

# Draft Statement OUV & Comparative Analysis World Heritage Nomination Lower German Limes

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## Table of Contents

Dutch Summary.....	2
1. Statement OUV.....	3
A Very Brief Synthesis.....	3
The Outstanding Universal Value.....	4
Integrity and Authenticity.....	5
2. Comparative Analysis.....	9
General Description.....	9
Key Features and Values.....	13
Comparison and Discussion.....	17
3. Boundaries and Selection Criteria.....	21
Selection criteria for properties to be included as component parts in the nomination .....	21
Logical principles for the buffer zone.....	24
Appendix I.....	26

## Dutch Summary

Bij de Werelderfgoednominatie Romeinse Limes dient inzichtelijk gemaakt te worden wat de uitzonderlijke universele waarde van de Limes is, hoe het staat met de authenticiteit en integriteit van het voorgedragen erfgoed en hoe de Limes zich verhoudt tot vergelijkbaar erfgoed. Hiertoe is dit document opgesteld.

### Uitzonderlijke Universele Waarde (OUV) en Comparatieve Analyse

De nominatie heeft betrekking op de Nedergermaanse Limes (Lower German Limes, LGL). Deze loopt van Katwijk aan Zee in Nederland tot Remagen in Duitsland. De OUV van de Romeinse Limes laat zich als volgt samenvatten:

De Romeinse Limes in Nederland beslaat de hele periode van het Romeinse Keizerrijk. Alle fasen zijn vertegenwoordigd: van de verovering tot het uiteenvallen van het Rijk. Hierin is het Nederlandse deel van de Romeinse Limes bijzonder; nergens anders is de Limes zo lang onafgebroken in gebruik geweest. De Romeinse Limes in Nederland omvat daarnaast alle onderdelen van de Romeinse militaire aanwezigheid. Niet alleen legioensbases, castella, wachttorens, vlootbases en infrastructuur als wegen en vaarwegen zijn aanwezig, maar zelfs restanten van watermanagement door landschapsaanpassing.

Een derde eigenschap die de Romeinse Limes in Nederland bijzonder maakt, is dat de houtbouwfase uitzonderlijk goed bewaard is gebleven. De uitstekende conserveringseigenschappen van de bodem hebben schepen, kades, houten beschoeiingen en overig organisch materiaal bijna tweeduizend jaar lang behouden en dit leidt tot unieke vondsten. Zulke kwetsbare resten zijn in overige delen van de Limes allang vergaan, daar is alleen nog steenbouw over.

Ten aanzien van de criteria authenticiteit en integriteit wordt opgemerkt dat de Romeinse Limes van oorsprong nooit een gesloten lijn is geweest, maar een geheel van complexen dat effectief en efficiënt op de meest strategische locaties is aangelegd. Dit houdt in dat de nominatie zelf ook geen aaneengesloten zone hoeft te omvatten, maar ruimte biedt om een selectie te maken in de voor te dragen terrein en daar bufferzones omheen te definiëren vanuit zowel archeologisch-inhoudelijk oogpunt als vanuit het oogpunt van ruimtelijke ordening en mogelijke conservering.

### Aansluiting bij bestaand Werelderfgoed en proces

De nominatie van de Nedergermaanse Limes is een uitbreiding van het reeds bestaand Werelderfgoed *Frontiers of the Roman Empire*. Het gaat daarmee om een 'transnationale seriële nominatie. Op dit moment is een aantal terreinen dat mogelijk voorgedragen zou kunnen worden, op hoofdlijnen geselecteerd. Aan de hand van de OUV zal bekeken worden welke terreinen daadwerkelijk in aanmerking komen en welk onderzoek daarvoor nog nodig is. Deze terreinen worden inhoudelijk, ambtelijk en bestuurlijk op diverse niveaus nationaal besproken en op inhoudelijke gronden met experts uit binnen- en buitenland. Zie hiervoor Appendix I.

## 1. STATEMENT OUV

### 1. A Very Brief Synthesis

The part of the Roman Frontier known as the Lower German Limes (*Niedergermanische Limes*) ran for 380 km from Katwijk aan Zee at the mouth of the Rhine in the Netherlands to Remagen in Germany. It was established gradually, following the Caesarian and Augustan campaigns of conquest that led to its initial infrastructure. Some of the camps that were situated south of the river Rhine as part of the military support infrastructure for the conquest, subsequently became the springboard for the construction of additional forts and fortlets along the left levee of the Rhine from 40 CE onwards.

These were supplemented with watchtowers near river bends, a clear indication that the system was intended to create a line to control movement and transport both across and along the river. This system was more or less completed by the 2<sup>nd</sup> century CE, the main period of the frontier at the height of the empire, and remained in use in later years.



This part of the Limes was not a military bulwark in the sense of a closed and interconnected system of walls, towers and forts along a more or less ‘straight’ line. Instead, it consisted of more loosely connected forts on the left bank of the Rhine, like a necklace consisting of pearls on a string, with legionary fortresses in between or in the immediate hinterland. Many military installations were strategically placed in relation to the junctions of major tributaries upstream and branch channels downstream, to control movement over water as well as over land for military as well as economic purposes.

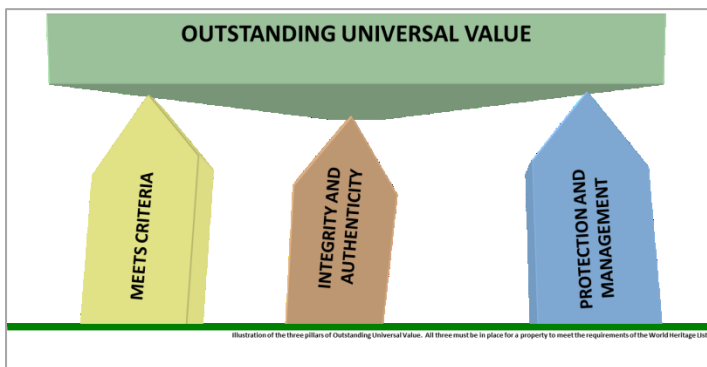
Following a temporary breakdown in the last decades of the 3<sup>rd</sup> century, this system remained in use during the 4<sup>th</sup> and the first quarter of the 5<sup>th</sup> century as the forward part of a defence system that in this period relied on an infrastructure reaching deep into the hinterland over a wide area in Northern Gaul. Some new forts were constructed and some existing facilities were partially or completely refurbished

while others were abandoned. Downstream, especially in the wetlands of the western part of the Rhine delta where habitation conditions had deteriorated significantly, the system may have served mostly to protect the trade route over the Rhine to the province Britannia.

This infrastructure continued to influence the development of the area long after the demise of the Roman Empire and some “pearls on the necklace” became important Merovingian centres and later the basis for the ecclesiastical and administrative infrastructure of the Carolingian empire.

## 2. The Outstanding Universal Value

In order to be admitted as World Heritage properties, nominations to the list must demonstrate the presence of Outstanding Universal Value as well as meet the conditions of integrity and authenticity. In addition, they must have an adequate protection and management system in place. This is reflected in the scheme.



The World Heritage Committee considers a property as having Outstanding Universal Value (OUV) if the property meets one or more of ten predefined criteria: six for cultural properties, and four for natural properties.

Three of these six criteria have been found relevant by the Committee for the parts of the “Frontiers of the Roman Empire World Heritage Site” (FRE-WHS) that have been nominated and inscribed so far. The criteria that have been found relevant are criteria II, III and IV. This means that for new additions such as the Lower Rhine Limes, these same criteria are appropriate. They should be defined in such a way that they illustrate clearly what this part of the frontier adds to the FRE-WHS as a whole.

Therefore, the OUV of this part of the Frontier is expressed as follows:

### Criterion ii

*Definition: to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design.*

The Lower German Limes formed part of the frontier throughout the entire existence of the Roman Empire and as such reflects the development of Roman military and related civilian facilities and infrastructure from its earliest beginnings in the last decades BC until the mid-5<sup>th</sup> century (the building programmes of the Roman emperors from Augustus to Valentinian III). It is also illustrative of the development of all successive phases of its military strategy from a period of

conquest through a phase of stabilization and forward defence and ultimately to a system of defence-in-depth. In addition, its built legacy served as a backbone that shaped early Medieval civil and religious infrastructure.

#### Criterion iii

*Definition: To bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared.*

The Lower German Limes is the only area that formed part of the frontier throughout the entire existence of the Roman Empire, with an unbroken occupation. It is at the same time unique because of the presence of all elements that the military occupation could encompass, from legions in early and late forms to regular as well as irregular auxiliaries in addition to the fleet. It is also a prime example of a river frontier with exceptional (underground) preservation of wooden riverine infrastructure such as quays and ships.

#### Criterion iv

*Definition: to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.*

As a river frontier which – in the delta area as well as the lower Rhine terrace upstream – has always been a wetland, the Lower Rhine limes exhibits unique testimonies of water management strategies and constructions, in addition to holding an extremely varied dataset encompassing organic materials and artefacts bearing unique information on frontier life and on vanished traditions such as notably that of river boat building.

#### **In Short:**

The Lower German Frontier was in use during the entire period of existence of the Roman imperial frontier, it had all sorts of troops and all the different types of fortifications and it is an outstanding example of wetland and water management in antiquity.

### **3. Integrity and Authenticity**

#### Integrity

*Definition: Integrity is a measure of the wholeness and intactness of the cultural heritage and its attributes. Examining the conditions of integrity, therefore requires assessing the extent to which the property:*

- a) includes all elements necessary to express its Outstanding Universal Value;*
- b) is of adequate size to ensure the complete representation of the features and processes which convey the property's significance;*
- c) suffers from adverse effects of development and/or neglect)*

In contrast to several other parts of the Limes, the Lower German Limes is a river frontier that was never a closed line. The system was designed much as a necklace with strategically placed “pearls on a string” and irregularly sized stretches of river in between. There will have been a path, succeeded by a properly built road in between, but the river was itself part of the system. Of course the design was such that the system ideally must have been closed in the sense that all movement along, but also across the Rhine, could be controlled.

Nevertheless, it was never a single structure but a system with cleverly arranged, individual parts. The same approach has also been chosen for the inclusion of parts in the World Heritage Site and no attempt has been made to physically connect the constituent parts because they were never connected as one structure in the past either. Moreover, as the Rhine is a living river, ending in a wide delta and, until recently, still meandering, certain sections of the Roman Rhine have obviously not survived to the present day. Indeed, some parts disappeared - or rather: changed course - already during the Roman Period.

Nevertheless, geological and archaeological research has revealed that the Roman period river system is largely extant, along with most of the infrastructure on the south-western levee that is preserved below ground. Due to this location the preserved remains also include very high quality organic remains much of which have not been excavated. This provides for a very high level of archaeological integrity, with finds and features preserved in their original context in the soil matrix.

The remarkable standard of survival is despite the fact that sites when excavated regularly show evidence of original layers having been washed out and redeposited by the river, both during and after the existence of the frontier. This is considered to be a normal part of any riverine site. It is a matter for discussion in an expert meeting if completely washed out sites should be considered. An example in case might be *Carvium*/Bijlandsche Waard, where large masses of stone indicate the presence of an eroded military establishment at the famous moles, the dam built by Drusus that Tacitus writes about. The remains are still present at their original location, but redeposited at a lower level, and they constitute a well preserved and authentic deposit containing extremely valuable historical material such as the gravestone dredged up in 1938 belonging to the soldier Marcus Mallius from Genoa, who according to his will, *Carvio ad molem sepultus est*, ‘has been buried in Carvium, at the mole’.

The Lower German Limes does not have many standing remains preserved above ground. Some remains have been brought to light during archaeological excavations or other works, but wooden structures have only survived in the soil or under water level and in general, visible stone-built elements have been torn down in the Middle Ages and later to re-use the stone in a region that was for the most part a stoneless landscape. These fragments can be traced in many early- and late-Medieval structures, adding another layer to the history of the Lower Rhine region. Architectural elements of stone as well as foundations have been preserved below ground, imparting additional significance to the high scientific value of the organic remains. These form archaeological reserve areas all along the length of the river.



The World Heritage property is constituted of a selection of these areas along the Rhine, as well as some elements of supporting infrastructure in the immediate hinterland. In that way, the component parts represent the pearls on a necklace that accurately reflects the structure of the past.

Elements from the hinterland comprise *only* those elements that can be directly and exclusively related to the military infrastructure of the second century that embodies the concept of forward defence. Military works from the later period defence-in-depth system in the hinterland have been excluded. No elements from beyond the Limes have been included, although a case could be made for those structures that belong to the second century, the period selected to define the frontiers of the Roman Empire as a whole. It would thus not be appropriate to include military installations from an earlier time period (e.g. Velsen or Haltern and the other Lippe forts), but it would be possible and in line with the nomination to include military structures from the forward defence system in the second century, such as marching camps (e.g. Ermelo). This remains to be discussed in an expert meeting.

Particular areas have been included in the nomination for the contribution that they make to the specific criteria for OUV in this part of the Roman Limes as outlined above. Care has been taken to include the full variety of elements that is so typical for this part of the Limes, both in a chronological sense as in covering the full range of variability. In that way, the wholeness of the property is adequately represented and its intactness is further supported by the fact that only sites with substantial archaeological integrity have been selected.

The buffer zones around the proposed constituent parts need to be adapted to local circumstances and buffer zones can be horizontal as well as vertical. In situations where individual components are preserved as elements of the landscape, buffer zones normally serve to control visible impacts of development. However, in situations where large scale organic deposits and materials are present or suspected below the surface, the buffers serve to maintain the physical integrity by controlling the groundwater table, as well as any urban development above the Roman remains. Buffer zones may also be extended over areas where archaeological substance in the ground is expected on the basis of scientific considerations, but for which there is as yet no firm evidence.

In short:

Because the Lower German Limes was never a closed line, the nomination does not need to be a closed line either, while the integrity can still be shown to be excellent. This provides considerable strategic freedom to decide which parts to be included in the nomination and determining the buffer zones on the basis of not only preserved archaeological remains but also feasibility from a spatial planning perspective and conservation options.

### Authenticity

*Definition: Depending on the type of cultural heritage, and its cultural context, properties may be understood to meet the conditions of authenticity if their cultural*

*values (as recognized in the nomination criteria proposed) are truthfully and credibly expressed through a variety of attributes including:*

- *form and design;*
- *materials and substance;*
- *use and function;*
- *traditions, techniques and management systems;*
- *location and setting;*
- *language, and other forms of intangible heritage;*
- *spirit and feeling; and*
- *other internal and external factors.*

The Lower German Limes is an archaeological property, and its location and setting are fully authentic. Virtually all of the component parts that have been included in the nomination are underground and remain unexcavated. They are the original remains and as such not only exhibit a high degree of integrity but also complete authenticity. A few parts have been excavated and have then been properly conserved and presented. All these elements retain their authenticity.

Because the Lower German Limes is special also in that its authentic remains are almost all below ground and hence invisible, their value needs some form of translation in order to be understandable for the general public. This need has led to some reconstructions but also to a number of innovative projects to convey these values. Several sites are presented symbolically by expressing their boundaries on the ground surface in some way, while protecting their authenticity as well as the setting and integrity of the surroundings. Such symbolic representations are well suited to create a minimum level of public experience of the Limes without resorting to reconstruction in its classical form.

The authenticity of the nominated property is ascertained in that it is truthfully and credibly expressed through incorporation of the full variety of Roman military and related civilian facilities. In form and design as well as function all elements from the chronological stages of military deployment are represented at their original location. In many areas, organic remains are demonstrably or plausibly present, so that here too the authenticity is credibly expressed in materials and substance.

In short:

The archaeological remains are fully authentic and they are preserved either undisturbed or well conserved. The full variety of features from the military infrastructure is represented.

## 2. COMPARATIVE ANALYSIS

### 1. General Description

In Roman times, the Lower German Limes (LGL) marked and defended the outer boundary of the province of Lower Germany (Germania Inferior), physically defined by the river Rhine. From the late 1st century, this frontier was held by a cordon of c. 30 major military installations sitting of the left bank between Katwijk and Remagen. The forts were fairly evenly dispersed along a 380 km stretch of river – at an interval of 10 km on average, making this one of the more densely held frontiers of the Roman world. A little upstream from Remagen, the provincial boundary between Lower and Upper Germany was formed by a little brook named the Vinxtbach harking back to the Latin *finis* for 'border'. At this point, the imperial frontier crossed the river Rhine to continue as an artificial barrier mostly right down to the Danube – the Upper German-Raetian Limes, protected as part of the Frontiers of the Roman Empire WHS since 2005.

#### Physical setting

In terms of natural geography, the Lower German frontier can be roughly divided in three compartments. Not surprisingly, these coincide with the administrative boundaries between Rheinland-Palatinate, Nordrhein-Westfalen and the Netherlands – the partners in the proposed extension of the FRE WHS. But the subdivision would have been very real and relevant for the Romans as well. Lower Germany was a geographical theatre in its own right, being effectively separated from Upper Germany by the Rheinisches Schiefergebirge. Here, the 'Middle' Rhine is mostly confined in a steep-sided valley, which made river traffic difficult in pre-modern times. The first 10 km stretch of the LGL downstream Remagen really belongs to this landscape. Then, at Bonn, the Lower Rhine plain (Niederrheinebene) of Nordrhein-Westfalen opens up. Here the Rhine meandered more freely migrating within its band of holocene sediments, about 3 km wide, sometimes eroding the edges of the glacial Lower Terrace (Niederterrasse). This terrace was normally flood-free, and with few exceptions the Romans planned their military installations at the edge thereof, preferably at points where a river bend touched it. Just past the German-Dutch border, the river delta is announced by the bifurcation of the Rhine and Waal. Here a more marginal landscape of sandy, elevated channel-belt and levee deposits (Dutch: *stroomruggen*) takes over, largely determining where habitation and cultivation was possible – and where not. For the Dutch sector, there is a relevant further subdivision between the Nederrrijn, which has remained an active river since the Roman period, and the Kromme Rijn and (west of Utrecht) Oude Rijn that have largely silted up since the 3rd century. This subdivision neatly coincides with the provinces of Guelders on the one hand, and Utrecht and South-Holland on the other.

The river Rhine, even the residual gully of the Kromme and Oude Rijn, is a majestic feature of the historic environment. However, it is important to realize that the Roman riverscape would have looked incomparably different from our experience. The 19th- and 20th-century campaigns of river regularization have

completely changed its aspect. Recent research in the Dutch river delta as well as Nordrhein-Westfalen has shown that in Roman times the river plain would have been a complex, constantly rejuvenating system of main beds, older channels and cut-off oxbows slowly silting up, providing shelter and harbourage at many points.

Of the stronger terrain features, the glacial moraines in the Xanten, Kalkar, Kleve and Nijmegen areas deserve mention, as they have demonstrably influenced the positioning of military installations from the very first stage (c. 19 BC-AD 14). Further south, the anatomy of the Mittelrheintal clearly determined the planning of installations like the fort at Remagen which was placed at a marked 'bottle-neck' position.

### Historical and archaeological resources

One of the special aspects of Lower Germany is the very dense coverage of its history, geography and peoples by Roman geographers and historians. This holds particularly true for the formative stages of the province and its frontier. This is in large part explained by the involvement of prominent members of the Augustan dynasty, like Drusus, Tiberius and Germanicus, in the attempted conquest of Germany. More coincidentally, the historian Tacitus had stayed in Belgian Gaul and the Rhine districts when his father was head of financial administration for these provinces. This explains his intimate knowledge of the tribes and histories of the area, culminating in his famous account of the Batavian revolt of 69. Plinius, writer of the Natural History, had served as a cavalry officer at Xanten (a piece of horse gear inscribed with his name was found there!) and taken part in a campaign to the Frisian coast in 47. Later prominent visitors include Trajan who received the news of his election as heir presumptive to the purple while residing in Cologne as governor of Lower Germany. In 122, Hadrian – a former commander of the 1<sup>st</sup> Legion in Bonn – passed through the province on his way to Britain, where he was to inspect the construction of his famous Wall in Britain. On this trip, incidentally, Hadrian was accompanied by his secretary Suetonius, the famous biographer.

A different type of written evidence is provided by inscriptions, graffiti and stamps. Some of these, like military brick-stamps and bronze diplomas issued at honourable discharge, belong to the regular stock of Roman provincial archaeology, but they are essential for reconstructing the military occupation of the frontier installations. While Lower Germany is well provided with this material, its collection of early Roman military tombstones, notably from the Bonn-Nijmegen sector (the so-called Rheinische grabstelen), is something special in northwest Europe, both in numbers and quality.

The LGL boasts an excellent research tradition and a staggering mass of excavation data mostly accumulated since the late 19th century. Some of the great advances in the study of Roman fortifications originated here, like the groundbreaking work of Lehner at Xanten, Koenen at Neuss, and Van Giffen at Valkenburg. This research tradition has resulted in a particularly strong infrastructure of universities (U) and museums (M) at Bonn (U/M), Cologne (U/M), Xanten (M), Nijmegen (U/M), Amsterdam (U) and Leiden (U/M). In more recent times, the Bodendenkmalpflege offices of the respective German Länder have taken up a crucial role in research

and documentation. In the Dutch situation, part of this has fallen to the responsibility of the State service (formerly ROB, now RCE) and the municipal services of a.o. Nijmegen, Utrecht, Leiden and The Hague. As both the German Rheinland and the central/western Netherlands continue to be very dynamic areas, the LGL has seen a surge in developer-funded archaeology in the last two decades, resulting in a spate of excavation reports. A final positive element is the long gestation of this nomination, which has been fermenting since the late 1990's. As a result, up-to-date inventories are now available, for Nordrhein-Westfalen through the project Bestandserhebung Niedergermanischer Limes (since 2005), for the Netherlands through ongoing digital documentation at the RCE.

### Historical outline

The first Roman military presence on the Rhine is now understood to date back to c. 19 BC, when a two-legion force was based on the Hunerberg at Nijmegen, soon to be followed by another major base at Neuss (c. 16 BC) and smaller installations at Bonn and Moers-Asberg. The precise purpose of this first disposition is still hotly debated. It certainly served to monitor the German tribes that had been recently allowed to settle on the left bank, most famously the Ubians and Batavians, as a measure to secure the northern periphery of Gaul. However, this tribal reshuffling appears to have elicited raids by others, like the Sugambri in 16 BC. Whether planned or not, the punitive campaigns that followed soon developed into a major military commitment in Germany. For a while (c. 7 BC-AD 9), it looked as though a great-German province roughly defined by the rivers Lippe and Lahn was underway, with its capital at Cologne. This perspective was shattered by the massacre of Varus with three of his legions in the Teutoburger forest in AD 9, and could not be reversed by the punitive campaigns of Germanicus (14-16).

Interestingly, when the Roman army redeployed on the left bank of the Rhine after AD 9, it largely reverted to the bases that had served the German campaigns. In Lower Germany, two legions were based at Xanten, opposite the Lippe, thus controlling the major tribes of the North German plain, while another army group settled at the old logistical base of Neuss. The first deployment on the Lower Rhine shows a marked preference for concentrating forces at a few main bases (Schwerpunktlager), with a number of minor installations providing local security, logistic support etc. With four legions and some 30 auxiliary units, totaling c. 40,000 soldiers, the Bonn-Nijmegen area retained the largest concentration of military forces in the Roman world up to the late 1st century.

Feeding this force posed an enormous challenge. It has been calculated that nearly 2,000 shiploads of grain a year were needed to meet its needs (not counting fodder for horses), while the dependent communities of servants, soldiers' families and traders go a long way to double that figure. If we add staple items like wine, olive oil, beer and meat it is clear what the river Rhine must have meant to the Romans: a vital transport corridor to link up with crucial areas for army supply ranging from southern Spain to Britain. Recent research has suggested that the earliest forts in the western Netherlands were planned and manned with the specific purpose of securing and supporting the supply traffic that passed through the Rhine delta.

There were other non-defensive purposes, like monitoring the integration process of recently resettled tribes on the left bank. The Roman army can be shown to have been involved in the development of the capitals of the administrative districts (civitates) of the Ubii, Cugerni, Batavi and (later on) the Cananefates, at Cologne, Xanten, Nijmegen and Voorburg, respectively. The internal peace-keeping role of the army is highlighted by Roman responses to the Gaulish rebellion of 21 and the Batavian revolt of 69, which brought a legion back to Nijmegen (c. 70-104). The involvement of the Tenth Legion in building the civic infrastructure of the Batavian civitas is a particularly fine example of the integrative role of the Roman army and frontiers.

By the early 70's, a dense chain of military installations had gradually clustered along the Lower Rhine for a number of reasons (warding off external aggression, internal security and development, supply logistics), resulting in the most strongly held line in the Roman world at that point. After the institution of the province of Lower Germany c. 85, a few changes were made in the positions and sizes of forts, and the last gaps plugged. The LGL thus was the first frontier of the Roman world to reach the fully-fledged form of the classical stage of *limites* as defined by the FRE WHS. Few changes occurred thereafter, except for the gradual rebuilding of most forts in stone in the course of this 'happiest age of mankind' (according to Gibbon). An interesting development is the coastal extension of the LGL south of the Rhine debouchment in the mid-2nd century, reflecting increasing concerns for seaborne raiding.

Fundamental changes occurred after the middle of the 3rd century, when the Roman provinces periodically suffered from a vicious circle of economic decline, external aggression and internal strife. In the late Roman period, exposed frontier provinces sometimes moved to the centre of politics, with their populations and armies supporting imperial candidates who seemed better placed to serve their interests, like the self-proclaimed emperor Postumus who ruled the northwestern Roman provinces from Cologne (260-268). The answer to this was a partition of imperial power, with junior-emperors often administering the northwest, usually from Trier, like Constantine the Great (306-312).

Constantine's presence here c. 310 marks the first of a series of reinstatements of the much-exposed Rhine in the course of the 4th century. Forts were rebuilt, sometimes reduced in size, but with much stronger defences, while completely new types of installations were also developed, like the bridge-head-fort at Köln-Deutz. The ability of self-contained defence appears to have gained in importance, while elements of a system of 'defence in depth' along the penetration axes to the interior seem to acknowledge the increased threat of Germanic incursions. While most of this investment is clearly concentrated on the old core sector upstream of Nijmegen, the area downstream reverted to its role of a transport corridor operating between England and the Continent, with Valkenburg and Brittenburg as the main hubs in the Rhine estuary.



## 2. Key features and values

### Chronological span

The key feature of the LGL clearly is its early origin and longevity. Ranging from c. 19 BC to about AD 440, when the capital of Cologne was taken and occupied by the Franks, the cordon of frontier installations in Lower Germany encapsulates the complete development of Roman frontier policies and dispositions as briefly outlined above. From all main stages, various types and sizes of installations are included in the proposed nomination. From the classic age of *limites*, in particular, the complete spectrum of frontier installations is represented, ranging from the stone-built watchtower at Neuss-Grimmlinghausen to the legionary fortresses at Bonn – a difference of scale of 1:30,000 in terms of internal space. Together the successive military dispositions reflect the changing Roman policies and attitudes towards the populations under their control on the fringes of their Empire. Contained in several of the proposed sites is evidence of events that shaped the frontier's history, like the destruction layers of the Batavian revolt found in most Lower Rhine forts and the victims of the first great Frankish incursions in 259/60 at Krefeld-Gellep.

Given its longevity, the LGL illustrates the complete evolution of Roman military architecture and infrastructure up to the late 4th century. In fact, Roman archaeologists are largely committed to Lower Germany (together with Augustan Germany) when it comes to studying the development of the 'classic' Roman forts, recognizable by their playing-card shape, their typical defenses, and regular internal plan. This is particularly true of early legionary bases at Nijmegen, Xanten, Neuss and Bonn, where the internal accommodation appears to reflect a highly stratified view of human society, with the officer's mansions mimicking the luxurious homes of the Mediterranean municipal elite. At the same time, the translation of received forms in local materials, like timber and wattle and daub, is evidence of the Romans' pragmatism and adaptability to different circumstances. Another aspect of this is the way Roman military planners used the local terrain to stage their monumental gestures, as expressed, for example, in the fort frontages and prominent structures erected in Cologne, Xanten and Nijmegen, sending their messages into Germany.

Perhaps under-estimated as a cultural resource is the late Roman period. Recent research at Krefeld has shed light on a complex 4th-century development, while Dormagen and Kalkar have provided evidence for the fort reductions known from elsewhere. This period also saw new foundations like Qualburg, and innovative designs like the small installation at Haus Bürgel or an apparent trapezoidal fort at Alpen-Drüpt strongly resembling Altrip in Upper Germany. Several forts, like Bonn and Utrecht, remained in use in the early medieval period, thus laying the foundations for the first stage of urbanisation in Lower Rhine area.

### Systemic integrity

Because of the multiple functions of the river Rhine as a defensive barrier, a formal boundary and a logistic feeder, most elements of the military system of Lower Germany were confined within this single narrow strip on the left bank of Rhine.

On most other Roman frontiers (and this goes for the early Roman disposition in the Danubian provinces as well), the legionary bases, the Empire's 'main strength' (Tacitus, Ann. IV.5), were kept in a rearward position, as a strategic reserve. This is why the artificial frontiers lack this important element, the nearest legionary fortress in England sitting 120 km south of Hadrian's Wall.

For the same reason, the Lower German river frontier has this additional element of the Roman fleet, the *Classis Germanica*, based at Cologne-Alteburg. Furthermore, because the governor of Lower Germany also acted as commander in chief of the forces in his province, he chose to reside close to the main legionary bases in the German Rhineland, i.e. at Cologne – adding his imposing palace (praetorium) to this proposed extension of the FRE WHS. The dossier thus uniquely includes the complete hierarchy and diversity of Roman military installations.

With the legions so well represented, the LGL illustrates the remarkable range of activities performed by the Roman army in provincial and frontiers settings. Some of these pertain to the army's own needs, logistic or training facilities. A spectacular recent discovery are the scatters of practice camps in the environs of Bonn and Xanten, the bases of Legio I Minervia and XXX Ulpia Victrix, illustrating the proverbial discipline of the Roman army. Interestingly, the first specimens have now also turned up at auxiliary forts, like Till-Steincheshof.

However, the Roman army is culturally relevant to us not just as a military institution but as a living community of peoples of diverse backgrounds. This is why the extensive extra-mural settlements of traders, artisans, shopkeepers and military families (called *canabae* and *vici* in the case of legionary fortresses and auxiliary forts, respectively) are an indispensable mirror element in the present nomination, as are the extensive cemeteries that guided these conurbations. Equally important for understanding the cultural exchange and syncretism in Roman frontier communities are the cult sites that attracted a specifically military following, like the sanctuary of Vagdavercustis at Kalkar.

A recent study of the Thirtieth legion based on inscriptions from all over Lower Germany and beyond, shows the sheer scale and diversity of its employment. Thus, detached personnel of the legions of Lower Germany can be seen at work at military brickworks at Dormagen, Xanten and Holdeurn, stone quarries like the Drachenfels, and the lime kilns of Iversheim. The fleet was deeply involved in this industrial-logistic complex, as illustrated e.g. by its role in supplying the stone material for the forum of the civil town at Xanten. The Lower German dossier singularly charts the role of the Roman army as a default development force, also of basic civil infrastructure, as is illustrated by the strong military element in the peripheral town of the Cananefatians at Voorburg.

#### A special aspect: river transport and water management

The LGL presents us with a special aspect of river frontiers: the interconnection between military infrastructure and security arrangements on the one hand, and logistics, river transport and water management on the other. The choice of sites for the forts in the western Netherlands suggests that the control of the local maze of waterways, notably the side-rivers that exposed the Rhine corridor to waterborne



raiding from the north, was a key consideration for Roman military planners. The provision of closely supervised harbourage at regular distances also clearly played a major role here.

With few exceptions, the forts in Lower Germany appear to have been provided with timber quays and strong revetments over hundreds of meters. In contrast to other FRE WHS stretches, well preserved wooden structures are a familiar feature for Dutch archaeologists digging at sites such as Vechten, De Meern, Woerden and Valkenburg. More recently, a similarly elongated riverfront has been documented at Moers-Asberg, while there is every reason to believe that things are no different at Krefeld-Gellep, Kalkar and Till-Steincheshof. Of a different order would be the artificial harbour basin suggested by remains of a stone mole in front of the legionary fortress at Bonn, and the harbour construction at Voorburg.

A similar stone mole, known from literary and epigraphic sources, was constructed at Herwen at the bifurcation point of the Waal and Nederrijn, in order to increase discharge via the latter branch. At the base of the Rhine delta, a canal was dug between the Rhine and Meuse estuaries in the early Roman period, the so-called fossa Corbulonis, 'in order to avoid the dangers of the sea' (Tacitus, Ann. XI.20.2). A second artificial canal is suspected south of the De Meern, connecting with the Hollandsche IJssel.

The importance of the Rhine as a trade axis is clearly indicated by the remarkable cache of votive offerings dredged up at Colijnsplaat in the Oosterschelde, on the route to Britain. The role of Trier and Cologne in this largely civil trade in wine, fish sauce, pottery etc. comes out clearly. Watchtowers placed at propitious points in river bends would have surveyed this traffic, while the arrangement found at a tower at Xanten-Lüttingen is suggestive of controlled use of the tow path that would have been continuously provided on the left bank.

#### A rare resource: the materialities of a river frontier

Being largely a lowland river, and feeding one of the largest troop concentrations in the Roman world, the Lower Rhine was the natural habitat of a specific type of transport vessel: the river barge. Some 18 of these, of a distinctly regional design (Prahme rheinischer Bauart), have been found, mostly accidentally, the majority of them in the harbour fronts of forts. Dozens of these must still await discovery in the river beds adjacent to forts, particularly in the western Netherlands where the fossilization of the river has prevented erosion of the ship remains. However, the same conditions probably apply to the oxbows and residuals channels on which several forts in Nordrhein-Westfalen are situated (e.g. Moers-Asberg, Kalkar, Till).

Apart from ships, the Lower Rhine area is also famous for the practice of votive offerings of prestigious items of military equipment in aquatic contexts, a regional tradition going back to the Bronze Age. Roman helmets, swords and horse gear have been dredged up at a number of places along the rivers Lower Germany, with marked concentrations as at Nijmegen, suggesting established cult sites. A less well-known aspect of the Roman military sites in the Lower Rhine area is that the same type of weapon depositions regularly occurs along their river frontage as is illustrated by finds of helmets and/or swords at, for instance Roomburg, Woerden,

De Meern and Vechten. Dozens, if not hundreds of such votive offerings are probably still to be found along the river frontages of all LGL forts.

For the same reason, the silted-up river-beds in front of the forts are veritable archaeological treasure chests in general – not because of individual spectacular finds but because of the masses of mundane material. These contexts literally functioned as the rubbish-dumps of the local garrisons and settlements, accumulating sewage and kitchen waste, broken vessels and other discarded items, as well as cuttings and offal of small industries, like butcheries, tanneries etc. The waterlogged conditions and clay sediments typical of residual river channels virtually guarantee the perfect preservation of perishable materials like leather, wood, seeds etc. These deposits are a unique source of information for the economy and material culture of the military settlements in the frontier zone and the extended communities that depended and fed upon them.

Furthermore, the lowland and wetland settings of most LGL sites mean that the soil conditions (mineralogical composition and position in relation to groundwater table) of ‘sealed’ archaeological contexts like wells, deep pits and ditches contain a wealth of environmental and nutritional information, like well-preserved pollen, seeds, pits and small animal and fish bones. A recent Dutch research project has demonstrated the potential of this material for reconstructing the natural environment of the forts as well as food procurement strategies of the Roman army.

There are two categories of perishable materials which the Roman army used in great quantities that deserve special mention: leather and wood. In normal circumstances, both decay within a matter of years or decades, leaving many Roman fort sites in Europe bereft of these materials. Along the LGL, in contrast, especially in the Dutch river delta, organic materials have been preserved in abundance. Due to the high ground water tables in the western Netherlands, it is common for military timber structures to have survived in the subsoil. Thus, the foundation posts of the defences, roads and internal buildings of the first installation at Alphen have allowed a year-by-year reconstruction of the building process of a Roman fort (c. AD 41-43). Similarly, extensive year-ring analysis of timber revetments of the Limes road in the western Netherlands has resulted in a detailed picture of successive construction and repair campaigns. Recent analysis of the ship finds from the Netherlands has proved the existence of local ship yards and identified sources of timber supply sometimes a 100 miles away. Leather, like wood, is an incomparable source of information about local industries, clothing and the composition of the population. Not surprisingly, some of the most important recent advances in environmental reconstruction as well as Roman military provisioning strategies have come from this area.

A paradoxically positive aspect of the townscapes that have developed in much of the Lower Rhine area is the protective cover provided by post-Roman construction layers. At places as different as Remagen, Bonn, Dormagen, Utrecht and Valkenburg post-Roman deposits sealed by occupation levels can be shown to have prevented these sites from being extensively damaged by ploughing, clay-digging, etc. At Bonn, a recent inventory has shown that c. 85 % of the former Roman fortress has been preserved between the foundations and cellars of modern building

– and most of this surprisingly well at that. Similarly, the fort at Utrecht, under the Medieval cathedral, has recently been confirmed as one of the best preserved forts of the LGL.

### **3. Comparison and discussion**

#### The LGL as a complement to existing parts of the FRE WHS

In assessing the particular contribution of the LGL to the transnational FRE WHS site, it is important to realise that the earlier nominations of Hadrian's Wall (1987), the Upper-German/Raetian Limes (2005) and the Antonine Wall (2008), all represent a specific stage and special variant of Roman frontiers: the 'artificial' barriers of the 2nd century. This means that there is a difference in chronological scope. While the Hadrian's Wall complex contains a few late 1st-century forts and remained in operation in the late Roman period, the German Limes essentially dates from the early 2nd century and was given up in 254 (Raetia) and 260 (Upper Germany). The Antonine Wall functioned for two decades at most (c. 142 – 158).

Perhaps more importantly, the artificial frontiers represent just one element, if a particularly manifest one, of the larger military disposition, the 'preclusive' security cordon watched by a continuous series of towers and backed up by auxiliary forts. The British and German parts of the FRE WHS do not comprise the legionary bases which figure so prominently in the proposed Lower German extension, nor the wider logistical infrastructure that supported the army in the frontier provinces. In the Lower German situation, all elements are superimposed on the left bank of the Rhine and represented in the nomination. The foregoing survey (§ 2.2) has highlighted various aspects of the Lower German army's involvement in mining, industry, logistics, building activity. In contrast to the British and German frontiers, the towns of the Lower German frontier districts were very much part of the same military cordon on the left bank. Although they are not normally included in this nomination (except for military-promoted Voorburg) urban communities, and therefore military-civilian interactions, are firmly part of the frontier landscape of the LGL.

There are also differences between the proposed Lower German nomination and that of the middle Danube. Here, the Roman military disposition was much slower to concentrate on the line of the river Danube. Until the late 1st century, most of legions and a good part of the auxiliary units were stationed in the interior of the provinces of Noricum, Pannonia and Dalmatia. As a consequence, the crucial formative stages (c. 15 BC-AD 85) are less completely covered in the Middle Danube nomination. If we compare the resources of the constituent and proposed parts of the FRE WHS, the narrative and future study of early Roman military architecture will largely focus on Lower Germany, while the Middle Danube is clearly the leading area when it comes to late Roman military architecture. So far, rather less evidence of the resources and aspects covered in § 2.3 and 2.4 has come to light in the middle Danube area. In these fields, the LGL, and the Dutch river area in particular, possesses an unrivalled potential.

The particular contribution of LGL, then, is that it encompasses the complete evolution, from the very earliest stage, of the Roman military disposition in the

widest sense, including the legions and their manifold activities, the fleet, the command structure, etc. Of the classic 2nd-century frontiers, the LGL had most of its hardware in place shortly after 70, making this one of the earliest linear arrangements in the Roman world with the potential performance of a 'prelusive' frontier. Of particular interest is the system's adaptation to a complex and dynamic natural environment, notably in the Rhine delta, and its symbiosis with the water infrastructure generally. This is reflected in specific elements like harbour installations and water works which figure prominently in the proposed nomination.

#### The LGL (and wider FRE WHS) in comparison to other fortified boundaries

Perhaps surprisingly, fortified boundaries are a much under-represented category on the WH list. According to the thematic framework of the 'Filling the Gaps' report (ICOMOS 2005), this category consists of the Great Wall in China (property nr. 438), the fortifications of Derbent (1070), and the Defense line of Amsterdam (759). The latter, however, is of a totally different nature. Like the New Dutch Waterline (Dutch tentative list) and the Ligne Maginot (France, 1928-1936), it served as a linear bulwark, designed to withstand attack in force by modern armies with heavy firepower. The Roman Limes, in contrast, was never meant as a line of static defense, with the Roman army entrenched behind a river or a physical barrier. By their organization, equipment, tactics and training, Roman legions and auxiliary units were specialists in mobile, offensive warfare. If 'defensive' in any meaningful way, Roman frontiers served as jumping-off points for interceptive pursuit or punitive reprisal, or, ideally, pre-emptive strikes far beyond the Limes.

There is a second crucial difference with most fortified boundaries in recent history in that *limites* were not understood to mark the extent of Roman rule – they weren't territorial boundaries in the modern sense. Rome always controlled a wide buffer of polities and tribes beyond the Limes through formal agreements of client-rule or 'friendship' backed up armed suasion, money and occasional punitive campaigns. In this game, the physical demonstration of Roman power as expressed in the forts and towers placed on the edge of Empire was a crucial element, their monumental stone facades showing Rome's mastery over terrain, natural resources and peoples alike.

An authentic aspect of the LGL and the Danube Limes (Tentative list of i.a. Austria) is that they represent a special variant of fortified boundaries, sc. the 'river frontier'. Throughout history, rivers have been used by empires to stake claims of hegemony – the very origin of the Rhine and Danube *limites* goes back to precisely such claims by Caesar and Augustus, respectively. However, as fortified boundaries river frontiers are scarcely represented in the human cultural record (and absent on the WH list). For all their attraction as markers of space, rivers really are poor separators of human communities, their valleys often functioning as zones of exchange rather than cultural divides. This is certainly true for the LGL, the tribal communities on both sides of the Rhine sharing much the same material culture and values originally.

In functional terms, the Limes provided a line of control to monitor cross-frontier movement and trade, and ward off small- and medium-scale security threats in the range of brigandage and raiding. The preclusion of raiding was important, as this was an endemic and potentially escalating element in the martial culture of the tribal societies that lived beyond Rome's frontiers. This aspect invites comparison with early medieval barrier systems like the Dannevirke (Schleswig-Holstein) and Offa's Dyke (Wales), or perhaps the medieval Landwehre that surrounded some of Germany's early polities. However, these earthworks are generally less elaborate and articulate, and therefore less informative, while there are also issues with their integrity and state of documentation. Perhaps more importantly, they are incomparable to the frontiers of the Roman Empire in that their extent was local and they divided essentially similar communities.

More directly comparable would be fortified boundaries that monitored the edge of other pre-modern empires that were exposed to nomadic infiltration or raiding. In the geo-cultural regions spanned by the former Roman Empire, the closest parallels are the barriers in the ancient Near and Middle East (e.g. Amurrit wall, Cappadocian Wall); the various barriers built in Central Asia between the 2nd century BC and the 6th AD, notably the Sassanid Wall; and the Anastasius Wall that protected the Byzantine Empire.

As a cultural monument and resource, the Frontiers of the Roman Empire are far more complex than the cited examples because of the sheer variety of physical and human geography negotiated, and the corresponding variety of installations, barrier elements and deployment patterns designed to meet specific challenges. The archaeological resources contained in this serial property are unsurpassed in their varied content and staggering mass, opening up endless possibilities for the comparative research of every thinkable aspect of life in and around the military frontier communities. This is complemented by a range of historical sources and documentary evidence that directly pertains to the conditions of life and service on the frontiers, such as discharge diplomata, countless inscriptions, and even parts of military archives as preserved in the Vindolanda tablets on Hadrian's Wall or papyrus records in arid regions.

Perhaps, the principal contribution of the Roman frontiers to the collective human experience resides in values signaled as under-represented in the existing WH list by the 'Gaps' report. On a practical note, the Roman frontiers represent an impressive series of 'creative responses' to natural and cultural challenges (terrain, building materials, food supply, local security issues, etc.). The 'utilization of natural resources' by the Roman military in a pragmatic and often sustainable fashion is a quality that keeps surprising even the most experienced student of Roman frontiers.

Roman frontiers are all about 'movement of peoples', another criterion underlined by the 'Gaps' report. What is important here is not so much the obvious regulatory function of limites, as the ongoing process of incorporation of indigenous communities through service in the Roman army. Through recruitment, occasional redeployments, trade and marriage, the imperial frontiers continuously circulated

and integrated people, material goods, cultural forms and spiritual ideas, to form that wonderfully syncretistic culture known as provincial Roman civilization.

Also among the under-represented qualities are monuments as ‘expressions of society’. One of the functions of Roman *limites* was to send a powerful message to the amalgam of provincial populations. Orators like Aelius Aristides likened the frontier works to a giant city wall, guaranteeing the security of the Empire’s citizens. In a wider sense, the frontiers of the Roman world have been seen as answering ‘a need to define the limits of a hybrid and transformational Roman identity in the particular context of territory outside imperial control that was occupied by ‘barbarians’’. The transcending cultural meaning of Roman *limites* perhaps ultimately resides in the frontier communities, military and civilian, developing and expressing their own identities and *couleur locale* in dialogue with ideals of civilized life summed up in the Roman term *humanitas*.

#### Notes:

For this Comparative analysis a desktop comparison has been made with a number of fortified boundaries and barriers across the world, with a special emphasis on Europe and the Near and Middle East. This included notably the ancient and early medieval barrier walls and fortified boundaries listed in Nunn (ed.) 2009, 25; the defensive circuits of Greek city states; the earthen barriers of the Anglo-Saxon and Viking worlds, like Offa’s Dyke and the *Dannevirke*; the Anastasian Wall of Byzantium; later medieval *Landwehre* in Germany.

Haynes 2013.

Hingley 2008.

Woolf 1998.



### 3. BOUNDARIES AND SELECTION CRITERIA

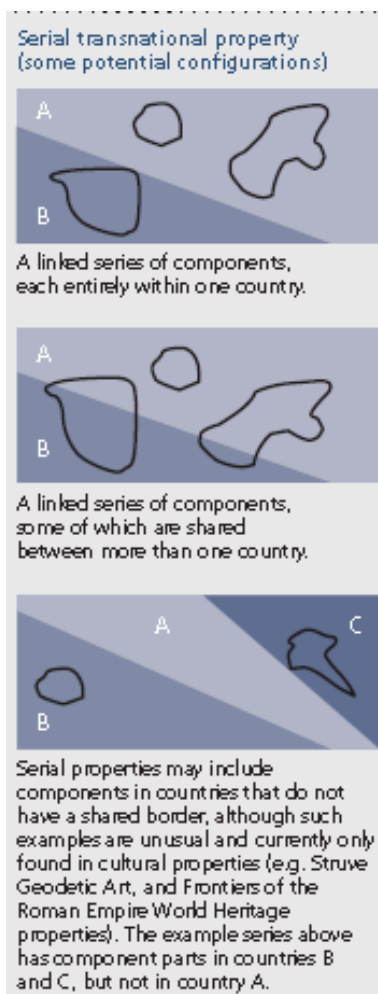
*Definition: For nominated properties, boundaries should be drawn to include all those areas and attributes which are a direct tangible expression of the outstanding universal value of the property, as well as those areas which in the light of future research possibilities offer potential to contribute to and enhance such understanding.*

The nomination of the Frontier of *Germania Inferior* (Lower Germany) is not one single property, but it is a *serial* nomination consisting of a number of spatially separated component parts in two countries, which makes it *transnational* as well. It is intended to become part of an even larger serial transnational property, the Frontiers of the Roman Empire World Heritage Site.

As such, it is thus not an independent nomination, and the rules of UNESCO's World Heritage Committee require that it should add something to then existing World Heritage Site. In the previous parts it has been outlined what is so special about the Lower German Limes. The next step is to identify which sites in the Netherlands and in Germany should be selected as component parts of the nomination, because they contain the elements or attributes that add something new. In addition, they must be linked. The *Ittingen Recommendations* (WHC-10/34.COM/9B, 2010) clearly state a serial nomination must not "lead to a mere catalogue of sites without an adequate definition of the functional links between the component parts". For cultural sites they require that "component parts should reflect clearly defined, cultural, social, historical, or functional links over time".

#### 1. Selection criteria for properties to be included as component parts in the nomination

It is crucially important that taken together, all aspects that have been highlighted as being of specific importance for the Lower German Frontier, the specific OUV (as opposed to the general OUV of the Limes as a whole that is currently being revised), are represented on one or more component parts. Looking at the OUV as described in chapter 1, sites should be selected on:



- A representation of all elements of the Roman Frontier, to illustrate the great diversity
- Time depth, to illustrate the long period of use, and
- Preservation, to illustrate the exceptional preservation conditions that are the reason why certain types of sites constructed from wood and other organic material, have survived here.

Given the aspect of time depth, it is important to include sites from the conquest phase, the Limes phase proper, as well as elements from the late Roman defence system, so that the nomination includes examples from all different elements of the Limes system. It is therefore necessary to select one or more sites of the following types:

- Relevant part of the provincial capital (i.e. the *praetorium* in Cologne)
- Early Roman legionary camp
- Legionary fortress
- Late Roman legionary fort
- Canabae legionis
- Early Roman auxiliary camp
- Auxiliary fort with a well preserved timber phase
- Auxiliary fort with a well preserved stone phase
- Vicus adjacent to fort (*Militärvicus*)
- Fortlet
- Watchtower
- Practice camp cluster
- Fort across the Rhine
- Late Roman fort
- Late Roman burgus
- Some unexcavated cemeteries associated with one or more of the above
- Military sanctuary
- Naval base/harbour/quay
- Ships
- Elements of infrastructure: Limes road (wood, metalled), bridge, causeway, culverts and the like
- Water management: dug canal, water supply system, dams and moles
- Sites with potentially well preserved domestic organic remains such as leather, textiles and wood.
- Military industrial facilities: lime kilns, pottery kilns, tile kilns, quarry?

Some aspects should be noted about these site types.

First, all of them should be included by at least one example and of course the best possible. In specific cases, such as the famous canal that was dug under general Corbulo to connect the Rhine and the Meuse behind the dunes, the *fossa Corbulonis*, care should be taken to make sure that the best surviving parts are included in the nomination.

It is of course not necessary that these are all represented in each country separately, so if we have at least one, that is fine. On the other hand, it is to be



recommended that if we have more than one, to ensure that, if possible, they are situated in Germany and The Netherlands

Second, these are sites from different periods, so they may occur associated stratigraphically or spatially in one location. Obviously, where this occurs it is advantageous to choose these locations for inclusion in the nomination.

Third – while including evidence of time depth is important – this evidence should *only* contain those sites that are actually more or less on the line of the Limes of the second century AD. In order to stick to the principles of the Koblenz declaration, it should *not* be “diluted” by including inappropriate sites such as Roman military camps from the conquest phase in what later became the foreland of the Limes (such as the camps along the Lippe or Oer-IJ), or post-Limes fortifications from the late-Roman defence-in-depth system in the hinterland.

On the other hand, there are indeed sites in the foreland and hinterland that do date to the second century and that beyond any doubt belong to the military infrastructure. Examples would be the marching camp at Ermelo in the Netherlands or the industrial facility at Iversheim in the Rhineland. These elements require perhaps discussion at a separate expert meeting

**Koblenz Declaration** (Bratislava Group meeting 23.6.2004)

The Frontiers of the Roman Empire World Heritage Site (FRE WHS) should consist of the line(s) of the frontier at the height of the empire from Trajan to Septimius Severus (about 100 to 200 AD), and military installations of different periods which are on that line. The installations include fortresses, forts, towers, the Limes road, artificial barriers and immediately associated civil structures. It is accepted that Roman frontiers are more complex, and that this might be recognized in a later amendment to the above definition, but this definition is recommended as the first step in the creation of this multi-national World Heritage Site.

There is no obligation to be complete, with an endless repetition of similar sites. Indeed this is *not* appreciated by UNESCO and here too the saying applies that *in der Beschränkung zeigt sich der Meister*. So there should be a selection of the best-preserved examples, with limited destruction by development or excavation. Largely excavated sites should be avoided.

In addition, wherever possible clusters of component parts should be selected that can be joined by a common buffer zone, to ease the management and monitoring.

Another criterion for selection is the presence of sensible and clearly defined modern boundaries for the nominated properties as well as the buffer zone, with respect to spatial planning control and management (vertical as well as horizontal).

In conclusion:

The idea is to incorporate in the nomination at least one example of all the elements that have been defined in the OUV as of specific value in the Lower German Limes, and then to reduce the number by being practical and select only

well protected sites with good conservation and situated in more or less equal numbers in both countries and in contexts that allow easy clustering in common buffer zones and having as little foreseeable risks as possible.

**2. Logical principles for the buffer zone** *Definition: A buffer zone is an area surrounding the nominated property which has complementary legal and/or customary restrictions placed on its use and development to give an added layer of protection to the property. This should include the immediate setting of the nominated property, important views and other areas or attributes that are functionally important as a support to the property and its protection. The area constituting the buffer zone should be determined in each case through appropriate mechanisms. Details on the size, characteristics and authorized uses of a buffer zone, as well as a map indicating the precise boundaries of the property and its buffer zone, should be provided in the nomination.*

Buffer zones can therefore only be delineated more precisely once a choice has been made as to which attributes need to be protected

It is very important to realise that while the boundaries of nominated component parts always refer to the past (they must reflect where authentic remains with sufficient integrity are present), the boundaries of the buffer zone always refer to the present. They may be used to include areas of high potential value, but they must be defined with an eye to modern boundaries relevant in spatial planning.

Whenever possible, a single buffer zone should be used around a cluster of component parts and narrow unprotected areas between adjacent buffer zones should be avoided as these will inevitably lead to serious questions. Unless, of course, there are strong and convincing reasons to do so.

In consultation with the German partners and taking into account the decisions about buffer zones that have been taken for the already inscribed parts of the Frontiers of the Roman Empire World Heritage Site, the following types of buffer zone can be discerned:

### **1. The urban buffer zone**

There is no need to try and connect all nominated parts in a single uninterrupted buffer zone. The river Rhine itself sufficiently represents its Roman predecessor as the connecting medium in the “pearl necklace” model. Therefore, unlike in Britain there is no need to use the buffer zones to create the continuity of the frontier. This provides a high level of flexibility and room to choose, and thereby assures a degree of ‘governance comfort’ for authorities. Some alternatives for types of sites that need to be included in the nomination (cf. above) but are situated in urban context can be found in the surrounding countryside.

Where this is not the case, buffer zones can be restricted to areas directly surrounding component parts of the nominated property and cover areas adjacent to such parts if there is a reasonable expectation of organic deposits and/or remains in these areas or an otherwise high archaeological potential.

## **2. The rural buffer zone**

In rural areas the buffer zone may sometimes have a role to protect the landscape context and the visual setting of nominated component parts, a prime example being Vetera near Xanten, where the landscape has survived as described by Tacitus (*Hist.* IV, 23).

Because the Limes in Lower Germany has for the most part been preserved almost exclusively underground, the visual setting is not always of primary importance. Buffer zones in this context therefore serve not only the control of development with adverse impact in a horizontal plane, but also in the vertical plane.

They should be extended over areas adjacent to nominated component parts if there is a reasonable expectation of organic deposits and/or remains in these areas, for example fossil river channels. In so far as secure evidence exists of such deposits and remains, the area should preferably be included in the nominated property. This principle should also apply to sites: if their extent is known, they should be included in the nominated property, if not – or to the extent they are not – they should be part of the buffer zone.

It is permissible, and has been accepted for the Obergermanisch-Raetischer Limes, to use the buffer zone to include areas with a high expectation but uncertain value. In these cases, there may be areas designated as buffer zones without a ‘core’ that is part of the nomination.

## Appendix I

### Process

In the preparation for the preliminary draft of the nomination dossier, as requested by the Dutch government to be submitted before Nov. 1, 2014, a selection of possible sites has been made. These sites have been selected based on the available archaeological evidence. No additional research has yet been carried out. For each site, relevant available information has been grouped on a factsheet and discussed with several parties, as indicated in the table below.

When	Meeting	Participants
30 Jan 14	Nederrijnse Limes Group	Roman Archeologists from the Netherlands
14 Feb '14	International Working Group LGL WH Nomination	
17 April '14	Managementgroup Dutch Limes Association	Managers RCE, Provinces
15 May '14	Meeting with municipalities Gelderland	Archeologists Municipalities Gelderland
May 19 '14	Meeting with municipalities Zuid-Holland	Archeologists Municipalities Zuid-Holland
May 20 '14	Meeting with municipalities Utrecht	Archeologists Municipalities Utrechts
30 June '14	International Working Group LGL WH Nomination	
Autumn	Expert Meeting	

### Discussion partners

The sites will be discussed further with a variety of parties:

- Municipal archaeologists: all municipal archaeologists have been consulted several times in the past 6 months and approached actively for their input
- Roman Archaeologists from the Netherlands: a panel of experts in the Lower German Limes Group have been consulted in January and will be consulted again in the future
- Roman Archaeologists from both the Netherlands and Germany: these are consulted regularly in the International Working Group sessions
- Expert Meeting: in the Fall, the remaining main points of attention will be discussed with a wider panel of experts on Roman archaeology

- Municipal governments: all municipal governments have been consulted on the possibilities and restrictions concerning the sites

### Planning

The main objective on this moment is to submit a preliminary draft of the nomination dossier in October 2014. Based on this submission, the Dutch government will decide in March 2015 in which order to submit the final nominations. Following that decision, the remaining needed research will be further defined, planned and carried out for the official nomination dossier.

# THE FRONTIERS OF THE ROMAN EMPIRE

## A THEMATIC STUDY AND PROPOSED WORLD HERITAGE NOMINATION STRATEGY

RENÉ PLOYER, MARINUS POLAK  
& RICARDA SCHMIDT





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## A THEMATIC STUDY AND PROPOSED WORLD HERITAGE NOMINATION STRATEGY

ADVISED BY ICOMOS-INTERNATIONAL  
AND COMMISSIONED BY THE INTERGOVERNMENTAL COMMITTEE  
OF THE 'FRONTIERS OF THE ROMAN EMPIRE' WORLD HERITAGE SITE (UK, DE)  
AND THE BRATISLAVA GROUP

RENÉ PLOYER, MARINUS POLAK AND RICARDA SCHMIDT

VIENNA / NIJMEGEN / MUNICH 2017



René Ployer, Marinus Polak & Ricarda Schmidt

The Frontiers of the Roman Empire: A Thematic Study and Proposed  
World Heritage Nomination Strategy. Advised by Icomos-International and  
commissioned by the Intergovernmental Committee of the 'Frontiers of the Roman  
Empire' World Heritage Site (UK, DE) and the Bratislava Group  
Vienna / Nijmegen / Munich 2017

Lay-out: Marinus Polak

Cover: Remains of the partly buried north-eastern gate of the Roman fort at  
Gheriat al-Ghariba (Libya) (photo David Mattingly)

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# STATES PARTIES COVERED BY THIS STUDY

States Parties actively involved in the preparation of this Thematic Study and the detailed Nomination Strategy for the Frontiers of the Roman Empire in Europe:

Austria, Bulgaria, Croatia, Germany, Hungary, the Netherlands, Romania, Serbia, Slovakia, the United Kingdom.

This study also refers to the territories of the following States Parties, who may wish in due course to augment this Thematic Study and develop further a Nomination Strategy for the Frontiers of the Roman Empire in the Near East and North Africa:

Algeria, Egypt, Jordan, Libya, Morocco, Syria, Tunisia, Turkey.

The Danube between Weltenburg and Kehlheim (Bavaria, Germany), with the fortlet of Kehlheim-Am Galget in the foreground.



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The military post of *Falacro* in the Eastern Desert, Egypt, on the route from the Nile to *Berenice* on the Red Sea coast.

René Ployer, Rien Polak and Ricarda Schmidt

March 2017



# LIST OF CONTENTS

Summary .....	1
1 Purpose and scope .....	7
2 Background - The 'Frontiers of the Roman Empire' World Heritage Site .....	11
3 Sources and definitions.....	17
3.1 Vocabulary.....	17
3.2 Maps and sites.....	18
3.3 Site typology .....	20
4 Time and space.....	23
4.1 Chronological scope .....	23
4.1.1 Africa .....	24
4.1.2 Near East .....	26
4.1.3 Europe.....	28
4.2 Geographical scope .....	29
4.2.1 Africa .....	29
4.2.2 Near East .....	32
4.2.3 Europe.....	36
5 A single and complex monument .....	45
5.1 Frontier types .....	45
5.1.1 Artificial barriers .....	46
5.1.2 River frontiers .....	48
5.1.3 Mountain frontiers .....	50
5.1.4 Desert frontiers .....	51
5.1.5 Sea frontiers .....	52
5.2 Chronological diversity .....	54
5.3 Cultural and social aspects.....	56
5.4 Characteristics of the FRE as a whole.....	58

Standing remains of  
the legionary fortress  
of *Betthourus* at el-  
Lejjun (Jordan).



6	Remains of the Roman frontier on the line of the 2nd century AD.....	61
6.1	The Roman frontier in Africa.....	61
6.1.1	Extent .....	61
6.1.2	Site locations .....	62
6.1.3	Site distribution .....	65
6.2	The Roman frontier in the Near East.....	66
6.2.1	Extent .....	66
6.2.2	Site locations .....	66
6.2.3	Site distribution .....	69
6.3	The Roman frontier in Europe .....	70
6.3.1	Extent .....	70
6.3.2	Site locations .....	71
6.3.3	Site distribution .....	76
6.3.4	Sites and Roman provinces .....	80
7	Internal comparison of the Roman frontiers .....	83
7.1	The frontiers of the three continents in the 2nd century AD .....	83
7.1.1	Brief characteristics .....	83
7.1.2	Similarities and dissimilarities.....	85
7.1.3	Conclusion .....	87
7.2	The European river frontiers.....	87
7.2.1	Natural barriers and Roman provinces.....	87
7.2.2	Brief characteristics of frontier sections.....	88
7.2.3	Similarities and dissimilarities.....	91
7.2.4	Conclusion .....	91
8	World Heritage Nomination strategy .....	93
8.1	Background and aims .....	93
8.2	WH Nomination Strategy for the overall Frontiers of the Roman Empire ....	94
8.3	WH Nomination Strategy for the European frontiers of the Roman Empire.....	97
8.3.1	The inscribed property 'Frontiers of the Roman Empire' .....	97
8.3.2	Three proposed frontier sections as additional single properties.....	98
8.4	Justification for inscription of the envisaged European properties .....	99
8.4.1	The Lower German frontier.....	99
8.4.2	The Danube frontier.....	102
8.4.3	The Dacian frontier .....	103
8.5	Site selection .....	104
8.5.1	Selection criteria.....	104
8.5.2	Current site selection .....	104

8.6 A viable way forward: addressing the complexity .....	105
8.6.1 Management system .....	105
8.6.2 Collaborative framework.....	105
8.6.3 Approach for the Danube .....	107
8.7 Timetable .....	108
List of illustrations.....	111
Abbreviations .....	113
Bibliography .....	113
Annex A Draft Concept statement for the Frontiers of the Roman Empire.....	117
Annex B Joint declaration FRE WHS.....	121
Annex C List of sites representing the Roman frontiers of Europe.....	127
The Netherlands.....	129
Germany (Rhine) .....	137
Germany (Danube) - Austria .....	140
Slovakia .....	146
Hungary .....	147
Croatia .....	169
Serbia .....	171
Romania .....	178
Bulgaria .....	205



# SUMMARY

This Thematic Study of the whole Roman frontiers has been written at the suggestion of ICOMOS, in the context of the preparation of extensions to the transnational, serial World Heritage property 'Frontiers of the Roman Empire' and in order to provide the necessary documentation to allow the development of a World Heritage Nomination Strategy for the Roman frontiers as a whole and in detail for Europe.

## Background

The inscription of Hadrian's Wall in the United Kingdom (1987) provided the basis for this property, which was extended with the Upper German-Raetian Limes in Germany (2005) and the Antonine Wall in the United Kingdom (2008).

Some time before the nomination of the Upper German-Raetian Limes, the idea had been advanced to create a single World Heritage Site encompassing all the frontiers of the Roman Empire in Europe, the Near East and North Africa. Several States Parties were already preparing nominations of the frontier installations within their territories, aiming at a step-by-step extension of the existing property. With a view to the expressed ambition to include all Roman frontiers, this property had been renamed 'Frontiers of the Roman Empire' in 2005.

In the next few years, general concerns about the manageability of complex transnational, serial properties and the assessment of their Outstanding Universal Value raised the question whether a phased extension of the Frontiers of the Roman Empire World Heritage Site was the best way to proceed. Alternative strategies were brought to the fore, including nominating a single property and nominating a series of single properties under a common framework (not constituting a single property). A Thematic Study of the Roman frontiers was suggested as an effective means to clarify how sections of the Roman frontiers might be nominated.

## Outline of Thematic Study

This Thematic Study provides an overview of what remains of the frontiers of the Roman Empire, extending over the continents of Africa, Asia and Europe. It summarises the chronological and geographical scope of the frontiers and their functional, chronological, social and cultural links and complexity. The Thematic Study focuses on the frontiers in the 2nd century AD, when the Roman Empire reached its largest extent. This chronological focus was adopted in 2004 as a practical basis for the Roman frontiers as World Heritage.

An overview of the military installations and their spatial distribution serves as a starting-point for an internal comparison of the frontiers. It is argued that five groups

can be distinguished within the whole of the frontiers of the Roman Empire as they existed in the 2nd century AD (cf. map on pp. 4-5):

- the desert frontiers of the Roman provinces of *Africa*, *Egypt*, *Arabia* and southern *Syria*;
- the frontiers of northern *Syria* and *Cappadocia* (Turkey), constituting the frontier with the powerful Parthian Empire in the East;
- the frontiers along the European rivers Rhine and Danube;
- the artificial linear barriers of Hadrian's Wall, the Antonine Wall and the Upper German-Raetian Limes (the existing World Heritage Site);
- the mixed frontiers of the Roman province of *Dacia* (Romania).

The above frontier sections display clear differences in densities, disposition, type and size of military installations, which reflect variations in climatic and geographical conditions, habitation and land use, external threats and political interests.

In a more detailed analysis of the frontiers along the Rhine and Danube it is noticed that the basins of these rivers are segmented by mountain ranges, and that in most cases these natural barriers coincide with borders between Roman provinces – with the boundary between the provinces of *Pannonia* (largely situated in Austria, Slovakia, Hungary and Croatia) and *Moesia* (largely in Serbia, Bulgaria and Romania) as an exception. It is reasoned that differences between (groups of) Roman provinces along Rhine and Danube support a division of the European river frontiers into four groups:

- the frontier of *Germania Inferior* along the lower course of the Rhine (the Netherlands and the German Rhineland);
- the frontiers of eastern *Raetia* and *Noricum* (German Bavaria and Austria);
- the frontiers of *Pannonia* (Austria, Slovakia, Hungary, Croatia and Serbia);
- the frontiers of *Moesia* (Serbia, Bulgaria and Romania).

It is noticed that the frontier sections of *Raetia/Noricum* and *Pannonia* are the most similar of these groups.

### Outline of Nomination Strategy

The outcomes of the internal comparisons of the Roman frontiers served as the basis for the development of a proposed Nomination Strategy aimed at providing the World Heritage Committee with insight into the intended nominations, the justification of the properties, the selection of sites, and the approach to management and future development.

As the current political situation in the Near East and North Africa does not allow to develop a view for these areas the Nomination Strategy is currently confined to the Roman frontiers of Europe.

What the Nomination Strategy thus provides is a practical and sustainable way forward for substantial and distinctive sections of the Roman frontiers to be nominated individually, initially in Europe and later in the East and North Africa, under an overall framework of the Frontiers of the Roman Empire that will actively encourage dialogue and shared practices.

The ambition to protect the whole of the Roman frontiers as World Heritage is maintained. Its value as a reflection of the universal culture of the Roman Empire, spanning three continents, is undisputed. The frontiers are unified by their purpose of demarcating, controlling and securing the Empire. At the same time they demonstrate an ingenious variety of military responses to local natural and political conditions. Future nominations of sections of the Roman frontiers as World Heritage must contribute to the understanding of these fundamental aspects of unity and versatility.

The Nomination Strategy proposes that the European frontiers, not covered by the current property, should be nominated as three sections:

- the Lower German (i.e. Lower Rhine) frontier;
- the Danube frontier;
- the frontier of the Roman province of *Dacia*.

These sections would constitute three separate World Heritage properties, beside the existing serial World Heritage property. The four single properties would be joined under a common framework 'Frontiers of the Roman Empire', which could later be extended to properties in the Near East and North Africa.

It is argued that the three envisaged additional properties each have the potential to justify Outstanding Universal Value as clearly defined sections of the overall frontiers. Key values would be the innovative responses to the challenges of a highly dynamic river delta (Lower Germany), the evolution of military strategies to counter the threats emanating from sustained large-scale migration (Danube), and the unparalleled mixture of military solutions developed to cope with varying landscapes and threats (*Dacia*). It is considered that all three properties have the potential to meet criteria (ii), (iii) and (iv) for World Heritage inscription.

### Selection of component sites

Almost 1,000 sites remain of the Roman frontiers in Europe. Currently it is suggested that of these up to 61 would be part of the Rhine frontier, 250 of the Danube frontier and 186 of the frontier of *Dacia*. This amounts to one site per 7 km of frontier for the Rhine and *Dacia*, and one per 10 km for the Danube. Substantial representations are indispensable to demonstrate the linearity and coherence of the frontiers, to exemplify the character of the separate sections and the links and contrasts between them, and to support in a substantial way the proposed OUV.

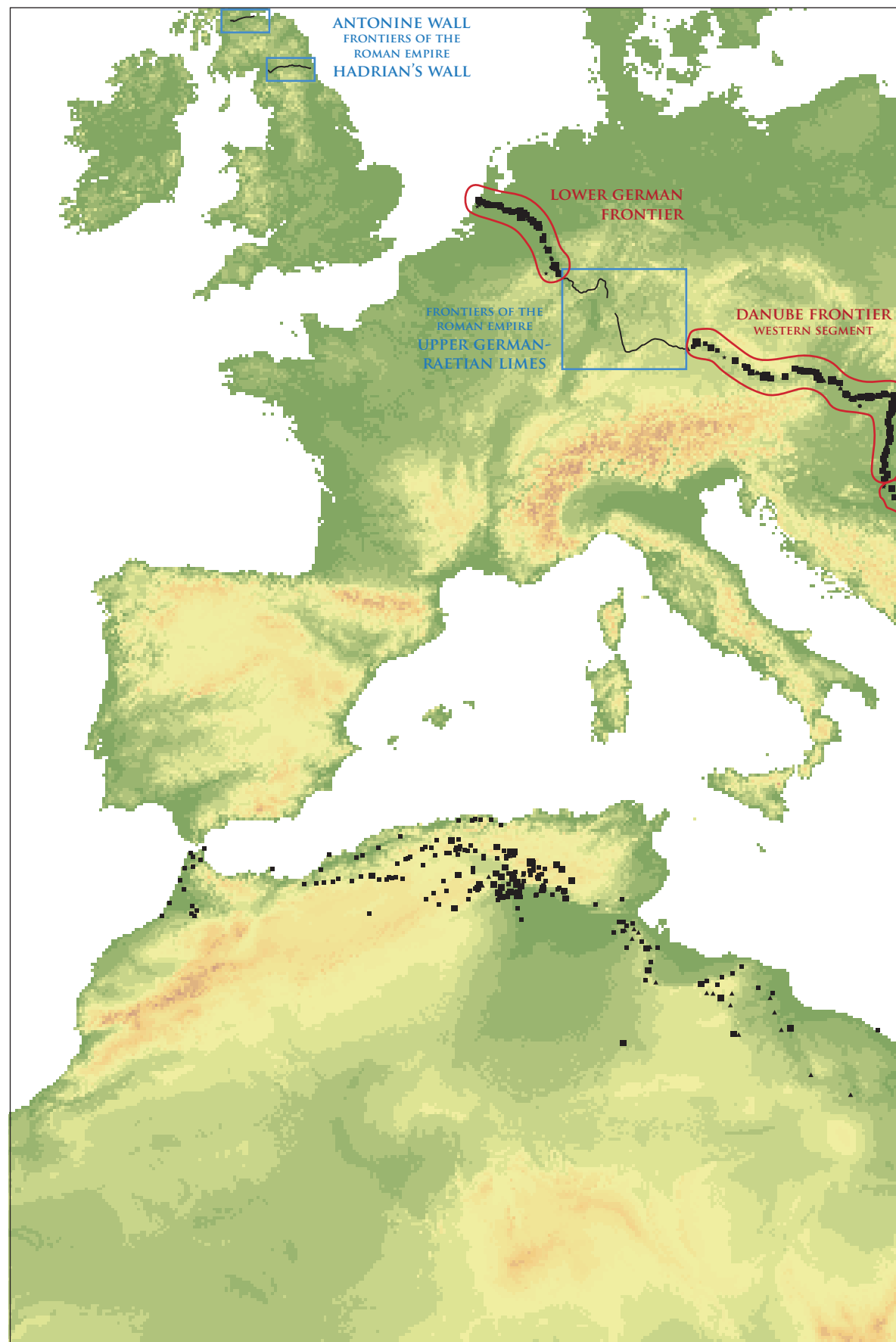
### Delivering the Nomination Strategy for Europe

To support the proposed nominations of European sections, it is proposed to create an overarching framework to promote and support international collaboration in all fields relevant to the management and development of the European frontiers as World Heritage. It is the ambition to realise this framework, which is provisionally labelled 'Frontiers of the Roman Empire World Heritage Cluster' building on structures developed for the management of the existing property, before the end of 2017.

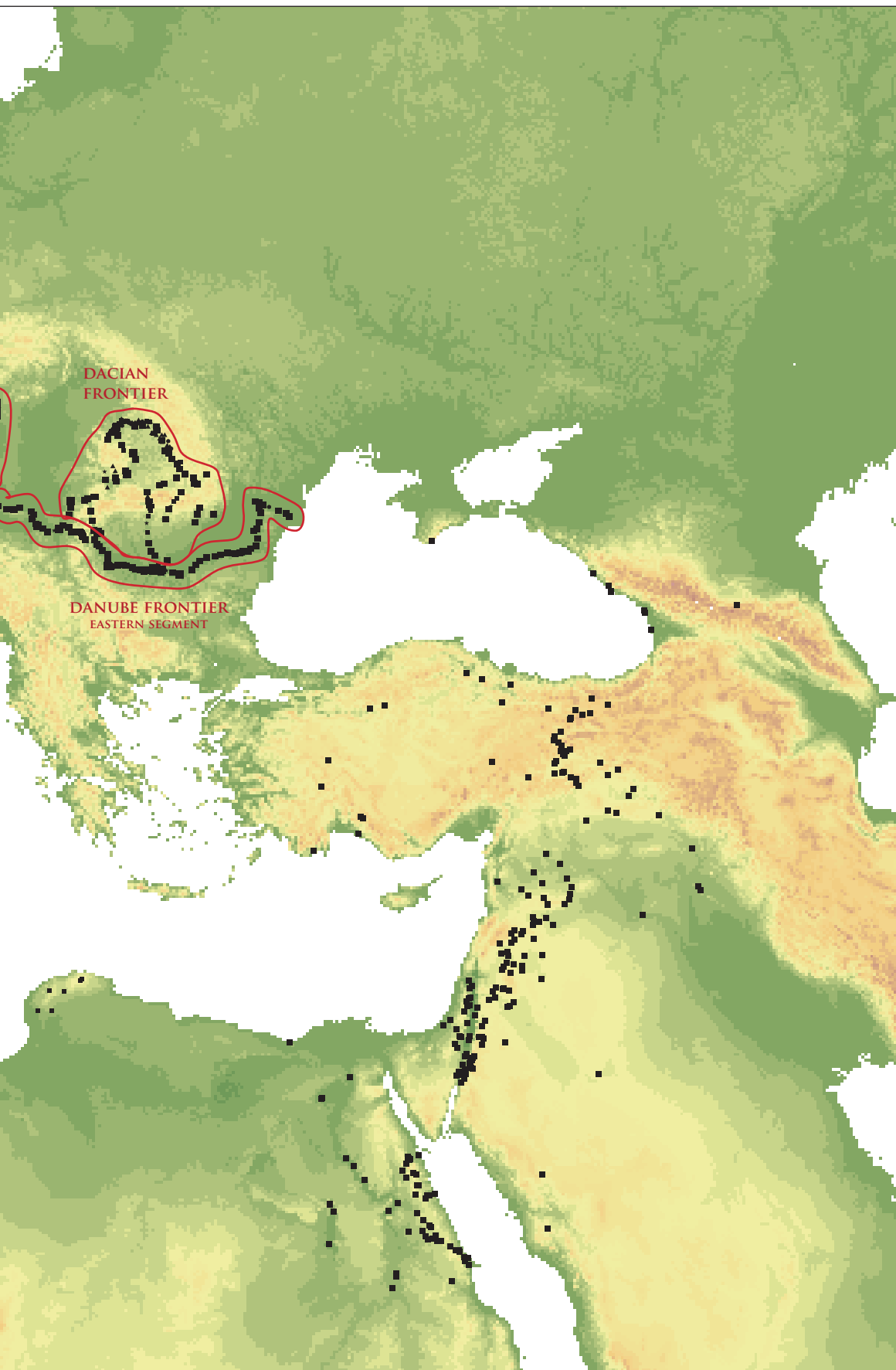
For the largest of the three envisaged properties, the Danube frontier, a nomination in two steps is proposed, for reasons of timetable management. The first step would concern the western segment consisting of the sites within the territories of Germany, Austria, Slovakia and Hungary, and the second step the eastern segment comprising the sites in Croatia, Serbia, Bulgaria and Romania; the current selections of component sites amount to about 130 for the western and 120 for the eastern segment. The Thematic Study provides a clear picture of the different but linked characteristics of these segments. It is suggested that the western segment could justify Outstanding Universal Value as a first nomination, while the eastern segment could be added as a major extension in a second step. The countries involved in the nomination of the Danube frontier have successfully cooperated in previous projects, which add to the confidence that the Danube frontier, once both parts have been inscribed, will be a feasible and manageable property.

With the foreseen submission in 2017 of an entry for the Tentative List of Romania all European frontier sections will be part of national Tentative Lists, and little harmonisation will be necessary. For the remainder of the nomination process the following timetable is foreseen:

end of 2017	creation of an overarching collaborative framework
January 2018	submission of the nomination dossier for the Danube frontier, western segment



- |              |   |
|--------------|---|
| January 2020 | submission of the nomination dossier for the Lower German frontier  |
| January 2021 | submission of the nomination dossier for a major extension to add the eastern segment to the Danube frontier property |
| January 2021 | submission of the nomination dossier for the Dacian frontier  |



The existing property 'Frontiers of the Roman Empire' (blue) and the three envisaged additional properties for the European frontiers (red).

The proposed Nomination Strategy is supported by all European States Parties involved, as a means to arrive at successful nominations of sections of the European frontiers in an environment stimulating collaboration, exchange of experiences, coordination and joint development.





# PURPOSE AND SCOPE

This Thematic Study has been produced in the context of the preparation of a number of nominations related to the transnational, serial World Heritage property 'Frontiers of the Roman Empire' (FRE WHS) in various countries.

Currently, this property encompasses three component parts, located in Germany (DE) and the United Kingdom (UK):

- Hadrian's Wall (UK), inscribed on the World Heritage List in 1987;<sup>1</sup>
- the Upper German-Raetian Limes (DE), inscribed on the World Heritage List in 2005 as an extension of Hadrian's Wall, leading to the creation of the 'Frontiers of the Roman Empire' World Heritage Site,<sup>2</sup> and
- the Antonine Wall (UK), inscribed on the World Heritage List in 2008 as an extension of the transnational, serial World Heritage Site 'Frontiers of the Roman Empire'.<sup>3</sup>

Hadrian's Wall to the west of the fort at Housesteads (United Kingdom).

In view of the intention of many countries to nominate further stretches of this once vast frontier system for World Heritage (cf. chapter 2, table 2.1 for an overview), it is foreseeable that, in the near future, the property might become very complex, inter alia with regard to the number of participating countries, to the number of component parts and to its manageability.

Therefore, ICOMOS and the World Heritage Centre have raised the question as to whether the concept of a single WHS, extended – as the States Parties have planned – over several cycles, is feasible for the FRE, or whether the Roman frontier should rather be split into separate sections and be nominated as separate properties linked by a thematic framework 'Frontiers of the Roman Empire'.

Against this background, ICOMOS International has proposed the present Thematic Study in December 2015, asking specifically for:

- a justification of how the Roman frontiers might be split up in individual sections (component parts) which on the one hand have the capacity to demonstrate Outstanding Universal Value (OUV) and on the other hand are manageable in a sustainable way;

---

1 11 COM VIIA.

2 29 COM 8B.46: The World Heritage Committee approves the extension of Hadrian's Wall (United Kingdom) to include the Frontiers of the Roman Empire - Upper German-Raetian Limes (Germany) on the World Heritage List on the basis of the cultural criteria (ii), (iii), and (iv).

3 32 COM 8B.40: The World Heritage Committee approves the extension of the Frontiers of the Roman Empire, United Kingdom and Germany, to include the Antonine Wall on the World Heritage List on the basis of criteria (ii), (iii) and (iv).

- a description of how these component parts are functionally, socially and culturally linked;
- a detailed documentation and mapping of known sites (component sites) with their scope and extent, combined with an assessment of their authenticity and integrity;
- the selection criteria of the component sites intended for World Heritage nomination.

As an element of the Thematic Study, a Nomination Strategy for the FRE has been developed, comprising an overall vision for the FRE, outlining how future nominations may be presented to the World Heritage Committee, and how they might demonstrate OUV.

The Thematic Study for the FRE thus helps to:

- ensure the preparation of better quality Tentative Lists;
- optimize success of World Heritage nominations related to the FRE;
- achieve sustainable World Heritage properties in the sense of on-going protection, conservation and management;
- agree on common management principles in order to harmonise approaches for the protection, conservation, management, interpretation and promotion of the overall FRE and of its individual component sites.

The Thematic Study focuses mostly, but not exclusively, on the Roman frontier lines of the 2nd century AD, following the Koblenz Declaration of 2004: “The Frontiers of the Roman Empire World Heritage Site (FRE WHS) should consist of the line(s) of the frontier of the height of the empire from Trajan to Septimius Severus (about 100-200 AD), and military installations of different periods which are on that line”.<sup>4</sup> Earlier and later military installations on the frontier lines of the 2nd century are therefore not less important.

---

4 Quoted from the Koblenz declaration included in Nomination file 430ter, p. 427 (<http://whc.unesco.org/uploads/nominations/430ter.pdf>).



The fortlet of Deir el-Atrash in the Eastern Desert, Egypt, on the route from the Nile to *Mons Porphyrites*.



# BACKGROUND - THE 'FRONTIERS OF THE ROMAN EMPIRE' WORLD HERITAGE SITE

# 2

Since the early 2000s, in connection with the nomination of the Upper German-Raetian Limes for World Heritage, it has been the aim of the States Parties to inscribe the Roman frontier in its entirety on the World Heritage List, as reflected in the Summary Nomination Statement (2004):

“The aim of participating States Parties is, by stages through international cooperation, to create a World Heritage Site encompassing all the Frontiers of the Roman Empire, based on its proper identification, recording, protection, conservation, management, presentation and understanding as evidence of the remains of one of the world’s greatest civilizations and as a symbol of a common heritage”.<sup>5</sup>

Accordingly, the State Parties involved in the further development of this principle had agreed on a phased nomination of stretches of the Roman frontier as it existed in the 2nd century AD, leading to a single World Heritage Site ‘Frontiers of the Roman Empire’. In order to keep the number of nominated sites to a manageable size, the future World Heritage Site would include solely monuments located on the line of the frontiers in their widest extent in the 2nd century AD.<sup>6</sup>

In 2004, the principles agreed upon were adopted by the Bratislava Group – the scientific advisory body in FRE-matters – in the context of the preparation of the nomination dossier of the Upper German-Raetian Limes. They were summarised in the co-called Koblenz Declaration:

“The Frontiers of the Roman Empire World Heritage Site should consist of the line(s) of the frontier of the height of the empire from Trajan to Septimius Severus (about 100-200 AD), and military installations of different periods which are on that line. The installations include fortresses, forts, towers, the Limes road, artificial barriers and immediately associated civil structures.”

Accordingly, the overall aim of this approach to the FRE and WH is to:

- make the Roman frontier again visible and understandable in its enormous vastness and complexity, forming the single largest monument to the Roman civilization and defining the maximum extent and nature of the Roman Empire, one of the greatest states the world has seen;

The *clausura* or linear barrier in the Djebel Tebaga region (Tunisia), blocking a land corridor between two mountain ranges over a distance of approx. 17 km.

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5 Cf. Summary Nomination Statement (2004), section 4.7.1. (<http://whc.unesco.org/uploads/nominations/430ter.pdf> p. 410).

6 The Roman frontiers have never been a systematically planned network over their entire length. Due to regional conflicts and shifting political power, they have never been static and therefore today form an extensive relict landscape, consisting of thousands of archaeological and architectural monuments. Today, they form part of the heritage of altogether 19 countries and are subject to a large variety of different legal and management systems.

- show that the single monuments of the frontier belong closely together thus forming an organic entity, and, last but not least,
- to extend and deepen the existing relationships among archaeologists and cultural heritage experts involved in the daily protection and management of the Roman frontier.<sup>7</sup>

This idea and general concept have been supported by ICOMOS International in their evaluation of the nomination of the Upper German-Raetian Limes for World Heritage of 2005:

“ICOMOS supports the wider proposal to encourage further nominations to reflect the scope and extent of the Roman Frontier, the largest single monument to Roman civilisation, initially in Europe but in due course perhaps also in Africa and Asia, and the approaches set out in the Summary Nomination Statement”.

Well preserved section of the Antonine Wall near Watling Lodge (United Kingdom).



In its Decision 29 COM 8B.46 taken at its 29th Session at Durban (South Africa) in 2005, the World Heritage Committee consequently “recommends that the nomination (i.e. of the Upper German-Raetian Limes) be seen as the second phase of a possible wider, phased, serial transboundary nomination to encompass remains of the Roman frontiers around the Mediterranean Region”.

On the basis of this, the phased approach towards the nomination of further stretches of the FRE was pursued by the States Parties in the following years. This is reflected by the inscription of the Antonine Wall in 2008 as an extension to the existing FRE WHS – and thus increasing the number of component parts of this World Heritage Site to three – and by the Tentative List entries submitted by ten countries (table 2.1).

The States Parties had intended to nominate separate stretches of the FRE as phased extensions of the inscribed property as soon as they had finished the preparation of their dossiers, and on the basis of the ‘first come, first served’ principle. Evidently and without further harmonisation, this procedure could have led to the submission of two or more nomination dossiers related to the FRE in the same year.

The approach of extending the existing World Heritage property in phases resulting in one common World Heritage Site ‘Frontiers of the Roman Empire’ was first and

7 Breeze/ Jilek 2008.



State Party	on the Tentative List since
Austria (transnational with Germany)	2011/2015
Bulgaria	2016
Croatia	2005
Germany (transnational with the Netherlands)	proposed 2015
Germany (transnational with Austria)	2015
Hungary	2009
The Netherlands (transnational with Germany)	2011
Romania	expected 2017
Serbia	2015
Slovakia	2002
Tunisia	2012

Table 2.1  
Overview of Tentative  
List entries related to  
the FRE WHS (as of  
January 2017)

foremost based on the assumption that the integrity of the FRE WHS as a whole would have been continuously enhanced.<sup>8</sup> However, the contribution of every single stretch to the overall OUV of the property would have been, to a large extent, confined to its enhancement of the overall integrity. This could have resulted in a nomination of a 'catalogue' of component sites, without properly defining the contribution of the single component sites to the OUV of the FRE as a whole.<sup>9</sup> The need for nominating the frontier system over several cycles would have almost exclusively been based on reasons of manageability.

Obviously, this way of proceeding might also have brought about various challenges with regard to danger-listing, as according to the results of the meeting at Ittingen, serial nominations are treated as single properties: in case one part of a serial property is threatened and put on the List of World Heritage in Danger, the entire property is inscribed on the List in Danger.

Against this background, the idea of splitting the Roman frontier up was brought forward for the first time by the World Heritage Centre in 2012. In December 2015, a Thematic Study 'Frontiers of the Roman Empire' was proposed by ICOMOS International, on the basis of which a Nomination Strategy could be developed.

### FRE WHS Management System

Paragraph 114 of the Operational Guidelines states that in the case of serial properties, a management system or mechanisms for ensuring the coordinated management of the separate components are essential.

Accordingly, a management system for a serial property should at least ensure:

- the harmonization of management of all the component parts to meet a set of shared objectives of preserving OUV;
- the identification of and response to threats to the property;
- the coordination of monitoring, including periodic reporting;

8 Cf. also observations of the international World Heritage experts participating in the workshops at Vilm (Germany) in 2008 and 2009 concluding that "each component part should be a significant contribution to OUV by a) adding distinct features for fulfilling the criteria and b) enhancing integrity. (...) The number of component parts should be the minimum number that are adequate to establish OUV and ensure integrity" and that "extensions to serial properties should enhance the total values of the property or improve integrity." The enhancement of integrity has again been brought up at Ittingen in 2010 with a discussion about how States Parties should aim to add value and enhance the integrity of an existing nomination and should avoid the nomination of 'catalogues' in order to ensure the credibility of the World Heritage List and prevent its inflation.

9 This is clearly reflected in the Concept Statement (Annex A) which has been drafted as a retrospective Statement of OUV, before the idea of splitting the Roman frontier into individual World Heritage Sites was taken into consideration. It now serves as an overarching concept for a series of serial nominations that reflect the scope and extent of the framework 'Frontiers of the Roman Empire'.



Organisational structure of the 'Frontiers of the Roman Empire' World Heritage Site.



- management at the component part level and the coordination between the component parts.

As for the WHS FRE, since 2003 an efficient, robust and over many years thoroughly tested international management system is in place (table 2.2). It consists of three closely cooperating and interacting bodies, the Intergovernmental Committee (IGC), the Bratislava Group and the Management (or Hexham) Group. Together, these groups encourage collaboration and sharing of information, expertise and good practice.

Responsibility for the management of individual parts of the FRE WHS rests with the individual States Parties and is carried out by each in accordance with their legislative and management systems.

The Roman fort at Böhming (Bavaria, Germany), part of the Upper German-Raetian Limes. The defenses are still visible, surrounding the church.



name	tasks
Intergovernmental Committee (IGC)	The Intergovernmental Committee (IGC) is the governing body that deals formally with UNESCO and ensures that monitoring and reporting requirements are carried out on behalf of the Site as a whole. This body also reviews any further nominations for extending the FRE WHS.
Bratislava Group	The Bratislava Group is a body of international experts that advises on technical and research issues and assesses proposed new additions to the FRE WHS
Management (Hexham) Group	The Management (Hexham) Group is a networking group of those responsible for the management and conservation of inscribed sections, at both national and local levels.

Table 2.2  
Organisational  
structure of the  
'Frontiers of the  
Roman Empire' World  
Heritage Site, with  
indication of main  
tasks.



# SOURCES AND DEFINITIONS

# 3

This chapter provides some information on terms used in this study and on the sources used for the maps in chapter 6.

## 3.1 VOCABULARY

In the preceding chapters various terms have been used without explaining their meaning or relation to others: frontier, frontiers, site, sites, component parts, etc. In the remaining chapters of this study more terms will be introduced. It is the aim of this paragraph to define those terms which are most likely to be unfamiliar to the non-expert reader, or to give rise to confusion.

Standing remains of the legionary fortress at Udhruh, to the east of Petra (Jordan).

### Site(s)

In the context of protection under the World Heritage Convention the term 'site' is used nowadays mainly as a component element of a World Heritage property, which indicates a territorial entity inscribed on the World Heritage List. A property may be built up from several component sites, in which case it is known as a serial property.

In archaeology use of the term 'site' is very widespread, as a general and unspecified indication of a location where cultural remains from the past have been discovered. A site in this sense may have several constituent parts, for example a fort and its cemetery. It is virtually impossible to write a study on the Frontiers of the Roman Empire without using 'site' in this archaeological sense, and the authors have refrained from attempting.

### Frontier(s), frontier sections

This study deals with the frontier of the Roman Empire. In a general way, the Roman Empire had a – single – frontier. However, this frontier was not a static boundary, which had been created at some point of time and had never changed since then. On the contrary, it was a very dynamic boundary, which developed over time and shifted forward and backward, breathing along with political ambitions, victories and defeats. From this point of view, there is every reason to use the plural 'frontiers' in many cases.

In studies on the Roman frontier, terms such as 'artificial frontier', 'desert frontier' and 'river frontier' frequently occur, both in singular and in plural. This is an expression of an awareness that the appearance of the Roman frontier varied along the landscape in which it was located; 'mountain frontier' is also sometimes used. From this perspective, the use of the 'plural' frontiers is therefore also defensible.

Further, frontier is often accompanied by a geographical name, e.g. the Rhine frontier or the African frontier. This is a different expression of the phenomenon addressed in the previous lines, that there are regional differences in the appearance of the Roman frontier. Closely related are terms such as the Lower German or Numidian frontier, referring to provinces of the Roman Empire. The Roman army was divided along provincial lines, and there are many indications in historical sources and inscriptions that this was more than a mere practical administrative convenience. The provincial *esprit de corps* echoed by these sources may well be a reflection of territorial characteristics.

All this may explain why 'frontier' and 'frontiers' will be used side by side in this study, and without a clear contextual separation. Parts of the Roman frontier may also be called frontier sections, usually in a general sense. In chapter 7, however, 'section' will be used in a very specific way, in relation to the logical division of the Roman frontier into properties that might be seen to justify OUV.

### Limes and Ripa

The Romans themselves had various words for frontiers and their components. In both literature and epigraphy *limes* (plural: *limites*) is used to designate a land boundary of the empire, with *ripa* designating a river boundary. Usage changed over the centuries. Limes, originally a road, had come to be used to describe the boundary of the empire by the beginning of the 2nd century AD, and later a frontier district, such as the *Limes Tripolitanus* (the Tripolitanian frontier).

### Place names

Roman military sites and other places are often indicated by their Latin names. For instance, the Roman legionary fortress at Windisch (Brugg, CH) is much better known as *Vindonissa*. In many cases, the identification is confirmed by inscriptions found on site, but in other cases the Latin names are unproven assumptions. The authors have not tried to be consistent in the use or avoidance of such names, or of Latin provincial names; for instance, Lower Germany may occur alongside *Germania Inferior*. The English notation has been consistently used for the rivers Rhine and Danube, and less so for other geographical entities.

### Roman military jargon

Similar remarks can be made for Roman military jargon. It is not uncommon to use Latin terms as *castra* for legionary fortress, or *castellum* for a smaller fort. However, not all of such terms are as well rooted in classical Latin as they appear. They are sometimes used in a much stricter sense in modern archaeology than they were at the time, and sometimes there is even little evidence for their original use. Although military jargon in Latin is generally avoided in this study, the authors have only aimed at partial consistency.

The most frequently used terms for military installations and associated structures may be found in section 3.3, with some explanation.

## 3.2 MAPS AND SITES

The chronological and spatial coverage of most existing maps of the Roman frontier is restricted, and topographical accuracy often leaves much to be desired. The absence of a decent digital map of the military infrastructure of the Roman Empire has been a near impossible task to create, but future international collaboration might make such



Remains of the legionary fortress of *Satala/Sadak* (Turkey), in the Roman province of *Cappadocia*.

an endeavour a realistic possibility, given a flexible approach and the ability to adapt and modify it as knowledge develops.

For this study we were nevertheless obliged to make an effort to create an empire-wide digital map, if only out of a need to plot the sites considered for selection by the States Parties involved in the preparation of the nomination of the remaining European frontier sections.

The maps displayed in chapter 6 were generated from this digital map set, which included two base layers created by external parties:

1. The GTOPO30 global elevation model created by the U.S. Geological Survey's Center for Earth Resources Observation and Science (EROS). The use of these maps is allowed under a Creative Commons Attribution-NonCommercial 3.0 License. The default colour scheme of these elevation maps has been adapted for this study.
2. The World Reference Overlay provided by Esri (sources: Esri, DeLorme, USGS, NPS), used in conformity with the Esri Master License Agreement.

The boundaries of Roman frontier provinces have been adapted from a series of maps created in the context of the Frontiers of the Roman Empire Culture 2000 project (2005–2008).<sup>10</sup>

The sites displayed in the maps have been derived from three different sources:

1. For the frontier in Africa a digital dataset created for the preparation of the maps in the FRE booklet on the African frontier was kindly provided by Dr Martin Sterry (Leicester University, UK).<sup>11</sup>
2. For Egypt and the Ancient Near East data were used from Pleiades, a joint project of the Ancient World Mapping Center, the Stoa Consortium, and the Institute for the Study of the Ancient World.<sup>12</sup> The 'places' dataset available for download

10 [http://www.limes-oesterreich.at/html/maps\\_download.php](http://www.limes-oesterreich.at/html/maps_download.php) [accessed September 15, 2016]. The map set was last updated in September 2011. The use of these maps is allowed under a Creative Commons Attribution-NonCommercial 3.0 Unported License.

11 Mattingly et al. 2013.

12 R. Bagnall, et al. (eds), *Pleiades: A Gazetteer of Past Places*, 2016, <https://pleiades.stoa.org/places> [accessed October 7, 2016]. Use of Pleiades content is allowed under a Creative Commons Attribution 3.0 License.

builds on the 'Barrington Atlas of the Greek and Roman World'.<sup>13</sup> From this dataset those records have been selected which have 'fort' or 'earthwork' in the 'featureTypes' field, and 'roman' or 'late-antique' in the 'timePeriodsKeys' field.

3. For the European provinces (except for the three sections already listed as parts of the FRE WHS) detailed site lists were provided by the States Parties involved.

### 3.3 SITE TYPOLOGY

In order to obtain insight into the occurrence and spatial distribution of the various types of military installations and associated structures a basic classification was made. It provides definitions for the terms used in this study to indicate the various types of military installations and related structures. Further, it is a precondition for any effort to produce an overview of their frequency. This paragraph merely deals with the typology; the quantitative analysis is part of chapter 6.

The classification draws heavily on the European frontiers, since the relevant information on the Eastern and African frontiers is much less accessible, detailed and secure.

#### Military installations

The term 'military installation' is used as a general term for any kind of structure built for defensive or offensive purposes. The term 'fortification' is another broad term, but in a slightly more restricted sense, for constructions of timber or stone, excluding linear earthworks.

In this study nine categories of military installations have been distinguished. They are listed in alphabetical order.

bridgehead	Any fortification which was built across the Rhine or Danube, facing a military installation on the 'Roman' river bank. The term does not imply the (former) existence of a bridge, merely a staging point looking across a river.
earthwork	A linear defensive structure consisting of piled-up earth. <sup>14</sup>
fleet base	A fortification serving as the operational base for a provincial fleet.
fort	Any fortification which is smaller than a legionary fortress and larger than a fortlet, and which served as an accommodation for several hundreds of soldiers. Typical sizes are in the range of 1-4 ha.
fortlet	A small fortification, generally measuring well below 1 ha in surface, which served as an accommodation for a few to several dozens of soldiers without a headquarters building.
hill fort	A fortification, often of irregular plan, situated on an isolated hill or a promontory.
legionary fortress	A large fortification, generally measuring well above 15 ha in surface, which served as an accommodation for several thousands of (largely) legionary soldiers.
temporary camp	A short-lived fortification without inner buildings, usually a construction camp, marching camp or practice camp.

13 For our maps the CSV 'places' dataset was used: <http://atlantides.org/downloads/pleiades/dumps/pleiades-places-20161007.csv.gz> [accessed October 7, 2016]. For sites with multiple pairs of geographical coordinates the first pair was used, extracted from the 'bbox' field.

14 As linear barriers earthworks are equivalent to the stone walls and palisades serving as artificial barriers on Hadrian's Wall, the Antonine Wall and the Upper German-Raetian Limes. The latter categories of linear barriers are not included in this list, because these three existing component parts of the FRE WHS are not included in the quantitative analysis of chapter 6.



watchtower      An isolated fortified tower, which served as an accommodation for a dozen or less soldiers.

Obviously, the Roman military architects did not care for classification in the 21st century, so inevitably there will be some overlap between categories, and the attribution of individual sites to a category may be subject to academic discussion.

### Associated structures

The frontier zone consisted of more than just military installations. Their functioning depended on a logistical network including harbours, roads and industrial sites. In areas without an urban tradition, the fortifications were often surrounded by civil settlements, labelled *canabae legionis* in the case of legionary fortresses and '(military) *vici*' (pl. *vici*) in case of smaller forts. In some cases, the military was involved in the development of civil towns.

For this study, the large variety of structures somehow associated with the military have been grouped into no more than five categories.

civil settlement	All civil agglomerations, regardless of size and character, have been brought under this single heading. The main categories are <i>canabae legionis</i> , military <i>vici</i> , civil towns with a legal status ( <i>municipium</i> or <i>colonia</i> ) and without, and rural settlements.
industrial site	A detached site with industrial activities serving the military. Industrial activities have been attested in and close to many fortifications. Occasionally, however, these were carried out at more distant locations. The range of industrial sites includes stone quarries, lime kilns, potteries and tileries.
road	Military installations and associated structures were usually connected by land roads. In some cases the roads predate the military occupation, in other cases they were built for military purposes. The road connecting the military installations in the frontier zone is often labelled 'Limes road'.
road station	A building (complex) located on a land road, offering a bed, a meal and various services for man and animal. Road stations might be protected by a small military detachment, particularly on desert frontiers.
other	Some types of structure have not been allocated to a separate group, either because they are rare or because they usually occur in combination with a different kind of structure. They include amongst others (military) bathhouses, (military) sanctuaries, harbours and canals.





# TIME AND SPACE

This chapter provides a brief overview of the history and geography of the frontiers of the Roman Empire, subdivided according to continents.<sup>15</sup> The most important military events are summarized in section 4.1. The overview starts with the establishment of the provinces and the associated frontier system, looks to the 2nd century, the largest extent of the Roman Empire, and deals with the decline or the continuation of the borders in Late Antiquity. In section 4.2 the topography of the Roman frontiers is summarily discussed.

## 4.1 CHRONOLOGICAL SCOPE

The Roman Empire as established from the Roman Republican state through the reforms of Augustus (31 BC – AD 14) flourished for about 500 years in its western and almost 1500 years in its eastern part. The thoroughly equalized reforms of Augustus provided a safe foundation for the state for 300 years, extended by those of Diocletian and Constantine. It was the state of Roman citizens, but under given conditions (wealth, military service and loyalty to the Emperor) all free people could become a Roman citizen, and from Caracalla citizenship was given to all free people of the empire. The Roman Empire had hundreds of peoples with different culture, traditions and language, where Latin and the Greek (in the Eastern provinces) was the *lingua franca*.

The sophisticated state organization was aristocratic and democratic at the same time. Although the highest posts in the state administration and in the army were reserved for the senatorial and equestrian orders, also wealthy provincials could enter and join the highest society. The Republican order of *annuitas* (time-limited posts) was preserved and upheld. The governors and generals accordingly served for only a few years in one or other post in different parts of the Empire during their strictly determined carrier. This measurement prevented them from disobedience and usurpation. The commanders of the legions belonged to the senatorial order, those of the auxiliary troops to the equestrian one. The military provinces belonged to the Emperor, so he had the right to appoint governors (*legati*, procurators) to them. The rank of the person depended on the military strength of the province (more legions – one legion – auxiliary troops only). The demilitarised provinces lay under the Senate, but also here the Emperor had the authority in appointing the leaders.

Remains of the Raetian Limes near Pfahldorf (Bavaria, Germany), visible as a straight line through the landscape.

15 For this overview extensive use was made of the following publications: Bechert 1999; Breeze 2011a; Freeman 2006; Jilek 2009; Klose/Nünnerich-Asmus 2006; Klee 2006; Mattingly et al. 2013; Vagalinski et al. 2012; Visy 2003.

The cohesion and inner peace of the Empire could be achieved through the main principle (also republican): hard in war, mild in peace: *parcere subiectis et debellare superbos* (Virgil, Aeneas). A Roman citizen or people of the Empire had two main obligations: loyalty to the Emperor (sacrifices to Jupiter Optimus Maximus for the salvation of the Emperor) and taxpaying. The Roman system allowed a wide autonomy of the society on the basis of subsidiarity. Thus the civil society in its towns, *civitates*, *pagi* and *vici* had an almost total autonomy. In other words the Roman Empire can be described as a complexity of self-governing towns and communities. Of course in the army there was no self-governing, but the mercenary army with a service of 20 to 25 years could be recruited and completed without any problem in the first three centuries, because the soldiers got a relatively high pay, and after retirement different kinds of perks (money, estate, Roman citizenship). As in the second half of the 4th century the conditions changed with more and more foreign groups allowed to enter the Empire under the condition of undertaking military service.

#### 4.1.1 AFRICA

In Africa, the Romans controlled the area north of the Sahara, from the Atlantic Ocean to Egypt, with many sections of frontier (*Limes Tripolitanus*, *Limes Numidiae*, etc.). Rome had acquired its North African Provinces at different times. Proconsular Africa was formed into a province following the final defeat and destruction of Carthage in 146 BC. In this year, Rome established its first African province, *Africa Proconsularis* or *Africa Vetusta* (Old Africa), governed by a proconsul, in the most fertile part of what was formerly Carthaginian territory. The province was later extended along the coast to embrace *Tripolitania* (modern western Libya). *Cyrenaica* passed to Roman control in 96 BC with the death of the last recognised client king and, in 27 BC, was administratively attached to Crete. *Numidia* and *Mauretania* became client kingdoms. The former was abolished by Julius Caesar in 46 BC and incorporated into Africa. To the west, Rome recognised a client kingdom of *Mauretania*, until Caligula had its ruler Ptolemy murdered in AD 39. The annexation was strongly resisted and when Roman control was secured under Claudius, the territory was divided into two provinces, *Mauretania Caesarensis* in the east and *Mauretania Tingitana* in the west, with governors appointed directly by the Emperor. However, control of the legionary garrison in Africa was passed from a proconsul to an imperial legate in AD 39 and *Numidia* was recognised as a separate province from the early 3rd century.

The *Limes Tripolitanus* was built after Augustus. It was mainly a reaction to the Garamantes menace. In AD 50 Septimius Flaccus undertook a military expedition that reached the Fezzan and further south. The Romans did not conquer the Garamantes so much as they seduced them with the benefits of trade and discouraged them with the threat of war. The last Garamantes foray to the coast was in AD 69, when they joined with the people of *Oea*/Tripoli in battle against Leptis Magna. The Romans, in order to defend the main Roman cities of Tripolitania (*Oea*, Sabratha and Leptis Magna), intervened and marched south. After that, the Garamantes became a client state of the Roman Empire, but nomads always endangered the fertile area of coastal Tripolitania. Because of this, Romans created the *Limes Tripolitanus*. The first fort on the Limes was built at Thiges in AD 75, to protect from nomad attacks.

Under Trajan, at the greatest extent of the Empire, the southern border lay along the Sahara, which represented a natural barrier against expansion. The Empire controlled the Mediterranean shores and the mountain ranges further inland. In the first half of the 2nd century, by the time of Hadrian, the frontier of *Numidia* had been pushed westwards to embrace the Aurès Mountains that in effect formed the southern boundary of the province. One line of forts ran along the northern fringes of the mountain range and another to the south. To the north-west lay the Hodna



Entrance of the military outpost of *Golaia*/Bu Ngem (Libya).

Mountains. Hadrian's contribution to the frontier works in North Africa is believed to have been the construction of a series of barriers, of different lengths, in a zone to the west and south-west of the Aurès Mountains, extending north-westwards to the Hodna Mountains. Together, they have been called the *Fossatum Africae*.

Therefore, the Roman city of *Gaerisa*/Ghirza, situated away from the coast and south of Leptis Magna, developed quickly in a rich agricultural area. Ghirza became a "boom town" after AD 200, when the Roman Emperor Septimius Severus (born in Leptis Magna) had organized the *Limes Tripolitanus*, in particular under the legate Quintus Anicius Faustus in AD 197-201. Indeed, Anicius Faustus was appointed *legatus* of the *Legio III Augusta* and built several defensive forts of the *Limes Tripolitanus* in *Tripolitania*, including Gheriat el-Garbia and *Golaia*/Bu Ngem, in order to protect the province from the raids of nomadic tribes. He fulfilled his task quickly and successfully. Former soldiers were settled in this area, and the arid land was developed. Dams and cisterns were built in the Wadi Ghirza to regulate the flash floods. These structures are still visible: there is a temple among the ruins of *Gaerisa*, which may have been dedicated to the Berber semi-god "Gurzil", and the name of the town itself may even be related to his name. The farmers produced cereals, figs, vines, olives, pulses, almonds, dates, and perhaps melons. Ghirza consisted of some forty buildings, including six fortified farms (*Centenaria*). Two of them were really large. It was abandoned in the Middle Ages.

In the south of *Mauretania Tingitana*, the Romans established a frontier in the 3rd century, just north of the area of actual Casablanca near Sala and stretching to Volubilis. In the later Roman period, there was further subdivision of the provinces and reorganisation of military commands. With Diocletian, the *Limes* was partially abandoned and the *Limitanei*, local soldier-farmers, took over the defence of the area. *Cyrenaica* always remained in the Eastern Diocese, while *Mauretania Tingitana* was attached to *Hispania* across the Straits of Gibraltar. The other African Territories were subsumed in an African Diocese. The Vandal invasion of North Africa in AD 429 led to the creation of a Germanic kingdom there, though with significant depletion of effective frontier control. The power vacuum in the old frontier sectors was filled by

a number of 'berber' kingdoms, in part based on the populations of the old garrison settlements.

In AD 533, the Emperor Justinian, using a Vandal dynastic dispute as pretext, sent an army under the general Belisarius to recover Africa. In a short campaign, Belisarius defeated the Vandals, entered Carthage in triumph and re-established Roman rule over the province. The restored Roman administration was successful in fending off the attacks of the Amazigh desert tribes and, by means of an extensive fortification network, managed to extend its rule once again to the interior. Therefore, the Limes survived as an effective protection until Byzantine times.

Emperor Maurice grouped the North African provinces, together with the Roman possessions in Spain, into the Exarchate of Africa. The exarchate prospered, and from it resulted the overthrow of the Emperor Phocas by Heraclius in AD 610. Heraclius briefly considered moving the imperial capital from Constantinople to Carthage. After AD 640, the exarchate managed to stave off the Muslim Conquest, but in AD 698, a Muslim army from Egypt sacked Carthage and conquered the exarchate, ending Roman and Christian rule in North Africa.

The African frontiers were not entirely peaceful, though there has been considerable disagreement about the source and severity of reported outbreaks of warfare and revolt. The threats seem to have come in equal measure from internal communities as well as external peoples and some sectors such as *Mauretania* seem to have been much more severely affected. Nonetheless, looking at the overall picture, and considering the chronology and geographic scale, it is evident that considerable economies of force were achieved.

#### 4.1.2 NEAR EAST

In the 70s and 60s BC, during the third war against Mithridates of Pontus, Lucullus and Pompey had explored the East, the latter almost reaching the Caspian Sea and establishing the Roman province of *Syria* in 64 BC. From this time, Roman interest concentrated from Pontus to Anatolia in the middle of the 1st century BC, and to Syria and Armenia around the beginning of the Common Era, and finally to the south of Judea in the 1st century AD and to Arabia at the beginning of the 2nd century. Under Augustus, the border was formalized by establishing Roman military bases for security. A network of client kingdoms enabled the relatively small size of the Roman occupation in the east, which consisted of eight legions, with four legions in the north of *Syria*. In the second half of the 1st century AD the client became regularly managed provinces.

The Roman province of Egypt was established in 30 BC after Octavian (the future Emperor Augustus) defeated Cleopatra and Marc Antony and annexed the Ptolemaic Kingdom of Egypt to the Roman Empire. The province encompassed most of modern-day Egypt except for the Sinai Peninsula, which was later conquered by Trajan.

In AD 106, under Trajan, the Nabataean kingdom was formally incorporated into the province of *Arabia*. This was consolidated by the construction of the *Via Nova Traiana* from the Red Sea to the borders of *Syria*.

The Roman frontiers in the Near East changed many times, of which the longest lasting was the Euphrates River, eventually to be left behind as the Romans defeated their rivals, the Parthians, with the march on their capital, *Susa* in AD 115. The Parthians were a group of Iranian peoples that ruled most of Greater Iran that is now in modern-day Iran, western Iraq, Armenia and the Caucasus. In AD 118, Hadrian decided that it was in Rome's interest to re-establish the Euphrates as the limit of its direct control. Hadrian returned to the previous state, and surrendered the territories





Northern defenses of the fortress at Qasr al-Hazraq (Jordan), seen from the interior.

of *Armenia*, *Mesopotamia*, and *Adiabene* to their former rulers and client kings and did not attempt to romanize the Parthian Empire. In AD 161–166 the ‘Parthian War of Lucius Verus’ was fought between the Roman and Parthian Empires over *Armenia* and Upper Mesopotamia. It concluded after the Romans made successful campaigns into lower Mesopotamia and *Media* and sacked *Ctesiphon*, the Parthian capital. A final war against the Parthians was led by Caracalla who died in AD 218. After his assassination, his successor, Macrinus, was defeated by the Parthians near *Nisibis*. In exchange for peace, he was obliged to pay for the damage caused by Caracalla.

During the Severan dynasty (AD 193–235), the Romans strengthened their defences on the Arabian frontier. They constructed several forts at the northwest end of the Wadi Sirhan, and improved the roads. One important fort was Qasr Azraq; another was at *Auara/Humeima*, from the late 2nd century AD, on the *Via Nova* from *Petra* to *Aila*, where up to 500 auxiliary troops could have resided. It was probably abandoned in the 4th century.

Diocletian partitioned the old province of *Arabia* by transferring the southern region to the province of *Palaestina*. Later in the 4th century, *Palaestina* was divided into three provinces, and the southern one was eventually called *Palaestina Tertia*. Each province was administered by a *praeses* with civil authority and a *dux* with military authority. Diocletian engaged in a major military expansion in the region, building a number of *castella*, watchtowers, and fortresses along the fringe of the desert just east of the *Via Nova*. This line of defence extended from south of Damascus to Wadi al-Hasa. The region from Wadi Mujib to Wadi al-Hasa contained four forts and a legionary fortress. The frontier south of Wadi al-Hasa, which extended to the Red Sea at *Aila* (Aqaba), may have been called the *Limes Palaestina*. In this region, ten forts and a legionary fortress have been identified. The term may have referred to a series of fortifications and roads in the northern Negev, running from Rafah on the Mediterranean to the Dead Sea, or to the region under the military control of the *dux Palaestinae*, the military governor of the Palestinian provinces.

Troops were progressively withdrawn from the *Limes Arabicus* in the first half of the 6th century and replaced with native Arab *foederati*, chiefly the Ghassanids. After the

Arab conquest, the *Limes Arabicus* was left to disappear, but some fortifications were used and reinforced in the following centuries.

### 4.1.3 EUROPE

In continental Europe, the frontiers were generally well defined, usually following the courses of major rivers such as the Rhine and the Danube. Nevertheless, those were not always the final borderlines; the province of *Dacia*, in modern Romania, was completely on the far side of the Danube. In Great Britain, both Hadrian and Antoninus Pius built defences to protect the province of *Britannia* from the peoples of Caledonia. Hadrian's Wall, constructed in AD 122 held a garrison of 10,000 soldiers, while the Antonine Wall, constructed between AD 142 and 144, was abandoned by AD 164.

3D reconstruction of the legionary fortress of *Bonna*/Bonn (Germany) on the Lower Rhine.



A chain of legionary fortresses and auxiliary forts guarded the line of the Rhine. It was laid out partly by Augustus and his stepson and military commander, Drusus, who began to strengthen the natural boundary of the Rhine from the year 12 BC. The decision not to continue the conquest of the regions east of the Rhine in AD 16 resulted in the Rhine becoming the fixed frontier of the Roman Empire in the northwest.

The German provinces were established at the end of the 1st century AD. In Upper Germany, the military frontiers were advanced on the other side of the Rhine and up to the Danube under the Emperors Trajan and Hadrian. The changing political situation can be observed in the displacement of troops in the Lower and Middle Rhine in this period. Under Emperor Trajan, the Limes was reinforced in Upper Germany and *Raetia*. The fiercely independent and threatening kingdom of *Dacia* was defeated and conquered at the second attempt by Trajan (between AD 101 and 106), who then created a new province of *Dacia* in Transylvania. His successor, Hadrian, gave up some provinces and occupied territories, but principally continued the policy of border security. By around AD 150, 16 legions were permanently stationed in the provinces of the European continent. The Antonine Wall in the north of Britain

replaced Hadrian's Wall, but soon afterwards was given up again. At about the same time, the Limes in the Odenwald-Neckar region and an older Raetian line of forts were moved about 30 km east- respectively northwards to what is called now Upper German-Raetian Limes.

Later, more garrison sites were added to the Danube area. This was a reaction to the insecure situation in the middle Danube region. Because of the Marcomannic wars, additional border reinforcements and troops were needed at this frontier section.

During the time of the Emperors Septimius Severus and Caracalla, the tensions on the Upper German-Raetian frontier as well as in the Carpathian basin increased. In AD 213, Caracalla defeated the Germans beyond the Raetian Limes. Under Severus Alexander, conflicts with the Germans took place on the Lower Rhine, and the Sarmatians frequently crossed the border in the middle Danube region. Although the Alamanni could be pushed back again, the damage in the Limes region was immense.

In the middle of the 3rd century, Valerian withdrew troops from the German provinces for his campaign against the Sassanid in the east of the empire. Because of unrest in *Pannonia*, Gallienus also moved troops from Upper and Lower Germany to the Danube. The Germans used this situation for an attack, which led to the abandonment of nearly all the forts along the Upper German-Raetian Limes. In the fifties and sixties of the 3rd century, the Marcomanni, other Germanic tribes and the Sarmatians overran the Danube and the Balkan provinces. The permanent pressure and invasions of the Vandals, the Goths and the Carpians ended in the abandonment of *Dacia* under Aurelian. He and the successive Illyrian emperors succeeded in calming the situation on the Rhine and the Danube, to reunite the Roman Empire broken in three parts, and to manage temporary uncertainties along the frontier in North Britain. However, the former border security system never regained its strength.

In the extensive administrative and remedial reforms of the Emperors Diocletian (AD 284–305) and Constantine (AD 306–337), new fortifications were built on the Danube and the Rhine, which were later reinforced by the Emperors Julian and Valentinian. Since the political situation had greatly changed, Germans took over the border protection and kept the border on the Rhine and the Danube until the first quarter of the 5th century. In order to ward off Germanic peoples in England, forts were built along the Saxon shore at the Channel and North Sea. The migration of people and the chaotic conditions in an empire, now divided into two halves, caused the frontiers of Rome to be broken. This finally ended in the 5th century with the collapse of the Empire in the west. Only the lower Danube frontier survived until the 7th century AD. The Eastern Roman Empire existed, in one form or another, until the 15th century, when *Constantinopolis* fell to the Ottomans in 1453.

## 4.2 GEOGRAPHICAL SCOPE

Since the development of the frontiers is strongly related to the development of the Roman provinces, the boundaries will be described divided into the ancient provinces.

### 4.2.1 AFRICA

The Roman provinces of North Africa: *Cyrenae* (later *Libya*), *Africa Proconsularis* (later *Tripolitania*), *Numidia* and *Mauretania*

The North African Limes protected the provinces of the Mediterranean, which extended between 90 and 400 km into the interior of the country. Despite its length of 3,000 km, the Roman Limes in North Africa was always been kept by only a few



troops: while two legions each had to secure the *Limes Arabicus* or the province of *Dacia*, only the *Legio III Augusta* was stationed in North Africa.<sup>16</sup>

Despite its similarity with other *limites*, the border system, which also included barriers with ramparts and ditches, was adapted not only to the very different topography, but above all to the special living conditions of the population in the Sahara or Tell Atlas.

In the *Cyrenaica*, which was always Greek oriented, the Libyan Desert plateau, which reached almost to the sea, strongly restricted the possibilities of settlement. Military protection needed only the Hellenistic cities of the Pentapolis, which had city walls since pre-Roman times to be protected from pirates from Syrtis. Several military stations were located beneath Berenice on the west coast at Ghemines, *Corniculatum*/Agedabia and Gasr el Henaia. A line of watchtowers (Zauia et-Tailimun – Esh Sheleidima – Zauiet Msus) secured a caravan road in the interior of the country.<sup>17</sup>



Fig. 4.1 Map of the Limes in the provinces of Mauretania and Numidia.

The *Limes Tripolitanus* was a frontier in the Roman province *Africa Proconsularis* and built in the south of what is now Tunisia and the northwest of Libya. It was primarily intended as a protection for the Tripolitanian cities of Leptis Magna, Sabratha and Oea in Roman Libya.

Geographical contrasts determined the *Limes Tripolitanus*, to which the sentries east of Turris Tamalleni to Arae Philenorum on the Great Syrtis belonged. The frontier stretched from *Lacus Tritonum*/Chott el-Djerid to Leptis Magna and separated the empire against Garamantes and Gaetulians. Between the sand dunes that reach the

16 Klee 2006, 137-138; Mattingly et al. 2013, 41-43.

17 Mattingly et al. 2013, 81-83.

coast, there are only small settlements and short streams, which never carry much water. While the development of the frontier between Bu Ngem and Turris Tamalleni is well known, it remains quite unclear on the Syrte east of Leptis. Place names such as *Praesidium*, *Praetorium* or *Praesidio* may indicate military stations here already in the pre-Severan period.

In *Numidia*, the east-west running Limes separated the agriculturally used areas from the southern steppes, highlands, and mountains. Although nomads lived in the Sahara and the monitoring of these tribes certainly belonged to the duties of the military, the forts were not located directly in this control zone, but rather behind them in a more watery and habitable area south of the Nementcha- and Tebessa mountains.<sup>18</sup>

In the 2nd century, the occupation of Aurès, part of the province of *Numidia*, resulted in the control of the westward Sahara Atlas to the Ouled Nail massif and the Djebel Amour. It also enabled the monitoring of the highland between the Ouled Nail and the Tell. Centrally located, Aurès hosted the greatest concentration of the army in North Africa.

The *Limes Mauretaniae* is part of the north-African borderline between the Atlantic coast and the *Limes Tripolitanus* located in today's Tunisia.

The topography of *Mauretania*, divided into two provinces *Mauretania Caesariensis* and *Mauretania Tingitana*, can be roughly divided into a coastal strip of varying width, followed by partly very fertile mountain regions or river valleys, and subsequently by steppes and deserts as well as mountainous regions. The inhabitants of *Mauretania*, especially in *Tingitana*, were probably semi-nomadic mountain tribes related to the Iberians. The Rif Mountains behind the coast made *Mauretania* difficult to access. Muluccha and Ampsaga limited the province of *Mauretania Caesariensis*. The Limes ran along the southern slope of the Tell Atlas, but did not include the highlands with their drainless salt lakes. In the western province of *Mauretania Tingitana*, the Roman control was restricted to the Atlantic coast reaching southwards to the Bou Regreg near Rabat (Rharb) and the tableland around Volubilis, which was bounded by Anti Atlas and Middle Atlas.<sup>19</sup>

The eastern boundary of the province of *Mauretania Caesariensis* (identical with the eastern border of the later province of Sitifensis) ran approximately on a line west of the Cap Bougaroun on the River Ampsaga to the east end of Chott el-Hodna and further west to the steppe landscape. This line separated the sedentary population from the nomads and had previously formed the frontier of the area dominated by Carthage. At the passage of the province of *Numidia* to the province of *Mauretania Caesariensis*, the southern frontier got close to the coast of the northern slope of Tell Atlas. Thus, the Roman-dominated area shrank from about 400 km of geographical depth to only about 95 km. The more northerly oriented frontier in *Mauretania Caesariensis* coincided roughly with the limit of precipitation that was required for rainfed agriculture. There was limited presence here.<sup>20</sup>

Originally restricted to the coast of *Caesariensis*, the Roman influence was for economic reasons expanded further southwards from the 1st to the 3rd century. In the west, the River *Muluccha*/Mülüyā formed the border with the province of *Mauretania Tingitana*.

A vast and infertile plain divides Algeria from Morocco. In the north, the foothills of the Rif Mountains descend steeply into the sea, thus preventing a direct land connection along the coast. The connection between *Caesarea* and *Tingis* was therefore normally maintained by sea, since there were no economically used areas between the two provinces.

18 Mattingly et al. 2013, 74-77.

19 Klee 2006, 147.

20 Mattingly et al. 2013, 62-71.

The Roman influence and control in the province of *Mauretania Tingitana* reached from the Atlantic coast to the River Bou Regreg/Bū Rağrağ near Rabat and Salé and the tableland around *Volubilis*, a very fertile agricultural area. The northern Rif and the Atlas mountains, however, were obviously never permanently under military occupation.<sup>21</sup>

The Roman road network in North Africa provided good and timesaving logistical connections for the trade and supply of their vastly deployed troops. In *Caesariensis*, there were three roads parallel to the coast. In general, however, there were unpaved tracks and no cobbled streets. Natural routes – such as rivers – were not present in the province of *Caesariensis*. The route along the frontier to the steppe landscape was well developed for military reasons.



Fig. 4.2 Map of the Limes in Pontus and Cappadocia.

## 4.2.2 NEAR EAST

### *Cappadocia*

The Cappadocian Limes begins in Trapezus on the coast of the Black Sea and continues over the Zigana Pass through the up to 3000 m high Pontic Alps southwards to *Satala*. It is assumed that from there the route runs southwards across Cimen Dağları and Refahiye and reaches the Euphrates near the Decius Bridge opposite Ilic. An alternative course could have led south from *Satala* via the Sipikor

21 Klee 2006, 147; Mattingly et al. 2013, 60–63.

Pass to the plain of Erzincan to the Euphrates and followed at low altitude the right bank to *Zimara*.

From southwest to northeast, the extended mountain ranges of the Antitaurus, with their heights of up to 3000 m, form numerous deeply-cut valleys which did not permit any navigation. From *Zimara* onwards the frontier runs along the Euphrates through the Kurdish Taurus to *Melitene*. South of the fort of *Melitene*, in the Midye region, the border between *Cappadocia* and *Syria* is assumed, where a linguistic boundary is still present.<sup>22</sup>

The Cappadocian Limes continued eastward along the Pontine coast. East of *Trapezus* there are only very limited settlement possibilities because of the foothills of the Pontic Mountains. However, fertile lowlands extend beneath the Caucasus with the *Colchis*. At the foot of the Caucasus the northernmost sentry, *Pityus*, was on the Black Sea coast.



View over the Euphrates from *Dura Europos*.

### Syria

South of the Taurus, the Limes ran on the western riverbank of the Euphrates from *Samosata* to *Sura*. The river course, which stretched far to the west, offered enemies the tactical advantage of the 'inner line', but also enabled encirclement of the enemy during an attack. In the open area, the river served only as an obstacle against approaching enemies, but not as protection because of numerous transitions. From *Sura* the Limes ran south-westerly through the steppe area via Resafa and *Palmyra* to *Damascus*. From the 60s of the 2nd century AD onwards the Roman Empire extended as far east as the Khabur River and the Singara Mountains. The Limes followed the River Khabur to the River Euphrates near *Dura Europos* and then through the desert to *Palmyra* and *Damascus*. From there, it continues south to *Bosra/Bostra*, where the settled population in the cultivated land was to be protected against nomads.<sup>23</sup>

<sup>22</sup> Klee 2006, 91-92.

<sup>23</sup> Klee 2006, 104.



Fig. 4.3 Map of the Limes in Syria and Arabia.

### Arabia

The *Limes Arabicus* begins at *Bosra/Bostra* in the Hauran and ends in *Aila* on the Gulf of Aqaba, one of the two northern arms of the Red Sea in today's Israel. From *Bosra/Bostra*, the border runs south-westerly to *Philadelphia/Amman*. The fertile volcanic soil and the abundant precipitation enabled intensive grain cultivation and thus a relatively dense population.<sup>24</sup>

To the east of the Dead Sea, the area is cut by the deeply incised, east-westward valleys of Wadi Yarmuk, Wadi Zerqa and Wadi Mujib. The *Via Nova Traiana* is roughly the line of demarcation between the cultivated river valleys in the west and the desert and semi-desert in the east, where oases with water passages indicate the routes. The last section of the *Limes Arabicus* leads from Wadi al-Hasa, which southern end flows into the Dead Sea, to *Aila/Aqaba*. To the east, the vast desert-like Hisma is extended. In this semi-arid area, caravan traffic was the main source of income for the mostly small localities.

24 Klee 2006, 113.



Fig. 4.4 Map of the Limes in the province of Aegyptus.

Wadi Sirhan, a deep south-eastward incline south of the Hauran, connects Syria with the Gulf of Arabia. To this day, Azraq is the most important oasis at the west end of the valley. Predatory gangs also used the much-used trade route as an incursion route.

The *Limes Arabicus* had several auxiliary forts and watchtowers as well as legionary fortresses (about every 100 km), like at *Adrou/Udhruh* or *Aila/Aqaba*.<sup>25</sup> The reason for this defensive frontier line was to protect the Roman province of Arabia from attacks from the “barbarian” tribes of the Arabian Desert. The main purpose of the *Limes Arabicus* is disputed; it may have been used both to defend from Saracen raids as well as to protect the commercial lines from robbers.

Next to the *Limes Arabicus*, Trajan built a major road, the *Via Nova Traiana*, from *Bosra/Bostra* to *Aila*, a distance of 430 km. Built between AD 111 and 114, its primary purpose may have been to provide efficient transportation for troop movements and government officials as well as facilitating and protecting trade caravans emerging from the Arabian Peninsula.<sup>26</sup>

### Aegyptus/Egypt

The province of *Aegyptus* bordered on deserts or seas, with Nubia in the south of the country posing no threat after the northern part of the province was annexed under Augustus.<sup>27</sup> The army controlled the economy and trade and secured the transport routes, especially those from the Red Sea to the River Nile. Among the tasks of the

<sup>25</sup> Klee 2006, 114-117.

<sup>26</sup> Klee 2006, 118-120.

<sup>27</sup> Breeze 2011a, 129.



troops, which often had sections of camel- and dromedary-riders, was the sentry duty on the watchtowers along the desert roads. The forts were concentrated on the roads in the Arabian Desert. The two northern routes connected Qena with Abu Sha'ar and ed through an area with extensive quarries. Standardized and square in shape, forts were located in a distance of 20 to 30 km along the much shorter route from Quseir el-Qadim via Laqueita to Coptos. Another trade route ran from Coptos to *Berenice*/Ras Banas. Further south, in the area of the Dodeka- and Triakontaschoinos between Aswan, Elephantine and Philae, several military posts lie on the west bank of the Nile. With three stations in this section, the control was very dense. Small stations in the Meroitic area were occupied by auxiliary units.<sup>28</sup>

### 4.2.3 EUROPE

#### *Britannia*

The first Limes road in Britain, the so-called Gask Ridge, was constructed between AD 70 and 80 close to the Highland Line in Scotland but abandoned by the mid 80s. The Gask Ridge frontier is a term describing a chain of Roman watchtowers, forts and fortlets built to monitor movement between the Highland massif and Fife.<sup>29</sup> Although the Gask Ridge was not a wall, it may be Rome's earliest fortified land frontier. The fortifications approximately follow the boundary between Scotland's fertile Lowlands and mountainous Highlands, in Perth and Kinross and Angus. The later Hadrian's Wall and Antonine Wall were further south, and, by taking advantage of the heavily indented coastline of Great Britain, were considerably shorter. Construction on Hadrian's Wall was started 42 years after the Gask Ridge (from AD 122 to 130), and the Antonine Wall was started just 12 years after the likely completion of Hadrian's Wall (from AD 142 to 144).

Hadrian's Wall ran 117 km long from the banks of the River Tyne near the North Sea to the Solway Firth on the Irish Sea. In Britain, where natural boundaries such as rivers are missing, the isthmus formed the most suitable site for an artificial barrier. To the east, the wall extends from Newcastle upon Tyne on the north bank of the Tyne west to Chesters and from there it rises up through the northernmost point at Limestone Corner to the Whin Sills. These cliffs of volcanic rock, with wide views, drop off steeply to the Craggs. At Willowford, the wall reaches the River Irthing and follows the north bank of the river. West of Carlisle it runs into the Solway Marshes between Burgh-by-Sands and Bowness-on-Solway on the best line just above the flood limit. Although the curtain wall ends near Bowness-on-Solway, this does not mark the end of the line of defensive structures. The system of milecastles and turrets is known to have continued along the Cumbria coast as far as Risehow, south of Maryport (so-called Cumberland Coast System).<sup>30</sup>

Hadrian's Wall frontier system consists of a ditch and wall with 80 small-gated milecastle fortlets, one placed every Roman mile, holding a few dozen troops each, 79 pairs of evenly spaced intermediate turrets used for observation and signalling as well as 17 auxiliary forts.<sup>31</sup>

The Antonine Wall crosses the narrowest part of Britain at the Forth-Clyde isthmus. This wall stretches 63 km from Old Kilpatrick in West Dunbartonshire on the Firth of Clyde to Carriden near Bo'ness on the Firth of Forth. The wall was intended to extend Roman territory and dominance by replacing Hadrian's Wall 160 km to the south, as the frontier of *Britannia*. To the east, the course of the border between Carriden and

28 Klee 2006, 124-129.

29 Klee 2006, 9-10.

30 Klee 2006, 14; Breeze 2011b, 48-69.

31 Klee 2006, 11-13.



Fig. 4.5 Map of Northern Britain with Hadrian's Wall and Antonine Wall.

Bridgeness remains uncertain. From the elevated south bank of the Carron River, the wall rises up over the basalt formation of Croy Hill and Bar Hill to the Kilsyth Hills and the Campsie Fells. The wall bridges the Rivers Avon and Kelvin at the forts of Inveravon and Balmuildy. To the west, the wall moves from hill to hill. Shortly before Old Kilpatrick, the route is clearly dominated by the Kilpatrick Hills. The sides of the border in the Forth and Clyde bays were protected. A cavalry unit secured the lower river basin at Whitemoss-Bishopton, with small fortlets to the west at Lurg Moor and Outerwards monitoring the Clyde. Up to the Tay, advanced outposts secured the Fife



Fig. 4.6 Map of the Lower German Limes.



peninsula and provided early warning of hostile attacks. In total, the Antonine Wall was protected by 17 forts with nine small fortlets between them.<sup>32</sup>

### *Germania inferior and superior*

The Lower German Limes separated that part of the Rhineland left of the River Rhine, which was part of the Roman Empire, from the less tightly controlled regions east of the Rhine. The frontier remained unchanged since the middle of the 1st century AD, started at Katwijk on the North Sea coast, and continued until the River Vinxtbach in Rheinbrohl-Bad Hönningen south of Remagen, the last fort in Lower Germany. At no time, were there approaching barriers such as walls or ditches, because the Rhine protected the border sufficiently. The riverside road enabled the rapid transfer of troops anytime. Side streets branched from the Limes road into the interior of the province.

The Limes started near the estuary of the Oude Rijn on the North Sea. It then followed the course of the Rhine and ended at the River Vinxtbach, the border with the province of *Germania superior*. From that point onwards the Upper German-Raetian Limes started on the opposite, right-hand, side of the Rhine with the fortlet of Rheinbrohl. As it runs along the Rhine, the Lower German Limes passes four landscapes with different topography and natural character. The southernmost and smallest portion, between the Vinxtbach and the area around Bonn belongs to the Rhenish Massif, through which the river passes in a relatively narrow valley between the heights of the Westerwald and the Eifel Mountains. From roughly the area of Bonn, the Rhine valley opens into the Cologne Bay, which is bounded by the Bergisches Land, which borders the river on the right-hand side, and the Eifel and High Fens to the southeast and east. The Cologne Bay has fertile loess soils and is characterized by a very mild climate. It is therefore little wonder that most of the rural *vici* and *villae rusticae* (farm estates) in Lower Germany were established in this area

32 Klee 2006, 24-31; Breeze 2009, 39-49.

in Roman times. In the vicinity of the legionary fortress of *Novaesium*, the Cologne Bay expands further into the Lower Rhine Plain, a river terrace landscape. Only a little east of today's German-Dutch border, between the area of the legionary fortresses of *Vetera* and *Noviomagus*, the Lower Rhine Plain transitions into the delta formed by the Rhine and Meuse and which finally ends at the North Sea.<sup>33</sup>

A chain of forts and fortlets for auxiliary troops guarded the Rhine line. As in other provinces, the troops were distributed along this boundary according to the conditions of the foreland. In the southern section between Remagen and Bonn there were only a few auxiliary units because there were few Germanic settlements in the Bergisches Land and the Westerwald north of the Rhine. However, in the central part apart from the two legions at Xanten and Bonn, seven to eight auxiliary units were stationed. In the westernmost section of the Lower German Limes, a marshland area with limited opportunities for settlement, an increasing number of small waterways running into the Rhine facilitated quick raids by hostile tribes. Therefore, the forts between Utrecht and Leiden are very close to the inflows from the northern part of the moors. To the west, north-south running land routes were controlled from Katwijk and Valkenburg over the beach barriers.



Fig. 4.7 Map of the Upper German and Raetian Limes.

The Upper German Limes begins in Rheinbrohl opposite the Vixtzbach and runs from the Westerwald in a southerly direction to the Lahn at Bad Ems. From there it follows a prehistoric trail to Bad Schwalbach. On the hilly central ridge of the Taunus, the frontier runs to the northeast and reaches from the Emsbach valley over a steep climb the highest point on the Feldberg at 800 meters. At Butzbach, the border leaves the Taunus ridge to include the Wetterau in a wide arc over the ridge at the Gießen basin and south of the Hessian basin. This area is criss-crossed by numerous watercourses and is very fertile due to the loess soil and the mild climate. First, the frontier was adapted to this terrain but was later straightened. At the Horloff in the eastern Wetterau, the Limes runs through the valleys of Nidda and Nidder over

33 Klee 2006, 35-36.

Marköbel to the south and meets the River Main at Groß-Krotzenburg. Between Groß-Krotzenburg and Obernburg, the boundary remains as along the Rhine and the Danube on the riverbank facing the Roman Empire. In the middle of the 2nd century, the river frontier was extended through the extensive upland forests of the Main valley from Obernburg to Miltenberg.

South of the River Main the Limes runs from Miltenberg to Walldürn where the 81 km long and straight run section begins, which ends at Haghof near Welzheim. Without consideration of the topography, the frontier goes through the Jagst-, Kocher- and Murr-Valley as well as over the hilltops of the Swabian-Franconian Forest. Northeast of Lorch (at the border to the Roman province of *Raetia*), the Upper German Limes ends north of the River Rems.<sup>34</sup>

### *Raetia*

The Raetian Limes runs from the fortlet Freimühle in the Rotenbach valley northwest of Schwäbisch Gmünd with mostly straight course above the Rems valley. From Kolbenberg at Aalen it follows in a wide arc to the northeast to Gunzenhausen and includes the Ries and the Hesselberg that widely dominates the landscape. This included both to the Empire, this fertile, intensively farmed area as well as the Franconian Jura where limestone was broken. To the north, the not very profitable Keuper country remained unoccupied. From Gunzenhausen and the Altmühltal onwards the Raetian Limes extends in a southeast direction through the Jura region of the Alb plateau to the Danube, which it reached at Hienheim. Between Eining and Passau, the eastern Raetian Limes represents a typical river frontier (*ripa*) on the south bank of the Danube.<sup>35</sup>

### *Noricum*

The Norican Limes is on the soil of the present-day Austrian states of Upper and Lower Austria. The frontier runs along the south bank of the Danube and was guarded by a loose chain of auxiliary fortlets and watchtowers. The Danube forms a narrow river valley in the foothills of the Bohemian Massif that widens only locally to small valleys like the Wachau. Nevertheless, this valley with its densely forested escarpments made access to the riverbank more difficult. Connection paths to the south are dictated by the river valleys of the Traun, Enns, Ybbs, Erlauf and Traisen while the Bohemian Forest does not allow extensive settlement in the north. At the Tullnerfeld, the Danube reaches the first lowland basin before it flows into the Vienna Basin at Klosterneuburg on the Vienna gate north of the foothills of the Vienna Woods. A legionary fortress at *Lauriacum*/Enns, more than ten auxiliary forts, and several watchtowers protected the Norican Limes. Nearly every fort had its own river port or landing stage and a storage area because the Danube was not only border zone, but also the most important transport and trade route in the region.<sup>36</sup>

### *Pannonia superior and inferior*

The Pannonian Limes (*Ripa Pannonica*) is the part of the Roman fortified frontier known as the Danubian Limes that runs for approximately 800 km from the Roman camp of Klosterneuburg in the Vienna Basin in Austria to the mouth of the river Sava in present-day Serbia. The Pannonian Limes runs through two provinces: *Pannonia superior* and *Pannonia inferior*, divided in AD 107 by Trajan.

To the east of *Cannabiaca*/Zeiselmauer, the Danube flows through the Vienna Basin, a fertile lowland basin. It crosses the border of the Alps and the Little Carpathians at

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34 Klee 2006, 45.

35 Klee 2006, 55; Jilek 2009, 67-69.

36 Klee 2006, 63; Jilek 2009, 70-75.



Fig. 4.8 Map of the Noric and Pannonian Limes.

the Devín Gate (“Porta Hungarica”) and arrives in the Little Hungarian Plain below Bratislava, where it flows in a southeastern direction across the alluvial fan it has deposited and continues to shape. Together with its Moson Danube branch it encircles the Szigetköz region on its right bank and on its left bank in Slovakia it flanks the Žitný/Csallóköz island region along with the Váh River. The largest tributaries from the south are the Rivers Leitha and Raab. Through the valleys of Morava, Váh, Nitra and Hron, the most important connection routes led to the north. Not far beyond the city of Győr, the Danube turns and flows on in an easterly direction. Then, from Esztergom it cuts an S curve to the east through the narrow valley between the Visegrád and Börzsöny mountains and turns to the south. Leaving the town of Vác the river enters into the Great Hungarian Plain (Alföld) and flows in its western edge in a north-south direction. The fortifications were built on the eastern edge of the loess plateau or near to river crossings. Numerous small river valleys enable easy access to the heights especially in the south. At Vukovar (Croatia), the river changes to the east due the mountain range *Alma Mons*/Fruška Gora north of *Sirmium*/Sremska Mitrovica. In that region the River Tisza, Drava and Sava flow into the Danube.<sup>37</sup>

The four legionary fortresses and the more than 40 auxiliary forts along the Pannonian Limes were mainly located in the immediate vicinity of the riverbank. A chain of watchtowers or signal towers closed the gaps between the camps, and in some strategically important places fortifications were built also in the left bank of the river. The military installations of the *Ripa Pannonica* were chained by the Limes road, in some places with more than 15 km long straight run sections.<sup>38</sup>

37 Jilek 2009, 70–87; Visy 2003, passim; Visy 2009a, 55–60; Visy 2011a, 12–21.

38 Klee 2006, 67; Visy 2003; Visy 2009a, 61–93; Visy 2011b, 55–60; Borhy 2014, 45–53. 132–146.



Fig. 4.9 Map of the Moesian and Dacian Limes.

### *Moesia superior and inferior*

At *Singidunum*/Belgrade, the Sava, and near *Margum*/Dubravica, the Great Morava, coming from the Balkan Peninsula, flow into the Danube. Then comes the last and most important, 130 km long mountain breach between the South Carpathians and the Balkans: the “Iron Gate” (Đerdap). The Iron Gate region encompasses the banks of the Danube from *Cuppae*/Golubac to the fortress *Diana*/Karataš. In this region for millions of years, the Danube cut its way through the rocky massif of the Transylvanian Carpathians, forming one of the largest river gorges in Europe. Between the river and the mountains of Homolje, Miroč, and Deli Jovan on its south bank, the space available for human habitation is very limited. In some parts of the Danube gorge, there are many submerged reefs, rapids and cataracts, while in the Great and Small Gorges in the middle of the canyon, the Danube is the deepest river in Europe. In antiquity, the river often froze during severe winters, making crossings very easy during those periods. From the end of the Gorge, at the Roman *castellum Diana*/Karataš, to the mouth of the Timok River, the Danube again becomes a broad and smooth flowing stream with numerous islands and sandbars.<sup>39</sup>

After the Iron Gate, the Danube reaches the lowlands of Wallachia. Here the riverbed with its vast swampland and river meadows lies in a 10 to 15 km wide valley close to the 100 m high steep edge of the Bulgarian chalk cliffs. The most important tributaries from the Carpathians are Jiu, Olt and Arges, from the Balkans Timok, Isker and Jantra.

39 Klee 2006, 74; Dyczek 2008, 45-51; Jilek 2009, 87-99; Korać et al. 2014, 50-57; Vagalinski et al. 2012, 23-62.

Before the Danube comes to the tableland of Dobrudja it turns north again, but forms a number of arms, between which there are very marshy floodplains. At Galați, the river bends to the east and reaches the mouth delta, a 4300 km<sup>2</sup> swamp area with reed beds and numerous water veins. The three main estuaries extend several times to lakes, but are heavily muddy and so shallow that shipping is not possible.<sup>40</sup>

### *Dacia*

The province of *Dacia* encompassed the high plain of Transylvania that was surrounded by the Carpathians. Numerous mountain passes and the deeply cut river valleys of the Mureș in the west, the Someș in the north or the Olt in the east, connect the land with the Tisza plain west of the mountains or the flatland of Walachia. The Banat between the Danube, Tisza, Mureș and the South Carpathians was rich in iron and copper deposits but did not belong to *Dacia*. The Dacian Limes was strongly influenced by the topography. At the most important incursions forts secured the central settlements, which were only accessible via passes and valleys. The largely inaccessible mountainous country made a continuous barrier unnecessary. For this reason, watchtowers, ramparts and ditches, called *clausura* (barrier), were installed only along shorter, apparently more vulnerable sections. A continuous wall could be excavated in the east of *Alutanus/Olt*.<sup>41</sup>

The so-called *Limes Alutanus* was the eastern border of the Roman province of *Dacia*. Nowadays there is no surface evidence, but is remembered by the *Tabula Peutingeriana*, the *Limes Alutanus* was a fortified line consisting of a vallum, built in the North-South direction, on the western side of the Olt River with seven Roman forts.<sup>42</sup>

The so-called *Limes Transalutanus* was a fortified frontier system built on the western edge of Teleorman's forests in the Roman province of *Dacia*. The frontier comprised a road following the border, a three-meter vallum 10-12 meters wide, reinforced with timber palisades on stone walls, and a ditch. The Transalutanus Limes was 235 km long, parallel to Olt River at a distance varying from 5 to 50 km east of the river. The construction was started in the early 2nd century; its final stage took place under Septimius Severus (AD 193-211). Between AD 244 and 247, under Philip the Arab, after the Carpien and Getae attacks, the Roman Imperial army abandoned the Limes.<sup>43</sup>

40 Klee 2006, 79; Dyczek 2008, 45-51.

41 Gudea/Lobüsch 2006, 3-5. 21-22; Klee 2006, 83-84.

42 Gudea/Lobüsch 2006, 31-36; Klee 2006, 86; Visy 2009b, 587-588.

43 Gudea/Lobüsch 2006, 31-36; Klee 2006, 87; Visy 2009b, 587-598.







# A SINGLE AND COMPLEX MONUMENT

# 5

The Frontiers of the Roman Empire are part of a common heritage of the countries encircling the Mediterranean Sea. Successive generations have built on that heritage and modified, it thus helping to create our modern world.

The Roman state, in one form or another, survived for over 2000 years. Its empire was one of the greatest states that the world has seen, close only to the ancient China in its size and longevity. The Roman world was protected and at the same time defined by frontiers. It was as if these frontiers were, as Aelius Aristides remarked in the 2nd century AD, “enclosing the civilised world in a ring”. The frontiers did define the Roman Empire and were essential for the stability and therefore economic growth of the interior: they allowed the cities of the empire to flourish.

The frontier, over 7,500 km long, defined the Roman Empire and is the single largest monument surviving from the Roman world. The evidence used to understand the frontier includes literary sources and other documents such as the records on papyri and the writing tablets, inscriptions, sculpture, the fruits of archaeological excavation and survey, and the frontier works themselves. Today, the most visible and prolific element of all these sources of evidence is the archaeological site which is the frontier.

All the frontier sections so far nominated and accepted as part of the multinational ‘Frontiers of the Roman Empire World Heritage Site’ are artificial frontiers, which are defined by military installations linked by an artificial barrier. However, in most countries in Europe, in the Near East and in North Africa, the frontiers consisted of chains of military installations along natural boundaries like rivers, mountains or deserts.

In contrast to artificial barriers such as the Upper German-Raetian Limes, which underwent several changes in advancing lines, the river frontiers of the Roman Empire in Europe along the Rhine and the Danube established by the 1st century AD remained rather static. There are few exceptions to this, mainly on the Balkans, where the Emperor Trajan crossed the Danube around AD 101/102, conquered *Dacia* in modern Romania and established a new province, which lasted until around AD 270.

The military post at al-Heita in the Eastern Desert, Egypt, on the route from *Coptos* to the quarries of *Mons Porphyrites*.

## 5.1 FRONTIER TYPES

The area of the Roman frontiers encompasses a wide variety of topographic, hydrographical, climatic and ecological regions, including the physical and climatic zones of mountain, woods, grasslands, deserts, river valleys and deltas. These geo-ecological zones had an important impact upon the nature of the frontiers.

The linear barrier south of *Sala* (Morocco) between Bou Regreg and the coast.



### 5.1.1 ARTIFICIAL BARRIERS

#### Palisades

In the 2nd century, in different parts of the Empire the ‘barbarians’, as the Romans called them, were separated off not by natural barriers but by artificial frontier-barriers such as palisades or walls. One example is the Odenwald-Limes, an early section of the Upper German Limes. It was a cross-country frontier line accompanied by forts, watchtowers and palisades, which linked the River Main with the Neckar and bridged the gap between the rivers. But there remained further advance and further fortification.<sup>44</sup>

Either Hadrian or, more probably, his successor Antoninus Pius, pushed out from the Odenwald and the Danube, and marked out a new frontier roughly parallel to, but in advance of these two lines, though sometimes, as on the Taunus, coinciding with the older line. This is the frontier, which is now visible. It consists, as is seen today, of two distinct frontier works, one, known as the Pfahlgraben, is a palisade of stakes with a ditch and earthen mound behind it, once extending from the Rhine southwards into southern Germany. The other, which begins where the earthwork stops, was originally also a palisade, to be replaced late by a wall of stone of approximately 3 m height, the Teufelsmauer. It runs roughly east and west parallel to the Danube, which it finally joins at Hienheim near Regensburg. The southern part of the Pfahlgraben is remarkably straight; for over 80 km, it shows a deviation of only a few metres from the absolute straight.<sup>45</sup>

#### Walls

Also in the 2nd century, other linear barriers were erected: firstly Hadrian’s Wall, a defensive fortification in the Roman province of *Britannia*. It ran from the banks of the River Tyne near the North Sea to the Solway Firth on the Irish Sea, and was then the northern limit of the Roman Empire. It had a stone base and a stone wall. There were milecastles with two turrets in between. There was a fort about every five Roman miles. From north to south, the wall comprised a ditch, wall, military way and vallum

<sup>44</sup> Breeze 2011a, 56-61.

<sup>45</sup> Breeze 2011a, 76-79.

(another ditch with adjoining mounds). In addition to the wall's defensive role, its gates may have been custom posts.<sup>46</sup>

About 20 years after the construction of Hadrian's Wall, Roman territory was extended to the north by some 160 km: The Antonine Wall, a turf fortification on stone foundations, was constructed between the Firth of Forth and the Firth of Clyde. Representing the northernmost frontier barrier of the Roman Empire, it spanned approximately 63 km and was about 3 m high and 5 m wide. It is thought that there was a wooden palisade on top of the turf. Security was bolstered by a deep ditch on the northern side; a military way was on the south. In addition to the 19 forts along the wall, there are at least 9 smaller fortlets, very likely at intermediate distances of a Roman mile, which formed part of the original scheme, some of which were later replaced by forts.<sup>47</sup>

### Ditches

The *Fossatum Africae* ("African ditch") is a linear defensive structure claimed to extend over more than 750 km in northern Africa, constructed to defend and control the southern borders of the Roman Empire in Africa.<sup>48</sup> Generally the *fossatum* consists of a ditch and earth embankments on either side using the material from the ditch. Sometimes the embankments are supplemented by dry stone walls on one or both sides; rarely, there are stone walls without a ditch. The width of the *fossatum* is generally 3–6 m but in exceptional cases may be as much as 20 m. Wherever possible, it or its highest wall is constructed on the counterscarp. The *fossatum* is accompanied by many small watchtowers and numerous forts, often built within sight of one another. The purpose of the *fossatum* seemed to be for customs and migration control.<sup>49</sup>

There are similar, but shorter, *fossatae* in other parts of North Africa. Between the Matmata and Tabaga ranges in modern Tunisia there is a *fossatum* which was duplicated during World War II. There is also a 20 km long *fossatum* at Bou Regreg in Morocco.

### Banks

Another fortified frontier system was built on the western edge of Teleorman's forests in the Roman province of *Dacia* (modern-day Romania) in the 2nd century. The frontier was composed of a road following the border, a three-metre vallum 10–12 m wide, reinforced with wood palisades on stone walls, and also a ditch. This bank with its own line of forts linked by a road is generally known as the *Limes Transalutanus*. It was 235 km long, parallel to Olt River at a distance varying from 5 to 50 km east of the river. The preferred interpretation is that the bank marked the provincial boundary and controlled movement in the areas where there was no natural physical boundary to the province.<sup>50</sup>

As many as six different artificial frontiers were constructed in Britain, Germany, *Dacia* and Africa within the relatively short period of sixty years. While they share some characteristics, there are many differences. The position of the Hadrianic German palisade, Hadrian's Wall in Britain and the *Fossatum Africae* related to existing sites, the new barriers being placed on the outer side of the earlier installations. The Antonine Wall in Britain, the Outer Limes in Germany and the *Limes Transalutanus*, on the other hand, were not built in relation to any other structures. The materials of construction varied. This may have related to what was available. A further difference

46 Breeze 2011a, 61–70.

47 Breeze 2011a, 71–76.

48 Cf. Baradez 1949.

49 Breeze 2011a, 82–84.

50 Gudea/Lobüscher 2006, 31–36; Breeze 2011a, 84–85.

between the frontiers is of particular importance. The various elements of the African, Dacian and German frontiers (forts, watchtowers etc.) tend to be separate and not physically connected by the barrier, while those on the British frontiers are linked.<sup>51</sup>

### 5.1.2 RIVER FRONTIERS

Part of the very essence of a linear frontier system is that it forms a continuous line. In general, artificially constructed barriers have no major problems to demonstrate this linearity. The fortification system itself with its structural details (walls, palisades, rampart/ditches) provides the necessary link between individual monuments (watchtowers, fortlets, forts). Even forts which are placed behind the active demarcation line, like those on the Upper German-Raetian Limes, stand in a fairly obvious relationship to the outer frontier installations. Walking along the frontier on Hadrian's Wall brings the visitor from watchtowers to milecastles and forts. The relationship between the individual frontier elements is clearly visible.<sup>52</sup>

River frontiers lack those most obvious connecting elements, excepting the Limes road and very often a chain of watchtowers. Although the rivers form a linear obstacle, which connects the individual monuments, the line itself is not easy to define and to present. Forts along the Rhine and Danube frontiers are 10 to 30 km apart, and inter-visibility does not often exist. Watchtowers, the intermediate elements in the archaeological landscape, are not always easy to detect. River frontiers were the River Rhine, Danube, Olt and Euphrates.<sup>53</sup>

There are long stretches of frontiers where we do not know much about watchtowers sited along them, especially those of the earlier Roman Empire, when they were mainly constructed of timber. An exception to this situation is the recent research on the Lower Rhine Limes, where a longer section of the earliest frontier system was investigated during rescue excavations in the area between Utrecht and Woerden (NL). Here it is clearly demonstrated that wooden watchtowers were a distinct element of the borderline along the river connected by a (Limes) road. Late Roman examples are easier to discern because of their massive stone construction. More than 200 watchtowers, mostly stone towers, are recorded along the Danube banks in Hungary, which form a very tight defence system. It can be assumed that similar systems existed on the other frontier sections too.<sup>54</sup>

A most distinctive feature of river frontiers of course is the river itself. But over the last 2000 years the river beds often changed courses. Because of such changes and floods, many sites on the lower grounds were destroyed by water action. In the 19th century, rivers underwent certain regulatory measures, which did not help to preserve the monuments. But quite a lot of them were detected and investigated through those activities. Even larger threats are the water power stations with their dams and reservoirs. When power stations were built in Serbia during the 1980s, many parts of the Roman frontier, e.g. forts, fortlets, watchtowers and the road through the Iron Gate were flooded and are no longer visible.<sup>55</sup> There exists a similar situation along the Euphrates in Turkey.

Distinctive features of river frontiers are bridgehead fortifications.<sup>56</sup> 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*/Orşova in Romania. Both of them were

51 Breeze 2011a, 85.

52 Jilek 2009, 42; Visy 2015, 27-36.

53 Jilek 2009, 42.

54 Jilek 2009, 42-45; Visy 2015, 32.

55 Jilek 2009, 45.

56 Cf. Bohy 2014, 141-146; Visy 2015, 31-32.



Southern gate of the bridgehead fort of *Kelemantia/Iža* (Slovakia).

constructed when Roman political Decisions led to caused advances into Barbarian territory. Little is known about permanent bridges which crossed the major river frontiers. One of the greatest achievements in Roman architecture is the so-called Trajan's Bridge, a stone bridge, which spanned the Danube close to the forts of *Pontes* (near Kladovo in Serbia) and *Drobeta*/Turnu Severin in Romania. The bridge was built after Trajan's decision to turn the territory north of the Danube into the Roman province of Dacia at the beginning of the 2nd century. In late Roman times more bridgeheads such as *Contra Aquincum*/Budapest in Hungary and *Divitia*/Cologne in Germany, 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.<sup>57</sup> The fort at Göd, some 10 km from the Danube in the Barbaricum, belongs to this category, too, although it was never finished.

The Limes road linked the individual military installations and other ancillary features. Quite often along a natural boundary, the Limes road usually runs well behind the course of the river, dictated by the terrain. Watchtowers and fortlets and sometimes also forts, are connected to a supra-regional Limes road by smaller roads.<sup>58</sup>

The histories of each of the river frontiers were different. From the time of Augustus, legions were based on the Rhine waiting to move forward. The units in the Danube provinces tended to be deployed internally, but had moved up to the river by the late 1st century. On the Euphrates the situation was different again with the legions lying astride potential invasion routes and therefore in essentially defensive positions. Gradually units were spread out along the river frontiers and, as the decades passed, the number of such units increased.

By the late 2nd century, every frontier province in Europe from the North Sea to the Black Sea contained at least one legion, in addition to many auxiliary units. The legions were generally placed strategically, to control routes used by the army, river crossings or potential invasion routes. The auxiliary units were spread along the rivers. In some areas, such as along the long stretch of the Danube through Lower *Pannonia* facing

<sup>57</sup> Jilek 2009, 46.

<sup>58</sup> Visy 2003, 43-46; Jilek 2009, 47.



the Great Hungarian Plain, the forts were more or less equally placed, about a day's march apart, that is 22 km, elsewhere their locations related closely to the local terrain. The control of routes remained important for the disposition of the auxiliary units. It can be no coincidence that the cavalry units based in Lower Germany lay to each side of the legion which itself was strategically placed at the start of one of the major routes into Germany, or that one of two cavalry units in Upper Germany lay on another route into Germany. The same held for the frontier on the Euphrates: each main line of movement over the border was controlled by a legion.<sup>59</sup>

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 4th, and on the Lower Danube even to the 5th and 6th centuries AD. 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, archaeologically and chronologically.

All the river and artificial frontiers of continental Europe share a common feature: with very few exceptions all forts lay on, or close to, the frontier line itself, that is the river bank or the linear barrier. The two great European rivers housed the imperial fleets. While their primary purpose was probably defence like the soldiers of the army, they presumably also helped supply the frontier forces.<sup>60</sup>

### 5.1.3 MOUNTAIN FRONTIERS

Rivers can flow through mountainous terrain and the resulting gorges, as on the Middle Danube or the Euphrates, can act as a severe impediment to movement, and settlement. Often, the army seemed to consider that little extra protection was required in such circumstances.<sup>61</sup>

For the Romans, passes were significant for the control of routes. Valleys were always important lines of communication. Forts were carefully placed in *Dacia* to watch over passes through the Carpathians and similarly in the Caucasus Mountains. The speciality of such frontiers is that the forts were built in the valleys along a road, while the frontier line with towers ran within sight on top of the nearby hills. Where there were breaks in the high plateaux beside the River Euphrates which allowed for a route across, a legionary fortress was established. In Germany, every pass in the hilly countryside of the Odenwald was guarded by a fort or fortlet. In northern Britain, a network of fortlets controlled the passes through the Southern Uplands in the Antonine period. The only mountains which appear to have been treated differently were the Atlas Mountains in North Africa, but this may relate in part to our poor knowledge of the details of the frontier installations.<sup>62</sup>

An unusual province in Europe was *Dacia*. Its frontiers were mainly defined by the Carpathian Mountains. These offered a boundary as well as an obstacle to attack. Their form helped create a uniquely defended province, a useful reminder that the Romans could adapt to special and different circumstances. The shape of *Dacia* helped to create its own unique military deployment. To the north and east, the outer shell lay in the mountains. The main pass to the east was strongly guarded with additional units being based there. Some towers have also been recorded in this sector. A similar pattern

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59 Breeze 2011a, 115.

60 Breeze 2011a, 116.

61 Breeze 2011a, 133.

62 Breeze 2011a, 144-145.

pertained in the west where several auxiliary forts protected the access route along the Mureş Valley.<sup>63</sup> A noticeable concentration of forts was in the gap between the western and northern Carpathians. The purpose of a specific arrangement of forts, fortlets, towers and barriers was to control access to the province.

### 5.1.4 DESERT FRONTIERS

The frontiers in the desert areas were entirely different from land or river frontiers. Here water was also important, though not in the same way. Rainfall governed the extent of farming and settlement and therefore the boundary of the empire and the positioning of Roman forts. The location of the forts in *Syria* and *Arabia* closely related to the line of the 200mm isohyet. When forts were built in the desert, their location was determined by the position of oases or the presence of sub-surface water which could be reached by wells. The resulting pattern is rather different from that on a land or river frontier. The placing of a fort at an oasis not only had the advantage of ensuring that there was a water supply for the troops but also enabled the soldiers to supervise the civilians living there or using the oasis while travelling as well as denying its use by an enemy.<sup>64</sup>



The desert fort of Qasr al-Bashir (Jordan).

There are considerable differences between desert frontiers. There are, however, two important constants, the extent of Roman rule related to the rainfall and to the area of cultivable land. On all desert frontiers, the distances between forts are larger than on the land and river frontiers of Europe which suggests that the lines of forts which can be drawn on a map do not relate to the same type of frontiers. A strong argument is that the forts constructed under Diocletian and later in Arabia were to protect travellers on the caravan route leading from the Red Sea northwards. Their construction followed the early Saracen raids and it remains possible that the forts

63 Breeze 2011a, 133-134.

64 Breeze 2011a, 118.



also protected the local provincials from such raids. There is evidence for increased agricultural production in several frontier areas which could have encouraged raiding.<sup>65</sup>

We have desert frontiers in Syria, Arabia, Egypt, *Cyrenaica* and *Tripolitania*. In Arabia and in North Africa, outposts were established at considerable distances beyond the presumed frontier line, or rather beyond the main line or group of forts. In North Africa, these almost appear to be part of a continuous forward movement of the frontier in *Numidia* through the 2nd century into the early 3rd. This move, however, stopped in the early 3rd century after the actions of Severus. One purpose of his forts may have been to guard caravan routes into the empire, and this seems also to have been the situation in Arabia where the outposts sat astride routes into the province. The outposts there may have had an additional role of maintaining contact with people beyond the frontier. One unusual feature in both *Arabia* and *Numidia* was the use of legionaries to man forts and outposts. The reason for this is not known. It possibly reflects the relative lack of auxiliary troops in these provinces. Possibly the legionaries here were otherwise underemployed as there were few threats.<sup>66</sup>

Military outpost near the quarries of *Mons Claudianus* in the Eastern Desert (Egypt).



Diocletian was at work on all frontiers, as demonstrated by the construction of forts in a new style of architecture. In North Africa, ironically, the last major threat came with an invasion from across the sea, by the Vandals who sacked Carthage in AD 439. Roman rule ended here and in the Near East with the Arab invasions of the 7th century.<sup>67</sup>

### 5.1.5 SEA FRONTIERS

The ultimate frontier was the sea. Such a frontier was achieved in the West where Rome's armies reached the Atlantic in *Mauretania Tingitana*, Spain, Gaul and through much of Britain. Once the conquest of Spain and Gaul had been completed, these new provinces were largely demilitarized. Bringing the boundary of the empire to the sea accordingly had advantages in terms of stability and manpower. The sea offered

<sup>65</sup> Breeze 2011a, 132.

<sup>66</sup> Breeze 2011a, 132.

<sup>67</sup> Breeze 2011a, 132.

important lines of communication as well as cheaper transport than travel overland. Some scattered outposts of the empire were only reached by sea, including the cities and forts around the Black Sea.<sup>68</sup>

The Romans may not at first have been sailors, but during the empire they developed their fleets to ensure that the seaways were as open as land routes as well as using them as part of the armoury of protection in the frontier lines. Rome was normally able to control activities within the Mediterranean basin, but the western seaboard was more difficult. Defensive measures were taken against attacks from Franks and Saxons, but, so far as we know, no proactive military expeditions were launched to stop the problem at the source.<sup>69</sup>

The clearest evidence for the protection of a sea frontier lies within the pages of Arrian's *Circumnavigation of the Black Sea*, written in the 130s. Arrian describes the units based at four forts around the south-eastern edge of the Black Sea, and their purpose. One purpose of the forts would appear to have been to keep watch over the adjacent tribes. Arrian also describes the physical location of the forts, recording which river mouth each fort sat beside and guarded. He specifically mentioned pirates on the Black Sea and stated that they needed dealing with. This was particularly important because the north Black Sea coast provided corn for the army of *Cappadocia* and the supply lines needed guarding from pirates, who had previously been a threat in the region.

The forts running along the Black Sea coast eastwards from *Trapezus*/Trabzon had a dual role in that they faced both to sea in order to provide bases for the fleet seeking to keep the seaways open and protect traffic from pirates and inland to keep watch over the peoples of Colchis. After Arrian's governorship, the chain of forts was extended further round the eastern coast of the Black Sea. The forts along the southern and eastern fringes of the Black Sea were supported by the fleet based at *Trapezus*/Trabzon located at the north-east corner of the province of *Cappadocia*. Several forts are known between the Danube delta and the Crimea, some probably serving as fleet bases.<sup>70</sup>

The roads from the Nile across the Eastern Desert and Red Sea Mountains reached the western coast of the Red Sea at several locations. Travellers along these routes were protected by soldiers based in fortlets. In AD 137, Hadrian created a new road, the *via Hadriana*. The construction of this road may have been intended to improve contact between the interior of the province of Egypt and the fleet at the Red Sea.<sup>71</sup>

At the western end of the empire, at the North Sea, piracy became a serious problem in the late 3rd century. A special command was created and given to Carausius. He had been given the responsibility throughout the Belgic and Amorian areas of clearing the sea, which was infested by Franks and Saxons. It is in this context that the forts of the Saxon Shore were constructed. This was a military command, consisting of a series of fortifications on both sides of the English Channel. Already in the 230s, several units had been withdrawn from the northern frontier and garrisoned at locations in the south, and had built new forts at Brancaster, Caister-on-Sea and Reculver. Dover was already fortified in the early 2nd century, and the other forts in this group were constructed in the period between the 270s and 290s.<sup>72</sup>

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68 Breeze 2011a, 146.

69 Breeze 2011a, 158.

70 Breeze 2011a, 148-152.

71 Breeze 2011a, 152.

72 Breeze 2011a, 153-158.

The linear barrier of Hadrian's Wall (United Kingdom), extending over 117 km.



## 5.2 CHRONOLOGICAL DIVERSITY

During the centuries of the Roman Empire the frontiers went through several changes. In the Republic and indeed under Augustus, military frontiers to the Roman Empire did not exist. Under Augustus, some legions were based within the interior of provinces, as resistance to Rome often continued for many years. It appears that it often took some time for the new provincials to settle peacefully into their new role. It was only when the new province was pacified that the army was moved from the interior onto the frontier line. This process took nearly a hundred years to complete in *Noricum* and *Pannonia*.<sup>73</sup>

In Europe, the demarcation lines along the rivers Rhine and Danube under Augustus did not yet mark the extent of the Roman state as boundaries. In addition, they did not offer any real protection because the Germans were used to swimming across rivers. In winter, the frozen waters could be easily crossed. Through the military control of the two rivers, Rome created a security zone in front of the empire in the west, which corresponded to the client kingdoms and federates in the east.<sup>74</sup>

The Varus disaster of AD 9 was of enormous significance for the Roman Empire. Nearly all troops were pulled back across the Rhine and settled into bases. Gradually the large army groups were broken up and units spread along the river. This was a long-drawn-out process. During this process, the spacing between forts along the rivers Rhine and Danube was reduced from an earlier erratic framework to about 30-40 km. On other frontiers, deserts or mountains, the distance between forts was often greater, though long gaps were usually broken by fortlets and towers. In some places, gaps remained, but over the following decades, they were filled, as in *Noricum*. There were other areas where there was a greater concentration of troops. These were generally because of an actual or perceived threat from beyond the frontier, the necessity to control a route or people living close to the frontier or a particularly fertile region.<sup>75</sup>

A most significant change was the greater use of towers and fortlets on the frontier. Towers appear in Upper Germany under Augustus, and along the lower Rhine under Claudius. Tiberian fortlets are known on the upper Danube. The mere existence of these structures suggests that there are more to be found. The first evidence for their

<sup>73</sup> Breeze 2011a, 167.

<sup>74</sup> Klee 2006, 151.

<sup>75</sup> Breeze 2011a, 167-170.

use in a more concentrated form on frontiers is in Britain in the late 1st century and shortly afterwards in Germany.

The creation of linear barriers was the next invitation. This is normally attributed to Hadrian, but a short length of barrier constructed in Germany appears to date to the reign of his predecessor, Trajan. Nevertheless, it would appear that it was Hadrian who developed this frontier element. Such barriers were constructed in Germany and Britain and, when both were abandoned for a new forward line, they were replaced with similar structures. The barrier in Germany was repaired and rebuilt, but continued in use until that part of the empire was abandoned about AD 260. The linear barrier in Britain continued in use to the end of the empire.<sup>76</sup>

The Antonine Wall was perhaps the most developed frontier, with its linear barrier, close spacing of forts, fortlets and small enclosures. Later in the 2nd century, however, it is noteworthy that there are other developments. Under Commodus towers were erected on the Danube and fortlets in North Africa, both concerned with the protection of the frontier areas from raiders.

Septimius Severus stepped beyond the frontiers he had inherited. He sought, and obtained, new conquests in the East, though not all he wished. He advanced the line of forts in *Mauretania Caesariensis*, constructing a new frontier zone, and built new forts along the northern edge of the Sahara Desert in both *Numidia* and *Tripolitania*.<sup>77</sup>

On the eastern frontier a string of forts and fortlets for 800 km from the Gulf of Aqaba to the Euphrates has been erected under the reign of Diocletian. Some of Diocletian's successors such as Constantius II, Julian and Valentinian were energetic emperors and undertook extensive building programmes. The tools were as before, forts, fortlets and towers. Noteworthy was Valentinian who ordered an extensive programme of tower building from Britain to the eastern frontier in the 370s.<sup>78</sup>

In Europe the Limes established under Augustus was moved ahead under Domitian, Trajan, Hadrian and Antoninus Pius between the rivers Rhine and Danube, in the territory of the United Kingdom and in Romania. It was moved back under Gallienus and Aurelian in the 3rd century, and given up in the course of the 5th century. However, its eastern sector remained under Roman rule (Eastern Roman Empire) until later, up to the beginning of the 7th century. The boundary of this late Roman sector is in the Balkan, and involves the provinces *Pannonia secunda*, *Moesia prima*, *Dacia ripensis*, *Moesia secunda* and *Scythia minor*. In AD 375 and after the Roman defeat at Adrianople in 378, Goths were settled down in these provinces as federates. The division between the Western and the Eastern Roman Empire had weakened the defense on the frontier and many towns and forts along the Lower Danube were soon occupied by the Huns. After the collapse of the Hunnic rule *Sirmium*/Sremska Mitrovica was taken by the Goth and Gepids, and *Singidunum*/Belgrade was occupied by Theoderic, king of the Ostrogoths, in AD 471. They ceased to be Roman *foederati* (subsidised tribes). Justinian reoccupied the eastern part of the Danube frontier together with *Pannonia secunda* (with the city of *Bassianae*, and later also *Sirmium*) in the forties of the 6th century and conducted a significant restoration of forts. The Lower Danube Limes was taken by the Avars and the Slavs in waves in the last decades of the 6th and in the first decades of the 7th century.

In North Africa the frontiers were held until the Vandal invasion in AD 429 which led to the creation of a kingdom there, though with significant depletion of effective frontier control. The power vacuum in the old frontier sectors was filled by a number of 'berber' kingdoms, in part based on the populations of the old garrison settlements. In 533, the Emperor Justinian recovered Africa for the Eastern Roman Empire.

76 Breeze 2011a, 170.

77 Breeze 2011a, 171.

78 Breeze 2011a, 171.

Floors of a timber  
barrack of the fort at  
Alphen aan den Rijn  
(the Netherlands).



Thereafter, the Limes survived as an effective protection until Byzantine times. In the very last years of the 7th century, the frontiers fell with the Muslim conquest of North Africa.

In the Near East the frontiers belonged from Late Antiquity on to the Roman Eastern Empire. Troops were progressively withdrawn from the *Limes Arabicus* in the first half of the 6th century and replaced with native Arab *foederati*, chiefly the Ghassanids. To secure the eastern frontier, Emperor Justinian signed a peace treaty with the Sasanian Empire. After the Arab conquest in the 7th century, the frontiers in the Near East and in Egypt were largely left to disappear. Nevertheless, some fortifications were used and reinforced in the following centuries.

In summary, the frontiers in the Western Roman Empire were abandoned from the 5th century onwards. An exception was the frontier in North Africa, which was conquered after the collapse of the Western Roman Empire by the Eastern Roman Empire in the 6th century. The frontiers of the Eastern Roman Empire remained in one form or another until the late 7th century.

### 5.3 CULTURAL AND SOCIAL ASPECTS

Spanning three continents, the Roman Empire developed and transmitted a universal culture based on Greek and Roman civilisation over large parts of Europe. Its influence reached far beyond its actual boundaries in Europe and around the Mediterranean. Its culture framed and guided the cultures of Europe and beyond up to and including the present day.<sup>79</sup>

The Frontiers of the Roman Empire form the single largest monument to this civilisation. They helped define the very extent and nature of the Roman Empire. As a whole, they represent the definition of the Roman Empire as a world state. They also play a crucial role defining the development of the successor states to the Roman Empire. The frontiers and their garrisons were also a crucial tool of Romanisation on both sides of the borderline.<sup>80</sup>

The frontiers also have high significance as illustrating the complexity and organisational abilities of the Roman Empire. With only the technology and communications of a pre-industrial society, the Empire was able to plan, create and protect a frontier of

<sup>79</sup> Breeze/Young 2008, 29.

<sup>80</sup> Breeze/Young 2008, 29-30.



some 7,500 km and garrisons of tens of thousands of men. It was then able to manage and use this system, on the whole successfully, for periods of many centuries, both as a physical barrier, and also as the basis for diplomatic and military intervention far beyond the actual frontier line itself.<sup>81</sup>

Physically, the frontiers demonstrate the variety and sophistication of the responses of the Roman Empire to the common need to demarcate, control and defend its boundaries. This had to be done in widely differing circumstances, reflecting the interaction of political, military and topographical features. Mostly, the empire faced a variety of tribal groups, but on their eastern front they were confronted by the Parthian Empire, a state of equal sophistication and complexity.<sup>82</sup>

In some places the boundary ran along rivers. Elsewhere, it skirted the desert and it also ran through areas with no natural barriers. In each case, the Romans developed a local solution, making use of topographical features and political circumstances to provide a barrier that was an effective control of movement across the frontier as well as a strong military defence. The variety of physical remains have outstanding value in demonstrating the complexity and success of this society in using boundary works to define and protect itself in ways appropriate in each case to the local circumstances.<sup>83</sup>

The installations on the frontiers, their size, location, type, spacing, distribution and the units based there, have much to tell us about how frontiers operated. All these factors are better interpreted when related to the landscape affected where people could live, where they could produce food, and the Roman military need to maintain observation of people and places. Particularly in the early empire we can see that there were no forts where there were no people.<sup>84</sup>

Logistical factors played an important role in establishing the frontiers and the movement of large groups of troops. The troops were dependent on replenishment, and if supplies such as foodstuffs and heating materials could not be provided locally, they had to be supplied from elsewhere. The regular arrangement of the legionary fortresses and forts along the Rhine and the Danube is justified by the possibilities of defence as well as by the ideal transport conditions for bulk goods along river boundaries.

The pursuit of an offensive or defensive border policy depended essentially on the military strength of the enemy. A defensive border policy required deeper staggered fortress lines and practically excluded the establishment of client states as a buffer. Toward the strong Parthian and Sasanian Empire, Rome relied on a deeply staggered system of fortified cities, a concept which was not applied in the western parts of the Roman Empire until Late Antiquity.<sup>85</sup>

The Roman Empire was offensive as well as defensive. Almost all Emperors tried to extend its territory, and they did it with greater or lesser success. However, the territory of the empire remained fairly constant from the time of Augustus, who prescribed his successor not to start new offensives (with permanent new provinces only created in *Britannia*, *Dacia* and *Arabia*). The reason for this is that the Roman Empire was substantially a sea-shore empire round the Mediterranean Sea where water routes could provide the long distance traffic and communication lines. The action radius into the continents could not be more than 200-300 km unless big rivers provided opportunities for deeper penetration.

People also travelled and the control of routes was important. Legions were placed so as to be in good positions to repel invasions or guard significant routes. Mountains particularly focused attention on routes, in this case through passes. In *Dacia* and

81 Breeze/Young 2008, 30.

82 Breeze/Young 2008, 30.

83 Breeze/Young 2008, 30.

84 Breeze 2011a, 172.

85 Pfaffenbichler 2006, 8.

the land frontiers of Germany, soldiers were located to ensure Roman control of the passes. This concern extended to mountain ranges beyond the empire, for Rome always showed a keen interest in the control of the routes through the Caucasus Mountains in order to protect the eastern provinces from the depredations of the Alans and other peoples to the north. In *Mauretania Caesariensis*, the strong east-west lines of the Atlas Mountains together with the narrowness of the province forced a parallel east-west distribution of the single line of forts. Military deployment in the Atlas Mountains is also a useful reminder that forts had to be placed within the most sensible locations in such terrain. This was not on the top of the mountains, but rather in the valleys. The line of forts therefore did not in itself constitute the frontier.<sup>86</sup>

In the desert regions, wadis served as communications routes and these required controlling. Sometimes, a single fort or outpost might be sufficient, but in *Tripolitania* and *Numidia* barriers were erected across lines of movement, presumably with the same purpose as barriers elsewhere.<sup>87</sup>

On the river frontiers, the nature of the river valleys as well as the location of tributaries affected the positioning of forts. Tributaries formed routes which needed guarding, while their mouths offered safer anchorages than the main river or the open sea.<sup>88</sup>

Water always affected the location of forts, especially in the more arid parts of the empire. Forts in deserts tended to be placed at oases, both for the water available there as well as to deny their use to anyone else and maintain surveillance over the people living there. Water was still the basic requirement and along the eastern frontier and in North Africa the outermost forts tend to lie on the furthestmost points of settlement allowed by rainfall. Food to feed the army was probably also a factor in the location of units. In many parts of the empire, it has been noted that forts were generally located close to good farmland.<sup>89</sup>

## 5.4 CHARACTERISTICS OF THE FRE AS A WHOLE

The FRE form the single largest monument of the Roman Empire, one of the world's greatest pre-industrial empires. These frontiers are well identified, understood and documented. Their components convey the extraordinary complexity and coherence of the FRE in Europe, the Near East and North Africa. The FRE help define the very extent and nature of the Roman Empire. Although some parts have been affected by land use change and natural processes, the integrity of the FRE is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Many remains are in an exceptionally good state of preservation, surviving as part of a landscape which still contains significant visible traces of the Roman military presence. Some areas of the frontiers have been built over, but there are many significant archaeological remains still existing buried under the ground. There are several kinds of frontiers – artificial barriers, river frontiers, mountain frontiers, desert frontiers and sea frontiers – and they all have a high level of genuineness. They all have also been verified through extensive study and research. The materials and substance of underground archaeological remains are well-preserved, as are upstanding and visible remains. The form and design of each representative part of the frontier, in particular its linear character, and its architectural and military elements as well as its associated structures are clear and comprehensible. They are still easy to understand and their location and setting in the landscape can be clearly

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86 Breeze 2011a, 173.

87 Breeze 2011a, 173.

88 Breeze 2011a, 173-174.

89 Breeze 2011a, 174.





Remains of a ship and of the Limes road at De Meern (the Netherlands). In the centre two parallel revetments of the road are visible. In the foreground part of a cargo ship has been unearthed.

appreciated. Many upstanding parts of the frontiers have been conserved in accordance with the highest standards and are in a good state of repair. Some visible sections have significant heights and depths. Nevertheless, there are still many invisible, undisturbed and uncovered elements in nearly all sections of the frontiers.

Therefore, the following characteristics of the FRE can be distinguished:

- The FRE were designed and constructed to protect the Roman Empire. They are a symbol of a common heritage.
- In their engineering and construction they illustrate the technological and organisational ability of the Roman Empire, and are a reflection of the way that resources were deployed by the Roman army.
- They reflect the enormous complexity and outstanding variety of a frontier system, the inter-relationships among the single elements and the relative completeness of the system as a whole.
- They reflect the successful adaption of central planning both in a strategic and technical manner, and at the same time the ability to adjust them to the local features (climatic, geographic, strategic and ethnographic circumstances).
- The frontier was occupied by the Romans for more than four centuries; its remains therefore display considerable evidence of repair, rebuilding, re-use, re-planning, and decay.
- The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the Outstanding Universal Value.
- The setting of the FRE offers the opportunity to understand and appreciate Roman military planning and operations.
- The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.
- The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the landscape, both in open country and in urban areas. In view of the extent of the remains of the Roman frontier it is impossible to present more than a very broad overview in this chapter.<sup>90</sup> In accordance with the Koblenz declaration (chapter 2) the focus will be on the frontier line of the 2nd century AD.

<sup>90</sup> For this overview extensive use was made of the following publications: Bechert 1999; Bishop 2012; Bowersock 1976; Breeze 2011a; Daniels 1987; Dyczek 2008; Graf 1997; Ilić/Golubović/Mrđić 2010; Jilek 2009; Karavas 2005; Kennedy 1987; Klose/Nünnerich-Asmus 2006; Korać et al. 2014; Lotter 2003; Mattingly et al. 2013; Maxfield 2000; Maxfield 2005; Rankov 2005; Sommer 2009; Spring 2015.



# REMAINS OF THE ROMAN FRONTIER ON THE LINE OF THE 2ND CENTURY AD

# 6

In accordance with the Koblenz declaration (chapter 2), which suggested that the focus of World Heritage nominations should be on the frontiers in the 2nd century AD, when they reached their greatest extent, this chapter will focus on the frontier line in that century. In view of the extent of the Roman frontier it is impossible to present more than a very broad overview.<sup>91</sup>

The overview is divided in three sections: Africa, the Near East and Europe. For each section the extent, site locations and site distribution will be discussed. For Europe there is an additional discussion of the distribution of the sites over Roman provinces.

## 6.1 THE ROMAN FRONTIER IN AFRICA

In this study 'Africa' is used as a general indication of the northern edge of the African continent, from modern Morocco to Libya. Egypt, though largely situated on this continent, is generally considered as a separate entity. In this chapter, the term 'Africa' comprises the countries of Morocco, Algeria, Tunisia and Libya; Egypt is discussed along with the Near East (section 6.2).

The African frontier is not very well known. Most of the field work was carried out during the colonial period, as a hobby of military officers. On account of the tight association with that past, research of the Roman frontier today is seen as a product of its time. Most recent publications are the work of Anglo-Saxon, French and German scholars.

### 6.1.1 EXTENT

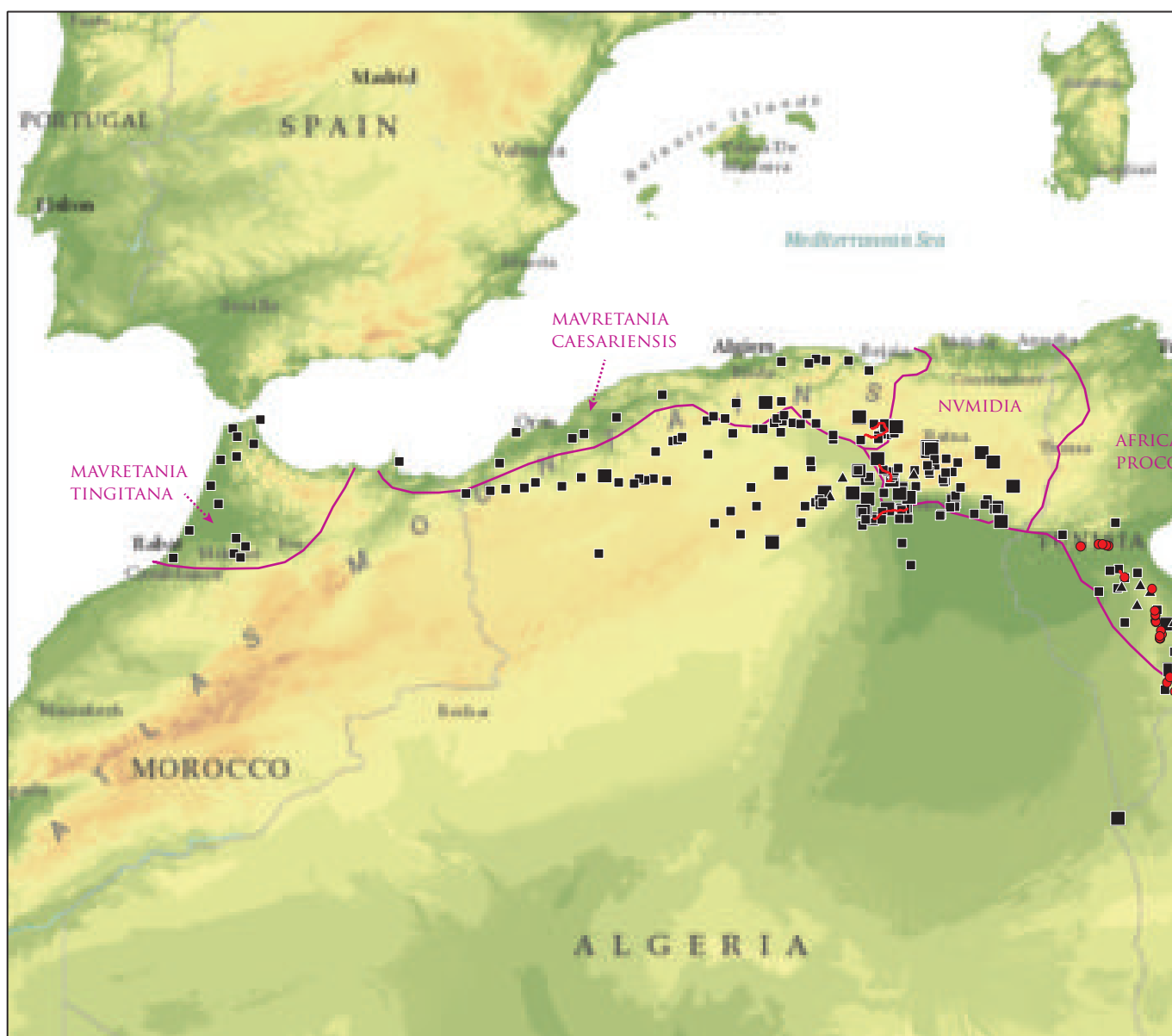
In the 2nd century AD the Roman military infrastructure extended over all the Roman provinces: *Mauretania Tingitana*, *Mauretania Caesariensis*, *Numidia*,<sup>92</sup> *Africa Proconsularis* and *Cyrenae*.<sup>93</sup> These provinces cover all of the semi-arid and some of the

Corner tower of the desert fort of Khan al-Hallabat, 39 km south-west of Palmyra (Syria).

91 For this overview extensive use was made of the following publications: Bechert 1999; Bishop 2012; Bowersock 1976; Breeze 2011a; Daniels 1987; Dyczek 2008; Graf 1997; Ilić/Golubović/Mrđić 2010; Jilek 2009; Karavas 2005; Kennedy 1987; Klose/Nünnerich-Asmus 2006; Korać et al. 2014; Lotter 2003; Mattingly et al. 2013; Maxfield 2000; Maxfield 2005; Rankov 2005; Sommer 2009; Spring 2015.

92 *Numidia* was separated from *Africa Proconsularis* at the very end of the 2nd century AD.

93 *Cyrenae* was part of the joint province of *Creta et Cyrenae*. It is often called *Cyrenaica*, the Latin transcription of the Greek name for the area around the city of Κυρήνη, *Curenae* in Latin.



arid zones of northern *Africa*, from east to west over a distance c. 3,000 km as the crow flies.

Digital map layers with the locations of 228 forts<sup>94</sup> and of several long and short linear barriers in these provinces have been kindly provided by Dr Martin Sterry (Leicester University, UK). The identification and location of these sites are more accurate than those of 366 records of forts and earthworks in the Pleiades database (cf. section 3.2), which include amongst others many fortified farms which cannot be considered as frontier installations.

### 6.1.2 SITE LOCATIONS

Essentially, the military installations in *Africa* were situated in three different landscapes: in coastal plains, mountainous areas and along north-south routes in and out of the desert (fig. 6.1). Although the linear arrangement of several series of forts and the occurrence of some linear barriers may readily suggest the existence of a closed frontier line, this is certainly not applicable to most of the military infrastructure in *Africa*. A

<sup>94</sup> The dataset did not include towers, but only forts, fortlets and the legionary fortress of *Lambaesis*.

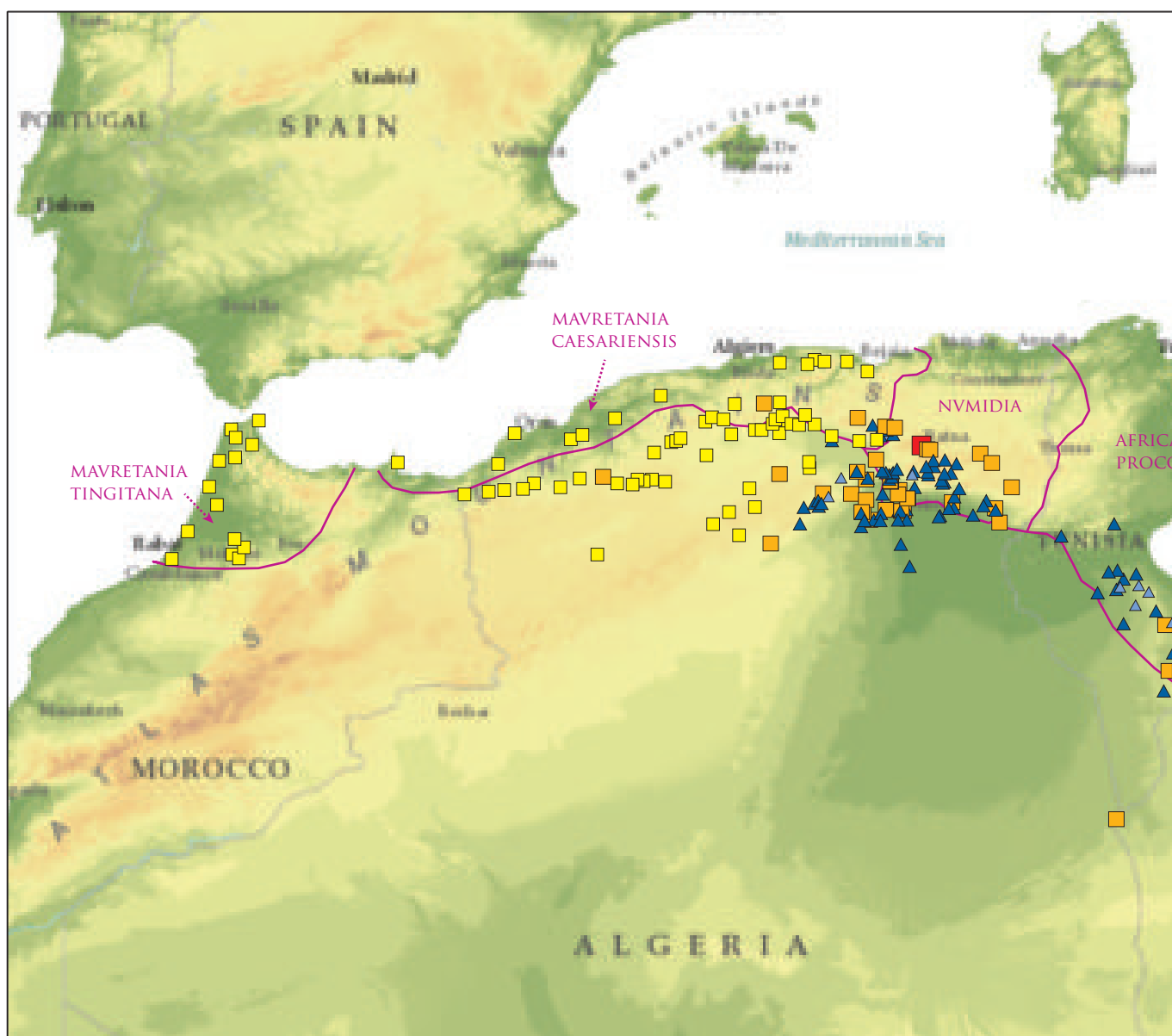


Fig. 6.1 Roman military installations in Africa. Long and short artificial barriers are indicated by red lines and dots, respectively.

major factor in its layout is the separation between the northern coastal zone and the Sahara desert.

In *Mauretania Tingitana* the military installations were closely associated with the cities in the coastal area and the outskirts of the Rif and Middle Atlas mountain ranges. Most were located along two more or less parallel roads connecting the provincial capital of *Tingis*/Tangier on the northern coast to the cities of *Sala*/Rabat and *Volubilis* in the south. Somewhat to the south of *Sala* a ditch was dug over 11 km between the ocean and the Bouregreg river, supplemented with some stretches of wall, demarcating the southern boundary of the province. The forts of *Tingitana* are separated from those in the adjacent province by the Rif mountains, which were evidently never under permanent military control.

*Mauretania Caesariensis* and *Numidia* are dominated by the mountain ranges of the Tell Atlas, Saharan Atlas and Aurès. In the former province two successive series of military installations ran parallel to the coast. The earlier series, established in the late 1st and early 2nd century, largely followed the narrow plains halfway the Tell Atlas. The later one, pushed out around AD 200 and known as *Nova Praetentura*, mainly ran along the southern fringes of the mountain range, turning off into the mountains in the west. Both series were connected by an east-west road and served to control movement along these routes rather than across.



Two lines of forts in the more southerly Saharan Atlas are a mainly 3rd century southwest extension of a large fort cluster enveloping the Aurès mountains of *Numidia*, initially the western part of *Africa Proconsularis*. In three areas the military infrastructure, pushed out in the early 2nd century from a new legionary fortress at *Lambaesis/Lambèse*, was supplemented with linear barriers, extending over distances varying from 40 to 150 kilometers. These obstacles, provided with towers and gates, are collectively known as the *Fossatum Africae*, suggesting a coherence which may not reflect the past reality. The large numbers of gates indicate that the primary aim of these barriers was control of movement rather than defence.

To the east of *Numidia* the mountains make way for the desert, with only small semi-arid areas on the coast around *Leptis Magna* and *Cyrenae/Shahhat*. In *Africa Proconsularis* the military infrastructure was tightly connected to the incoming desert routes. Especially in the western part the forts were regularly supplemented with so-called *clausurae*, short earthworks and walls evidently set up to regulate passage through natural corridors leading in and out of the areas of sedentary agriculture. In the early 3rd century some new forts were built further to the south, along trade routes.

The military control of the *Cyrenaica* was confined to the roads connecting the coastal cities and to the water points along the main routes coming in from the desert. As such the situation is similar to that in *Mauretania Tingitana*.



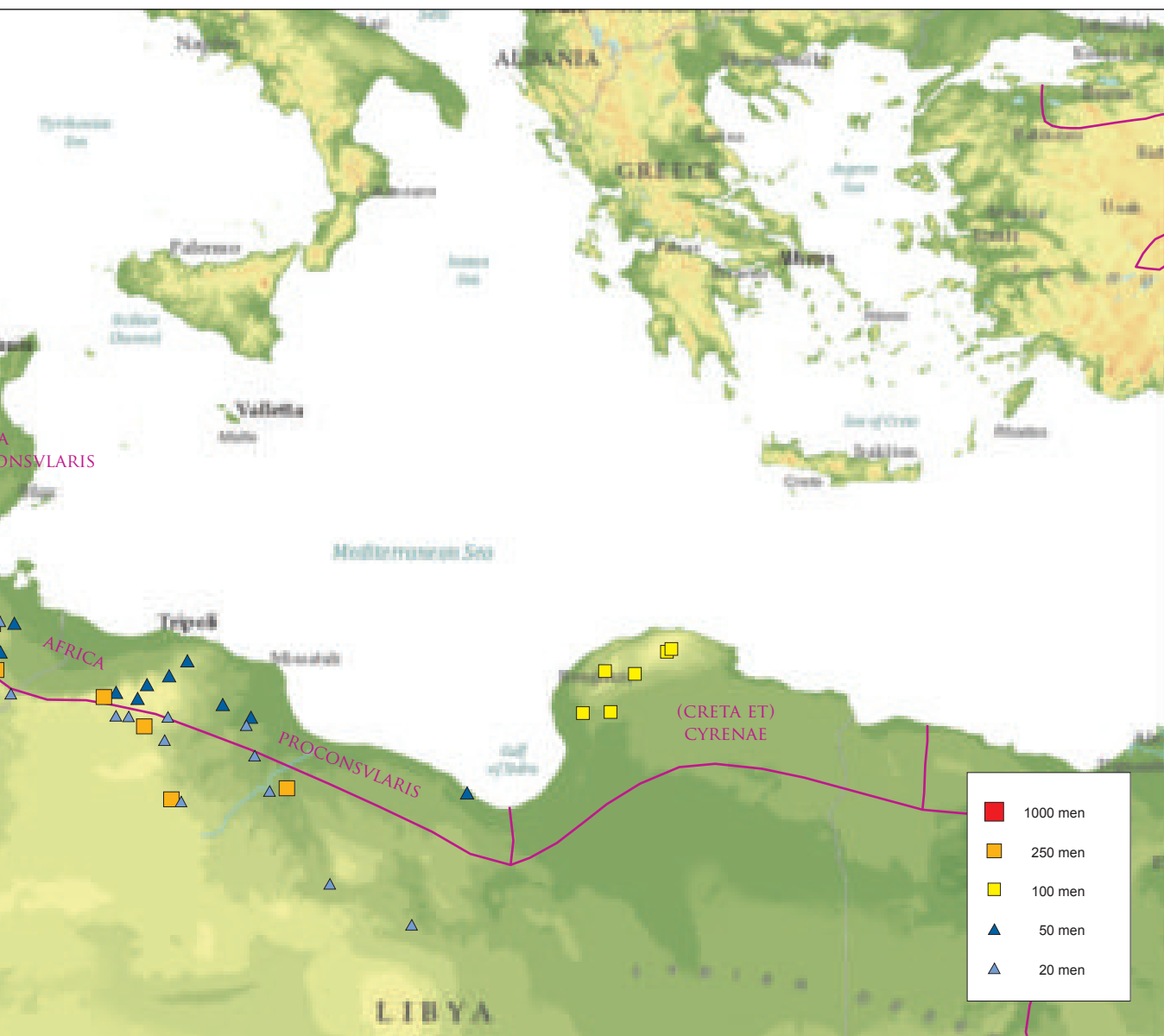


Fig. 6.2 Distribution of estimated garrison sizes over the provinces of Africa.

### 6.1.3 SITE DISTRIBUTION

The state of research of the African frontier does not allow a proper analysis of site types and their distribution. For many sites the evidence is incomplete or unreliable. However, it is generally agreed upon that the African garrison of the 2nd and 3rd centuries was small by any standard. The overall size probably amounted to no more than 30,000 troops, including only a single legion. This modest army force had to secure an area extending over more than 3,000 km between the cities of *Sala* in the west and *Cyrenae* in the east – equivalent to the distance from the North Sea to the Black Sea and twice the distance from the Black Sea to the Gulf of Aqaba.

Estimates made by Sterry of the garrison sizes of 228 military installations clearly indicate that the Mauretanian provinces and *Numidia* received many more troops than *Africa Proconsularis* and *Cyrenaica* (fig. 6.2). This opposition corresponds with the division between the mountain ranges and the desert areas.

Although the legionary fortress at *Lambaesis* could accommodate all ten cohorts of *Legio III Augusta* epigraphic evidence demonstrates that many legionaries were detached to forts and watchtowers. Even so the ratio between the available troops and the number of installations reveals that most of the forts were small – fortlets rather than forts. It may be objected that not all 228 listed forts existed simultaneously, but



on the other hand, watchtowers are not included and had to be manned as well. The presence of towers has been attested in many areas.

## 6.2 THE ROMAN FRONTIER IN THE NEAR EAST

In this chapter the term ‘Near East’ is used as short for the ‘Ancient Near East’, which is more or less equivalent to what is called the ‘Middle East’ today. The term comprises the countries of Egypt, the Arabian Peninsula, Israel, the Palestinian territories, Lebanon, Jordan, Iraq, Iran, Syria and Turkey.

The situation regarding this part of the frontier is clearly expressed by Kennedy: “The archaeological evidence for the location, character and development of the eastern frontier is patchy, and often confusing. The basic evidence for much of the region remains even now the maps of Poidebard and Stein from before the Second World War. It has long been recognized that these present a palimpsest of several centuries of occupation and, indeed, include a number of non-Roman sites”.<sup>95</sup> Although his words date back to 1987, much is still valid.

### 6.2.1 EXTENT

What may be called the eastern frontier in the 2nd century AD extended over the Roman provinces of *Cappadocia*, *Syria* and *Arabia*, from the Black Sea to the Gulf of Aqaba, covering a distance of c. 1,300 km as the crow flies. The military posts along the Nile in Egypt are stretched out over another 1,000 km.

For an overview of military sites in this area we have used data from the Pleiades project (cf. section 3.2). A selection of Pleiades sites occupied at some point during the Roman period resulted in 326 sites, of which 75 were only occupied in the Late Roman period. Some of these sites – mainly, but not exclusively of Late Roman date – are located behind or beyond the 2nd century frontier. A comparison with published maps of parts of the frontier demonstrate that the Pleiades dataset is far from complete,<sup>96</sup> but it may be useful for a general overview.

### 6.2.2 SITE LOCATIONS

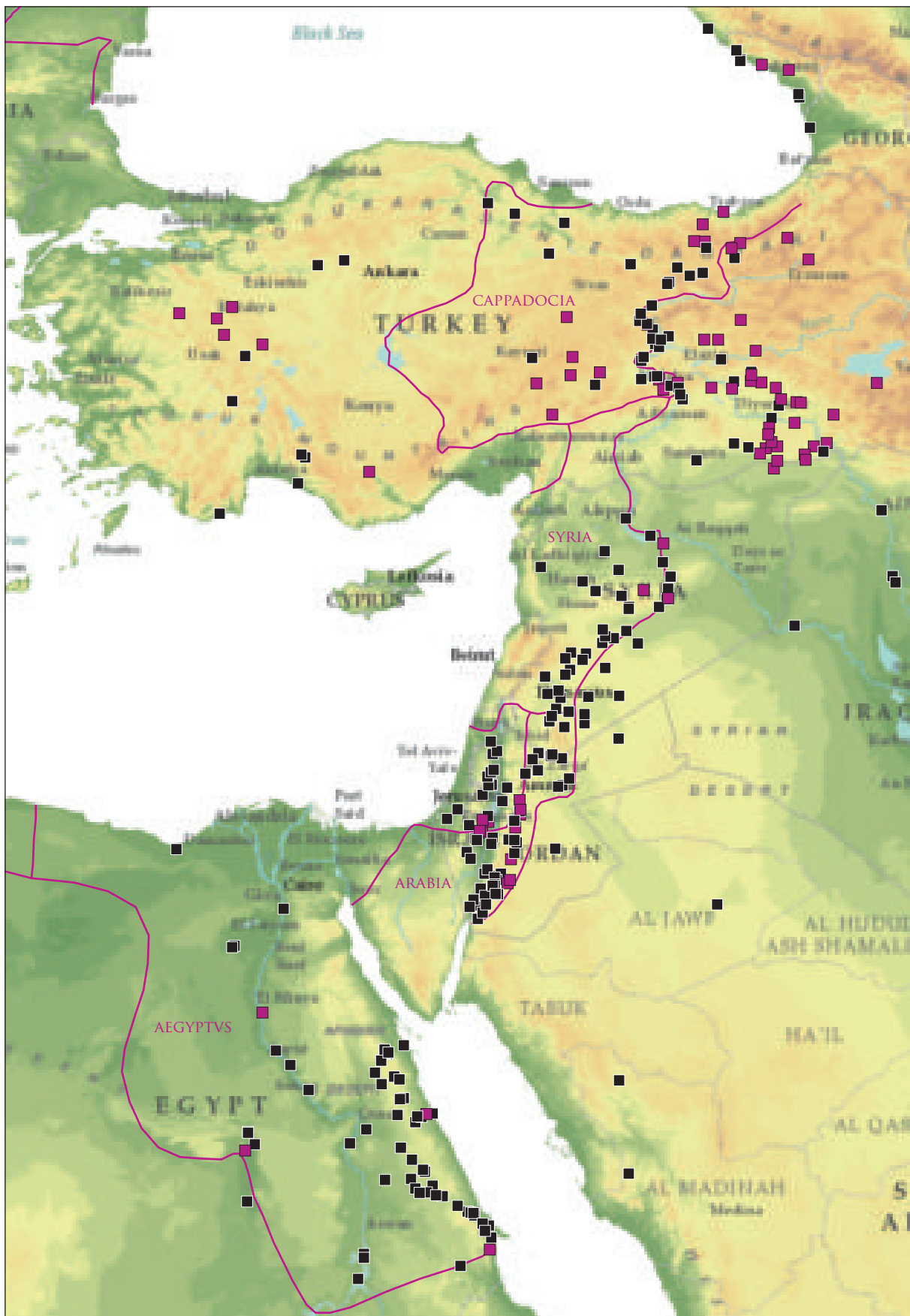
The military installations of the Near Eastern frontier were situated in the mountainous areas of *Cappadocia* and northern *Syria*, along the upper course of the river Euphrates and on the fringes of the (semi-)deserts of *Arabia* and Egypt (fig. 6.3).

Egypt was, in many aspects, a case of its own. The settled area was nearly confined to the valley of the Nile, which was, for a large part, protected by deserts to its east and west. The military infrastructure was divided over three areas: a limited number of forts existed in the delta and along the coast, a range of sites was stretched out along the Nile (mainly from *Syene*/Aswan to the south, between the First and Second Cataracts) and a large scatter of sites occurred in the Eastern Desert.

The garrison of Upper Egypt is archaeologically not very well visible, probably because troops were regularly based in towns and villages, including a legionary force at *Alexandria*. The latter city was also the base of the *classis Alexandrina*, the fleet operating in the eastern Mediterranean, but also on the Nile. *Syene*, just downstream from the First Cataract of the Nile, served as a basis for the protection against nomadic

<sup>95</sup> Kennedy 1987, 270, 273.

<sup>96</sup> For one thing, the dataset does not include watchtowers.



raiding from the southeast and southwest, complemented with a series of outposts extending over 100 km upstream, mostly on the west bank. The military posts in the Eastern Desert were divided over five roads connecting the Nile to the Red Sea coast – four to the east and one to the southeast, the latter over more than 400 km. The main

Fig. 6.3 Roman military installations in the Ancient Near East. Violet: Late Roman.

destinations of the northerly two roads were mines and quarries for the exploitation of valuable minerals and stone. The military supervision of the Red Desert therefore served various purposes: protection against raiding by nomadic tribes and pirates and supervision of mining and quarrying.

The remainder of the Near Eastern frontier is likely to be the most volatile of all sections of the Roman frontier. The dynamics are mainly due to the strained relations between the Romans on one side and the Parthians and later the Sasanians on the other. Changing ambitions and strategies repeatedly led to shifting territorial boundaries, ranges of influence and military resources.

Standing remains of the military fortress built by the Emperor Diocletian at *Palmyra* (Syria).



From the reign of Augustus to the middle of the 2nd century, client kingdoms made way for provinces, but the process was whimsical. By the mid-1st century, garrisons were stationed on the Euphrates, with legions at *Melitene*/Malataya, *Samosata*/Samsat and *Zeugma*/Belkis. The garrisons on the Euphrates were connected to the fleet base of *Trapezus*/Trabzon on the Black Sea by the Zigana Pass with its nearby legionary base at *Satala*/Sadak. A series of military posts was maintained on the southeast coast of the Black Sea. In the early 2nd century, the Emperor Trajan created the province of *Arabia* and initiated the construction of the *Via Nova Traiana* from the legionary base of *Bostra*/Busra al-Sham near the Syrian border to *Aila*/Aqaba on the Red Sea. The line from *Trapezus* to *Aila* is usually taken to represent the eastern frontier of the 2nd century.

However, in 115-117, Trajan defeated the Parthians and founded the provinces of *Armenia*, *Mesopotamia* and *Assyria*. His successor Hadrian immediately withdrew from these areas, and with good reason: they stretched the military resources and tripled the distance from the Mediterranean to the eastern frontier.

In the 160s, after a new Parthian War, the Roman occupation of the Euphrates was extended downstream to a large military base at *Dura Europus*/Salhiyah, and a further troops were stationed c. 200 km to the northeast at *Nisibis*/Nusaybin, on the southern

fringe of the mountains. At the end of the 2nd century Septimius Severus followed the example of Trajan by restoring *Mesopotamia* to a province, though only as far east as the Khabur river (c. 50 km west of the modern border between Syria and Iraq). In the decades to follow, the area would remain a source of dispute.

Both here and in *Arabia* garrisons were pushed out into oases in the desert, in the latter case possibly as far as Al Jawf near Sakakah, 400 km east of the *Via Nova Traiana*. There is some evidence for equally remote outposts along caravan routes to the southeast of *Aila* as early as in the 2nd century.

The base of the *classis Pontica* (Pontian fleet) at *Trapezum* and the short-lived posts on the east coast served to discourage piracy on *Pontus Euxinus*, the Black Sea. The military posts between *Trapezum* and the Euphrates guarded the passes and accesses in the Pontian mountains. From *Analibla/Iliç* southwards the military installations lined along a stretch of the Euphrates winding through the Central and Southeastern Taurus mountain ranges. The military occupation of this area primarily served to exert control over the much contended kingdom of *Armenia*.

Below *Samosata* the Euphrates left the mountains. As far as the city of *Sura* near Ar-Raqqa, military posts were situated on the right bank of the river. They constituted what was probably the most direct 'contact zone' with the Parthian Empire. The importance of the Euphrates appears from the presence of as many as three legions, at *Melitene*, *Samosata* and *Zeugma*, complemented with a fourth at *Satala* further north. This was obviously both the last line of defence against Parthian attacks and a springboard for Rome's own actions.

From *Sura* a route departs in south-eastern direction, over *Palmyra*/*Tadmur* to the *Damascus* area, along the separation between the semi-arid steppe zone and the barren Al-Hamad desert. Around 300 the section from *Palmyra* to *Damascus* was lined with fortlets and known as the *strata Diocletiana*. From *Damascus* over *Bostra* to the city of *Philadelphia* the southward continuation of this route passed through a fertile area; later, a line of fortlets was established further east. Between *Philadelphia* and *Aila* at the Gulf of Aqaba, the *Via Nova Traiana* was situated on the fringe of the steppe and the desert, continuing an ancient caravan route. As yet, evidence is lacking for garrisons along these routes in the 2nd and 3rd centuries, and it is clear that, if the line of these routes is considered as a frontier, it is of an entirely different character than the line between *Trapezus* and *Samosata*.

### 6.2.3 SITE DISTRIBUTION

The available evidence does not permit a quantified analysis of site types and their distribution, but some points can nevertheless be made.

The size of the army of Egypt seems never to have exceeded 24,000 men, and may have counted less than 15,000 troops by the middle of the 2nd century, when the initial three legions had been reduced to a single one. It goes without saying, therefore, that most military installations were small – only three of approximately 70 posts in the Eastern Desert exceed 0.5 ha in size, the largest being *Coptos* on the Nile with no more than 0.9 ha.

The standing army of the remainder of the Near East amounted to c. 60,000 troops by the middle of the 2nd century, leaving the large garrison of the province of *Iudaea/Syria Palaestina* aside.<sup>97</sup> While in Egypt the legionary capacity was reduced to a single unit in the 2nd century, five legions were stationed in the eastern parts

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<sup>97</sup> The province was initially named *Iudaea*, but was merged with the province of *Syria* under the new heading of *Syria Palaestina* around AD 135. By 195 two new province were split off: *Syria Coele* and *Syria Phoenice*.

of *Cappadocia* (2), *Syria* (2) and *Arabia* (1), and a sixth closer to the Syrian coast at *Raphaneae/Rafniye*. From *Cappadocia* and *Syria* about fifteen and thirty auxiliary units – the equivalent of some four legions – are known from the mid-2nd century, against a dozen in all from *Arabia*, underlining the overriding military importance of the frontier towards *Parthia*.

At the present state of knowledge it is impossible to provide an overview of site types and their distribution. Many sites known mainly or exclusively from aerial photographs cannot be properly dated.

## 6.3 THE ROMAN FRONTIER IN EUROPE

In the 2nd century AD the Roman frontier in Europe extended from Scotland to the Black Sea, passing through the territory of ten modern states.

Three stretches of the frontier have already been inscribed on the World Heritage List, as component parts of the property 'Frontiers of the Roman Empire'. All three are artificial barriers: Hadrian's Wall, the Antonine Wall and the Upper German-Raetian Limes. These already listed sections will not be considered here.

### 6.3.1 EXTENT

The remains of the Roman frontier in Europe not belonging to these three artificial barriers are divided over three separate areas:

1. a stretch of c. 400 km on the left bank of the (Lower) Rhine;<sup>98</sup>
2. a stretch of c. 2,400 km on the right bank of the river Danube, starting somewhat upstream from Regensburg and extending to the Black Sea;<sup>99</sup>
3. an extended area to the north of the Danube, in the Roman province of *Dacia*, including several defensive lines amounting to c. 1,300 km.<sup>100</sup>

Information on the remains of the Roman frontier in these three areas has been kindly provided by the States Parties involved in the preparation of their nomination for the World Heritage List. The supplied information has been merged into a single database, covering nearly 1,000 sites (fig. 6.4).<sup>101</sup> These include sites which have been selected for possible nomination as well as sites not currently considered for nomination.

These almost 1,000 sites are not all the Roman military installations in Europe, but only those which are located on the line of the frontier in the 2nd century AD. There are many more military sites located some distance from this line, most of them dating to earlier and later periods of the Roman Empire. Sites which are not on or near the line of the 2nd century frontier are outside the scope of this Thematic Study.

98 The length of this stretch was calculated along the modern Rhine, using the 'Rheinkilometer' system (revised 1939), from Remagen (D) (Rkm 633) to the bifurcation at Wijk bij Duurstede (NL) (Rkm 928), supplemented with the lengths of the downstream continuations called Kromme Rijn (28 km), Leidse Rijn (13 km) and Oude Rijn (52 km). According to this calculation, the distance between Remagen and the Rhine outlet at Katwijk amounts to 388 km.

99 The length of this stretch was calculated along the modern Danube, using the 'Donau-Kilometer' system, from Hienheim (D) on the left bank of the Danube, about 20 km upstream from Kelheim (D) (2414 Donau-Kilometer). Hienheim is considered as the southeastern end of the Upper-German/Raetian Limes.

100 This is a rough estimate of the overall length of the lines along which most of the sites are located.

101 A 'site' in this database may consist of several component parts, e.g. a fort, the surrounding military vicus, and harbour installations.





Aerial view with projection of geomagnetic survey of the fort of *Burginatium/Altkalkar* (Germany).

### 6.3.2 SITE LOCATIONS

Of the almost 1,000 sites considered here, approximately 650 sites are located on the bank of a river: 100 sites along the Rhine and 550 along the Danube. The remaining 330 sites are located to the north of the Danube.

#### *Germania Inferior*

In the context of this study the Rhine is the section known as the Lower Rhine, which starts where the river leaves the Rhenish Massif near *Rigomagus/Remagen*, close to the Vintxbach, where the border between *Germania Inferior* and *Superior* was situated. From *Bonna/Bonn* until about *Burginatium/Altkalkar* the forts and fortresses were built on the edge of the older river terraces, with harbour installations on the river bank underneath. The legionary fortress of *Vetera I* near Xanten was an exception, being built on an ice-pushed ridge overlooking the Rhine.

Downstream from *Burginatium* the Rhine built up natural levees, and from *Carvium/Bijlandse Waard* onwards the river had a strongly meandering and bifurcating character. In this very dynamic delta the forts were built on the edge of the active river, prone to erosion. For the preservation of the sites this vulnerable position is both a blessing and a curse. Some forts were partly or entirely washed out by shifting river channels, but at other sites constructions along, and rubbish deposits in, the channels were covered by sediment, resulting in an outstanding preservation of timber and other organic remains. The legionary fortress of *Noviomagus/Nijmegen* and the adjacent fort on the Kops Plateau are exceptions, as they were situated on the outskirts of an eroded ice-pushed ridge, with an excellent view over the river plain.

The stretch downstream from *Fectio/Vechten* has a high density of small forts – nine divided over barely 60 km, with some additional timber watchtowers along a strongly winding stretch between Utrecht-Hoge Woerd and *Laurium/Woerden*. Since it has been established that most of these posts were built around AD 40 the system is considered as a protection against German pirates threatening the logistics of the



Fig. 6.4 Distribution of nearly 1,000 sites representing the Roman frontier in Europe, as far as they are located on the line of the frontier in the 2nd century AD. Hadrian's Wall, the Antonine Wall and the Upper German-Raetian Limes are merely indicated by blue dotted lines. Green: end in 1st century. Violet: start in 3rd century and later. Orange: date uncertain.





annexation of Britain, which commenced in 43. Apart from this series of timber watchtowers this type of installation is rare on the Rhine.

The observation of the Rhine was complemented by the *classis Germanica* or German fleet, based at Köln-Alteburg. The operation area of this fleet was restricted to the Lower Rhine, presumably because the access to the Middle Rhine was severely hindered by transversal reefs between Koblenz and Mainz.

### *Raetia and Noricum*

The river frontier of the Danube started at *Abusina*/Eining. Most of this stretch of the frontier faced a densely wooded area without much habitation. This probably explains why the number of military posts was initially limited.

Due to the alternation of gorges and wide floodplains the location of the military installations varies, but most were built in high positions, which often – but not always – safeguarded them against river erosion. Several forts were established at river confluences and other crossings of trade routes, like *Künzing* and *Batavis*/Passau.

Both provinces have a high proportion of fortlets and – in *Noricum* largely Late Roman – watchtowers. Two legionary fortresses, at *Castra Regina*/Regensburg and *Lauriacum*/Enns (with short-lived predecessors at Eining-Unterfeld and Albing, respectively), owe their origins to the Marcomannic Wars of AD 166-180. Harbours have been attested at sites including *Sorviodurum*/Straubing, which may have served as a secondary base of the Pannonian fleet, and Regensburg.

### *Pannonia*

From *Klosterneuburg* at the boundary between *Noricum* and *Pannonia* the Danube runs through the wide Vienna Basin until it reaches the Little Carpathians at *Devín* near Bratislava. This fertile area was mainly secured by the legionary fortresses of *Vindobona*/Wien and *Carnuntum*/Petronell at its ends. The latter was located close to the crossing of the ancient Amber Route over the river. It is often assumed that it was preceded by a military post below *Devín* castle at Bratislava, but as yet this has not been attested.

From *Gerulata*/Rusovce to *Arrabona*/Győr, the military posts were laid out along the Little Danube, the southerly of several parallel channels. The mentioned forts protected the ends of this inaccessible and strongly winding river section. Somewhat further downstream the legionary fortress of *Brigetio*/Komárom marks another important river crossing, which played an important role in the Marcomannic Wars. Across the river a bridgehead fort is located at *Kelemantia*/Iža, and both military installations are surrounded by many temporary camps.

From *Brigetio* to the next legionary fortress at *Aquincum*/Budapest the Danube cuts through the outskirts of the North Hungarian Mountains. Here, and especially in the Danube bend, the number of military posts was initially limited. It was only in the Late Roman period that this section was secured with large numbers of watchtowers and some fortlets, bridgeheads and outposts.

Beyond *Aquincum* the Danube enters the Great Hungarian Plain. In view of the relatively close spacing of the legionary fortresses from *Vindobona* to *Aquincum* – approximately 60-200 km – it is astonishing that the distance to the next legionary base, at *Singidunum*/Belgrade, is over 400 km. Until the confluence of the Drava river near *Osijek* the Danube has a twisting course. In the case of parallel channels the military posts were invariably built along the most westerly one; occasionally additional posts or bridgeheads were built further east at a later stage.

Throughout the Little and Great Hungarian Plains the riverbank is strewn with some 200 watchtowers. As far as their date has been established most belong to the Late

Roman period, but some are definitely earlier. The towers varied in size, construction and position, with only few distinctive groups. Some were clearly linked to the frontier road while others occupied high positions or river bends. Between the mouths of the Drava and the Sava towers are virtually absent. It is not impossible that this partly or mainly reflects a different state of research in Hungary on the one hand and Croatia and Serbia on the other.

The last military post in *Pannonia*, *Taurunum*/Zemun, appears to have been the main base of the *classis Pannonica* or Pannonian fleet. A position downstream from its operational area can hardly be called favourable.



Remains of the so-called 'Hadrians bridge' at Podravlje, (opposite Osijek (Croatia)).

### Moesia

At the confluence of the Sava at *Singidunum*/Belgrade the outskirts of the southerly mountain ranges start closing in on the Danube. Some 100 km downstream the river flows into the narrow gorges of the Iron Gate. The mouth of the Sava and a westerly entrance to *Dacia* were occupied by legionary fortresses at *Singidunum* and *Viminacium*/Kostolac by 85/86, at the occasion of Domitian's Dacian War. The Iron Gate itself was supervised by mainly small posts distributed along the more accessible parts, some already installed under Tiberius and Claudius.

From the exit of the Iron Gate the Danube took a winding course until *Ratiaria*/Archar. The dense series of military posts overlooking this stretch were mainly built in the 3rd and 4th centuries.

Downstream from *Ratiaria* the Danube follows a relatively straight course until as far as *Durostorum*/Silistra, between the Wallachian/Romanian Plain to the north and the more elevated Danubian Plain to the south. For much of this c. 400 km long stretch the river has a wide and often twisting channel. The legionary fortresses of *Oescus*/Gigen, *Novae*/Svishtov and *Durostorum* were built at rare spots where the river has a single, narrow bed. The intermediate military posts were often built in high positions with a clear view over the river and the plain beyond.

Table 6.1 Distribution of the 984 European frontier sites (excluding the existing FRE WHS).

main site type	Europe	Rhine	U Danube	M Danube	L Danube	Dacia
legionary fortress	27	7	5	4	4	7
fort	264	30	21	64	77	72
fortlet	62	1	16	11	6	28
watchtower	381	4	36	192	2	147
bridgehead	18	1		17		
fleet base	2	1			1	
hill fort	4			4		
earthwork	72					72
temporary camp	46	6	3	37		
industrial site	9	3	3	2	1	
road	53	26	5	18	4	
road station	4		1	1	2	
civil settlement	17	10		4	2	1
other	25	13	3	3	2	4
<b>total</b>	<b>984</b>	<b>102</b>	<b>93</b>	<b>357</b>	<b>101</b>	<b>331</b>

Downstream from *Durostorum* the Danube takes a northerly course, developing many twisting channels in a wide zone, before bending to the east at Barboși and creating a delta near *Aegysus*/Tulca. In this region the military installations were invariably built on the higher grounds along the most easterly river channel.

### Dacia

The military infrastructure of *Dacia* can be divided into several groups. The core area of the Transylvanian Plateau was occupied by the legionary fortresses of *Apulum*/Alba Iulia and *Potaissa*/Turda and a few forts. The accesses through the mountain ranges from northwest to southeast were blocked by a series of forts supplemented by towers high up in the mountains; in the north and northwest over a hundred towers constituted a very tight observation screen. Four lines of military posts connected Transylvania to the Danube: two in the southwest, departing from *Lederata*/Ram and *Transdierna*/Tekija, and two in the southeast, known as the *Limes Alutanus* and the *Limes Transalutanus*.

During the existence of the province of *Dacia*, c. 106–270, the Danube frontier between *Viminacium* and *Dimum*/Belenë (west of the legionary fortress at *Novae*) lost much of its military significance. The legionary fortresses of *Ratiaria* and *Oescus* were replaced by *coloniae* and many smaller posts were dismantled, but the legionary fortress of *Viminacium* and some of the larger forts were nevertheless maintained.

### 6.3.3 SITE DISTRIBUTION

The three areas distinguished above have nearly 25 sites per 100 km, but their distribution is less even than this average suggests. If the Upper, Middle and Lower Danube are separated, following a common geographical division,<sup>102</sup> the number of sites per 100 km ranges from 14 to 41 to 11, respectively. The strongly deviating number for the Middle Danube is caused by the frequency of watchtowers in modern Hungary. These towers, many of which are of Late Roman or uncertain date, account for half of the sites along the Middle Danube.

These figures demonstrate firstly that the distribution of military installations is far from even, and secondly that it cannot be understood without consideration of site typology and chronology.

<sup>102</sup> We have followed the division by the Danube Commission, presented at <http://www.danubecommission.org> [accessed October 10, 2016], with Gönyü (HU) and Turnu-Severin (RO) separating the upper, middle and lower courses of the river, resulting in stretches of approx. 670, 860 and 930 km length, respectively. The numbers of sites amount to 93, 356 and 101, respectively.

main site type	Europe	Rhine	U Danube	M Danube	L Danube	Dacia
legionary fortress	21	3	5	4	3	6
fort	199	24	20	51	44	60
fortlet	42	1	5	6	2	28
watchtower	286	4	22	115		145
bridgehead	7			7		
fleet base	2	1			1	
hill fort						
earthwork	8					8
temporary camp	44	4	3	37		
industrial site	7	3	2	2		
road	51	25	5	17	4	
road station	4		1	1	2	
civil settlement	16	8		5	2	1
other	20	12	2	2	1	3
<b>total</b>	<b>707</b>	<b>85</b>	<b>65</b>	<b>247</b>	<b>59</b>	<b>251</b>

Table 6.2 Distribution of the 707 European frontier sites occupied in the 2nd century AD (excluding the existing FRE WHS).

In the data provided by the States Parties over 170 different individual and combined site types occur. Since such a large variety is impossible to oversee we have distinguished no more than fourteen main site types. In cases where a site includes the remains of several site types – for example of a fort, an extramural civil settlement and a cemetery – the military installation was used to assign it to a main site type. A list of the main site types with brief explanations may be found in section 3.3.

Table 6.1 gives an overview of the frequencies of the main site types, with their division over the Rhine, the Danube (divided in three) and Roman *Dacia*.<sup>103</sup> It is obvious that the site types are very unevenly distributed over the European frontier, with for example most of the fortlets in *Dacia*, most of the watchtowers along the Middle Danube and in *Dacia*, and the Lower Danube dominated by forts (fig. 6.5).

As indicated above, chronology may have an impact on the site distribution. Yet, if only the c. 700 sites occupied during the 2nd century AD are considered, the image is very similar (table 6.2), with still most of the fortlets in *Dacia*, most of the watchtowers along the Middle Danube and in *Dacia*, and the Lower Danube dominated by forts. However, earthworks have now nearly disappeared from the record, since most of the sites concerned are of uncertain date. On the Upper Danube the numbers of fortlets and watchtowers have decreased, and on the Middle Danube those of watchtowers, since not a few of these installations are of either Late Roman or uncertain date.

The important constant factor is that the main site types are very unevenly distributed over the five distinguished areas. For the 2nd century, the major differences are:

- Watchtowers are overrepresented in *Dacia* and underrepresented on the Rhine and the Lower Danube.
- Forts are heavily overrepresented on the Lower Danube.
- Temporary camps are overrepresented on the Middle Danube.

Fortlets are overrepresented in *Dacia* and absent on the Middle Danube.

And from a regional point of view:

- On the Rhine watchtowers are rare, while road sections, civil settlements and other sites are overrepresented. The high frequency of road sections and civil settlements must reflect selection preferences, since in reality these site types are not rare in other areas. The category 'other' includes amongst others the seat of the provincial governor, sanctuaries, an aqueduct and a dug canal.
- The distribution of site types on the Upper Danube has the strongest resemblance to that of the European frontier as a whole.

<sup>103</sup> The record for *Dacia* includes 10 sites which are located on the northern bank of the Danube, and for that reason might have been assigned to the Middle (1) and Lower (9) Danube.



Fig. 6.5 Distribution of the main types of military installations. Hadrian's Wall, the Antonine Wall and the Upper German-Raetian Limes are merely indicated by dotted lines.







- The Middle Danube stands out by a large number of temporary camps. Most of these are situated around the legionary fortress of Brigetio and have been built during the Marcomannic Wars c. 166-180. It is also the only area for which bridgeheads from the 2nd century have been recorded, all located in or opposite *Pannonia Inferior*.
- The main characteristic of the Lower Danube is the predominance of forts and the absence of watchtowers.
- *Dacia* displays an overrepresentation of fortlets and watchtowers, while temporary camps are currently rare. Knowledge on the latter is increasing, however, and differences are probably due to the history of research and methodologies employed.

Of course, the reduction of over 170 different individual and combined site types to a mere fourteen categories implies a loss of information. However, it turns out that most of the variation has to do with terminology, for example by the use of the alternative terms of 'fort', 'auxiliary fort' and 'auxiliary castellum' for installations of similar size and purpose.

The most frequent site types which were lost by the reduction to fourteen main site types are the civil settlements and cemeteries outside forts and other military installations. The low frequencies and their peculiar distribution clearly indicate that the presence of remains of these associated features has not been consistently recorded (table 6.3). Hence, it is impossible to draw any conclusions from their distribution.

Table 6.3 Distribution of the civil settlements and cemeteries associated with military installations occupied during the 2nd century AD (excluding the existing FRE WHS).

main site type	Europe	Rhine	U Danube	M Danube	L Danube	Dacia
extramural settlement	64	27	15	16	5	1
cemetery	17	9	4	4		
<b>all sites</b>	<b>707</b>	<b>85</b>	<b>65</b>	<b>247</b>	<b>59</b>	<b>251</b>

### 6.3.4 SITES AND ROMAN PROVINCES

Of the five areas distinguished above, the Rhine and *Dacia* are equivalent to Roman provinces. The (Lower) Rhine constitutes the external border of *Germania Inferior*, generally assumed to have been created as a Roman province c. AD 85. *Dacia* existed as a Roman province from its establishment by the Emperor Trajan in 106 until its abandonment in or soon after 271. Its internal and external boundaries underwent various changes, which are not taken into consideration in this study.

The upper, middle and lower courses of the Danube correspond to some degree to Roman provinces as well. From the south-eastern end of the Upper German-Raetian Limes onward the Danube constitutes the external border of the provinces of *Raetia*, *Noricum*, *Pannonia* (*Superior* and *Inferior*) and *Moesia* (*Superior* and *Inferior*) – for a section of *Moesia* only before and after the occupation of *Dacia*.

The mentioned provinces have a complicated history, which is not very relevant here. All four provinces appear to have been created in the 40s by the emperor Claudius, either transforming earlier military districts (*Raetia*, *Noricum*) or splitting up existing provinces (*Pannonia* from *Illyricum*, *Moesia* from *Macedonia*). *Pannonia* and *Moesia* were later each divided into a *Superior* and *Inferior* province, c. 106 and 85 respectively. Developments after the 2nd century are not included.

The Upper Danube roughly corresponds to the external boundaries of *Raetia*, *Noricum* and *Pannonia Superior*, the Middle Danube to those of *Pannonia Inferior* and *Moesia Superior*, and the Lower Danube to the northern border of *Moesia Inferior*. On account of this correspondence it may be expected that the previously described characteristics

main site type	Raetia	Noricum	Pannonia S	Pannonia I	Moesia S	Moesia I
legionary fortress	1	2	3	2	3	2
fort	3	10	12	33	20	37
fortlet	6	1			7	1
watchtower	1	3	50	82	1	
bridgehead				6		
fleet base						1
hill fort						
earthwork						
temporary camp			37	3		
industrial site	2		1	1		
road			9	12	1	4
road station			1	1	1	1
civil settlement			1	3	2	1
other	2			2		1
<b>total</b>	<b>15</b>	<b>16</b>	<b>114</b>	<b>145</b>	<b>35</b>	<b>48</b>

Table 6.4 Distribution of the 373 frontier sites along the Danube occupied during the 2nd century AD.

of the three sections of the Danube will apply to the adjacent Roman provinces (table 6.4).<sup>104</sup>

From the point of view of the Roman provinces the characteristics can be summarized as follows:

- For *Raetia* and *Noricum* the numbers of sites are too low to permit any conclusions, but the different ratios of forts and fortlets are remarkable.
- *Pannonia Superior* and *Inferior* have by far the most watchtowers. *Superior* has nearly all temporary camps (mainly around Brigetio), while *Inferior* has more forts.
- *Moesia Superior* and especially *Inferior* have high numbers of forts. The absence of watchtowers and temporary camps is statistically significant.

These peculiarities indeed largely reflect those observed earlier for the three stretches of the Danube. Evidently, the main site types are very unevenly distributed over the Roman provinces along the Danube.

As a reminder the main conclusions regarding *Germania Inferior* and *Dacia* are repeated:

- On the Rhine watchtowers are rare.
- *Dacia* displays an overrepresentation of fortlets and watchtowers, while temporary camps are currently rare.

<sup>104</sup> For *Pannonia Superior* and *Inferior* the boundary prior to c. AD 214 has been used.



# INTERNAL COMPARISON OF THE ROMAN FRONTIERS

In this chapter the various frontiers of the Roman Empire will be compared. The purpose of this comparison is to assess to what degree they are similar. The comparison is divided in two parts. First the frontiers of the three continents will be compared, with a clear focus on the 2nd century AD. The second part is devoted to the comparison of the European river frontiers.

Each part comprises a summary of the main characteristics of the frontiers involved, an assessment of similarities and dissimilarities and a conclusion. The part on the European river frontiers has an extra discussion of the relationship between natural barriers and Roman provinces.

Remains of the fort of Lussonium at Paks (Hungary), with reconstructed north gate.

## 7.1 THE FRONTIERS OF THE THREE CONTINENTS IN THE 2ND CENTURY AD

### 7.1.1 BRIEF CHARACTERISTICS

#### Africa

In *Africa* the military infrastructure served three purposes: protection of the towns and settled agricultural areas, control of nomadic movement, and supervision of long distance trade routes. An army of probably no more than 30,000, with only a single legion, apparently sufficed to perform these tasks. Consequently, the majority of the military installations were fortlets and towers.

In *Mauretania Tingitana* they were mainly located around and between the cities. In *Caesariensis* they were stretched out in a line parallel to the coast, which was pushed southward by AD 200. In *Numidia* most military posts were located in and around the Aurès mountains and its outskirts; some additional linear barriers imply that their main purpose was control of nomads.

In the eastern half of northern Africa the Roman interests were restricted to the small habitable areas around *Leptis Magna* and *Cyrenae*. The military infrastructure was very thin there, aimed at the control of the cities and of routes coming in from the desert.

The desert fort of Khan al-Hallabat, in the desert south-west of Palmyra (Syria).



### Near East

In Egypt only the delta and valley of the Nile were habitable. Part of the military infrastructure was located within these areas – not on their periphery, as was usual elsewhere. Furthermore, a large cluster of small posts occurred in the Eastern Desert, controlling accesses from the Nile to the Red Sea and securing the exploitation of valuable minerals and stone. Finally, a series of (out)posts extending southward from *Syene* protected against nomadic raiding from the southwest and southeast. With possibly around 15,000 troops in the mid-2nd century, including a single legion, the army of Egypt was small, though in comparison to the settled area larger than that of the remainder of Africa.

South of the river Euphrates the Roman occupation of the East extended to the fringes of the steppe and desert, along which ancient caravan routes ran. Although one of these routes was upgraded as the *Via Nova Traiana* in the early 2nd century it is unclear to what degree it was provided with military posts; the later *Strata Domitiana* further north certainly was.

The main part of the c. 60,000 troops of the eastern army (not counting those stationed in *Iudaea*) were garrisoned along the Euphrates and a northward line to the Black Sea. This was the boundary with the Parthian Empire and with *Armenia*, the bone of contention between the two empires. Four legions were deployed on the river and in the mountains to the north, and possibly as many auxiliaries.

### Europe

In Europe the rivers Rhine and Danube constituted the frontier on most of the continent, separating the Roman Empire from what it considered as barbarian peoples over some 3,000 km. In Britain, where no convenient river was available as a frontier, artificial barriers were built between river estuaries – Hadrian's Wall and the Antonine Wall. A further linear barrier – the Upper German-Raetian Limes – was established to provide a shortcut between Rhine and Danube, screening off a vulnerable inward bend into the Empire and embracing the fertile *Agri Decumates*.

*Dacia* is a special case, projecting up to 500 km beyond the Danube. Most of its military posts were part of two lines facing east and one facing north – the *Limes*

*Alutanus*, *Transalutanus* and *Porolissensis*. Two legionary fortresses and some additional forts served both as a backup and to control the interior.

Leaving the linear barriers and *Dacia* aside, the military infrastructure of Europe was stretched out on the 'Roman' bank of the Rhine and Danube, accommodating the main part of 170,000 troops of the mid-2nd century,<sup>105</sup> including a dozen legions. In the 2nd century the focus of the military strategy shifted from Britain and the Rhine to the Danube. The densities and types of military installations varied along with the landscape and the relations with the peoples across the rivers.

### 7.1.2 SIMILARITIES AND DISSIMILARITIES

The North African provinces, Egypt, *Arabia* and southern *Syria* have much in common. A large part of the military infrastructure in these areas was primarily aimed at controlling nomadic movement and caravan routes. The areas were all relatively peaceful, and the provincial armies accordingly small, comprising no more than three legions by the middle of the 2nd century, at *Lambaesis*, *Alexandria* and *Bostra*. The majority of the military posts consisted of fortlets and towers.

Within this group there are nevertheless some differences as well. In *Mauretania Tingitana* the military posts were located around and between the cities in the coastal plain and the table-land around Volubilis. In *Mauretania Caesarensis* and *Numidia* most fortlets and towers were not built on the fringe of the arid zone, but somewhat further north; yet the linear barriers of the *Fossatum Africae* demonstrate that control of nomadic movement was an important task of the garrisons. In *Proconsularis* and the *Cyrenaica*, a series of fortlets and towers, complemented with short artificial barriers in the west, protected the cities and agricultural areas from nomadic incursions; caravan routes were also under military control, involving a few remote outposts.

The military disposition in Egypt is similar to that of the latter two provinces, but here a sizeable number of military posts were pushed out into the barren Eastern Desert to protect accesses to Red Sea ports, quarries and mines. The desert frontier of *Arabia* and southern *Syria* built on ancient caravan routes following the separation between the desert and the sown; however, most military posts along these routes may postdate the 2nd century. Here too some remote outposts in the desert betray a concern for the security of long distance trade.

The military deployment in *Cappadocia* and the northern part of *Syria* is of an entirely different nature. The installations from the 2nd century are distributed over the west bank of the upper Euphrates and northward through the mountains to the fleet base at *Trapezus*. This area borders on the heavily contended areas of *Armenia* and *Mesopotamia*, and was protected by approximately two thirds of the eastern army. The forts on the south-east shores of the Black Sea belonged to the Cappadocian army and were vital to the securing of its corn supply.

The disposition of troops along the Euphrates and in the mountains to the north at first sight resembles that along the Rhine and Danube and in *Dacia*, but there is a fundamental difference. In the East army units were often garrisoned in towns and villages – as in *Africa*. *Samosata* and *Zeugma*, ancient cities at crossings of the Euphrates, are clear examples in the region. To Rome this was a familiar strategy, which it applied in all areas where urban centres were at hand, or other central places like the hillforts in Gaul and southern Britain. On the Rhine and Danube, however, the military infrastructure had to be built from scratch, in the absence of such centres.

The river frontiers of Europe are a phenomenon of their own. The Rhine and Danube made a convenient demarcation between those parts of the continent which could

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105 In this figure the garrisons of the Upper German-Raetian Limes and *Dacia* are included.



be controlled from Rome and those which outreached its powers or interests. The vulnerable inward bend shaped by the headwaters of these rivers was cut off in various stages, ending with the artificial barrier of the Upper German-Raetian Limes.

The military installations along the rivers were built almost exclusively on the 'Roman' bank. However, bridgeheads were built across the rivers for expeditions or as more permanent alternatives for bridges. The spacing of the military installations was on the whole closer than along the deserts, where it was dictated by the availability of water. Here, the density depended on accessibility, visibility and possible threats. Except in periods of severe frost and drought rivers were effective barriers, in the absence of permanent bridges and with forts, towers and fleets to control them. Additional protection was provided by the three fleets, on the Lower Rhine and the Pannonian and Moesian sectors of the Danube.

View to the southern bank of the Danube in the area of the fort of *Lederatae*/Ram and the bridgehead of *Contra Lederatae* (Serbia).



*Dacia* provides a mixture of military solutions. Evidently, the main area of interest was Transylvania, largely surrounded by the Carpathian Mountains and more or less separated from the Danube by the Wallachian/Romanian plain. To the east and north Transylvania was protected by a range of forts, with a screen of more than hundred towers controlling the accesses, complemented with short banks and barriers in some areas. There is no similar shield to the west of Transylvania.

The Romanian Plain is cut by two lines of fortifications, which constitute a mixture of military concepts. The earliest line is along the river Olt, which provided an easy connection between Transylvania and the Danube. This route was secured by a series of fortifications on its right bank – forts in the plain and fortlets and towers upstream in the mountains – and an earthen wall to its left. Although it may have been primarily a protected north-south route it also served as a frontier to the east (*Limes Alutanus*). Later on the latter function was overtaken by a line of military posts some 50 km further east (*Limes Transalutanus*). This line partly follows the Cotmeana/Vedea river; the remaining stretches through the plain were provided with an earthen bank.



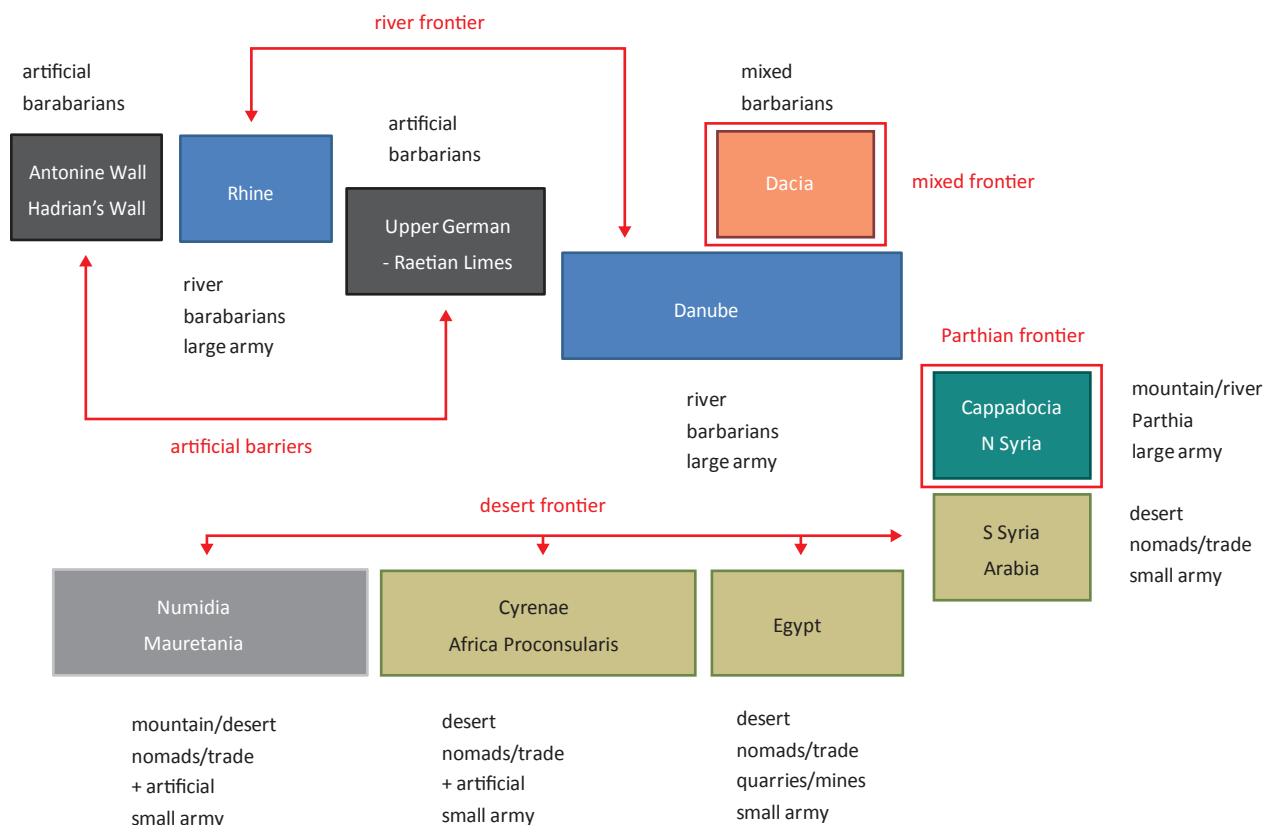


Fig. 7.1 Diagram of the Roman frontiers on three continents, with their main characteristics (frontier type, threats, garrisons). The attribution of frontier sections to five overarching groups is indicated in red.

### 7.1.3 CONCLUSION

The differences emerging from the above overview vary in character. Some relate primarily to climatic and geographical conditions, others to the threats to be countered. The main characteristics of the five groups of frontiers which can be distinguished within the whole of the frontier of the Roman Empire in the 2nd century, vary accordingly (fig. 7.1):

- the desert frontier: Africa, Egypt, *Arabia* and southern *Syria*;
- the Parthian frontier: northern *Syria* and *Cappadocia*;
- the river frontier: Rhine and Danube;
- the artificial barriers: Hadrian's Wall, the Antonine Wall, the Upper German-Raetian Limes;
- the mixed frontier of *Dacia*.

## 7.2 THE EUROPEAN RIVER FRONTIERS

In the context of the comparison of the Roman frontier of the three continents it was convenient to present the Rhine and Danube frontiers as a whole. However, this suggests a uniformity which does no justice to the differences which emerge on closer inspection.

### 7.2.1 NATURAL BARRIERS AND ROMAN PROVINCES

Throughout the basins of the Rhine and Danube narrow gorges and wide plains alternate. The narrow sections constituted natural barriers which are likely to have had an impact on the internal structure of the frontier zone.

In the Rhenish Massif between Mainz and Remagen there were no fortifications on the Rhine before the Late Roman period, with the possible exception of the small Neuwied Basin at the confluence of the Moselle river with the Rhine. The northern fringe of the massif coincides with the boundary between *Germania Superior* and *Inferior*. The operational area of the German fleet was confined to the Lower Rhine, downstream from Remagen.

In the Danube basin there were three major natural barriers. Somewhat upstream from Vienna a spur of the Alps closes on the river. Here the boundary between *Noricum* and *Pannonia* was located.

Upstream from Budapest the outskirts of the North Hungarian Mountains form a second obstacle, between the Little and Great Hungarian Plains. Initially, this narrow section in the Danube bend was chosen as the boundary between *Pannonia Superior* and *Inferior*. In AD 214 this separation was moved to the west to include the legionary fortress of Brigetio in the *Inferior* province.

The Iron Gate provides a formidable third obstacle in the Danube. Here the Carpathians and Balkan Mountains meet at the river, separating the Great Hungarian/Pannonian Plain in the west from the Wallachian/Romanian and Danubian Plains in the east. The Iron Gate did not coincide with a separation between two provinces, but they divided the operational areas of the Pannonian and Moesian fleets. The location of the Pannonian-Moesian border was determined by the confluence of the Sava river.

## 7.2.2 BRIEF CHARACTERISTICS OF FRONTIER SECTIONS

### Lower Rhine – *Germania Inferior*

This frontier section comprises the earliest bases established on the lines of the two rivers. They were founded as springboards for the annexation of Germanic territories across the Rhine, but when it became evident that Roman authority could not be extended far beyond the river at acceptable costs, the bases on the left bank were transformed into the backbone of a frontier system, gradually supplemented with forts.

The river delta starting near the Dutch-German border is without comparison. The challenges posed by the highly dynamic landscape have led to some unique military engineering works: a groyne designed to regulate the water flow into the northern branch and artificial canals connecting that branch to the sea coast in the north and to the estuary of the river Meuse in the south. The marshy areas near the coast apparently invited Germanic raiding, which was countered by the establishment of a tight screen of small forts supplemented with watchtowers along winding sections of the river. The wetland conditions of the delta have led to an outstanding preservation of the timber building phases of several military installations and of ships and road infrastructure.

The surroundings of the legionary fortresses of *Bonna* and *Vetera* are the only areas outside *Pannonia* where larger numbers of temporary camps have been attested.

After the Germanic invasions of the mid-3rd century only some of the military posts were reoccupied in the 4th century, but new installations were added on the river line and in the hinterland. The frontier collapsed in the early 5th century, but some fortifications survived as nuclei of medieval power centres.

### Upper Danube – *Raetia* and *Noricum*

The northern boundaries of the provinces of *Raetia* and *Noricum* did not result from military ambitions beyond these lines, but from a gradual northward shift of Rome's control of the Alps. Military posts along the Danube first appeared in western *Raetia* during the reigns of Tiberius and Claudius, and further downstream in the Flavian



Towpath cut into the rock of the Đerdap (Iron Gate) near Kladovo (Serbia), before the water level was raised for a hydro-electric power station.

period. At the beginning of the 2nd century Roman control was extended beyond the Danube in western *Raetia*, eventually to be fenced off by the Upper German-Raetian Limes. The Raetian-Norican river frontier was not threatened before the Marcomannic Wars (166-180). Only then was it considered necessary to deploy legions here, one in each province. This section has the widest spacing of military installations, probably because of the partly inaccessible landscape and the initial absence of military threats. The military posts display a large variety in size and positioning, due to the alternation of gorges and floodplains.

After the Germanic raids of the mid-3rd century the frontier was restored. Especially the eastern part was further consolidated by the addition of fortlets and towers, several of which (partly) survived as parts of medieval buildings.

### Middle Danube - *Pannonia*

The creation of the province of *Pannonia* was a sequel to the Roman occupation of the Dalmatian coast, as military control of the area was gradually extended to the northeast. Once the Danube had been reached under Augustus, the Dalmatian and Pannonian tribes revolted, aborting a planned operation against the Marcomanni across the river. The revolt explains both the large military presence and their initial concentration in the interior of the province. It was only in the Claudian period that some permanent bases were founded on the Danube, supervising river crossings.

Most of the remaining fortresses and forts on the river are Flavian or later foundations, linked with the growing pressure from across the Danube, resulting in the Dacian Wars of Domitian and Trajan. In the aftermath of the second war *Pannonia* was divided in two provinces, *Superior* and *Inferior*.

The *Superior* province was a springboard for the Marcomannic Wars of AD 166-180, resulting in an unparalleled clustering of temporary camps around *Brigetio* and the bridgehead of *Kelemantia*.

A distinguishing characteristic of the Pannonian provinces is the high frequency of watchtowers. Many cannot be adequately dated, but it is certain that some already existed in the 1st century and some more in the 2nd century; the great majority, however, are Late Roman. Building inscriptions from the 180s indicate that the



Preserved remains of the Solva 38 bridgehead at Verőce (Hungary).

frontier section below *Aquincum* suffered from raiding, countered by the construction of watchtowers and forts.

Protection against such incursions is likely to have been the main purpose of the Late Roman towers as well, in view of the appearance of bridgeheads on both river banks in the same period, another peculiarity of the Pannonian frontier.

The dense distribution of towers stops at the Hungarian-Croatian border. Considering the fact that in Hungary the numbers have doubled during the last twenty years it is not impossible that their absence in Croatia and their rarity in the Serbian part of *Pannonia* is influenced by the research history and methodology,<sup>106</sup> as the landscape across the river was not significantly different.

### Lower Danube - *Moesia*

The province of *Moesia* started off as a northward extension to that of *Macedonia*. It received its own governor when Claudius added the Danubian Plain to its territory at the creation of the province of *Thracia*. By that time, Rome had already for over a century been interfering with regional affairs on both sides of the Lower Danube, but it seems that the Claudian rearrangement first led to the foundation of permanent military bases on the river. Nevertheless military interventions across the Danube continued, at least as far as the Dnjestr river, over 100 km to the north of the Danube delta. It was only after Dacian incursions in 68/69 and 85/86 from across the Danube that the military infrastructure along the river was considerably extended. Following the latter invasion the province was divided in a *Superior* and *Inferior* part.

At the creation of the province of *Dacia* in 106, the military occupation of the bordering section of the Danube was reduced, whereas the lower course along the Dobrudja was strengthened following the inclusion of the eastern part of the Romanian Plain into the territory of *Moesia*, but this was soon given up. In the mid-3rd century, the Moesian frontier suffered from invasions of Goths and other peoples, and in 271 the Dacian province was evacuated. Following these events both the provincial structure and the frontier were reorganised. Although barbarian raids

<sup>106</sup> There are some early records of watchtowers near Šarengrad and Ilok, close to the Croatian-Serbian border, but these have not been confirmed by recent research (pers.comm. I. Vukmanić).

persisted, the area more or less survived the collapse of the Western Roman Empire in the 5th century. As part of the Eastern Roman Empire the Moesian frontier was restored in the first half of the 6th century, but following invasions of Avars and Slavs heralded the end of the Danube frontier in the early 7th century.

The long survival is a distinctive characteristic of the Moesian frontier. A further remarkable feature is the near absence of fortlets and towers, with the exception of the Iron Gate. Although it cannot be excluded that this is influenced by the state of research, an explanation might be that on this frontier more than elsewhere the opposite river bank was under military control.

### 7.2.3 SIMILARITIES AND DISSIMILARITIES

The Rhine and Danube basins were subdivided by natural barriers. In most cases the borders between Roman provinces coincide with these barriers. This may be a reflection of the congruence of the territories of conquered peoples with these naturally determined spaces, or of practical strategic or administrative considerations as accessibility by land or water.

As far as their origins are concerned the provincial frontiers belong to two different groups. Those of *Raetia*, *Noricum* and *Pannonia* gradually shifted from the hinterland, whereas those of *Germania Inferior* and *Moesia* were established after largescale military interventions across the Rhine and Danube.

These two groups also differ in the frequency of fortlets and towers, high in the first and low in the second group. This may well reflect a different approach of control of the rivers and of access across, but it is unlikely that it is linked to whether the frontier lines were shifted forward or backward. As the majority of fortlets and towers in the first group are of Late Roman date, chronology can play a major role here.

On the whole, chronology is a distinguishing aspect, but along different lines. The Rhine frontier started off earlier than the Danube sections, and it was also the first to collapse. The frontiers of *Raetia*, *Noricum* and *Pannonia* shared the fate of the Western Roman Empire somewhat later. The Moesian frontier survived them by more than a century as part of the Eastern Roman Empire.

Preservation is another area of distinction. The wetland conditions of the Rhine delta have led to an outstanding preservation of timber building phases of military installations and of ships, canals and roads. In *Raetia* and *Noricum* several Late Roman stone remains have survived as parts of medieval buildings, of the legionary fortress at Regensburg and various fortlets and towers. The same applies to *Moesia*, but here some of the standing remains are of even later date.

### 7.2.4 CONCLUSION

The European river frontiers of the Rhine and Danube can be divided into four groups:

- *Germania Inferior*;
- *Raetia* and *Noricum*;
- *Pannonia* (*Superior* and *Inferior*);
- *Moesia* (*Superior* and *Inferior*).

From these groups *Raetia/Noricum* and *Pannonia* are the most similar, but on account of the differences in landscape they have been separated here.





# WORLD HERITAGE NOMINATION STRATEGY

# 8

This chapter presents a World Heritage Nomination Strategy for the frontiers of the Roman Empire, first in a general way for the frontiers as a whole – extending over the continents of Africa, Asia and Europe – and secondly in more detail for the frontiers of Europe. This strategy builds on the results of the Thematic Study and intensive discussions with the representative of ICOMOS-International. It aims at providing the World Heritage Committee with insight into the intended nominations, the justification of the properties, the selection of sites, and the approach to management and future development.

The focus of the Nomination Strategy on the European frontiers of the Roman Empire reflects the progress which has been made by the States Parties concerned in the preparation of their frontier sections for nomination, as well as the complicated political situation in some of the countries encompassing sections of the frontiers of Africa and the Near East. Yet, the ambition to include the frontiers of the African and Asian continents is still standing, and the States Parties involved are expressly invited to join the initiative developed here.

After an outline of the background and aims of this strategy (8.1) an overall strategy for the Frontiers of the Roman Empire is presented (8.2). This is followed by a more detailed Nomination Strategy for Europe and a proposal for the nomination of three additional properties for the European frontier (8.3) with a brief justification for their proposed OUV (8.4) and an explanation of the current selection of component sites (8.5). The chapter is concluded by an outline of a proposed viable way forward (8.6) and a timetable (8.7).

Excavation of a Roman cargo ship near De Meern (Utrecht, the Netherlands). In the foreground the walls and entrance of a small deckhouse.

## 8.1 BACKGROUND AND AIMS

In 1987 Hadrian's Wall (UK) was inscribed on the World Heritage List. When, in the early 2000s, the nomination of the Upper German-Raetian Limes (DE) was being prepared, the idea was advanced to create a single World Heritage property encompassing all the frontiers of the Roman Empire in Europe, the Near East and North Africa (cf. chapter 2). The World Heritage Committee expressed its support of this idea in 2005 with the inscription of the Upper German-Raetian Limes, renaming the joint property to 'Frontiers of the Roman Empire' (FRE). The Antonine Wall (UK) was accepted as an extension of this property in 2008.



Meanwhile preparations had started for the nomination of further sections of the Roman frontiers in Europe, as demonstrated by the submission of relevant entries on the Tentative Lists of Slovakia in 2002 and Croatia in 2005. The remaining European States Parties with sections of the frontiers followed in due course, and in 2012 Tunisia was the first – and as yet only – State Party outside Europe to submit a Tentative List entry for its Roman frontier section.

The submission of individual Tentative List entries by the States Parties involved reflected the envisaged gradual extension of the FRE on a national basis. A UNESCO expert meeting held in 2010 to debate the challenges of the increasing number and complexity of serial transnational nominations resulted in several recommendations for the creation (or extension) and management of such properties.<sup>107</sup> These recommendations concerned amongst other things the definition of the properties, the explanation of their Outstanding Universal Value and the necessity of developing prior to their nomination a chosen Nomination Strategy, a comparative analysis, and a justification of the number and size of component parts in relation to how they contributed to OUV.

In line with these recommendations, ICOMOS requested a Thematic Study of the Roman frontiers, clarifying the scope and nature of what remains of the frontiers, and whether the frontiers of the Roman Empire can be divided into sections that reflect geographical and cultural aspects and which might have the capacity to demonstrate OUV. Such a study would serve as a base for the development of a Nomination Strategy that could guide future nominations.

The preceding chapters comprise the Thematic Study of the frontiers of the Roman Empire, elucidating the character and distribution of their remains and providing substantial arguments for a division into discrete sections. This study was based on published evidence, supplemented with data provided by the European States Parties. The aggregated information demonstrated that although frontier installations shared many characteristics throughout the Roman Empire, regional landscapes and threats provoked different responses, discernible in the distribution, positioning and design of the military posts, amongst other things.

The Nomination Strategy unfolded in this chapter aims to convert the findings of the Thematic Study into a viable approach for the nomination of sections of the overall frontier linked by the overall concept of the Frontiers of the Roman Empire as coherent entity. Each nominated section would be a single property and would demonstrate OUV for its particular distinctive characteristics.

## 8.2 WH NOMINATION STRATEGY FOR THE OVERALL FRONTIERS OF THE ROMAN EMPIRE

The frontiers of the Roman Empire have gradually developed almost 2000 years ago out of a desire to protect the Roman Empire's interests against external threats. The linear arrangement of thousands of military installations along natural and artificial barriers on its periphery leaves no doubt about this fundamentally defensive purpose. Yet, the Roman frontiers had many other functions and characteristics, and they often developed into inclusive contact zones between populations on both sides of the frontier lines. Viewed in the context of the protection of World Heritage, the

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107 International Expert Meeting on World Heritage and Serial Properties and Nominations, Ittingen, Switzerland, 25 – 27 February 2010. The conclusions and recommendations resulting from this meeting have been approved by the World Heritage Committee during its 34th session (34 COM 9B).



Remains of the Late Roman fort of *Gerulata* at Rusovce (Slovakia).

conservation and protection of the military infrastructure of the frontier are essential to the ongoing generation of the understanding of its complexity.

When the idea was advanced in the early 2000s to create a World Heritage property for the whole of the frontiers of the Roman Empire, across three continents, it was envisaged that this property should reflect the coherence as well as the diversity of the frontiers. Both aspects are addressed in the Summary Nomination Statement that was provided with the nomination of the Upper German-Raetian Limes in 2004:

“Spanning three continents, the Empire developed and transmitted a universal culture based on Greek and Roman civilisation. Its influence reached far beyond its actual boundaries in Europe and around the Mediterranean. The frontiers of the Roman Empire form the single largest monument to this civilisation. They helped define the very extent and nature of the Roman Empire. As a whole, they represent the definition of the Roman Empire as a world state. Physically, the frontiers demonstrate the variety and sophistication of the responses of the Roman Empire to the common need to demarcate, control and defend its boundaries. This had to be done in widely differing circumstances, reflecting the interaction of political, military and topographical features. In each case, the Romans developed a local solution, making use of topographical features and political circumstances to provide a barrier that was an effective control of movement across the frontier as well as a strong military defence. The variety of physical remains has outstanding value in demonstrating the complexity and success of this society in using boundary works to define and protect itself in ways appropriate in each case to the local circumstances.”<sup>108</sup>

The envisaged spatial extent of the Frontiers of the Roman Empire World Heritage property was defined in 2004 as: “the line(s) of the frontier of the height of the Empire from Trajan to Septimius Severus (about 100-200 AD), and military installations of different periods which are on that line. The installations include fortresses, forts, towers, the limes road, artificial barriers and immediately associated civil structures.”<sup>109</sup> This definition is still maintained as an effective and practical delineation in time and space of the Frontiers of the Roman Empire as World Heritage.

The Thematic Study provides a clear image of the frontiers of the Roman Empire on the lines of the 2nd century AD, demonstrating both their overall coherence and their

108 Quoted, with some omissions, from the Summary Nomination Statement, part 2 a (Statement of Significance), included in Nomination file 430ter, pp. 399-400.

109 Quoted from the Koblenz declaration (cf. chapter 2) included in Nomination file 430ter, p. 427.



The military outpost of Ksar Ghilane (Tunisia) on the eastern edge of the Grand Erg Oriental.

diversity. An internal comparative analysis has provided arguments for the distinction of five discrete groups of frontiers (fig. 7.1):

The **desert frontier** of *Africa*, Egypt, *Arabia* and southern *Syria* served to protect long distance trade routes crossing the desert and to control the nomadic tribes of the region. Within this group there is some regional variety, with for instance some artificial barriers and mountainous sections in *Africa* and a deviating positioning of military installations in Egypt.

The **Parthian frontier** of northern *Syria* and *Cappadocia* (Turkey) combines a river and a mountain frontier and served as the military backbone for the Roman claims on Armenia and Mesopotamia, which were disputed by the Partian Empire.

The **river frontier** of the Rhine and Danube separated the Roman Empire from areas which it considered as 'barbaric' and outreached its powers or interests. Varying natural conditions and threats are reflected in regional differences in size, design and spacing of military installations.

The **artificial barriers** of Hadrian's Wall, the Antonine Wall, the Upper German-Raetian Limes – constituting the already inscribed World Heritage property – were built where no convenient rivers were available to constitute a frontier line.

The **mixed frontier** of the Roman province of *Dacia* (Romania) provides an unparalleled mixture of military responses to natural and political conditions. It combines sections of mountain and river frontiers with long and short linear barriers.

This division provides a basis for a nomination of discrete frontier sections as single properties. Of the four groups mentioned above besides the inscribed property, the Parthian frontier and the mixed frontier of *Dacia* may constitute two separate properties. The desert and river frontiers are too large and complex – extending over thousands of kilometres and the territories of seven and eight States Parties, respectively – to be manageable as single properties. The variety within these two groups, however, allows a further partitioning. In the case of the river frontier a division between Rhine and Danube is proposed (section 8.3). For the desert frontier it is impossible to set out a detailed strategy now, due to the current political situation and to the lacking of precise information on the character and integrity component sites in many areas. However, the Thematic Study provides various arguments to consider a further subdivision.

Each frontier section to be nominated as a single property will have to demonstrate OUV for its particular characteristics. It is argued that the three new properties proposed for the European frontiers have the capacity to do so (section 8.4), and the

Thematic Study justifies the expectation that this also applies to coherent sections of the frontiers in the Near East and North Africa.

The envisaged new discrete properties would be linked by the overall concept of Frontiers of the Roman Empire, together with the already inscribed property. The conceptual coherence is already indicated above and will be further developed (cf. Annex A). Collaboration and joint development would be furthered by an overall cooperative framework for the heritage of the Roman frontiers (section 8.6.2).

## 8.3 WH NOMINATION STRATEGY FOR THE EUROPEAN FRONTIERS OF THE ROMAN EMPIRE

As the complicated political situation does not permit to develop a coherent view for the frontier sections in North Africa and the Near East, only a detailed Nomination Strategy for the frontiers in Europe is presented here. It is anticipated that discrete sections of the European frontiers of the Roman Empire will be nominated as separate, manageable properties, in a reasonably short timeframe. The proposed Nomination Strategy is supported by all European States Parties involved, as a means to arrive at successful nominations of sections of the European frontiers in an environment stimulating collaboration, exchange of experiences, coordination and joint development.

The internal comparison of the Roman frontiers (chapter 7) has clarified that the European frontiers differ from those in the Near East and North Africa. The frontiers of Europe fall into artificial barriers (included in the inscribed WH property), river frontiers (along Rhine and Danube) and the mixed frontier of the Roman province of *Dacia* (now part of Romania). For the river frontiers a further division was suggested, along the lines of Roman provinces: *Germania Inferior* (Rhine), *Raetia-Noricum*, *Pannonia* and *Moesia* (all Danube).

In this Nomination Strategy, a route is being proposed for the nomination of the European frontiers: three additional properties besides the existing WH property. The names used for these sections in this Nomination Strategy are provisional. There is much to say for names which combine a common element 'Frontiers of the Roman Empire' with an additional element identifying the individual property, e.g. 'Frontiers of the Roman Empire: the Danube frontier'. This issue will be dealt with before the first nomination dossier will be submitted.

### 8.3.1 THE INSCRIBED PROPERTY 'FRONTIERS OF THE ROMAN EMPIRE'

The inscribed property 'Frontiers of the Roman Empire' (ref. 430ter) includes Hadrian's Wall in northern England, the Antonine Wall in Scotland and the Upper German-Raetian Limes in southern Germany. As it happens, all three are long artificial barriers: Hadrian's Wall was built in stone over 117 km, the Antonine Wall in turf over 60 km, and the Upper German-Raetian Limes in stone, earth and timber over 550 km. Although long artificial barriers have also been attested in North Africa (*Fossatum Africae*) and Romania (*Limes Transalutanus*) the three inscribed barriers have distinct characteristics. The retrospective Statement of Outstanding Universal Value for this property includes the following summary of qualities:

"Together, the remains of the frontiers, consisting of vestiges of walls, ditches, earthworks, fortlets, forts, fortresses, watchtowers, roads and civilian settlements, form a social and historical unit that illustrates an ambitious and coherent system of

Timber building and road within the fort at Valkenburg (the Netherlands), excavated in 1941 and demonstrating the excellent preservation conditions in the Rhine delta.



defensive constructions perfected by engineers over the course of several generations. Each section of the property constitutes an exceptional example of a linear frontier, encompassing an extensive relict landscape which reflects the way resources were deployed in the northwestern part of the Empire and which displays the unifying character of the Roman Empire, through its common culture, but also its distinctive responses to local geography and climate, as well as political, social and economic conditions.”<sup>110</sup>

The already inscribed artificial barriers constitute a discrete group within the European frontiers, which does not call for further extension. The artificial barrier of the *Limes Transalutanius* in Romania is part of the unparalleled mixture of the frontier solutions of the Roman province of *Dacia*, and corroborates the OUV of that section.

### 8.3.2 THREE PROPOSED FRONTIER SECTIONS AS ADDITIONAL SINGLE PROPERTIES

The comparative analysis (chapter 7) suggested that five groups can be distinguished within the overall European frontiers, besides the already inscribed artificial barriers. These groups correspond to five (groups of) former Roman provinces: *Germania Inferior* (Rhine), *Raetia-Noricum*, *Pannonia* and *Moesia* (all Danube), and *Dacia*. It was noted that the provincial borders coincide with major geographical obstacles, often separating natural and cultural habitats, with the exception of that between *Pannonia* and *Moesia*. Further, it was acknowledged that the differences between *Raetia-Noricum* and *Pannonia* are less distinct than those between others.

In line with these observations an assessment of the potential for sections to demonstrate OUV revealed that a strong case could possibly be made for the frontiers of the Roman provinces of Lower Germany (*Germania Inferior*) and *Dacia* as two distinct sections. It also demonstrated that the distinctiveness of the frontiers of the Danubian provinces stand out most prominently when viewed as a whole. Consequently, it is proposed that the European frontiers, not yet inscribed, could be

<sup>110</sup> WHC/16/40.COM/8E.Rev, pp. 23-24.



nominated as three separate sections: the Lower German (i.e. Lower Rhine) frontier, the Danube frontier and the Dacian frontier (fig. 8.1). The main characteristics of these envisaged sections can be summarised as follows:

The **Lower German frontier** runs for 400 km along the river Rhine. The Lower Rhine was a very dynamic river, particularly in its extensive delta. The challenging natural conditions invoked innovative responses of the Roman military engineers, which are outstandingly exemplified by the peculiar positioning and design of many military installations and by water management works as a dug canal. By the early date of the first military bases on the Rhine the Lower German frontier represents the very beginning of the linear perimeter defence of the Roman Empire.

The **Danube frontier** runs for 2,400 km along the river Danube. The river is bordered by wide floodplains interrupted by narrow gorges where it cuts through the mountain ranges of Central and Eastern Europe. As a whole, the Danube frontier outstandingly demonstrates the evolution of the Roman military responses to external pressure resulting from unremitting migration. The distribution and characteristics of the military installations eminently illustrate the subsequent strategies of diplomacy, forward defence, annexation and perimeter defence. The remains include impressive testimonies of a large-scale external war and the longest surviving river frontier section.

The **Dacian frontier** consists of several lines of military posts surrounding the Transylvanian Plateau (Romania) and connecting it to the river Danube to its south. The lines add up to more than 1,000 km and are largely situated in mountainous areas. The frontier is an unparalleled mixture of military responses to landscapes and threats, combining a perimeter defence, backed-up by large bases in the rear, with fortified accesses to and from the Danube. Because the Roman province of *Dacia* existed for less than two centuries the purpose and design of its frontier stand out very clearly.

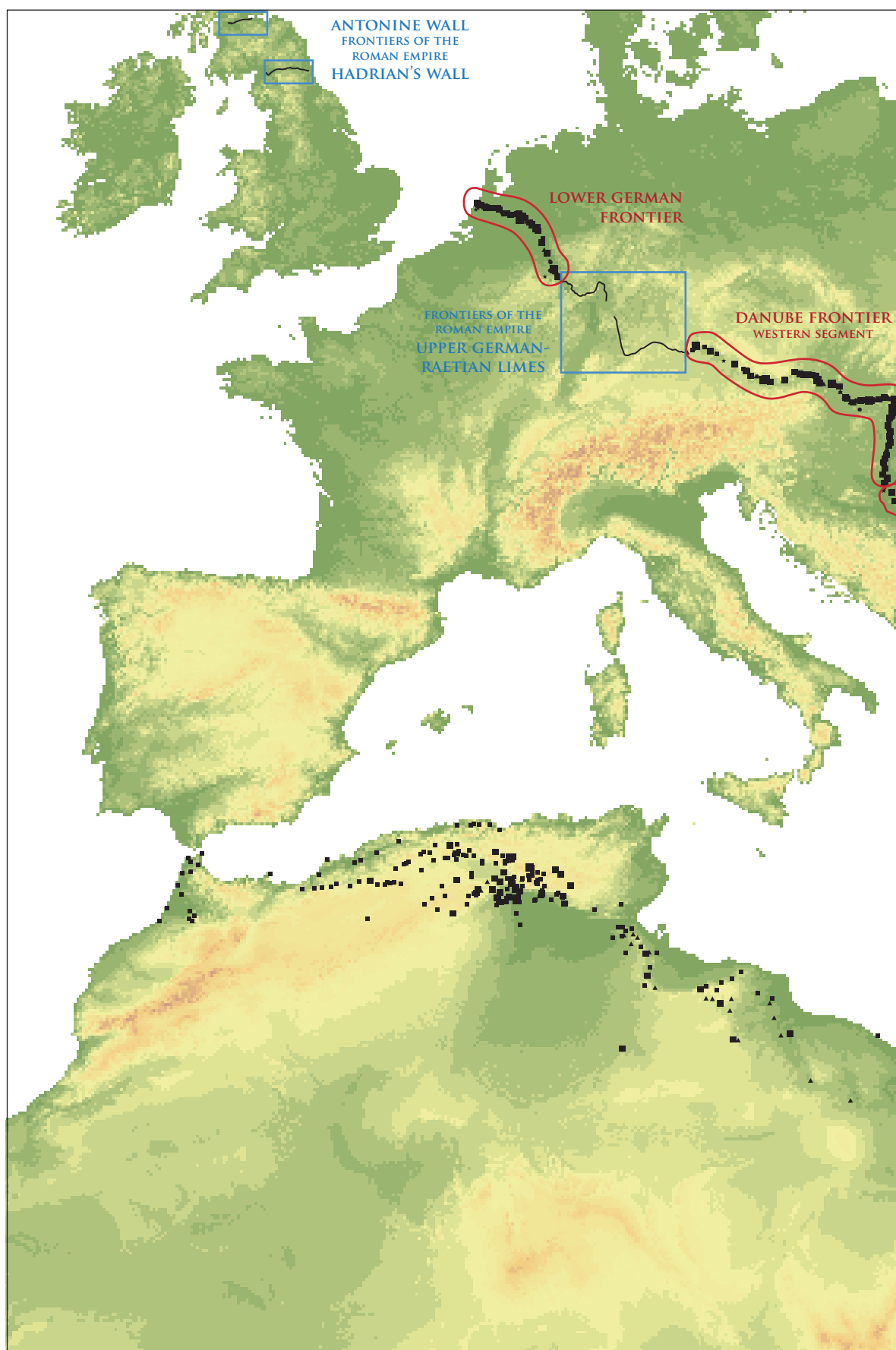
## 8.4 JUSTIFICATION FOR INSCRIPTION OF THE ENVISAGED EUROPEAN PROPERTIES

The Thematic Study provides various arguments which may serve as a basis for the definition of Statements of Outstanding Universal Value for the three proposed sections. The earlier mentioned preliminary assessment of the potential OUV of frontier sections has added further insight into their characteristics. The most distinctive aspects will be addressed below in separate paragraphs for each envisaged section, without pretention of being complete or definite. It is considered that all three sections have the potential to meet criteria (ii), (iii) and (iv). Eventually, however, it is the task and privilege of the States Parties involved to define and justify the detailed potential OUV for each section and how the appropriate criteria might be met in the respective nomination dossiers.

### 8.4.1 THE LOWER GERMAN FRONTIER

The envisaged section is located within the territories of the States Parties of the Netherlands and Germany. It constitutes the north-eastern boundary of the Roman province of *Germania Inferior* (Lower Germany), running for 400 km along the river Rhine, from the spurs of the Rhenish Massif south of Bonn in Germany to the North Sea coast in the Netherlands. The military infrastructure was established in the last decades BC and existed, after a temporary breakdown in the late 3rd century, until the disintegration of the Western Roman Empire in the early 5th century AD.





The highly dynamic character of the Lower Rhine, particularly in its extensive delta in the Netherlands, made a strong appeal to the ingenuity of the Roman military engineers. A groyne and canals were designed to enhance its navigability, and quays

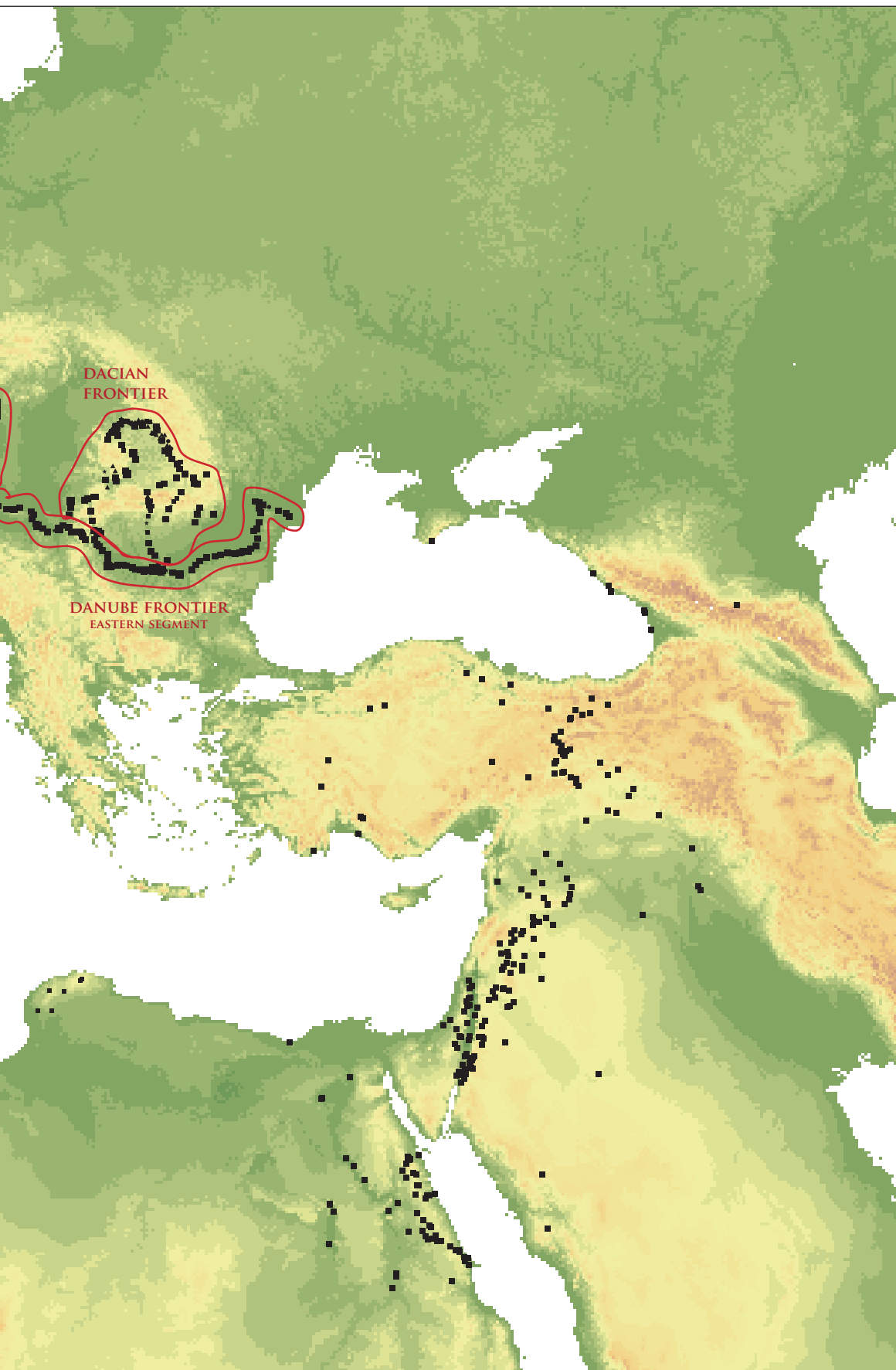
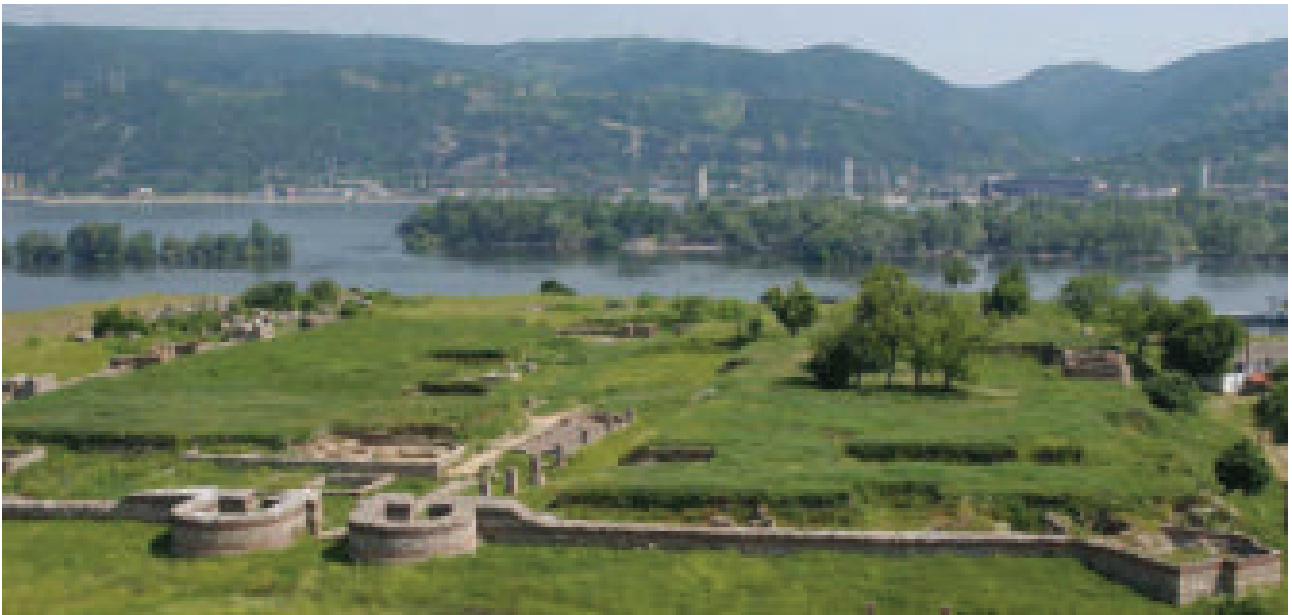


Fig. 8.1 The existing property 'Frontiers of the Roman Empire' and the three envisaged additional properties for the European frontiers.

and landing platforms to facilitate its use for logistical purposes. Designs of forts and roads were adapted to cope with the whimsical behaviour of the river. These peculiarities are demonstrated by outstanding remains of timber and other organic



Remains of the Roman fort of *Diana* at Karataš (Serbia) on the right bank of the Danube downstream from the Iron Gate.

materials, which are excellently preserved by the wetland conditions of the Lower Rhineland.

The Roman military infrastructure on the Rhine was established as a springboard for the conquest of Germanic territories across the river. Once this ambition had failed the left river bank was converted into a fortified frontier, the first European river frontier to develop. The Lower German frontier also provides a fine example of the creation of an urban infrastructure in a region without central places, illustrating the spread of Roman administrative and architectural traditions.

#### 8.4.2 THE DANUBE FRONTIER

The envisaged section is located within the territories of the States Parties of Germany, Austria, Slovakia, Hungary, Croatia, Serbia, Bulgaria and Romania. It constitutes the northern and eastern boundaries of the Roman provinces of *Raetia* (eastern half), *Noricum*, *Pannonia* and *Moesia*, running for 2,400 km along the river Danube, from Hienheim in Germany to the Black Sea coast in Romania. The frontier was gradually established in the 1st century AD and was strongly fortified after a temporary collapse in the late 3rd century. The western part, reaching approximately to the Croatian-Serbian border, was abandoned at the fall of the Western Roman Empire by the mid-5th century, while the eastern part continued to serve as the frontier of the Eastern Roman Empire until it was given up in the early 7th century.

For most of its length the Danube frontier is bordered by wide floodplains, which are separated by the outskirts of high mountain ranges forcing the mostly winding and twisting river into deep and narrow gorges. These alternating natural conditions are clearly reflected by the size and positioning of the military installations, with the gorges being secured by small posts in elevated positions, and the plains by larger forts at river crossings and at points overlooking the plains. The severe problems posed to river transports by the Đerdap gorges or the Iron Gate in Serbia were met by the early construction of a towpath cut into the rocks.

The distribution and chronology of the military installations on the Danube eminently reflect the evolution of Roman strategies to counter the threats emanating from sustained large-scale migration. A long period of diplomacy, supplemented with concentrated military actions, was followed by decades of forward defence based on a gradually expanding military infrastructure on the Danube. A series of large wars with

the Daci was concluded with the creation of the Roman province of *Dacia* across the river. Subsequent conflicts with Germanic and Sarmatian peoples led to further wars. Although the establishment of another new province across the Danube seems to have been contemplated, the conclusion of these so-called Marcomannic Wars was followed by a considerable tightening of the military line on the river bank, by rebuilding timber forts in stone and adding intermediate fortlets and watchtowers. This strategy of perimeter defence was intensified after a temporary collapse of the frontier in the late 3rd century, when the Empire suffered from civil wars and was unable to ward off its powerful external enemies. Strongly fortified military bases reflect several imperial programs of modernisation and rebuilding. The western part of the Danube frontier broke down under attacks by the Huns and was abandoned at the fall of the Western Roman Empire in the mid-5th century, but the Lower Danube frontier survived as a border of the Eastern Roman Empire into the early 7th century, when it fell victim to invasions of Avars and Slavic tribes.

The Danube frontier thus outstandingly demonstrates the succession of Roman military responses to external threats. A large cluster of temporary camps exemplifying the scale of an external war is one of its conspicuous assets. Dense series of fortlets and watchtowers reveal the similarity between river frontiers and artificial linear frontiers where the watchtowers are connected by walls of turf, timber or stone. The transition to a strong perimeter defence is clearly exemplified by heavy tower-like fortifications and very characteristic bridgehead fortifications. The remains, which in many cases survived astonishingly well to the present day, are the most distinctive and still visible witnesses of the longest surviving river frontier section in Europe.

### 8.4.3 THE DACIAN FRONTIER

The envisaged section is located within the territory of the State Party of Romania. It constitutes the frontier of the Roman province of *Dacia*, surrounding Transylvania and connecting it to the river Danube. The province of *Dacia* was created in AD 106 to end sustained raiding into the Empire and to exploit its valuable reserves of salt, silver and gold. It was evacuated in around AD 270, when the military capacity of the Roman Empire was overstretched by extensive barbaric raids across the Rhine and Danube.

The Dacian frontier is an unparalleled mixture of military solutions developed to cope with varying landscapes and threats. It consists of a tight screen of military posts in the Carpathian mountains along the edges of the Transylvanian Plateau, and of several fortified accesses to and from the Danube. A dense series of more than a hundred watchtowers served as an early warning system for the securing of Transylvania, communicating with larger posts in the rear. The main routes to and from the Danube were protected by lines of forts and small posts, incorporating stretches of river and, in one case, supplemented with a long earthen barrier.

This varied assemblage of strategic concepts is a concise and outstanding illustration of the Empire's military genius, accumulated over centuries of territorial expansion. Because of the relatively brief existence of the Dacian province the purpose and design of its frontier stand out very clearly, not being obscured by earlier or later developments. The creation of the province reflects the response of the Roman Empire to the failure of diplomacy, while its evacuation demonstrates the constraints of its military power.

site type	Lower Rhine			Danube			Dacia		
	total	selected	%	total	selected	%	total	selected	%
legionary fortress	7	7	100	13	12	92	7	5	71
fort	30	21	70	162	111	69	72	54	75
fortlet	1	1	100	33	17	52	28	10	36
watchtower	4	2	50	230	42	18	147	108	73
bridgehead	1	1	100	17	7	41			
fleet base	1	1	100	1	1	100			
hill fort				4	4	100			
earthwork							72	9	13
temporary camp	6	6	100	40	25	63			
industrial site	3	3	100	6	2	33			
road	26	9	35	27	17	63			
road station				4	3	75			
civil settlement	10	4	40	7	3	43	1	0	0
other	13	6	46	8	6	75	4	0	0
<b>total</b>	<b>102</b>	<b>61</b>	<b>60</b>	<b>552</b>	<b>250</b>	<b>45</b>	<b>331</b>	<b>186</b>	<b>56</b>

Table 8.1 Overview of the component site selection for the three proposed sections.

## 8.5 SITE SELECTION

All States Parties involved in the proposed nomination process for the European frontiers have made a selection of the component sites representing the frontier section within their territories. In this paragraph the applied selection criteria and the current selections of component sites are summarised. This paragraph reflects the state of August 2016; the site lists may be subject to changes as a result of field research or an assessment of management issues.

### 8.5.1 SELECTION CRITERIA

The compilation of the sites belonging to the Roman frontiers within the territories of every State Party demonstrated an altogether very homogenous approach regarding the selection criteria. The individual component sites that are considered for each of the three sections are characterised by their high level of authenticity and integrity and their long-term protection and management perspectives.

### 8.5.2 CURRENT SITE SELECTION

The numbers of component sites currently selected by the States Parties amount to one per 7 km of frontier for the Lower Rhine and *Dacia* sections, and one per 10 km for the Danube section. Considerable densities are indispensable to demonstrate the linearity and coherence of the frontiers, and to exemplify the character of the separate sections and the links and contrasts between them. A clearly discernible network of military installations and associated features will contribute to a sense of connectedness and to support for long-term protection.

Nomination dossiers for the individual sections will provide a justification for the applied selection, explaining their contribution to the OUV, integrity and authenticity of the section, and to the whole of the Frontiers of the Roman Empire.

The nine States Parties involved in the preparation of the nomination of the three proposed sections have provided lists of component sites with remains of the Roman frontiers within their territories, adding up to a 'long list' of nearly 1,000 sites (Annex C). By applying the criteria listed in the introduction to Annex C, this long list has currently been halved, to 497 sites in all (table 8.1).

For the three proposed sections, the average percentage of selected sites varies from 60 for the Lower Rhine to 45 for the Danube and 56 for *Dacia*. Some deviating individual percentages may require an explanation. The modest percentages for roads and civil settlements on the Rhine are due to the unconvincing evidence for many instances. On the Danube the percentage of selected watchtowers is well below average; this is caused by the insufficient or unknown integrity and/or authenticity of the majority of the towers. In *Dacia* it is uncertain for most earthworks whether they date to the Roman period.

## 8.6 A VIABLE WAY FORWARD: ADDRESSING THE COMPLEXITY

If the three proposed sections are inscribed on the World Heritage list, the European frontiers of the Roman Empire would be distributed over four separate World Heritage properties. The States Parties involved attach great value to international collaboration as a means to promote the presentation, management and development of the heritage of the European frontiers, by joint initiatives and exchange of experiences. An outline for such a collaborative framework is presented below.

For the Danube frontier, extending over 2,400 km and involving eight States Parties, a nomination in two steps is proposed as a viable approach to a successful inscription of the most complex of the three envisaged sections.

### 8.6.1 MANAGEMENT SYSTEM

Following the inscription of the Upper German-Raetian Limes a system of exchange and cooperation concerning all World Heritage matters and management has been established. It works successfully for the inscribed property 'Frontiers of the Roman Empire' (ref. 430ter), including the later extension with the Antonine Wall. The two main elements are the Intergovernmental Committee (IGC) and the Management Group (also known as the Hexham Group). Their function and procedures were laid down in a Joint Declaration (Annex B).

It is suggested that this system of Intergovernmental Committee "to coordinate overall management of the FRE WHS at an international level" and Management Group providing "the primary mechanism for sharing best practice in relation to WHS FRE", made up "of those directly responsible for the site management of the currently inscribed sections of the WHS FRE" will be transferred to the proposed three new properties Frontiers of the Roman Empire.

### 8.6.2 COLLABORATIVE FRAMEWORK

When the nomination of the Upper German-Raetian Limes was handed in as a first extension of Hadrian's Wall under the joint heading of 'Frontiers of the Roman Empire', the nomination dossier included a paragraph defining a common management system.<sup>111</sup> Since it was envisaged that the property would be further extended in the near future – as it actually was by the subsequent nomination of the Antonine Wall – the management system was designed to be able to incorporate further States Parties.

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111 Included as paragraph 4 of the Summary Nomination Statement (Nomination file 430ter, p. 409-413).



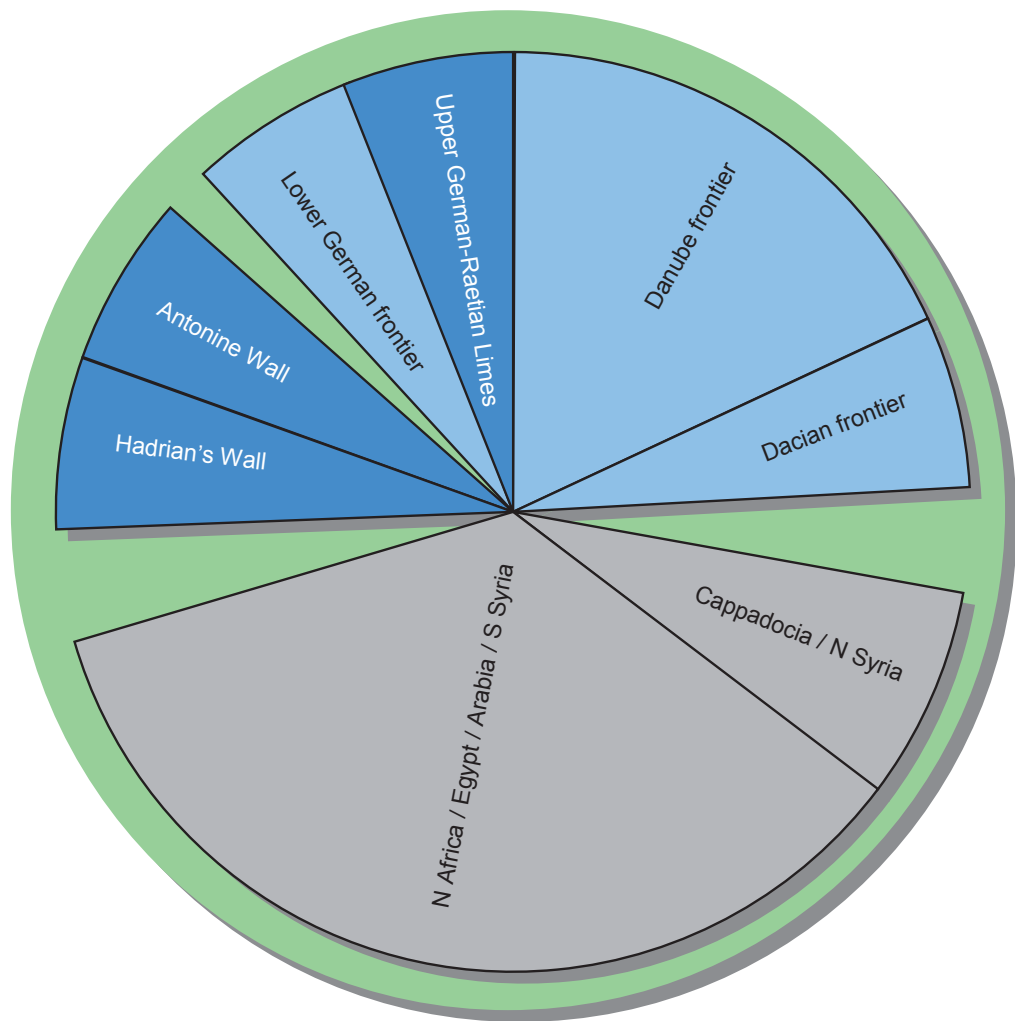


Fig. 8.2 The envisaged Frontiers of the Roman Empire World Heritage Cluster. Dark blue: inscribed frontier sections. Light blue: envisaged new sections for Europe. Grey: sections in the Near East and North Africa which may be added at a later stage.

The aims of the joint management system included “to achieve common standards of identification, recording, research, protection, conservation, management, presentation and understanding of the Roman frontier, above and below ground, in an interdisciplinary manner and within a sustainable framework”. These aims are fully shared by the States Parties involved in the preparation of the nomination of the three sections proposed in this Nomination Strategy.

Since it is no longer envisaged to extend the inscribed property ref. 430ter, a new overarching framework is needed to support international collaboration in those fields relevant to the overall management and development of the European frontiers of the Roman Empire as World Heritage. It is the ambition of the States Parties involved to realise such a framework, which is provisionally labelled ‘Frontiers of the Roman Empire World Heritage Cluster’ (hereafter: Cluster), before the end of 2017. In putting this cluster in place lessons will be learned from existing structures and collaborations.

The Cluster will include both the inscribed and envisaged properties in Europe, and will be open to future extension with frontier sections in North Africa and the Near East (fig. 8.2). The Cluster will include provision to ensure appropriate levels of governance and scientific advice applicable to the Cluster itself and to the individual component World Heritage properties.

The primary aims of the Cluster are the presentation of the Roman frontiers as a single, coherent monument and the furthering of international cooperation to facilitate management and development of the inscribed properties. The existing Bratislava Group could form the basis. This “is an international scientific advisory body with expert members from States Parties containing inscribed or potential parts

of the WHS FRE. The Bratislava Group aims to share knowledge and experience of Roman frontiers and their identification, protection, conservation, management and presentation, leading to the distillation of a common viewpoint. Through technical and professional advice the Bratislava Group provides a scientific framework for the whole of the Roman frontiers.”<sup>112</sup> Its responsibility could cover the four domains of policy, management, scientific advice and public outreach and form the bracket over the inscribed sites Frontiers of the Roman Empire.

The above framework needs to be fully developed by the States Parties, but it may be clear that this Cluster will enable us to expand from individual sites and properties to an overarching European monument, which may grow to include parts from other continents in the future.

### 8.6.3 APPROACH FOR THE DANUBE

The section envisaged to represent the Danube frontier extends over 2,400 km and is located within the territories of eight States Parties. The current site selection comprises about 250 component sites. Previous cooperation projects such as the Culture 2000 project ‘Frontiers of the Roman Empire’ (2005–2008),<sup>113</sup> the EU Central Europe project ‘Danube Limes – UNESCO World Heritage’ (2008–2011)<sup>114</sup> and the EU South East Europe project ‘Danube Limes Brand’ (2012–2014)<sup>115</sup> are demonstrations of successful cooperation by the States Parties involved in the envisaged section, resulting amongst others in the submission of entries on the Tentative Lists of Hungary (2009), Austria, Germany, Serbia (all 2015), Bulgaria (2016) and Romania (due for 2017).

These cooperative projects have added to the confidence that the Danube frontier will be a feasible and manageable property. Yet, despite the considerable progress made in recent years, the preparations for nomination have advanced at different speed. The feasibility of inscription of this extensive property would considerably increase if it were nominated in two steps: the western part first and the eastern part later. A successful nomination of the western part would be a major stimulus to the eastern part, and the States Parties involved in the preparation of the nomination of the latter would greatly benefit from the experiences and support of those involved in the former.

The western segment would comprise the component sites within the territories of Germany, Austria, Slovakia and Hungary, the eastern segment those in Croatia, Serbia, Bulgaria and Romania; the current selections of component sites amount to about 130 for the western and 120 for the eastern segment. The Thematic Study provides a clear view of the characteristics of both parts, as the western segment covers the frontiers of the Roman provinces of *Raetia* (eastern part), *Noricum* and most of *Pannonia*, while the eastern segment covers the frontiers of a small part of *Pannonia* and all of *Moesia*.

The main distinctive characteristics of the Danube frontier have been listed in section 8.4.2, clarifying that the property as a whole will be able to demonstrate OUV. In a two-step approach the western segment needs to be able to justify OUV on its own in a first step, while the eastern segment needs to demonstrate attributes not present in the western segment in a second step.

The most distinctive characteristics of the western segment are the temporary camps illustrating the military impact of external wars, the dense series of fortlets and watchtowers revealing the similarity between river frontiers and artificial barriers, and heavy fortifications and bridgeheads exemplifying the transition to perimeter defence.

112 Joint Declaration; Annex B.

113 Breeze/Jilek 2008.

114 [http://www.southeast-europe.net/en/projects/approved\\_projects/?id=251](http://www.southeast-europe.net/en/projects/approved_projects/?id=251) (accessed 26.01.2017).

115 <http://danubeLimesbrand.org/> (accessed 26.01.2017).

These attributes should support justification for the OUV of the western segment as an outstanding example of the varied Roman military responses to external threats.

Extension of this property with the eastern segment would supplement it with the early strategy of diplomacy and with its longer survival, as part of the Eastern Roman Empire. These additional attributes of the eastern segment are contributory rather than sufficient for nomination as a separate property.

## 8.7 TIMETABLE

With the foreseen submission in 2017 of an entry for the Tentative List of Romania all European frontier sections will be part of national Tentative Lists, and little harmonisation will be necessary. For the remainder of the nomination process the following timetable is foreseen:

end of 2017	creation of an overarching collaborative framework
January 2018	submission of the nomination dossier for the Danube frontier, western segment
January 2020	submission of the nomination dossier for the Lower German frontier
January 2021	submission of the nomination dossier for a major extension to add the eastern segment to the Danube frontier property
January 2021	submission of the nomination dossier for the Dacian frontier



Standing remains of the  
fort of *Cannabiaca* at  
Zeiselmauer (Austria).



## LIST OF ILLUSTRATIONS

### PHOTOGRAPHS

- II Bayerisches Landesamt für Denkmalpflege (Otto Braasch)
- IV Michel Reddé
- VI Udhruh Archaeological Project, Leiden University
- X Institute for the Protection of Cultural Monuments of Serbia (Siniša Temerinski)
- 6 [https://commons.wikimedia.org/wiki/File:Hadrian%27s\\_Wall\\_west\\_of\\_Housesteads\\_3.jpg](https://commons.wikimedia.org/wiki/File:Hadrian%27s_Wall_west_of_Housesteads_3.jpg) (Steven Fruitsmaak)
- 9 Michel Reddé
- 10 David Mattingly
- 12 Historic Scotland (Santiago Arribas)
- 14 Bayerisches Landesamt für Denkmalpflege (Klaus Leidorf)
- 16 Udhruh Archaeological Project, Leiden University
- 19 David Breeze
- 22 Bayerisches Landesamt für Denkmalpflege (Klaus Leidorf)
- 25 Markus Gschwind
- 27 Markus Gschwind
- 28 LVR-Amt für Bodendenkmalpflege (LINK 3D - Digitale Archäologie)
- 33 René Ployer
- 44 Michel Reddé
- 46 David Mattingly
- 49 Monuments Board of the Slovak Republic (Magdaléna Janovská)
- 51 Guus Gazenbeek
- 52 Michel Reddé
- 54 Hadrian's Wall Country
- 56 Radboud University Nijmegen
- 59 Radboud University Nijmegen
- 60 Markus Gschwind
- 68 René Ployer
- 71 LVR-Amt für Bodendenkmalpflege (Steve Bödecker)
- 75 Igor Vukmanić
- 82 Aerial Archaeological Archive of the University of Pécs (Otto Braasch)
- 84 René Ployer
- 86 Institute for the Protection of Cultural Monuments of Serbia (Julius Olda)
- 89 Institute of Archaeology, Belgrade
- 90 Zsolt Visy
- 92 Erik Graafstal
- 95 Monuments Board of the Slovak Republic (Peter Fratrič)
- 96 Markus Gschwind
- 98 Provinciaal Depot voor Bodemvondsten Zuid-Holland
- 102 Municipality of Kladovo
- 109 Bundesdenkmalamt Österreich (Bettina Neubauer-Pregl)
- 116 Aerial Archaeological Archive of the University of Pécs (Otto Braasch)
- 119 Markus Gschwind
- 120 René Ployer
- 126 Bundesdenkmalamt Österreich (Bettina Neubauer-Pregl)



## MAPS AND FIGURES

The maps of figs. 4.1-4.9 were derived from Klee 2006, with kind permission by the author. The map of fig. 4.9 was adapted by Marinus Polak using information provided by Felix Marcu.

The maps of figs. 6.1-6.5 and 8.1 were made by Marinus Polak, using various sources (cf. section 3.2).

Figs. 7.1 and 8.2 were made by Marinus Polak.

## ABBREVIATIONS

ABE	Advisory Body Evaluation
FRE	Frontiers of the Roman Empire
OUV	Outstanding Universal Value
SOUV	Statement of Outstanding Universal Value
WHS	World Heritage Site

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# DRAFT CONCEPT STATEMENT FOR THE FRONTIERS OF THE ROMAN EMPIRE



The Roman Empire, in its territorial extent, was one of the greatest empires the world has known. Enclosing the Mediterranean world and surrounding areas, it was protected by a network of frontiers stretching from the Atlantic Coast in the west to the Black Sea in the east, from central Scotland in the north to the northern fringes in of the Sahara Desert in the south. Much of this frontier survives on and in the ground. It was largely constructed in the 2nd century AD when the Empire reached its greatest extent. This frontier was at times a linear barrier, at other times protected spaces, or in some cases a whole military zone.

Substantial remains survive (clockwise from the west) in the United Kingdom, the Netherlands, Germany, Austria, Slovakia, Hungary, Croatia, Serbia, Bulgaria, Romania, Turkey, Syria, Jordan, Egypt, Libya, Tunisia, Algeria, and Morocco. Starting on the western coast of northern Britain, the frontier in Europe then ran along the rivers Rhine and Danube, looping round the Carpathian Mountains to the Black Sea. The eastern frontier, stretching from the Black Sea to the Red Sea and running through mountains, great river valleys and the desert. To the south, Rome's protective cordon embraced Egypt and then ran along the northern edge of the Sahara Desert to the Atlantic shore in Morocco.

Aerial view of the Late Roman fortress at Tokod (Hungary).

The remains include the lines of the linear frontier, natural elements such as the sea, rivers and deserts, and networks of military installations and ancillary features such as roads on, behind and beyond the frontier. These encompass both visible and buried archaeology. Together, the remains form an extensive relict cultural landscape which displays the unifying character of the Roman Empire, through its common culture, but also its distinctive responses to local geography and political and economic conditions. Each section is a substantial reflection of the way resources were deployed in a particular part of the Empire.

The Frontiers of the Roman Empire (FRE) as a whole was the border of one of the most extensive civilizations in human history, which has continued to affect the western world and its peoples till today. It had an important effect on urbanization and on the spread of cultures among remote regions. The scope and extent of the frontier reflects the unifying impact of the Roman Empire on the wider Mediterranean world, an impact that persisted long after the empire had collapsed while the frontiers are the largest single monument to the Roman civilization.

The FRE illustrate and reflect the complex technological and organizational abilities of the Roman Empire which allowed it to plan, create and protect a frontier of some 5000 km in length, with a garrison of tens of thousands of men, and to manage the social, economic and military implications of this frontier. The frontier demonstrates

the variety and sophistication of the response to topography and political, military and social circumstances which include walls, banks, rivers, and sea.

The frontiers as a whole reflect the development of Roman military architecture and the impact of the frontier on the growth of transport routes, and urbanization.

The Roman frontier is the largest monument of the Roman Empire, one of the world's greatest preindustrial empires. The physical remains of Limes, forts, watchtowers, settlements and the hinterland dependent upon the frontier reflect the complexities of Roman culture, but also its unifying factors across Europe and the Mediterranean world. The FRE's constructions are evidence from the edges of the Empires and reflect the adoption of Roman culture by its subject peoples. The frontier was not an impregnable barrier: rather it controlled and allowed the movement of peoples within the military units, amongst civilians and merchants, thus allowing Roman culture to be transmitted around the region and for it to absorb influences from outside its borders.

The frontier reflects the power and might of the Roman Empire and the spread of classical culture and Romanization which shaped much of the subsequent development of Europe.





View on the Euphrates  
near the ancient river  
crossing at *Zeugma/*  
*Belkis* (Turkey).



# JOINT DECLARATION FRE WHS

## RUNNING AND EXPANDING THE WORLD HERITAGE SITE FRONTIERS OF THE ROMAN EMPIRE

The World Heritage Site - Frontiers of the Roman Empire (WHS FRE) is a serial transnational World Heritage Site (WHS).

The State Parties involved hereby declare their aim to conserve the Outstanding Universal Value (OUV) of this exceptional archaeological structure. They agree to collaborate in order to preserve this WHS, to develop knowledge about it and to transmit this to future generations.

The States Parties hereby declare their commitment to coordinate the management of the WHS. They

- look forward to continuing their cooperation for the benefit and success of the WHS FRE
- will be guided by the Operational Guidelines and decisions of the World Heritage Committee relating to the WHS FRE
- recognise the importance of - and need for - coordinated management and monitoring as the foundation for practical actions between and in all participating States Parties
- agree to continue collaboration in order to identify, protect, conserve, present and transmit to future generations this common heritage of Outstanding Universal Value.

It is also the aim of the States Parties that the WHS FRE should be expanded to include as much of the preserved structures of the frontiers of the Roman Empire as feasible. The State Parties recognise that, as the former Roman border stretches over three continents, extending the WHS will be a complex process.

Each State Party is responsible for taking care of conservation and management of the property within its territory, in accordance with the provisions of the World Heritage Convention, the Operational Guidelines for the Implementation of the World Heritage Convention ("Operational Guidelines") and the decisions of the World Heritage Committee. This responsibility is managed by each State Party in its own right, in accordance with its legislative and management systems.

In line with section 135 of the Operational Guidelines, an Intergovernmental Committee (IGC) is established to coordinate at an international level the management and development of the whole of the WHS.

Standing remains of the military fortress built by the Emperor Diocletian at Palmyra (Syria). In the background the 17th-century Arab Castle.

By joining the IGC, the respective national and regional governments, archaeological and heritage agencies declare their commitment to the identification, protection, conservation, presentation and transmission to future generations of the site within their jurisdiction in accordance with the highest archaeological and heritage standards.

The terms of reference of the IGC are set out below.

## TERMS OF REFERENCE OF THE INTERGOVERNMENTAL COMMITTEE

### 1 Intergovernmental Committee

The Intergovernmental Committee (IGC) is established in order to coordinate overall management of the FRE WHS at an international level. Its Terms of Reference are approved unanimously by all the States Parties involved in the FRE WHS.

The current State Parties involved are the Federal Republic of Germany and the United Kingdom.

### 2 Membership

Membership of the IGC consists of the delegations of the States Parties which care for a section of the WHS FRE currently inscribed.

The delegations are composed of at least one member of the respective administrations in charge of the national sections of the WHS as well as at least one expert in archaeology or heritage. Delegations may not exceed 5 members.

### 3 Objectives

The objectives of the IGC are

- to coordinate at an international level the management, monitoring and development of the WHS FRE
- to advise and support its members in their efforts to conserve and manage those parts of the WHS FRE which are under their respective responsibility, in accordance with the World Heritage Convention
- to promote best practice and common approaches to ensure the continuing World Heritage status of the component parts of the FRE WHS
- to develop further the management systems of the FRE WHS as an evolving instrument, based on the management principles contained in the WHS FRE summary nomination statement (2004).

### 4 Procedures

#### 4.1 Chair of the IGC

The IGC is chaired by one of the State Party members of the IGC. The Chair will provide secretariat support for organising meetings, disseminating information to IGC members, preparing documents for meetings, recording the IGC's discussions and coordinating common actions.

The Chairmanship changes each year on February 1. It is allocated according to the alphabetical order of the names of the States Parties in English.

#### 4.2 Meetings

The IGC meets at least once a year. After consulting other members, the Chair of the IGC convenes the meetings and decides on the agenda.

An extraordinary meeting may be requested by any State Party member of the IGC at any time, in writing to the Chair. The Chair will then decide whether and when to convene an extraordinary meeting, after consultation with other members of the IGC.

#### **4.3 Decisions**

Decisions of the IGC are taken by a two thirds majority of States Parties members of the IGC present, except where otherwise stated below.

The quorum for a decision is at least two thirds of all States Parties members.

Other members of the IGC and Observers participate without the right to vote.

#### **4.4 Observers**

The Chair may invite observers to attend IGC meetings, after consultation with other members of the IGC.

These may include observers from those States Parties which care for a section of the WHS FRE which is not yet inscribed, particularly of those states which are in the process of developing a nomination.

They may also include third party observers, such as the World Heritage Centre, World Heritage Advisory Bodies and others with special competences in specific subjects to be dealt with at a meeting in order to make a contribution on a consultative basis.

#### **4.5 Publications**

Members of the IGC are consulted before publication of any document or statement in the name of the IGC. All publications in the name of the IGC are agreed unanimously by all State Party members.

#### **4.6 Languages**

The working language of the IGC is English.

#### **4.7 Expenses**

The costs of participating in IGC meetings are met by the participants.

#### **4.8 Advisory groups**

The IGC may seek advice from advisory bodies such as the Management Group and the Bratislava Group.

##### ***4.8.1 Management Group***

The Management Group is made up of those directly responsible for the site management of the currently inscribed sections of the WHS FRE. The Management Group provides the primary mechanism for sharing best practice in relation to WHS FRE.

##### ***4.8.2 Bratislava Group***

The Bratislava Group is an international scientific advisory body with expert members from States Parties containing inscribed or potential parts of the WHS FRE. The Bratislava Group aims to share knowledge and experience of Roman frontiers and their identification, protection, conservation, management and presentation, leading to the distillation of a common viewpoint. Through technical and professional advice the Bratislava Group provides a scientific framework for the whole of the Roman frontiers. The group supports States Parties by:

- advising on the significance of the Roman frontiers and on the development of best practice guides for their management and improving their understanding
- developing support structures such as an overall research strategy, an international Roman frontiers database and websites.

## 5 Tasks

### 5.1 Coordination

The IGC coordinates the management of the WHS FRE at the international level. It coordinates responses to the World Heritage Centre for all questions which relate to the whole of the WHS FRE. This task is managed by the Chair, which obtains and coordinates information from the States Parties. Individual State Parties will continue to make notifications to the World Heritage Centre in accordance with paragraph 172 of the Operational Guidelines.

The IGC is guided by management principles first set out in the WHS FRE summary nomination statement (2004). The common management principles deal with those aspects of the WHS FRE management which concern more than a single national segment of the WHS FRE.

### 5.2 Extensions to the WHS FRE

#### 5.2.1 *Proposals to extend the WHS FRE*

Any prospective State Party which on its territory does preserve a part or parts of the FRE is invited to prepare a proposal to join the transnational serial WHS.

At the request of a State Party member of the World Heritage Convention, the IGC will consider proposed extensions to WHS FRE.

In accordance with the Operational Guidelines, the member States Parties of the IGC must agree unanimously on any proposal for extension to WHS FRE before the nomination is formally submitted to UNESCO.

#### 5.2.2 *Acceptance of this Declaration and Terms of Reference*

Any prospective State Party has to accept this Joint Declaration and Terms of Reference.

### 5.3 Monitoring / Evaluation

The IGC supports States Parties in the UNESCO Periodic Reporting. Through its members it coordinates all matters of evaluation of the serial property relating to WHS FRE issues.

### 5.4 State of conservation

It is noted that, according to the Operational Guidelines, if part of the property is at risk the whole property can be placed on the List of World Heritage in Danger.

States Parties commit themselves to inform the IGC of proposed changes of the WHS FRE with significant impact on the OUV.

The IGC may consider the state of conservation of any component part of the WHS FRE as well as planned developments or operations that could potentially damage parts of the WHS FRE or its surroundings. The IGC may discuss with the State Party issues relating to the conservation of parts of the WHS FRE and its surroundings.

### 5.5 Presentation and research

The IGC promotes the presentation of the WHS FRE. It encourages initiatives intended to contribute to the international recognition of the archaeological and historical value of the WHS FRE. It encourages scientific research in the WHS FRE.

## 6 Commencement and amendments

The IGC and these Terms of Reference come into effect on the date of the signing of this Joint Declaration.

The Terms of Reference may be amended at any time, subject to unanimous agreement of the State Party members.

The Terms of Reference will be reviewed five years from the date of signature of the Joint Declaration.

(signed 17.05.2012 by representatives of the United Kingdom and Germany)





# LIST OF SITES REPRESENTING THE ROMAN FRONTIERS OF EUROPE



This annex contains the site lists provided for this Thematic Study by the States Parties involved in the preparation of the nomination of the remaining sections of the Roman frontiers of Europe for the World Heritage List.<sup>116</sup> The sites are listed per country or frontier section, roughly from west to east:

- the Netherlands
- Germany (Rhine)
- Germany (Danube) – Austria
- Slovakia
- Hungary
- Croatia
- Serbia
- Romania
- Bulgaria

Standing remains  
of the Late Roman  
watchtower at  
Bacharnsdorf (Austria).

Within each of the above groups the sites have been numbered – generally, but not consistently, from west/north to east/south. In some cases (Serbia, Romania) later corrections have caused missing site numbers, indicated by {vacat}. The Romanian site list includes sites on the Lower Danube (RO264-294) as well as in the Roman province of *Dacia*.

Each site record has the same structure (underlined elements are not always present):

site number | municipality | town or village | local name  
historical name | Roman province | geographical coordinates  
site type | site date  
selection status | selection criteria  
integrity  
authenticity

Geographical coordinates are in longitude-latitude (decimal degrees), where necessary converted from other coordinate systems. If site dates were not given as numbers these have been converted, e.g. ‘2nd century AD’ into ‘100 - 200’. The selection status represents the situation as of August 2016.

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<sup>116</sup> This annex therefore does not include sites representing Hadrian’s Wall, the Antonine Wall and the Upper German-Raetian Limes, being part of ‘Frontiers of the Roman Empire’ (ref. 430ter).

The 'Three Pillars of Outstanding Universal Value'.



Where recorded, selection criteria (1, 2, etc.) refer to the criteria applied by the country or section in question. With the exception of the site list of the Netherlands, the recorded criteria refer to the 'Three Pillars of Outstanding Universal Value':

1. importance within the specific stretch of the frontier and in the context of the frontier as a whole, illustrating the great diversity of the frontier, its time depth and its functioning within a particular area;
2. good state of preservation and a high level of integrity and authenticity;
3. level of protection and manageability: the sustainable protection and management of the individual component parts is guaranteed in the long term.

In the site list of the Netherlands, the above criteria 2 and 3 apply to all selected sites. The recorded criteria 1-5 are a further specification of the above criterion 1:

1. the site existed during (part of) the 2nd century AD;
2. the site existed during a period preceding or following the 2nd century AD, contributing to the value that the Lower German Limes existed from the earliest beginning of the Roman Empire until the breakdown of the Western Empire, always on the same line;
3. the site ranges among the military installations typical of all successive phases of military strategy (conquest, forward defence and defence-in-depth), or among associated features which are characteristic of the military landscape in the Rhineland;
4. the site reflects the tailor-made solutions for the strategic and constructive challenges connected with the dynamic landscape of the Rhine delta;
5. the site offers excellently preserved organic remains and metal objects, thanks to waterlogged conditions.

## THE NETHERLANDS

NL001 | Katwijk | Katwijk | Brittenburg  
Germania inferior | 4,392515 / 52,21363  
auxiliary fort | Date: 40 - 400

Selected: No

Integrity: Unknown. The remains of the fort have only been seen in the 16th century during extremely low tide.

Authenticity: Maps and paintings from the period show credible remains, but recent efforts to demonstrate the presence of a fort by modern methods (sonar etc.) have failed so far.

NL002 | Katwijk | Katwijk | Uitwateringssluis  
Germania inferior | 4,400034 / 52,211086  
military vicus? | Date: 0 - 270

Selected: No

Integrity: Part of the site has been excavated. The extension and preservation of further remains are unknown.

Authenticity: Insufficient, as the assumed character of a military vicus belonging to the Brittenburg fort has not been properly attested.

NL003 | Katwijk | Katwijk | Zanderij Westerbaan  
Germania inferior | 4,414223 / 52,191843  
rural settlement, cemetery, possibly Limes road | Date: 0 - 270

Selected: No

Integrity: Nearly completely excavated.

Authenticity: n/a

NL004 | Katwijk | Valkenburg | Centrum  
Praetorium Agrippinae? | Germania inferior | 4,432816 / 52,180696

fort, vicus, cemetery | Date: 40 - 400

Selected: Yes | Criteria: 1, 2, 3, 4, 5

Integrity: Approximately 40% of the fort has not been excavated. Although its remains are overbuilt, previous excavations underneath built-up areas have demonstrated that especially the earlier building phases are very well preserved, including many timber and other organic remains. The other parts of the military settlement (military vicus and cemetery) have been less intensively excavated, and although most of the area is overbuilt many remains are still intact.

Authenticity: The Valkenburg fort is famous for its preservation of timber remains, especially from the earlier building phases of the fort. There are only few sites where so many authentic details of Roman military timber construction are still present.

NL005 | Katwijk | Valkenburg | De Woerd  
Germania inferior | 4,438954 / 52,169897  
military vicus | Date: 40 - 270

Selected: Yes | Criteria: 1, 2, 3, 4

Integrity: Part of the settlement has been excavated, and the remaining areas are largely overbuilt (mainly greenhouses). Nevertheless, many remains are likely to be still present.

Authenticity: Excavation has demonstrated the presence of buildings with military aspects of design and construction, in a linear arrangement. This is typical of military vici and has rarely been attested in the Netherlands, and therefore this site is important for the knowledge and understanding of this site type in the wetland landscape of the Rhine delta.

NL006 | Leidschendam-Voorburg | Voorburg | Arentsburg  
Forum Hadriani | Germania inferior | 4,350568 / 52,059879  
civil town Forum Hadriani, harbour | Date: 100 - 270

Selected: Yes | Criteria: 1, 2

Integrity: Considerable parts (c. 37%) of the Roman town have been excavated in the 19th and early 20th centuries, but many

of the then uncovered features are still (partially) intact. Timber and other organic remains are preserved at deeper, waterlogged levels. Overbuilding is restricted to the northwest corner, not very dense and is not very likely to have caused much damage. Authenticity: The presence of a Roman civil town with a harbour is well attested by excavation. It is likely that the development of towns on the Lower German frontier relied heavily on imperial intervention and military involvement in their construction. The presence of a harbour along Corbulo's canal and the finds assemblage indicate that the town played a part in the supply of the military infrastructure along the North Sea coast. In all, this civil town is a relevant aspect of the military infrastructure in the Rhine delta.

NL007 | Leidschendam-Voorburg | Leidschendam  
Fossa Corbulonis | Germania inferior | 4,415765 / 52,096218  
Corbulo canal | Date: 40 - 270

Selected: Yes | Criteria: 1, 2, 3, 4, 5

Integrity: Preserved over great lengths. Time and again excavations have demonstrated the presence of remains of this canal, in narrow trial trenches. The remnants consist of an artificial water channel, with its sides strengthened with post rows at several places. Not rarely, these posts are preserved in very good condition.

Authenticity: Although several canals are known from historical sources, this is the only example which has been attested beyond doubt. The canal is mentioned by the historian Tacitus (Annales 11.20), who credits the Lower German army commander Corbulo with its construction, in AD 47. However, the canal has been proven to have an earlier phase which must have preceded the command of Corbulo. This canal is therefore of immense historical value, both confirming and correcting historical evidence, and expressing the adaptation of the delta landscape to the Roman military needs.

NL008 | Voorschoten | Voorschoten  
Fossa Corbulonis | Germania inferior | 4,433409 / 52,107885  
Corbulo canal | Date: 40 - 270

Selected: Yes | Criteria: 1, 2, 4, 5

Integrity: Cf. NL007.

Authenticity: n/a

NL009 | Leiden | Leiden | Room- of Meerburgerpolder  
Germania inferior | 4,508076 / 52,144294  
military vicus | Date: 40 - 400

Selected: No

Integrity: Unknown.

Authenticity: The association of the finds and features in this area with the nearby fort and its military vicus is uncertain.

NL010 | Leiden | Leiden | Meerburg-Rivierenwijk  
Germania inferior | 4,515039 / 52,15132  
military vicus, harbour | Date: 40 - 400

Selected: Undecided | Criteria: 1, 2, 3, 4

Integrity: Excavations in the 1960s have indicated the presence of remains of a military vicus and harbour to the north of the Corbulo canal. The extension and preservation of further remains is uncertain.

Authenticity: So far the character of the remains on this location is not very clear. There is no doubt that they are Roman and it is probable that they belong to the military settlement of Roomburg, but better evidence is required.

NL011 | Leiden | Leiden | Roomburg  
Matilo? | Germania inferior | 4,517568 / 52,149757

auxiliary fort, military vicus, harbour | Date: 40 - 400

Selected: Yes | Criteria: 1, 2, 3, 4, 5

Integrity: Today, the area of fort and its immediate surroundings is a park. The presence of remains of the fort defenses has been well attested, but most of the fort has not been touched by excavation. Part of the fort and the adjacent civil settlement have been overbuilt by a monastery, built in 1464 and dismantled in 1573. It is unknown to what degree the Roman remains were damaged by this religious complex. The limited excavations carried out so far have uncovered many Roman features. Excavations in the vicus were confined to its periphery. The settlement was built along the exit of the Corbulo canal, whose bank was fortified with post rows and revetments, with well preserved timber remains and rich finds including organic materials and well-preserved metal objects. Large stretches of this embankment are likely to be still present.

Authenticity: This site is a relatively completely preserved example of a military settlement, with attested remains of a fort, its vicus and harbour facilities along the northern exit of the Corbulo canal. This completeness is its main assets from the point of view of authenticity, as it allows to question the relationship between the various components, of which the Corbulo canal is unique. Today, the former presence of a Roman fort is marked at the surface by an earth wall with gates and towers; material and design clearly reveal that they are not meant as a reconstruction. This visible remembrance supports the sustainable protection of the underlying and surrounding Roman remains by explaining their presence.

NL012 | Zoeterwoude | Zoeterwoude-Rijndijk | Hazerswoude-Zoeterwoude

Germania inferior | 4,546766 / 52,135551

Limes road and associated structures | Date: 80 - 270

Selected: No

Integrity: Cf. NL020.

Authenticity: Sustainable preservation of this section of the Limes road cannot be attained.

NL013 | Alphen aan den Rijn | Groenendijk | Hazerswoude-Zoeterwoude

Germania inferior | 4,556519 / 52,131081

Limes road and associated structures | Date: 80 - 270

Selected: No

Integrity: Cf. NL020.

Authenticity: Sustainable preservation of this section of the Limes road cannot be attained.

NL014 | Alphen aan den Rijn | Groenendijk | Polder Groenendijk

Germania inferior | 4,557742 / 52,130506

Limes road | Date: 80 - 270

Selected: No

Integrity: Cf. NL020

Authenticity: Sustainable preservation of this section of the Limes road cannot be attained.

NL015 | Alphen aan den Rijn | Hazerswoude-Rijndijk | Alphen aan den Rijn-Hazerswoude

Germania inferior | 4,613215 / 52,128644

Limes road and associated structures | Date: 80 - 270

Selected: No

Integrity: Cf. NL020.

Authenticity: Sustainable preservation of this section of the Limes road cannot be attained.

NL016 | Alphen aan den Rijn | Alphen aan den Rijn | Castellumstraat

Albanianae? | Germania inferior | 4,660677 / 52,127931

auxiliary fort, military vicus | Date: 40 - 270

Selected: No

Integrity: The fort was nearly completely excavated, including large parts of the military vicus. Most of the riverside rubbish deposits were destroyed during recent construction works.

Authenticity: n/a

NL017 | Alphen aan den Rijn | Zwammerdam | Polder Steekt

Germania inferior | 4,699745 / 52,111663

Limes road | Date: 80 - 270

Selected: No

Integrity: The (Limes) road between Alphen aan den Rijn and Zwammerdam is considerably affected by clay extraction. Since the remains of the road occur at a shallow depth most of it will be eroded.

Authenticity: n/a

NL018 | Alphen aan den Rijn | Zwammerdam | Hooge Burcht

Nigrum Pullum? | Germania inferior | 4,715466 / 52,105983

auxiliary fort, military vicus, harbour, ships | Date: 50 - 270

Selected: No

Integrity: The fort has been completely excavated, including a large part of the quays and rubbish deposits along the Roman Rhine, and six ships. Part of the military vicus is likely to be preserved, though probably not without damage by clay extraction and overbuilding.

Authenticity: n/a

NL019 | Bodegraven-Reeuwijk | Bodegraven | Centrum

Germania inferior | 4,745302 / 52,083634

fort | Date: 40 - 270

Selected: Yes | Criteria: 1, 2, 3, 5

Integrity: Excavations have revealed the presence of a gate and part of the wall of a timber fortification of so far uncertain size. Parts of the defenses and of internal buildings were preserved in conditions as known from Valkenburg (NL004). There is every reason to believe that many other parts of this installation are still present below the town centre.

Authenticity: The timber military installation at Bodegraven may well be the best preserved and complete example of the Lower German frontier. Excavation has been so limited that its size and character remain uncertain. If the preservation conditions observed in a few excavations are no exception, the site is of outstanding value for the early chronology of this part of the frontier, and for the surviving details of military timber construction.

NL020 | Bodegraven-Reeuwijk | Nieuwerbrug aan den Rijn | Woerden-Bodegraven

Germania inferior | 4,789864 / 52,079958

Limes road and associated structures | Date: 80 - 270

Selected: Undecided

Integrity: The presence of sections of a (Limes) road between Zoeterwoude in the west and Harmelen in the east (of which four parts have been provisionally selected) has been confirmed at various locations, partly in excavations. Further research is needed to attest the precise course of the road and its preservation.

Authenticity: There is no doubt that there was a road connecting the forts on the left bank of the Rhine, between Utrecht-Hoge Woerd and Leiden-Roomburg. Based on the better documented situation immediately west of Utrecht-Hoge Woerd watchtowers may be expected along the road, and timber constructions where the road touches the Rhine channel or crosses tributaries and other wet areas. It seems that shipwrecks occur every now and then in the Rhine bed, and one

or more may be present in areas protected primarily for the presence of the road. The entire assemblage of road, protective measures, watchtowers and ships constitute an extremely valuable asset of the Lower German frontier, expressing the struggle of the Roman military with the wetland conditions.

NL021 | Woerden | Woerden | Woerden-Bodegraven  
Germania inferior | 4,840782 / 52,08078  
Limes road and associated structures | Date: 80 - 270  
Selected: Undecided  
Integrity: Cf. NL020  
Authenticity: Cf. NL020

NL022 | Woerden | Woerden | Centrum  
Laurium? | Germania inferior | 4,883937 / 52,085736  
fort, vicus, riverside deposits and Limes road | Date: 40 - 400  
Selected: Yes | Criteria: 1, 2, 3, 4, 5  
Integrity: Excavation of the successive forts at Woerden has been very limited so far, and it is certain that much of their remains are still present below the town centre. The earlier building phases will be better preserved than the later ones, but Woerden is one of few military forts in the Netherlands which have produced parts of the stone walls of the latest building period. Small-scale excavations in a wide area around the fort have demonstrated that many remains of the military vicus are still present, and also of harbour constructions along and ship wrecks in the Roman Rhine. Preserved timber is not rare, and the same is true of other organic remains.  
Authenticity: This site is a relatively completely preserved example of a military settlement, with attested remains of a fort, its vicus and harbour facilities. This completeness and the preservation of organic remains are its main assets from the point of view of authenticity.

NL023 | Woerden | Harmelen | Harmelen-Woerden  
Germania inferior | 4,932434 / 52,095856  
Limes road and associated structures | Date: 80 - 270  
Selected: Undecided  
Integrity: Cf. NL020  
Authenticity: Cf. NL020

NL024 | Utrecht | De Meern | De Balije/Veldhuizen/Zandweg  
Germania inferior | 5,007578 / 52,086927  
quay, ship, Limes road and associated structures | Date: 80 - 270  
Selected: Yes | Criteria: 1, 2, 3, 4, 5  
Integrity: In restricted areas very well preserved remains of a (Limes) road have been excavated, with additional features including bridges, revetments, watchtowers and ships. There is every reason to suppose that many similar remains are still hidden in unexcavated areas.  
Authenticity: This section of the Limes road is the best researched and possibly the most varied section of this infrastructural element in the Netherlands, clearly demonstrating the sensitive balance between the wetlands of the Rhine delta and the military needs. The preservation conditions of the timber elements of the road, bridges, watchtowers and ships permit the establishment of a biography of the road system with an unparalleled level of detail, indicating both large building campaigns and small-scale repairs.

NL025 | Utrecht | De Meern | De Meern 1  
Germania inferior | 5,020175 / 52,080819  
ship, quay | Date: 100 - 200  
Selected: No  
Integrity: The ship has been completely excavated.  
Authenticity: n/a

NL026 | Utrecht | De Meern | Meerndijk  
Germania inferior | 5,025717 / 52,068424  
canal? | Date: 40 - 270  
Selected: No  
Integrity: It is assumed that there was a connection here between the main Rhine channel and a more southerly secondary branch (Hollandse IJssel) giving access to the Meuse estuary. A section through this water course has been alternatively interpreted as natural and manmade. Much of this water course will still be present under a modern road (dike).  
Authenticity: The artificial (manmade) character of the water course has not been unequivocally attested. Therefore its characterisation as a dug canal is uncertain.

NL027 | Utrecht | De Meern | Touwslagerslaan  
Germania inferior | 5,031377 / 52,082912  
watchtower? | Date: 40 - 270  
Selected: No  
Integrity: The site is unlikely to be a watchtower.  
Authenticity: In the past a watchtower has been supposed here on account of finds of pottery (including sigillata) and a sling shot in soil extracted for the creation of a pond. It is now no longer considered as a candidate for a watchtower.

NL028 | Utrecht | De Meern | Hoge Woerd  
Germania inferior | 5,041391 / 52,087885  
fort, vicus and cemetery, riverside deposits | Date: 40 - 400  
Selected: Yes | Criteria: 1, 2, 3, 5  
Integrity: Excavations in the fort and military vicus have been very limited. They have demonstrated that many remains are still present, including stone walls of a military bath house. The earlier phases of the settlement are better preserved than the later ones, as usual in the Netherlands. They include preserved organic remains, especially in the silted-up river bed in front of the fort and vicus. As the Rhine has migrated away from the settlement, much of the rubbish deposits created by its inhabitants is still present. A physical marking of the fort and a small site museum have been constructed in such a way as to avoid damage to the underlying remains.  
Authenticity: This site is a relatively completely preserved example of a military settlement, with attested remains of a fort, its vicus, cemeteries and riverside rubbish deposits. This completeness and the preservation of organic remains are its main assets from the point of view of authenticity. Today, the former presence of a Roman fort is marked at the surface by an earth wall with gates and towers; material and design clearly reveal that they are not meant as a reconstruction. This visible remembrance supports the sustainable protection of the underlying and surrounding Roman remains by explaining their presence.

NL029 | Utrecht | De Meern | Groot Zandveld  
Germania inferior | 5,050838 / 52,094662  
watchtower | Date: 40 - 400  
Selected: Yes | Criteria: 1, 2, 3, 5  
Integrity: The presence of a timber watchtower has been demonstrated by excavation, but its remains have been carefully preserved.  
Authenticity: Timber watchtowers are notoriously difficult to detect, and usually discovery implies destruction. This example is an exception to that rule, and therefore a very precious secure and authentic example of this rare type of installation.

NL030 | Utrecht | Utrecht | Duitse Huis  
Germania inferior | 5,118444 / 52,087816  
cemetery | Date: 40 - 270  
Selected: No



**Integrity:** The area is largely overbuilt. The extent of the cemetery is unknown, but some remains of it are likely to be still present. On account of the uncertain extent and the perspectives for sustainable protection this site has not been selected.

**Authenticity:** The presence of a cemetery has been attested by excavation. Other sites, however, are in a better position to provide understanding of the relationship between cemetery, fort and military vicus.

NL031 | Utrecht | Utrecht | Domplein area  
Trajectum? | Germania inferior | 5,122001 / 52,090772  
fort and vicus | Date: 40 - 400

Selected: Yes | Criteria: 1, 2, 3

**Integrity:** The fort is well preserved below the remains of the medieval churches and other buildings in the town centre. Excavation has been very limited. It is one of the few sites where intact remains of the stone defensive wall from the latest building period have survived. There is every reason to believe that the remains of the military vicus are equally well preserved. **Authenticity:** The Domplein area is one of the few instances in this frontier region where a former Roman military settlement became the nucleus of a thriving early medieval centre of power. The confrontation of Roman military and medieval religious spheres is presented underground in a visitor centre built which was built in a former excavation trench in order to avoid damage to the remains.

NL032 | Bunnik | Houten | Houten-Marsdijk  
Germania inferior | 5,154466 / 52,054673  
Limes road | Date: 600 - 900

Selected: No

**Integrity:** Remains of a road have been attested, but they turned out to be early medieval.

**Authenticity:** n/a

NL033 | Bunnik | Vechten | Vechten  
Fectio | Germania inferior | 5,167052 / 52,056773  
fort, vicus, cemetery, ship, riverside deposits | Date: -10 - 400  
Selected: Yes | Criteria: 1, 2, 3, 4, 5

**Integrity:** Although the site is dominated today by a 19th-century fort the damage caused by that complex is limited. The successive Roman forts are for the most part located to the west of the modern fort, which has had more impact on the military vicus, of which many remains are nevertheless still present. Parts of the silted-up Rhine bed and the vicus were damaged by the construction of a motorway. Despite all the site is still relatively complete. Timber and other organic remains have been attested at various occasions.

**Authenticity:** This is the earliest and largest military site attested downstream of Nijmegen. Its location near the bifurcation of the river Vecht strongly suggests that it played a prominent part in the Germanic wars of the emperors Augustus and Tiberius. This is an important asset of its authenticity. Today, the former presence of a Roman fort is marked at the surface by a concrete band and a ditch which has been dug after the site had been raised to avoid damage; material and design clearly reveal that the marking is not meant as a reconstruction. This visible remembrance supports the sustainable protection of the underlying and surrounding Roman remains by explaining their presence.

NL034 | Bunnik | Odijk | Schoudermantel/Vinkenburgweg  
Germania inferior | 5,225319 / 52,051789  
rural settlement? road? watchtower? | Date: -100 - 270

Selected: No

**Integrity:** The area was destroyed during the construction of an

access to a motorway.

**Authenticity:** n/a

NL035 | Bunnik | Werkhoven | Achterdijk/De Klaproos  
Germania inferior | 5,234659 / 52,023552  
rural settlement? road? | Date: -100 - 270

Selected: No

**Integrity:** The presence of well-preserved remains of a settlement is very likely.

**Authenticity:** The site was initially selected on the assumption that the (satisfactorily attested) settlement was located on the Limes road. Targeted survey has not confirmed the existence of a road on the supposed line, and the settlement is likely to be a rural settlement without a major military association. The site has been rejected.

NL036 | Bunnik | Werkhoven | Hollende Wagenweg/De Zure Maat

Germania inferior | 5,255543 / 52,001601

rural settlement? road? | Date: -100 - 270

Selected: No

**Integrity:** The presence of well-preserved remains of a settlement is very likely.

**Authenticity:** The site was initially selected on the assumption that the (satisfactorily attested) settlement was located on the Limes road. Targeted survey has not confirmed the existence of a road on the supposed line, and the settlement is likely to be a rural settlement without a major military association. The site has been rejected.

NL037 | Wijk bij Duurstede | Cothen | Oude Leemkolck  
Germania inferior | 5,277327 / 52,002388

ship? | Date: 1000 - 1500

Selected: No

**Integrity:** It is not unlikely that part of the ship is still preserved. The available evidence points however to a medieval date for this ship.

**Authenticity:** n/a

NL038 | Wijk bij Duurstede | Cothen | Dwarsdijk-Caspargouw  
Germania inferior | 5,274646 / 51,996794  
rural settlement? road? | Date: -100 - 270

Selected: No

**Integrity:** The presence of well-preserved remains of a settlement is very likely.

**Authenticity:** The site was initially selected on the assumption that the (satisfactorily attested) settlement was located on the Limes road. Targeted survey has not confirmed the existence of a road on the supposed line, and the settlement is likely to be a rural settlement without a major military association. The site has been rejected.

NL039 | Wijk bij Duurstede | Cothen | Dwarsdijk-Smidsdijk  
Germania inferior | 5,287163 / 51,993085  
rural settlement? road? | Date: -100 - 270

Selected: No

**Integrity:** The presence of well-preserved remains of a settlement is very likely.

**Authenticity:** The site was initially selected on the assumption that the (satisfactorily attested) settlement was located on the Limes road. Targeted survey has not confirmed the existence of a road on the supposed line, and the settlement is likely to be a rural settlement without a major military association. The site has been rejected.

NL040 | Wijk bij Duurstede | Cothen | De Dom  
Germania inferior | 5,304377 / 51,990348



rural settlement? road? | Date: -100 - 270

Selected: No

Integrity: The presence of well-preserved remains of a settlement is very likely.

Authenticity: The site was initially selected on the assumption that the (satisfactorily attested) settlement was located on the Limes road. Targeted survey has not confirmed the existence of a road on the supposed line, and the settlement is likely to be a rural settlement without a major military association. The site has been rejected.

NL041 | Wijk bij Duurstede | Wijk bij Duurstede | Trechtweg/Trekweg

Germania inferior | 5,319716 / 51,984929

rural settlement? road? | Date: -100 - 270

Selected: No

Integrity: The presence of well-preserved remains of a settlement is very likely.

Authenticity: The site was initially selected on the assumption that the (satisfactorily attested) settlement was located on the Limes road. Targeted survey has not confirmed the existence of a road on the supposed line, and the settlement is likely to be a rural settlement without a major military association. The site has been rejected.

NL042 | Buren | Rijswijk | Roodvoet baggergaten

Levefanum? | Germania inferior | 5,361041 / 51,963616

auxiliary fort? | Date: 50 - 400

Selected: No

Integrity: The presence of a fort at or around this location is assumed on the basis of dredge finds. The depth at which they were found (several meters) reveals that they were eroded from their original location and re-deposited in the (silted-up) river channel. The assemblage may not have been entirely destroyed by the dredging activities, but there is no positive evidence for this.

Authenticity: The site was not selected on account of the doubts on its military character. The pottery assemblage is typical of rural settlements. The identification as the remains of a military site was mainly inspired by the presence of remains of three helmets and by the assumed Roman military roots of the nearby important early medieval site of Dorestad. Helmets occur at many sites in the Dutch river area which are definitely not military.

NL043 | Buren | Rijswijk | Rijnbandijk

Germania inferior | 5,357231 / 51,960011

cemetery, military vicus? | Date: 1000 - 1500

Selected: No

Integrity: The presence of remains of a settlement is likely, but recent research has confirmed that it is of medieval date.

Authenticity: n/a

NL044 | Buren | Maurik | Eiland van Maurik

Mannaricum? | Germania inferior | 5,423584 / 51,970911

auxiliary fort | Date: 50 - 400

Selected: Undecided | Criteria: 1, 2, 3, 5

Integrity: The presence of a fort at or around this location is assumed on the basis of dredge finds. The depth at which they were found (several meters) reveals that they were eroded from their original location and re-deposited in the (silted-up) river channel. The assemblage may not have been entirely destroyed by the dredging activities, but there is no positive evidence for this. Additional research is required to establish whether any remains of the military settlement have been preserved upstream from the findspot.

Authenticity: The finds clearly indicate that they originate

from a Roman fort. It is likely that this was located somewhat upstream from the findspot of the dredge finds. In itself the finds assemblage is an authentic representative of many cultural values of the eroded fort.

NL045 | Neder-Betuwe | Kesteren | Nedereindsestraat W

Germania inferior | 5,561825 / 51,931536

military vicus? | Date: -100 - 270

Selected: No

Integrity: The rural settlement once present here has largely been excavated.

Authenticity: The excavated remains of the settlement point to a rural character.

NL046 | Neder-Betuwe | Kesteren | Nedereindsestraat O

Germania inferior | 5,564778 / 51,931891

cemetery, military vicus? | Date: 70 - 270

Selected: No

Integrity: The rural settlement and cemetery once present here have largely been excavated.

Authenticity: The excavated remains of the settlement point to a rural character. The uncovered burials have no military aspects either.

NL047 | Neder-Betuwe | Kesteren | Schildersbuurt

Carvo? | Germania inferior | 5,565722 / 51,935215

auxiliary fort? | Date: 70 - 270

Selected: No

Integrity: If a military installation existed here, most or all of its remains are likely to have been eroded by post-Roman river activity. Although it is not impossible that small parts of a military installation or associated features (military vicus, cemetery) have escaped erosion, there is no positive evidence so far.

Authenticity: The (former) presence of a military installation is not unlikely. This is based on the excavation of 26 buried horses of military size (larger than indigenous horses) and of part of a cemetery with military aspects.

NL048 | Overbetuwe | Driel | Baarskamp

Germania inferior | 5,828118 / 51,959115

rural settlement, road? early fort? | Date: 10 - 400

Selected: No

Integrity: The preservation of parts of a settlement may be safely assumed.

Authenticity: The finds assemblage is rural rather than military. The assumption that a military settlement is involved, is merely based on a dozen of early finds unlikely to occur outside a military context. However, a targeted survey has failed to produce more similar finds.

NL049 | Arnhem | Elden | Meinerswijk

Germania inferior | 5,87328 / 51,971422

auxiliary fort, military vicus? | Date: 10 - 400

Selected: Yes | Criteria: 1, 2, 3, 4

Integrity: About two thirds of the fort and large parts of the military vicus have been eroded by the Rhine. The headquarters from the latest building phase of the fort have been superficially excavated but re-covered. They demonstrate that earlier remains will be well preserved. The same appears to apply to non-eroded parts of the vicus, judging by the results of a coring survey.

Authenticity: Its location near the bifurcation of the river Gelderse IJssel (probably the canal recorded by the historians Suetonius and Tacitus as dug by Drusus in 12-9 BC) and a dozen of early finds are generally accepted as an indication that this site played a prominent part in the Germanic wars of the

emperors Augustus and Tiberius. Further, it is the only military site between Nijmegen and Vechten which has been proven to have partly escaped post-Roman erosion by the river Rhine. As such the site clearly expresses the risks of establishing a military infrastructure in a dynamic delta landscape. Today, the former presence of the headquarters of a Roman fort is marked at the surface by a construction of metal and natural stone; material and design clearly reveal that the marking is not meant as a reconstruction. This visible remembrance supports the sustainable protection of the underlying and surrounding Roman remains by explaining their presence.

NL050 | Lingewaard | Huissen | Loostraat  
 Germania inferior | 5,922452 / 51,941933  
 cemetery, rural settlement, road? | Date: -100 - 400  
 Selected: No

Integrity: Many remains of a series of settlements and one or more cemeteries have survived recent excavations and overbuilding.

Authenticity: The linear arrangement of several settlements has added to the belief that the road connecting the forts on the Rhine must have passed here. However, excavations have not provided any evidence of a substantial road. An assemblage of ditches has been interpreted as the possible remains of a military post of some kind, but the evidence is not convincing, and the area in question has been excavated now.

NL051 | Lingewaard | Loo | Loowaard  
 Germania inferior | 5,99154 / 51,918641  
 auxiliary fort | Date: 40 - 270  
 Selected: No

Integrity: The assumed presence of a fort at or around this location is based on dredge finds. The depth at which they were found (several meters) reveals that they were eroded from their original location and re-deposited in the (silted-up) river channel. The assemblage may not have been entirely destroyed by the dredging activities, but there is no positive evidence for this. Additional research is required to establish whether any remains of the military settlement have been preserved upstream from the findspot.

Authenticity: A record of the occurrence of remains of stone walls at great depth during dredging supports the idea that the finds represent the eroded remains of a fort. It is likely that this was located somewhat upstream from the findspot of the dredge finds. In itself the finds assemblage is an authentic representative of many cultural values of the eroded fort. Since the sites of Maurik (NL044) and Bijlandse Waard (NL052) are better examples of eroded forts the Loowaard site has not been selected.

NL052 | Rijnwaarden | Herwen | Bijlandse Waard  
 Carvium? | Germania inferior | 6,091424 / 51,869933  
 re-deposited remains of an eroded fort | Date: -10 - 270  
 Selected: Undecided | Criteria: 1, 2, 3, 4, 5

Integrity: The assumed presence of a fort at or around this location is based on dredge finds. The depth at which they were found (several meters) reveals that they were eroded from their original location and re-deposited in the (silted-up) river channel. The assemblage may not have been entirely destroyed by the dredging activities, but there is no positive evidence for this. Additional research is required to establish whether any remains of the military settlement have been preserved upstream from the findspot.

Authenticity: Its location at the bifurcation of the rivers Rhine and Waal and the presence of some early finds strongly suggest that this fort was built to protect the groyne recorded by the historian Tacitus as built by Drusus during his Germanic

campaigns of 12-9 BC. As such it is of immense historical value, expressing the adaptation of the delta landscape to the Roman military needs.

NL053 | Overbetuwe | Driel | Elst-Driel  
 Germania inferior | 5,828556 / 51,947483  
 road | Date: 0 - 400

Selected: No

Integrity: Trenching has produced indications for the presence of a road at two out of three locations. There may be more locations with more or less intact remains.

Authenticity: It is likely that the attested remains represent a road. Considering its course it will have been a (northward) connection between Nijmegen and the Rhine, and it will have been used by the military. However, this does not per se make it a military road.

NL054 | Overbetuwe | Elst | Grote Kerk  
 Germania inferior | 5,849551 / 51,91987  
 temple | Date: 0 - 270

Selected: No

Integrity: The Grote Kerk temple probably has the best preserved remains of a stone building from the Roman period in the frontier zone in the Netherlands. As far as they have been excavated they have been preserved below the modern church.

Authenticity: The preserved stone walls (accessible in a visitor centre) are authentic remains of a temple. However, its association with the military is weak. The army may have been involved in the provisioning of building materials, and possibly in the construction work itself, but there is no evidence of military involvement in timber predecessors, or of a specifically military following.

NL055 | Overbetuwe | Elst | Westeraam  
 Germania inferior | 5,856834 / 51,921306  
 temple | Date: 40 - 270

Selected: No

Integrity: This temple has been completely excavated.

Authenticity: n/a

NL056 | Lingewaard | Ressen | Ressen-Woerdsestraat  
 Germania inferior | 5,869638 / 51,889939  
 rural settlement, road? | Date: -100 - 400

Selected: No

Integrity: The presence of well-preserved remains of a settlement is very likely.

Authenticity: The site was initially selected on account of the supposition that the (satisfactorily attested) settlement was located on a road connecting Nijmegen to the Rhine. However, this road may well have followed a different course. The site has been rejected.

NL057 | Nijmegen | Ressen | Ressen-Woerdsestraat  
 Germania inferior | 5,871456 / 51,886031  
 rural settlement, road? | Date: -100 - 400

Selected: No

Integrity: The presence of well-preserved remains of a settlement is very likely.

Authenticity: The site was initially selected on account of the supposition that the (satisfactorily attested) settlement was located on a road connecting Nijmegen to the Rhine. However, this road may well have followed a different course. The site has been rejected.

NL058 | Nijmegen | Lent | Centrum/Overwaal  
 Germania inferior | 5,86529 / 51,862164  
 vicus? road? | Date: 0 - 400

Selected: No

Integrity: The former presence of a settlement is certain, but it is likely to have been largely excavated.

Authenticity: The site was initially selected on account of 1) the excavated remains of a building considered as storage building with military aspects (but it may just as well have belonged to a villa); 2) the supposition that the settlement was located on a road connecting Nijmegen to the Rhine. However, this road may well have followed a different course. The site has been rejected.

NL059 | Nijmegen | Nijmegen | Nijmegen-West

Ulpia Noviomagus Batavorum | Germania inferior | 5,847129 / 51,849411

civil town Ulpia Noviomagus and cemetery | Date: 70 - 300

Selected: Yes | Criteria: 1, 2

Integrity: This Roman town is overbuilt by the modern town, but excavations on a restricted scale have clearly demonstrated that many remains are still present. The cemetery has suffered from targeted collection of finds in the early 20th century.

Authenticity: The presence of a Roman civil town is well attested by excavation. It is likely that the development of towns on the Lower German frontier relied heavily on imperial intervention and military involvement in their construction. Together with the legionary fortress and its *canabae legionis* in the east of Nijmegen the town constituted a triad which is typical of the northern frontier zone. The town received market rights and its name from the Emperor Trajan, at about the time when the legionary fortress lost its full garrison. This is a further expression of the narrow ties between military and urban sites in this frontier section. In all, this civil town is a relevant aspect of the military infrastructure in the Rhine delta.

NL060 | Nijmegen | Nijmegen | Valkhof area

Germania inferior | 5,870304 / 51,847843

Late Roman fort | Date: 270 - 700

Selected: Yes | Criteria: 2, 3

Integrity: Less than 20% of the fort has been excavated. Most of the fort interior was overbuilt by a fortified palace in the early medieval period, and the rare excavations in this part of the site have hardly reached the Roman levels, so their preservation is largely unknown.

Authenticity: This is the only site in the Dutch frontier zone with securely attested physical remains of a Late Roman fortification. The succession of this fort by an (early and later) medieval palace reflects the legitimization of medieval power as a continuation of Roman authority.

NL061 | Nijmegen | Nijmegen | Valkhof area

Oppidum Batavorum? | Germania inferior | 5,871857 / 51,846462

civil settlement Oppidum Batavorum | Date: -10 - 70

Selected: Yes | Criteria: 2

Integrity: The extent of this settlement is not precisely known, but it is evident that considerable parts are densely overbuilt today. Underneath cellars only wells, latrines and (Roman) cellars have survived, but outside modern buildings the preservation is better. The surviving parts have still the potential to generate knowledge and understanding of this settlement.

Authenticity: This settlement is considered as an administrative centre for the Batavian area, created by the Roman authorities. It is assumed that its first inhabitants were or at least included army veterans. The settlement is identified with Oppidum Batavorum, of which the historian Tacitus records that it was burnt to ashes during the Batavian revolt of AD 69-70. The site is therefore in various ways closely associated with the military history of the Rhineland.

NL062 | Nijmegen | Nijmegen | Hunerberg

Germania inferior | 5,880507 / 51,84123

operational base, legionary fortress, vicus and cemetery | Date: -20 - 180

Selected: Yes | Criteria: 1, 2, 3

Integrity: This site has been overbuilt in the early 20th century, with relatively low building densities in the northern half.

Excavations have demonstrated a varying degree of damage.

In all about a quarter of the site has been excavated, mainly touching the later legionary fortress and a part of its extramural settlement.

Authenticity: The large army base established during the reign of Augustus is the earliest on the frontier north of the Alps.

It is a pivot between a phase in which Gaul was protected by troops stationed in its interior and a phase in which attack was considered the best defence. As such it is of major importance to the understanding of the Roman military strategy in the North and the development of the Rhine frontier. The later legionary fortress, its extramural settlement and the nearby civil town of Noviomagus constitute a triad which is a characteristic element of the northern frontier zone. At Nijmegen this assemblage is fairly well preserved and has the potential to convey knowledge and understanding of the relationship between military and civil sites in an area without an urban tradition.

NL063 | Nijmegen | Nijmegen | Kops Plateau

Germania inferior | 5,89174 / 51,83747

fort, vicus, cemetery | Date: -10 - 70

Selected: Yes | Criteria: 2, 3

Integrity: About two thirds of the fort have been excavated.

However, the site derives its value from the overall assemblage, and substantial parts of the extramural structures, cemeteries and a rubbish deposit still remain intact.

Authenticity: This early fort is in many aspects (e.g. presence of annexes, huge residential building) very atypical for the Rhine frontier. It is considered as a commanding post for the Germanic wars of Augustus in its earliest phase, and as a training and recruitment centre for Batavian cavalry or a seat for a Roman supervisor of the Batavian people in a later phase. In any of these functions the site has a unique story to tell.

NL064 | Nijmegen | Ubbergen | Ubbergen-Rijksstraatweg

Germania inferior | 5,89389 / 51,840283

harbour? | Date: 70 - 180

Selected: No

Integrity: The assumed presence of a harbour has not been attested in a trial trench.

Authenticity: n/a

NL065 | Nijmegen | Nijmegen | Mariënboom

Germania inferior | 5,88782 / 51,825514

aqueduct | Date: 70 - 180

Selected: Yes | Criteria: 1, 2, 3

Integrity: Large parts of earthworks considered as the remains of an aqueduct are still preserved in the landscape.

Authenticity: Large linear earthworks to the southeast of the military settlement of Nijmegen-Hunerberg have been interpreted as the remains of an aqueduct. Although a water channel has not been attested so far, it is the obvious explanation on account of the available evidence. Preserved remains of a military aqueduct are very rare. The authenticity of the assemblage would gain much from the finding of a water channel.

NL066 | Berg en Dal | Berg en Dal | Meerwijkselaan

Germania inferior | 5,90747 / 51,814984

aqueduct | Date: 70 - 180

Selected: Yes | Criteria: 1, 2, 3

Integrity: Cf. NL065.

Authenticity: n/a

NL067 | Berg en Dal | Berg en Dal | De Holdeurn

Germania inferior | 5,931774 / 51,814883

military tile works and pottery | Date: 70 - 270

Selected: Yes | Criteria: 1, 2, 3

Integrity: Excavations have attested and destroyed several kilns and parts of a building. However, parts of two kilns and of the building have remained, and it is inconceivable that the excavated features are the only remains of this industrial site.

Authenticity: There is no doubt that this was the site of a tiliary and pottery run by the Roman army. Military potteries and tileries have been attested at various other places, but preserved examples are rare. Such industrial sites were an indispensable element of the military infrastructure, and as such they have a special story to tell.

NL068 | Berg en Dal | Leuth | former mun. Ubbergen

Germania inferior | 5,995664 / 51,837894

road | Date: 0 - 400

Selected: No

Integrity: A road has not been attested here.

Authenticity: It is assumed that there existed an eastward connection between Nijmegen and the Rhine. The discovery of a milestone in this area and the presence of rural settlements arranged more or less on a line has added to this hypothesis.

There is no positive evidence, however.

NL069 | Berg en Dal | Millingen | former mun. Millingen

Germania inferior | 6,008645 / 51,851156

road | Date: 0 - 400

Selected: No

Integrity: A road has not been attested here.

Authenticity: It is assumed that there existed an eastward connection between Nijmegen and the Rhine. The presence of rural settlements arranged more or less on a line has added to this hypothesis. There is no positive evidence, however.

## GERMANY (RHINE)

LGG001 | Kleve | Kleve | Reichswald

Germania Inferior | 6,093 / 51,7885

Limes road | Date: 0 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: Original remains of the Limes road with ditches and road embankment

Authenticity: Visible stretch of the Limes road in forest area

LGG002 | Bedburg-Hau | Qualburg | Qualburg

Quadriburgium | Germania Inferior | 6,1781 / 51,7767

Fort | Date: 270 - 400

Selected: No | Criteria: -

Integrity: Site partly overbuilt; extent of fort and state of preservation unknown

Authenticity: No visible remains

LGG003 | Bedburg-Hau | Till | Kapitelshof

Germania Inferior | 6,239 / 51,7776

legionary fortress | Date: 70 - 75

Selected: Yes | Criteria: 1, 2, 3

Integrity: Largely preserved in agricultural area; excellent preservation of archeological layers; partly wetland conditions

Authenticity: Extent of the legionary fortress and its commanding position in the landscape still recognisable

LGG004 | Bedburg-Hau | Till | Steincheshof

Germania Inferior | 6,25 / 51,7747

fort | Date: 40 - 150

Selected: Yes | Criteria: 1, 2, 3

Integrity: Largely preserved in agricultural area; excellent preservation of archeological layers; presumed wetland conditions with deposited organic material in front of the fort

Authenticity: Extent of the fort and its position next to the former Rhine bed still recognisable

LGG005 | Kalkar | Kalkar | Kalkarberg

Germania Inferior | 6,285 / 51,7288

military sanctuary | Date: -12 - 400

Selected: Yes | Criteria: 1, 3

Integrity: Site not overbuilt; large scale excavation, but partly well preserved

Authenticity: Extent of site and commanding view from the sancturay into the Rhine valley still recognisable

LGG006 | Kalkar | Kalkar | Hönnepel

Germania Inferior | 6,334 / 51,7344

re-deposited remains of an eroded fort | Date: 30 - 400

Selected: No | Criteria: -

Integrity: Finds from gravel mining indicate roman fort in this area; no original remains left by medieval course of the Rhine

Authenticity: No visible remains

LGG007 | Kalkar | Kalkar | Monreberg

Germania Inferior | 6,308 / 51,7108

temporary camp | Date: -12 - 20

Selected: Yes | Criteria: 1, 2, 3

Integrity: Largely preserved in agricultural area; part of the front side rampart destroyed by gravel mining

Authenticity: Extent of site and commanding view from the camp into the Rhine valley still recognisable

LGG008 | Kalkar | Kalkar | Altkalkar

Burginatum | Germania Inferior | 6,321 / 51,7141

fort, vicus, Limes road | Date: 20 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: Largely preserved in agricultural area; excellent preservation of interior buildings of the fort; large scale organic deposits; visible stretch of the road embankment of the Limes road

Authenticity: Extent of fort and its commanding position between the the former Rhine ccourse and the Limes road still recognisable

LGG009 | Uedem | Uedem | Hochwald

Germania Inferior | 6,3592 / 51,6907

temporary camps | Date: 30 - 200

Selected: Yes | Criteria: 1, 2, 3,

Integrity: Earthworks (ramparts) of 13 temporary camps well preserved in forest area

Authenticity: Most of the ramparts still recognisable in the forest

LGG010 | Wesel | Flüren | Flüren

Germania Inferior | 6,5617 / 51,6838

temporary camps | Date: 30 - 200

Selected: Yes | Criteria: 1, 2, 3,

Integrity: Earthworks (ramparts) of four temporary camps to a large extent preserved in forest area

Authenticity: Most of the ramparts still recognisable in the forest; important strategical position in the mouth of the Lippe valley still recognisable

LGG011 | Xanten | Xanten | CUT II

Germania Inferior | 6,4425 / 51,6664

late roman fortress | Date: 310 - 400

Selected: Yes | Criteria: 1, 3,

Integrity: Ditch and remains of the stone foundation partly preserved

Authenticity: Extent and layout are recognisable as part of the archeological park with identical street pattern/city layout

LGG012 | Xanten | Xanten | CUT I

Colonia Ulpia Traiana | Germania Inferior | 6,4447 / 51,6668

civil town, Limes road | Date: 100 - 300

Selected: Yes | Criteria: 1, 2, 3

Integrity: Layers of a fortified reduction in the SW corner of the city with good preservation of stone fundaments

Authenticity: Extent and layout are recognisable as part of the archeological park with identical street pattern/city layout

LGG013 | Xanten | Xanten | Vetera II

Germania Inferior | 6,4861 / 51,6487

re-deposited remains of an eroded legionary fortress | Date: 70 - 400

Selected: Yes | Criteria: 1

Integrity: Extensive re-deposited remains of the fortress in former Rhine bed; existance of preserved remains likely, but not attested

Authenticity: Strategic position next to the roman Rhine course still recognisable

LGG014 | Xanten | Xanten | Vetera I

Germania Inferior | 6,4705 / 51,6419

legionary fortress | Date: -12 - 69

Selected: Yes | Criteria: 1, 2, 3

Integrity: Largely preserved in agricultural area; earthworks of the western wodden-earthen rampart partly preserved, amphitheater still fully preserved several meters high

Authenticity: The layout and topographical position of the fortress at the Fürstenberg hill is still recognisable following the



authentic description of the roman historian Tacitus

LGG015 | Alpen | Alpen | Boenninghard

Germania Inferior | 6,4949 / 51,5835

temporary camp | Date: -12 - 100

Selected: Yes | Criteria: 1, 3

Integrity: Site largely preserved in agricultural area; no remains of the rampart preserved

Authenticity: Extent of site and commanding view from the camp into the Rhine valley still recognisable

LGG016 | Alpen | Alpen | Drüpt

Germania Inferior | 6,5464 / 51,5868

fort, temporary camps | Date: 30 - 200

Selected: Yes | Criteria: 1, 2, 3,

Integrity: Largely preserved in agricultural area; front of the 2nd/3th century fort destroyed by later Rhine course; excellent preservation of interior buildings

Authenticity: Extent of the fort and its commanding position between the the former Rhine course and the Limes road still recognisable

LGG017 | Moers | Moers | Asberg

Asciburgium | Germania Inferior | 6,6699 / 51,4317

fort | Date: -12 - 100

Selected: Yes | Criteria: 1, 2, 3

Integrity: Partly overbuilt; still large areas with good preservation conditions; organic deposits in front of the fort

Authenticity: Extent of the fort and its commanding position between the the former Rhine course and the Limes road still recognisable

LGG018 | Duisburg | Duisburg | Werthausen

Germania Inferior | 6,7113 / 51,4221

fortlett | Date: 40 - 200

Selected: Yes | Criteria: 1

Integrity: Partly overbuilt and excavated

Authenticity: Strategic position of the site at the banks of the roman Rhine course still recognisable

LGG019 | Krefeld | Krefeld | Gellep

Gelduba | Germania Inferior | 6,6824 / 51,3333

fort | Date: 70 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: Largely preserved in agricultural area; front of the 2nd/3th century fort destroyed; unusual good preservation of remains of 4th and 5th century activities

Authenticity: Extent of the fort and its commanding position between the the former Rhine ccourse still recognisable

LGG020 | Neuss | Neuss | Novaesium I

Novaesium | Germania Inferior | 6,7155 / 51,1855

legionary fortress | Date: -15 - 50

Selected: Yes | Criteria: 1

Integrity: Different periods of early legionary fortresses are situated in urban area; largely excavated, but still high amount of preserved areas

Authenticity: Extent of the site and roman topography are hardly understandable today

LGG021 | Neuss | Neuss | Novaesium II (Koenenlager)

Novaesium | Germania Inferior | 6,7244 / 51,1823

legionary fortress | Date: 50 - 100

Selected: Yes | Criteria: 1, 2, 3

Integrity: The fortress and its succeeding fort situated in urban area; most parts are used by garden areas with good preservation conditions

Authenticity: The layout of fortress and fort partly still identical with the modern street pattern; the main road (via principalis) is still the major modern road in this area

LGG022 | Neuss | Neuss | Reckberg

Germania Inferior | 6,7676 / 51,175

watchtower, fortlett | Date: 40 - 270

Selected: Yes | Criteria: 1, 2, 3

Integrity: Site preserved in forest area; partly excavated in 19th century with small trenches

Authenticity: The commanding position above the former Rhine course and next to the Limes road still recognisable

LGG023 | Monheim | Monheim | Haus Bürgel

Germania Inferior | 6,8729 / 51,1294

fort | Date: 310 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: Largely preserved in agricultural area; excellent preservation of the building with upstanding walls

Authenticity: Upstanding walls are integrated in a medieval fortification and still visible; integrated in a museum with archeological path

LGG024 | Dormagen | Dormagen | Dormagen

Durnomagus | Germania Inferior | 6,8404 / 51,0927

fort | Date: 90 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: Partly preserved in urban area;

Authenticity: The commanding position above the former Rhine course still recognisable; main road (via principalis) still identical with modern road

LGG025 | Köln | Köln | Deutz

Divitia | Germania Inferior | 6,9694 / 50,9378

bridgehead | Date: 310 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: Partly preserved in urban area; excellent preservation with upstanding walls at different locations

Authenticity: Upstanding walls visible at different locations; party integrated in open public recreation area; commanding position opposite to the roman town of Cologne still recognisable

LGG026 | Köln | Köln | Praetorium

Germania Inferior | 6,959 / 50,9385

governor's palace | Date: 30 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: Largely preserved in urban area; excellent preservation of the building with upstanding walls

Authenticity: Main part of the building intergrated in a museum; part of the future archeological park

LGG027 | Köln | Köln | Alteburg

Germania Inferior | 6,9766 / 50,905

fort (fleet base) | Date: 30 - 250

Selected: Yes | Criteria: 1, 2, 3

Integrity: Partly preserved in urban area with large garden areas; excellent preservation conditions

Authenticity: The position of the fort as a fleetbase and its commanding position at the Rhine bank is recognisable

LGG028 | Alfter/Bornheim | Alfter/Bornheim | Kottenforst-Nord

Germania Inferior | 6,9751 / 50,7201

temporary camps | Date: 30 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: Earthworks (ramparts) of 12 temporary camps to a large extent preserved in forest area

Authenticity: Most of the ramparts still recognisable in the forest

LGG029 | Bonn | Bonn | Bonn  
Bonna | Germania Inferior | 7,0996 / 50,745  
legionary fortress | Date: 30 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: The fortress is situated in the modern town center; still very good preservation conditions

Authenticity: The layout of the fortress and the roman street pattern is still identical with the modern street pattern

LGG030 | Bonn | Bonn | Kottenforst-Süd  
Germania Inferior | 7,0927 / 50,6695  
temporary camps | Date: 30 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: Earthworks (ramparts) of 11 temporary camps to a large extent preserved in forest area

Authenticity: Most of the ramparts still recognisable in the forest

LGG031 | Bad Münstereifel | Bad Münstereifel | Iversheim  
Germania Inferior | 6,7739 / 50,5882  
industrial complex (lime kilns, 30th Legion) | Date: 50 - 300  
Selected: Yes | Criteria: 1, 2, 3

Integrity: Well preserved remains of a series of lime kilns integrated in a working building of the 30. legion from Xanten  
Authenticity: Most of the original lime kilns are integrated in small museum

LGG032 | Königswinter | Königswinter | Drachenfels  
Germania Inferior | 7,2054 / 50,6665  
industrial complex (stone quarry) | Date: 50 - 300

Selected: Yes | Criteria: 1, 2, 3

Integrity: At the Drachenfels the original remains of roman stone quarring are still preserved at different locations

Authenticity: Large natural reserve with different locations where remains of the roman stone quarring techniques are still visible

LGG033 | Remagen | Remagen | Remagen  
Rigomagus | Germania Inferior | 7,2276 / 50,5797  
fort | Date: -6 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: Fort in old town city center area; excellent preservation of the principia and stone rampart with upstanding walls

Authenticity: Remains of the upstanding wall integrated in a small museum



## GERMANY (DANUBE) – AUSTRIA

DLAB001 | Neustadt a.d. Donau/Bad Gögging | Bad Gögging | Bad Gögging  
 Raetia | 11,781265 / 48,825939  
 Legionary spa | Date: 0 - 500  
 Selected: Yes | Criteria: 1, 3  
 Integrity: Large parts of the former spa have been overbuilt by a church in later times; about 15 % of the original structures are preserved.  
 Authenticity: The reuse of the spa as a church compromised its authenticity to a certain extent, especially as the central part of the bath served as a Paleo-Christian sanctuary.

DLAB002 | Neustadt a.d. Donau/Eining | Eining | Eining  
 Raetia | 11,788178 / 48,864621  
 Watchtower, sanctuary | Date: 100 - 300  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: All of the parts that constitute this ensemble – namely the watchtower, a single block of barracks and a sanctuary – have been preserved as archaeological monuments (underground) and have never been overbuilt.  
 Authenticity: Archaeological excavations have taken place only to a limited extent. They confirmed that the level of authenticity is very high. No reconstruction and/ or conservation methods of any kind have been undertaken.

DLAB003 | Kehlheim | Weltenburg | Kehlheim, Am Galget  
 Raetia | 11,82566 / 48,88926  
 Fortlet | Date: 0 - 100  
 Selected: No | Criteria: 1  
 Integrity: Due to erosion and excavations partly preserved (approx. 40 %). The preserved parts have been affected by surface erosion with the result that substantial remains survive only of the fortifications survive but not of the internal buildings. The eastern third might be overbuilt in the future.  
 Authenticity: The excavations confirmed the authenticity of the remains, in particular with regard to materials and substance. Preservation/ conservation methods have not been applied.

DLAB004 | Kehlheim | Kehlheim | Kehlheim-Kapfelberg  
 Raetia | 11,983268 / 48,932701  
 Roman and medieval quarry | Date: 100 - 300  
 Selected: No | Criteria: 1, 3  
 Integrity: Due to the exploitation in later times (Middle Ages, 19th century), the integrity of the quarry has been compromised, in particular with regard to its intactness.  
 Authenticity: Due to the exploitation in later times (Middle Ages, 19th century), the authenticity of the quarry has been compromised significantly.

DLAB005 | Bad Abbach | Alkofen | Alkofen  
 Raetia | 11,977824 / 48,91603  
 Fortlet, vicus | Date: 100 - 300  
 Selected: No | Criteria: 1  
 Integrity: The integrity of the site has been compromised significantly by large-scale clay and gravel mining.  
 Authenticity: n/a

DLAB006 | Bad Abbach | Bad Abbach | Bad Abbach  
 Raetia | 12,046259 / 48,937338  
 Legionary brickworks | Date: 100 - 300  
 Selected: No | Criteria: 1  
 Integrity: The area has been entirely overbuilt.  
 Authenticity: n/a

DLAB007 | Saal an der Donau | Untersaal | Untersaal

Raetia | 11,922306 / 48,906208  
 Late antique fortlet | Date: 300 - 500  
 Selected: No | Criteria: 1  
 Integrity: The fortlet has been destroyed almost entirely by erosion and road construction works.  
 Authenticity: n/a

DLAB008 | Regens-burg | Regensburg-Großprüfening | Regensburg  
 Raetia | 12,036635 / 49,016523  
 Fortlet | Date: 100 - 400  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: All of the parts that constitute this ensemble – namely fortlet, civil settlement and cemetery – have been preserved as archaeological monuments (underground) and have never been overbuilt.  
 Authenticity: Small scale archaeological excavations confirmed that the level of authenticity is very high. No reconstruction and/ or conservation methods of any kind have been undertaken.

DLAB009 | Regensburg | Regensburg Kumpfmühl | Regensburg Kumpfmühl  
 Raetia | 12,083713 / 49,008068  
 Auxiliary fort, vicus | Date: 0 - 200  
 Selected: Yes | Criteria: 1, 3  
 Integrity: Parts of the former fort and vicus have been overbuilt in later times; in addition, the integrity has been compromised by large-scale (?) archaeological excavations in the 20th century. About 75 % of the original structures are preserved.  
 Authenticity: The archaeological excavations confirmed that the level of authenticity in general is high. Nevertheless, the overbuilding has compromised the authenticity of the antique structures to a certain extent. No reconstruction and/ or conservation methods have been undertaken.

DLAB010 | Regensburg | Regensburg | Regensburg  
 Castra Regina | Raetia | 12,09859 / 49,020034  
 Legionary fortress | Date: 179 - 500  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The Roman remains at Regensburg have been largely reused and overbuilt. However, the outer walls of the legionary fortress have been preserved exceptionally well (approx. 30 % of the former wall system preserved) and are to a certain extent still standing upright. The remains of the fortresses' barracks have been overbuilt by a church and are still visible and accessible.  
 Authenticity: The reuse and overbuilding of the antique structures have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

DLAB011 | Pfatter | Pfatter | Pfatter  
 Raetia | 12,416392 / 48,974125  
 Fortlet, vicus | Date: 100 - 300  
 Selected: No | Criteria: 1, 2  
 Integrity: The remains have been preserved as archaeological monuments (underground) and have never been overbuilt. The protection and management cannot be guaranteed in the long-term.  
 Authenticity: The remains have never been reused or overbuilt. The level of authenticity therefore is high, in particular with regard to location and setting, construction and layout and materials and substance.

DLAB012 | Straubing | Straubing | Straubing  
Raetia | 12,595444 / 48,887571  
Fort | Date: 0 - 400

Selected: Yes | Criteria: 1, 3

Integrity: Parts of the former forts have been overbuilt in later times; in addition, the integrity has been compromised by archaeological excavations in the 19th and 20th centuries. About 20 % of the original structures are preserved.

Authenticity: The reuse and partly overbuilding of the antique structures have compromised their authenticity to a certain extent, in particular with regard to their materials and substance. One of the many buildings has been restored. Nevertheless substantial parts of the archaeological structures remain, for which is confirmed that the level of authenticity is very high, in particular with regard to materials and substance.

DLAB013 | Stephans-posching | Steinkirchen | Steinkirchen  
Raetia | 12,837016 / 48,826849

Fortlet, vicus, cemetery | Date: 100 - 300

Selected: No | Criteria: 1

Integrity: In large parts destroyed by erosion and quarrying.  
Authenticity: n/a

DLAB014 | Moos | Moos | Moos  
Raetia | 13,899716 / 48,405081

Fort, vicus | Date: 0 - 200

Selected: No | Criteria: 1

Integrity: The fort has been largely destroyed by erosion; in addition, its integrity had been compromised by large-scale archaeological excavations. The vicus has been partly preserved.  
Authenticity: n/a

DLAB015 | Osterhofen | Osterhofen-Haardorf | Osterhofen-Haardorf

Raetia | 13,003445 / 48,727479

Fortlet | Date: 0 - 100

Selected: No | Criteria: 1

Integrity: The site has been overbuilt to a significant extent; the integrity has therefore been compromised.

Authenticity: Archaeological excavations that have compromised the site's authenticity to a certain extent confirmed the its authenticity, in particular with regard to materials and substance.

DLAB016 | Künzing | Künzing | Künzing  
Raetia | 13,083304 / 48,666335

Amphitheatre, civil settlement | Date: 100 - 300

Selected: Yes | Criteria: 1, 3

Integrity: Parts of the former fort and vicus have been overbuilt in later times; in addition, the integrity has been compromised to a certain extent by archaeological excavations that have, however, been conducted with great care. In the area of the wooden amphitheatre, excavations have been conducted only to a very limited extent. Here about 75 % of the original structures are preserved.

Authenticity: The archaeological excavations confirmed that the level of authenticity is very high, in particular with regard to materials and substance.

DLAB017 | Passau | Passau | Passau

Batavis/ Boiotro | Raetia-Noricum | 13,472035 / 48,574075

Forts, watchtower | Date: 100 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: The integrity of the remains has been compromised by the fact that they have been overbuilt; in addition, they have partly been affected by erosion. About 10 % of the original structures are preserved.

Authenticity: The authenticity of the remains has been confirmed by archaeological excavations. However, it has been compromised to a certain extent by later reuse.

DLAB018 | Engelhartzell | Oberranna | Oberranna  
Stanacum (?) | Noricum | 13,774011 / 48,471443

Fortlet | Date: 100 - 500

Selected: Yes | Criteria: 1, 3

Integrity: The fortlet has been preserved as an archaeological monument (largely underground, partly visible) and has only partly been overbuilt. Its integrity has been compromised to a certain extent by road constructions.

Authenticity: The authenticity of the site has been confirmed by archaeological excavations, in particular with regard to materials and substance. The reuse in later times compromised the level of authenticity to a certain extent. The remains have partly been preserved

DLAB019 | Waldkirchen am Wesen | Wesenufer | Wesenufer  
Noricum |

Fortlet (?) | Date: Roman

Selected: No | Criteria: 1

Integrity: n/a (The fortlet (?) cannot be localised any longer.)

Authenticity: n/a

DLAB020 | St. Agatha, Haibach ob der Donau | Schlögen | Schlögen

Ioviacum (?) | Noricum | 13,870617 / 48,423983

Vicus, Fort | Date: 100 - 500

Selected: Yes | Criteria: 1, 3

Integrity: The area has partly been overbuilt in modern times; therefore, the integrity of the site has been compromised to a certain extent.

Authenticity: The authenticity of the site has been confirmed by archaeological excavations, in particular with regard to materials and substance. Modern encroachment has compromised the level of authenticity to a certain extent. The remains have partly been preserved.

DLAB021 | Haibach ob der Donau | Mannsdorf | Kobling-Rossgraben

Noricum | 13,918487 / 48,4462

Watchtower | Date: 200 - 400

Selected: No | Criteria: 1

Integrity: The watchtower was destroyed in the course of the construction of the Aschach Power Plant in 1962.

Authenticity: n/a

DLAB022 | Eferding | Eferding | Eferding

Noricum | 14,02023 / 48,30879

Fort (?) | Date: 100 - 300

Selected: No | Criteria: 1

Integrity: n/a (The presence of a Roman fort has been assumed on the basis of findings (moveable) only; however, its precise whereabouts have not yet been localised).

Authenticity: n/a

DLAB023 | Wilhering | Wilhering | Wilhering  
Noricum | 14,172745 / 48,315222

Military brickworks | Date: 200 - 400

Selected: No | Criteria: 1

Integrity: The structures have been overbuilt in the 20th century; their current state of preservation is unknown.

Authenticity: n/a

DLAB024 | Wilhering | Wilhering | Hirschleitengraben  
Noricum | 14,224588 / 48,307483

Watchtower | Date: 100 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: The level of integrity of this site is remarkable: apart from the watchtower itself (preserved as underground archaeological monument), the setting and the surrounding ditch have been preserved.

Authenticity: The authenticity of the site has been confirmed by archaeological excavations, in particular with regard to materials and substance. The remains have partly been preserved.

DLAB025 | Linz | Linz | Linz

Lentia | Noricum | 14,279723 / 48,304557

Vicus, fortification | Date: 0 - 500

Selected: Yes | Criteria: 1, 3

Integrity: The sites have partly been reused and/ or overbuilt and partly excavated; their integrity has therefore been compromised to a certain extent.

Authenticity: The authenticity of the sites has been confirmed by archaeological excavations, in particular with regard to materials and substance. The remains have partly been preserved.

DLAB026 | Enns | Enns | Enns

Lauriacum | Noricum | 14,460774 / 48,217642

Cemetery, civil settlement, legionary fortress | Date: 0 - 500

Selected: Yes | Criteria: 1, 3

Integrity: The sites have partly been reused and/ or overbuilt and partly excavated; their integrity has therefore been compromised to a certain extent.

Authenticity: The authenticity of the site has been confirmed partly by archaeological excavations and, to a considerable extent, by geophysical methods (non-invasive). The fact that the remains have partly been reused and/ or overbuilt has compromised the level of authenticity to a certain extent, in particular with regard to construction and layout and materials and substance. The remains have been preserved only to a very limited extent..

DLAB027 | St. Pantaleon-Erla | Albing | Albing

Noricum | 14,550557 / 48,226623

Legionary fortress | Date: 170 - 190

Selected: Yes | Criteria: 1, 2, 3

Integrity: The level of integrity of this site is high, in particular with regard to its wholeness: It has been preserved as an archaeological monument (underground) and has only partly been overbuilt. Approx. 90 % of the former remains have been preserved.

Authenticity: Geophysics and archaeological excavations (to a very limited extent) have confirmed the high level of authenticity of the site, in particular with regard to its construction and layout and materials and substance.

DLAB028 | St. Pantaleon-Erla | Erla | Au

Noricum | 14,60185 / 48,17895

Fortlet | Date: 300 - 500

Selected: No | Criteria: 1

Integrity: The site has been destroyed, but before a rescue excavation has been carried out.

Authenticity: n/a

DLAB029 | Wallsee-Sindenburg | Wallsee | Wallsee

Noricum | 14,71576 / 48,166925

Fort, fortlet | Date: 0 - 500

Selected: Yes | Criteria: 1, 3

Integrity: The sites have partly been excavated and overbuilt; their integrity has therefore been compromised to a certain extent.

Authenticity: The authenticity of the site has been confirmed by archaeological excavations. The fact that the remains have been excavated and partly been overbuilt has compromised the level of authenticity to a certain extent, in particular with regard to construction and layout and materials and substance. The remains have partly been preserved.

DLAB030 | Wallsee-Sindenburg | Sommerau | Sommerau

Noricum | 14,74127 / 48,15508

Fortlet | Date: 300 - 400

Selected: No | Criteria: 1

Integrity: The site has been destroyed, but before a rescue excavation has been carried out.

Authenticity: n/a

DLAB031 | Amstetten | Mauer bei Amstetten | Mauer bei Amstetten

Locus Felix (?) | Noricum | 14,79972 / 48,09632

Fort (?), vicus | Date: 300 - 400

Selected: No | Criteria: 1

Integrity: n/a

Authenticity: The authenticity of the site has not been confirmed with regard to its function and use. Given its considerable distance to the river (approx. 18 kilometres), it is questionable whether the site formed part of the frontier system after all.

DLAB032 | Neumarkt an der Ybbs | Neumarkt | Neumarkt

Noricum | 15,05951 / 48,14778

Watchtower | Date: 300 - 500

Selected: No | Criteria: 1

Integrity: n/a (The watchtower has been entirely destroyed, but before a rescue excavation has been carried out.)

Authenticity: n/a

DLAB033 | Ybbs an der Donau | Ybbs | Ybbs

Noricum | 15,085376 / 48,177729

Fortlet | Date: 300 - 400

Selected: Yes | Criteria: 1, 3

Integrity: The area has been overbuilt by a church; therefore, the integrity of the site has been compromised to a certain extent.

Authenticity: The authenticity of the site has been confirmed by archaeological excavations. The fact that the remains have been excavated and partly been overbuilt has compromised the level of authenticity to a certain extent, in particular with regard to construction and layout and materials and substance. The remains have not been preserved.

DLAB034 | Ybbs an der Donau | Sarling | Sarling

Noricum | 15,11912 / 48,1693

Watchtower (?) | Date: 300 - 500

Selected: No | Criteria: 1

Integrity: n/a

Authenticity: The authenticity of the site has not been confirmed with regard to its function and use: it has not yet been confirmed whether the remains belong to a Roman watchtower after all.

DLAB035 | Ybbs an der Donau | Säusenstein | Säusenstein

Noricum | 15,11304 / 48,19409

Watchtower (?) | Date: Roman

Selected: No | Criteria: 1

Integrity: The site has been entirely destroyed in the 1950s. Authenticity: The authenticity of the site had not been confirmed with regard to its function and use: prior to its destruction, it had not been confirmed whether the remains

belong to a Roman watchtower after all.

DLAB036 | Pöchlarn | Pöchlarn | Pöchlarn

Noricum | 15,211098 / 48,212097

Fort, vicus, bathhouse | Date: 0 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: As for the ensemble as a whole, the level of integrity has been compromised by erosion, excavations and later encroachment (overbuilding). However, single elements like several horseshoe towers have been preserved outstandingly well; their level of integrity is exceptional.

Authenticity: The authenticity of the site has been confirmed by archaeological excavations. The fact that the remains have been excavated and partly been overbuilt has compromised the level of authenticity to a certain extent, in particular with regard to construction and layout and materials and substance. The remains have not been preserved.

DLAB037 | Melk | Spielberg | Spielberg

Noricum | 15,34817 / 48,23914

Fortlet | Date: 300 - 500

Selected: No | Criteria: 1

Integrity: n/a (This fortlet has been entirely destroyed in the course of the construction of the Danube Bridge.)

Authenticity: n/a

DLAB038 | Schönbühel-Aggsbach | Aggsbach | Blashausgraben

Noricum | 15,395771 / 48,276362

Watchtower | Date: 300 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: The watchtower has been preserved as an archaeological monument (underground). The level of integrity is high due to the fact that the watchtower has not been reused/ overbuilt.

Authenticity: The authenticity of the site has been confirmed by archaeological excavations. The level of authenticity is high due to the fact that the watchtower has not been reused/ overbuilt. The remains have not been preserved.

DLAB039 | Rossatz-Arnsdorf | St. Johann im Mauerthale | St. Johann im Mauerthale

Noricum | 15,40979 / 48,33681

Watchtower | Date: 300 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: The watchtower has been integrated into a church. Therefore, its integrity has been compromised to a certain extent, in particular with regard to its intactness.

Authenticity: The later reuse and overbuilding has compromised the level of authenticity to a certain extent, in particular with regard to construction and layout and materials and substance.

DLAB040 | Rossatz-Arnsdorf | Mitterarnsdorf | Bacharnsdorf

Noricum | 15,444919 / 48,369386

Watchtower | Date: 300 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: The level of integrity is outstanding, both with regard to its intactness and wholeness. It is the best-preserved watchtower along the Danube Limes.

Authenticity: Archaeological excavations and other scientific investigations have confirmed the high level of authenticity of the watchtower, in particular with regard to its construction and layout and materials and substance. The remains have been preserved.

DLAB041 | Rossatz-Arnsdorf | Rühsdorf | St Lorenz

Noricum | 15,475403 / 48,39261

Watchtower | Date: 300 - 400

Selected: Yes | Criteria: 1, 3

Integrity: The watchtower has been integrated into a church. Therefore, its integrity has been compromised to a certain extent, in particular with regard to its intactness.

Authenticity: The later reuse and overbuilding has compromised the level of authenticity to a certain extent, in particular with regard to construction and layout and materials and substance.

DLAB042 | Rossatz-Arnsdorf | Rossatz | Windstalgraben

Noricum | 15,521573 / 48,383179

Watchtower | Date: 300 - 400

Selected: Yes | Criteria: 1, 3

Integrity: The northern part of the watchtower has been destroyed in the course of road construction works. Its integrity has thus been compromised to a certain extent.

Authenticity: Archaeological excavations have confirmed the high level of authenticity, in particular with regard to construction and layout and materials and substance. The remains have been preserved.

DLAB043 | Mautern an der Donau | Mautern | Mautern

Favianis | Noricum | 15,575386 / 48,394518

Fort | Date: 0 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: As for the ensemble as a whole, the level of integrity has been compromised by archaeological excavations and later encroachment (overbuilding). However, single elements have been preserved outstandingly well; their level of integrity is exceptional.

Authenticity: The later reuse and partly overbuilding of the structures has compromised the authenticity (that has been confirmed by archaeological excavations and other scientific investigations) to a certain extent. The remains have been preserved.

DLAB044 | Krems an der Donau | Hollenburg | Hollenburg

Noricum | 15,68113 / 48,37997

Fortlet | Date: 300 - 500

Selected: No | Criteria: 1

Integrity: n/a (This fortlet has been entirely destroyed in the course of road construction works in 1981.)

Authenticity: n/a

DLAB045 | Krems an der Donau | Hollenburg | Hollenburg

Noricum | 15,69194 / 48,37954

Watchtower (?) | Date: 300 - 500

Selected: No | Criteria: 1

Integrity: n/a

Authenticity: The authenticity of the site has not been confirmed with regard to its function and use: it has not yet been confirmed whether the remains belong to a watchtower after all.

DLAB046 | Traismauer | Traismauer | Traismauer

Augustianis | Noricum | 15,742329 / 48,349372

Fort, fortlet | Date: 0 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: As for the ensemble as a whole, the level of integrity has been compromised by the later reuse of the buildings and encroachment (overbuilding). However, single elements have been preserved outstandingly well; their level of integrity is exceptional.

Authenticity: The later reuse and partly overbuilding of the structures has compromised the authenticity (that has been confirmed by archaeological excavations and other scientific investigations) to a certain extent. The remains have partly been preserved.

DLAB047 | Zwentendorf an der Donau | Maria Ponsee | Maria Ponsee  
 Noricum | 15,82458 / 48,34766  
 Watchtowers | Date: 100 - 300  
 Selected: No | Criteria: 1  
 Integrity: n/a (The watchtowers have been entirely destroyed, but before a rescue excavation has been carried out.)  
 Authenticity: n/a

DLAB048 | Zwentendorf an der Donau | Zwentendorf | Zwentendorf  
 Asturis (?) | Noricum | 15,888773 / 48,344635  
 Fort, vicus, cemetery | Date: 0 - 500  
 Selected: Yes | Criteria: 1, 3  
 Integrity: The level of integrity, in particular its wholeness, has partly been compromised by erosion. All of the parts that constitute this ensemble have been preserved as archaeological monuments (underground).  
 Authenticity: Geophysics and archaeological excavations have confirmed the high level of authenticity of the site, in particular with regard to materials and substance. The remains have not been preserved, but they are still under the ground.

DLAB049 | Tulln | Tulln | Tulln  
 Comagenis | Noricum | 16,054585 / 48,333373  
 Fort | Date: 0 - 500  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: As for the ensemble as a whole, the level of integrity has been compromised by the later reuse of the buildings and encroachment (overbuilding). However, single elements have been preserved outstandingly well; their level of integrity is exceptional.  
 Authenticity: Archaeological excavations and other scientific investigations have confirmed the high level of authenticity of the component parts, in particular with regard to materials and substance (partly compromised by later reuse). The remains have been preserved.

DLAB050 | Zeiselmauer-Wolfpassing | Zeiselmauer | Zeiselmauer  
 Cannabiaca | Noricum | 16,176443 / 48,329823  
 Fort | Date: 0 - 500  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: As for the ensemble as a whole, the level of integrity has been compromised by the later reuse of the buildings and encroachment (overbuilding). However, single elements have been preserved outstandingly well; their level of integrity is exceptional.  
 Authenticity: Archaeological excavations and other scientific investigations have confirmed the high level of authenticity of the component parts, in particular with regard to materials and substance (partly compromised by later reuse). The remains have been preserved.

DLAB051 | St. Andrä-Wördern | Greifenstein | Greifenstein  
 Noricum | 16,2313 / 48,34281  
 Watchtower (?) | Date: Roman  
 Selected: No | Criteria: 1  
 Integrity: n/a (The presence of a Roman watchtower has been assumed on the basis of findings (moveable) only; however, its precise whereabouts have not yet been confirmed).  
 Authenticity: n/a

DLAB052 | Klosterneuburg | Klosterneuburg | Klosterneuburg  
 Pannonia Superior | 16,32593 / 48,306839  
 Fort | Date: 0 - 500  
 Selected: Yes | Criteria: 1, 3

Integrity: The integrity, in particular the intactness, of the site has been compromised by later encroachment (overbuilding).  
 Authenticity: Archaeological excavations and other scientific investigations have confirmed the high level of authenticity of the component parts, in particular with regard to materials and substance (partly compromised by later overbuilding). The remains have partly been preserved.

DLAB053 | Wien | Heiligenstadt | Heiligenstadt  
 Pannonia Superior | 16,35527 / 48,25357  
 Granary (?) / tomb (?) | Date: Roman  
 Selected: No | Criteria: 1  
 Integrity: n/a  
 Authenticity: The authenticity of the site has not been confirmed with regard to its function and use; the function of the structure and its dating have not yet been confirmed.

DLAB054 | Wien | Wien | Wien  
 Vindobona | Pannonia Superior | 16,37276 / 48,210983  
 Legionary fortress | Date: 0 - 500  
 Selected: Yes | Criteria: 1, 3  
 Integrity: The integrity, in particular the intactness, of the site has been compromised by later reuse and encroachment (overbuilding).  
 Authenticity: Archaeological excavations and other scientific investigations have confirmed the high level of authenticity of the component parts, in particular with regard to materials and substance (partly compromised by later reuse and overbuilding). The remains have partly been preserved.

DLAB055 | Schwechat | Schwechat | Schwechat  
 Ala Nova | Pannonia Superior | 16,476378 / 48,140927  
 Fort | Date: 100 - 500  
 Selected: No | Criteria: 1  
 Integrity: The integrity, in particular the intactness of the remains is very low.  
 Authenticity: The authenticity of the site has not been confirmed with regard to its function and use, materials and substance and construction and layout.

DLAB056 | Fischamend | Fischamend | Fischamend  
 Aequinoctium | Pannonia Superior | 16,612638 / 48,118657  
 Watchtowers, fort (?) | Date: 100 - 500  
 Selected: No | Criteria: 1  
 Integrity: The integrity, in particular the intactness of the remains is very low.  
 Authenticity: The authenticity of the site has not been confirmed with regard to its function and use, materials and substance and construction and layout. The scientific interpretation of the remains is difficult/ dubious.

DLAB057 | Maria Ellend | Maria Ellend | Maria Ellend  
 Pannonia Superior | 16,68027 / 48,11176  
 Watchtowers (?) | Date: Roman  
 Selected: No | Criteria: 1  
 Integrity: n/a  
 Authenticity: The authenticity of the site has not been confirmed with regard to its function and use, materials and substance and construction and layout. The scientific interpretation of the remains is difficult/ dubious.

DLAB058 | Höflein | Höflein | Höflein  
 Pannonia Superior | 16,785347 / 48,068699  
 Fortlet (?) | Date: Roman  
 Selected: No | Criteria: 1  
 Integrity: n/a  
 Authenticity: The authenticity of the site has not been



confirmed with regard to its function and use, materials and substance and construction and layout. The scientific interpretation of the remains is difficult/ dubious.

DLAB059 | Petronell-Carnuntum and Bad Deutsch-Altenburg | Petronell-Carnuntum and Bad Deutsch-Altenburg | Petronell-Carnuntum and Bad Deutsch-Altenburg  
Carnuntum | Pannonia Superior | 16,876765 / 48,118318  
Legionary fortress, fort, fortresses, civil settlement, vici, cemeteries | Date: 0 - 500  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The wholeness of this relict landscape is outstanding. The intactness of the single elements that constitute this cultural landscape are preserved as archaeological monuments (partly underground) and have partly been overbuilt.

Authenticity: Archaeological excavations, geophysics (non-invasive) and other scientific investigations have confirmed that the level of authenticity of the remains is outstanding, in particular with regard to construction and layout and materials and substance. Very few monuments have been reconstructed; their former state has been documented scientifically.

DLAB060 | Engelhartstetten | Stopfenreuth | Stopfenreuth  
Pannonia Superior | 16,90395 / 48,14874  
Fortlett (?) | Date: Roman  
Selected: No | Criteria: 1  
Integrity: n/a (The site, discovered in the 19th century, cannot be localised any longer.)  
Authenticity: n/a

## SLOVAKIA

SK001 | Bratislava | Bratislava - Rusovce | Rusovce  
Gerulata | Pannonia superior | 17,149639 / 48,055953  
Fort | Date: 170 - 400

Selected: Yes | Criteria: 1, 2, 3, 4, 5, 6, 7, 8

Integrity: The Roman remains in Rusovce have been incorporated into the further development of Rusovce and lot of its parts were preserved due to the shallow grounds of later buildings, some of them, however were dismantled and used for construction of new buildings, which partly lie over or disturb the Roman remains, but have also led to their investigation. The whole territory of the Historic Zone Rusovce, which creates the site's buffer zone, is supposed to have the Roman archaeological layer.

Authenticity: Property has been preserved under the layer of earth 40 cm to 4 m deep. Late classical watchtower with well is conserved and presented in authentic form from the end of 4th cent. AD, it is part of a museum.

SK002 | Iža | Iža | Leányvár  
Kelemantia | Pannonia superior | 18,19896 / 47,744786  
Fort | Date: 170 - 400

Selected: Yes | Criteria: 1, 2, 3, 4, 5, 6, 7, 8

Integrity: The fort lies directly on the left bank of the Danube. The area of the fort rises only slightly above the contemporary terrain as a low, square-shaped plateau in the surrounding lowland. The territory of the fort is presented as an in-situ, open air archaeological site where a section of the bare walls of structures and fortification are visible and where a predominant part of the findings continues to lie underground without uncovering. Temporary camps from the Marcomannic wars have been identified on aerial photos near the fort, they were

included into the buffer zone. They lie in an open countryside, they are not visible.

Authenticity: The remains of the fort represent an authentically preserved area, its building structures have never been replaced by a younger layer. The materials and substance of the underground archaeological remains are well preserved, as are visible remains. All researched and uncovered sections of the excavations from the beginning of the 20th century were buried again to the level of the surrounding terrain and are covered with grass. Thus their protection is ensured. The only structure uncovered in that period, which remained unburied after the excavations, is a cistern with a large section of preserved original Roman walls and plaster.

SK003 | Bratislava | Bratislava - Devín | Devín Castle  
Pannonia superior | 16,978298 / 48,173907

Tower and Roman buildings

Roman buildings | Date: 0 - 400

Selected: No | Criteria: 1 (?), 4, 5, 6, 7 (?)

Integrity: Foundations of the Roman buildings in a strategic position of the Devín castle hill are part of settlement from different time periods, which prove intensive permanent habitation of the Devín castle hill since the Neolithic era. Nowadays, they are incorporated into the ruins of the castle from the 13th – 14th century, which was rebuilt multiple times until its destruction in 1809.

Authenticity: Foundations of the Roman buildings are preserved in the remains of the foundation masonry and presented within the museum exposition of the medieval castle. Several ongoing revision researches have shifted and questioned the interpretation and dating of the Roman findings.



## HUNGARY

H001 | Rajka, Bezenye, Mosonmagyaróvár | Rajka, Bezenye, Mosonmagyaróvár | Rajka, Bezenye, Mosonmagyaróvár | Carnuntum-Ad Flexum Limes road | Pannonia Superior | 17,19359 / 47,94339

Limes road | Date: 50 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H002 | Rajka | Rajka | Rajka

Burgus Gerulata 1 | Pannonia Superior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: Exact size and extent of the findspot is uncertain.

Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H003 | Bezenye | Bezenye | Bezenye

Burgus Gerulata 2 | Pannonia Superior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: Exact size and extent of the findspot is uncertain.

Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H004 | Bezenye | Bezenye | Bezenye

Burgus Gerulata 3 | Pannonia Superior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H005 | Bezenye | Bezenye | Bűdös-kúti szántók

Burgus Gerulata 4 | Pannonia Superior | 17,19048 / 47,93855

watchtower | Date: 100 - 450

Selected: Yes | Criteria: 1, 2, 3

Integrity: The excavated tower is preserved below the earth and protected by law. The presentation of the site for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity.

H006 | Mosonmagyaróvár | Mosonmagyaróvár |

Mosonmagyaróvár

Ad Flexum Limes road | Pannonia Superior | 17,33253 / 47,82857

Limes road | Date: 50 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H007 | Mosonmagyaróvár | Mosonmagyaróvár |

Mosonmagyaróvár

Ad Flexum | Pannonia Superior | 17,382846 / 47,798739

auxiliary castellum and vicus | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: Exact size and extent of the findspot is uncertain.

Authenticity: Authenticity is uncertain, because of insufficient research.

H008 | Máriakálnok | Máriakálnok | Országúti-dűlő

Burgus Ad Flexum 4 | Pannonia Superior | 17,28724 / 47,86677

watchtower or bridge-head | Date: 300 - 450

Selected: No | Criteria: 1, 2

Integrity: A 10 m long wall from the structure is visible on earth and protected by law, but inaccessible for public because of private property.

Authenticity: The preservation of the structure visible on earth compromised its authenticity.

H009 | Mosonmagyaróvár, Máriakálnok, Kimle, Lébény

| Mosonmagyaróvár, Máriakálnok, Kimle, Lébény |

Mosonmagyaróvár, Máriakálnok, Kimle, Lébény

Ad Flexum-Quadrata Limes road | Pannonia Superior | 17,37014 / 47,80561

Limes road | Date: 50 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H010 | Mosonmagyaróvár | Mosonmagyaróvár | Izabella-major

Burgus Ad Flexum 1 | Pannonia Superior | 17,333403 /

47,828335

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H011 | Kimle | Kimle | Kimle

Burgus Ad Flexum 2 | Pannonia Superior | 17,376637 / 47,815598

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H012 | Kimle | Kimle | Kisnyilas-pusztá

Burgus Ad Flexum 3 | Pannonia Superior | 17,382846 / 47,798739

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H013 | Kimle | Kimle | Kimle

Fortlet Ad Flexum I | Pannonia Superior |

temporary camp | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H014 | Lébény/Mosonszentmiklós | Lébény/Mosonszentmiklós | Barátföld-pusztá

Quadrata | Pannonia Superior | 17,41643 / 47,77748

auxiliary castellum and vicus | Date: 100 - 450

Selected: Yes | Criteria: 1, 2, 3

Integrity: Excavated parts of the castellum are preserved below the earth, the extent of the vicus is investigated by survey, both are protected by law. The presentation of the site for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular

with regard to their construction and layout.

H015 | Lébény, Öttevény, Abda, Győr | Lébény, Öttevény, Abda, Győr | Lébény, Öttevény, Abda, Győr  
Quadrata-Arrabona Limes road | Pannonia Superior | 17,42524 / 47,77106

Limes road | Date: 50 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: A c. 1600 m long nominated section of the road at Öttevény is well known from aerial photos and survey, its presentation for public is possible.

Authenticity: The preservation of the nominated section below the earth compromised its authenticity.

H016 | Mosonszentmiklós | Mosonszentmiklós | Sándorháza-puszta

Burgus Quadrata 1 | Pannonia Superior | 17,44383 / 47,75709  
watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H017 | Kunsziget | Kunsziget | Toronyvári-dűlő  
Burgus Quadrata 2 | Pannonia Superior | 17,50533 / 47,75674  
watchtower or bridge-head | Date: 300 - 450

Selected: Yes | Criteria: 1, 2, 3

Integrity: Approximately 70 m long walls of a probably late Roman military structure are known from excavation and are visible on earth. New excavation results speak for Roman date, but the exact extent of the military structure is uncertain.

Authenticity: The preservation of the excavated wall section compromised its authenticity after its restoration.

H018 | Abda | Abda | Abda

Burgus Quadrata 3 | Pannonia Superior | 17,5471 / 47,70258  
watchtower | Date: 0 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: The tower investigated by aerial photos and survey is preserved below the earth and protected by law. The presentation of the site for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity.

H019 | Abda | Abda | Dobsa

Burgus Quadrata 4 | Pannonia Superior | 17,562692 / 47,688268

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H020 | Győr | Győr | Győr

Arrabona | Pannonia Superior | 17,63162 / 47,68878  
auxiliary castellum and vicus | Date: 0 - 450

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman remains at Arrabona castellum and vicus have been largely overbuilt by the medieval town Győr. Excavated parts of the castellum and vicus are preserved below the earth, both castellum and vicus are protected by law.

Authenticity: The reuse and overbuilding of the antique structures have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

H021 | Győr | Győrszentiván | Győrszentiván

Camp Arrabona I | Pannonia Superior | 17,70541 / 47,68562  
temporary camp | Date: 0 - 500

Selected: No | Criteria: 1, 2, 3

Integrity: The Roman structure investigated by aerial photos, survey and non-destructive methods is only partly preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity.

H022 | Tápszentmiklós | Tápszentmiklós | Halomszeri-dűlő  
Pannonia Superior | 17,866377 / 47,51576

temporary camp | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H023 | Győr, Gönyű, Nagyszentjános Ács | Győr, Gönyű, Nagyszentjános Ács  
Arrabona-Ad Statuas Limes road | Pannonia Superior | 17,79088 / 47,73269

Limes road | Date: 50 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H024 | Győr | Győr | Likócs

Burgus Arrabona 1 | Pannonia Superior |  
watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H025 | Győr | Győr | Esztergető-puszta

Burgus Arrabona 2 | Pannonia Superior | 17,69278 / 47,722303  
watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H026 | Győr | Győrszentiván | Újmajor

Burgus Arrabona 3 | Pannonia Superior | 17,73806 / 47,72754  
watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H027 | Győr | Győrszentiván | Győrszentiván

Burgus Arrabona 8 | Pannonia Superior | 17,726166 / 47,728482

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H028 | Győr | Győrszentiván | Vének-csárda

Burgus Arrabona 4 | Pannonia Superior | 17,7611 / 47,73364  
watchtower | Date: 0 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: The tower investigated by aerial photos and survey has been preserved below the earth and protected by law. The presentation of the site for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity.

H029 | Győr | Győrszentiván | Győrszentiván

Burgus Arrabona 5 | Pannonia Superior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H030 | Gönyű | Gönyű | Nagy-Sáros-dűlő

Road station Arrabona 11 | Pannonia Superior | 17,80639 / 47,73444

mutatio | Date: 100 - 300

Selected: Yes | Criteria: 1, 2, 3

Integrity: The road station investigated by excavation has been preserved below the earth and protected by law. The restoration of the walls and their presentation for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity.

H031 | Gönyű | Gönyű | Gönyű

Burgus Arrabona 6 | Pannonia Superior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H032 | Nagyszentjános | Nagyszentjános | Proletár-dűlő

Burgus Arrabona 9 | Pannonia Superior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H033 | Nagyszentjános | Nagyszentjános | Proletár-dűlő

Burgus Arrabona 7 | Pannonia Superior | 17,84972 / 47,73448

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H034 | Nagyszentjános | Nagyszentjános | Nagyszentjános

Burgus Arrabona 10 | Pannonia Superior | 17,894564 / 47,7343

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H035 | Ács | Ács | Vaspusza

Ad Statuas | Pannonia Superior | 17,90098 / 47,73596

auxiliary castellum | Date: 100 - 450

Selected: Yes | Criteria: 1, 2, 3

Integrity: The castellum party investigated by excavation has been preserved below the earth and protected by law. The presentation of the site for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity.

H036 | Ács, Komárom | Ács, Komárom | Ács, Komárom

Ad Statuas-Brigetio Limes road | Pannonia Superior | 17,89145

/ 47,73357

Limes road | Date: 50 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H037 | Ács | Ács | Ács

Burgus Ad Statuas 1 | Pannonia Superior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H038 | Ács | Ács | Felsőszőlők

Burgus Ad Statuas 2 | Pannonia Superior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H039 | Ács | Ács | Bumbum-kút

Ad Mures | Pannonia Superior | 17,98648 / 47,74278

auxiliary castellum | Date: 100 - 450

Selected: Yes | Criteria: 1, 2, 3

Integrity: The castellum party investigated by excavation has been preserved below the earth and protected by law. The presentation of the site for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity.

H040 | Ács | Ács | Ács

Burgus Ad Mures 6 | Pannonia Superior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H041 | Komárom | Ács | Ács

Burgus Ad Mures 1 | Pannonia Superior | 18,02014 / 47,74822

watchtower | Date: 350 - 450

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H042 | Komárom | Koppánymonostor | Szunyogvár-tanya

Burgus Ad Mures 2 | Pannonia Superior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H043 | Komárom | Koppánymonostor | Koppánymonostor

Burgus Ad Mures 3 | Pannonia Superior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H044 | Komárom | Koppánymonostor | Koppánymonostor

Burgus Ad Mures 4 | Pannonia Superior | 18,05828 / 47,75053

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H045 | Komárom | Koppánymonostor | Koppánymonostor Burgus Ad Mures 5 | Pannonia Superior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H046 | Komárom | Szőny | Szőny

Brigetio | Pannonia Superior | 18,15825 / 47,73564

municipium | Date: 50 - 300

Selected: Yes | Criteria: 1, 2, 3

Integrity: Parts of the municipium, especially the central part had been investigated by excavation are preserved below the earth and protected by law. Otherwise, most part of the site has been overbuilt by family houses with garden. The presentation of the excavation results for public is possible, the famous wall paintings from an excavated house are on display in the museum of Komárom.

Authenticity: The preservation of the excavated structures below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H047 | Komárom | Szőny | Szőny

Brigetio | Pannonia Superior | 18,19383 / 47,73453

legionary fortress and canabae | Date: 100 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: Parts of the legionary fortress and canabae, had been investigated by excavations are preserved below the earth and protected by law. Otherwise, most part of the site has been overbuilt by the present-day town of Komárom-Szőny. The restoration of the excavated walls and their presentation for public is possible, some parts of the Roman site (destroyed without documentation) were excluded from the nomination. The ruins of the recently excavated Roman bath in the northern part of the canabae will be set on display to public.

Authenticity: The preservation of the excavated structures below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H048 | Komárom | Szőny | Szőny

Camp I Brigetio | Pannonia Superior |

temporary camp | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H049 | Komárom | Komárom | Komárom

Camp II Brigetio | Pannonia Superior | 18,09693 / 47,71936

temporary camp | Date: 165 - 200

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H050 | Komárom | Komárom | Komárom

Camp III Brigetio | Pannonia Superior | 18,09463 / 47,71409

temporary camp | Date: 165 - 200

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity to a certain extent.

H051 | Komárom | Komárom | Csémpusztá

Camp IV Brigetio | Pannonia Superior | 18,11049 / 47,71259

temporary camp | Date: 165 - 200

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity to a certain extent.

H052 | Komárom | Szőny | Macskaházi-dűlő

Camp V Brigetio | Pannonia Superior | 18,16435 / 47,72188

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H053 | Mocsá | Mocsá | Boldogasszony-Szőlőshegy

Camp VI Brigetio | Pannonia Superior | 18,176 / 47,70709

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H054 | Mocsá | Mocsá | Boldogasszony-Szőlőshegy

Camp VII Brigetio | Pannonia Superior | 18,17776 / 47,70926

temporary camp | Date: 165 - 200

Selected: No | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H055 | Komárom | Szőny | Szigetjárdó-dűlő

Camp VIII Brigetio | Pannonia Superior | 18,21963 / 47,72016

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H056 | Komárom | Szőny | Szigetjárdó-dűlő

Camp IX Brigetio | Pannonia Superior | 18,21963 / 47,72016

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H057 | Komárom | Szőny | Szigetjárdó-dűlő

Camp X Brigetio | Pannonia Superior | 18,22251 / 47,72109

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H058 | Komárom | Szőny | Szigetjáró-dűlő

Camp XI Brigetio | Pannonia Superior | 18,22251 / 47,72109

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H059 | Naszály | Naszály | Bika-rét

Camp XII Brigetio | Pannonia Superior | 18,23574 / 47,71471

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H060 | Naszály | Naszály | Almápuszta

Camp XIII Brigetio | Pannonia Superior | 18,24441 / 47,71909

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity, to a certain extent, in particular with regard to their construction and layout.

H061 | Naszály | Naszály | Almápuszta

Camp XIV Brigetio | Pannonia Superior | 18,24441 / 47,71909

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity, to a certain extent, in particular with regard to their construction and layout.

H062 | Naszály | Naszály | Almápuszta

Camp XV Brigetio | Pannonia Superior | 18,24314 / 47,72578

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity, to a certain extent, in particular with regard to their construction and layout.

H063 | Komárom | Szőny | Szőny

Camp XVI Brigetio | Pannonia Superior |

temporary camp | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H064 | Mocsá | Mocsá | Mocsá

Camp XVII Brigetio | Pannonia Superior | 18,17579 / 47,69477

temporary camp | Date: 165 - 200

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H065 | Mocsá | Mocsá | Kőhányás

Camp XVIII Brigetio | Pannonia Superior | 18,16435 / 47,6759

temporary camp | Date: 165 - 200

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H066 | Komárom/Mocsá | Komárom/Mocsá | Mocsai-útra-dűlő

Camp XIX Brigetio | Pannonia Superior | 18,15415 / 47,70899

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H067 | Komárom | Komárom | Mocsai-útra-dűlő

Camp XX Brigetio | Pannonia Superior | 18,14846 / 47,71171

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H068 | Komárom/Mocsá | Komárom/Mocsá | Mocsai-határ-dűlő

Camp XXI Brigetio | Pannonia Superior | 18,13522 / 47,70749

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H069 | Mocsá | Mocsá | Komáromi-úti-dűlő

Camp XXII Brigetio | Pannonia Superior | 18,16701 / 47,70427

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H070 | Mocsá | Mocsá | Komáromi-úti-dűlő

Camp XXIII Brigetio | Pannonia Superior | 18,16701 / 47,70427

temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H071 | Mocsá | Mocsá | Szabadosoki-dűlő

Camp XXIV Brigetio | Pannonia Superior | 18,15533 / 47,69954

temporary camp | Date: 165 - 200



Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure investigated by aerial photos is preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H072 | Mocsa | Mocsa | Tófenék-dűlő

Camp XXV Brigetio | Pannonia Superior | 18,12643 / 47,69812 temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure investigated by aerial photos is preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout..

H073 | Mocsa | Mocsa | Tófenék-dűlő

Camp XXVI Brigetio | Pannonia Superior | 18,12371 / 47,69646 temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure investigated by aerial photos is preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H074 | Mocsa | Mocsa | Tófenék-dűlő

Camp XXVII Brigetio | Pannonia Superior | 18,12267 / 47,69147 temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure investigated by aerial photos is preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H075 | Mocsa | Mocsa | Toroki-dűlő

Camp XXVIII Brigetio | Pannonia Superior | 18,15572 / 47,68929 temporary camp | Date: 165 - 200

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H076 | Mocsa | Mocsa | Toroki-dűlő

Camp XXIX Brigetio | Pannonia Superior | 18,15408 / 47,6859 temporary camp | Date: 165 - 200

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H077 | Komárom | Komárom | Felső-hosszú-dűlő

Camp XXX Brigetio | Pannonia Superior | 18,09314 / 47,72967 temporary camp | Date: 165 - 200

Selected: No | Criteria: 1, 2, 3

Integrity: The Roman structure has been partly preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity only to a certain extent, in particular with regard to their construction and layout.

H078 | Komárom | Komárom | Felső-hosszú-dűlő

Camp XXXI Brigetio | Pannonia Superior | 18,09314 / 47,72967 temporary camp | Date: 165 - 200

Selected: No | Criteria: 1, 2, 3

Integrity: The Roman structure has been partly preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity only to a certain extent, in particular with regard to their construction and layout.

H079 | Komárom | Szőny | Sziget-járó-dűlő

Camp XXXII Brigetio | Pannonia Superior | 18,22142 / 47,72323 temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H080 | Naszály | Naszály | Bika-rét

Camp XXXIII Brigetio | Pannonia Superior | 18,23574 / 47,71471 temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H081 | Naszály | Naszály | Almáspusztá

Camp XXXIV Brigetio | Pannonia Superior | 18,25621 / 47,72072 temporary camp | Date: 165 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman structure has been preserved below the earth.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H082 | Komárom | Szőny | Szőny

Burgus Brigetio 8 | Pannonia Superior | watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H083 | Almásfüzitő | Almásfüzitő | Kurucdomb

Burgus Brigetio 1 | Pannonia Superior | 18,21019 / 47,7392 watchtower | Date: 350 - 450

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H084 | Almásfüzitő | Almásfüzitő | Perjépusztá

Burgus Brigetio 2 | Pannonia Superior | 18,239101 / 47,732606 watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H085 | Almásfüzitő | Almásfüzitő | Almásfüzitő

Burgus Brigetio 3 | Pannonia Superior | 18,266739 / 47,729908 watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.



H086 | Almásfüzitő | Almásfüzitő | Foktorok  
 Odiavum/Azaum | Pannonia Superior | 18,27595 / 47,72824  
 auxiliary castellum | Date: 50 - 450  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain, because the area of the partly excavated castellum is lying below a red sludge containment pool.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H087 | Almásfüzitő | Almásfüzitő | Almásfüzitő  
 Burgus Odiavum/Azaum 1 | Pannonia Superior |  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H088 | Almásfüzitő | Almásfüzitő | Almásfüzitő  
 Burgus Odiavum/Azaum 1a | Pannonia Superior | 18,287076 / 47,726707  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H089 | Almásfüzitő | Almásfüzitő | Almásfüzitő  
 Limes road Odiavum/Azaum | Pannonia Superior | 18,26484 / 47,71993  
 Limes road | Date: 50 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H090 | Dunaalmás | Dunaalmás | Dunaalmás  
 Burgus Odiavum/Azaum 2 | Pannonia Superior |  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H091 | Neszmély | Neszmély | Neszmély  
 Burgus Odiavum/Azaum 3 | Pannonia Superior | 18,39035 / 47,73964  
 watchtower | Date: 350 - 450  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H092 | Neszmély | Neszmély | Kalin-hegy  
 Burgus Odiavum/Azaum 4 | Pannonia Superior | 18,39404 / 47,73998  
 watchtower | Date: 300 - 450  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The excavated tower is preserved below the earth and protected by law. The presentation of the site for public is possible.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity.

H093 | Neszmély | Neszmély | Sánci-dűlő  
 Burgus Odiavum/Azaum 5 | Pannonia Superior | 18,40892 / 47,7445

watchtower | Date: 0 - 500  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The tower investigated by aerial photos and survey is preserved below the earth and protected by law. The presentation of the site for public is possible.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity.

H094 | Lábatlan | Lábatlan | Piszke  
 Burgus Odiavum/Azaum 6 | Pannonia Superior | 18,467629 / 47,759152  
 watchtower | Date: 300 - 450  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H095 | Nyergesújfalu | Nyergesújfalu | Sánc-dűlő  
 Burgus Odiavum/Azaum 7 | Pannonia Superior | 18,533604 / 47,75628  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H096 | Nyergesújfalu | Nyergesújfalu | Sánc-hegy  
 Crumerum | Pannonia Superior | 18,5363 / 47,75931  
 auxiliary castellum | Date: 100 - 450  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The castellum investigated by aerial photos and survey has been preserved below the earth and protected by law. It is overbuilt by earth works from the early 18th century, a small part of the eastern gate and the ruins of a 18th century chapel are visible on the site. The presentation of the site for public is possible.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H097 | Nyergesújfalu, Tát, Mogyorósbánya, Tokod, Esztergom  
 | Nyergesújfalu, Tát, Mogyorósbánya, Tokod, Esztergom  
 | Nyergesújfalu, Tát, Mogyorósbánya, Tokod, Esztergom  
 Limes road Crumerum-Solva | Pannonia Superior | 18,6246 / 47,74171  
 Limes road | Date: 50 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H098 | Nyergesújfalu | Nyergesújfalu | Nyergesújfalu  
 Burgus Crumerum 1 | Pannonia Superior | 18,607015 / 47,77548  
 watchtower | Date: 300 - 450  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H099 | Tokod/Tokodaltáró | Tokod/Tokodaltáró | Várberek  
 Cardellaca/Cardabiaca? | Pannonia Superior | 18,67592 / 47,7277  
 late Roman fortress, villa and vicus | Date: 350 - 500  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The castellum has been partly investigated by excavations: the remains of its walls, towers and gate and an

excavated horreum can be visited on the site.

Authenticity: The preservation of the visible structure with their restored walls compromised its authenticity.

H100 | Esztergom | Esztergom | Zsidód

Burgus Crumerum 2 | Pannonia Superior | 18,6873 / 47,7513  
watchtower | Date: 365 - 450

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H101 | Esztergom | Esztergom | Szentkirály

Burgus Crumerum 3 | Pannonia Superior | 18,712063 / 47,775481

watchtower | Date: 100 - 450

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H102 | Esztergom | Esztergom | Duna-sziget

Burgus Crumerum 4 | Pannonia Superior | 18,732481 / 47,790576

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H103 | Esztergom | Esztergom | Várhegy

Solva | Pannonia Superior | 18,73646 / 47,79891  
auxiliary castellum | Date: 50 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: The castellum has been preserved below the earth and protected by law. It is overbuilt by the medieval royal castle, some Roman layers structures below the medieval walls are set on display under a glass floor.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and stratigraphy.

H104 | Esztergom | Esztergom | Szentgyörgymező

Burgus Solva 1 | Pannonia | 18,74428 / 47,81194  
watchtower | Date: 350 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H105 | Esztergom | Esztergom | Szentgyörgymező

Burgus Solva 2 | Pannonia | 18,74792 / 47,81336  
watchtower | Date: 350 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H106 | Esztergom | Esztergom | Szentgyörgymező

Burgus Solva 3 | Pannonia | 18,76659 / 47,8158  
watchtower | Date: 350 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H107 | Esztergom | Esztergom | Szentgyörgymező

Burgus Solva 4 | Pannonia | 18,78017 / 47,81635

watchtower | Date: 350 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H108 | Esztergom | Esztergom | Déda

Burgus Solva 5 | Pannonia | 18,793076 / 47,814955  
watchtower | Date: 350 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H109 | Esztergom | Esztergom | Déda

Burgus Solva 6 | Pannonia | 18,79851 / 47,8145  
watchtower | Date: 350 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H110 | Esztergom | Esztergom | Búbánat-völgy

Burgus Solva 7 | Pannonia | 18,80845 / 47,8145  
watchtower | Date: 350 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H111 | Esztergom | Esztergom | Búbánat-völgy

Burgus Solva 8 | Pannonia | 18,8137 / 47,81385  
watchtower | Date: 350 - 435

Selected: Yes | Criteria: 1, 2

Integrity: The unrestored walls of the excavated tower are visible on earth in a garden of a family house, and protected by law. The garden is private property, but the Roman walls can be seen through the fence.

Authenticity: The preservation of the structure visible on earth compromised its authenticity.

H112 | Esztergom/Pilismarót | Esztergom/Pilismarót |

Hideglelős-kereszt

unknown | Pannonia | 18,82129 / 47,81317

hillfort | Date: 350 - 435

Selected: Yes | Criteria: 1, 2, 3

Integrity: The castellum investigated by survey has been preserved below the earth and protected by law. A small part of an unrestored wall is visible on the site. The presentation of the site for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H113 | Pilismarót | Pilismarót | Basaharc

Burgus Solva 9 | Pannonia | 18,8275 / 47,81346  
watchtower or way station | Date: 300 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H114 | Pilismarót | Pilismarót | Basaharc

Burgus Solva 10 | Pannonia | 18,8351 / 47,81175  
watchtower | Date: 300 - 435

Selected: Yes | Criteria: 1, 2, 3

Integrity: The tower investigated by survey has been preserved below the earth and protected by law. A small part of an unrestored wall is visible on the site. The presentation of the site for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity.

H115 | Esztergom, Pilismarót | Esztergom, Pilismarót | Esztergom, Pilismarót

Limes road between burgi Solva 1-19 | Pannonia | 18,79102 / 47,81198

Limes road | Date: 50 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: A cca 1700 m long nominated section of the road at Esztergom, Hidegtelek-kereszt is well known from aerial photos and survey, its presentation for public is possible.

Authenticity: The preservation of the nominated section still detectable on earth compromised its authenticity.

H116 | Pilismarót | Pilismarót | Basaharc

Burgus Solva 11 | Pannonia | 18,8504 / 47,81064 watchtower | Date: 350 - 435

Selected: Yes | Criteria: 1, 2, 3

Integrity: The excavated tower is preserved and protected by law. The presentation of the unrestored walls for public is possible.

Authenticity: The preservation of the excavated structure compromised its authenticity after the restoration of the walls.

H117 | Pilismarót | Pilismarót | Basaharc

Burgus Solva 11a | Pannonia | 18,8504 / 47,81064 watchtower | Date: 50 - 200

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H118 | Pilismarót | Pilismarót | Basaharc

Burgus Solva 11b | Pannonia | 18,8504 / 47,81064 watchtower | Date: 100 - 200

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H119 | Pilismarót | Pilismarót | Szobi rév

Burgus Solva 12 | Pannonia | 18,85368 / 47,8106 watchtower | Date: 100 - 200

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H120 | Pilismarót | Pilismarót | Basaharc

Burgus Solva 13 | Pannonia | 18,8613 / 47,81043 watchtower | Date: 350 - 435

Selected: Yes | Criteria: 1, 2, 3

Integrity: The excavated tower is preserved and protected by law. The presentation of the site for public is possible.

Authenticity: The preservation of the excavated structure compromised its authenticity.

H121 | Pilismarót | Pilismarót | Basaharc

Burgus Solva 14 | Pannonia | 18,86893 / 47,81017 watchtower | Date: 350 - 435

Selected: Yes | Criteria: 1, 2, 3

Integrity: The excavated tower is preserved and protected by

law. The presentation of the site for public is possible.

Authenticity: The preservation of the excavated structure compromised its authenticity.

H122 | Pilismarót | Pilismarót | Basaharc

Burgus Solva 14a | Pannonia | 18,86893 / 47,81017 watchtower | Date: 100 - 200

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H123 | Pilismarót | Pilismarót | Duna-melléke

Burgus Solva 15 | Pannonia | 18,88208 / 47,80783 watchtower | Date: 350 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H124 | Pilismarót | Pilismarót | Duna-melléke

Burgus Solva 15a | Pannonia | 18,88208 / 47,80783 watchtower | Date: 350 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H125 | Pilismarót | Pilismarót | Duna-melléke

Burgus Solva 16 | Pannonia | watchtower | Date: 100 - 200

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H126 | Pilismarót | Pilismarót | Duna-melléke

Burgus Solva 17 | Pannonia | 18,88947 / 47,80542 watchtower | Date: 350 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H127 | Pilismarót | Pilismarót | Duna-melléke

Burgus Solva 18 | Pannonia | 18,89563 / 47,80199 watchtower | Date: 350 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H128 | Pilismarót | Pilismarót | Malom-patak

Burgus Solva 19 | Pannonia | 18,90157 / 47,7907 watchtower, fortlet | Date: 350 - 435

Selected: Yes | Criteria: 1, 2, 3

Integrity: The excavated tower is preserved and protected by law. The presentation of the unrestored walls for public is possible.

Authenticity: The preservation of the excavated structure compromised its authenticity after the restoration of the walls.

H129 | Pilismarót | Pilismarót | Kis-hegy

Castra ad Herculem (?) | Pannonia | 18,87898 / 47,78196 hillfort | Date: 275 - 435

Selected: Yes | Criteria: 1, 2, 3

Integrity: The hillfort investigated by excavation has been

preserved below the earth and protected by law. The presentation of the site for public is possible.  
Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H130 | Dömös | Dömös | Tófenék-dűlő  
Burgus Solva 20 | Pannonia | 18,90351 / 47,78066  
watchtower | Date: 100 - 300  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H131 | Dömös | Dömös | Köves-patak  
Burgus Solva 21 | Pannonia | 18,90441 / 47,77721  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H132 | Dömös | Dömös | Hajóállomás  
Burgus Solva 22 | Pannonia | 18,91612 / 47,76543  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H133 | Dömös | Dömös | Dömös  
unknown | Pannonia | 18,9119 / 47,76324  
two brick firing kilns | Date: 165 - 250  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The brick firing kilns investigated by excavation have been preserved below the earth and protected by law. The presentation of the site for public is possible.  
Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H134 | Visegrád | Visegrád | Visegrád  
unknown | Pannonia | 18,93049 / 47,76079  
fortlet | Date: 365 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The fortlet has been investigated by excavations: its restored remains can be visited on the site.  
Authenticity: The preservation of the visible structure with their restored walls compromised its authenticity.

H135 | Visegrád | Visegrád | Lepence  
Burgus Solva 23 | Pannonia | 18,95211 / 47,76669  
watchtower | Date: 100 - 300  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H136 | Visegrád | Visegrád | Lepence  
Burgus Solva 35 | Pannonia | 18,95211 / 47,76669  
watchtower | Date: 371 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The tower has been investigated by excavations: its restored remains can be visited on the site.  
Authenticity: The preservation of the visible structure with their restored walls compromised its authenticity.

H137 | Visegrád | Visegrád | Lepence  
Burgus Solva 24 | Pannonia | 18,96586 / 47,77562  
watchtower | Date: 372 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The tower has been investigated by excavations: its restored remains can be visited on the site.  
Authenticity: The preservation of the visible structure with their restored walls compromised its authenticity.

H138 | Visegrád | Visegrád | Visegrád  
Burgus Solva 25 | Pannonia | 18,96692 / 47,78587  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H139 | Visegrád | Visegrád | Sibrik-domb  
Pone Navata | Pannonia | 18,98011 / 47,79813  
hillfort | Date: 325 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The hillfort has been investigated by excavations: its restored remains can be visited on the site.  
Authenticity: The preservation of the visible structure with their restored walls compromised its authenticity.

H140 | Visegrád | Visegrád | Várkert-dűlő  
Burgus Solva 26 | Pannonia | 18,9835 / 47,80172  
watchtower | Date: 175 - 300  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H141 | Visegrád | Visegrád | Kisvillám  
Burgus Solva 27 | Pannonia |  
watchtower | Date: 100 - 200  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H142 | Visegrád | Visegrád | Szentgyörgy-puszta  
Burgus Solva 28 | Pannonia | 19,00434 / 47,80404  
watchtower | Date: 350 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The tower was excavated in 2016: its remains in good state of preservation can be visited on the site after restoration.  
Authenticity: The preservation of the structure can compromise its authenticity after the restoration of the excavated walls.

H143 | Visegrád | Visegrád | Szentgyörgy-puszta  
Burgus Solva 29 | Pannonia | 19,00817 / 47,80336  
watchtower | Date: 300 - 400  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H144 | Dunabogdány | Dunabogdány | Vadász-tanya  
Burgus Solva 31 | Pannonia |  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H145 | Dunabogdány | Dunabogdány | Kőszegtő  
Burgus Solva 32 | Pannonia | 19,05989 / 47,79055  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H146 | Dunabogdány | Dunabogdány | Dunabogdány  
Burgus Solva 33 | Pannonia |  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H147 | Szob | Szob | Hideg-rét  
Burgus Solva 34 | Pannonia | 18,853233 / 47,817536  
bridge-head | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H148 | Kisoroszi | Kisoroszi | Kisoroszi  
unknown | Pannonia | 19,0029 / 47,80793  
fortlet | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H149 | Kisoroszi | Kisoroszi | Pusztatemplom  
Burgus Solva 36 | Pannonia | 19,00222 / 47,81488  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H150 | Kisoroszi | Kisoroszi | Páztorkert  
Burgus Solva 37 | Pannonia | 19,04935 / 47,81241  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H151 | Verőce | Verőce | Dunamező-dűlő  
Burgus Solva 38 | Pannonia | 19,05156 / 47,81872  
bridge-head | Date: 350 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The bridge-head has been investigated by excavations: its restored remains can be visited on the site.  
Authenticity: The preservation of the visible structure with their restored walls compromised its authenticity.

H152 | Dunabogdány | Dunabogdány | Váradok-dűlő  
Cirpi | Pannonia Inferior | 19,07537 / 47,77073  
auxiliary castellum | Date: 65 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The castellum investigated by excavation has been preserved below the earth and protected by law. The presentation of the site for public is possible.  
Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H153 | Tahitótfalu, Leányfalu | Tahitótfalu, Leányfalu |  
Tahitótfalu, Leányfalu  
Limes road Cirpi-Ulcisia | Pannonia Inferior |  
Limes road | Date: 50 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H154 | Tahitótfalu | Tahitótfalu | Tahitótfalu,  
Burgus Cirpi 1 | Pannonia Inferior | 19,08713 / 47,7445  
watchtower | Date: 300 - 400  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H155 | Leányfalu | Leányfalu | Leányfalu,  
Burgus Cirpi 2 | Pannonia Inferior | 19,08842 / 47,71714  
watchtower | Date: 350 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The tower has been investigated by excavations: its restored remains can be visited on the site.  
Authenticity: The preservation of the visible structure with their restored walls compromised its authenticity.

H156 | Szentendre | Szentendre | Hunka-domb  
Burgus Cirpi 3 | Pannonia Inferior | 19,08442 / 47,68954  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H157 | Tahitótfalu | Tahitótfalu | Szentpéteri-dűlő,  
Burgus Cirpi 4 | Pannonia Inferior | 19,08239 / 47,76802  
bridge-head? | Date: 300 - 400  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H158 | Tahitótfalu | Tahitótfalu | Balhává,  
Burgus Cirpi 5 | Pannonia Inferior | 19,12278 / 47,76236  
bridge-head | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H159 | Szigetmonostor | Szigetmonostor | Gödi-rév,  
Burgus Cirpi 6 | Pannonia Inferior | 19,12031 / 47,68224  
watchtower? | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H160 | Vác | Vác | Csata-dűlő  
Burgus Cirpi 7 | Pannonia Inferior |  
bridge-head? | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H161 | Szentendre | Szentendre | Szentendre



Ulcisia | Pannonia Inferior | 19,07391 / 47,66492  
 auxiliary castellum | Date: 65 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The castellum investigated by excavation has been preserved below the earth and protected by law. The presentation of the site for public is possible, some gravestones from the site are on display in a small lapidarium near the castellum.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H162 | Göd | Felsőgöd | Bócsaújtelep  
 unknown | Barbaricum | 19,16297 / 47,68381  
 counter fortress | Date: 373 - 374  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The counter fortress investigated by aerial photos and excavation has been preserved below the earth and protected by law. The presentation of the site for public is possible.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H163 | Szentendre, Budakalász, Budapest | Szentendre, Budakalász, Budapest | Szentendre, Budakalász, Budapest  
 Limes road Ulcisia-Aquincum | Pannonia Inferior | 19,07015 / 47,62098  
 Limes road | Date: 50 - 435  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H164 | Szentendre | Szentendre | Dera-stream  
 Burgus Ulcisia 1 | Pannonia Inferior | 19,07946 / 47,64157  
 bridge-head | Date: 350 - 435  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H165 | Budakalász | Budakalász | Luppá-inn  
 Burgus Ulcisia 2 | Pannonia Inferior | 19,08532 / 47,62271  
 watchtower | Date: 350 - 435  
 Selected: No | Criteria: 1, 2  
 Integrity: The walls of the excavated tower are visible on earth in a garden of a family house (partly under the house), and protected by law. The lot is private property, it is badly accessible, only with the consent of the owner.  
 Authenticity: The state of preservation of the structure compromised its authenticity, but depends on the owner.

H166 | Budakalász | Budakalász | Barát-stream  
 Burgus Ulcisia 3 | Pannonia Inferior | 19,07544 / 47,60817  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H167 | Budapest District III | Budapest | Csillagtelep  
 Burgus Ulcisia 4 | Pannonia Inferior | 19,06883 / 47,58857  
 watchtower | Date: 300 - 400  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H168 | Budapest District III | Budapest | Csillagtelep  
 Burgus Ulcisia 5 | Pannonia Inferior | 19,06794 / 47,58569  
 watchtower | Date: 175 - 300  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H169 | Budapest District III | Budapest | Római fürdő  
 Burgus Ulcisia 6 | Pannonia Inferior | 19,06648 / 47,57982  
 watchtower | Date: 350 - 435  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H170 | Budapest District III | Budapest | Homokos-dűlő  
 Burgus Ulcisia 7 | Pannonia Inferior | 19,06288 / 47,56379  
 watchtower | Date: 350 - 435  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H171 | Szigetmonostor | Szigetmonostor | Horány,  
 Burgus Ulcisia 8 | Pannonia Inferior | 19,11245 / 47,65843  
 bridge-head | Date: 350 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The bridge-head has been investigated by excavations: its restored remains can be visited on the site.  
 Authenticity: The preservation of the visible structure with their restored walls compromised its authenticity.

H172 | Dunakeszi | Dunakeszi | Dunakeszi  
 Burgus Ulcisia 9 | Pannonia Inferior | 19,11942 / 47,65841  
 bridge-head | Date: 350 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The bridge-head has been investigated by excavations: the restored remains of the southern tower can be visited on the site in a cellar of a family house.  
 Authenticity: The preservation of the visible structure with their restored walls compromised its authenticity.

H173 | Szigetmonostor | Szigetmonostor | Felső-rétek,  
 Burgus Ulcisia 10 | Pannonia Inferior | 19,04358 / 47,36004  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H174 | Budapest District IV | Budapest | Újpest  
 Burgus Ulcisia 11 | Pannonia Inferior | 19,04483 / 47,35188  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H175 | Budapest District IV | Budapest | Újpest  
 Burgus Ulcisia 12 | Pannonia Inferior |  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.



H176 | Budapest District IV | Budapest | Újpest

Burgus Ulcisia 13 | Pannonia Inferior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H177 | Szigetmonostor | Szigetmonostor | Fácános,

Burgus Ulcisia 14 | Pannonia Inferior | 19,05502 / 47,38217

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H178 | Budapest District III | Budapest | Óbuda

Burgus Ulcisia 15 | Pannonia Inferior | 19,02564 / 47,33087

watchtower | Date: 135 - 300

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H179 | Budapest District III | Budapest | Óbuda

Aquincum | Pannonia Inferior | 19,0484 / 47,56494

municipium | Date: 65 - 335

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman remains of the municipium of Aquincum have been partly excavated and conserved at the eastern part of the aqueduct, dividing the town into two parts. Another parts of the town in the western part and at the eastern suburb are below earth, partly overbuilt. Shrines, baths, aqueduct, macellum, mithraea, amphitheatre and dwelling houses are presented to the public in the eastern part of the municipium and in the northern suburb. The reconstruction of a dwelling house (the house of the painter) is based on authentic excavation results.

Authenticity: The present state of the findspot has compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H180 | Budapest District II-III | Budapest | Óbuda

Aquincum | Pannonia Inferior | 19,04174 / 47,54269

legionary fortress, canabae | Date: 89 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman remains at Aquincum have been largely reused and overbuilt by the medieval Old-Buda. However, the eastern gate, southern gate, military bath of the legionary fortress with the house of the tribunus laticlavus and with some military barracks have been preserved and presented to the public. The southern walls of the late Roman fortress and the military bath overbuilt as military governor's palace is visible on earth, too. The area of the vicus is completely overbuilt by the present-day district III of Budapest, but the ruins of a late Roman cella trichora, the so called Hercules-villa with mosaics, a house at Pacsirtamező street, and the military amphitheatre can be seen on Earth. The partly excavated remains of the governor's palace on the Hajógyár-Island are below the earth. The presentation of the site for public is possible.

Authenticity: The reuse and overbuilding of the antique structures have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

H181 | Budapest District III | Budapest | Óbuda

Aquincum, castellum I (?) | Pannonia Inferior | 19,03704 /

47,50842

auxiliary castellum(?) | Date: 50 - 150

Selected: Yes | Criteria: 1

Integrity: The Roman remains of an earlier supposed auxiliary castellum at Aquincum have been largely reused and overbuilt by the later legionary fortress on nominated property. Authenticity: The reuse and overbuilding of the antique structures could have compromised their authenticity to a certain extent.

H182 | Budapest District III | Budapest | Óbuda

Aquincum, castellum II | Pannonia Inferior | 19,00039 /

47,48126

auxiliary castellum | Date: 73 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman remains of another early auxiliary castellum at Aquincum have been largely reused and overbuilt by the later legionary fortress on nominated property. Authenticity: The reuse and overbuilding of the antique structures could have compromised their authenticity to a certain extent.

H183 | Budapest District II | Budapest | Budaújlak

Burgus Aquincum 1 | Pannonia Inferior | 19,03756 / 47,52646

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H184 | Budapest District II | Budapest | Budaújlak

Burgus Aquincum 2 | Pannonia Inferior | 19,03908 / 47,51759

watchtower | Date: 350 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H185 | Budapest District I-II | Budapest | Víziváros

Aquincum, castellum III | Pannonia Inferior | 19,03704 /

47,50842

auxiliary castellum and vicus | Date: 50 - 400

Selected: No | Criteria: 1

Integrity: The largely overbuilt area has been partly investigated by excavations, however, the exact scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H186 | Budapest District I | Budapest | Víziváros

Burgus Aquincum 3 | Pannonia Inferior | 19,03704 / 47,50842

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H187 | Budapest District I | Budapest | Víziváros

Burgus Aquincum 4 | Pannonia Inferior | 19,04143 / 47,49641

watchtower | Date: 300 - 400

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H188 | Budapest District I | Budapest | Tabán

Burgus Aquincum 5 | Pannonia Inferior | 19,04447 / 47,49109

watchtower | Date: 350 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H189 | Budapest District I | Budapest | Rudas-fürdő  
Burgus Aquincum 6 | Pannonia Inferior | 19,04768 / 47,48919  
watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H190 | Budapest District I | Budapest | Gellért-fürdő  
Burgus Aquincum 7 | Pannonia Inferior | 19,05234 / 47,48392  
watchtower | Date: 300 - 400

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H191 | Budapest District XI | Budapest | Nádor-kert  
Burgus Aquincum 8 | Pannonia Inferior |  
watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H192 | Budapest District XI | Budapest | Albertfalva  
Burgus Aquincum 9 | Pannonia Inferior |  
watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H193 | Budapest District XIII | Budapest | Margitsziget  
Burgus Aquincum 10 | Pannonia Inferior | 19,05338 / 47,5362  
watchtower (?) | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: Exact size and extent of the findspot is uncertain.

Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H194 | Budapest District XIII | Budapest | Margit-sziget  
Burgus Aquincum 11 | Pannonia Inferior | 19,04386 / 47,51745  
watchtower (?) | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: Exact size and extent of the findspot is uncertain.

Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H195 | Budapest District XIII | Budapest | Angyalföld  
Transaquincum (?) | Pannonia Inferior | 19,06351 / 47,54038  
counter fortress, bridge-head (?) | Date: 165 - 435

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H196 | Budapest District V | Budapest | Pest downtown  
Burgus Aquincum 12 | Pannonia Inferior | 19,04568 / 47,5071  
watchtower (?) | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: Exact size and extent of the findspot is uncertain.

Authenticity: Authenticity and dating is uncertain, because of

insufficient research.

H197 | Budapest District V | Budapest | Pest downtown  
Burgus Aquincum 13 | Pannonia Inferior | 19,04724 / 47,4997  
watchtower (?) | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: Exact size and extent of the findspot is uncertain.

Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H198 | Budapest District V | Budapest | Pest downtown  
Contra Aquincum (?) | Pannonia Inferior | 19,05155 / 47,49241  
counter fortress | Date: 165 - 435

Selected: Yes | Criteria: 1, 2, 3

Integrity: The counter fortress has been investigated by excavations: the restored remains of an U-shape tower can be visited on the site.

Authenticity: The preservation of the visible structure with their restored walls compromised its authenticity.

H199 | Budapest District IX | Budapest | Ferencváros  
Burgus Aquincum 14 | Pannonia Inferior | 19,06716 / 47,48003  
watchtower (?) | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: Exact size and extent of the findspot is uncertain.

Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H200 | Budapest District XI | Budapest | Albertfalva  
unknown | Pannonia Inferior | 19,04696 / 47,43847  
auxiliary castellum | Date: 50 - 300

Selected: Yes | Criteria: 1, 2, 3

Integrity: The castellum investigated by excavation has been preserved below the earth and protected by law. The presentation of the site for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H201 | Dunaharaszti | Dunaharaszti | Dunaharaszti  
unknown | Barbaricum |  
counter fortress (?) | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: Exact size and extent of the findspot is uncertain.

Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H202 | Budapest District XXII | Budapest | Nagytétény  
Campona | Pannonia Inferior | 18,98516 / 47,39064  
auxiliary castellum and vicus | Date: 100 - 435

Selected: Yes | Criteria: 1, 2, 3

Integrity: The castellum investigated by excavation has been preserved below the earth and protected by law. Only some parts of the eastern and southern gate are visible on earth. The presentation of the site for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H203 | Budapest, Érd, Százhalombatta | Budapest, Érd,  
Százhalombatta | Budapest, Érd, Százhalombatta  
Limes road Campona-Matrica | Pannonia Inferior | 18,93206 /  
47,34518

Limes road | Date: 50 - 435

Selected: Yes | Criteria: 1, 2, 3

Integrity: A short section of the road south of Érd has been nominated, known from aerial photos and excavation, which

could prove the integrity of the find spot at the nominated section. Its presentation for public is possible.  
Authenticity: The preservation of the nominated section below the earth compromised its authenticity.

H204 | Érd | Érd | Ófalu  
Burgus Campona 1 | Pannonia Inferior |  
watchtower (?) | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H205 | Érd | Érd | Érdi-fennsík  
Burgus Campona 2 | Pannonia Inferior | 18,92947 / 47,34641  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H206 | Érd | Érd | Érdi-fennsík  
Burgus Campona 3 | Pannonia Inferior |  
watchtower (?) | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H207 | Százhalombatta | Százhalombatta | Alsó-Ledina  
Burgus Campona 4 | Pannonia Inferior |  
watchtower (?) | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H208 | Százhalombatta | Százhalombatta | Dunafüred  
Matrica | Pannonia Inferior | 18,91775 / 47,29975  
auxiliary castellum and vicus | Date: 100 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The castellum investigated by excavation has been preserved below the earth and protected by law. It is overbuilt by earth works from the early 19th century, the presentation of the site for public is possible. From the area of the vicus only a building of a bath is visible on display to public, with restored walls.  
Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H209 | Százhalombatta, Ercsi, Iváncsa, Adony | Százhalombatta, Ercsi, Iváncsa, Adony | Százhalombatta, Ercsi, Iváncsa, Adony  
Limes road –Matrica-Vetus Salina | Pannonia Inferior | 18,87616 / 47,20208  
Limes road | Date: 50 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: A more than 7000 m long section of the road at Ercsi has been nominated, known from aerial photos and survey.  
Authenticity: The preservation of the nominated section below the earth compromised its authenticity.

H210 | Százhalombatta | Százhalombatta | Hosszú-völgy  
Burgus Matrica 1 | Pannonia Inferior |  
watchtower (?) | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.

Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H211 | Százhalombatta | Százhalombatta | Hosszú-völgy  
Burgus Matrica 8 | Pannonia Inferior | 18,908949 / 47,280492  
watchtower (?) | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H212 | Ercsi | Ercsi | Osztonok-dűlő  
Burgus Matrica 2 | Pannonia Inferior | 18,91384 / 47,26559  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H213 | Ercsi | Ercsi | Ercsi  
Burgus Matrica 9 | Pannonia Inferior | 18,89489 / 47,26329  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H214 | Ercsi | Ercsi | Ercsi  
Burgus Matrica 3 | Pannonia Inferior |  
watchtower (?) | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H215 | Sziget-újfalu | Sziget-újfalu | Szigetújfalu  
Burgus Matrica 13 | Pannonia Inferior | 18,91558 / 47,2474  
bridge-head (?) | Date: 0 - 500  
Selected: Undecided | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research, after the evaluation of the results and of the excavation in 2016, the nomination can be decided.

H216 | Ercsi | Ercsi | Ercsi  
Burgus Matrica 10 | Pannonia Inferior |  
watchtower (?) | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H217 | Ercsi | Ercsi | Zsellér-hold  
Burgus Matrica 4 | Pannonia Inferior |  
watchtower (?) | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H218 | Ercsi | Ercsi | Ercsi  
Burgus Matrica 4a | Pannonia Inferior |  
watchtower (?) | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H219 | Ercsi | Ercsi | Sinatelep  
Burgus Matrica 11 | Pannonia Inferior |  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H220 | Ercsi | Ercsi | Sinatelep  
Burgus Matrica 5 | Pannonia Inferior | 18,867924 / 47,181818  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H221 | Ercsi | Ercsi | Sinatelep  
Burgus Matrica 14 | Pannonia Inferior |  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H222 | Ercsi | Ercsi | Sinatelep  
Burgus Matrica 15 | Pannonia Inferior |  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H223 | Ercsi | Ercsi | Fehér-árok  
Burgus Matrica 12 | Pannonia Inferior | 18,86042 / 47,16228  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H224 | Ercsi | Ercsi | Dunamelléki dűlő  
Burgus Matrica 6 | Pannonia Inferior | 18,867924 / 47,181818  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H225 | Iváncsa | Iváncsa | Lapos  
Burgus Matrica 7 | Pannonia Inferior | 18,866083 / 47,149099  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H226 | Iváncsa | Iváncsa | Iváncsa  
unknown | Pannonia Inferior |  
temporary camp (?) | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H227 | Adony | Adony | Adony  
Vetus Salina | Pannonia Inferior | 18,86565 / 47,13024  
auxiliary castellum | Date: 50 - 300

Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain: the partly excavated castle has been largely destroyed by the Danube bank.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H228 | Adony, Kulcs, Rácalmás, Dunaújváros | Adony, Kulcs, Rácalmás, Dunaújváros | Adony, Kulcs, Rácalmás, Dunaújváros  
Limes road –Vetus Salina-Intercisa | Pannonia Inferior | 18,88971 / 47,06672  
Limes road | Date: 50 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: A more than 350 m long section of the road at Rácalmás, near burgus Vetus Salina 8 has been nominated, known from aerial photos and survey.  
Authenticity: The preservation of the nominated section below the earth compromised its authenticity.

H229 | Adony | Adony | Szentmihály-puszta  
Burgus Vetus Salina 1 | Pannonia Inferior | 18,87102 / 47,09827  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H230 | Adony | Adony | Zsellér-dűlő  
Burgus Vetus Salina 11 | Pannonia Inferior | 18,87568 / 47,08535  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H231 | Adony | Adony | Adony  
Burgus Vetus Salina 2 | Pannonia Inferior | 18,875677 / 47,085353  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H232 | Kulcs/Adony | Kulcs/Adony | Kulcs/Adony  
Burgus Vetus Salina 3 | Pannonia Inferior | 18,890284 / 47,062795  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H233 | Kulcs | Kulcs | Kulcs  
Burgus Vetus Salina 4 | Pannonia Inferior |  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H234 | Rácalmás | Rácalmás | Rét-földek  
Burgus Vetus Salina 5 | Pannonia Inferior | 18,917341 / 47,023635  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H235 | Rácalmás | Rácalmás | Szesszió  
Burgus Vetus Salina 8 | Pannonia Inferior | 18,92484 / 47,01822  
watchtower | Date: 350 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The tower investigated by aerial photos and survey has been preserved below the earth and protected by law. The presentation of the site for public is possible.  
Authenticity: The preservation of the structure below the earth compromised its authenticity.

H236 | Rácalmás | Rácalmás | Rácalmás  
Burgus Vetus Salina 9 | Pannonia Inferior |  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H237 | Dunaújváros | Dunaújváros | Dunaújváros  
Burgus Vetus Salina 6 | Pannonia Inferior | 18,928931 / 46,987827  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H238 | Lórév | Lórév | Lórév  
Burgus Vetus Salina 7 | Pannonia Inferior | 18,928931 / 46,987827  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H239 | Sárszentágota | Sárszentágota | Sárszentágota  
unknown | Pannonia Inferior |  
temporary camp (?) | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H240 | Dunaújváros | Dunaújváros | Öreg-hegy  
Intercisa | Pannonia Inferior | 18,93668 / 46,97616  
auxiliary castellum and vicus | Date: 100 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The Roman remains of the castellum and vicus of Intercisa have been partly excavated. Some parts of the castellum, an apsidal building, a military bath and a dwelling house from the vicus are visible on the site with conserved walls. A pottery firing kiln in the vicus is situated below the earth, its presentation for public is possible.  
Authenticity: The present state of the findspot has compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H241 | Dunaújváros, Kisapostag, Baracs | Dunaújváros,  
Kisapostag, Baracs | Dunaújváros, Kisapostag, Baracs  
Limes road Intercisa-Annamatia | Pannonia Inferior | 18,92591 / 46,90575  
Limes road | Date: 50 - 435  
Selected: Yes | Criteria: 1, 2, 3

Integrity: A more than 5500 m long section of the road at Dunaújváros, Kisapostag and Baracs near the watchtowers Intercisa 5, 6 and 10. has been nominated, known from aerial photos and survey.

Authenticity: The preservation of the nominated section below the earth compromised its authenticity.

H242 | Dunaújváros | Dunaújváros | Dunaújváros  
Burgus Intercisa 1 | Pannonia Inferior |  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H243 | Dunaújváros | Dunaújváros | Dunaújváros  
Burgus Intercisa 2 | Pannonia Inferior | 18,93555 / 46,95829  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H244 | Dunaújváros | Dunaújváros | Dunai vasmű  
Burgus Intercisa 3 | Pannonia Inferior |  
watchtower | Date: 350 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H245 | Dunaújváros | Dunaújváros | Dunai vasmű  
Burgus Intercisa 15 | Pannonia Inferior | 18,93339 / 46,93736  
watchtower | Date: 300 - 435  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H246 | Dunaújváros | Dunaújváros | Farkastanya  
Burgus Intercisa 9 | Pannonia Inferior | 18,93139 / 46,93105  
watchtower | Date: 275 - 400  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H247 | Kisapostag | Kisapostag | Kisapostag  
Burgus Intercisa 4 | Pannonia Inferior | 18,930922 / 46,925218  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H248 | Kisapostag | Kisapostag | Kisapostag  
Burgus Intercisa 5 | Pannonia Inferior | 18,92705 / 46,91561  
watchtower | Date: 350 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The tower investigated by aerial photos and excavation has been preserved below the earth and protected by law. The presentation of the site for public is possible.  
Authenticity: The preservation of the structure below the earth compromised its authenticity.

H249 | Kisapostag | Kisapostag | Kisapostag  
Burgus Intercisa 10 | Pannonia Inferior | 18,92242 / 46,90279



watchtower | Date: 300 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The tower investigated by aerial photos and excavation has been preserved below the earth and protected by law. The presentation of the site for public is possible.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity.

H250 | Kisapostag | Kisapostag | Kisapostag  
 Burgus Intercisa 6 | Pannonia Inferior | 18,92233 / 46,89871  
 watchtower | Date: 350 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The tower investigated by aerial photos and excavation has been preserved below the earth and protected by law. The presentation of the site for public is possible.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity.

H251 | Baracs | Baracs | Baracs  
 Burgus Intercisa 7 | Pannonia Inferior | 18,91797 / 46,88145  
 watchtower | Date: 350 - 435  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H252 | Baracs | Baracs | Baracs  
 Burgus Intercisa 18 | Pannonia Inferior |  
 watchtower | Date: 300 - 435  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H253 | Dunaújváros | Dunaújváros | Dunaújváros  
 Burgus Intercisa 11 | Pannonia Inferior |  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H254 | Dunaújváros | Dunaújváros | Dunaújváros  
 Burgus Intercisa 12 | Pannonia Inferior |  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H255 | Dunaújváros | Dunaújváros | Dunaújváros  
 Burgus Intercisa 13 | Pannonia Inferior |  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H256 | Baracs | Baracs | Baracs  
 Burgus Intercisa 14 | Pannonia Inferior | 18,925672 / 46,87847  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H257 | Dunaújváros | Dunaújváros | Dunaújváros

Burgus Intercisa 16 | Pannonia Inferior | 18,94773 / 46,988025  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H258 | Dunaújváros | Dunaújváros | Dunaújváros  
 Burgus Intercisa 17 | Pannonia Inferior |  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H259 | Baracs | Baracs | Baracs  
 Annamatia | Pannonia Inferior | 18,92182 / 46,86858  
 auxiliary castellum and vicus | Date: 50 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The castellum investigated by excavation has been preserved below the earth and protected by law. The presentation of the site for public is possible.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H260 | Baracs, Dunaföldvár, Bölske, Paks | Baracs, Dunaföldvár, Bölske, Paks | Baracs, Dunaföldvár, Bölske, Paks  
 Limes road Annamatia-Lussonium | Pannonia Inferior | 18,89721 / 46,76414  
 Limes road | Date: 50 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: Short sections of the Limes road at Dunaföldvár has been nominated, known from aerial photos and survey.  
 Authenticity: The preservation of the nominated section below the earth compromised its authenticity.

H261 | Baracs | Baracs | Baracs  
 Burgus Annamatia 1 | Pannonia Inferior | 18,91388 / 46,86057  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H262 | Dunaföldvár | Duna-földvár | Dunaföldvár  
 Burgus Annamatia 2 | Pannonia Inferior | 18,91135 / 46,84958  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H263 | Dunaföldvár | Dunaföldvár | Dunaföldvár  
 Burgus Annamatia 3 | Pannonia Inferior | 18,90957 / 46,83801  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H264 | Dunaföldvár | Dunaföldvár | Dunaföldvár  
 Burgus Annamatia 4 | Pannonia Inferior | 18,915872 / 46,99016  
 watchtower (?) | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of



insufficient research.

H265 | Dunaföldvár | Dunaföldvár | Dunaföldvár  
Burgus Annamata 5 | Pannonia Inferior | 18,928033 / 46,808826  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H266 | Dunaföldvár | Dunaföldvár | Missevár  
Burgus Annamata 13 | Pannonia Inferior |  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H267 | Dunaföldvár | Dunaföldvár | Péntzhányás  
Burgus Annamata 6 | Pannonia Inferior | 18,88639 / 46,74833  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H268 | Dunaföldvár | Dunaföldvár | Péntzhányás  
Burgus Annamata 14 | Pannonia Inferior | 18,889116 / 46,748218  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H269 | Dunaföldvár | Dunaföldvár | Dunaföldvár  
Burgus Annamata 19 | Pannonia Inferior |  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H270 | Bölske | Bölske | Leányvár  
Burgus Annamata 7 | Pannonia Inferior | 18,88115 / 46,73752  
watchtower | Date: 275 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The tower investigated by aerial photos, survey and non-destructive methods has been preserved below the earth and protected by law. The presentation of the site for public is possible.  
Authenticity: The preservation of the structure below the earth compromised its authenticity.

H271 | Bölske | Bölske | Leányvár  
Burgus Annamata 15 | Pannonia Inferior | 18,884145 / 46,738801  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H272 | Bölske | Bölske | Bölske  
Burgus Annamata 18 | Pannonia Inferior |  
watchtower | Date: 350 - 435

Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H273 | Bölske | Bölske | Bölske  
Burgus Annamata 8 | Pannonia Inferior | 18,88411 / 46,72177  
watchtower | Date: 350 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The tower investigated by aerial photos, survey and non-destructive methods has been preserved below the earth and protected by law. The presentation of the site for public is possible.  
Authenticity: The preservation of the structure below the earth compromised its authenticity.

H274 | Bölske | Bölske | Bölske  
Burgus Annamata 16 | Pannonia Inferior | 18,88607 / 46,69719  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: The scale of integrity is uncertain.  
Authenticity: The present state of the findspot did not compromise its authenticity.

H275 | Paks | Dunakömlőd | Dunakömlőd  
Burgus Annamata 9 | Pannonia Inferior | 18,88413 / 46,68724  
watchtower | Date: 350 - 435  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The tower investigated by aerial photos and survey has been preserved below the earth and protected by law. The presentation of the site for public is possible.  
Authenticity: The preservation of the structure below the earth compromised its authenticity.

H276 | Bölske | Bölske | Lesvölgy  
Burgus Annamata 10 | Pannonia Inferior | 18,89835 / 46,69547  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H277 | Bölske | Bölske | Madai-hegy  
Burgus Annamata 11 | Pannonia Inferior | 18,89217 / 46,68884  
watchtower | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H278 | Bölske | Bölske | Szentandrás-puszta  
fort Bölske 1, Alta Ripa castellum (?) | Pannonia Inferior | 18,93225 / 46,72785  
fortress (?), vicus | Date: 0 - 500  
Selected: No | Criteria: 1  
Integrity: Exact size and extent of the findspot is uncertain.  
Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H279 | Bölske/Solt | Bölske/Solt | Danube river bank of Bölske  
Burgus Annamata 12 | Pannonia Inferior | 18,9831 / 46,74266  
bridge-head (?) | Date: 350 - 435  
Selected: Yes | Criteria: 1, 2  
Integrity: The Roman structure investigated by underwater excavations has been preserved below the Danube Bank and protected by law. The presentation of the site for public is only

in case of a sort of “diver tourism” possible.

Authenticity: The preservation of the structure below the Danube bank compromised its authenticity.

H280 | Solt | Solt | Kali-major

Burgus Annamata 17 | Pannonia Inferior | 18,98854 / 46,74273  
bridge-head (?) | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: Exact size and extent of the findspot is uncertain.

Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H281 | Paks | Dunakömlőd | Sánchegy

Lussonium | Pannonia Inferior | 18,88175 / 46,65571

auxiliary castellum and vicus | Date: 35 - 435

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman remains of the castellum have been partly excavated. Some parts of the castellum, the northern gate, southern gate, barracks behind the southern gate and a late Roman inner tower (or fortlet) behind the southern gate are visible on the site with conserved walls.

Authenticity: The present state of the findspot has compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H282 | Paks, Dunaszentgyörgy, Fadd, Tolna | Paks, Dunaszentgyörgy, Fadd, Tolna, | Paks, Dunaszentgyörgy, Fadd, Tolna

Limes road Lussonium-Alta Ripa | Pannonia Inferior | 18,81056 / 46,51452

Limes road | Date: 50 - 435

Selected: Yes | Criteria: 1, 2, 3

Integrity: A short section of the Limes road at Fadd has been nominated, known from aerial photos, survey and excavation, which could prove the integrity of the find spot at the nominated section.

Authenticity: The preservation of the nominated section below the earth compromised its authenticity.

H283 | Paks | Dunakömlőd | Imsós

Burgus Lussonium 1 | Pannonia Inferior | 18,879924 / 46,649518

bridge-head (?) | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: Exact size and extent of the findspot is uncertain.

Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H284 | Paks | Dunakömlőd | Dunakömlőd

Burgus Lussonium 7 | Pannonia Inferior | 18,88832 / 46,642136  
watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H285 | Paks | Paks | Paks

Burgus Lussonium 2 | Pannonia Inferior | 18,837087 / 46,579997

watchtower (?) | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: Exact size and extent of the findspot is uncertain.

Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H286 | Paks | Csámpa | Püspök-hill

Burgus Lussonium 3 | Pannonia Inferior | 18,8197 / 46,55452

watchtower | Date: 0 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: The tower investigated by aerial photos, survey and excavation has been preserved below the earth and protected by law. The presentation of the site for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity.

H287 | Dunaszentgyörgy | Dunaszentgyörgy | Dunaszentgyörgy  
Burgus Lussonium 12 | Pannonia Inferior | 18,809728 / 46,544823

watchtower | Date: 0 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: The tower investigated by aerial photos and survey has been preserved below the earth and protected by law. The presentation of the site for public is possible. The western part of the tower compromised also its integrity, but it is situated below motorway Nr. 6.

Authenticity: The preservation of the structure below the earth compromised its authenticity.

H288 | Dunaszentgyörgy | Dunaszentgyörgy | Dunaszentgyörgy  
Burgus Lussonium 4 | Pannonia Inferior |

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H289 | Dunaszentgyörgy | Dunaszentgyörgy | Dunaszentgyörgy  
Burgus Lussonium 5 | Pannonia Inferior | 18,809897 / 46,544823

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H290 | Dunaszentgyörgy | Dunaszentgyörgy | Déllő  
Burgus Lussonium 6 | Pannonia Inferior | 18,792827 / 46,507029

watchtower | Date: 100 - 400

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H291 | Fadd | Fadd | Útmellék

Burgus Lussonium 8 | Pannonia Inferior | 18,792827 / 46,507029

watchtower | Date: 0 - 500

Selected: No | Criteria: 1

Integrity: The scale of integrity is uncertain.

Authenticity: The present state of the findspot did not compromise its authenticity.

H292 | Fadd | Fadd | Bolhás-dűlő

Burgus Lussonium 9 | Pannonia Inferior | 18,79376 / 46,49095

watchtower | Date: 350 - 435

Selected: Yes | Criteria: 1, 2, 3

Integrity: The tower investigated by aerial photos and survey has been preserved below the earth and protected by law. The presentation of the site for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity.

H293 | Fadd | Fadd | Cseri-dűlő

Burgus Lussonium 10 | Pannonia Inferior | 18,80168 / 46,46466  
 watchtower | Date: 300 - 435  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H294 | Tolna | Tolna | Tolna  
 Alta Ripa (?) | Pannonia Inferior | 18,794537 / 46,423244  
 auxiliary castellum (?) | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H295 | Tolna, Szekszárd, Ócsény | Tolna, Szekszárd, Ócsény | Tolna, Szekszárd, Ócsény  
 Limes road Alta Ripa-Alisca | Pannonia Inferior | 18,74537 / 46,33226  
 Limes road | Date: 50 - 435  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H296 | Tolna | Mözs | Janicsár hill  
 Burgus Alta Ripa 1 | Pannonia Inferior | 18,74241 / 46,40899  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H297 | Szekszárd/Tolna | Szekszárd/Mözs | Mözsi-dűlő  
 Burgus Alta Ripa 2 | Pannonia Inferior | 18,70943 / 46,39222  
 watchtower | Date: 300 - 400  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The excavated tower is preserved below the earth and protected by law. The presentation of the site for public is possible.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity.

H298 | Szekszárd | Szekszárd | Szekszárd  
 unknown castelum (?) | Pannonia Inferior |  
 fortress (?), vicus | Date: 0 - 400  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H299 | Szekszárd/Ócsény | Szekszárd/Ócsény | Ördögvetetés  
 Limes road Szekszárd-Alisca | Pannonia Inferior | 18,74537 / 46,33226  
 Limes road | Date: 50 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: Five short sections of the Limes road visible at a cca. 2200 m long track has been nominated, known from aerial photos and survey.  
 Authenticity: The preservation of the nominated section below the earth compromised its authenticity.

H300 | Ócsény | Ócsény | Gábor-tanya  
 Alisca | Pannonia Inferior | 18,76805 / 46,32626  
 auxiliary castellum and vicus | Date: 50 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The auxiliary castellum and vicus investigated by aerial

photos and non-destructive methods has been preserved below the earth and protected by law. The presentation of the site for public is possible.

Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H301 | Szekszárd | Szekszárd | Keselyűsi út  
 Burgus Alisca 1 | Pannonia Inferior | 18,76971 / 46,33874  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H302 | Szekszárd | Szekszárd | Bárányfok  
 Burgus Alisca 2 | Pannonia Inferior | 18,781181 / 46,35685  
 watchtower | Date: 300 - 435  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H303 | Ócsény | Ócsény | Soványtelek  
 Burgus Alisca 3 | Pannonia Inferior | 18,69163 / 46,30354  
 watchtower | Date: 350 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The excavated tower is preserved below the earth and protected by law. The presentation of the site for public is possible.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity.

H304 | Várdomb | Várdomb | Újberek  
 Burgus Alisca 4 | Pannonia Inferior | 18,692811 / 46,250912  
 watchtower or vicus (?) | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H305 | Várdomb | Várdomb | Várdomb  
 Ad Statuas | Pannonia Inferior | 18,68715 / 46,24843  
 auxiliary castellum and vicus | Date: 50 - 435  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H306 | Bátaszék | Bátaszék | Kövesd  
 Burgus Ad Statuas 1 | Pannonia Inferior | 18,68887 / 46,19836  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H307 | Bátaszék | Bátaszék | Lajvér  
 Road station Ad Statuas 5 | Pannonia Inferior | 18,69708 / 46,2102  
 mutatio | Date: 175 - 250  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The excavated building is preserved below the earth and protected by law. The presentation of the site for public is possible.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity.

H308 | Szekszárd Őcsény, Várdomb, Báticasék, Báta, Dunaszekcső  
 | Szekszárd Őcsény, Várdomb, Báticasék, Báta, Dunaszekcső  
 Szekszárd Őcsény, Várdomb, Báticasék, Báta, Dunaszekcső  
 Limes road Ad Statuas-Lugio | Pannonia Inferior | 18,71551 / 46,17123  
 Limes road | Date: 50 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: A short section at Báta, near the burgi Ad Statuas 2-3 has been nominated, known from aerial photos, survey and excavation, which could prove the integrity of the find spot at the nominated section.  
 Authenticity: The preservation of the nominated section below the earth compromised its authenticity.

H309 | Báta | Báta | Báta  
 Burgus Ad Statuas 2 | Pannonia Inferior | 18,73918 / 46,12852  
 watchtower | Date: 300 - 400  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The tower investigated by aerial photos and survey has been preserved below the earth and protected by law. The presentation of the site for public is possible.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity.

H310 | Báta | Báta | Báta  
 Burgus Ad Statuas 3 | Pannonia Inferior | 18,74904 / 46,11931  
 watchtower | Date: 300 - 400  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The tower investigated by aerial photos and survey has been preserved below the earth and protected by law. The presentation of the site for public is possible.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity.

H311 | Báta | Báta | Báta  
 Burgus Ad Statuas 4 | Pannonia Inferior | 18,75339 / 46,11297  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

H312 | Dunaszekcső | Dunaszekcső | Várhegy, Szt. János hegy  
 Lugio | Pannonia Inferior | 18,7618 / 46,08838  
 auxiliary castellum and vicus | Date: 35 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The bridge-head investigated by underwater survey and excavation preserved below the earth and protected by law. The presentation of the site for public is possible at the western part of the castellum and vicus, avoided by erosion, so this part of the findspot can be nominated.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout especially at the western part of the spot, avoided by the danger of erosion.

H313 | Dunafalva | Dunafalva | Dunafalva  
 Burgus Lugio 1, contra Florentiam | Pannonia Inferior | 18,76909 / 46,08782  
 bridge-head | Date: 350 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: Approximately 7-10 m long unrestored walls are visible at the shore, partly in the Danube bank. The late Roman structure itself is known from underwater survey and

excavation.  
 Authenticity: The preservation of the excavated wall section compromised its authenticity after its restoration.

H314 | Bár | Bár | Bár  
 Burgus Lugio 2 | Pannonia Inferior |  
 watchtower (?) | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H315 | Mohács | Mohács | Mohács  
 Burgus Lugio 3 | Pannonia Inferior |  
 watchtower (?) | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H316 | Mohács | Mohács | Mohács  
 Burgus Lugio 4 | Pannonia Inferior |  
 watchtower (?) | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H317 | Dunaszekcső | Dunaszekcső | Dunaszekcső  
 Halena | Pannonia Inferior | 18,73662 / 46,06308  
 brick firing kiln | Date: 0 - 500  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The scale of integrity is certain after the results of the excavations in 2012.  
 Authenticity: The present state of the findspot can compromise its authenticity.

H318 | Dunaszekcső | Dunaszekcső | Dunaszekcső  
 Burgus Lugio 6 | Pannonia Inferior | 18,73304 / 46,06069  
 watchtower (?) | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: Exact size and extent of the findspot is uncertain.  
 Authenticity: Authenticity and dating is uncertain, because of insufficient research.

H319 | Kölked | Kölked | Hajlok-part  
 Altinum | Pannonia Inferior | 18,68432 / 45,95616  
 auxiliary castellum | Date: 65 - 435  
 Selected: Yes | Criteria: 1, 2, 3  
 Integrity: The auxiliary castellum, vicus and late Roman fort investigated by aerial photos, excavation and non-destructive methods has been preserved below the earth and protected by law. The presentation of the site for public is possible.  
 Authenticity: The preservation of the structure below the earth compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

H320 | Sátorhely | Sátorhely | Török-domb  
 Burgus Altinum 1 | Pannonia Inferior | 18,66004 / 45,92796  
 watchtower | Date: 0 - 500  
 Selected: No | Criteria: 1  
 Integrity: The scale of integrity is uncertain.  
 Authenticity: The present state of the findspot did not compromise its authenticity.

## CROATIA

HR001 | Draž | Batina | Gradac

Ad Militare (II) | Pannonia | 18,84469 / 45,852474

Fort | Date: 120 - 260

Selected: Yes | Criteria: 1, 2, 3

Integrity: Although the Roman site Ad Militare (II) in Batina has in places been overbuilt in Modern Ages, stone foundations of the specified fort are well preserved underground. However, sections of the forts ramparts were somewhat destroyed.

Authenticity: The building of modern day cottages and contemporary road above Ad Militare (II) in Batina in many places did not interrupt with the local Roman remains.

HR002 | Draž | Batina | Sredno

Ad Militare (I) | Pannonia | 18,842207 / 45,847568

Fort | Date: 85 - 130

Selected: No | Criteria: 1, 2

Integrity: Only small sections of the entrenchments of Roman fort Ad Militare (I) are known. The site has been sparsely overbuilt with recent structures.

Authenticity: n/a

HR003 | Kneževi Vinogradi | Zmajevac | Gradac (Várhegy)

Ad Novas | Pannonia | 18,806646 / 45,80181

Hill Fort? | Date: 200 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: Finds on the locality which is situated on the top of the loess hill in Zmajevac indicates that it was a part of late Roman fortification zone. Stratigraphy of the site is apparent in the western slope of the local hill.

Authenticity: Whereas the locality in question had never been overbuilt, it is presumably well preserved beneath the local vineyard.

HR004 | Kneževi Vinogradi | Zmajevac | Mocsolás

Ad Novas (?) | Pannonia | 18,804018 / 45,805094

Cemetery | Date: 200 - 400

Selected: Yes | Criteria: 1, 3

Integrity: Partially excavated large late Roman-barbaric cemetery with rich and deep burials which are slightly endangered by erosion and/or land use.

Authenticity: Even though the late Roman necropolis in Zmajevac is interrupted by a vineyard, local graves are well preserved underground.

HR005 | Kneževi Vinogradi | Kneževi Vinogradi | Crvena čuprija (Oranica Ciglanica)

Pannonia | 18,730835 / 45,737731

Military installation | Date: 0 - 200

Selected: Yes | Criteria: 1, 2, 3

Integrity: Small section of an entrenchment of an unidentified type of Roman military installation is known in Crvena Čuprija. The site has in places been destroyed due to modern-day drainage canal and a contemporary road.

Authenticity: Although the site in question is in a constant agricultural use and partially destroyed, authenticity of rest of the therein Roman remains is not compromised.

HR006 | Kneževi Vinogradi | Kneževi Vinogradi | Dragojlov brijeg

Donatianae? | Pannonia | 18,740271 / 45,722856

Fort, Cemetery | Date: 180 - 260

Selected: Yes | Criteria: 1, 2, 3

Integrity: Sections of ditch(es?), stone rampart foundations and the internal buildings of Roman fort at Dragojlov brijeg are found conserved underground. Minor segment of the locality is endangered by modern day burials and land use.

Authenticity: In spite of aggressive agriculture and modern

incursions, which compromised the authenticity of the Roman fort on Dragojlov brijeg to a certain extent, almost entire layout of the site is attested preserved there.

HR007 | Bilje | Lug | Gradina

Albanum | Pannonia | 18,77332 / 45,66419

Fortification?, Cemetery | Date: 200 - 400

Selected: Undecided | Criteria: 1, 2

Integrity: Late Roman site in Lug has in Middle and Modern Ages here and there been overbuilt. Although small segments of the locality were professionally surveyed, its larger parts were demolished without proper documentation.

Authenticity: Even though overbuilding of the antique structures in Lug has compromised their authenticity to a certain extent, the locality is in places conserved underground.

HR008 | Bilje | Kopačevo | Mali Sakadaš (Báksad)

Ad Labores? | Pannonia | 18,792916 / 45,605453

Quadriburgium? | Date: 200 - 400

Selected: Yes | Criteria: 1, 2

Integrity: Certain parts of late Roman fortification in Kopačevo are today overbuilt and reused. Local contemporary road could have also destroyed one of the ramparts of installation in question.

Authenticity: In Kopačevo, the modern day land use and overbuilding of previous structures did to a certain extent compromise the authenticity of local Roman residues.

HR009 | Bilje | Bilje | Biljska cesta (Kovačke Livade)

Pannonia | 18,7292 / 45,593327

Road | Date: 0 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: Small section of Roman Limes road paved with pebblestones, pottery sherds and tiles is found in the vicinity of Bilje. The road is here and there damaged due to agriculture and river floods.

Authenticity: Although in danger because of flooding and land use, the authenticity of the site in question has been professionally verified. This claim is also strengthened by the discovery of three milestones between Osijek and Bilje.

HR010a | Osijek | Osijek | Donji grad

Mursa | Pannonia | 18,718085 / 45,562155

Bridge | Date: 0 - 500

Selected: No | Criteria: 1, 2, 3

Integrity: Groups of systematically built wooden bridge pylons from Roman period can be seen during low water level (Hadrian's bridge, the Drava) in Podravlje vis-a-vis Osijek. The site had in places been demolished when securing the modern day waterway.

Authenticity: The modern day Drava river maintenance has compromised the authenticity of the bridge which was in Roman period built in between what today are Osijek and Podravlje to a certain extent. However, at least two of 6 bridge pedestals were attested preserved on the river bottom.

HR010b | Osijek | Osijek | Donji grad

Mursa | Pannonia | 18,718085 / 45,562155

civil town, fort?, cemeteries | Date: 0 - 500

Selected: Yes | Criteria: 1, 2, 3

Integrity: Many Roman architecture and cemetery remains at Osijek were largely overbuilt, reused and demolished.

Consequently, only small segments of local in situ residues can today be visited. It is presumed that the core of a later colony in Mursa could have been early Roman fort.

Authenticity: n/a



HR011 | Erdut | Dalj | Dalj, Banjkas  
 Teutoburgium | Pannonia | 19,004041 / 45,500755  
 Fort | Date: 0 - 400

Selected: Undecided | Criteria: 1, 2

Integrity: While some parts of the Roman fort in Dalj are in places collapsed into the Danube river, others were demolished due to local brickyard digs. Early Roman tombstones were also found in the area.

Authenticity: n/a

HR012 | Borovo | Borovo | Gradac  
 Pannonia | 19,011406 / 45,430029  
 Fort? | Date:

Selected: Yes | Criteria: 1, 2, 3

Integrity: Roman military installation of an unidentified type, which is today endangered due to erosion of the Danube, is found in the vicinity of Borovo. Immediately next to the river a section of Roman wall can be seen.

Authenticity: Although threatened by an erosion, a section of eastern wall of an undetermined type of a Roman military installation is still visible near Borovo. The obvious on site entrenchment could have equally been of Roman origin.

HR013 | Vukovar | Sotin | Popino brdo  
 Cornacum | Pannonia | 19,098712 / 45,297072  
 Fort | Date: 0 - 400

Selected: Yes | Criteria: 1, 2, 3

Integrity: The Roman fort in Sotin is at present in places overbuilt with houses and occupied by gardens and fields. A number of small chance finds are known to originate from the locality.

Authenticity: Modern day church installments built over the remains of Roman fort in Sotin – in particular with regard to their construction and layout – have compromised its authenticity to a certain extent.

HR014 | Vukovar | Sotin | Jaroši  
 Pannonia | 19,100911 / 45,289622  
 Temporary camp | Date: 0 - 200

Selected: No | Criteria: 1, 3

Integrity: In Sotin, small section of an entrenchment being a possible remnant of Roman temporary camp has been excavated.

Authenticity: n/a

HR015 | Ilok | Ilok | Gornji grad  
 Pannonia | 19,372699 / 45,223647  
 Fort?, Cemeteries | Date: 0 - 400

Selected: Undecided | Criteria: 1, 2

Integrity: Neither the precise position, neither the dating of a probable Roman fort in Ilok is known. However, several early Roman graves were excavated nearby. Presumably, the site has been largely overbuilt.

Authenticity: n/a



## SERBIA

RS001 {vacat}

RS002 | Beočin | Susek | Nad livadama  
Pannonia inferior | 19,53755 / 45,222158  
Watchtower | Date: 0 - 400

Selected: No | Criteria: 1

Integrity: The Roman remains are hidden in the shrubbery.

Authenticity: Reconnaissance conducted in 1963, uncovered a watchtower.

RS003 | Beočin | Banoštor | Banoštor  
Malata Bononia | Pannonia inferior | 19,635289 / 45,213206  
Auxiliary fort | Date: 0 - 400  
Selected: Yes | Criteria: 1

Integrity: The Roman fort remains completely have been overbuilt by the present day Orthodox church and settlement. Authenticity: Several structures have been investigated in part (the bathhouse, the aqueduct) as well as brick built tombs. Several Roman coins were also found, as well as the bricks with seals of the VI legion Herculia and II cohort Alpinorum.

RS004 | Beočin | Čerević | Gradac  
Pannonia inferior | 19,665783 / 45,207872  
Auxiliary fort | Date: 0 - 400  
Selected: Yes | Criteria: 1

Integrity: Decision on proclamation of cultural property (archaeological site) – 1964. The Roman remains are hidden in the shrubbery.

Authenticity: Reconnaissance conducted in 1963, uncovered a fortification made from crushed stone and bricks bound with hydraulic mortar. The fortification is surrounded by smaller trenches.

RS005 | Novi Sad | Begeč | Kuva  
Castellum Onagrinum | Barbaricum | 19,630744 / 45,231614  
Auxiliary fort | Date: 300 - 400  
Selected: Yes | Criteria: 1, 4  
Integrity: Decision on proclamation of cultural property (archaeological site) – 1970. The remains of Roman architecture are located under the ground. They are on private plots that are used as agricultural land.  
Authenticity: Archaeological excavations conducted from 1967 to 1975: the remains of the tower with the semi-circular foundations have been explored.

RS006 | Beočin | Beočin | Dumbovački potok  
Pannonia inferior | 19,766439 / 45,205289  
Watchtower | Date: 300 - 400  
Selected: Yes | Criteria: 1, 4  
Integrity: The Roman remains are hidden in the shrubbery.  
Authenticity: The speculum of a rectangular shape was built of ashlar and rubble stone. Archaeological excavations were conducted from 1972 to 1974.

RS007 | Petrovaradin | Petrovaradin | Petrovaradinska tvrđava  
Cusum | Pannonia inferior | 19,86085 / 45,255083  
Auxiliary fort | Date: 0 - 400  
Selected: Yes | Criteria: 1, 4  
Integrity: Decision on proclamation of cultural property (medieval fortress) – 1946. The monument has the status of a monument of an outstanding value in the Republic of Serbia. The medieval fortress of Petrovaradin was erected at the place of the Roman military fortress.  
Authenticity: Rescue archaeological excavations of the plateau of the Upper Tower conducted in 2001 and 2002 established

that parts of the walls of the ancient fort. A rampart tower with a gateway stood above the Danube bank.

RS008 {vacat}

RS009 | Indija | Čortanovci | Prosjanice  
Ad Herculae | Pannonia inferior | 20,012336 / 45,168567  
Auxiliary fort | Date: 300 - 400  
Selected: Yes | Criteria: 1, 2, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1962. The monument has the status of a monument of an outstanding value in the Republic of Serbia. The remains of the round tower are located in the wood. There exists a landscaped driveway; regularly clearing is performed; and an information board is set.

Authenticity: Trench excavations conducted in 1956 and in 1961–1962 at the south-eastern part of the fortification, recorded a circular tower 13 m in diameter with walls 1.20 m thick, preserved to the height of about 3 m.

RS010 {vacat}

RS011 | Indija | Slankamen | Stari Slankamen  
Acumincum | Pannonia inferior | 20,254325 / 45,145131  
Auxiliary fort | Date: 0 - 400  
Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (medieval fortress) – 1948. The monument has the status of a monument of an outstanding value in the Republic of Serbia. The medieval fortress of Slankamen was erected at the place of the Roman military fortress.

Authenticity: Systematic excavations from 1955 to 1957 established that medieval walls extended from the Roman walls, following their direction. The position and the finds indicate that the Roman settlement Acumincum stood here and that Cuneus equitum Constantium and Equites sagittarii were posted in it.

RS012 | Stara Pazova | Surduk | Gradina  
Rittium | Pannonia inferior | 20,330375 / 45,071686  
Auxiliary fort | Date: 0 - 400  
Selected: Yes | Criteria: 1

Integrity: The remains of Roman architecture are located under the ground. They are on private plots that are used as agricultural land.

Authenticity: Reconnaissance and minor trenching in 1955 uncovered the remains of an early Roman settlement with imperial coins dated to the 1st century, as well as the remains of a military camp and brick built tombs.

RS013 | Stara Pazova | Novi Banovci | Gradina  
Burgenae | Pannonia inferior | 20,284219 / 44,982389  
Auxiliary fort | Date: 0 - 400  
Selected: No | Criteria: 1, 4

Integrity: The remains of the Roman architecture that were under the ground were destroyed by the construction of private houses and the new local road.

Authenticity: Archaeological excavations were mounted in 1889, while contemporary systematic works began in 1971. The fort is made from stone and brick courses, with hoof shaped towers at the corners.

RS014 | Zemun | Zemun | Gardoš  
Taurunum | Pannonia inferior | 20,409761 / 44,848308  
Auxiliary fort | Date: 0 - 400  
Selected: Yes | Criteria: 1

Integrity: Decision on proclamation of cultural property (medieval fortress) – 1965. The Roman remains have been largely overbuilt.

Authenticity: Smaller units of the VII legion Claudia were posted in the fort; a military port and the home base of the Pannonian fleet Classis Flavia Pannonica were on the river bank.

RS015 | Stari Grad | Belgrade | Beogradska tvrđava  
Singidunum | Moesia superior | 20,453989 / 44,821003

Legionary fort, municipium, colonia | Date: 0 - 600

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (medieval fortress) – 1964. Cultural property has the status of the archaeological site of the outstanding value for the Republic of Serbia. The Roman remains have been largely reused and overbuilt. Parts of the Roman rampart are used for construction of the medieval fortress. One element of the Roman rampart is presented within the contemporary building.

Authenticity: The remains of a Roman military camp of the Legio IV Flavia were discovered and partially investigated during the years of excavation in the Belgrade Fortress area. Its ramparts, the oldest vestige of any fortification on the site were poorly preserved.

RS016 | Palilula | Belgrade | Višnjica  
Ad Octavum | Moesia superior | 20,56755 / 44,842255

Auxiliary fort | Date: 500 - 600

Selected: Yes | Criteria: 1

Integrity: Decision on proclamation of cultural property (archaeological site) – 1965. The Roman remains are hidden in the shrubbery. The archaeological site is threatened by the illegal excavations made for collecting findings.

Authenticity: The fortification is a Byzantine fortress built in the 6th century by Emperor Justinian. It is rectangular, ca 180 x 100 meters, surrounded by massive bulwarks 5 meters thick and built in flagstone from the local quarry. The fortification was located on the eighth mile from Singidunum.

RS017 {vacat}

RS018 {vacat}

RS019 | Grocka | Belgrade | Ritopek  
Tricornium | Moesia superior | 20,651264 / 44,739283

Auxiliary fort | Date: 100 - 400

Selected: Yes | Criteria: 1

Integrity: The Roman remains are destroyed by a cemetery which was formed in recent times.

Authenticity: In the Ritopek area, numerous objects have been found dating from the 1st – 4th centuries period, evidence of a small settlement that was formed along the fortification and the cemetery.

RS020 {vacat}

RS021 | Smederevo | Smederevo | Seone  
Aureus Mons | Moesia superior | 20,824039 / 44,652447

Auxiliary fort | Date: 100 - 200

Selected: Yes | Criteria: 1

Integrity: The remains of Roman architecture are located under the ground on private plots that are now either used as agricultural land, or are overgrown with vegetation.

Authenticity: The archaeological investigations published in 1963 designated the remains of a Roman fortification, dimensions of 150 x 130 paces, on the Seona stream left bank, directly before its Danube confluence.

RS022 {vacat}

RS023 | Smederevo | Dubravica | Orašje  
Margum | Moesia superior | 21,046297 / 44,706292

Municipium | Date: 100 - 600

Selected: Yes | Criteria: 1

Integrity: The Roman remains are underground and hidden in the shrubbery.

Authenticity: Archaeological excavations were conducted between 1947 and 1949 on a limited area. In 2007 the Roman ramparts were documented with the Lidar technology.

RS024 | Kostolac | Požarevac | Stari Kostolac  
Viminacium | Moesia superior | 21,215819 / 44,736531

Legionary fort, municipium, colonia | Date: 100 - 700

Selected: Yes | Criteria: 1, 2, 3, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1949. Cultural property has the status of the archaeological site of the outstanding value for the Republic of Serbia. The area covered by this ancient Roman city and military encampment (over 450 hectares of the wider city region and 220 hectares of the urban area) presently lies under cultivated arable land, with objects and fragments from the Roman era strewn throughout its furrows. Viminacium is an archaeological park with the appropriate infrastructure: it has partly covered remains of Roman buildings, a visitor center with info area and souvenir shop, tourist facilities, professional guides in English, information boards, landscaped area for children.

Authenticity: An important military centre and a Roman provincial capital, Viminacium, was built on a territory belonging to the Celtic tribe Scordisci. It owed its size and significance to the rich hinterland in the Mlava River Valley, as well as to its exceptionally favourable geographical position, both within the defence system of the Empire's northern borders and as a crossroad for road, river and trade networks. In the late 19th and early 20th century, M. Valtrović and M. Vasić conducted excavations on the right banks of the Mlava River, at the Čair site, revealing the encampment's rectangular base, 442 x 385 meters, as well as a large civilian settlement not far from its western rampart.

RS025 | Veliko Gradište | Ram | Ram  
Lederatae | Moesia superior | 21,339681 / 44,816699

Auxiliary fort | Date: 100 - 400

Selected: Yes | Criteria: 1, 2, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1986. Cultural property has the status of the archaeological site of the outstanding value for the Republic of Serbia. Roman remains are mostly underground. The site is threatened by illegal excavations conducted to collect archaeological findings.

Authenticity: Today visible stone foundation remains of the up to 3 m thick rampart and a rectangular fort of 140 m x 200 m dimensions, with 11 semi-circular towers and a main entrance on its south side are most commonly identified as Lederatae. As an additional protection an outside rampart was built and a trench dug in the space between.

RS026 | Bela Crkva | Banatska Palanka | Sapaja  
Contra Lederatae | Barbaricum | 21,337597 / 44,825186

Fortification | Date: 200 - 600

Selected: Yes | Criteria: 1, 4

Integrity: In the course of the construction of the Đerdap Hydroelectric Power Plant, the left bank of the Danube changed its configuration and the island with roman remains was submerged.

Authenticity: Systematic excavations conducted from 1967 to 1970, revealed a Roman and a medieval fortification. A rectangular fortification (92.5 x 92 x 93 x 93 m) was found, with four rectangular corner towers and a middle tower on the interior side of the eastern and the western ramparts. On the basis of architectural and movable objects, the following phases were established: the late Imperial period fortification with strong Sarmatian presence (3rd–4th centuries); the Hunnish invasion at the beginning of the 5th century; the renovation and the extension of the fortification in the 4th century and the late medieval layer (14th–16th century).

RS027 | Veliko Gradište

Pincum | Moesia superior | 21,523228 / 44,767463

Fortlet | Date: 100 - 400

Selected: No | Criteria: 1

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The Roman remains have been largely reused and overbuilt. Modern city street is named Pincum.

Authenticity: On the left bank of the mouth of the river Pek into Danube recorded the remains of a rectangular fortress with round towers at the corners.

RS028 | Golubac | Golubac | Kupe

Cuppae | Moesia superior | 21,629417 / 44,651256

Auxiliary fort | Date: 100 - 600

Selected: Yes | Criteria: 1

Integrity: Roman remains are visible in some places, but for the most part are underground on private parcels, which are processed.

Authenticity: On a natural hill, rising over the Danube bank, with the Golubac settlement in between, there are massive remains of the Roman fortification walls. Numerous finds testify to a settlement and a cemetery.

RS029 | Golubac | Golubac | Tvrdava

Moesia superior | 21,678142 / 44,661409

Part of Roman road (settlement) | Date: 100 - 200

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (mediaeval fortress) – 1948. Cultural property has the status of the outstanding value for the Republic of Serbia. The mediaeval fortress of Golubac rises over a part of a Roman road which is in this section cut into a rock. The remains of the road could also be seen at the foot of the fortress. Some 200 m to the southeast from the fortress there are remains of a building with massive walls.

Authenticity: The remains of Roman buildings have been explored archaeologically 2014.

RS030 {vacat}

RS031 | Golubac | Livadica

Moesia superior | 21,688108 / 44,659361

Fortlet | Date: 100 - 300

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: In the time of the Đerdap PP construction the site was partially explored. On that occasion the foundation remains were discovered. They were of irregular square ground plan. Its north rampart was completely destroyed by the Danube river flow, while the south rampart was 29 m long, the east one was 17 m long, and the west one was 25 m long.

RS032 | Golubac | Brnjica

Moesia superior | 21,764883 / 44,655881

Auxiliary fort | Date: 100 - 200

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: The site was partially explored in 1970 at the time of the Đerdap PP construction. A wall 1.2 m thick and 6.5 m long was discovered along with another one 31 m long and 1.5 m thick. They were built from crushed stone and mud mortar.

RS033 {vacat}

RS034 {vacat}

RS035 | Golubac | Čezava

Novae | Moesia superior | 21,840338 / 44,649923

Auxiliary fort | Date: 0 - 300

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. Due to the Đerdap PP construction the level of the Danube increased, so that the fort was mostly submerged.

Authenticity: Archaeological research was made in the period between 1965 and 1970, but the entire site hasn't been explored. The fort suffered numerous modifications during the cited period, but its base kept its square form of 140 x 120 m dimensions, with rounded corners and 14 towers which were altering their appearance and only to some extent changed their position.

RS036 | Golubac | Turski potok

Moesia superior | 21,941061 / 44,634828

Fortlet | Date: 100 - 200

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: On a gentle slope by the right river bank of the Turkish stream, at its confluence into the Danube, there are the remains of a smaller Roman fort almost of a square plan. The fort dimensions are 16 x 23 m, and ramparts are up to 2 m thick.

RS037 | Golubac | Dobra | Zidinac

Moesia superior | 21,960442 / 44,630086

Watchtower | Date: 200 - 300

Selected: Yes | Criteria: 1, 4

Integrity: The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: On the Zidinac stream west bank, near its Danube confluence, a watchtower has been investigated of a square ground plan, dimensions 17.5 x 17.5 m.

RS038 | Golubac | Saldum

Cantabaza | Moesia superior | 21,908503 / 44,641436

Auxiliary fort | Date: 0 - 600

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: The site was systematically investigated for four years in 1969–1970. It was possible to distinguish five horizons of life.

RS039 {vacat}

RS040 {vacat}

RS041 | Golubac | Bosman

Ad Scorfulas | Moesia superior | 21,979603 / 44,632178

Auxiliary fort | Date: 100 - 600

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: The fort remains are located at the beginning of the Upper Gorge about 1.5 km away from Gospođin Vir rock where plaques of kings Tiberius, Claudius and Domitian carved in rocks testify to the road cut through the gorge. It had a peculiar triangular ground plan with circular towers on the corners and a gate in the east rampart.

RS042 | Golubac | Gospođin Vir

Moesia superior | 22,020364 / 44,582164

Watchtower | Date: 100 - 200

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: The evidence of the Roman road construction through the gorge are the plaques of kings Tiberius, Claudius and Domitian carved in the rocks. By the road there used to be a sentry box attached to the rock, so that it had only three stone walls and two small rooms inside. Base dimensions were 10.9 x 4.5 x 4.95m.

RS043 {vacat}

RS044 | Golubac | Pesača

Moesia superior | 22,019103 / 44,573908

Watchtower | Date: 100 - 200

Selected: Yes | Criteria: 1, 4

Integrity: The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: The Roman tower attached to the defensive wall enclosing a larger area around it.

RS045 | Majdanpek | Boljetin | Velike livadice

Moesia superior | 22,024692 / 44,560172

Fortlet | Date: 100 - 200

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: The remains of a fortification of dimensions 40 m x 40 m have been archaeologically investigated.

RS046 | Majdanpek | Boljetin | Male livadice

Moesia superior | 22,025861 / 44,558386

Watchtower | Date: 0 - 100

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: The remains of a watchtower, dimensions 20 m x 17.5 m.

RS047 | Majdanpek | Boljetin | Gradac na Lepeni

Smorna | Moesia superior | 22,036594 / 44,542706

Auxiliary fort | Date: 100 - 600

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to

the Đerdap PP construction and a heightened water level.

Authenticity: The investigations of the site established all the construction stages, from an earthen fort dating from the period when the road was built, period of Emperor Tiberius, to its restoration in the period of Emperor Justinian.

RS048 {vacat}

RS049 | Majdanpek | Ravna

Compsa | Moesia superior | 22,052147 / 44,506556

Auxiliary fort | Date: 200 - 600

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: The fortification was investigated in the 1967–1970 period. All the fortification elements were found (the ramparts, the tower, the gates) and a great part of its interior. The fortress dimensions are 40 m x 40 m. In the 4th century, at their corners, the ramparts were reinforced with strong towers of various shapes and orientations.

RS050 {vacat}

RS051 | Majdanpek | Donji Milanovac | Ribnica

Moesia superior | 22,125689 / 44,467058

Fortification | Date: 100 - 200

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: A lot of Roman material was found on the site, but fortification has not been defined so far. A mediaeval cemetery destroyed most of the ancient layers.

RS052 | Majdanpek | Donji Milanovac | Veliki Gradac

Taliata | Moesia superior | 22,170231 / 44,4683

Auxiliary fort | Date: 200 - 600

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: There is a large rectangular fortification, 134 m x 126 m dimensions. Excavations in 1958–1966 revealed defensive walls, several building phases including both inner and outer towers. A civilian settlement was confirmed in the vicinity of the fortification.

RS053 | Majdanpek | Porečka reka

Moesia superior | 22,173494 / 44,445275

Fortlet | Date: 200 - 300

Selected: Yes | Criteria: 1, 4

Integrity: Today the complex is submerged, but during periods of drought, parts of the fort and the tower become visible.

Authenticity: It was a supply and distribution centre for the Roman army in the Iron Gate. The Porečka river confluence was closed by a strong defensive wall blocking the way inland along the river. Behind the wall on the right bank, attached to it, was a small fortification (60 m x 60 m). Two granaries held enough provision to supply small outposts along the river. These were positioned outside the fortification but behind the defensive wall. A Roman bath was also excavated in this complex.

RS054 | Kladovo | Veliko Golubnje

Moesia superior | 22,203422 / 44,504506

Watchtower | Date: 200 - 300

Selected: Yes | Criteria: 1, 4



Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.  
Authenticity: Archaeological investigations revealed a small watch tower of a square ground plan.

RS055 | Kladovo | Malo Golubinja  
Moesia superior | 22,220514 / 44,530447  
Fortlet | Date: 200 - 600

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.  
Authenticity: It is a small rectangular fortification with outer round towers. The defensive towers, walls and access stairs are very well preserved. The site was partially excavated in 1968–1969.

RS056 {vacat}

RS057 | Kladovo | Hajdučka vodenica  
Moesia superior | 22,303544 / 44,638436  
Fortlet | Date: 500 - 600

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. Part of the fort was submerged after the Đerdap I PP construction. A large portion of the site is still visible on the shore of the accumulation lake.  
Authenticity: A Roman military dimensions are 70 x 50 m, with solid, strong ramparts, about 3.2 m thick, extremely well preserved from 4 to 7 metres in height, with round towers on corners and one polygonal tower. The remains of a late Antiquity square tower (burgus) were found in the centre of the fortress. The size of the early Byzantine fortress was doubled by adding a fortified annex towards the edge of the plateau.

RS058 | Kladovo | Trajanova tabla  
Tabula Traiana | Moesia superior | 22,308056 / 44,654722  
Road, building inscription | Date: 0 - 100

Selected: Yes | Criteria: 1, 2, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1949. Cultural property has the status of the archaeological site of the outstanding value for the Republic of Serbia. Tabula Traiana has been elevated from its original position to the upper level that is higher for 21.5 m.  
Authenticity: Because of the narrow gorge and steep cliffs in the Iron Gate Gorge was no space to build a regular road. So the legionnaires had to cut the road into the rock itself and to widen it by constructing a walking path supported by wooden consoles hanging above the river. This undertaking lasted for several decades, starting from 32–33 AD under Emperor Tiberius, with massive works and reconstruction under Domitian and finally completed under Emperor Trajan in preparations for the Dacian Wars.

RS059 | Kladovo | Tekija  
Transdierna | Moesia superior | 22,407725 / 44,686219  
Auxiliary fort | Date: 100 - 200

Selected: Yes | Criteria: 1, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.  
Authenticity: This was twin military complex with a mirror situation on the left bank of Danube in Romania (Roman Dierna). Archaeological remains exist on both sides of Tekija stream. Fort on the right bank had rhomboid plan 32 x 25 m. Special situation on this fort was existence of double defensive

wall.

RS060 | Kladovo | Karataš  
Diana Zanes | Moesia superior | 22,544336 / 44,653675  
Auxiliary fort | Date: 100 - 600

Selected: Yes | Criteria: 1, 2, 3, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1965. Cultural property has the status of the archaeological site of the outstanding value for the Republic of Serbia because of its historical importance and preservation. Archaeological park: the wider area of the fortress has been included in the preservation and conservation process.  
Authenticity: The fort protected the entrance to the canal that was dug in order to avoid cataracts in the main river course. With an area of over 3 hectare, it was certainly one of the largest auxiliary fortresses/camps on the Roman borders. The fortress is one of the best explored fortresses on the Roman frontier in the Upper Moesia.

RS061 | Kladovo | Sip  
Moesia superior | 22,491583 / 44,688911  
Fortlet, canal | Date: 0 - 100

Selected: Yes | Criteria: 1

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.  
Authenticity: There is a small auxiliary fort, rectangular in shape 29 x 31 m with rectangular corner towers. It protected the entrance zone to the Trajan's canal.

RS062 {vacat}

RS063 | Kladovo | Kladovo | Fetislam  
Moesia superior | 22,602322 / 44,616683  
Fortlet | Date: 100 - 200

Selected: Yes | Criteria: 1, 2, 3, 4

Integrity: Decision on proclamation of cultural property (Turkish fortress) – 1964. Cultural property has the status of the archaeological site of the outstanding value for the Republic of Serbia. The northern half of the fort was presented within the Turkish fortress. The archaeological park with the appropriate infrastructure.  
Authenticity: There is a small auxiliary fort of a rectangular in shape, 57 m x 58 m dimensions, with round corner towers. It was located 500 m to the west from the Turkish fort of Fetislam. Originally, it was a watchtower (18 m x 19 m) with a defensive wall built later on to reinforce its defensive potential.

RS064 | Kladovo | Kostol  
Pontes | Moesia superior | 22,669269 / 44,614058  
Auxiliary fort, bridge | Date: 100 - 600

Selected: Yes | Criteria: 1, 2, 3, 4

Integrity: Decision on proclamation of cultural property (archaeological site) – 1981. Cultural property has the status of the archaeological site of the outstanding value for the Republic of Serbia because of its historical importance and preservation. Archaeological park: the wider area of the fortress has been included in the preservation and conservation process.  
Authenticity: The complex at Pontes consists of the remains of Trajan's Bridge and a small auxiliary fort that protected access to it on the right river bank. The Roman fort retained its original shape, characteristic of the auxiliary Roman fortifications of the Trajan's period. They were square fortresses with rounded corners and square towers on the inside of the stone walls, on corners and at the gates. The North Gate – porta praetoria and the South Gate – porta decumana, were placed in a central position of the rampart. The interior was also divided by an

axis, according to the rules of the time, with the headquarters building – principium, in the centre of the intersection of the two main streets.

RS065 {vacat}

RS066 | Kladovo | Rtkovo | Glamija  
Moesia superior | 22,757625 / 44,541456  
Fortlet | Date: 200 - 300

Selected: Yes | Criteria: 1

Integrity: The Roman remains are underground and hidden in the shrubbery.

Authenticity: This auxiliary fort consists of an earlier small fortification – tower based on the tetra pylon within a small defensive wall, and later larger rectangular fortification with round corner towers.

RS067 | Kladovo | Vajuga  
Moesia superior | 22,647445 / 44,548896  
Auxiliary fort | Date: 200 - 600

Selected: Yes | Criteria: 1

Integrity: Decision on proclamation of cultural property (archaeological site) – 2012. The Roman remains are partly visible, mostly are underground and hidden in the shrubbery. Authenticity: There is an auxiliary rectangular fort with round corner towers. Drawings are known from the 19th century.

RS068 | Kladovo | Milutinovac  
Moesia superior | 22,574122 / 44,550456  
Auxiliary fort | Date: 200 - 600  
Selected: Yes | Criteria: 1  
Integrity: Decision on proclamation of cultural property (archaeological site) – 2012. The entire site is submerged due to the Đerdap PP construction and a heightened water level. Authenticity: This is an auxiliary rectangular fortification with round corner towers.

RS069 {vacat}

RS070 | Kladovo | Ljubičevac  
Moesia superior | 22,532653 / 44,481964  
Auxiliary fort | Date: 200 - 600  
Selected: Yes | Criteria: 1  
Integrity: The entire site is submerged due to the Đerdap PP construction and a heightened water level. Authenticity: This auxiliary fort consists of earlier small fortification – tower is based on the tetra pylon within a small defensive wall, and later larger rectangular fortification with round corner towers.

RS071 {vacat}

RS072 | Kladovo | Brza Palanka | Brza Palanka  
Egeta | Moesia superior | 22,447292 / 44,463414  
Auxiliary fort | Date: 100 - 600  
Selected: Yes | Criteria: 1  
Integrity: The Roman remains are underground and hidden in the shrubbery. Authenticity: There were three fortifications of different shapes and from different periods of the empire. This was one of the few naval bases that have been confirmed along our section of the frontier. It had its own defensive system connected to one of the forts.

RS073 | Kladovo | Ušće slatinske reke  
Moesia superior | 22,469861 / 44,429992  
Auxiliary fort | Date: 200 - 600

Selected: Yes | Criteria: 1

Integrity: The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: It is a large rectangular fortification with round corner towers.

RS074 | Negotin | Mihajlovac  
Clevora | Moesia superior | 22,490517 / 44,412094  
Auxiliary fort | Date: 300 - 400

Selected: Yes | Criteria: 1

Integrity: A large part of the fort was destroyed when the local road was built.

Authenticity: It consists of a watchtower and a defensive wall surrounding it (burgus type).

RS075 | Negotin | Mora Vagei  
Moesia superior | 22,508022 / 44,364231  
Fortlet | Date: 0 - 600

Selected: Yes | Criteria: 1

Integrity: The Roman remains are visible and preserved.

Authenticity: It consists of a watchtower and a defensive wall surrounding it (burgus type). Excavations collected a lot of data on the organization and architecture of this small frontier post.

RS076 | Negotin | Borđej  
Moesia superior | 22,54515 / 44,317731  
Fortlet | Date: 200 - 300

Selected: Yes | Criteria: 1

Integrity: The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: This is a small auxiliary fortification that consists of a large watchtower – tetra pylon, protected by two defensive walls. The tower was 19.6 m x 19.6 m in size and an outer wall was 36 m x 36 m.

RS077 | Negotin | Kusjak  
Moesia superior | 22,557356 / 44,301833  
Harbour | Date: 200 - 300

Selected: Yes | Criteria: 1

Integrity: The ancient remains were entirely destroyed when the Đerdap II PP was built.

Authenticity: Remains of a Roman port.

RS078 {vacat}

RS079 | Negotin | Prahovo  
Aquae | Moesia superior | 22,590703 / 44,29535  
Auxiliary fort, harbour | Date: 100 - 600

Selected: Yes | Criteria: 1

Integrity: The entire site is submerged due to the Đerdap PP II construction and a heightened water level.

Authenticity: The site was confirmed as a river port.

RS080 | Negotin | Radujevac  
Moesia superior | 22,656306 / 44,228830  
Small fortification | Date: 200 - 300

Selected: Yes | Criteria: 1

Integrity: The Roman remains are underground and hidden in the shrubbery.

Authenticity: A small fortification that protected the road and access to a bridge over the Timok river. F. Kanitz left a drawing of the fortification in the late 19th century.

RS081 | Negotin | Rakovica  
Dorticum | Moesia superior | 22,66475 / 44,216114  
Small fortification | Date: 200 - 300  
Selected: Yes | Criteria: 1



Integrity: The Roman remains are underground and hidden in the shrubbery.

Authenticity: Located on both banks of the Timok river, near the confluence with the Danube. Marked on the map of Ptolemy, and confirmed as a fort of a cavalry detachment.

RS082 | Stara Pazova | Belegiš | Duvarine  
Pannonia inferior | 20,342122 / 45,018075  
Watchtower | Date: 100 - 200

Selected: No | Criteria: 1

Integrity: The Roman remains are underground and hidden in the shrubbery.

Authenticity: In the profile of the Danube bank wall footings done in lime mortar had been encountered previously.

RS083 | Majdanpek | Miroč  
Gerulata | Moesia superior | 22,246939 / 44,481836  
Fort | Date: 300 - 600

Selected: Yes | Criteria: 1

Integrity: Decision on proclamation of cultural property

(archaeological site) – 1986. The Roman remains are underground and hidden in the shrubbery.

Authenticity: The fortress is located high above the Danube, on a vantage spot from which it was possible to control all the movements along the Roman road on the right bank and the conditions on the left bank. The terrain configuration indicates that it may have been a structure of about 100 m x 100 m dimensions. No archaeological investigations have been conducted.

RS084 | Kladovo | Pecka bara  
Moesia superior | 22,290219 / 44,630578  
Fortification | Date: 200 - 600

Selected: Yes | Criteria: 1

Integrity: Decision on proclamation of cultural property (archaeological site) – 1966. The entire site is submerged due to the Đerdap PP construction and a heightened water level.

Authenticity: The investigations established the remains of a small Roman fortress.

## ROMANIA

RO001 | Vărădia | Vărădia | Pustă  
Arcidava (?) | Dacia Superior | 21,551817 / 45,0796  
Fort | Date: 106 - 118  
Selected: Yes | Criteria:1, 2, 3  
Integrity: The Roman remains are located outside the modern village. Although the fort was not overbuilt in later times, the inhabitants reused parts of the Roman construction material. The fort was affected, from time to time, by natural phenomena: floods caused by the increasing of the groundwater.  
Authenticity: The natural and human destructions of the Roman structures have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

RO002 | Vărădia | Vărădia | Chilii  
Dacia Superior | 21,546953 / 45,086492  
Fort | Date: 101 - 106  
Selected: Yes | Criteria:1, 2, 3  
Integrity: The Roman remains are located outside the modern village. During the time of the Austro-Hungarian Empire a natural park was organized (the fort was also included in the park) and trees were planted.  
Authenticity: The reuse of the antique structures have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

RO003 | Forotic | Surducu Mare | Rovină  
Centum Putea (?) | Dacia Superior | 21,599819 / 45,273453  
Fort | Date: 106 - 118  
Selected: No | Criteria:1  
Integrity: Although the Roman remains are located outside the modern village, a part of the fort was overbuilt by a road (direction: NE-SW). Plus, a rainwater channel is crossing the centre of the fort. The authenticity of the Roman fort is compromised by the lack of documentation and by the human interventions.  
Authenticity: n/a

RO004 | Berzovia | Berzovia  
Berzobis | Dacia Superior | 21,629522 / 45,427136  
Fortress | Date: 106 - 118  
Selected: Yes | Criteria:1, 3  
Integrity: Almost the entire Roman fortress (90%) has been overbuilt by the modern city. Some parts of the the outer wall system is still visible in the northern side of the fortress.  
Authenticity: The human destruction and overbuilding of the Roman structures have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

RO005 | Fârliug | Fârliug  
Aizis (?) | Dacia Superior | 0 / 0  
Fort | Date: 106 - 118  
Selected: No | Criteria:1  
Integrity: The Roman remains are located outside the modern village. Therefore the fort was not overbuilt in later times. No systematic excavations have been conducted. The authenticity of the Roman fort is compromised by the lack of documentation.  
Authenticity: n/a

RO006 | Păltiniș | Cornuțel | Cetățuie  
Caput Bubali (?) | Dacia Superior | 22,086769 / 45,421867  
Fort | Date: 101 - 117

Selected: No | Criteria:1, 2  
Integrity: The Roman remains are located outside the modern village. Therefore the fort was not overbuilt in later times. The authenticity of the Roman fort is compromised by the lack of documentation.  
Authenticity: n/a

RO007 | Caransebeș | Jupa | Cetate  
Tibiscum | Dacia Superior | 22,189789 / 45,465808  
Fort | Date: c. 101 - 270  
Selected: Yes | Criteria:1, 2, 3  
Integrity: The Roman remains are located outside the modern village and are part of the Archaeological Reservation Tibiscum. Just a small part (north-east side) of the military vicus was overbuilt by a modern mill. The north and east gates, the external walls, part of the principia and other buildings from the eastern part of the fort are preserved and partially restored. The southern sector of the external walls (of the fort) were destroyed by the fluctuating course of Timiș river.  
Authenticity: The natural destructions and old excavations (without documentation) have compromised the authenticity of the Roman structures to a certain extent, in particular with regard to their construction and layout.

RO008 | Obreja | Iaz | Traianu  
Tibiscum | Dacia Superior | 0 / 0  
Fort | Date: 106 - 150  
Selected: Yes | Criteria:1, 2  
Integrity: Although the antique remains are located outside the modern village, the inhabitants reused parts of the Roman construction material. Plus, a large part of the Roman fort has been overbuilt in the 2nd/3rd century AD with new buildings – parts of the Roman municipium.  
Authenticity: The human destruction of the Roman structures (both modern and antique) have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

RO009 | Zăvoi | Zăvoi  
Agnaviae (?) | Dacia Superior | 22,410844 / 45,525283  
Fort | Date: 101 - 106  
Selected: Yes | Criteria:1, 3  
Integrity: Approx. 40% of the Roman fort has been overbuilt by private houses, households, modern roads, and the railway infrastructure. A large part of the northern wall was destroyed by the fluctuating course of Bistra river. No systematic excavations have been conducted, but the outer wall system is still visible in some parts.  
Authenticity: The natural destructions and the overbuilding of the Roman structures have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

RO010 | Zăvoi | Voislova  
Pons Augusti (?) | Dacia Superior | 22,470358 / 45,525269  
Fort | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2  
Integrity: Large parts of the Roman fort have been overbuilt by private households in later times; no systematic excavations have been conducted, but the wall system is still visible in some parts.  
Authenticity: The lack of documentation and the overbuilding of the Roman structures have compromised their authenticity to a certain extent, in particular with regard to internal structure of the fort.

RO011 | Teregova | Teregova | La Hideg  
Ad Pannonios (?) | Dacia Superior | 22,307092 / 45,168464  
Fort | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2  
Integrity: Parts of the fort and vicus have been overbuilt by regional, and European roads (E70). A household was overbuilt on the north side of the fort. The local river and the constant floods destroyed a large part of the Roman structures, but the north-west part of the fort (the intervallum area) is still preserved.  
Authenticity: The natural process and human destruction of the Roman structures have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

RO012 | Mehadia | Mehadia | Zidină  
Ad Mediameter (?) | Dacia Superior | 22,35075 / 44,935817  
Fort | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2  
Integrity: The Roman fort is located in the proximity (the north side) of Bela Reka river. The frequent floods have brought in the fort a thick layer of ballast and river stones, some of considerable size. These floods have affected especially the north and east sides of the fort. These segments were also affected by anthropogenic destruction (a house and household annexes were constructed using Roman material). The southern and western sides of the fort are best preserved. The vicus (located on the west side of the fort) was also affected by Bela Reka river.  
Authenticity: The natural processes and human destruction of the Roman structures have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

RO013 | Pojejena | Pojejena | Șitarnița  
Dacia Superior | 21,569808 / 44,77385  
Fort | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2  
Integrity: The Roman fort and vicus are mainly affected by the intensive agriculture. The inhabitants also reused parts of the antique material. Particularly the south-west side of the fort was affected by public utility works. In case of the south-west side – the modern interventions have affected the structure of the wall.  
Authenticity: The reuse and overbuilding of the antique structures have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

RO014 | Hunedoara | Brad | Petrinești  
Dacia Superior | 22,787969 / 46,13006  
Settlement | Date: c. 106 - 270  
Selected: No | Criteria:1  
Integrity: In the town boundaries it is presumed a Roman settlement, which could be a fortification.  
Authenticity: n/a

RO015 | Hunedoara | Bozeș  
Dacia Superior | 23,170936 / 45,97375  
Fortification (?) | Date: c. 106 - 270  
Selected: No | Criteria:1  
Integrity: Is assumed that in the village boundary it would be a Roman fortress.  
Authenticity: n/a

RO016 | Hunedoara | Cigmău | Progadie, Cetatea (Dealul) Urieșilor, Magazia Urieșilor, Calea cu Dâmb pe Platoul Turiac

Germisara | Dacia Superior | 23,190375 / 45,893664  
Fort | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2, 3  
Integrity: Situated on the second, high terrace of the river Mures, on its northern bank, it has a peculiar internal layout. Its position and some fortification elements are visible on the ground as they follow the natural landscape.  
Authenticity: Excavations in the years 2000, in principia and other official buildings, restorations of those walls still visible on the ground.

RO017 | Hunedoara | Vețel | Grădiște Micia, pagus Miciensis | Dacia Superior | 22,814967 / 45,913106  
Fort and vicus | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2, 3  
Integrity: Situated on the first terrace of the Mures river, basically on its southern bank, its structures are not clearly visible on the ground, only some of the structures of the civil settlement.  
Authenticity: Excavations all throughout the 20th century, without any restorations. In the vicinity, the civil settlements present some building restorations (amphitheatre, bathhouse).

RO018 | Hunedoara | Hunedoara | Dealul Sânpetru  
Dacia Superior | 22,885889 / 45,746222  
Tower (?) | Date: c. 106 - 270  
Selected: No | Criteria:1  
Integrity: Close to the Corvin castle, it is overlapped by a medieval fortress and was discovered by excavations in 2016.  
Authenticity: Completely overlapped by the medieval fortress.

RO019 | Alba | Abrud | Cetățuia (Cetățeaua) burgus | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2  
Integrity: Situated SW of the city, on a plateau, it has a 300 m perim and the ditch is visible on the ground.  
Authenticity: No excavations or further alterations of the monument.

RO020 | Alba | Zlatna  
Dacia Superior | 23,169331 / 46,143064  
Tower (?) | Date: c. 106 - 270  
Selected: No | Criteria:1  
Integrity: In the town boundaries it is presumed a Roman settlement, which could be a fortification.  
Authenticity: n/a

RO021 | Alba | Ighiu | Măguliți  
Dacia Superior | 23,507707 / 46,129338  
Fort | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2  
Integrity: Situated on the Magulici hilltop, the enclosure is visible, with the dimensions 40x50 m. Currently the terrain is used as pasture.  
Authenticity: Very few excavations and no other interventions on site.

RO022 | Alba | Războieni | Grajduri CAP  
Dacia Superior | 23,864029 / 46,412299  
Fort | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2  
Integrity: The fort is situated on the second terrace of the river Mures, on the northern edge of the village, in the backyard of the former communist farming enterprise. Very few fortification elements visible on the ground, which is heavily ploughed since

the mid 20th century.

Authenticity: The southern enclosure is overlapped by the backyards of the houses in the village, otherwise no other later alteration or structure in present on the site.

RO023 | Alba | Alba-Iulia

Dacia Superior | 23,572583 / 46,068278

Fortress | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The fortress is situated on the plateau Cetate, inside the city. It has become the medieval, later modern fortress and was always under stress regarding the habitat. Part of the northern enclosure is visible as it was reused to erect the Transylvania Principality Residence.

Authenticity: The fortress wall became the medieval fortress wall and was subsequently replaced by a modern Vauban fortress. Excavations all throughout the 20th century, significant restorations of the porta principalis dextra, part of the principia and of the barracks in praetentura. The surface of the fortress was for centuries the civic centre of the city and is overlapped by monumental buildings: two cathedrals (catholic and orthodox), Principality Palace, the university, the museum, military barracks and arsenals etc.

RO024 | Bistrița-Năsăud | Ciceu-Corabia | Ponița

Dacia Porolissensis | 23,933708 / 47,289633

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The tower was fully excavated, the walls and the ditch being primary conserved.

Authenticity: There is no post roman stratum over the roman ruins. Also, there are documented several phases and an annex. The chronological spectrum falls between early 2nd century to the late 3rd century.

RO025 | Bistrița-Năsăud | Ilișua | Vicinal

Arcoba(da)ra | Dacia Porolissensis | 24,095846 / 47,21043

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Archaeological remains well preserved, a quarter of its surface is currently build on. The rest is agricultural field, worked on yearly bases. Excavations since the 19th century until recently.

Authenticity: Except for archaeological excavations, no later interventions or alterations were executed on the fort.

RO026 | Bistrița-Năsăud | Chiuești | Muncelul Chiueștiului

Dacia Porolissensis | 23,92365 / 47,297667

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The tower's foundation is well preserved and it can be observed above ground. There are no archaeological research carried on this structure.

Authenticity: There are no signs of later intervention. On the surface of the ruins one can observe a rich archaeological material as potsherds and adobe fragments.

RO027 | Bistrița-Năsăud | Dumbrăveni | Vârful Runcului

Dacia Porolissensis | 23,998633 / 47,277417

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The ruins are very bad preserved. On the surface one can observe some circular ruins with strong traces of burning and few potsherd. There are also visible the trace of the excavations carried out in early 1970s. Its structure was affected by an intensive agricultural work.

Authenticity: The surface of the tower is nor affected by later

intervention.

RO028 | Bistrița-Năsăud | Negrilești | Dealul Sflederului

Dacia Porolissensis | 24,016683 / 47,284983

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Its ruins are preserved very well, the dimensions being impressive. There are no traces of plaster or stone, just some burning traces.

Authenticity: There are no archaeological research to clarify the situation of this object. Anyway, its ruins and ditch that is encircling the objective and also its role in the intervisibility network clarify its authenticity.

RO029 | Bistrița-Năsăud | Negrilești | Cetatea lui Negru-Vodă

Dacia Porolissensis | 24,050095 / 47,287193

Fortlet | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: Beginning with the 19th century of maybe earlier on the surface of this fortlet were built several houses. At this moment it is barely visible on corner of the structure. Near this fortlet there is a settlement affected by repeated agricultural work.

Authenticity: It is almost impossible to establish the layout or the internal planning of this fortlet. What draws attention anyway is the large quantity of potsherd, the remains of a corner of the building and two inscriptions, one raised by a decurion from Arcoba(da)ra and one probably by a miles.

RO030 | Bistrița-Năsăud | Negrilești | Cornul Malului

Dacia Porolissensis | 24,055187 / 47,2967

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: Visible ruins and a ditch that encircles them. No traces of archaeological material (even the field researches from early 70' mentions some roman potsherds). The structure is 80% destroyed by heavy deforestation.

Authenticity: n/a.

RO031 | Bistrița-Năsăud | Ciceu-Poieni | Dealul Podului

Dacia Porolissensis | 23,965309 / 47,280414

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: Ruins of conical form destroyed 20% by deforestation. Authenticity: Even there is an intense deforestation in the area, the surface is not affected by modern structures or any later intervention.

RO032 | Bistrița-Năsăud | Ciceu-Poieni | Vârful Osoiului

Dacia Porolissensis | 24,095469 / 47,310417

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: On the surface it can be seen a square structure. The tower was excavated. It was established that was of square shape with a single phase of construction and earthen rampart. Authenticity: The tower is not affected by later buildings.

RO033 | Bistrița-Năsăud | Purcărete | Fața Carpenului

Dacia Porolissensis | 24,066892 / 47,300139

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The tower has a round form, the stone masonry being visible on the surface. Also, the ditch is still visible. The structure is 10% affected by the deforestation.

Authenticity: There are some modern houses in the area but the structure is not overbuilt by any of it.

RO034 | Bistrița-Năsăud | Ciceu-Poieni | Strunga Găvojenilor  
Dacia Porolissensis | 24,07445 / 47,30355  
Tower | Date: c. 106 - 270  
Selected: Yes | Criteria:1

Integrity: The excavations from 1973 states that the tower had a rectangular form with only a timber phase. Now the structure is completely destroyed.  
Authenticity: n/a

RO035 | Bistrița-Năsăud | Ciceu-Poieni | Podul Milcoiei  
Dacia Porolissensis | 24,084267 / 47,303583  
Tower | Date: c. 106 - 270  
Selected: No | Criteria:1

Integrity: In the 1970s the rectangular wall of the tower was archaeological investigated. At the moment the tower is completely destroyed.  
Authenticity: n/a

RO036 | Bistrița-Năsăud | Dobricel | Rângoia  
Dacia Porolissensis | 24,108012 / 47,305305  
Tower | Date: c. 106 - 270  
Selected: No | Criteria:1

Integrity: The ruins was destroyed by the local people who extracted worked stones. Furthermore, the structure was affected by agricultural works.  
Authenticity: Even the structure was affected, there are no traces of later intervention.

RO037 | Bistrița-Năsăud | Dobricel | Vârful Lazului  
Dacia Porolissensis | 24,116719 / 47,304479  
Tower | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 3

Integrity: Ruins of conical form preserved in a quite good condition. One can see the ditch and the earthen rampart.  
Authenticity: Ruins in good conditions with no modern intervention.

RO038 | Bistrița-Năsăud | Dobricel | Locul Fătului  
Dacia Porolissensis | 24,124119 / 47,312097  
Tower | Date: c. 106 - 270  
Selected: No | Criteria:1

Integrity: Completely destroyed by agricultural works.  
Authenticity: n/a

RO039 | Bistrița-Năsăud | Sita | Casa Urișilor  
Dacia Porolissensis | 24,202033 / 47,32395  
Tower | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2, 3

Integrity: Extremely well preserved. On the surface it can be observed its circular stone structure.  
Authenticity: Ruins in a good state of preservation with no later intervention.

RO040 | Bistrița-Năsăud | Perișor | Turnu' Popii  
Dacia Porolissensis | 24,227183 / 47,321817  
Tower | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2

Integrity: The tower is 10% destroyed by agricultural works. The ruins are relatively well preserved, on the surface being visible its round structure made of stones and bricks.  
Authenticity: A newly discovered site with no traces of later intervention.

RO041 | Bistrița-Năsăud | Perișor | Corobană  
Dacia Porolissensis | 24,233 / 47,322333  
Tower | Date: c. 106 - 270  
Selected: Yes | Criteria:1

Integrity: The structure of the tower is fully covered with vegetation.  
Authenticity: n/a

RO042 | Bistrița-Năsăud | Perișor | Comoară  
Dacia Porolissensis | 24,235533 / 47,323383  
Fortlet | Date: c. 106 - 270  
Selected: Yes | Criteria:1

Integrity: The ruins are totally destroyed.  
Authenticity: n/a

RO043 | Bistrița-Năsăud | Perișor | Vârful Zgăului  
Dacia Porolissensis | 24,246233 / 47,321583  
Tower | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins of the foundation are still visible. It was excavated in the late 1960s. Some parts of the wall are still visible and also the ditch.

Authenticity: Heavy traces of later intervention. Archaeological diggings and most probably stone extraction.

RO044 | Bistrița-Năsăud | Perișor | Vârful Colnicului  
Dacia Porolissensis | 24,252083 / 47,322517  
Tower | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2

Integrity: The ruins are completely preserved but are covered with vegetation.  
Authenticity: No signs of late intervention.

RO045 | Bistrița-Năsăud | Zagra | Dealul Ciorilor  
Dacia Porolissensis | 24,297217 / 47,32185  
Tower | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins are well preserved with a little vegetation on them  
Authenticity: Even the ruins are near a village there are no traces of later intervention on the structure.

RO046 | Bistrița-Năsăud | Salva | Dealul Belei  
Dacia Porolissensis | 24,335705 / 47,312709  
Tower | Date: c. 106 - 270  
Selected: Yes | Criteria:1

Integrity: The ruins are completely destroyed by the local people who extracted stones and bricks from its structure.  
Authenticity: The structure was filled with earth and stones, completely.

RO047 | Bistrița-Năsăud | Salva | Roata lui Todoran  
Dacia Porolissensis | 24,359164 / 47,308789  
Tower | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2, 3

Integrity: Being located in a cemetery, the ruins are well preserved. In its ditch was placed a commemorative cross.  
Authenticity: The only later intervention is a cross located in the ditch of the tower.

RO048 | Bistrița-Năsăud | Salva | Cetățea  
Dacia Porolissensis | 24,360498 / 47,306179  
Fortlet | Date: c. 106 - 270  
Selected: Yes | Criteria:1, 2, 3

Integrity: The surface of the fortlet is basically preserved due to the fact that there is a huge amount of stones and potsherds that prevent the agricultural works.  
Authenticity: The structure is completely unaffected by modern structures, only from agricultural works.

RO049 | Bistrița-Năsăud | Salva | Dealul Dumbravă



Dacia Porolissensis | 24,383463 / 47,32095

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: Traces of a wooden tower covered partially by vegetation. There are also visible traces of a ditch.

Authenticity: No signs of later intervention.

RO050 | Bistrița-Năsăud | Livezile | Poderei

Dacia Porolissensis | 24,575306 / 47,183972

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: The fort is situated in the backyards of the village houses, but the ground is used mostly as pasture. No permanent buildings on site.

Authenticity: Minor excavations in the 60s, otherwise, not post-roman or later interventions.

RO051 | Bistrița-Năsăud | Orheiul Bistriței

Dacia Porolissensis | 24,595718 / 47,095274

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The fort is completely overlapped by the modern village, especially the evangelic church and cemy. Not much is visible on the ground due to agricultural works.

Authenticity: Excavations in the 50s and 60s, spoilage of stone on all its surface. Otherwise, no alterations.

RO052 | Bistrița-Năsăud | Șintereag | Dealul Oului

Dacia Porolissensis | 24,2916 / 47,194883

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins of the tower are preserved almost completely. There are signs of recent interventions in its structure.

Authenticity: n/a

RO053 | Bistrița-Năsăud | Sărățel | Sărățel 1

Dacia Porolissensis | 24,425785 / 47,050396

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Square tower archaeologically researched. The walls and the excavation trenches are still visible.

Authenticity: No later interventions except the archaeological investigation which remain unpublished.

RO054 | Bistrița-Năsăud | Sărățel | Sărățel 2

Dacia Porolissensis | 24,428435 / 47,05033

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Square tower archaeologically researched. The walls and the trenches are still visible.

Authenticity: No later interventions except the unpublished archaeological investigation.

RO055 | Bistrița-Năsăud | Budacu de Jos | Dealul Cetății

Dacia Porolissensis | 24,519934 / 47,10318

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Square tower archaeologically researched. The walls and the trenches are still visible.

Authenticity: No later interventions except the archaeological investigation.

RO056 | Bistrița-Năsăud | Buduș | La Ulmi

Dacia Porolissensis | 24,547251 / 47,065831

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: The structure was completely destroyed by the agricultural works.

Authenticity: n/a

RO057 | Bistrița-Năsăud | Budacu de Jos | Vârful Măgurii

Dacia Porolissensis | 24,524551 / 47,045481

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The ruins of the wall are visible on the surface. There are traces of stone exploitation and a part of it is destroyed by the deforestation.

Authenticity: The signs of a later investigation is the heavy exploitation of the stone from the structure of the tower.

RO058 | Bistrița-Năsăud | Șieu | Dealul Sburătorilor

Dacia Porolissensis | 24,588496 / 47,002423

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: Conical ruins surrounded by an earthen rampart. There are clearly traces of recent intervention.

Authenticity: Traces of later intervention.

RO059 | Bistrița-Năsăud | Monor | Dealul Braniște

Dacia Porolissensis | 24,707233 / 46,919233

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: On the surface one can observe parts of a round structure, destroyed by the heavily deforestation.

Authenticity: Recent deforestation destroyed the structure of the tower.

RO060 | Bistrița-Năsăud | Domnești | Tabla Pietroasă

Dacia Porolissensis | 24,473021 / 47,037325

Fortlet? | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Fortified enclosure with natural features. The structure is affected by intensive agricultural works.

Authenticity: The heavily agricultural work changed the is destroying slowly the structure. There are no traces of other structures on the site.

RO061 | Cluj | Chiuești | Dealul Crucii

Dacia Porolissensis | 23,84798 / 47,292043

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins have a circular shape. On the north, west and south, the tower's ditch can be observed, having a size approximately of 4 m in diameter.

Authenticity: The only later intervention is a medieval stone structure places inside the tower.

RO062 | Cluj | Chiuești | Dealul lui Mihai

Dacia Porolissensis | 23,863468 / 47,272179

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The fairly well preserved tower has circular ruins. The wall is intact, 70 cm high, also the ditch, having a size approximately of 3 m in width.

Authenticity: No later intervention on the structure.

RO063 | Sălaj | Fălcuș | Vârful Țigilii

Dacia Porolissensis | 23,811639 / 47,25503

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 3

Integrity: A number of relatively young shrubs have destroyed about 30 % of the wall structure. Wall sizes are ranging between 0.80 and 0.60 m. The ditch is observed on the north-east side,



very little elsewhere, due to the abundant vegetation.

Authenticity: The natural processes and human destruction of the Roman structures have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

RO064 | Sălaj | Fălciș | Muchia Poienii Lupului

Dacia Porolissensis | 23,790074 / 47,264318

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: The ruins of the tower are extremely flattened. A small ditch is observed around the tower.

Authenticity: n/a

RO065 | Sălaj | Muncel | Comoruță

Dacia Porolissensis | 23,77055 / 47,258517

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: The ruins appear to be circular and flattened.

Authenticity: n/a

RO066 | Sălaj | Căpâlnă | Hotroapă

Dacia Porolissensis | 23,753112 / 47,27904

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: It was archaeologically researched in the 1970s but remained unpublished.

Authenticity: The old excavations (without documentation) have compromised the authenticity of the Roman structures to a certain extent, in particular with regard to their construction and layout.

RO067 | Sălaj | Căpâlnă | Dâmbul lui Golaș

Dacia Porolissensis | 23,743033 / 47,2749

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 3

Integrity: The ruins are flattened. The tower has a ditch of 2 m in width, well preserved on all the sides. The defensive wall is 1.5 m high.

Authenticity: The natural processes have compromised its authenticity to a certain extent, in particular with regard to their construction and layout.

RO068 | Sălaj | Căpâlnă | Casa Popii

Dacia Porolissensis | 23,738826 / 47,283984

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins have a mound shape and are visible for a height of 1.20 m. A good part of the wall is preserved almost entirely.

Authenticity: The old excavations (without documentation) have compromised the authenticity of the Roman structures to a certain extent, in particular with regard to their construction and layout.

RO069 | Sălaj | Căpâlnă | Casa Urișilor

Dacia Porolissensis | 23,749457 / 47,280365

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 3

Integrity: Tower ruins appear as a flattened mound. The ditch is visible from all sides of the tower. The structure is affected by a forest road ditch and probably further intervention.

Authenticity: The old excavations (without documentation) have compromised the authenticity of the Roman structures to a certain extent, in particular with regard to their construction and layout.

RO070 | Sălaj | Gâlgău | Casa Popii/Poianu

Dacia Porolissensis | 23,721531 / 47,284523

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: Destroyed by a trench that goes through half of the ruin.

Authenticity: The old excavations (without documentation) have compromised the authenticity of the Roman structures to a certain extent, in particular with regard to their construction and layout.

RO071 | Sălaj | Bârsău Mare | La Cetățea

Dacia Porolissensis | 23,676723 / 47,289977

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 3

Integrity: The ruins are visible in a mound shape. The ditch on the south side is destroyed by erosion. Large parts of the former tower were destroyed by a forest road.

Authenticity: The natural destructions and old excavations (without documentation) have compromised the authenticity of the Roman structures to a certain extent, in particular with regard to their construction and layout.

RO072 | Sălaj | Bârsău Mare | La Cetățea

Dacia Porolissensis | 23,677029 / 47,290144

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 3

Integrity: The ruins have a horseshoe shape. The northern side of the wall structure is relatively well preserved. Few traces of the ditch can be distinguished. Damaged by a previous excavation.

Authenticity: The natural destructions and old excavations (without documentation) have compromised the authenticity of the Roman structures to a certain extent, in particular with regard to their construction and layout.

RO073 | Sălaj | Glod | Toaca Glodului

Dacia Porolissensis | 23,637618 / 47,30653

Tower | Date: c. 106 - 270

Selected: No | Criteria:1, 3

Integrity: 40% of the preserved ruins were destroyed without a documentation by the modern exploitation of the building material. The ruins are preserved in the form of horseshoe shape, due to strong intervention on the southern side. The wall surface is preserved on the north, western and eastern side. Authenticity: The wall is built of local Limestone. On the surface appear bricks, burned clay and plaster. The reuse of the southern part have compromised its authenticity to a certain extent regarding the layout.

RO074 | Sălaj | Ileanda

Dacia Porolissensis | 23,621586 / 47,306066

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: The tower ruins appear as a flattened mound.

Authenticity: n/a

RO075 | Sălaj | Ileanda | Coama Pietrar

Dacia Porolissensis | 23,619425 / 47,310915

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 3

Integrity: Ruins have a circular shape. The ruins are preserved to a height of 80-90 cm. The wall is built of local Limestone and tuff. The trench is fully preserved except the west side. Its size is about 2 m.

Authenticity: The natural destructions and old excavations (without documentation) have compromised the authenticity

of the Roman structures to a certain extent, in particular with regard to their construction and layout.

RO076 | Sălaj | Ileanda | La Căsoi

Dacia Porolissensis | 23,61895 / 47,333033

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: 30% of the preserved ruins were destroyed without a documentation by a topographical landmark. The tower ruins are flattened.

Authenticity: n/a

RO077 | Cluj | Cășeu | Cetățele

Samum | Dacia Porolissensis | 23,837639 / 47,186208

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Situated in the valley of the Somes, close to the river, on a distinctive paramount. Surrounded by agricultural fields, it is not build upon or otherwise endangered.

Authenticity: Excavations in the interwar period, and then in the 80s. No consequent building or other alterations present.

RO078 | Sălaj | Șoimușeni | Din deal în jos

Dacia Porolissensis | 23,365089 / 47,337341

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: Located at the height of the hill, one can see a faint following of a ditch, facing north – east part.

Authenticity: n/a

RO079 | Sălaj | Șoimușeni | La Cărmidă

Dacia Porolissensis | 23,364479 / 47,342814

Fortlet? | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: The ruins are seen only on the south - east part, with the size of 18 m. The structure was affected by landslides. There is not a clear planimetry.

Authenticity: n/a

RO080 | Sălaj | Cozla | Piatra Cozlii

Dacia Porolissensis | 23,374468 / 47,358774

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: The ruins are heavily covered with vegetation.

Authenticity: n/a

RO081 | Sălaj | Cozla | Piatra Cozlii

Dacia Porolissensis | 23,375204 / 47,359096

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: The ruins have a circular shape, a small trench on the south side.

Authenticity: n/a

RO082 | Sălaj | Vălișoara | Valea Rea

Dacia Porolissensis | 23,393458 / 47,351809

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: The ruins have a circular form. The ruins are preserved to a height of 40-50 cm. It does not seem to be affected by subsequent interventions.

Authenticity: n/a

RO083 | Sălaj | Vălișoara | Valea Rea

Dacia Porolissensis | 23,393684 / 47,368624

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: The ruins have a circular shape but are heavily covered with vegetation.

Authenticity: n/a

RO084 | Sălaj | Ciocmani | Mănăstire

Dacia Porolissensis | 23,331451 / 47,262213

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: The tower ruins have a relatively quadrangular shape; the interior is pretty much sunk. The tower trench tower is visible on all sides except the southern one.

Authenticity: There are no signs of later intervention. Except the natural decay over time the tower preserves the structural elements as walls and trench.

RO085 | Sălaj | Rogna | La Bontauă

Dacia Porolissensis | 23,579516 / 47,342739

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Quadrangular tower built in opus incertum technique. The towers trench is less visible. In and around the tower structure is plenty of vegetation. The wall has a thickness of 70 cm. It was fully excavated but not published yet.

Authenticity: The human destruction of the Roman structures has compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

RO086 | Sălaj | Podișu | Podișu

Dacia Porolissensis | 23,596783 / 47,318416

Fortlet | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: As being located inside the village, it is highly probable that one of the houses was built over the SE corner of the fortlet. The remaining parts are situated in the backyard of that house. 70% of this territory is compromised by the annual ploughing. It was researched in the 1970s.

Authenticity: The lack of documentation and the overbuilding of the Roman structures have compromised their authenticity to a certain extent, in particular with regard to internal structure of the fort.

RO087 | Sălaj | Negreni | Podireu

Dacia Porolissensis | 23,962962 / 47,346492

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: Destroyed without documentation. The exact place of the mentioned tower cannot be identified because of both the advanced destruction and the abundant vegetation that blocks any observation on the ground.

Authenticity: n/a

RO088 | Sălaj | Negreni | Poiana La Arbore

Dacia Porolissensis | 23,537409 / 47,331504

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: In large parts destroyed without documentation. The preserved structure has a very flat spherical shape. The tower trench is poorly visible on the south and east sides. An old forest road intersects the tower structure, flattening pretty much the western side of the tower. In the southern part of the ruin there is a further intervention in the form of trench, which is most likely the former archaeological survey.

Authenticity: The preserved structure has a very flat spherical shape, bordered on two sides by the trench. An old forest road intersects the tower structure, flattening pretty much the western side of the tower. In the southern part of the ruin there is a further intervention, which is most likely the former

archaeological survey from the '70s.

RO089 | Sălaj | Cormeniş | Dealul Hoancelor

Dacia Porolissensis | 23,531583 / 47,333267

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: 20% of the preserved ruins were destroyed without a documentation by the a modern forest road. The ruins are hardly perceptible. A ditch is observed very weakly, on the south side of the tower. Its width is approximately 1,5 m. The tower is damaged on the south - east part by an old forest road.

Authenticity: n/a

RO090 | Sălaj | Cormeniş | Picioarele Andreichii

Dacia Porolissensis | 23,502346 / 47,33359

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The preserved ruins of the tower are in a very good state. They appear as a circular shape, with the middle part firmly deepen. On the west side can be noticed a well preserved entrance. The trench is fully preserved on all sides.

Authenticity: Structural elements of the tower are still visible (walls, entrance, trench). On the east side of the tower seem to be a series of annexes and facilities.

RO091 | Sălaj | Valea Leşului | Ţiclău

Dacia Porolissensis | 23,49513 / 47,327188

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: In large parts destroyed without documentation. It is 60% destroyed by a forest road, which cut the tower in half. The pieces of sandstone are scattered around the tower. The trench can be observed in some places.

Authenticity: The ruins have the shape of spherical calotte, with mid deepened slightly and a trench observable in some places around the tower.

RO092 | Sălaj | Lozna | Curmătură

Dacia Porolissensis | 23,479551 / 47,323447

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: In large parts destroyed without documentation. The tower ruin is spherically shaped, deepened in the centre. The tower earth rampart shape is visible on all sides, but the ditch around is not anymore discernible. The western part of the tower is destroyed by the trees.

Authenticity: n/a

RO093 | Sălaj | Lozna | Curmături

Dacia Porolissensis | 23,479389 / 47,323732

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: In large parts destroyed by treasure hunters. The tower structure is completely covered by vegetation. Its spherical calotte is observable if the vegetation is removed.

Authenticity: n/a

RO094 | Sălaj | Preluci | Hornicior

Dacia Porolissensis | 23,445016 / 47,307846

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: 20% of the preserved ruins were destroyed without a documentation by the a modern forest road. The ruins are hardly perceptible. A ditch is observed very weakly, on the south side of the tower. Its width is approximately 1,5 m. The tower is damaged on the south - east part by an old forest road.

Authenticity: n/a

RO095 | Sălaj | Preluci | Holm / Volm

Dacia Porolissensis | 23,444326 / 47,308319

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The tower is fully preserved even if a road passes near it. Its structure does not have stones but a large quantity of burnt clay. It was probably a wooden tower replaced by a stone tower built near it.

Authenticity: The ditch of the tower was affected by a road. No other traces of interventions were visible.

RO096 | Sălaj | Cliţ | Faţa Chicerii

Dacia Porolissensis | 23,433905 / 47,299977

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: Partially destroyed by the process of natural erosion and the forest vegetation. The ruins are shaped like flattened dome. By the middle can be observed a ditch that virtually cut the tower in half.

Authenticity: n/a

RO097 | Sălaj | Surduc | De-asupra Văii Hăii

Dacia Porolissensis | 23,35755 / 47,274283

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: The tower, partially documented in the 70's, is almost or practically entirely destroyed. Today there is no observable shape or clear trace at the ground surface. But on site, under the superficial coat of leaves, it's a very consistent layer of roman tiles, probably from a roof structure.

Authenticity: n/a

RO098 | Sălaj | Tihău | Cetate

Dacia Porolissensis | 23,342025 / 47,238303

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The ruins are well preserved but also very flattened. On the surface it can be seen some traces of ashes.

Authenticity: n/a

RO099 | Sălaj | Tihău | Grădişte

Dacia Porolissensis | 23,335433 / 47,242417

Auxiliary fort | Date: c. 106 - 270

Selected: Yes

Integrity: The fort is situated on a plateau, outside of the village, on former agricultural land, currently not under exploitation. The vallum is visible in some instances, its position and general layout as well.

Authenticity: Minor excavation in the 90s, otherwise no posterior interventions or buildings.

RO100 | Sălaj | Var | Dealul Taraboilor

Dacia Porolissensis | 23,282779 / 47,231602

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The preserved tower ruin is a high spherical calotte, with a pronounced deepened inner part. A wide trench is visible all around. The tower diameter is 8 m, while the diameter of the entire structure is approx. 20 m. The northern side is slightly affected because of the location here of a guard point in the years 1938-1940. In the tower rampart is located a geodesic landmark.

Authenticity: Except the areas slightly destroyed by the later guard point and the landmark, the main structural elements of the tower (walls and trench) are well preserved, being affected only by the passing of time.

RO101 | Sălaj | Prodănești | Corabie  
Dacia Porolissensis | 23,268132 / 47,236115  
Earthen Rampart | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: The remains are still visible on a length of more than 500 m, even if they are very eroded and partially covered by young vegetation. In two places it was destroyed by recent constructions (gsm antennas).

Authenticity: n/a

RO102 | Sălaj | Prodănești | Pe Șant  
Dacia Porolissensis | 23,248275 / 47,235042  
Earthen Rampart | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The remains are visible on a length of 1 km or more. First 200-300 m of the eastern end are very strong and high profiled (up to 2.0 m). The trench appears on the northern side in some places.

Authenticity: The natural erosion of the hill has blurred to some extent the structural elements, in particular the trench along the rampart.

RO103 | Sălaj | Prodănești | Pe Șant  
Dacia Porolissensis | 23,254148 / 47,234961  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The tower remains are profiled as about half meter high ring of earthen rampart, deepened in the middle. It was not investigated archaeologically and on the surface does not appear clear archaeological material.

Authenticity: n/a

RO104 | Sălaj | Ciglean | Fundătura  
Dacia Porolissensis | 23,232025 / 47,224772  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: There are remains of a big tower. The spherical calotte is about 20-22 m in diameter and about 2 m high with a deepened middle.

Authenticity: The tower structure has the specific elements as the spherical calotte shape of the precinct, deepened in the middle and the trench around it. On the west side can be observed something resembling with an annex of the tower.

RO105 | Sălaj | Brebi  
Dacia Porolissensis | 23,215851 / 47,230665  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: There are remains of a big tower. The spherical calotte is about 16 m in diameter and about 1.80 m high with a slightly deepened middle. On the tower ring and around it are a lot of disturbed construction stones.

Authenticity: The tower preserves the structural elements as walls and trench.

RO106 | Sălaj | Brebi | Voievodeasa  
Dacia Porolissensis | 23,208118 / 47,230156  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The tower remains are very flattened but discernible on the ground. The spherical calotte is about 14 m in diameter and about 0.90 m high with a slightly deepened middle. On the tower ring and around it are disturbed construction stones.

Authenticity: The tower preserves the structural elements as walls and trench.

RO107 | Sălaj | Brebi | Voievodeasa

Dacia Porolissensis | 23,199293 / 47,230899

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The tower ruins are very well preserved. The spherical calotte is about 16 m in diameter and 2 m high.

Authenticity: The tower preserves the structural elements as walls and trench.

RO108 | Sălaj | Brebi | Mănăstire  
Dacia Porolissensis | 23,193332 / 47,231112

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Very well profiled mound of earth and rocks, circular shape, approx. 12 m in diameter, 2 m high.

Authenticity: The tower preserves the structural elements as walls and trench.

RO109 | Sălaj | Brebi | Dealu Mare  
Dacia Porolissensis | 23,171336 / 47,21888

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The tower remains appear like a spherical calotte (10 m diameter, 1.5 m high), slightly deepened in the middle.

Authenticity: The tower preserves the structural elements as walls and trench.

RO110 | Sălaj | Brebi | Dealu Mare  
Dacia Porolissensis | 23,165312 / 47,223906

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins appear like a very well profiled spherical calotte (approx. 10 m diameter, 1.8 m high), slightly deepened in the middle. The stone wall is still visible at the surface.

Authenticity: The tower preserves the structural elements as walls and trench.

RO111 | Sălaj | Brebi | Dealu Mare  
Dacia Porolissensis | 23,171336 / 47,21888

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The tower remains appear like a large elongated earth ring (up to 16 m in diameter and 2 m high), around a big hollow, partially destroyed by forest and possible treasure hunters.

Authenticity: The tower preserves the structural elements as walls and trench.

RO112 | Sălaj | Mirșid  
Dacia Porolissensis | 23,148147 / 47,225774

Earthen Rampart | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: The earthen rampart is almost fully preserved. In some places the rampart is destroyed.

Authenticity: The rampart connects two fortlets and is a part of a large frontier system with gates and towers in it.

RO113 | Sălaj | Ortelec | Măgurița  
Dacia Porolissensis | 23,398298 / 47,206631

Earthen Rampart | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: The preserved tower ruins is a high spherical calotte with pronounce deepening inner part (50-60 cm depth). The trench around is not clearly visible. It has been destroyed partially by the forest vegetation and by the archaeological trench in 10%. The tower with its rectangular plan has a diameter of 9 m, while the trench is of 2 m wide.

Authenticity: It was archaeologically researched in the 1970s, on the surface there are still visible stone, bricks and pottery

fragments.

RO114 | Sălaj | Ortelec | Sub Puguior  
Dacia Porolissensis | 23,139262 / 47,220456  
Fortlet | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: The fortlet has a square structure. It was included in the earthen rampart. Its structure was made of stone.

Authenticity: Important position within the frontier system. It was partially excavated and published.

RO115 | Sălaj | Ortelec | Puguior  
Dacia Porolissensis | 23,133684 / 47,215009  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The tower remains appear like a big spherical calotte, with a deep middle. The wall was extract, stones being used as construction material.

Authenticity: Archaeological campaigns from 1900 and 1976 entirely uncovered the wall. It had a circular outline and was built in opus incertum technique. Today can be observed only its shape in the ground. A rich archaeological material was found during the excavations.

RO116 | Sălaj | Ortelec | Fântâna Șușigului  
Dacia Porolissensis | 23,127965 / 47,212271  
Fortlet | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The fortlet outline is very clear shaped in the forest edge (approx. 65 x 25 m). There are well profiled contours of the rectangular fortlet wall, of the trench and of an exterior earthen rampart all around.

Authenticity: The specific elements as precinct walls, trenches, earthen rampart of the entire structure are well preserved (they are affected only by present forest).

RO117 | Sălaj | Ortelec | Măgurița  
Dacia Porolissensis | 23,120997 / 47,205376  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: In this area the entire assembly – earthen rampart and ditch – is very well preserved on a length of more than 500 m. The rampart height reaches up to 2 m. On the western side lays the ditch.

Authenticity: Together with the fortlets belongs to the complex defensive system from the area.

RO118 | Sălaj | Ortelec | Clocoțal  
Dacia Porolissensis | 23,110494 / 47,195944  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: The fairly well preserved ruin is a high spherical calotte, of which deepening inner part has a 1,5 m depth. The trench on the northern side is not visible because of the natural erosion. The entire structure has a diameter of 15 m, while the tower itself has a diameter of approximately 8 m. Treasure hunters and the growing vegetation has caused damage in its condition.

Authenticity: It was researched in the 1980s. The archaeological material is not visible on the surface. It is disturbed only by the archaeological trenches.

RO119 | Sălaj | Ortelec | Clocoțal  
Dacia Porolissensis | 23,110457 / 47,195971  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: It has a very regular, but flat rectangular form, partially

destroyed by forest vegetation. Archaeological material is not visible on the surface. Probably it was a wooden construction. Authenticity: n/a

RO120 | Sălaj | Ortelec | Clocoțel  
Dacia Porolissensis | 23,109037 / 47,195634  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: It has a very regular, but flat (30 cm high) rectangular form, partially destroyed by forest vegetation on its eastern side. Archaeological material is not visible on the surface.

Authenticity: n/a

RO121 | Sălaj | Zalău | La Țigani  
Dacia Porolissensis | 23,106086 / 47,187744  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: A relatively destroyed tower, the southern side is intersected with an old forest road, which caused the flattening of that part of the tower, while the northern side was compromised by the dense forest vegetation.

Authenticity: The surface is still full of the former stone building material, and at some places the traces of the former walls are observable as well. It was researched in the 1980s.

RO122 | Sălaj | Zalău | Dealul Dojii  
Dacia Porolissensis | 23,106187 / 47,184677  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: The very well preserved tower is high spherical calotte (1,5 m high). The trench around is clearly visible, and it has a 2 m width. It has been destroyed partially by the forest vegetation. Unpublished documentation.

Authenticity: It was researched in the 1980s, archaeological material is not visible on the surface.

RO123 | Sălaj | Zalău  
Dacia Porolissensis | 23,099524 / 47,177827  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: Relatively well preserved tower ruins, the existing structure has a relative flat circular shape. The trench is poorly visible on the N-NE side. The forest vegetation and natural erosion has damaged the tower.

Authenticity: The tower preserves the structural elements as walls and trench.

RO124 | Sălaj | Zalău  
Dacia Porolissensis | 23,096877 / 47,175103  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: 20% of the tower was destroyed without documentation, as on the NE side a forest road is crossing through it. However, a relatively flat spherical calotte is still visible. The trench is only visible on the eastern and western sides.

Authenticity: The tower preserves the structural elements as walls and trench, however is affected by a road passing through.

RO125 | Sălaj | Zalău  
Dacia Porolissensis | 23,092408 / 47,167692  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: 20% of the tower was destroyed without documentation by the forest vegetation. However, on the eastern side is clearly visible the calotte form and the trench of the tower.



Authenticity: The tower preserves the structural elements as walls and trench.

RO126 | Sălaj | Zalău

Dacia Porolissensis | 23,094637 / 47,1636

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: 80% of the tower was destroyed by the forest road crossing through it, also the forest vegetation has damaged the structure. As a result the shape of the tower is not visible, but the surface is full of the former building material (stones, bricks).

Authenticity: n/a

RO127 | Sălaj | Stâna | Măgura Stânii

Dacia Porolissensis | 23,102127 / 47,153035

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The ruins were partially destroyed by the installation of a telecommunication system. The forest vegetation is so dense, that it is hardly visible. The tower has a diameter of 9 m. The structure has an approximately rectangular shape. Unpublished documentation.

Authenticity: It was archaeologically researched in 2002. The tower preserves the structural elements as walls and trench.

RO128 | Sălaj | Stâna | Măgura Stânii

Dacia Porolissensis | 23,103635 / 47,153378

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: The tower ruins have an approximately rectangular plan, the interior is pretty much sank. The structure's diameter is 8 m. The forest vegetation has caused partial damage.

Unpublished documentation.

Authenticity: It was archaeologically researched between 1968-1970. The tower preserves the structural elements as walls and trench.

RO129 | Sălaj | Stâna | Sub Măgura Stânii

Dacia Porolissensis | 23,106895 / 47,155639

Tower | Date: c. 106 - 270

Selected: No | Criteria:1, 2

Integrity: A relatively well preserved ruin with a rectangular plan. The entire structure has a diameter of 35 m, while the tower itself has a diameter of 8 m. The former stone building material is still visible on the surface. The interior is pretty much sank. On the surface at some places the traces of the wall are visible. Unpublished documentation.

Authenticity: It was archaeologically researched in the 1970s, The tower preserves the structural elements as walls and trench.

RO130 | Sălaj | Stâna | La oroieși

Dacia Porolissensis | 23,106727 / 47,159319

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: The ruin, shaped like a flatted dome, was mostly destroyed by the logging and re-growing vegetation. The entire structure has a diameter of 10 m. The trench is not visible on the surface.

Authenticity: n/a

RO131 | Sălaj | Stâna | La balize

Dacia Porolissensis | 23,107147 / 47,166737

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The ruin was mostly destroyed by the logging, the

forest road and the modern exploitation of the former stone building material, just as well by treasure hunters. It has a diameter of 20 m. However, the 2 m wide trench is mostly visible on the SW side.

Authenticity: It was archaeologically researched in the 1970s. The tower preserves the structural elements as walls and trench.

RO132 | Sălaj | Zalău | Druia

Dacia Porolissensis | 23,121572 / 47,176714

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: Cannot be identified on spot.

Authenticity: n/a

RO133 | Sălaj | Zalău | Sub Druia

Dacia Porolissensis | 23,123696 / 47,176749

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: A relatively well preserved ruin with a rectangular plan, of which trench is clearly visible. The eastern side of the trench was destroyed by a forest road.

Authenticity: The tower preserves the structural elements as walls and trench. It was researched in the 1970s.

RO134 | Sălaj | Moigrad | La Poiană

Dacia Porolissensis | 23,128456 / 47,183208

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: A relatively well preserved ruin with a rectangular plan. The entire structure has a diameter of 35 m, while the tower itself has a diameter of 8 m. Fragments of the wall is still visible on the surface.

Authenticity: In the 1970s there was an archaeological research at the site, The tower preserves the structural elements as walls and trench.

RO135 | Sălaj | Moigrad | Dealul Ferice

Dacia Porolissensis | 23,152106 / 47,184517

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: On the surface are visible a calotte form and a trench around of it, also remains of stone building material can be observed. The ruins are seriously damaged by the modern exploitation of the building material and by the forest vegetation and natural erosion.

Authenticity: The tower preserves the structural elements as walls and trench.

RO136 | Sălaj | Moigrad | Pomăt

Porolissum, | Dacia Porolissensis | 23,157419 / 47,179269

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The fort is situated on a hilltop, and is part of an archaeological reservations. Most of the vallum is visible on the ground.

Authenticity: Major excavations all throughout the 20th century, and major restorations/reconstructions: a few buildings inside the fort, part of the northern enclosure and porta praetoria.

RO137 | Sălaj | Moigrad | Dealul Citera

Porolissum | Dacia Porolissensis | 23,168517 / 47,183667

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Situated on a nearby hilltop from Pomat, it is completely covered by forest, with the enclosure visible on the ground.



Authenticity: Few excavations in the 1990s, no other intervention present.

RO138 | Sălaj | Brebi | Sub Citeră  
Dacia Porolissensis | 23,182784 / 47,19392  
Fortlet | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Situated on a high plateau, north of Porolissum, has the enclosure perfectly visible on the ground, currently used as pasture. The rectangular precinct very well preserved (up to 2-2.5 m high); also the trench and the earthen rampart around still well profiled.

Authenticity: Excavations in the 70s, no other intervention. Two large archaeological surveys (T-shaped) revealed fortification structure.

RO139 | Sălaj | Brebi | Dunga  
Dacia Porolissensis | 23,182743 / 47,199123  
Fortlet | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Situated on a high plateau, north of the previous one, has the enclosure perfectly visible on the ground, currently used as pasture. The rectangular precinct very well preserved; also the trench and the earthen rampart around still well profiled. Authenticity: Excavations in the 70s, no other intervention. A large archaeological survey revealed fortification structure.

RO140 | Sălaj | Romita | La ruine  
Certiae | Dacia Porolissensis | 23,214572 / 47,155378  
Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Close to the village, and the Agrij river, it is not build on, but agriculture is executed on all its surface. Almost no trace is visible on the ground, except of the remains of one gate. Authenticity: Excavations in the 1990s, conducted at the porta praetoria and in the external bathhouse. No other later intervention.

RO141 | Sălaj | Zalău | Vârful Păstaie/Păstăiasa  
Dacia Porolissensis | 23,079107 / 47,139003  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Extremely well preserved. The stone structure is still visible and also the ditch. There is a little bit covered with vegetation. There is no published documentation.

Authenticity: It was archaeological excavated, being recorded its structure and a big amount of roman archaeological material.

RO142 | Sălaj | Zalău | Sub Păstaie  
Dacia Porolissensis | 23,075689 / 47,133472  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The ruins are covered with vegetation. Its remains are of a conical shape. It was excavated with insufficient results. Authenticity: Except of the traces of the excavations there are is no later intervention.

RO143 | Sălaj | Românași  
Largiana | Dacia Porolissensis | 23,1725 / 47,106972  
Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Situated on a plateau south of the village, it is not build on, but is close to the modern village graveyard. The enclosure is visible on the ground, which is intensively cultivated.

Authenticity: Outside of the recent excavations, no other modern interventions is present.

RO144 | Sălaj | Treznea | Vârful Teghișului  
Dacia Porolissensis | 23,069839 / 47,125534  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins are in a relative good state of preservation. It was fully excavated. The walls are 1 m. thick with multiple phases of reconstruction.

Authenticity: There was a large scale excavation on the structure, being 30% destroyed by now.

RO145 | Sălaj | Treznea | Gura Teghișului  
Dacia Porolissensis | 23,061873 / 47,122935  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The tower is completely destroyed, a fact stated also by the archaeological report. Its walls were taken out by the local people.

Authenticity: There is a later heavily intervention, undated but probably a modern one, in search for the stones.

RO146 | Sălaj | Treznea | Vârful Ciungii  
Dacia Porolissensis | 23,040358 / 47,117681  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: The tower has relatively preserved ruins. It has circular plan with a wall made in opus incertum technique, with a thickness of approx. 80 cm. There is no published documentation.

Authenticity: There are no traces of modern interventions except some archaeological trenches.

RO147 | Sălaj | Treznea | Coasta Ciungii 2  
Dacia Porolissensis | 23,03408 / 47,113446  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins are of a circular aspect with some trees grown on the edge of them. The walls had a thickness of approx. 1 m. worked in the opus incertum technique.

Authenticity: The only later intervention are the archaeological trenches which uncovered the half of the structure.

RO148 | Sălaj | Treznea | Coasta Ciungii 2  
Dacia Porolissensis | 23,029366 / 47,111535  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: In the field there can be seen the conical ruins of an excavated tower with a circular plan and a still visible ditch. There is no published documentation.

Authenticity: The later interventions are some archaeological trenches.

RO149 | Sălaj | Sângeorgiu de Meseș | Coasta Lata  
Dacia Porolissensis | 23,012637 / 47,095551  
Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The ruins were damaged by trees. It was partial excavated. The walls were made out of stones tied together with earth, in an opus incertum technique. There is no published documentation.

Authenticity: There are traces of local stone exploitation and traces of two archaeological trenches.

RO150 | Sălaj | Buciumi | Groapa Mare  
Dacia Porolissensis | 23,008329 / 47,071655  
Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: Ruins of a conical shape. In the excavation were found

some stones and plaster fragments, but no archaeological material.

RO151 | Sălaj | Buciumi | Sub Padină  
Dacia Porolissensis | 22,991794 / 47,071828

Tower | Date: c. 106 - 270

Selected: No | Criteria:1, 2, 3

Integrity: The ruins are well preserved. The tower has a circular plan made out of local stones in opus incertum technique. The stratigraphy suggests that the destruction of the tower was very slowly.

Authenticity: The structure is 70% destroyed because of some 19th century treasure hunters.

RO152 | Sălaj | Buciumi | Sub Padină/Coasta Ograzii  
Dacia Porolissensis | 22,990458 / 47,067737

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: Conical ruins with trees grown near it. It was excavated. Its plan it is circular with a wall made of local stones built in opus incertum technique. At this moment the ruins are 20% deteriorated. There is no published documentation.

Authenticity: The only later interventions are a series of archaeological trenches.

RO153 | Sălaj | Buciumi | Poiana Șeredanilor  
Dacia Porolissensis | 22,969818 / 47,060825

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins are relatively well preserved. Square tower excavated, with 1 m thick walls made in opus incertum technique. It was excavated also in 1935 by some hobbyist who destroyed a part of the wall.

Authenticity: The structure was partially destroyed by some random diggings and was later completely uncovered.

RO154 | Sălaj | Stârciu | Sub Cornet  
Dacia Porolissensis | 22,967441 / 47,063393

Tower | Date: c. 106 - 270

Selected: No | Criteria:1, 2

Integrity: The ruins are in a relatively good state of preservations. The walls are made of local chalk.

Authenticity: There are no traces of later interventions except two archaeological trenches.

RO155 | Sălaj | Stârciu | Sub Cornet  
Dacia Porolissensis | 22,965407 / 47,063978

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The ruins are devastated by the treasure hunters. Near the pits one can observe stones and plaster fragments.

Authenticity: There are some later interventions made by the treasure hunters who destroyed some 40% of the structure.

RO156 | Sălaj | Stârciu | Dealul Secuiului  
Dacia Porolissensis | 22,967184 / 47,062588

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: The ruins are very bad preserved. On the surface one can observe few tiles, and plaster traces. Devastated by treasure hunters.

Authenticity: n/a

RO157 | Sălaj | Stârciu | La Frapsin/Dealul Boului  
Dacia Porolissensis | 22,957566 / 47,055445

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: The tower has conical ruins very flattened. There is no published documentation.

Authenticity: The later interventions are consisting of few archaeological excavations.

RO158 | Sălaj | Stârciu | Dealul Boului/Coasta Julii  
Dacia Porolissensis | 22,950026 / 47,055662

Tower | Date: c. 106 - 270

Selected: No | Criteria:1, 2

Integrity: The tower has a rectangular structure with thick walls about 1 m. made in the opus incertum technique. Considering the huge quantity of stone, it is possible that the tower was made completely of this local stone. There is no published documentation.

Authenticity: It was archaeologically investigated. There are no traces of later interventions.

RO159 | Sălaj | Sângeorgiu de Meseș | Dealul /Boului Măgurița  
Dacia Porolissensis | 22,935253 / 47,046338

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Round tower with thick walls made of local stone in the opus incertum technique. Their actual state of preservations is quite high. There is no published documentation.

Authenticity: There are no traces of later intervention except 2 archaeological trenches.

RO160 | Sălaj | Sângeorgiu de Meseș | Dealul Boului/La ferice  
Dacia Porolissensis | 22,951468 / 47,044764

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: The tower has a round structure built of stones without any traces of mortar. It is relatively well preserved with trees grown near its structure.

Authenticity: The tower was partially excavated. No traces of other interventions.

RO161 | Sălaj | Huta | Arsură  
Dacia Porolissensis | 22,947424 / 47,04031

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins are well preserved. The tower was excavated. It has a circular structure with the wall made in the opus incertum technique. There is no published documentation.

Authenticity: The tower was completely excavated, its structures being in a permanent degradation.

RO162 | Sălaj | Huta | Arsură  
Dacia Porolissensis | 22,947462 / 47,04032

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: Conical ruins with trees grown on them.

Authenticity: n/a

RO163 | Sălaj | Huta | Dealu Mare  
Dacia Porolissensis | 22,949666 / 47,038883

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The ruins are in a bad state of preservation. It was partially excavated. It has a round structure with a wall made of local stones in the opus incertum technique.

Authenticity: There are two archaeological trenches within this structure but no other later interventions mentioned.

RO164 | Sălaj | Huta | Salhiger  
Dacia Porolissensis | 22,938259 / 47,019055

Tower | Date: c. 106 - 270

Selected: Yes

Integrity: Conical ruins. It was excavated but there was no traces of structures, just some potsherds and fragments of tiles.

Authenticity: n/a

RO165 | Sălaj | Huta | Dealul Cozlii

Dacia Porolissensis | 22,922508 / 47,006796

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: Ruins destroyed by the trees and stone exploitation. Some parts of the wall was found during the excavations. The wall was made in the opus incertum technique. There is no published documentation.

Authenticity: The structure was almost completely destroyed by the stone exploitation. It was also archaeologically investigated.

RO166 | Sălaj | Huta | Dealul lui Gyuri

Dacia Porolissensis | 22,917584 / 47,005879

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: Conical ruins almost fully destroyed. In the excavation there was found a part of the wall.

Authenticity: The ruins are almost fully destroyed by the local stone extraction.

RO167 | Cluj | Vânători | Cornu Vlaşinului

Dacia Porolissensis | 22,9121 / 46,979334

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Very well preserved ruins. The structure was excavated. Its walls has a thickness of about 1 m. The wall is made in the opus incertum technique. The interior of the tower was easily disturbed. There is no published documentation.

Authenticity: No traces of later interventions except three archaeological trenches.

RO168 | Sălaj | Buciumi | Grădişte

Dacia Porolissensis | 23,046546 / 47,048493

Fort | Date: c. 106 - 270

Selected: Yes

Integrity: Situated on a paramount in the northern part of the village, 2/3 of its surface is archaeological reservation, 1/3 being used for agriculture.

Authenticity: Intensive excavations and restorations made in the 20th century and more recently: the main building – principia, some other internal buildings, the southern part of the enclosure.

RO169 | Cluj | Vânători | Grebăn

Dacia Porolissensis | 22,899434 / 46,945943

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins are well preserved. On the surface, even after the excavation there can be seen animal bones and a huge amount of pottery. Its walls are made of local stones in the opus incertum technique. Its dimensions are impressive: 12,5 x 12,5 m.

Authenticity: The structure was almost fully excavated. The artefact attests a Middle- Ages intervention on the structure.

RO170 | Cluj | Hodişu | Cornul Sonului

Dacia Porolissensis | 22,903042 / 46,94009

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins are very well preserved. The structure was excavated and it has a square structure with walls made in the opus incertum technique. There are no traces of later

interventions. There is no published documentation.

Authenticity: No later interventions except some archaeological excavations.

RO171 | Cluj | Hodişu | Dealul Cornii

Dacia Porolissensis | 22,901895 / 46,938378

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: Very flattened conical ruins with some sherds on its surface.

Authenticity: n/a

RO172 | Cluj | Poieni | Dealul Bonciului

Dacia Porolissensis | 22,890938 / 46,927294

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: The ruins are in a good state of preservation. The structure was excavated and it has a circular wall made in the opus incertum technique.

Authenticity: The structure was fully excavated.

RO173 | Cluj | Poieni | Râmbuşoi

Dacia Porolissensis | 22,888362 / 46,921763

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins are very well preserved. It was excavated. The wall has a square structure made of local stone in the opus incertum technique. Inside there was found a fireplace and a reparation layer with potsherds mixed with concrete.

Authenticity: The structure was half excavated. No other traces of later interventions.

RO174 | Cluj | Poieni | Dosu Marcului

Dacia Porolissensis | 22,88309 / 46,916256

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The ruins of conical shape filled with stones. In the excavation there was no trace of a wall structure. There was traces of burnt clay.

Authenticity: The later interventions are visible in the complete lack of the structure.

RO175 | Cluj | Poieni | Horhiş

Dacia Porolissensis | 22,877763 / 46,914445

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The ruins are destroyed. It was excavated. The wall was built in the opus incertum technique and was of a rectangular shape.

Authenticity: The later interventions are visible in the complete lack of the structure.

RO176 | Cluj | Poieni | Cetăţea

Dacia Porolissensis | 22,874461 / 46,910616

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Very small structure, well preserved. It was excavated. The walls are made of local stone in the opus incertum technique. The archaeological material was scattered through the demolition layer.

Authenticity: The structure was excavated by some treasure hunters and later two archaeological trenches were made on its structure.

RO177 | Cluj | Poieni | Poieni 1

Dacia Porolissensis | 22,8709 / 46,911183

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: Preserved ruins. It was excavated. The tower has its walls very thick and very well preserved. The top of the wall was demolished.

Authenticity: The tower was excavated almost completely. No other traces of later interventions.

RO178 | Cluj | Poieni | Poieni 2

Dacia Porolissensis | 22,870689 / 46,911425

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The ruins are in a good state of preservation. The interior was not affected by subsequent interventions. The walls are made of local stone in the opus incertum technique.

Authenticity: The later interventions are quantified in two archaeological trenches. No other traces of other interventions.

RO179 | Cluj | Bologa | Măgura Bologii

Dacia Porolissensis | 22,851999 / 46,872856

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: The ruins are in a bad state of preservation. The tower was excavated and it has a square structure made of local stone in the opus incertum technique. The wall was preserved 1 m. above the foundation.

Authenticity: No traces of later interventions, just three archaeological trenches .

RO180 | Cluj | Poieni | Poieni

Dacia Porolissensis | 22,865602 / 46,912452

Fortlet | Date: c. 106 - 270

Selected: No | Criteria:1, 2

Integrity: The fortlet is described in an account from the 19th century. Today, the structure is completely destroyed.

Authenticity: n/a

RO181 | Cluj | Poieni | Poieni

Dacia Porolissensis | 22,865953 / 46,912503

Earthen Rampart | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Very well preserved with the exception of its valley sector were its destroyed by some recent houses.

Authenticity: The reuse and partially overbuilding affected its authenticity to a small degree.

RO182 | Cluj | Poieni | Poieni

Dacia Porolissensis | 22,874463 / 46,910621

Earthen Rampart | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Very well preserved.

Authenticity: The reuse and partially overbuilding affected its authenticity to a small degree.

RO183 | Cluj | Bologa | Grădiște

Dacia Porolissensis | 22,88622 / 46,885901

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Situated on a plateau at the eastern edge of the village is it very well preserved and visible (the enclosure and two ditches) on the ground. Inside it is used for small-scale agricultural works.

Authenticity: Significant spoliage of the stone buildings at the beginning of the 20th century, archaeological excavations in the 30s, 70s and presently. No modern building or intervention on site.

RO184 | Cluj | Sutor

Optatiana | Dacia Porolissensis | 23,242778 / 46,988861

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Situated in the wide valley of Almas river, it is buried under a thick layer of silt, on which intensive agriculture is conducted. Nothing visible on the ground.

Authenticity: Only recently located precisely, is has been very shallowly excavated. No other interventions on site.

RO185 | Cluj | Gilău

Dacia Porolissensis | 23,380944 / 46,756917

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Situated on a plateau west of the village, in the gardens of the medieval/modern Wass-Bannfy Castle. The enclosure is partially visible on the ground.

Authenticity: Excavations in the 80s and 90s inside the fort and on the enclosure and minor restorations of a gate, one corner tower and part of the principia. The eastern part of the enclosure was completely taken out by the medieval castle ditch. Otherwise, no other building on the surface of the fort.

RO186 | Cluj | Liteni | Cetate

Dacia Porolissensis | 23,457944 / 46,621

Fortlet | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: Under the medieval fortress it is presumed a Roman fortlet, because archaeological material was found.

Authenticity: n/a

RO187 | Cluj | Turda | Dealul Cetății

Potaissa | Dacia Porolissensis | 23,772861 / 46,570361

Fortress | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: On a high plateau, at the north-western edge of the city, it is an archaeological reservation since the 90s. Part of the structures are visible on the ground.

Authenticity: Excavations since the 19th century, on the enclosure and inside the fort. Restorations of the principia, the bathhouse, a few towers and enclosure wall. It is partially covered by a couple of backyards and a non-permanent building serving as archaeological headquarters.

RO188 | Cluj | Turda | La Furci

Dacia Porolissensis | 23,709194 / 46,611056

Tower | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: On the western slope of the Tureni Keys, close to Transylvania Motorway, it is presumed a tower.

Authenticity: n/a

RO189 | Cluj | Vânători | Poic

Dacia Porolissensis | 22,916175 / 46,984528

Fortlet | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The fortlet remains are still visible even if they are covered by high vegetation and young trees. There are rectangle outlines of two ramparts and of an outer ditch. The entire structure is about 30 m by 29 m on the surface and 0.50 m high. Authenticity: Fragments of pottery and plaster emerged from an archaeological survey (in 1984).

RO190 | Mureș | Vătaș | Felsőrépa,

Dacia Superior | 24,770669 / 47,000442

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The fortification is situated on the edge of a plateau

on a meadow. The overall dimensions of the enclosure are approx. 15 m x 15 m, its defences consisting of a system of ditch and rampart. On the eastern side a stream bed can be found instead of the defensive ditch. Good state of preservation. Authenticity: The watchtower was identified during a field-walking organised in the autumn of 2011. Since 2011 several campaigns of field-walking, aerial archaeological surveys and geophysical surveys were carried out. Small scale excavations done in 2013-2014.

RO191 | Mureş | Bistra Mureşului | Dédabisztra

Dacia Superior | 24,880483 / 47,002031

Tower | Date: c. 106 - 270

Selected: Yes

Integrity: Smaller tower without ditch and rampart using a natural rock. Used as a fortification also during the medieval period.

Authenticity: Identified during field walking in 2011. Roman metal finds discovered.

RO192 | Mureş | Brâncoveneşti | Marosvécs

Dacia Superior | 24,766731 / 46,861772

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The site is located on the north-eastern edge of today's village. During the Middle Ages a fortification was built on the south-eastern part of the Roman fort, destroying much of the praetentura dextra. The fortification was later converted into a Renaissance castle. The auxiliary buildings of the former estate along with the buildings of the hospital functioning on the property seriously damaged the remains of the praetentura and the latera praetorii of the Roman fort. The vicus is located north and west of the fort. The new hospital buildings are occupying the north-western part.

Authenticity: The earliest archaeological excavations made in 1847 and 1942. The first systematic excavations from 1970 to 1987 in the fort and the vicus. Rescue excavations from 2007 to 2011 in the vicus. In 2008 a geophysical survey in the north western part of the vicus. In 2012 two areas within the Roman fort were excavated. Since 2011 several campaigns of field-walking, aerial archaeological surveys and geophysical surveys were carried out in the fort and the vicus.

RO193 | Mureş | Idciul de Sus | Felsőidecs

Dacia Superior | 24,788058 / 46,843489

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 3

Integrity: Smaller tower without ditch and rampart located in the forest.

Authenticity: Identified in 2015 during field walking. Roman metal finds discovered.

RO194 | Mures | Glăjărie | Görgényüvegcsűr,

Dacia Superior | 24,990458 / 46,850181

Earthworks | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2

Integrity: Preserved on several hundred m in the forest.

Authenticity: First mentioned at the early 20th century. Ditch and a rampart running parallel with the Limes blocking the access from the east. No dating evidence until now, probably roman.

RO195 | Mureş | Ibăneşti-Pădure | Erdőlibánfalva

Dacia Superior | 24,960872 / 46,753483

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The fortification is found in the Gurghiu Valley, on the

left-hand side of the river, on a small plateau used as a meadow. The fortification has a rectangular plan with rounded corners, overall dimensions of 27 m x 21.5 m and inner dimensions of 13.5 m x 17.5 m. Its defences consist of a ditch and rampart system. Good state of preservation.

Authenticity: The existence of the site is known since 1975.

The first excavation made in 1979. Research at the site recommenced in 2011 with a small scale excavation. Since then, field and aerial surveys, geophysical measurements were also carried out.

RO196 | Mureş | Chiheru de Sus | Feslőköhér

Dacia Superior | 25,054728 / 46,715142

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The site is located in the forest on a ridge belonging to the Pogor Hill. The fortification has a rectangular plan with overall dimensions of 31 m x 35 m, the interior measuring 15.5 m x 18 m. The defences consist of a ditch and rampart system. Good state of preservation.

Authenticity: The hitherto unknown watchtower was identified through an aerial survey in 2011. Since that several campaigns of field-walking, aerial archaeological surveys and geophysical surveys were carried out.

RO197 | Mureş | Câmpul Cetăţii | Vármező

Dacia Superior | 25,056014 / 46,714683

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The watchtower is on the top of a mountain ridge situated between the Niraj and Săcădat Valleys in the forest. The fortification has a roughly square plan, measuring 34 m x 31.1 m, with the interior dimensions of 16.5 m x 18 m. Its defenses consisted of a ditch and rampart. Good state of preservation except two pits from the WW.

Authenticity: First mentioned in the latter half of the 19th century. Since 2011 several campaigns of field-walking, aerial archaeological surveys and geophysical surveys were carried out.

RO198 | Mureş | Eremitu | Nyárádremete

Dacia Superior | 24,989292 / 46,656317

Tower | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The site is located on a ridge belonging to the Tompa Hill on the edge of the forest. Both enclosures have rectangular plans. The overall dimensions of the western one are 24.5 m x 30 m, the interior measuring 12 m x 15.5 m. Its defences comprised a double ditch and a rampart. The eastern enclosure was somewhat smaller with the overall dimensions of 24.5 m x 22 m and interior dimensions of 12 m x 12 m. The entrance was probably placed on the southern side. Good state of preservation.

Authenticity: First mentioned in the latter half of the 19th century. Is consisting of two watchtowers placed side by side. Since 2011 several campaigns of field-walking, aerial archaeological surveys and geophysical surveys were carried out.

RO199 | Mureş | Eremitu | Nyárádremete

Dacia Superior | 25,098075 / 46,670317

Earthworks | Date: c. 106 - 270

Selected: Yes

Integrity: Preserved on more than 100 m in the forest, southern section damaged by a forestry road.

Authenticity: First mentioned at the early 20th century. Ditch and a rampart running parallel with the Limes blocking the



access from the east. No dating evidence until now, probably roman.

RO200 | Mureş | Călugăreni | Mikháza  
Dacia Superior | 24,875894 / 46,626414

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The Roman fort is located on the south-western edge of the village, on the left bank of the Niraj River. The vicus was situated on the northern, western and eastern side of the fort, possibly bordered to the north by the Niraj/Nyárád River. Based on our current information, the bathhouse was probably the most prominent structure of the vicus. Approximately 1/3 of the vicus is covered by the modern village and 1/8 of the forts fortification is also covered by modern building.

Authenticity: First mentioned in the early 18th century. The first excavations carried out in 1878. The first systematic excavations done in 1961. In 2004 excavations made in the praetentura of the fort. 2011-2012 systematic excavations in the northern, and north western part of the vicus. Since 2011 several campaigns of field-walking, aerial archaeological surveys and geophysical surveys were carried out in the fort and the vicus. Since 2013 systematic archaeological investigations have been carried out in the principia of the auxiliary fort (area A), the bathhouse (area B), and the northern part of the vicus (area C). Since 2015 an archaeological park was established.

RO201 | Mureş | Sărăţeni | Sóvárád  
Dacia Superior | 25,012325 / 46,561728

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The Roman fort is situated roughly in the centre of today's village, lying east of the Reformed church. It is covered entirely by the modern settlement, as are large portions of the vicus, including the bathhouse. According to the results of the field surveys the civilian settlement developed in the area to the north and west of the fort.

Authenticity: First mentioned in the middle of the 19th century. Systematic archaeological excavations were carried out in 1959, which followed a field survey completed in the previous year. Beginning with 2012 several campaigns of field-walking, aerial and geophysical surveys have been carried out in the fort and in the vicus.

RO202 | Harghita | Inlăceni  
Dacia Superior | 25,118361 / 46,428472

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: It is found outside the village, it hasn't been affected by large scale agricultural works, it was insignificantly affected by archaeological researches.

Authenticity: Minor excavations in the 60s, otherwise, not post-roman or later interventions.

RO203 | Harghita | Odorheiul Secuiesc | Cădişeni  
Dacia Superior | 25,303148 / 46,311705

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The fort is situated outside of the village, however we don't know yet the precise location. It was identified in 1874, but documentation remained unpublished.

Authenticity: n/a

RO204 | Harghita | Satu Mare | Cekend  
Dacia Superior | 25,408806 / 46,348139

Fortlet (?) | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: A presumed square fortlet of 36 m and one gate. It is not sure that it's roman.

Authenticity: n/a

RO205 | Harghita | Băile Homorod | -  
Dacia Superior | 25,442406 / 46,339944

Fortlet (?) | Date: c. 106 - 270

Selected: No

Integrity: The stone structures are partially excavated in the 70s.

Authenticity: The remains of the fortlet are covered with cement, they therefore lost their authenticity.

RO206 | Harghita | Bădeni  
Dacia Superior | 25,346761 / 46,217131

Fortlet (?) | Date: c. 106 - 270

Selected: No | Criteria:1

Integrity: It is presumed the existence of a Roman fortlet It is not sure that it's roman.

Authenticity: n/a

RO207 | Harghita | Sânpaul  
Dacia Superior | 25,379475 / 46,194828

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The Roman remains from Sânpaul have been largely overbuilt by the modern village.

Authenticity: The overbuilding of roman fort have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

RO208 | Covasna | Baraolt  
Dacia Superior | 25,564287 / 46,061839

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The fort is situated outside of the village and the ground is used mostly as pasture. No permanent buildings on site.

Authenticity: Minor excavations in the 60s, otherwise, not post-roman or later interventions.

RO209 | Covasna | Olteni  
Dacia Superior | 25,845893 / 45,981896

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: Large parts of the former fort have been overbuilt by a medieval castle; about 25 % of the original structures are eventually preserved.

Authenticity: Some medieval and modern buildings compromised the authenticity of the roman fort.

RO210 | Covasna | Breţcu  
Angustia  
Dacia Superior | 26,312858 / 46,05081

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: The fort is situated in the backyards of the village houses, but the ground is used as pasture. No permanent buildings on site.

Authenticity: Minor excavations in the 19. and 20. Century, otherwise, not visible post-roman or later interventions.

RO211 | Covasna | Boroşneu Mare  
Dacia Superior | 25,998625 / 45,819621

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: The Roman remains from Boroşneu Mare have been largely overbuilt by the modern village.



Authenticity: The overbuilding of roman fort have compromised their authenticity to a certain extent, in particular with regard to their construction and layout.

RO212 | Covasna | Comalău | Cetate  
Dacia Superior | 25,900354 / 45,844126

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 3

Integrity: The fort is situated extra village and the ground is used mostly as pasture. No permanent buildings on site.

Authenticity: The reuse and destroying of the antique structures in the medieval and modern time have compromised their authenticity to a certain extent, in particular with regard to their layout.

RO213 | Braşov | Râşnov/Rosenau  
Cumidava | Dacia Inferior | 25,441581 / 45,618708

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Auxiliary fort built in stone. The fort is systematically excavated. No restoration in place; has plenty potential.

Authenticity: No restoration or later interventions. High authenticity.

RO214 | Braşov | Hoghiz  
Dacia Inferior | 25,278964 / 45,977992

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Auxiliary fort built in stone. Not properly excavated, only probed and surveyed. Huge novelty potential.

Authenticity: Not excavated, has an important authenticity element.

RO215 | Braşov | Cincşor/Kleineschenk  
Dacia Inferior | 24,855336 / 45,835842

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: Auxiliary fort built first in timber and earth, then in stone. Excavated, today is partially covered by a lake.

Authenticity: Poor preservation state.

RO216 | Braşov | Feldioara  
Dacia Inferior | 24,690381 / 45,798853

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Fort, partially excavated,. Has two construction phases, the second one is made of stone.

Authenticity: Poor preservation, high authenticity.

RO218 | Sibiu | Boiţa  
Caput Stenarum | Dacia Inferior | 24,266253 / 45,632097

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1

Integrity: Fort, summarily researched, no excavation. There is a plan of the fort. Can't be seen from the ground level.

Authenticity: Little information available to make an accurate evaluation.

RO219 | Vâlcea | Râul Vadului  
Dacia Inferior | 24,272808 / 45,523639

tower? | Date: c. 106 - 270

Selected: No

Integrity: Fortlet unexcavated and un-researched. Little evidence on site for this fortlet.

Authenticity: Too little information is available to make an accurate evaluation.

RO220 | Vâlcea | Căineni  
Pons Vetus? | Dacia Inferior | 24,307289 / 45,498239  
tower? | Date: c. 106 - 270

Selected: No

Integrity: Fortlet, unexcavated and un-researched. Little evidence on site for this fortlet.

Authenticity: Too little information is available to make an accurate evaluation.

RO221 | Vâlcea | Racoviţa  
Praetorium II | Dacia Inferior | 24,310472 / 45,400961

Fort | Date: c. 106 - 270

Selected: Yes | Criteria:1, 2, 3

Integrity: Auxiliary fort built in stone. Excavated, no restoration, plenty potential.

Authenticity: Has no restoration or later interventions. High authenticity.

RO222 | Vâlcea | Copăcenii  
Praetorium I | Dacia Inferior | 24,309869 / 45,395561

Fortlet | Date: c. 106 - 270

Selected: No

Integrity: Fortlet, unexcavated and un-researched. Little evidence on site for this fortlet.

Authenticity: Too little information is available to make an accurate evaluation.

RO223 | Vâlcea | Titeşti  
Dacia Inferior | 24,391053 / 45,410908

Fortlet | Date: c. 106 - 270

Selected: No | Criteria:1, 2

Integrity: Fortlet built in stone. Poor documentation.

Authenticity: n/a

RO224 | Vâlcea | Perişani?  
Dacia Inferior | 24,398492 / 45,370525

Site type unknown | Date: c. 106 - 270

Selected: No

Integrity: The site is not positively identified on the ground.

Authenticity: n/a

RO225 | Vâlcea | Călimăneşti  
Arutela | Dacia Inferior | 24,312481 / 45,276339

Fortlet | Date: c. 106 - 270

Selected: Yes | Criteria:1, 3

Integrity: Fortlet, partially reconstructed after it was moved from the original site. The original site is, today, beneath the Olt riverbed.

Authenticity: No or poor authenticity.

RO226 | Vâlcea | Rădăcineşti  
Dacia Inferior | 24,441369 / 45,282131

Fortlet | Date: c. 106 - 270

Selected: No | Criteria:1, 2

Integrity: Fortlet with two phases: first in timber, second in stone. The site is scarcely excavated.

Authenticity: High level of authenticity, given the fact that the site is scarcely excavated.

RO227 | Vâlcea | Jiblea | La Gaitini  
Dacia Inferior | 24,361583 / 45,231472

Fortlet | Date: c. 106 - 270

Selected: No | Criteria:1, 2

Integrity: Possibly an auxiliary fortlet. Few excavations, almost invisible from the ground level.

Authenticity: High level of authenticity due to few excavations.

RO228 | Vâlcea | Sâmbotin  
 Castra Traiana | Dacia Inferior | 24,374106 / 45,1736  
 Fortlet | Date: c. 106 - 270  
 Selected: No | Criteria:1  
 Integrity: Fortlet on which few excavations were made. Two construction phases, second one in stone. Mostly destroyed, only the eastern corner is visible.  
 Authenticity: Low level of preservation.

RO229 | Vâlcea | Stolniceni  
 Buridava | Dacia Inferior | 24,314792 / 45,043861  
 Fortlet | Date: c. 106 - 270  
 Selected: No | Criteria:1  
 Integrity: Presumably auxiliary fort, unexcavated. Nothing visible on site.  
 Authenticity: n/a

RO230 | Vâlcea | Ionești Govorii  
 Pons Aluti | Dacia Inferior | 24,235833 / 44,8828  
 Thermae | Date: c. 106 - 270  
 Selected: No | Criteria:1  
 Integrity: Presumably auxiliary fortlet, earth and timber construction. Unexcavated and un-researched.  
 Authenticity: n/a

RO231 | Vâlcea | Drășășani (fost Momotești)  
 Rusidava | Dacia Inferior | 24,270008 / 44,650317  
 Fortlet | Date: c. 106 - 270  
 Selected: No | Criteria:1  
 Integrity: Presumably auxiliary fortlet, earth and timber construction. Few excavations.  
 Authenticity: n/a

RO232 | Olt | Enoșești  
 Acidava? | Dacia Inferior | 24,303239 / 44,374803  
 Fort | Date: c. 106 - 270  
 Selected: No | Criteria:1  
 Integrity: Presumably an earth-and-timber auxiliary fort. Not investigated, any probed.  
 Authenticity: n/a

RO233 | Olt | Reșca  
 Romula/Malva | Dacia Inferior | 24,396853 / 44,173436  
 Fort | Date: c. 106 - 270  
 Selected: Yes | Criteria:1, 2, 3  
 Integrity: The Fort from Resca is comprised by a complex of fortifications. There are three forts on site, all with earthen rampart. Precarious state of preservation.  
 Authenticity: n/a

RO234 | Dolj | Slăveni  
 Dacia Inferior | 24,528947 / 44,081881  
 Fort | Date: c. 106 - 270  
 Selected: Yes | Criteria:1, 2, 3  
 Integrity: Large auxiliary fort. It has two construction phases; the second one is in stone. The site is preserved in a good state, heavily restored.  
 Authenticity: Extensive restoration, little authenticity.

RO235 | Olt | Tia Mare  
 Dacia Inferior | 24,651428 / 43,866367  
 Fortlet | Date: c. 106 - 270  
 Selected: No | Criteria:1  
 Integrity: Auxiliary fort. Not investigated.  
 Authenticity: n/a

RO236 | Teleorman | Izlaz-Vedea | Racovița

Dacia Inferior | 24,757444 / 43,733306  
 Fortress (?) | Date: c. 106 - 270  
 Selected: No | Criteria:1  
 Integrity: Most probably an auxiliary fort. Nowadays nothing from the fort can be seen on the ground. Unexcavated.  
 Authenticity: n/a

RO237 | Brașov | Bran | Drumul Carului  
 Dacia Inferior | 25,300583 / 45,473861  
 Fortlet | Date: c. 106 - 270  
 Selected: No | Criteria:1, 2  
 Integrity: Fortlet, partially preserved beneath the surface, overlapped by a modern building.  
 Authenticity: Good state of preservation, only partially overlapped by modern structures.

RO238 | Argeș | Rucăr | Scărișoara  
 Dacia Inferior | 25,178592 / 45,398444  
 Fortlet | Date: c. 106 - 270  
 Selected: No | Criteria:1, 2  
 Integrity: Fortlet, only partially preserved and investigated. It was in used only during Trajan's reign.  
 Authenticity: The archaeological remains are only partially (half of the fortlet) overlapped by some modern structures. Little is known about the level of conservation.

RO239 | Argeș | Voinești | Mailatoaia  
 Dacia Inferior | 25,076194 / 45,29825  
 Thermae | Date: c. 106 - 270  
 Selected: No | Criteria:1, 2, 3  
 Integrity: The military baths and the fort in the nearby were only used in the time of Trajan. Very good state of preservation, the entire structures are preserved at different levels.  
 Authenticity: High level of authenticity.

RO240 | Argeș | Câmpulung Muscel I | Jidova  
 Dacia Inferior | 25,012703 / 45,220997  
 Fort | Date: c. 106 - 270  
 Selected: Yes | Criteria:1, 2, 3  
 Integrity: Fort, the only fort with a stone enclosure on the so-called Limes Transalutanus. Partially restored.  
 Authenticity: Good level of authenticity.

RO241 | Argeș | Câmpulung Muscel II | Pescăreasca  
 Dacia Inferior | 25,011108 / 45,217036  
 Fortlet | Date: c. 106 - 270  
 Selected: No | Criteria:1, 2  
 Integrity: Fortlet part of a strategic concept. Partially preserved beneath the soil surfaces, not overlapped by any modern buildings.  
 Authenticity: Difficult to estimate the state of conservation.

RO242 | Argeș | Purcăreni  
 Dacia Inferior | 24,8912 / 44,971297  
 Fort | Date: c. 106 - 270  
 Selected: No | Criteria:1  
 Integrity: Fort on the Limes Transalutanus, partially destroyed by the modern activities. Earthen rampart.  
 Authenticity: Not investigated. Poor state of conservation, overlapped by modern houses.

RO243 | Argeș | Albota  
 Dacia Inferior | 24,838583 / 44,771871  
 Fort | Date: 200 - 245  
 Selected: No | Criteria:-  
 Integrity: Fort on the Limes Transalutanus, no visible structures at the surface. The location of the fort was not firmly

established. Earthen rampart.

Authenticity: n/a

RO244 | Argeş | Săpata de Jos  
Dacia Inferior | 24,765506 / 44,709241

Fort | Date: 200 - 245

Selected: No | Criteria:1

Integrity: Fort on the Limes Transalutanus, no visible structures at the surface. The fort was built of bricks. Overlapped by an orchard.

Authenticity: Partially, investigated. Good state of conservation.

RO245 | Argeş | Săpata de Jos  
Dacia Inferior | 24,765013 / 44,707569

Thermae | Date: 235 - 245

Selected: No | Criteria:1

Integrity: Baths, partially preserved.

Authenticity: Poor state of conservation.

RO246 | Argeş | Săpata de Jos  
Dacia Inferior | 24,765135 / 44,708272

Fort | Date: 235 - 245

Selected: No | Criteria:1

Integrity: Fortlet, located at 35 m from the main fort (RO245).

Earthen rampart. Partially overlapped by an electricity transmission tower.

Authenticity: Partially investigated, being therefore difficult to estimate state of conservation.

RO247 | Argeş | Izbăşeşti  
Dacia Inferior | 24,786235 / 44,603696

Fort | Date: 200 - 245

Selected: No | Criteria:1

Integrity: Fort on the Limes Transalutanus, earthen structures to be seen at the surfaces. Earthen rampart.

Authenticity: Partially investigated, therefore is impossible to estimate the state of conservation.

RO248 | Argeş | Urlueni  
Dacia Inferior | 24,762969 / 44,48616

Fort | Date: 200 - 245

Selected: No | Criteria:1, 2

Integrity: Fort on the Limes Transalutanus, made of bricks. No visible remains at the surface.

Authenticity: Good state of preservation.

RO249 | Argeş | Urlueni  
Dacia Inferior | 24,763861 / 44,484985

Fort | Date: 200 - 245

Selected: No | Criteria:1

Integrity: Fort on the Limes Transalutanus, no visible remains at the surface. Earthen rampart.

Authenticity: Poor state of conservation due to agriculture activities.

RO250 | Olt | Crâmpoia  
Dacia Inferior | 24,7626 / 44,308142

Fort | Date: 200 - 245

Selected: No

RO251 | Teleorman | Gresia  
Dacia Inferior | 24,919287 / 44,172998

Fort | Date: 200 - 245

Selected: Yes | Criteria:1, 2, 3

Integrity: Fort, surveying a frontier pass.

Authenticity: Relatively well preserved, good level of authenticity.

RO252 | Teleorman | Roşiorii de Vede | Valea Mocanului  
Dacia Inferior | 24,948588 / 44,074849

Rampart | Date: 200 - 245

Selected: Yes | Criteria:1

Integrity: Rampart, near Roman road, both well preserved.

Authenticity: Well preserved.

RO253 | Teleorman | Roşiorii de Vede | Valea Mocanului  
Dacia Inferior | 24,947025 / 44,074718

Tower | Date: 200 - 245

Selected: Yes | Criteria:1, 2

Integrity: Tower, placed 100 m behind the palisade, not excavated.

Authenticity: Relatively well preserved as known from magnetometry.

RO254 | Teleorman | Roşiorii de Vede | Valea Urlui  
Dacia Inferior | 24,938873 / 44,061664

Fort | Date: 200 - 245

Selected: Yes | Criteria:1, 2

Integrity: Tower. No excavations.

Authenticity: Relatively well preserved as known from magnetometry.

RO255 | Teleorman | Roşiorii de Vede | Epureasca  
Dacia Inferior | 24,941591 / 44,04138

Tower | Date: 200 - 245

Selected: No

RO256 | Teleorman | Băneasa  
Dacia Inferior | 24,966752 / 43,938109

Fort | Date: 105 - 118

Selected: Yes | Criteria:1, 2

Integrity: Fortlet. No excavations.

Authenticity: Relatively well preserved as known from field survey.

RO257 | Teleorman | Băneasa  
Dacia Inferior | 24,963411 / 43,936204

Fort | Date: 200 - 245

Selected: Yes | Criteria:1, 2, 3

Integrity: Fort. Excavated, antique ground level is intact, at least in the south-western corner.

Authenticity: Relatively well preserved, good level of authenticity.

RO258 | Teleorman | Putineiu  
Dacia Inferior | 24,96688 / 43,89811

Fort | Date: 200 - 245

Selected: Yes | Criteria:1

Integrity: Fortlet. Extensive excavations in the western half, the agger is well profiled in the field.

Authenticity: Well preserved, high level of authenticity.

RO259 | Teleorman | Traian | Flămânda  
Dacia Inferior | 24,984842 / 43,734827

Fort | Date: 200 - 245

Selected: No

RO260 | Prahova | Dragna de Sus  
Dacia Inferior | 26,071808 / 45,257864

Fort | Date: 106 - 150

Selected: Yes | Criteria:1, 2, 3

Integrity: Fort, built of stone, excavated. Archaeological research was carried out in several stages. A building (praetorium?) was recently researched.

Authenticity: Well preserved, good level of authenticity. The fort

is partially overlapped by the current village.

RO261 | Prahova | Mălăești  
Dacia Inferior | 26,013044 / 45,091667  
Fort | Date: 106 - 150  
Selected: Yes | Criteria:1, 2, 3  
Integrity: The Roman remains are located outside the modern village. Although the fort was not overbuilt in later times, the inhabitants reused parts of the Roman construction material. Recent archaeological investigations are ongoing. The bath have been fully investigated and will be restored.  
Authenticity: The fort is relatively well preserved as known from archaeological excavations and field survey. High level of authenticity of the antique structures. The bath is very well preserved.

RO262 | Prahova | Târgșorul Vechi  
Dacia Inferior | 25,9274 / 44,890092  
Fort | Date: 106 - 150  
Selected: Yes | Criteria:1, 2, 3  
Integrity: The fort is partially overlapped by a monastery. The bath are located on church property. Archaeological research indicates its partial destruction by medieval housing.  
Authenticity: Relatively well preserved, good level of authenticity.

RO263 | Buzău | Pietroasele  
Dacia Inferior | 26,577572 / 45,093833  
Fort | Date: 106 - 150  
Selected: No  
Integrity: The fort is overlapped by the village.  
Authenticity: The bath are well preserved. The fort is overlapped by the current village.

RO264 | Silistra | Durostorum | Durostorum  
Durostorum | Moesia Inferior | 27,30575 / 44,111247  
Auxiliary fort/ Legionary fortress | Date: 0 - 650  
Selected: Yes | Criteria:1, 2, 3  
Integrity: Roman legionary fortress since late 1st – early 2nd c. AD until 7th c. 10th-11th c. Byzantine fortification. The Roman legionary fortress, as well as the Late Roman city walls superposed by the modern city of Silistra. Canabae and necropolises are on Bulgarian territory. Under current research. The civil settlement and municipium in Romania are partly affected by the river erosion (mostly the kilns of the workshops on the southern bank of the Danube).  
Authenticity: Durostorum/ Ostrov, site „Ferma 4”/Regie (commun. of Ostrov, Constanța County), 2-2,5 km from the legionary fortress. This area belongs to the civil settlement and the municipium of Durostorum (municipium Aurelium Durostorum). Dating: 2nd-4th c. AD; estimated surface: approx. 24 ha, with intense archaeological investigations since 1997. Pottery kilns, a thermal edifice with hypocaust and palaestra; horreum ? and water adduction system; another building (No 3) north of the baths, as well as private buildings north and south of the baths and building no 3. In the same direction, a 4th c. necropolis, and a 10th-11th c. habitation layer horizon. Private property (vineyard). Good level of authenticity.

RO265 | Constanța | Dervent | Dervent  
Moesia Inferior | 27,481686 / 44,132878  
Fortification | Date: 106 - 400  
Selected: No

RO266 | Constanța | Canlia | Canlia  
Cimbrianae | Moesia Inferior | 27,506678 / 44,147828  
Fortification/ Auxiliary fort | Date: 106 - 700

Selected: No

RO267 | Constanța | Izvoarele | Pârjoia  
Sucidava | Moesia Inferior | 27,568383 / 44,181808  
Fortification/ Auxiliary fort | Date: 106 - 650  
Selected: Yes | Criteria:1  
Integrity: Identified, but not investigated yet by any archaeological means. Most likely not superposed by later habitation layers, i.e. in good state of preservation and with a high level of integrity.  
Authenticity: Most likely presenting a high level of authenticity.

RO268 | Constanța | Oltina | Măciuca  
Altinum | Moesia Inferior | 27,688361 / 44,1867  
Fortification | Date: 270 - 600  
Selected: No

RO269 | Constanța | Viile | Beilic  
Moesia Inferior | 27,765597 / 44,172225  
Fortification | Date: 106 - 600  
Selected: No

RO270 | Constanța | Dunăreni | Dunăreni  
Sacidava | Moesia Inferior | 27,848897 / 44,240081  
Fortification/ Auxiliary fort | Date: 106 - 650  
Selected: Yes | Criteria:1, 2, 3  
Integrity: Minor archaeological investigations, not superposed or overbuilt. Good state of preservation and integrity.  
Authenticity: High level of authenticity.

RO271 | Constanța | Rasova | Rasova  
Flaviana | Moesia Inferior | 27,900431 / 44,231206  
Horreum/settlement | Date: 106 - 600  
Selected: No

RO272 | Constanța | Cernavodă | Hinog  
Axiopolis | Moesia Inferior | 28,018525 / 44,312914  
Auxiliary fort/ Legionary fortress | Date: 106 - 650  
Selected: Yes | Criteria:1, 2, 3  
Integrity: Partially investigated in the beginning of the 20th c. Most likely high level of integrity and good state of conservation. Nowadays military restricted area.  
Authenticity: High level of authenticity.

RO273 | Constanța | Seimenii Mari | Seimenii Mari  
Moesia Inferior | 28,063025 / 44,389397  
Burgus | Date: 280 - 500  
Selected: No

RO274 | Constanța | Capidava | Capidava  
Capidava | Moesia Inferior | 28,090381 / 44,493803  
Auxiliary fort | Date: 80 - 650  
Selected: Yes | Criteria:1, 2, 3  
Integrity: Under archaeological investigation since 1924. High level of integrity of the ancient curtain walls, as well as a good state of preservation before recent interventions.  
Authenticity: The reuse and overbuilding of the antique structures have compromised their authenticity to a certain extent, in Byzantine times (curtain walls and intra muros habitation). Authenticity of the curtain walls altered during the 2015 restoration intervention, aiming at changing facings and elevating curtains, towers, as well as the gates. Previously, curtain walls preserved 3-4 m high and up to 6 m.

RO275 | Constanța | Topalu | Topalu  
Moesia Inferior | 28,039744 / 44,585733  
Fortress | Date: 280 - 600

Selected: No

RO276 | Constanța | Hârșova | Hârșova  
Carsium | Moesia Inferior | 27,952478 / 44,681786

Auxiliary fort | Date: 0 - 650

Selected: Yes | Criteria:1, 2, 3

Integrity: Under current systematic investigation, partially superposed by the modern town (necropolises and civil settlement). The only Late Roman part of the fortification that kept its integrity is the Northern Gate, excepting intra muros habitation structures. Also preserved the mediaeval curtain (northern and western sectors), as well as parts of the ancient port.

Authenticity: The fortification site superposes a rocky cliff legally declared as natural and landscape reserve. Authentic, but severely damaged during Middle Ages and Modern Times. Roman remains in Hârșova have been largely reused, overbuilt and destroyed during 19th c. Turkish occupation.

RO277 | Constanța | Gârliciu | Gârliciu  
Civs | Moesia Inferior | 28,061592 / 44,723142

Auxiliary fort | Date: 106 - 400

Selected: Yes | Criteria:1, 2

Integrity: Excellent aerial/ satellite visibility, but not investigated yet by any archaeological means. Most likely not superposed by later habitation layers, i.e. in good state of preservation and with a high level of integrity.

Authenticity: Most likely presenting a high level of authenticity.

RO278 | Tulcea | Frecăței | Frecăței  
Beroe | Moesia Inferior | 28,140278 / 44,896244

Auxiliary fort | Date: 106 - 650

Selected: Yes | Criteria:1, 2

Integrity: Minor archaeological investigations of the Roman fort, overbuilt in medieval times. Unknown state of preservation and integrity, but not altered in modern times.

Authenticity: Possibly presenting an important level of authenticity, but likely to have been altered during medieval reuse of the site.

RO279 | Tulcea | Turcoaia | Turcoaia  
Troesmis | Moesia Inferior | 28,195075 / 45,143264

Auxiliary fort/Legionary fortress | Date: 0 - 650

Selected: Yes | Criteria:1, 2, 3

Integrity: Complex system consisting of 2 large fortifications, Roman legionary fortress, civil habitation, necropolises, water supply system/ aqueduct. Partially investigated during 19th and 20th c. Western fortification practically unaffected. The latter is superposed/overbuilt in medieval times. Good state of preservation, high level of integrity respectively.

Authenticity: High level of authenticity.

RO280 | Tulcea | Măcin | Măcin  
Arrubium | Moesia Inferior | 28,128117 / 45,239394

Auxiliary fort | Date: 0 - 400

Selected: No

RO281 | Tulcea | Garvăn | Garvăn  
Dinogetia | Moesia Inferior | 28,138842 / 45,378956

Fortification | Date: 106 - 650

Selected: Yes | Criteria:1, 2, 3

Integrity: Under archaeological research since 1939. High level of integrity and good state of conservation of the defensive system, as well as the interior buildings (though superposed/ overbuilt in medieval times).

Authenticity: High level of authenticity.

RO282 | Galați | Galați | Barboși  
Moesia Inferior | 27,989672 / 45,405

Auxiliary fort | Date: 106 - 400

Selected: Yes

Integrity: This is a central part of a territory located at the confluence of the Danube with river Siret. This territory is bordered by a semicircular vallum of about 25 km long. It's visible on nearly half of its route. The best preserved areas are heads wave (south and east). Inside the territory there are some small fortlets and numerous tumuli.

Authenticity: Good level of authenticity.

RO283 | Tulcea | Luncavița | Luncavița  
Moesia Inferior | 28,272375 / 45,312853

Auxiliary fort | Date: 106 - 600

Selected: No

Integrity: The walls were removed in modern times. No archaeological research. There are no known data on housing during the early Roman period.

Authenticity: High level of authenticity.

RO284 | Tulcea | Isaccea | Noviodunum  
Moesia Inferior | 28,493069 / 45,270256

Auxiliary fort/Legionary fortress/ Fleet headquarters for Classis Flavia Moesica | Date: 0 - 650

Selected: Yes | Criteria:1, 2, 3

Integrity: Complex site, with pre-Roman (Celtic?) habitation, Roman (fortress, basilica thermae, 3 defensive ditches, necropolises, civil settlement, aqueduct traces, covering over 100 ha) from the 1st to the 7th c., Byzantine to Turkish fortification (16th c.). Archaeological investigations since 1955. The Northern curtains and the ancient have been heavily affected by the river erosion. High level of integrity and good state of conservation of the defensive system, as well as the interior buildings (though superposed/ overbuilt in medieval times).

Authenticity: High level of authenticity of the antique structures, though affected by several overbuilding/ reuse episodes in Medieval times.

RO285 | Tulcea | Tulcea | Tulcea  
Aegysus | Moesia Inferior | 28,815578 / 45,185892

Auxiliary fort | Date: 0 - 600

Selected: Yes | Criteria:1, 2, 3

Integrity: Site occupying the upper part of the Hill with the Independence Monument, within the Archaeological Reserve and Museum Complex. Pre-Roman settlement, thermae, Roman fortification walls, storehouses (?) Superposed by the Byzantine habitation and fortification elements, as well as a later 14th c. habitation. Good state of preservation, high level of integrity respectively.

Authenticity: Important level of authenticity of the antique structures, though affected by overbuilding of the whole Acropolis area.

RO286 | Tulcea | Mahmudia | Mahmudia  
Salsovia | Moesia Inferior | 29,067672 / 45,100486

Fortification/ Auxiliary fort | Date: 106 - 700

Selected: Yes | Criteria:1, 2

Integrity: Minor archaeological investigations undertaken, not superposed or overbuilt. Assumedly, a fair state of preservation and integrity, though affected by First World War trenches, modern stone robbing activity. The dating of the fortification and the settlement on the promontory is certain just for the Late Roman times (i.e. late 3rd – 6th c. AD), though artefacts from the 1st-3rd c. are commonly known.

Authenticity: Most likely presenting a good level of authenticity



and coherence.

RO287 | Tulcea | Murighiol | Murighiol  
Halmiris/Salmorus | Moesia Inferior | 29,198022 / 45,024411  
Auxiliary fort | Date: 106 - 700  
Selected: Yes | Criteria:1, 2, 3  
Integrity: Pre-Roman site (6th-1st c. BC) and Roman fortification with civil settlement and harbour (early 2nd c. – 7th c. AD. Archaeological investigation since 1981. Good state of preservation, high level of integrity respectively. One should count here the curtain walls and the towers, the bishopric basilica, thermae next to the Northern Gate, barracks and a central official building (Principia). Exceptional bishopric basilica with crypt and relics found in situ (AD 290, martyrs Epictetus and Astion).  
Authenticity: High level of authenticity of the antique structures, not superposed or altered after early 7th c.

RO288 | Tulcea | Dunăvățu de Sus | Dunăvățu de Sus  
Ad Stoma | Moesia Inferior | 29,22575 / 45,019925  
Fortlet | Date: 200 - 600  
Selected: No

RO289 | Constanța | Oltina | Capu Dealului  
Moesia Inferior | 27,631589 / 44,191803  
settlement | Date: 106 - 600  
Selected: No

RO290 | Tulcea | Peceneaga | Peceneaga  
Moesia Inferior | 28,146706 / 44,978886  
quadriburgium | Date: 300 - 600  
Selected: No

RO291 | Tulcea | Traian | Traian  
Moesia Inferior | 28,237544 / 45,03165  
quadriburgium | Date: 270 - 600  
Selected: No

RO292 | Tulcea | Jijila | Jijila  
Moesia Inferior | 28,147372 / 45,316161  
quadriburgium | Date: 270 - 600  
Selected: No

RO293 | Tulcea | Rachelu | Rachelu  
Moesia Inferior | 28,337311 / 45,281928  
quadriburgium | Date: 270 - 600  
Selected: No

RO294 | Tulcea | Dunăvățu de Sus | Cetatea Zaporojenilor  
Gratiana? | Moesia Inferior | 29,154381 / 44,980111  
Fortlet | Date: 270 - 600  
Selected: Yes | Criteria:1, 2  
Integrity: Fortification that had the task of guarding the entrance to the Danube. Identified by certain authors with Gratiana, has been examined in the second half of the 19th c. and archaeologically investigated between 1987-1993. Small size fortification with no stone walls inside (but with structures using wood and adobe instead), with the possible traces of a harbour nearby. Late Roman layers, starting in the 4th c., maybe dating the complex to the reign of Valens. Good state of preservation and integrity.  
Authenticity: High level of authenticity of the antique structures, not superposed by later interventions.

RO295 | Mehedinți | Insula Banului | Insula Banului  
Transdiana | Dacia Superior | 22,547336 / 44,660825  
Legionary fortress | Date: c. 106 - 270

Selected: No | Criteria:1  
Authenticity: temporary camp, auxiliary fort.

RO296 | Mehedinți | Turnu-Severin | Turnu-Severin  
Drobeta | Dacia Superior | 22,668119 / 44,624969  
Auxiliary fort/Legionary fortress | Date: 106 - 600  
Selected: Yes | Criteria:1, 2, 3  
Integrity: Auxiliary fort, excavated and researched, overlapped by medieval tower in the south-west corner of the fort. Located in the court yard of the local museum.  
Authenticity: Good state of preservation. However, because of the preservation and restoration process lost some of its authenticity.

RO297 | Hinova | Hinova | Hinova  
Moesia Inferior | 22,770983 / 44,545961  
Legionary fortress | Date: 270 - 400  
Selected: Yes | Criteria:1, 2, 3  
Integrity: Fort/quadriburgium, entirely excavated, not overlapped.  
Authenticity: Very well preserved, small restoration work high level of authenticity.

RO298 | Dolj | Desa | Desa  
Dacia Inferior | 22,963731 / 43,82105  
Auxiliary fort/Legionary fortress | Date: 106 - 400  
Selected: No | Criteria:n/a

RO299 | Dolj | Bistreț | Bistreț  
Dacia Inferior | 23,548064 / 43,818972  
Auxiliary fort/Legionary fortress | Date: 106 - 400  
Selected: No | Criteria:n/a

RO300 | Olt | Grojdibodu | Grojdibodu  
Dacia Inferior | 24,253342 / 43,702967  
Auxiliary fort | Date: c. 106 - 270  
Selected: No | Criteria:n/a

RO301 | Olt | Celei | Celei  
Sucidava | Dacia Inferior | 24,459553 / 43,764325  
Fortress | Date: 106 - 600  
Selected: Yes | Criteria:1, 2, 3  
Integrity: Temporary Camp / Fortress, excavated and researched, part of an archaeological park, good preservation, not overlapped.  
Authenticity: Very well preserved, because of the restoration, it may have lost some of its authenticity but it has big parts of it untouched by restoration with high level of authenticity.

RO302 | Sânnicolau Mare | Sânnicolau Mare | Sânnicolau Mare  
1  
Dacia Superior | 20,662364 / 46,067483  
earthworks | Date: uncertain  
Selected: No  
Integrity: The rampart is still visible in the field, having a height ranging between 0.5 and 1 m. The rampart is constantly affected by intensive agriculture, being subjected to continuous deterioration.  
Authenticity: n/a

RO303 | Sânnicolau Mare | Sânnicolau Mare | Sânnicolau Mare  
2  
Dacia Superior | 20,674214 / 46,072261  
earthworks | Date: uncertain  
Selected: No  
Integrity: The rampart is still visible in the field, having a height ranging between 0.5 and 1 m. The rampart is constantly



affected by intensive agriculture, being subjected to continuous deterioration.

Authenticity: n/a

RO304 | Saravale | Saravale | Saravale 1  
Dacia Superior | 20,716544 / 46,084733  
earthworks | Date: uncertain

Selected: No

Integrity: The rampart is still visible in the field, having a height ranging between 0.5 and 1 m. The rampart is constantly affected by intensive agriculture, being subjected to continuous deterioration.

Authenticity: n/a

RO305 | Saravale | Saravale | Saravale 2  
Dacia Superior | 20,735875 / 46,088936  
earthworks | Date: uncertain

Selected: No

Integrity: The rampart is still visible in the field, having a height ranging between 0.5 and 1 m. The rampart is constantly affected by intensive agriculture, being subjected to continuous deterioration.

Authenticity: n/a

RO306 | Saravale | Saravale | Saravale 3  
Dacia Superior | 20,751925 / 46,088919  
earthworks | Date: uncertain

Selected: No

Integrity: The rampart is still visible in the field, having a height ranging between 0.5 and 1 m. The rampart is constantly affected by intensive agriculture, being subjected to continuous deterioration.

Authenticity: n/a

RO307 | Sânpetru Mare | Igrış | Igrış 1  
Dacia Superior | 20,755533 / 46,091483  
earthworks | Date: uncertain

Selected: No

Integrity: The rampart is still visible in the field having a height ranging between 0.5 and 1 m. The rampart is constantly affected by intensive agriculture, being subjected to continuous deterioration.

Authenticity: n/a

RO308 | Sânpetru Mare | Igrış | Igrış 2  
Dacia Superior | 20,761047 / 46,09535  
earthworks | Date: uncertain

Selected: No

Integrity: The rampart is still visible in the field, having a height ranging between 0.5 and 1 m. The rampart is constantly affected by intensive agriculture, being subjected to continuous deterioration.

Authenticity: n/a

RO309 | Sânpetru Mare | Igrış | Igrış 3  
Dacia Superior | 20,773803 / 46,101117  
earthworks | Date: uncertain

Selected: No

Integrity: The rampart is still visible in the field, having a height ranging between 0.5 and 1 m. The rampart is constantly affected by intensive agriculture, being subjected to continuous deterioration.

Authenticity: n/a

RO310 | Periam | Periam | Periam 1  
Dacia Superior | 20,913969 / 46,037214  
earthworks | Date: uncertain

Selected: No

Integrity: The structure of the rampart is very flattened, maintaining a high between 0.25 and 0.5 m. The ditch is not visible any more, being clogged. The agriculture affected irreparably the internal structure of the rampart, almost levelling it.

Authenticity: n/a

RO311 | Satchinez | Satchinez | Satchinez 1  
Dacia Superior | 21,014236 / 45,952556  
earthworks | Date: uncertain

Selected: No

Integrity: The structure of the rampart is very flattened maintaining a high between 0.25 and 0.5 m. The ditch is not visible any more being clogged. The agriculture affected irreparably the internal structure of the rampart, almost levelling it.

Authenticity: n/a

RO312 | Satchinez | Satchinez | Satchinez 2  
Dacia Superior | 21,062358 / 45,937925  
earthworks | Date: uncertain

Selected: No

Integrity: The structure of the rampart is very flattened maintaining a high between 0.25 and 0.5 m. The ditch is not visible any more being clogged. The agriculture affected irreparably the internal structure of the rampart, almost levelling it.

Authenticity: n/a

RO313 | Satchinez | Satchinez | Satchinez 3  
Dacia Superior | 21,068758 / 45,936281  
earthworks | Date: uncertain

Selected: No

Integrity: The structure of the rampart is very flattened maintaining a high between 0.25 and 0.5 m. The ditch is not visible any more being clogged. The agriculture affected irreparably the internal structure of the rampart, almost levelling it.

Authenticity: n/a

RO314 | Orțișoara | Călăcea | Călăcea 1  
Dacia Superior | 21,076969 / 45,930108  
earthworks | Date: uncertain

Selected: No

Integrity: The structure of the rampart is very flattened maintaining a high between 0.25 and 0.5 m. The ditch is not visible any more being clogged. The agriculture affected irreparably the internal structure of the rampart, almost levelling it.

Authenticity: n/a

RO315 | Orțișoara | Călăcea | Călăcea 2  
Dacia Superior | 21,094622 / 45,932117  
earthworks | Date: uncertain

Selected: No

Integrity: The structure of the rampart is very flattened maintaining a high between 0.25 and 0.5 m. The ditch is not visible any more being clogged. The agriculture affected irreparably the internal structure of the rampart, almost levelling it.

Authenticity: n/a

RO316 | Orțișoara | Călăcea | Călăcea 3  
Dacia Superior | 21,096464 / 45,929436  
earthworks | Date: uncertain

Selected: No

Integrity: The structure of the rampart is very flattened maintaining a high between 0.25 and 0.5 m. The ditch is not visible any more being clogged. The agriculture affected irreparably the internal structure of the rampart, almost levelling it.  
Authenticity: n/a

RO317 | Orțișoara | Călăcea | Călăcea 4  
Dacia Superior | 21,12105 / 45,931303  
earthworks | Date: uncertain

Selected: No  
Integrity: The structure of the rampart is very flattened maintaining a high between 0.25 and 0.5 m. The ditch is not visible any more being clogged. The agriculture affected irreparably the internal structure of the rampart, almost levelling it.  
Authenticity: n/a

RO318 | Orțișoara | Călăcea | Călăcea 5  
Dacia Superior | 21,128531 / 45,929308  
earthworks | Date: uncertain

Selected: No  
Integrity: The structure of the rampart is very flattened maintaining a high between 0.25 and 0.5 m. The ditch is not visible any more being clogged. The agriculture affected irreparably the internal structure of the rampart, almost levelling it.  
Authenticity: n/a

RO319 | Sânanndrei | Carani | Carani 1  
Dacia Superior | 21,176097 / 45,928769  
earthworks | Date: uncertain

Selected: No  
Integrity: The structure of the rampart is very flattened maintaining a high between 0.25 and 0.5 m. The ditch is not visible any more being clogged. The agriculture affected irreparably the internal structure of the rampart, almost levelling it.  
Authenticity: n/a

RO320 | Otelec | Otelec | Otelec  
Dacia Superior | 20,840914 / 45,622497  
earthworks | Date: uncertain

Selected: No  
Authenticity: n/a

RO321 | Cenei | Cenei | Cenei  
Dacia Superior | 20,889133 / 45,716575  
earthworks | Date: uncertain

Selected: No  
Authenticity: n/a

RO322 | Carpișiș | Carpișiș | Carpișiș  
Dacia Superior | 20,927733 / 45,786964  
earthworks | Date: uncertain

Selected: No  
Authenticity: n/a

RO323 | Becicherecu Mic | Becicherecu Mic | Becicherecu Mic  
Dacia Superior | 20,977792 / 45,840722  
earthworks | Date: uncertain

Selected: No  
Integrity: In this sector the rampart is still visible, having an elevation of 0.25 m to 0.5 m. The ditch is also visible, having a depth of 0.5 m.  
Authenticity: n/a

RO324 | Satchinez | Hodoni | Hodoni  
Dacia Superior | 21,070836 / 45,909306  
earthworks | Date: uncertain

Selected: No  
Integrity: In this area the structure is completely destroyed and it is no longer visible on the field.  
Authenticity: n/a

RO325 | Orțișoara | Calacea | Calacea 6  
Dacia Superior | 21,126869 / 45,9631  
earthworks | Date: uncertain

Selected: No  
Integrity: In this sector the rampart is still visible, having an elevation of 0.25 m to 0.5 m. The ditch is also visible, having a depth of 0.5 m.  
Authenticity: n/a

RO326 | Moravița | Moravița | Moravița  
Dacia Superior | 21,246189 / 45,245369  
earthworks | Date: uncertain

Selected: No  
Authenticity: n/a

RO327 | Moravița | Dejan | Dejan  
Dacia Superior | 21,291994 / 45,297178  
earthworks | Date: uncertain

Selected: No  
Authenticity: n/a

RO328 | Moravița | Dejan | Dejan 1  
Dacia Superior | 21,294989 / 45,313561  
earthworks | Date: uncertain

Selected: No  
Authenticity: n/a

RO329 | Gătaia | Percosova | Percosova  
Dacia Superior | 21,312964 / 45,328919  
earthworks | Date: uncertain

Selected: No  
Authenticity: n/a

RO330 | Denta | Rovinita Mare | Rovinita Mare  
Dacia Superior | 21,275072 / 45,386839  
earthworks | Date: uncertain

Selected: No  
Integrity: In this sector the rampart is still visible having an elevation of 0.5 m to 1 m. The ditch is also visible having a depth of 0.5 m.  
Authenticity: n/a

RO331 | Voiteg | Folea | Folea  
Dacia Superior | 21,282372 / 45,498572  
earthworks | Date: uncertain

Selected: No  
Authenticity: n/a

RO332 | Liebling | Iosif | Iosif  
Dacia Superior | 21,256442 / 45,564033  
earthworks | Date: uncertain

Selected: No  
Authenticity: n/a

RO333 | Padureni | Padureni | Padureni  
Dacia Superior | 21,210294 / 45,603372  
earthworks | Date: uncertain

Selected: No  
Integrity: In this sector the rampart is still visible having an

elevation of 0.5 m. The ditch is also visible keeping a depth ranging between 0.25 m to 0.5 m.  
Authenticity: n/a

RO334 | Şag | Şag | Şag  
Dacia Superior | 21,191689 / 45,651722  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this sector the rampart is still visible having an elevation of 0.5 m. The ditch is also visible keeping a depth ranging between 0.25 m to 0.5 m.  
Authenticity: n/a

RO335 | Timișoara | Timișoara | Timișoara 1  
Dacia Superior | 21,193922 / 45,712236  
earthworks | Date: uncertain  
Selected: No  
Integrity: The rampart is completely overlaid by the city of Timișoara.  
Authenticity: n/a

RO336 | Timișoara | Timișoara | Timișoara 2  
Dacia Superior | 21,225542 / 45,789603  
earthworks | Date: uncertain  
Selected: No  
Integrity: The rampart is completely overlaid by the city of Timișoara.  
Authenticity: n/a

RO337 | Giarmata | Cerneteaz | Cerneteaz  
Dacia Superior | 21,257339 / 45,838094  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this sector the rampart retains an elevation of 0.25 m to 0.5 m, being harder to notice on the field. The ditch was completely clogged. In this sector, in 2004 and 2010 an archaeological excavation was conducted.  
Authenticity: n/a

RO338 | Pișchia | Pișchia | Pișchia 1  
Dacia Superior | 21,271097 / 45,867978  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this sector the structure is well preserved, because of the forest that is transiting. In this sector archaeological excavations were conducted in 1978, but the results have not been published yet.  
Authenticity: n/a

RO339 | Pișchia | Pișchia | Pișchia 2  
Dacia Superior | 21,331683 / 45,912461  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this sector the structure is well preserved, because of the forest that is transiting. In this sector archaeological excavations were conducted in 1978, but the results have not been published yet.  
Authenticity: n/a

RO340 | Fibiș | Fibiș | Fibiș  
Dacia Superior | 21,412311 / 45,977564  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this sector the rampart has an elevation of 0.5-1 m, the ditch being also well preserved with a depth of 0.5 m. However the structure is subject to continuous degradation due to the intensive agriculture.

Authenticity: n/a

RO341 | Mașloc | Mașloc | Mașloc  
Dacia Superior | 21,441294 / 46,005889  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this sector the rampart has an elevation of 0.5-1 m, the ditch being also well observable with a depth of 0,5 m. However the structure is subject to continuous degradation due to the intensive agriculture.  
Authenticity: n/a

RO342 | Mașloc | Alioș | Alioș  
Dacia Superior | 21,478472 / 46,046161  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this sector the rampart has an elevation of 1-1.5 m, the ditch being also well observable (with a depth of 1 m). However the structure is subject to continuous degradation due to the intensive agriculture.  
Authenticity: n/a

RO343 | Albia Mureșului Sud | Albia Mureșului Sud  
Dacia Superior | 21,530186 / 46,114469  
earthworks | Date: uncertain  
Selected: No  
Authenticity: n/a

RO344 | Jamu Mare | Jamu Mare | Jamu Mare  
Dacia Superior | 21,362803 / 45,223253  
earthworks | Date: uncertain  
Selected: No  
Authenticity: n/a

RO345 | Jamu Mare | Gherman | Gherman  
Dacia Superior | 21,374686 / 45,267697  
earthworks | Date: uncertain  
Selected: No  
Authenticity: n/a

RO346 | Gătaia | Butin | Butin  
Dacia Superior | 21,392936 / 45,339206  
earthworks | Date: uncertain  
Selected: No  
Authenticity: n/a

RO347 | Birda | Berecuța | Berecuța  
Dacia Superior | 21,355956 / 45,413314  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this sector the rampart has an elevation of only 0.25 m, the ditch being completely clogged. The intensive agriculture flattened the antique structures.  
Authenticity: n/a

RO348 | Birda | Birda | Birda  
Dacia Superior | 21,357275 / 45,433908  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this sector the rampart has an elevation of only 0.25 m, the ditch being completely clogged. The intensive agriculture flattened the antique structures.  
Authenticity: n/a

RO349 | Tormac | Șipet | Șipet  
Dacia Superior | 21,362753 / 45,5183  
earthworks | Date: uncertain

Selected: No  
Authenticity: n/a

RO350 | Liebling | Cerna | Cerna  
Dacia Superior | 21,380875 / 45,566181  
earthworks | Date: uncertain  
Selected: No  
Authenticity: n/a

RO351 | Sacoșu Turcesc | Otvești | Otvești  
Dacia Superior | 21,424186 / 45,622828  
earthworks | Date: uncertain  
Selected: No  
Authenticity: n/a

RO352 | Chevereșu Mare | Dragșina | Dragșina  
Dacia Superior | 21,400125 / 45,694106  
earthworks | Date: uncertain  
Selected: No  
Authenticity: n/a

RO353 | Moșnița Noua | Albina | Albina  
Dacia Superior | 21,38945 / 45,711603  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this area the structure is completely destroyed and it is no longer visible on the field.  
Authenticity: n/a

RO354 | Moșnița Noua | Moșnița Veche | Moșnița Veche  
Dacia Superior | 21,360083 / 45,746356  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this area the structure is completely destroyed and it is no longer visible on the field.  
Authenticity: n/a

RO355 | Remetea Mare | Remetea Mare | Remetea Mare  
Dacia Superior | 21,356619 / 45,783314  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this area the structure is completely destroyed and it is no longer visible on the field.  
Authenticity: n/a

RO356 | Remetea Mare | Ianova | Ianova  
Dacia Superior | 21,408614 / 45,849839  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this sector the rampart is visible on the field, having an elevation of 0.5 to 1 m. Also the ditch has a depth of 0.5 m. Especially the intensive agriculture caused the flattening of the rampart.  
Authenticity: n/a

RO357 | Pișchia | Bencecu de Jos | Bencecu de Jos  
Dacia Superior | 21,459825 / 45,905631  
earthworks | Date: uncertain  
Selected: No  
Integrity: In this sector the rampart is visible on the field, having an elevation of 2 to 4 m. Also the ditch is keeping a depth of 1 to 2 m. The main factor which resulted in maintaining a good state of preservation was the presence of the forest.  
Authenticity: n/a

RO358 | Mașloc | Remetea Mica | Remetea Mica 1  
Dacia Superior | 21,471131 / 45,942042  
earthworks | Date: uncertain

Selected: No  
Integrity: In this sector the rampart is visible on the field, having an elevation of 2 to 4 m. Also the ditch is keeping a depth of 1 to 2 m. The main factor which resulted in maintaining a good state of preservation was the presence of the forest.  
Authenticity: n/a

RO359 | Mașloc | Remetea Mica | Remetea Mica 2  
Dacia Superior | 21,471169 / 45,9781  
earthworks | Date: uncertain

Selected: No  
Integrity: In this sector the rampart is visible on the field, having an elevation of 0.5 to 1 m. Also the ditch is keeping a depth of 0.5 m. Especially the intensive agriculture caused the flattening of the rampart.  
Authenticity: n/a

RO360 | Bogda | Charlottenburg | Charlottenburg  
Dacia Superior | 21,506464 / 45,989092  
earthworks | Date: uncertain  
Selected: No  
Authenticity: n/a

RO361 | Zăbrani | Chesinț | Chesinț 1  
Dacia Superior | 21,530744 / 46,012933  
earthworks | Date: uncertain

Selected: No  
Integrity: In this sector the rampart is visible on the field, having an elevation of 1 to 2 m. Also the ditch is keeping a depth of 0.5 m. Especially the intensive agriculture caused the flattening of the rampart.  
Authenticity: n/a

RO362 | Zăbrani | Chesinț | Chesinț 2  
Dacia Superior | 21,551986 / 46,013669  
earthworks | Date: uncertain

Selected: No  
Integrity: In this sector the rampart is visible on the field, having an elevation of 1 to 2 m. Also the ditch is keeping a depth of 0.5 m. Especially the intensive agriculture caused the flattening of the rampart.  
Authenticity: n/a

RO363 | Zăbrani | Chesinț | Chesinț 3  
Dacia Superior | 21,582442 / 46,043653  
earthworks | Date: uncertain

Selected: No  
Integrity: In this sector the rampart is visible on the field, having an elevation of 1 to 2 m. Also the ditch is keeping a depth of 0.5 m. Especially the intensive agriculture caused the flattening of the rampart.  
Authenticity: n/a

RO364 | Zăbrani | Neudorf | Neudorf  
Dacia Superior | 21,594897 / 46,076039  
earthworks | Date: uncertain

Selected: No  
Authenticity: n/a

## BULGARIA

BG001 | Bregovo | Vrav | Kaleto/Cetatea  
Dorticum | Moesia Superior, Dacia Ripensis | 22,705556 / 44,198584  
Fort/Road station | Date: 0 - 600  
Selected: No | Criteria: n/a  
Integrity: The layout of the circuit wall is still discernible on the ground, although badly damaged by extraction of stone material in modern times. The inner buildings and the whole territory of the large extramural settlement are almost completely destroyed by treasure-hunting.  
Authenticity: The Roman and Early Byzantine remains are partially overlaid by medieval and modern structures.

BG002 | Bregovo | Vrav | Cetatea  
Moesia Superior, Dacia Ripensis | 22,756667 / 44,187209  
Fort/Fortlet | Date: 300 - 600  
Selected: No | Criteria: n/a  
Integrity: The northern wall is probably destroyed by the Danube. The other walls lie beneath high earthen embankments. The fortified area is partially damaged by treasure-hunting.  
Authenticity: There are no traces of later habitation at the site.

BG003 | Novo selo | Novo selo  
Moesia Superior, Dacia Ripensis | 22,799611 / 44,155  
Fort/Fortlet | Date: 300 - 600  
Selected: No | Criteria: n/a  
Integrity: The layout is not discernible on the ground. A border post was built and functioned at the same place in the late-19th and in the first half of 20th c. Insignificant traces of treasure-hunting in recent times.  
Authenticity: At least part of the site seems to be preserved in its authentic appearance.

BG004 | Novo selo | Florentin | Valea Turcilor  
Florentiana? | Moesia Superior, Dacia Ripensis | 22,858611 / 44,134181  
Fort/Fortlet | Date: 300 - 600  
Selected: No | Criteria: n/a  
Integrity: There are no visible remains of the Late Roman/Early Byzantine fort. A medieval fortress had been built over its ruins in the 12th-13th c. and continued functioning until the beginning of the 19th c.  
Authenticity: No information.

BG005 | Novo selo | Yasen  
Moesia Superior, Dacia Ripensis | 22,878333 / 44,122519  
Fort/Fortlet | Date: 300 - 600  
Selected: No | Criteria: n/a  
Integrity: A small piece of a precinct wall is visible in the profile of the tumbled-down low Danube terrace. The northernmost part of the site is destroyed by the river. There is no information about the size and layout of the fort. Its remains are within the limits of a private yard plot.  
Authenticity: The preserved part of the site seems to be in its authentic appearance.

BG006 | Novo selo | Yasen | [F]unia alba  
Moesia Superior, Dacia Ripensis | 22,914722 / 44,099195  
Fort/Fortlet | Date: 0 - 600  
Selected: No | Criteria: n/a  
Integrity: There is no information about the size and layout of the fort. Its standing place and the adjacent areas are almost completely destroyed by treasure-hunting in modern times.  
Authenticity: There are no traces of later habitation at the site.

BG007 | Vidin | Gomotartsi | Magura  
Moesia Superior, Dacia Ripensis | 22,99289 / 44,09289  
Fort/Fortlet | Date: 300 - 600  
Selected: No | Criteria: n/a  
Integrity: There is no information about the size and layout of the fort. Its remains are overbuilt by a Turkish redoubt from the 19th c.  
Authenticity: No information

BG008 | Vidin | Koshava | Cetațui  
Ad malum? | Moesia Superior, Dacia Ripensis | 23,033056 / 44,061445  
Road station/Fort/Fortlet | Date: 300 - 600  
Selected: No | Criteria: n/a  
Integrity: There is no information about the size and layout of the site. The building material had been systematically robbed in the past by the local population and now the remains are almost completely erased by agricultural activities.  
Authenticity: There are no traces of later habitation at the site.

BG009 | Vidin | Vidin | Kaleto  
Bononia | Moesia Superior, Dacia Ripensis | 22,886842 / 43,992733  
Fort/Town | Date: 0 - 600  
Selected: Yes | Criteria: 1  
Integrity: The remains of the site are totally overbuilt by medieval, Ottoman and modern structures. The layout of the Late Roman circuit wall is revealed by rescue excavations and certain parts of it are still visible in good state of preservation.  
Authenticity: Partially preserved authentic appearance.

BG010 | Vidin | Dunavtsi | Kurvin grad  
Novo? | Moesia Superior, Dacia Ripensis | 22,827778 / 43,90195  
Fort/Fortlet | Date: 300 - 600  
Selected: No | Criteria: n/a  
Integrity: There is no information about the precise layout of the fort. The fortified area and its vicinity are badly damaged by modern treasure-hunting.  
Authenticity: There are no traces of later habitation at the site.

BG011 | Vidin | Tsar Simeon | Golemi nivi  
Moesia Superior, Dacia Ripensis | 22,822222 / 43,859171  
Civil settlement | Date: 0 - 400  
Selected: No | Criteria: n/a  
Integrity: Almost completely destroyed by treasure-hunting in modern times  
Authenticity: No traces of later habitation at the site.

BG012 | Dimovo | Archar | Kaleto  
Colonia Ulpia Traiana Ratiaria | Moesia Superior, Dacia Ripensis | 22,90261 / 43,816468  
Road station/Legionary fortress/Town | Date: 0 - 600  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The site has been systematically robbed by treasure-hunters for more than two centuries. Nevertheless, the regular and rescue excavations prove that some of the structures are still in comparatively good state of preservation.  
Authenticity: No traces of later habitation at the site.

BG013 | Dimovo | Archar | ?  
Moesia Superior, Dacia Ripensis | 22,99 / 43,793934  
Fort/Fortlet | Date: 0 - 400  
Selected: No | Criteria: n/a  
Integrity: There is only literary information about the size and



layout of the fort. Now it is almost completely destroyed by treasure-hunting.

Authenticity: No traces of later habitation at the site.

BG014 | Lom | Orsoya | ?

Remetodia | Moesia Superior, Dacia Ripensis | 23,096389 / 43,777847

Road station | Date: 0 - 400

Selected: No | Criteria: n/a

Integrity: No architectural remains from the Roman period are visible on the ground. The place had been resettled in the Middle Ages (9th-11th c. ) and this seems to have affected the remains from the earlier period.

Authenticity: The medieval habitation must have affected the remains from the Roman period.

BG015 | Lom | Lom | Kaleto

Almus | Moesia Superior, Moesia Inferior, Dacia Ripensis | 23,237778 / 43,831209

Road station/Fort | Date: 0 - 600

Selected: Yes | Criteria: 1, 2

Integrity: The remains of the site are heavily overbuilt by medieval, Ottoman and modern structures. Due to rescue excavations, the western Late Roman/Early Byzantine circuit wall is partially unearthed and is now visible in comparatively good state of preservation.

Authenticity: The later century-long habitation at the site has badly damaged the earlier structures but some of those are surprisingly well preserved.

BG016 | Lom | Dolno Linevo | Gradishteto

Trikesa? | Moesia Inferior, Dacia Ripensis | 23,325278 / 43,841781

Fort/Fortlet | Date: 300 - 600

Selected: No | Criteria: n/a

Integrity: The greater part of the fort is destroyed by the Danube. The southern (?) precinct wall is still visible in the profile of the eroded river bank.

Authenticity: There are no traces of later habitation at the site. Some ten years ago a big new house was built immediately to the south of the remains.

BG017 | Lom | Stanevo | Mal tepe

Pomodiana/ Cumodiana/ Putedis | Moesia Inferior, Dacia Ripensis | 23,442222 / 43,84319

Road station/Fort | Date: 0 - 600

Selected: No | Criteria: n/a

Integrity: The earlier structures are overlaid by a smaller by size Late Roman fort (or a big tower?). Moreover, there are traces of habitation at the same place in the Middle Ages (9th-11th c. ). The site is badly damaged by modern treasure-hunting.

Authenticity: The small-scale excavations at the site a few decades ago proved comparatively good state of preservation and authentic appearance of the Late Roman remains.

BG018 | Valchedram | Dolni Tsibar

Cebus/ Kebros | Moesia Inferior, Dacia Ripensis | 23,516441 / 43,815284

Road station/Fort | Date: 0 - 600

Selected: Yes | Criteria: 2

Integrity: There is no information about the size and layout of the fort. Its remains lie within private yard plots and are partially overbuilt by modern structures.

Authenticity: The place has been continuously inhabited in later times (in the early Middle Ages and ever since the Ottoman period).

BG019 | Kozloduy | Kozloduy | Kiler Bair

Burgus Zonus/ Zonus/Onos | Moesia Inferior, Dacia Ripensis | 23,6325 / 43,787662

Fort | Date: 300 - 600

Selected: No | Criteria: n/a

Integrity: Due to erosion of the high Danube bank, the greater part of the fort is completely destroyed. The remaining part is badly damaged by modern treasure-hunting.

Authenticity: There are no traces of later habitation at the site.

BG020 | Kozloduy | Kozloduy | Magura piatra/Cetatea

Regianum/Bigranae | Moesia Inferior, Dacia Ripensis | 23,748558 / 43,780134

Civil settlement/Fort | Date: 0 - 600

Selected: Yes | Criteria: 2, 3

Integrity: The building material from the circuit wall has been almost completely robbed by the local population. The whole area of the site is badly damaged by modern treasure-hunting.

Authenticity: There are no traces of later habitation at the site.

BG021 | Kozloduy | Harlets | Kaleto

Augustae | Moesia Inferior, Dacia Ripensis | 23,840595 / 43,732641

Fort/Town | Date: 0 - 600

Selected: Yes | Criteria: 2, 3

Integrity: The earlier and later fortifications as well as (small) parts of the inner building of the site have been unearthed through regular excavations. The comparatively bad state of preservation of the remains is due to systematic extraction of building material in the last two centuries.

Authenticity: Large-scale conservation and restoration activities were carried out at the site some thirty years ago.

BG022 | Oryahovo | Oryahovo | Kaleto

Moesia Inferior, Dacia Ripensis | 23,997426 / 43,730287

Prehistoric settlement/Tower/Fortlet | Date: 0 - 400

Selected: Yes | Criteria: n/a

Integrity: The remains were partially destroyed in the near past, when the terrain was used as vineyard. The structures beneath the modern ground level seem to be intact.

Authenticity: There are no traces of later habitation at the site.

BG023 | Oryahovo | Leskovets | Kaleto

Variana | Moesia Inferior, Dacia Ripensis | 24,026944 / 43,713263

Road station/Fort | Date: 0 - 600

Selected: No | Criteria: n/a

Integrity: Almost completely destroyed by treasure-hunting in modern times

Authenticity: No traces of later habitation at the site.

BG024 | Oryahovo | Ostrov | Kaleto

Pedoniana | Moesia Inferior, Dacia Ripensis | 24,148611 / 43,666052

Road station/Fort | Date: 0 - 400

Selected: No | Criteria: n/a

Integrity: The literary information about the site needs further ground verification.

Authenticity: ?

BG025 | Oryahovo | Dolni Vadin

Moesia Inferior, Dacia Ripensis | 24,231389 / 43,684947

Roman quarry for Limestone | Date:

Selected: Yes | Criteria: 1, 2, 3

Integrity: The quarry is still in very good state of preservation.

Authenticity: There is no evidence of quarrying activities at the site in later times.



BG026 | Oryahovo | Dolni Vadin  
Valeriana | Moesia Inferior, Dacia Ripensis | 24,273077 / 43,69065  
Road station/Fort | Date: 0 - 600  
Selected: Yes | Criteria: 2, 3  
Integrity: Due to erosion of the Danube bank, the greater part of the fort is completely destroyed. The southern precinct wall, with small adjacent sections of the western and eastern walls, is clearly discerned on the ground and seems to be very well preserved.  
Authenticity: The place was partially resettled and inhabited in the Early Middle Ages (10th-11th c.), which might have influenced the authenticity of the earlier structures.

BG027 | Oryahovo - Dolna Mitropoliya | Dolni Vadin - Baykal  
24,387011 / 43,688708  
Roman road section with pavement Dolni Vadin - Baykal, 7,1 km length | Date: 0 - 600  
Selected: Yes | Criteria: 1, 2  
Integrity: The road section is still in very good state of preservation.  
Authenticity: There is no evidence of any later repairs.

BG028 | Dolna Mitropoliya | Baykal | Selishte  
Palatium/Palatiolum/Palastolon | Moesia Superior, Dacia Ripensis | 24,431471 / 43,711034  
Civil settlement/Fort | Date: 0 - 600  
Selected: Yes | Criteria: 2  
Integrity: The remains lie within private yard plots and are partially overbuilt by modern structures.  
Authenticity: The place has been continuously inhabited in later times (in the early Middle Ages and ever since the Ottoman period).

BG029 | Gulyantsi | Gigen | Gradishte  
Colonia Ulpia Oescus | Moesia Inferior, Dacia Ripensis | 24,465682 / 43,710722  
Legionary fortress/Town | Date: 0 - 600  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The excavated parts of the site reveal a series of very well preserved samples of Roman and Late Roman military, civil and cult architecture. Some of them are overbuilt by medieval and modern structures but the latter do not seriously affect the integrity of the antiquities.  
Authenticity: The authenticity of certain monuments is partially affected by later structures and restoration activities.

BG030 | Gulyantsi | Gigen  
Moesia Inferior, Dacia Ripensis | 24,613645 / 43,668387  
Roman road track without preserved pavement Oescus - Utus, 16,96 km length | Date: 0 - 600  
Selected: Yes | Criteria: 1, 2  
Integrity: Parts of the road might have been silted by regular seasonal flooding in the more distant past. The remains of the pavement are destroyed by different human activities in more recent times.  
Authenticity: A series of regularly spaced artificial mounds still clearly mark the route of the road on the ground.

BG031 | Gulyantsi | Milkovitsa | Selishte  
Utus | Moesia Superior, Dacia Ripensis | 24,730278 / 43,65331  
Road station/Fort | Date: 0 - 600  
Selected: No | Criteria: n/a  
Integrity: The site is almost completely destroyed by extraction of building material and treasure-hunting in modern times.  
Authenticity: Traces of habitation at the site during the Early Middle Ages (10th-11th c.).

BG032 | Gulyantsi | Somovit | Boruna/ Karierite  
Lapidarias/Dacia Ripensis | Dacia Ripensis | 24,78 / 43,693589  
Fort | Date: 300 - 600  
Selected: No | Criteria: n/a  
Integrity: The remains are partially affected by extraction of building material in modern times.  
Authenticity: No traces of later habitation at the site.

BG033 | Nikopol | Cherkovitsa  
Anasamus | Moesia Inferior, Dacia Ripensis | 24,85138 / 43,694962  
Road station/Civil settlement | Date: 0 - 400  
Selected: Yes | Criteria: n/a  
Integrity: The remains lie within private yard plots and are partially overbuilt by modern structures.  
Authenticity: The place was resettled only in the beginning of the 20th c.

BG034 | Nikopol | Cherkovitsa | Osamsko kale  
Ansamus/Asemus | Moesia Secunda | 24,851389 / 43,694425  
Fort/Town | Date: 300 - 600  
Selected: No | Criteria: 1, 2  
Integrity: Sections of the Late Roman circuit wall and the Early Byzantine proteichisma are still well preserved and visible on the ground. The inner buildings are partially damaged by treasure-hunting.  
Authenticity: The site was also inhabited during the Middle Ages (10th-12th c.), which might have brought changes to some of the earlier structures.

BG035 | Nikopol | Nikopol\_Dragash  
Moesia Secunda | 24,922308 / 43,710262  
Roman road section with pavement Nikopol - Dragash, 3,6 km length | Date: 0 - 600  
Selected: Yes | Criteria: 1, 2  
Integrity: The road section is in good state of preservation.  
Authenticity: Repaving of the section in late-19th/early-20th c. is not to be excluded.

BG036 | Nikopol | Nikopol | Byalata kanara/Zmiyskata kanara/ Nikopolsko kale  
Securisca | Moesia Inferior, Moesia Secunda | 24,946389 / 43,705262  
Road station/Fort | Date: 300 - 600  
Selected: No | Criteria: n/a  
Integrity: The site is destroyed to a great extent by treasure-hunting in modern times.  
Authenticity: No traces of later habitation at the site.

BG037 | Belene | Belene  
Dimum | Moesia Inferior, Moesia Secunda | 25,130938 / 43,652341  
Fort | Date: 50 - 600  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The northern part of the fort is destroyed by the Danube. The still existing remains are partially overbuilt by modern structures.  
Authenticity: The place has been continuously inhabited in later times, ever since the mid-9th c.

BG038 | Belene | Belene | Kale/Gorno gradishte  
Quintodimum | Moesia Secunda | 25,225964 / 43,641038  
Fort | Date: 300 - 600  
Selected: Yes | Criteria: 2  
Integrity: The remains of a corner tower are still visible on the ground. The fort is threatened by complete destruction, in view of the ongoing construction activities in its immediate vicinity.

Authenticity: No traces of later habitation at the site.

BG039 | Svishtov | Svishtov | Chukata  
Theodoropolis | Moesia Secunda | 25,344444 / 43,621382  
Fort | Date: 300 - 600  
Selected: No | Criteria: n/a  
Integrity: No remains from the Late Antiquity are visible on the ground. A medieval fortress was built at the same place in the 13th c. Now the terrain is partially overbuilt with modern structures.  
Authenticity: No information

BG040 | Svishtov | Svishtov | Staklen  
Novae | Moesia Inferior, Moesia Secunda | 25,393954 / 43,613797  
Road station/Legionary fortress/Town | Date: 0 - 600  
Selected: Yes | Criteria: 2  
Integrity: The regular excavations have revealed well preserved structures of different nature from all the historical periods registered at the site. Extraction of building material, modern construction and treasure-hunting have only partially affected the structures.  
Authenticity: The authenticity of the excavated structures is beyond doubt, but recent conservation activities have blurred it to a certain extent.

BG041 | Tsenovo | Krivina | Gradishteto  
Iatrus | Moesia Secunda | 25,578689 / 43,622753  
Road station/Fort | Date: 300 - 600  
Selected: Yes | Criteria: 1, 2  
Integrity: Clearly discernible structures from all the building periods registered at the site. Some of them are affected by later (medieval) habitation at the site and extraction of building material in more recent times.  
Authenticity: The restoration activities of the 1980s did not affect the authenticity of the remains.

BG042 | Borovo | Batin | Gredata  
Moesia Secunda | 25,64053 / 43,661286  
Tower | Date: 300 - 500  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The excavations revealed remains of two towers. The later one overlaps the northern wall of the earlier. The rest of whose ruins were later destroyed by a medieval cemetery.  
Authenticity: The remains of both towers underwent partial conservation a few years ago.

BG043 | Borovo | Batin | Kale bair/Umishteto  
Scavidava/Skadeba | Moesia Secunda | 25,682233 / 43,668478  
Road station/Fort | Date: 300 - 600  
Selected: Yes | Criteria: 2  
Integrity: No Late Roman fortification remains have been registered at the site until present. The intensive habitation during the Middle Ages and the thin earth layer over the mainland rock at the place seem to explain the situation.  
Authenticity: n/a

BG044 | Ivanovo | Mechka | Dikilitash  
Trimammium | Moesia Inferior, Moesia Secunda | 25,798056 / 43,713054  
Road station/Fort | Date: 100 - 600  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: The Roman and Late Roman structures are partially overlaid by such from the medieval period, which had affected in certain cases the integrity of the former ones.  
Authenticity: Despite the medieval habitation, most of the earlier structures have preserved their authentic appearance.

BG045 | Ivanovo | Pirgovo | Dolnoto skele  
Mediolana? | Moesia Secunda | 25,840833 / 43,749721  
Fort | Date: 300 - 600  
Selected: No | Criteria: n/a  
Integrity: There are no visible remains of the Late Roman/Early Byzantine fort. A medieval fortress had been built over its ruins in the 12th-13th c.  
Authenticity: No information

BG046 | Ruse | Ruse | Centre  
Sexaginta Prista | Moesia Inferior, Moesia Secunda | 25,944597 / 43,845971  
Fort | Date: 0 - 600  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: Pre-Roman pit sanctuary, Roman sanctuary, long and well preserved sections of the Late Roman circuit wall, entirely excavated Late Roman principia. The structures are partially affected by habitation at the site during the Ottoman period and in modern times.  
Authenticity: The later interventions did not bring about significant loss of authenticity of the earlier structures, some of which underwent conservation works in the last few decades.

BG047 | Ruse | Marten | Martensko kale  
Tegra/Tegris/Tigris | Moesia Inferior, Moesia Secunda | 26,07661 / 43,925367  
Fort | Date: 0 - 600  
Selected: Yes | Criteria: 1, 2  
Integrity: There are no visible remains of the Roman and Late Roman/Early Byzantine fort, but a great part of its circuit wall lies intact (?) beneath high earthen embankments. Possible medieval habitation at the site. A border post was built at the same place in the Late Ottoman period and continues functioning until present.  
Authenticity: No information

BG048 | Slivo Pole | Ryahovo | Hisarya/ Kaleto/ Gredata  
Appiaria | Moesia Inferior, Moesia Secunda | 26,309167 / 44,018889  
Fort/Town | Date: 0 - 600  
Selected: No | Criteria: n/a  
Integrity: Almost half of the site is completely destroyed by the Danube. The remaining part is badly damaged by modern irrigation installations.  
Authenticity: No information

BG049 | Tutrakan | Nova Cherna | Kaleto  
Kynthon? | Moesia Secunda | 26,448056 / 44,005555  
Fort | Date: 300 - 600  
Selected: No | Criteria: n/a  
Integrity: Remains of two forts – a Late Roman and an Early Byzantine. The later overlays the earlier one. The stone material from the walls is completely robbed in modern times.  
Authenticity: The layout of both forts is reconstructed according to the ditches left after robbing the stone material.

BG050 | Tutrakan | Staro Selo | Mal tepe  
Moesia Secunda | 26,448082 / 44,005734  
Fort | Date: 300 - 600  
Selected: Yes | Criteria: 1, 2, 3  
Integrity: There are no visible remains of the fort, but its circuit wall lies beneath high earthen embankments and is clearly discernible on the ground. Insignificant traces of treasure-hunting in modern times.  
Authenticity: There are no traces of later habitation at the site.

BG051 | Tutrakan | Tutrakan | Centre

Transmarisca | Moesia Inferior, Moesia Secunda | 26,60548 / 44,049172

Fort | Date: 0 - 600

Selected: Yes | Criteria: 1, 2, 3

Integrity: The remains of the site are totally overbuilt by medieval, Ottoman and modern structures. The layout of the Roman and the Late Roman circuit walls is partially revealed by rescue excavations and certain parts of it are still visible in good state of preservation.

Authenticity: Partially preserved authentic appearance. Large-scale restoration activities in recent time.

BG052 | Glavinitsa | Dolno Ryahovo | Lyaskovets

Nigrinianis | Moesia Inferior | 26,794602 / 44,085343

Fort | Date: 0 - 300

Selected: Yes | Criteria: 1

Integrity: The layout of the fort (earth-and-timber one, later rebuilt in stone) is well discernible on the ground, but the entire fortified area is badly damaged by treasure-hunting.

Authenticity: There are no traces of habitation at the site after the mid-3rd c.

BG053 | Glavinitsa | Malak Preslavets | Gradishteto/ Marata

Candidiana | Moesia Secunda | 26,829074 / 44,098647

Fort | Date: 300 - 600

Selected: Yes | Criteria: 1, 2, 3

Integrity: Preserved sections of the circuit wall, with 2 towers. Only the southernmost part of the fort was resettled and inhabited during the Early Middle Ages.

Authenticity: The greater part of the fort keeps its Late Roman/ Early Byzantine authenticity.

BG054 | Sitovo | Popina | Gradishteto

Moesia Secunda | 26,918611 / 44,124167

Fort | Date: 300 - 600

Selected: No | Criteria: n/a

Integrity: Now there are no visible remains of the fort. It was

entirely overbuilt during the Early Middle Ages.

Authenticity: No information

BG055 | Silistra | Popina - Vetren

Moesia Inferior, Moesia Secunda | 26,991633 / 44,127869

Roman road track without pavement Popina - Vetren, 5,09 km length | Date: 0 - 600

Selected: Yes | Criteria: 1, 2

Integrity: Parts of the road section are silted by regular seasonal flooding in the past. Others are destroyed by human activities in more recent times.

Authenticity: There is no evidence about later repairs.

BG056 | Silistra | Vetren | Devnya

Tegulicium | Moesia Inferior, Moesia Secunda | 27,033493 / 44,140097

Fort | Date: 0 - 600

Selected: Yes | Criteria: 2, 3

Integrity: Only a small section of the southern wall is now visible on the ground, but the layout of the rest of the circuit wall, which lies beneath earthen embankments, is still clearly discernible on the ground. The site was intensively inhabited during the Middle Ages. Traces of treasure-hunting in modern times.

Authenticity: No information

BG057 | Silistra | Silistra | Centre

Durostorum | Moesia Inferior, Moesia Secunda | 27,260556 / 44,121111

Fort/Legionary fortress/Town | Date: 0 - 600

Selected: Yes | Criteria: 1, 2, 3

Integrity: The remains are scattered all over the central part of the modern town. Although totally overbuilt by medieval, Ottoman and modern structures, many structures of different nature from the Antiquity and Late Antiquity have been successfully unearthed and are now visible.

Authenticity: Partially preserved authentic appearance.