

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

---

Final version 2.0

July 15, 2014



**Universiteit Leiden**

*Company*

Leiden University

*Date*

July 15, 2014

*Authors*

Professor Dr. W.J.H. Willems

drs. E. Graafstal

dr. C. van Driel-Murray

*Commissioned*

Provincie Gelderland

*by*

Provincie Utrecht

Provincie Zuid-Holland

Rijksdienst voor het Cultureel Erfgoed

# 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 before 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 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.

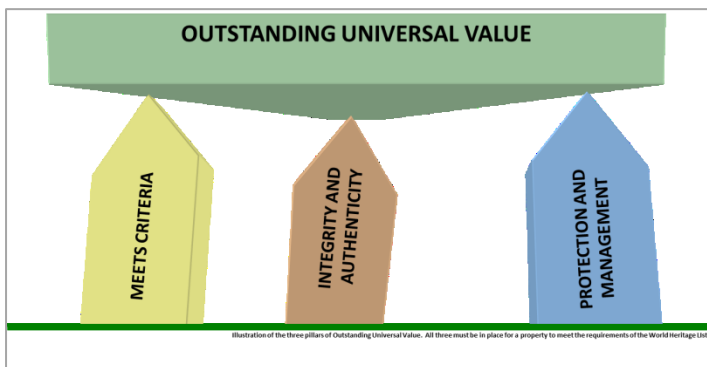
Following a temporary breakdown in the last decades of the 3<sup>rd</sup> century, this system remained in use during the 4<sup>th</sup> and the first quarter of the 5<sup>th</sup> century as the forward part of a defence system that in this period relied on an infrastructure reaching deep into the hinterland 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 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. This 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 has 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.

This 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 the 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 Genua, 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 by 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 chosen 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 chosen for inclusion 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 chosen.

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 gives considerable freedom in strategically choosing 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 on 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 very much 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 belong 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*) took 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 ice-pushed ridges 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 diploma's 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 logistic 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 cluttered 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, but with much stronger defences, while completely new types of installations were also developed, like the bridgehead-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 catering 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 archeologists 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 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 Rheinland, 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 on 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

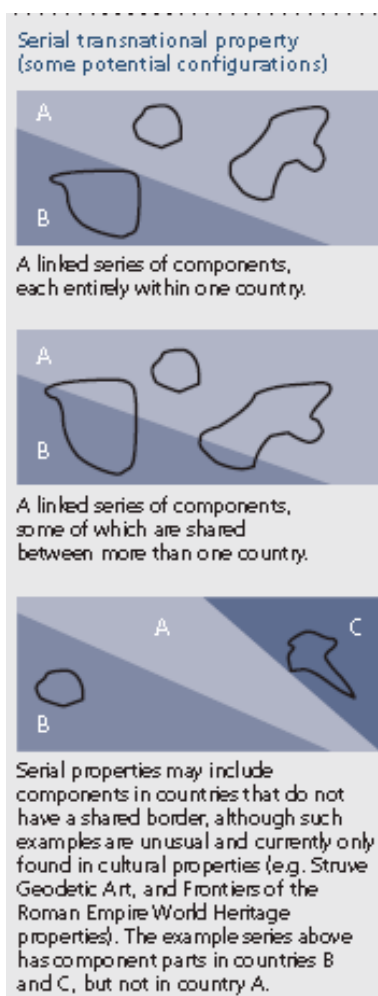
*Definition: For nominated properties, boundaries should be drawn to include all those areas and attributes which are a direct tangible expression of the outstanding universal value of the property, as well as those areas which in the light of future research possibilities offer potential to contribute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

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