a more efficient management, but also improve the awareness for the cultural heritage. The collaboration and reconciliation of the big museums with the many small local museums could provide new information with modern presentation means not only for the local population but also for the tourists (KEMKES 2001; KEMKES 2007). The integration of the monuments in already existing tourism infrastructure and cultural routes could be better achieved by a transnational co-operation between museums and municipalities.

The Danube Limes

In most countries in the centre of Europe, the frontier followed natural boundaries like rivers such as the Rhine and the Danube. In contrast to artificial barriers such as the Upper-German Raetian Limes, which have undergone several changes in advancing lines, the river frontiers of the Roman empire in Europe established by the first century AD remained rather static. There are few exceptions to this, mainly on the Balkan, where the emperor Trajan crossed the Danube around 101/102 AD, conquered Dacia in modern Romania and established a new province, which lasted till 282 AD. As a consequence the military installations along the river frontiers in Europe were occupied over a period of 400 years mostly from the reign of Augustus to the final years of the fourth, and on the Lower Danube even to the fifth and sixth century. In the late Roman period, those frontier defences were modernized and turned into strongly fortified military bases. The remains, which in many cases survived astonishingly well to the present day, in- and outside of settlements and in the open countryside, are the most distinctive and still visible witnesses of the European river frontiers. The consequences of this situation are extremely complex military sites, in chronological as well as archaeological respect.

A most distinctive feature of river frontiers of course is the river itself. But over the last 2000 years the river beds often changed for long lengths. Because of these changes and floods many sites on the lower grounds were destroyed by the water. In the 19th century many rivers underwent certain regulatory measures, which did not help to preserve the monuments. But quite a lot of them have been detected and investigated through those activities. An even larger threat are the water power stations with their dams and reservoirs. When the power stations were built in Serbia during the 80ies of the last century, many parts of the Roman frontier, e.g. forts, fortlets, watch-towers and the road through the Iron Gate were flooded and are not visible any longer. A distinctive feature of river frontiers are bridgeheads. We do know about very few bridgehead fortifications in the earlier Roman frontier system, such as the fort of Iža in Slovakia and the fort of Dierna in Serbia. Both of them were constructed when Roman politics necessitated the army to advance into Barbarian territory. We do not know of any permanent bridges which crossed the major river frontiers. The stone bridge, which spanned the Danube close to the forts of Pontes and Diana in Serbia, was built after Trajan's decision to turn the territory north of the Danube into the Roman province of Dacia. In Late Roman times more bridgeheads such as Contra Aquincum (Budapest) in Hungary were established to control, and more

so to protect, the crossing points and the traffic on the river. These installations were heavily fortified and several of them survived quite well on the left side of the Danube in Hungary.

Closely related to the establishment of river frontiers is also the development of the infrastructure. The Limes road linked the individual military installations and other ancillary features. Quite often along a natural boundary, the Limes road runs well behind the course of the river, dictated by the terrain. Watch-towers and fortlets and sometimes also forts are connected to the supra-regional Limes road with smaller roads. Often the Limes road is not so easy to be identified in woods, heavily agricultural or densely populated areas. Although similar patterns can be recognized there is still a lot of research work to do.

The nature of river frontiers also promoted the development of urbanisation particularly in the very centre of Europe. This is a major problem, when it comes to record and protect the monuments. Whereas only 8% of the Upper German-Raetian Limes WHS lies in settled areas (and this is similar to the percentage recorded on Hadrian's Wall or the Antonine Wall), many segments of the river lines are situated in intensively used (urban) areas. Since the end of the Roman occupation many great fortresses have become the bases of medieval and modern cities such as Regensburg in Germany, Vienna in Austria, Budapest in Hungary and Belgrade in Serbia. Other forts and fortlets are at the very core of later settlements: for example Passau in Germany, Traismauer, Mautern, Tulln, Zeiselmauer and Klosterneuburg in Austria, Rusovce in Slovakia, Győr and Solva in Hungary, Batina and Ilok in Croatia, Aquae and Ratiaria in Serbia or Ruse in Bulgaria.

Excavations of Roman remains are often undertaken in advance of building projects to extend the city suburbs or redevelop old inner cities. Many parts have already been destroyed and are lost for research. To protect and preserve those sites is equally problematic. A solution for the future lays in better prevention activities, such as the establishment of predictive modelling (VAN LEUSEN & KAMERMANS 2005). There is a great chance for the large Roman river frontiers to survive inside a potential and unifying 'Frontiers of the Roman Empire WHS'. Common standards to the definition, recording and protection would support the individual efforts. Appropriate legal protection and management arrangement are necessary to be installed and harmonized. If the sites along river frontiers are reduced to individual sections, the whole system loses authenticity and breaks up the unique feature of the monument: the continuous frontier. According to the experiences of the former WHS applications this fragmentation could easily lead to differing standards of monument preservation and further on to less well-protected areas suffering long-term damage. The aim, therefore, should be to have all the surviving remains of the ancient frontier installations accorded World Heritage status, if possible.

The approximate 2200 km long section of the Danube Limes from Eining in Bavaria to the river delta in Romania runs through eight modern countries: Germany (Bavaria), Austria, Slovakia, Hungary, Croatia, Serbia, Bulgaria and Romania. It formed the northern borderline of the Roman empire from

the time of the emperor Augustus to the 6th century AD. It was one of the most important frontier sections of the Roman empire which is proved by the strong military power concentrated along the line. There are hundreds of Roman military installations along the Danube in various states of survival. But there are still sites on this borderline where the exact location and size of the Limes monuments is not known and/or recorded.

A first demarcation line along the Danube was set up in the first half of the first century AD. Several legionary bases were established during the next two centuries in Regensburg (D); Enns, Vienna and Carnuntum (A); Komárno and Budapest (H); Belgrade and Viminacium (YU); in Gigen, Novae and Silistra (BG). More than 200 auxiliary forts, temporary camps, several late Roman fortresses and bridgeheads and hundreds of watch-towers were found on the territories of the 8 countries. Along the frontierline the forts are 10 to 30 km apart. The density of watch-towers varies according to the topographical conditions in which they lay. The watch- and signal-towers recorded in Hungary for example – particularly during the later Roman period – were built 1 to 2 km apart from each other. In most cases additional physical earthworks or barriers were unnecessary, as it was provided by the river itself. Altogether they form extremely significant reserve areas for archaeological research.

Physical changes over time can also be noted. The section of the Limes between Viminacium and Belene in the west of Novae lost its military purpose as a border defence after the establishment of the Dacian provinces in AD 106. When the Roman army withdrew from the Dacian provinces north of the Danube in 270/75, the fortifications on the right bank of the river Danube were restructured. The great building programmes of the fourth century may be seen in all countries, and even later modifications survive on the lower Danube.

The Roman fleet played an important role in the Limes system. Rivers were important shipping routes not only for the transport of heavy building materials but also because of the supply of the troops stationed in the various sections of the border. There were shipyards for example during the late Roman period in Ratiaria (Arčar), and the existence of a harbour is very likely at Sexaginta Prista (Ruse). Harbour installations can also be expected at many other places along the banks of the Danube. In most cases they have been destroyed due to the flooding of the Danube through the course of time.

After the Second World War the archaeological research greatly increased and some excavations even involved international cooperation for example in Arčar (Ratiaria) with Italy, in Svištov (Novae) with Poland and in Krivina (Iatrus) with Germany. Many have been investigated already, while aerial photography and geophysical prospection are providing new examples every year.

Many Roman military sites on the Middle Danube Limes lay in intensively used areas. Much has been destroyed or built over already, and is now only accessible through excavation. Excavations in urban

centres and beneath other buildings often reveal Roman features and artefacts thereby demonstrating the archaeological potential of such areas. Other sites are under threat by intensively used agricultural land. They are ploughed flat and are only visible through the media of aerial photography

or geophysical research form. On the Lower Danube the Limes monuments are more often embedded in the surrounding landscape. Sites like Viminacium, Diana (YU), Gigen, Novae, Iatrus or Dinogetia (Fig. 3) lay in the open countryside and are still striking landscape elements.



Fig. 3 – A bird's eye view on the late antique fort at Dinogetia on the Lower Danube (RO) (Photo: M. Zahariade)

There is an astonishing high number of visible monuments. Some monuments, such as the gates and towers along the Austrian stretch of the frontier still stand up to the second storey and parts of them are still in use. Other large sites such as Regensburg (D), Carnuntum (A), Aquincum (Budapest, H), Viminacium (YU) or Novae (BG), revealed by excavation, demonstrate the importance of the Roman history, which often lay at the core of the cities development. Remains of the Roman Limes monuments along the Danube such as forts and watch-towers in Hungary survived under different condition. Some are well preserved while others are under constant threat.

The WHS-nomination process provides the major opportunity to identify and protect this huge archaeological potential especially in the east-European countries. Being new members of the European Union by May 1st 2004, large economical and strategical developments in land utilization plans can be expected. Generally this goes hand in hand with a major threat to our cultural heritage. Therefore on a long-term basis it is necessary to establish a full inventory of all monuments.

The Danube Limes in Austria

The section of the Austrian part of the Danube Limes is about 380 km long and was the northern borderline of the province Noricum and the western part of Pannonia. The settings of the Roman army might have been influenced by the landscape as a geographical feature as well as by the wish to control and exploit resources and to expand the trade. But how did the Danube look like in ancient times? The landscape the Roman army had to face was dominated both by narrow gorges like the “Schlögenger Schlinge” or the “Wachau” and by wide plains like the “Tullner Feld” in Noricum. The Austrian Limes ends in the Pannonian plains close to Carnuntum. There were several prehistoric paths running parallel to the Amber Road coming from the northern Barbaricum and leading to the Mediterranean Sea. Most of the Roman military installations are situated close to the places, where these paths crossed the Danube. When these fortifications were built in the 1st century AD the river became a demarcation line.

The legionary fortresses of Lauriacum/Enns, Albing, Vindobona/Wien and Carnuntum are well known and the knowledge about their history is a result of the intense research for nearly 150 years. A remarkable number of forts, fortlets and watch-towers were installed along the line of the Danube. Most of them are now situated in urban environment or build over by medieval structures. There are well preserved late Roman monuments, e. g. towers and walls visible in the towns of Mautern, Traismauer (Fig. 4), Tulln and Zeiselmauer. Beside the military installations there are ancillary features: large civil settlements, cemeteries with hundreds of graves, remains of military roads, harbour installations and bridge heads. There are approximately 100 archaeological sites along the Limes in Austria with a military history, which lasted nearly 500 years.



Fig. 4 – The late Roman gate and fort tower at Traismauer (Photo: E. Kuttner; S. Jilek)

During the FRE project (funded by the Culture 2000 programme) a Limes database was created, which gives detailed information about more than 750 archaeological activities – surveys, excavations, documentations and preservations. The information covers a time span of 150 years of research along the Austrian frontier as well as any new investigations made so far in this field. Together they all form the basis for a general description of the sites and their history. Data like the extension of the archaeological area, geo-references, chronology and literature sources were added.

This database is also at the bottom of a new website (www.limes-oesterreich.at), which was created by Kurt Schaller and his colleagues from the Cultural Heritage Computing Institute of the University of Salzburg. The main aim behind this activity was to create an information tool for archaeologists and historians as well as a wider public (JILEK, KUTTNER & SCHALLER 2008). As an open resource the website enlarges the knowledge about the Roman frontier and its monuments. It is also offering a glossary, maps and more useful information for visiting the sites. There are short texts about communities along the Danube, called “Limesgemeinden” and information about the museums with Roman finds.

All sites were visited by the team during the project. The individual monuments were documented by photographs and films to get information about the status and the condition of the remains. Despite the rich body of information that will be revealed as a result of intensive research work we have to face the fact that many of the sites nowadays are destroyed. Especially for the last fifteen years the spatial extent of the modern urban settlement in the communities along the Limes was dramatically enlarged. New suburban centres, supermarkets, roads, infrastructure measurements – all of them economically necessary – endangered the ancient structures. Many rescue excavation were done by the Bundesdenkmalamt – mostly within the limitation of a brief time span. Documentation had the priority before the preservation of sites. At the same time more sites are in danger by the agricultural use, where the late Roman layers disappear rapidly. The next step after documentation is the question of the evaluation of the sites.

At the present state the prime task is to inform the public and to increase the sensibility for the military monuments along the Austrian Limes as an important cultural heritage. The landscape is well known and exploited for tourism. Hikers and bikers use the paths beside the riverside and also ship cruises, at a national as well as an international level, are very popular. The next step is the better integration of the Roman monuments in these tourism activities. This could be reached by a successful promotion of the cultural monuments in the relevant media together with more sign posts for monuments and the integration of the local museums. The appearance of this outstanding cultural heritage might not change but our valuation of the Roman Limes can be raised.

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