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Danube
Austria
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Slovenia
Croatia
Bosnia
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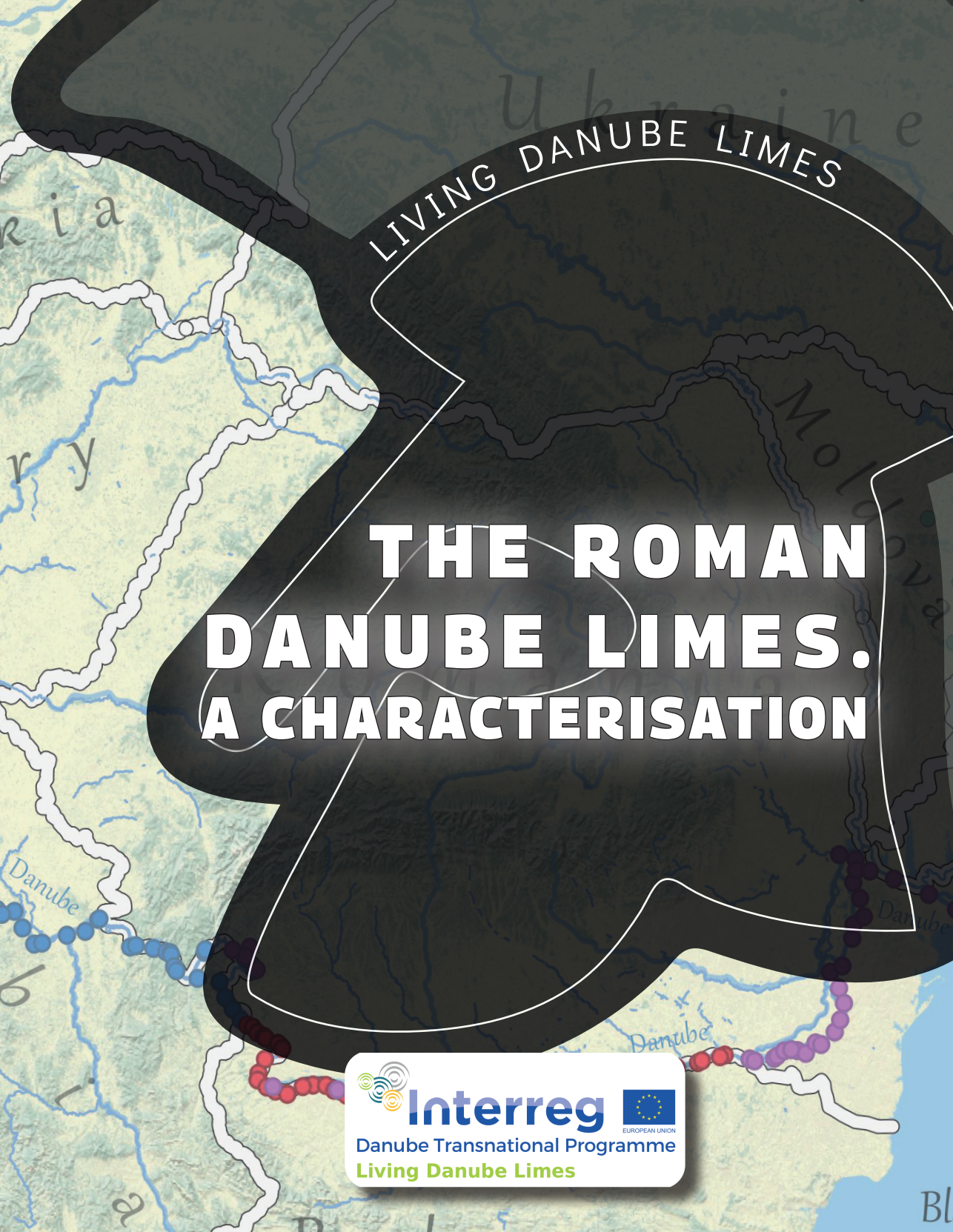
LIVING DANUBE LIMES
THE ROMAN DANUBE LIMES.
A CHARACTERISATION
Danube
Danube
Interreg
EUROPEAN UNION
Danube Transnational Programme
Living Danube Limes

Valorising cultural heritage and fostering sustainable tourism by LIVING the common heritage on the DANUBE LIMES as basis for a Cultural Route

Interreg Danube Transnational Programme
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Living Danube Limes

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LIVING DANUBE LIMES

THE ROMAN DANUBE LIMES.
A CHARACTERISATION

CONTENTS

1. CLASSICAL STUDIES AND SOURCES PROVIDING INSIGHT INTO THE ROMAN DANUBE LIMES

1.1. Introduction

When exploring the Roman Danube Limes the researchers of Classical Studies combine a wide range of different sources to get a picture of the Roman past as complete and authentic as possible. The most apparent sources in this context are archaeological sources that cover all material legacies of a past culture. This includes the general material culture as well as the art objects of an old civilisation and their art-historian analysis.

In addition to archaeological sources, there are also a number of written sources, which provide insight into the Roman life along the Danube. There is literary evidence on the one hand, Roman authors writing about important events taking place at the Danube and its bordering provinces, high-ranking personal visiting, or important political developments. On the other hand there are more mundane sources of written information: epigraphical sources (inscriptions on stone or metal), numismatic sources (inscriptions and depictions on coins), and papyrological sources (writings on wax tablets or the ancient equivalent to modern paper – papyri or wooden writing tablets). Though not everybody could read or write in Roman antiquity, we have numerous proofs that Romans found it necessary to record i.e. juridical details in writing, but also to send letters to friends and family, who were sometimes very far away.

1.2. Literary Sources

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For Roman authors the Danube region and the Danube provinces were not always the most promising areas to write about. To summarise, Roman authors usually wrote about their emperors, high-ranking individuals and their great deeds in either politics or warfare, geographically interesting and peculiar areas or provinces or general historical compilations, preferably *ab urbe condita (engl. From the Founding of the City)*, since the founding of Rome itself (which, as legend has it, took place in 753 BCE). Thus, the references to the Danube provinces varies over the span of 600 years of Roman presence, always according to the political or military engagements in the respective areas.

1.2.1 Examples from the Upper Danube Region

The ancient literature that reports on Rhaetia and the part of Noricum that still belongs to today's Germany is comparatively rich, even if scattered. Only a few examples can be given here. The early imperial geographer and historian Strabon reports on the Raetians and "Vindolicans" in his description of the earth in Book 4 (206/7 Casaubonus). He describes the bordering peoples as far as the Rhine and eastwards to the Noricans for the time until the conquest by Tiberius and Claudius "in a campaign summer".

The Neronian admiral and historian Pliny the Elder, who perished in the eruption of Vesuvius, reported on the Rhaetian cities joined by those of the Noricans in the Naturalis Historia (3.146). The corresponding section of the Tabula Peutingeriana, which in its present form was written in the 13th century and in its original version dates back to the 2nd century, also gives the settlements around Augsburg (section see p. 7 L. Voit).

The Roman national writer Livius (5,33,7-11; cf. Iustin 20,5,7-9, who goes back to the Augustan Trogus; Plin. Nat. Hist. 3,133; 135) traces the Rhaetians legendarily back to fleeting Etruscans (the Vendelians, according to Pomponius Porphyrio, are said to have come from the 3rd century, even from Thrace). However, the Rhaetians are not Indo-European. The incorporation of Raetia into the empire in 16/5 BCE is reported by Suetonius (Aug 20/1), Cassius Dio (54,20-22) and Velleius Paterculus (2,95), but also Strabo (7,292). Horace praised the deeds of the commander-in-chief Drusus and Tiberius (Carm. 4,4,17-28; 4,14). Horace, in the role of a court poet, had to ensure the propagandistic marketing of the blessings that Augustan rule had brought. With this in mind, he was also officially commissioned to write the Carmen Saeculare.

Velleius Parterculus, a military man and companion of Tiberius still during Augustus' reign on his campaigns in Germania, writes from the perspective of the following ruler. Velleius Paterculus writes Roman history, which, however, with the transition to contemporary history, degenerates into a work of veneration for the princeps of the years 14-37 CE. Thus, Tiberius' role is emphasised in Velleius Paterculus 2,39 in the conquest of the pre-alpine region. This also occurs in Suetonius' account in the biography of Tiberius (9,1-2). The archivist of the Hadrianic period usually has a good supply of sources, with which he passes on much important information for his biographies of the emperors from Caesar onwards. All will have had at their disposal the official tribute to the deeds of the two Claudians in the Tropaion Alpium 6 BCE of La Turbie near Monaco, which Pliny refers to (Plin. Nat. Hist. 3,133ff.). Here all the nations are listed that the two Nerones subdued.

Very early a feeling for the fertility of the area later enclosed by the Rhaetian Limes arose among the Romans. Pliny the Elder (Nat. Hist. 16,67; 14,25) reports on the quality of the Rhaetian wine (cf. Vergil, Georgica 2,96), which Augustus himself is said to have enjoyed (Suetonius, Aug. 77). This is the wine that thrives on the southern slopes of the Alps and is still called reze in the dialect of Valais. But also the (summer) wheat of the countries north of the Alps, which grew

quickly in the mountainous country, was valued (Plin. Nat.Hist. 18,68), which was obtained on fields by working with the Rhaetian wheeled plough (Plin. Nat. 18,172). The iron for the plough was obtained from neighbouring Noricum (Plin. Nat. Hist. 34, 145).

This is why the regions of Rhaetia and Noricum were incorporated and organized as smaller provinces under procurators (68/9 CE). Tacitus, senator, rhetoric teacher and historian, who has in-depth knowledge of the region from his time in Cologne, lectures on this on the occasion of the military conflicts in the year of the Four Emperors (Hist. 1,11). Militarily, the territories were secured in their final form under Trajan and Hadrian (Limes: Spart. Hadr. 12 (Hist. Aug.)). The presence of soldiers is attested, for example, by the famous Weissenburg Military Diploma, 30.6. 107 CE (Vollmer 1915, 510). Likewise, in addition to archaeological finds, there are documents that help to establish the course of Roman roads, such as that of the via Claudia (Vollmer 1915, 465; 46 CE).

The Marcomannic Wars have their centre in other geographical areas, their offshoots reaching as far as Raetia. A memorial stone documenting the death of an entire family proves that the plague also affected the Chiemgau in the course of the Marcomannic Wars (Vollmer 1915, 7). The rebuilding and reinforcement of forts around 179/180 CE near Regensburg (Vollmer 1915, 362 (building inscription)) or near Eichstätt in 181 CE (Vollmer 1915, 291) also belonged in the context of the military unrest of this period.

The sources that report on the barbarian offensives and the Roman countermeasures are discussed elsewhere (see chapter 4.3). Ammianus Marcellinus, who tried to continue Tacitus' work with his historiography, provides very extensive reports on the conflicts of the Roman emperors, especially against the Alamanni and other Germanic tribes. He himself was a pagan, came from Antiocheia, lived until after 393, was a military man and wrote in Latin. The final point of his history, which begins with 96 (only the 14th of the 31 books have been preserved, for the events from 353 onwards), was the battle of Adrianople in 378. The description of the life of Saint Severinus (Eugippii Commemoratorium vitae Sancti Severini) gives an impression of Roman presence north of the Alps, on the occasion of the work of Severin, who was active in Boiotro (Noricum/Passau) and also distinguished himself as a secular leader of the hard-pressed contemporaries. After his death, the abbot Eugippus, who experienced Severin's work and death in 482 and accompanied his transfer when the province was evacuated in 488 (finally to Naples), described Severin's life from 511 onwards.

The regions of today's Austria were barely in the focus of antique records. The Latin and Greek authors, for the most part, left behind only short notes in which they briefly refer to individual historic events. It was only in late antiquity, that important literary works began to focus on this region. The earliest reference to the later Austrian Danubian region is found in Velleius Paterculus' (approx. 20 BCE to 30 CE) *Historia Romana,* or "Roman History" which for the first time mentions Carnuntum as an important place in the kingdom of Noricum in the year 6 CE (Vell.Pat. II 109, 5). The probably most famous Roman historian, Publius Cornelius Tacitus

(approx. 58-120 CE), focuses twice on events near the Danube in his *Annales*, his second important historical work after *Historiae*. In the second book, he describes the crossing of the Marcomannic king Marobodus into Roman territory in the province of Noricum (Tac. ann. II, 63), whereas in the twelfth book he reports the deployment of a Danubian flotilla to evacuate the Quadi king Vannius and his followers (Tac. ann. XII, 30). Only short reports by the late Roman authors Eutropius and Orosius deal with the events surrounding the outbreak of the Marcomannic Wars (166-180 CE). Important sources, like the contemporary author Cassius Dio, miss parts relating to these events. More source material is however, available dealing with the famous "rain miracle", taking place in 172 CE, which is also depicted on the Marcus Aurelius Column in Rome (Fig. 1.2.1). During a battle against the Quadi in the upper Danube region, a sudden heavy rain shower allegedly saved the Roman army from dying of thirst. Cassius Dio ascribes the salvation to Iuppiter, who was invoked by an Egyptian priest (Dio. 71, 8, 2). Tertullian, who lived almost at the same time as Cassius Dio, and who was baptised later, thus becoming the first Latin Christian writer, attributes the rescuing thunderstorm to the intercessory prayers by the Christian soldiers belonging to the *legio XII Fulminata*, which took part in the fight (Tert. apolog. V, 6).

The Danubian limes is of great literary and philosophic importance as the place of origin of one of the most important scripts of the younger stoic philosophy, the "Meditations" by the Roman emperor Marcus Aurelius. He wrote the "Meditations" during the last years of his life, when he was in charge of the Roman armies' military operations directly along the northern border, thus the river Danube itself. The *Scriptores Historiae Augustae,* a late antique collection of the biographies of 30 Roman emperors from Hadrian to Numerian/Carinus (117-284/85 CE), mentions that Septimius Severus was proclaimed emperor by his legions on the 9th of April 193 CE in Carnuntum (Script. Hist. Aug., vita Sev. 5).

Fig. 1.2.1. The so called "rain miracle" depicted on the Marcus Aurelius column in Rome. The heavy rainfall is shown as bearded man spreading his arms from which the water is pouring over the thirsty Roman soldiers. (Source: © wikimedia/BarosaurusLentus, https://commons.wikimedia.org/wiki/File:-Column_of_Marcus_Aurelius_-_detail2.jpg (21.04.2020).).

However, the highlight and endpoint of literary works on the western Danubian limes region is the *Vita Sancti Severini* by Eugippius (approx. 465- 533 CE), a biography of Saint Severinus (approx. 410-482 CE) from the province Noricum. The vita of the saint is the most valuable contemporary source of the 5th and 6th century in the region of modern Austria. It covers the period from shortly after Attila's death (453 CE) to the death of Saint Severinus and describes his journeys and miracles in Noricum Ripense on the edge of Late Roman times and the start of the Early Middle Ages, heralded by the so-called Barbarian invasion, which ended the Western Roman Empire in 476 CE. Another saint's live, the *Passio Sancti Floriani*, also dates back to Late Roman sources, but was compiled in the 8th century at the earliest.

1.2.2. Examples from the Lower Danube Region

The area north of the Danube, inhabited by militarily active populations, endangering the position of the Romans in the Balkans through their raids, is also beginning to interest the ancient authors, with the entry of the Romans in this area. The interest in these populations was all the more intense as they were involved in anti-Roman coalitions.

Strabo's work is especially valuable for historical events that have taken place in this area over the centuries. The name Scythia Minor, which refers to the land between the Lower Danube and the Black Sea, is explained by the ancient geographer by the settlement of Scythian populations beyond Tyras and Istru (VII, 4, 5).

The creation of the province of Moesia marked the establishment of the Roman border on the Danube line. This led to a sharpening of the conflict between the Dacians and the Romans. The Dacians are trying to act, as in the past, by attacks south of the river. Thus Florus (IV, 12, 18) writes that the Dacians in the mountains (montibus inhaerent) cross the frozen Danube and desert the territory near the river. He adds that the emperor (Augustus) repulsed them on the other side, fortifying the border and strengthening the military garrisons.

Ovid's information, although it contains some exaggerations, is all the more valuable as it is due to an eyewitness. From them it follows that the mass of the sedentary rural population was formed by the Getae, as in the time of Herodotus. Along with them are recorded Thracian Bessi, Scythians, Sarmatians, and Greeks in the cities (former Greek colonies – Histria/Istria, Tomis/Constanța, Callatis/Mangalia) located on the Black Sea coast. Of all these, however, the Getae were the most numerous and lived not only in the countryside, but even in the town of Tomis. The poet describes a life full of insecurity, permanently threatened by the dangers that came from beyond the Danube, the stormy and destructive invasions of the Sarmatians, the North-Danubian Getae and the Bastarnae, which the Odrysian kingdom could not cope with. Ovid is also the only writer to record the bloody battles of the 12 CE and 15 CE for the fortresses of Aegyssus (Tulcea) and Troesmis (Turcoaia).

On the struggles in Thrace, which led to the defeat of the last resistance of the local population, the historian P. Cornelius Tacitus left us a description of an impressive strength and drama (Annales, IV, 46-51). Also, in Historiae (I, 79 and III, 46, 6) we find two episodes from the struggle for control of the Danube.

Unfortunately, one of the decisive moments in the history of Dacia, its conquest by the Romans, is lacking the ample documentation that the event deserves. Coincidentally, the major works that have been written on this subject have not reached us. We refer first to Trajan's memoirs, probably entitled De Bello Dacico, to which is added Criton's Getics, the author accompanying Trajan on his expeditions as a personal physician. Judging by the few fragments preserved from him, he was endowed with a keen spirit of observation.

Due to the lack of contemporary sources, the largest source of Dacian history from the time of Decebalus untill the reigns of Marcus Aurelius and Commodus remains Dio Cassius, a historian from the time of the Severans, even considering the fact that we have only the summary of Xiphilinus. The invasion of Tarbos in Dacia (LXXI, 11, 1), the colonization of some groups of barbarians (LXXII, 11, 4), the appearance of the asts who attack the costoboci and cause a series of disturbances at the borders of Dacia (LXXI, 12, 1), the relations with the Iazyges and their permission to trade with the Roxolans through the province of Dacia (LXXI, 19, 2), receiving, probably as settlers on the territory of the province of 12,000 free Dacians, during the reign of Commodus (LXXII, 3, 3), are the main information we find at Dio Cassius.

Texts from the Antiquity, Middle Ages and Modernity serve as valuable literary sources providing information on the Roman Limes along the Lower Danube. The contemporary sources on the sites are based on the archeological work, conducted by Bulgarian and international teams. Below is a summery of the pre-contemporary literary sources and contemporary findings of archeological expeditions for some of the Roman sites along the Bulgarian part of the limes (from west to east).

Important ancient sources are "Geography" by Cladius Ptolemy, the Peutinger Map of the Roman Empire, the guidebook of Emperor Antoninus, the work "Cosmography" by the anonymous Ravenna author, the report by Procopius of Caesarea, etc.

The first known mentioning of the site Bononia near Vidin is given by Felix Kanitz. Shortly afterwards, in 1874, the Czech historian Konstantin Irecek described and documented many archeological sites, including Bononia. An article in the Real Encyclopedia summarizes the written information and the inscriptions until the end of the 19th century. Dimitar Kulev includes the history of Bononia in his monograph on the city of Vidin and its region. Separate information about the city during the Principate and Late Antiquity is given in the research of Boris Gerov and Velizar Velkov.

Data and analyses on Bononia are found in the studies by St. Mihailov, Prof. Teofil Ivanov, Velizar Velkov and Veselin Beshevliev, Yordanka Atanasova. Results of rescue research were presented by Antoaneta Nikolaeva and Ilko Tsvetkov. In recent years, the results of rescue research are presented by a team led by Assoc. Prof. Zdravko Dimitrov.

Castra Martis was registered in 1870 by Felix Kanitz. The fortress has been studied for a long time by various teams.

Information about the fortification near Botevo is given by Boris Djakovic, who in his "Notes on the Archeology of Danube Bulgaria" reports that it is located southwest of the village, in the "Latin Guard" grounds. Lead pipes from water pipes and sewers were found there. According to a report published in Volume XIV of the Bulletin of the Archaeological Institute, in 1940, a

Roman tomb was discovered in the vineyards south of the village. The building was plastered on the inside and painted red. Two sarcophagi were found in the tomb - of an adult and of a child.

The ruins of the ancient city of Ratiaria were described by Felix Kanitz, and later by the pioneers of Bulgarian archeology Vaclav Dobruski and Boris Djakovic. The first rescue research was carried out by Prof. Velizar Velkov in 1951, when sarcophagi, masonry vaulted tombs and a rich burial inventory were discovered. In 1959, drilling studies were carried out to clarify the perimeter of the city and to preserve it from further destruction. ArcheologicalArchaeological work on site was done in the 1970s by a team led by Yordanka Atanasova and Yanka Mladenova. Italian archaeologists from the University of Bologna, together with the Archaeological Institute with Museum (BAS) – Velizar Velkov, Maria Bolini, Dario Giorgetti, Georgi Kuzmanov, Varbinka Naidenova and Antoaneta Nikolaeva, conducted annual research up until 1991, and four volumes were published in Italy. Since 2011, a team led by Assoc. Prof. Zdravko Dimitrov has been conducting archeological excavations in Ratiaria.

The Ancient Fortress and Road Station Remetodia, Orsoya/Lom, is mentioned in the Peutinger Map of the Roman Empire. The ruins of Remetodia are described by Ivan Bassanovich and Boris Djakovic.

It is believed that Almus was founded in the 1st – early 2nd century. It is mentioned as a road station on the Danube Road in the Peutinger Map of the Roman Empire and the guidebook of Emperor Antoninus. Almus is also marked on some Western European maps from the 16th - 18th century by Abraham Ortelius, later republished by Peter Kerius, Nicholas Sanson, Johann Matthias Haas and Christoph Harenberg. In the 17th century, the Italian traveler Count Luigi Marsili, traveling along the Danube, marked fluvius (river) Lom on a map of his expeditions. The castle and road station Almus was introduced into scientific circulation for the first time with the description of Felix Kanitz, who visited these places in 1864. Dimitar Marinov describes the well-preserved walls at that time in his work "History of the town of Lom and Lom district". The ruins of Almus are also described by Konstantin Irecek. The entry about Almus by William Tomashek in the Real Encyclopedia cites written sources and found inscriptions. Movable archeological materials, mostly inscriptions from Almus, are presented by Vaclav Dobruski and Boris Djakovic. Separate finds are published by Gavril Kazarov, Bogdan Filov and Ivan Velkov. With the founding of the Archaeological Society in the city in 1925, more monuments were collected and published by Society's founder Peter Kardzhiev. Other publications about Almus are by Boris Gerov and Velizar Velkov, Atanas Milchev and Traiko Filipov in 1966.

Pomodiana is mentioned as a road station on the Danube Road. With the name Kumodina, it appears in the work "Cosmography" by the anonymous Ravenna author. The fortification is associated with a report by Procopius of Caesarea, according to which Emperor Justinian (527-565). Two tombstones from the 2nd-3rd century are found in the village, a fact published

in Vienna in 1906 by Ernst Kalinka. Pomodiana is described by the pioneers of Bulgarian archeology Vaclav Dobruski, Ivan Bassanovich, Boris Djakovic and Karel Shkorpil. Drilling archeological excavations were carried out in 1988 and 1992 under the direction of Valeri Stoichkov from the Historical Museum – Lom. A geodetic survey of the site was carried out by the team of Atanas Kamenarov.

The fortification Trikesa is also associated with a report by Procopius of Caesarea, according to which Emperor Justinian (527-565) built the fortress on a site where a separate tower had previously stood.

The ancient fortress and road station Cebrus (Cebro, Camistro, Kebros, Ciambron) is located in the village of Dolni Tsibar, just west of the old bed of the river Tsibritsa. The river Cebrus is mentioned by Claudius Ptolemy, Dion Cassius, in the guidebook of Emperor Antoninus, the Peutinger Map of the Roman Empire and by the Anonymous Ravenna author. According to the List of Service Ranks, a detachment of shield-bearing horsemen was stationed in Cebrus. In the same document, Cebrus is also mentioned as the headquarters of a military unit under the leadership of the prefect of the Fifth Macedonian Legion, which was stationed in Escus. The fortification is also mentioned in the work of Procopius of Caesarea "On the constructions", as a place whose ruined fortresses were restored by Emperor Justinian. Cebrus is described by the pioneers of Bulgarian archeology Vaclav Dobruski, Ivan Bassanovich, Boris Djakovic and Karel Shkorpil. It is also studied by Veselin Beshevliev and Dimitar Dechev.

The Ancient Fortress Burgo Zono in Kozloduy is studied by Spas Mashov from Vratsa Historical Museum. The fortification, it is believed, was mentioned in the List of Official Ranks. According to the document, an auxiliary military unit – Dacian soldiers – was stationed here. The same fortification is mentioned in Procopius's work "On Constructions" under the name Onos. Procopius claims that the fortification was overhauled during the reign of Emperor Justinian (527-565).

The ancient fortress and road station Regianum (Regianum, Regiano) is located in the eastern part of Kozloduy, in the Magura Piatra grounds. It is mentioned in Peutinger's map of the Roman Empire and in the work of the anonymous Ravenna author Cosmography. The site is described by Karel Shkorpil. In the Notices of the Bulgarian Archaeological Institute from 1934 it is reported that in 1933 three Roman tombs were found in Kozloduy, on the Danube side.

The ancient and early Byzantine fortress of Augustae is found in Roman guidebooks and is noted by some of the early Byzantine sources: Peutinger's Map, Emperor Antonin's Guide, List of official ranks, Procopius of Caesarea, Ravenna Anonymous Author, Theophylact Simokata.

The Ancient fortress and road station Variana is also mentioned in Justinian's codex, as well as in Procopius' work On Constructions.

The Pedoniana road station is mentioned in Peutinger's map of the Roman Empire. It is also mentioned under the name Pediolanis by the Anonymous Ravenna author.

Valeriana is mentioned as a road station in Emperor Antonin's guidebook. As a castle it is mentioned in the work of Procopius "On the constructions".

Dimum was first mentioned by Claudius Ptolemy, in connection with the formation of the Roman province of Moesia in the early first century.

Novae has mentionings in 17 ancient sources and is noted in a significant number of historical and geographical maps (especially between 14th-18th centuries).

Karel Shkorpil was the first to identify the remains near the village of Krivina with the Yatrus castle on the basis of the distances reflected in the itineraries. At the end of the 19th century, he made a brief description of the site, accompanied by an eye plan. Later St. Stefanov, exploring the area of the lower basin of the Yantra River, gives information about the fortress and the findings at the site. In 1958, joint Bulgarian-German excavations began as part of the implementation of a project for joint work between the then Institute of Archeology at the Academy of Sciences of the DDR (since 1970 Central Institute of Ancient History and Archeology at the Academy of Sciences of the DDR) and the Archaeological Institute with a museum at the Bulgarian Academy of Sciences. In 1992, the German leadership was taken over by the Rome-German Commission of the German Archaeological Institute.

The Roman fort Batin has been studied in recent years by a team of Regional Historical Museum – Ruse. Authenticity is preserved.

As a station on the Danube Road, the village of Trimammium appears both on the Peutinger map and in the Emperor Antonine's Guide. Moving along the preserved traces of the pavement of the Danube Road, K. Shkorpil located the road station Trimammium west of the village of Mechka, Ruse region, in the area of Dekuli-Tash (Shkorpil 1905, 454). In 2006 and 2007 Emergency archeological excavations of the Trimamium Fortress were carried out (Varbanov, Dragoev, Rusev 2007, 262-263; Varbanov, Dragoev, Rusev 2008, 346-348). In 2006-2009 the Regional Museum of History – Ruse conducted emergency archeological excavations of the Trimammium fortress, during which about 270 sq.m. in the southern part of the fortress in two boreholes.

The location of Sexaginta Prista was first recorded by Felix Kanitz, based on the distances between the castles on the right bank of the Danube, noted on Roman route maps. The first "research" was made in 1878, when the Catholic abbot in Ruse excavated a "mosaic building". During the construction of the Officer's House at the end of the 19th century, ancient architecture and finds were found that have not been documented.

The earliest mention of the ancient fortress Tegra under the name Tegris is found on the Peutenger map. In Emperor Antonine's guidebook it is noted as Tigra. Under the name castelum Tegra we find it in the list of official ranks, Tigris – In the Ravenna manuscript. In the work *De aedificiis* by Procopius Tigra is mentioned in the fortresses repaired by Emperor Justinian in the VI century.

The earliest mention of the castle Apiaria is found on the Peutinger map, where it is marked as Appiaris. In Emperor Antonine's guidebook, the site is marked as Appiaria, and in the List of Military Ranks - castellum Appiariq. According to the latest source, it housed a detachment of shield cavalry, parts of the I Italian and XI Claudius Legion. John Christoson's letter to Pope Innocent in 404 mentions that the city was an episcopal center. The castle of Apiaria is mentioned by Hieroclus, Procopius and Theophanes Simokata.

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"PRELIMINARY STUDY" of an integrated cultural heritage tourist product: route "Roman frontier within the cross-border region Romania-Bulgaria". Final Report, Annex 4. Elaborated by the Partnership under the Obligations and Contracts Act "Danubius" and RubliMedia business SPL. March 2017, Sofia, Bulgaria. Financed under the project "Development and promotion of an integrated cultural heritage tourism product: Route "Roman frontier within the cross-border region Romania-Bulgaria" and commissioned by the Association of Danube River Municipalities "Danube" (as Lead partner).

1.3. Epigraphical Sources

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The word "epigraphy" comes from ancient Greek and means writing on durable materials, such as stone, ceramic shards, bronze tablets or wood. Epigraphical sources are either chiselled, scratched or painted, they are not written with pen and ink. Inscriptions can be found literally anywhere; there are formal dedications by high-ranking officers on the fora, milestones on the roadsides, gravestones, but also graffiti scratched casually in the plaster of private and public buildings. The following section provides examples of epigraphy commonly found in the Roman Danube provinces. A common feature of all Roman inscriptions is the multiple

use of abbreviations, which in some cases follow a strict set of letters and in others might just break in the middle of the word, depending on the space available on the medium carrying the inscription.

In contrast to less durable materials, such as parchments, papyri, wooden slates or tablets, epigraphic sources offer an excellent possibility for obtaining contemporary information about and insight into ancient cultures. Thus, epigraphy is an important means to explore various aspects of the ancient world. An inscription is a precious and very special find in archaeological excavations. In times of distress (no matter whether in Roman or later times), chalk was produced from seemingly persistent materials, such as marble, metals were stolen and melted, and wood simply rotted over the centuries, unless it has been specially deposited. Therefore, many inscriptions were lost for posterity. They are of immense importance because they relate information that archaeology alone cannot provide, for example the name of the location during Roman times, the initiator(s) of the inscription, the addressee(s) of the inscription, the reasons for the inscription, information on language and cultural background, the spelling of names together with cultural, ethnic and social background transported by the names, insights into family structures and society, the variety of religious believes and cults, or information about Roman economy.

Dedicatory inscriptions (*tituli sacri*) are very often addressed to gods and emperors, but also high-ranking officials of the Roman Empire. Dedications to gods or emperors are not only found near temples, statues and altars, but on articles of daily use like weapons or containers. When dedicated to one or several deities, these inscriptions show the variety of religions, which existed contemporaneously and give insight into the different cult rites followed in the Roman Empire. A dedicatory inscription from *Carnuntum*, dating to the beginning of the 3rd century CE, gives evidence of the construction of temple in honour of the gods Serapis and Isis (Fig. 1.3.2). Another example from 3rd century Carnuntum was commissioned by a veteran's association for the good of the emperors and the imperial dynasty and engraved on an elaborately decorated stele (Fig. 1.3.1).

Fig. 1.3.1. Dedicatory inscription for the good of the emperors and the imperial dynasty, Carnuntum, 238 CE. CIL III 11189 (Inv. CAR-S-149).
© ÖAW / G. Kremer

Fig. 1.3.2. Dedicatory inscription to Serapis and Isis, Carnuntum, 213-214 CE. AE 1992,1412 (Inv. CAR-S-488).
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ISM V 293:

> *[Imp(eratori) Caesari divi Traiani] / Parth[ici filio divi Nervae] / nepoti [Traiano Hadriano Aug(usto)] / [p]on(tifici) m[ax(imo) trib(unicia) pot(estate) 3 co(n)s(uli) p(atri) p(atriae)*

This is the first inscription from Hadrian's time found until now at Barboşi and represents a dedication made to the emperor by the soldiers and the commander of the vexillation from the 5th Macedonian Legion encamped on this site.

Another category are **building inscriptions**, which, as suggested by their name, are found on monuments, either on the construction itself or engraved on panels, and give information on the construction, construction activity or its principal. Inscriptions are also a fixed component of milestones (*miliaria*). The inscription on a milestone stated the distance to the starting point, the head of the road, the *caput viae*, in Roman miles, the name of the respective lo-

cation, the year of construction of that segment of the street and construction or maintenance activity. The street's principal indicated was always the emperor; therefore, the erection of milestones served also as imperial propaganda. Only few of the milestones that have been preserved were found in situ in their original place of erection, whereas many of them were reused in later times. Reusing old stones (with or without inscriptions) was a common feature already in Roman times throughout the Empire, and the same holds true for the Middle Ages. The building inscription from Carnuntum highlights another feature of Roman inscriptions, namely that the letters themselves were not only carved out of the stone, but also coloured, in this case in red, to enhance their visibility. This inscription dates to the second half of the 4th century CE and mentions the emperors Valentinian and Valens as well as Valentinian's son Gratian. It gives evidence to fortification works along the Danube Limes, which were ordered by the emperor (Fig. 1.3.3).

Fig. 1.3.3. Building inscription indicating fortification works along the Danubian Limes, naming Emperor Valentinian, Valens and Gratian, Carnuntum, 374 or 375 CE. CIL III 14358 (Inv. CAR-S-1250).
© Landessammlungen NÖ, Archäologischer Park Carnuntum / N. Gail

There are some inscriptions from the Lower Danube Limes which attest the construction or the rebuilding *a fundamentis* of military camps and forts located along the river.

ISM V94:

Imp(eratore) Nerva [Traiano Augusto Germanico] / Dacico po[nt(ifice) max(imo) tr(ibunicia) pot(estate) VII imp(eratore) IIII co(n)s(ule) V p(atre) p(atriae) sub] / Q(uinto) Fabio [Postumino leg(ato) Augusti pr(o) pr(aetore)] / ala [II Hispan(orum) et Aravacorum]

It is the inscription of the inauguration of the camp of the *Ala II Hispanorum et Aravacorum*, which took place in the year 103 by order of Emperor Trajan and under the supervision of the legate of Lower Moesia, Q. Fabius Postuminus. It is a document of special importance for the history of the organization of the Lower Danube limes between the two Dacian Wars. It is supposed that at the same time the legions XI Claudia and V Macedonica were brought to Durostorum and Troesmis.

ISM IV, 89 Durostorum

CIL III 6151 Transmarisca

Sexaginta Prista EDCS-71800006

Imperatores Caes[s(ares)] Gaius Aur(elius) Val(erius) Diocletianus et M(arcus) A[u]r(elius) Val(erius) / Maximianus Pii Fel(ices) Invicti Aug[g(usti) et Fl(avius)] / Val(erius) Constantius et Ga[l(erius)] Val(erius) Maximianus [nobb(ilissimi)] Caes[s(ares)] / Germanici maximi [V] Sarmat(ici) maxim[i IIII] Persici m[ax(imi) II] / Brit{t}annici [max(imi)] post debellat(as) hostium gent(es) / confirmata [or]bi s[u]o tranquillitate profuturum in aeternum rei publicae / praesidium constituerunt

These inscriptions have almost identical text, date from the years 298-299, and demonstrate the existence of an imperial program to restore the fortifications on the lower Danube limes at the beginning of late antiquity.

A Roman milestone found in the area of the Austrian city Tulln, Roman *Comagena*, indicates that it is in the distance of 26 Roman miles to *Aelium Cetium*, today Lower Austria's capital St. Pölten (Fig. 1.3.4).

The milestone, the earliest on the lower Danube limes, is located at IIII m (illia) p (assuum) (about 5.80 km) from Sacidava (Muzait), and contributed to the topographic location of Sacidava.

ISM IV 212:

> *Imp(eratori) Caes(ari) C(aio) Mes/sio Q(uinto) Traiano / Decio P(io) F(elici) Invicto / Aug(usto) p(atri) p(atriae) proco(n)s(uli) a / Saci{ci}dave / m(ilia) p(assuum) IIII*

To date about 109 milestones from the territory of lower Moesia have been discovered. There are 78 inscriptions dated to the Early Roman Empire and 46 for the Late Roman period. The texts are written in Latin, with the exception of four inscriptions in Greek discovered near Odessos (Varna). The earliest milestone is dated to the reign of Trajan and was discovered at Sacidava, and the latest is from the time of Theodosius and Arcadius, and was found in Kipra. Sixteen of the milestones are overwritten (palimpsests): eight of these were found on the road along the Danube, four belong the road along the Black Sea coast, and three on the North-South central road through Dobrudja; one is from an unknown place. Two of these milestones were reused during the early Roman Empire, seven had been rewritten during the Late Roman Empire, and another seven were dated to the Tetrarchy or immediately after (the time of Diocletian or Constantine) and reused later, during the fourth century. Only eight milestones were found *in situ* or very close to the place where they had been set up in antiquity.

Similar in appearance to milestones are boundary stones, so called *termini*. They were usually set up magistrates, such as consuls or censors, or even emperors themselves (though most often not in person, but in name). They indicate specific demarcation acts, such as city boundaries, delimitation of the Tiber banks in the city of Rome, or the demarcation of state territories or of public aqueducts, in accordance with senate resolutions.

Epitaphs or **burial inscriptions** (*tituli sepulcrales*) were a sure component of every Roman burial and are often found along the roads leading to and from major settlements, since until the Late Roman period, when Christian believes began to take over the pagan rites of the old Romans, burials inside the town walls were not permitted. The Romans both inhumed and cremated their dead, but until Christianity began to take over, incineration prevailed. In early Roman times, there existed a rich variety of grave types, e.g. large grave monuments, crypts, ash containers and steles. The respective epitaphs offer diverse information on the deceased, such as name, age, sex, and profession, sometimes including also other family members and

the creator of the grave. Usually, a special consecration formula was used, for example beginning with *D(is) M(anibus)*, which invokes "the divine spirits of the dead" and ending with a blessing, such as *s(it) t(ibi) t(erra) l(evis)*, "may the soil light for you". Some burial steles also show elaborate abstract design, depictions typical for the trade, the deceased used to follow when alive, or pictures of the dead ones, wearing their best clothes.

Fig. 1.3.4. Milestone Tulln-Nitzing, 217-218 CE (CIL III 13534).
© Johannes Ramharter

Fig. 1.3.5. Family gravestone of Seccius Secundinus, Hiesberger Marble, Lauriacum, 201-300 CE (CIL III 05671).
© O. Harl, lupa.at/4512

In *Lauriacum*, modern Enns in Austria, a family gravestone of a veteran of the *legio II Italica* was found. The inscription mentions the soldier, whose name was Seccius Secundinus, and who ordered the gravestone for him and his family while he was still alive. We also learn that his son had died at the age of 25, after only six years of service in the military, so the son had joined the army as well. In these six years to son had risen to the rank of a *beneficiarius* of the legion's prefect (who was responsible for camp administration). We also get to know the names of the immediate family members of Seccius Secundinus, for whom the grave is erected as well (Fig. 1.3.5). Translated into English the burial inscription reads as follows: "To the divine spirits of the dead, Seccius Secundinus, veteran of the *legio II Italica pia fidelis* and Iulia Severio, his wife, have erected (the grave) for themselves, for their daughter Seccia

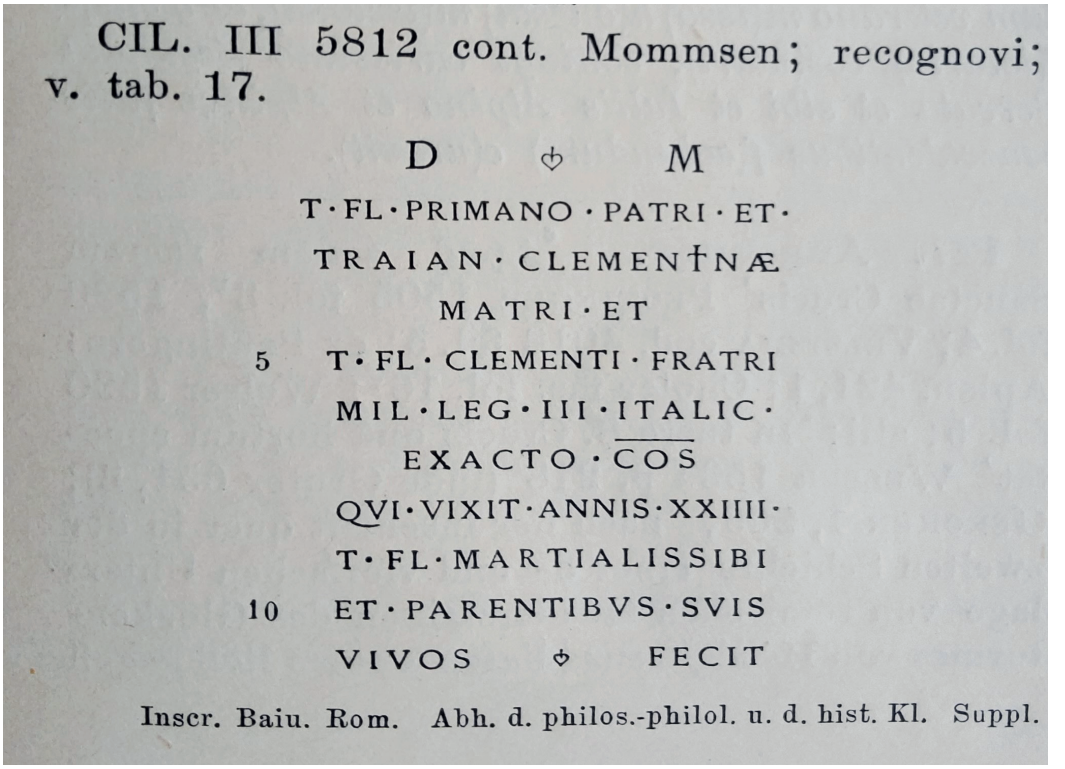
Secundina and for their grandsons Marius Maximus and Marius Secundus in their lifetime, as well as for their son Iulius Apricius, soldier of the above mentioned legion, *beneficiarius* of the legion prefect, who died at the age of 25 after six years of service".

As well in Germany many gravestones have survived from the imperial period. Several are attested in Augsburg. Here are some examples: A tower tomb erected by Titus Flavius Martialis for his brother, a soldier of the 3rd Italic Legion, and his parents has been found in Oberhausen near Augsburg (Fig. 1.3.6). The deceased soldier was a clerk in the staff of the proconsul, who had his seat in Augsburg and was probably also commander-in-chief in Regensburg. Therefore, the deceased brother from the legion stationed in Regensburg was with him on the staff in Augsburg. In the relief of the tower tomb, the parents of Martialis are depicted, flanked by the two sons, also of Martialis, who was still alive at the time the tomb was erected.

Also in Augsburg, a sevir Augustalis and pupur trader Tiberius Claudius Euphras, who lived to the age of 76, erected a tomb for himself, his wife and his sons. The Sevir Augustalis probably came from Greece, as indicated by the naming of his son (Epigonos). The seviri were members of the cult of loyalty to Augustus, and especially sought after for those who originally came from the slave state. Euphras came to the province through trade. The age has been added later.

The decurion Gaius Iulianus Iulius likewise erected a tomb for his wife and sons at Augsburg in Biberach (Fig. 1.3.7). As a decurio municipii, Iulianus Iulius belonged to the city council. He was additionally a member of the administrative college of four men in the city. It is striking how affectionately he speaks of his wife as a "unique model of modesty".

A grave inscription for the Christian Sarmannina from Regensburg belongs to the Christian period (Fig. 1.3.8). That the epitaph refers to a Christian woman can be deduced from the Christ monogram and the framing alpha and omega in line 1. Other formulations likewise suggest this. Whether the statement that she died as a martyr is to be taken literally cannot be proven. The hexameter poem by Venantius Fortunatus, who came from Italy and set out for Merovingian France in 565 to pay homage to St Martin (d. 400), also by describing the Vita in four books, already belongs to the post-Roman period. This alludes to the veneration of the saint Afra in Augsburg, who probably suffered martyrdom there in 303/4 (Venantius Fortunatus, Vita S. Mart. 4, 640-646).

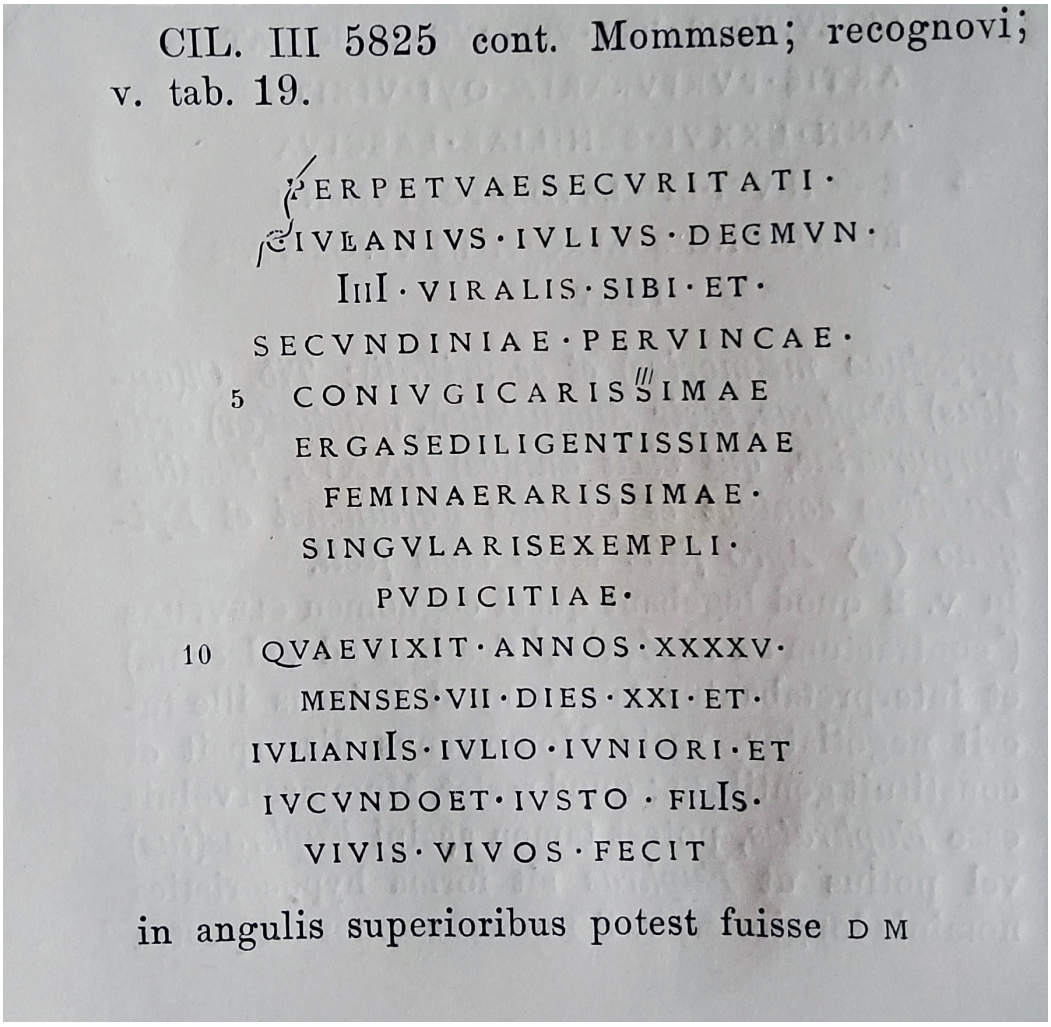


CIL. III 5812 cont. Mommsen; recognovi; v. tab. 17.

D ♁ M
T·FL·PRIMANO·PATRI·ET·
TRAIAN·CLEMENTNÆ
MATRI·ET
T·FL·CLEMENTI·FRATRI
MIL·LEG·III·ITALIC·
EXACTO·COS
QVI·VIXIT·ANNIS·XXIIII·
T·FL·MARTIALISSIBI
ET·PARENTIBVS·SVIS
VIVOS ♁ FECIT

Inscr. Baiu. Rom. Abh. d. philos.-philol. u. d. hist. Kl. Suppl.

Fig. 1.3.6. Tower tomb of T. Fl. Martialis for his 24 -years old brother and for his parents (CIL III 5812 / Vollmer 123).


CIL. III 5825 cont. Mommsen; recognovi;
v. tab. 19.

PERPETVAESECVRITATI·
IVLIANIVS·IVLIVS·DECMVN·
IIII·VIRALIS·SIBI·ET·
SECVNDINIAE·PERVINCAE·
CONIVGICARISSIMAE
ERGASEDILIGENTISSIMAE
FEMINAERARISSIMAE·
SINGVLARISEXEMPLI·
PVDICITIAE·
QVAEVIXIT·ANNOS·XXXXV·
MENSES·VII·DIES·XXI·ET·
IVLIANIIS·IVLIO·IVNIORI·ET
IVCVNDOET·IVSTO·FILIS·
VIVIS·VIVOS·FECIT

in angulis superioribus potest fuisse D M

Fig. 1.3.7. Gravestone of C. Iulianus Iulius for his family has a relief with Mercurius (CIL III 5825 / Vollmer 136).

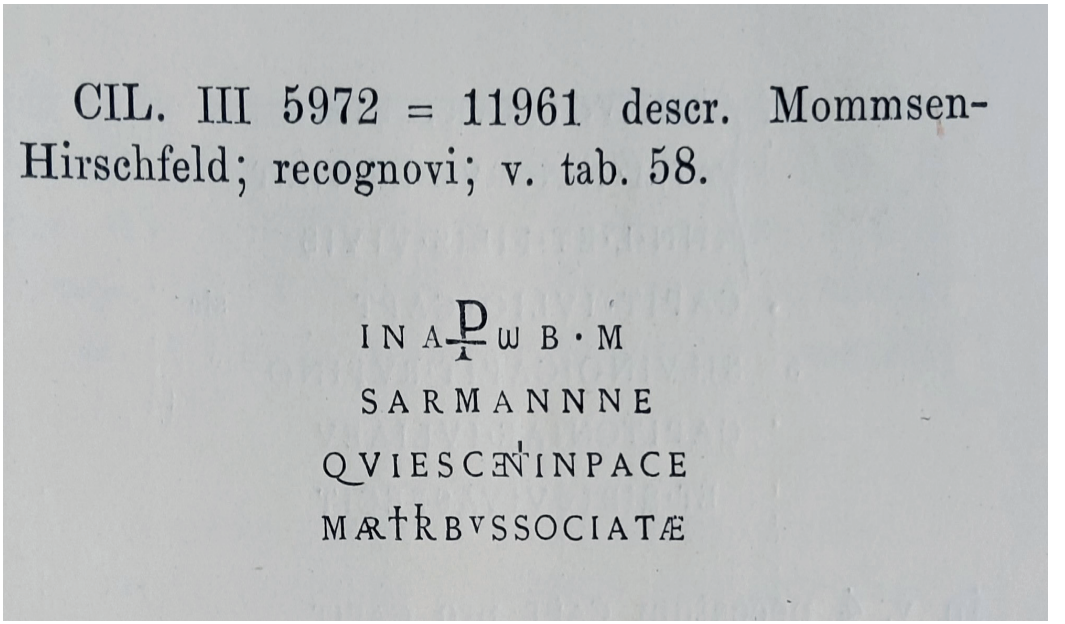


Fig. 1.3.8. Grave inscription for Sarmannina, who was a Christian (CIL III 5972=11961 / Vollmer 419).

A number of other categories of inscriptions on stone exist, like documents regulating the state community, laws are published in writing on durable stones set up for the public to read, as are senate resolutions (*senatus consulta*) and imperial decrees (*constitutiones*), representing the highest document category of Latin epigraphy. Calendars on display at prominent places of Roman settlements offer an insight into the social and religious life and provide orientation in the course of the year. In addition, annual lists of various office holders, such as consuls and high state priests, have been preserved. These annual lists record important events, i.e. sacrifices, ritual acts, victory celebrations within their geographical sphere.

Engraved on metal are the so-called **military diplomas** (*diplomata militaria*). They are copies of the discharge certificates of Roman soldiers. The original discharge lists were set up publicly in the city of Rome, so anyone to whom it would concern could check on the legal status of a Roman veteran. The discharge lists were most important, since after 25 years of service in the Roman army, veterans, who did not have the Roman citizenship before, were granted the citizenship and a number of privileges that came with it. Thus, it was very important for discharged veterans of the auxiliary units (Roman citizens served for 20 years in the legions, non-citizens for 25 years in auxiliary units), to have proof of their new legal status. The rights granted to them were copied onto a bronze tablet, once on the outside and once, in identical wording, on the inside. Then the document was sealed and witnessed. If a question on the legal status and the rights granted to a veteran arose, the military diploma would be opened in court and the words written on the inside (which could not be hampered with unless

the seals were broken) counted. These bronze diplomas give insight into the military career of its owner, the units he served in, and also the rights he gained with his honorary discharge. Just like inscriptions on stone, military diplomas are often found a very fragmentary state.

An example of a military diploma from Dacia from Porolissum, 106 CE [CIL XVI, 160] (after B. Campbell, no. 326, p. 199):

> *Emperor Caesar Nerva Trajan Augustus, Conqueror of the Germans, Conqueror of the Dacians, son of the divine Nerva, chief priest, in the fourteenth year of his tribunician power, acclaimed imperator six times, consul for the fifth time, father of the fatherland, has granted Roman citizenship before they have completed military service to the infantrymen and cavalrymen who are serving in the first milliary Ulpian Decorated Loyal and Faithful cohort of Britons, Roman citizens, which is in Dacia under the command of Decimus Terentius Scaurianus, and whose names are written below, because they performed dutifully and loyally in the Dacian campaign.*
> *11 August, at Darnithithis, in the consulship of Lucius Minicius Natalis and Quintus Silvanus Granianus.*
> *To infantryman Marcus Ulpius Novantico, son of Adcobrovatus, from Leicester (Ratae).*
> *Recorded and authenticated from the bronze plaque which is affixed at Rome on the wall behind the temple of the divine Augustus near the statue (?) of Minerva.*
> *(Witnesses) Publius Cornelius Alexander, Lucius Pullius Verecundus, Publius Atinius Amerimnus, Gaius Tuticanius Saturninus, Lucius Pullius Trophimus, Gaius Julius Paratus, Marcus Junius Eutychus.*

This military diploma, dated immediately after the end of the Dacian war, provides us with important information not only about the participating troops, but also about the infantryman Marcus Ulpius Novantico, who was granted the privilege of citizenship before the completion of service because of his distinguished service in the Dacian War.

Inscriptions are also found on objects of daily use, either stamped, scratched or painted; these objects can be any types of containers, vases, tableware, or building material. Brick stamps, imprints and signs, for example, give an insight into the activities of Roman officials and offer a vivid picture of Roman working life. Soldiers often fabricated bricks, thus the number and name of their unit was stamped on the bricks during the production process. The tile stamps with the names of the legions and other units give information on their tours of duty in the Roman Empire. The fragment of a plate brick from *Carnuntum* shows two rectangular stamps of the *legio XIIII Gemina*, abbreviated as *LEG XIIII G*, three imprints of nailed shoe soles, as typically worn by soldiers, and two imprints of not-nailed soles. During fabrication, a mark was wiped into the tile (top of the picture), and also a dog ran across while the tile was drying (Fig. 1.3.9).

Fig. 1.3.9. Tile with legionary stamp, footsteps, wiped mark and imprints of a dog's paw, Carnuntum, prob. 3rd-4th century CE (Inv. CAR-K-1650).

Whilst so far the inscriptions were usually written in what today would be called capital letters (no such distinction existed in Roman times), there are a number of types (official and private) that were written in the writers personal hand, in cursive script. Roman cursive writings looked different during the centuries and also depending on the geographical region in question or the type of document written in cursive. Writings on walls could either be ***graffiti*** (scratched into the plaster) or ***dipinti*** (painted onto the plaster, in red or black ink). Today's graffiti in official Roman terminology would be *dipinti*, since they are not scratched, but painted (or sprayed). *Dipinti* could convey official and semi-official information, for example elec-

tion dates or candidates, whereas graffiti were mostly considered to deface the walls (even if some of them are rather arty). Both *graffiti* and *dipinti* provide information on day-to-day live, including anathemas and amorous advances. However, graffiti and dipinti rarely survived, since they need the walls they were scratched and painted on; thus, the most prominent examples come from the Vesuvian sites around Pompeii and Herculaneum. More likely to survive, but nevertheless rare are curse tablets, or *defixionum tabellae*. The most usual form they take are lead with incised or scratched magic formulas often accompanied by mystic signs, which should curse unwelcome persons like thieves or rivals, but also animals, like for examples the horses of the rival charioteer in horse races.

1.4. Papyrological Sources

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Whilst leaden curse tablets were a shady business, writing tablets made of wood and wax, so called *tabulae ceratae*, were used throughout the Roman Empire equally for official business and private letter writing and everything in between. Since they are made of organic material that needs very special circumstances to survive centuries and even millennia, writing tablets are a rare find as well, especially in the humid provinces of the Danube Region (Egypt's desert areas are a completely other story, for that matter). Writing tablets are small wooden panels with a slightly depressed inscription field, filled with wax. They were used for daily written communications, short notes, calculations and written agreements and contracts. The usual form consisted of two wooden tablets that were wound together, could be opened and written on and snapped shut, thus preserving the writing on the inside during transport. The letters were scratched into the wax. The very well-preserved example below dates to the 2nd century CE and was found together with about 50 others in a Roman gold mine in Romania, in ancient Alburnus Maior (Fig. 1.4.1).

Of the 50 tablets found about 250 years ago, 25 could be preserved; 24 are written in Latin and one in Greek. They contain inter alia different legal contracts, like the purchase of a house or slaves, loan agreements, employment contracts, banking documents, as well as a list of purchases and expenses for the organisation of an event. These tablets give us the names of 97 individuals, including children and inform us that 42 of these were Roman citizens, the others being foreigners (or inhabitants without the Roman citizenship) and slaves. The documents feature bankers, slave traders, scribes, soldiers, but also miners and day labourers. One of the better-preserved wax tablets dates to May 164 CE and is 143 x 105 millimeters in size (National History Museum of Romania, Tab.Cer. D XI, Inv.no. 54187). The text is written in Latin cursive letters and reads as follows:

"During the consulship of Macrinus and Celsus (164 CE) May 19th, I, Flavius Secuninus, wrote this, asked by Memmius, son of Asclepius because he did not know letters, who said he had contracted himself and contracted his labor in the gold mine to Aurelius Adiutor from this day until this next November 30th, for 70 denarii and 10 for his children. During this day he may receive pay. He will be responsible to give healthy and strong labor to the conductor named above. But if he decides to leave or to be inactive against the conductor's will he will be responsible to give for each day a fee of 5 sesterces 8 asses to the conductor. If a flood hinders work, he will be responsible to calculate pay as fixed. If by the end of the term of the lease the conductor delays making payment, he will be held to the same penalty with the excepted three day delay.
Recorded at Immonsus Maior.
Titus, son of Beusan, who is also Bradua.
Socratio, son of Socratio.
Memmius, son of Asclepius." (Translation: Simion 2015, 37)

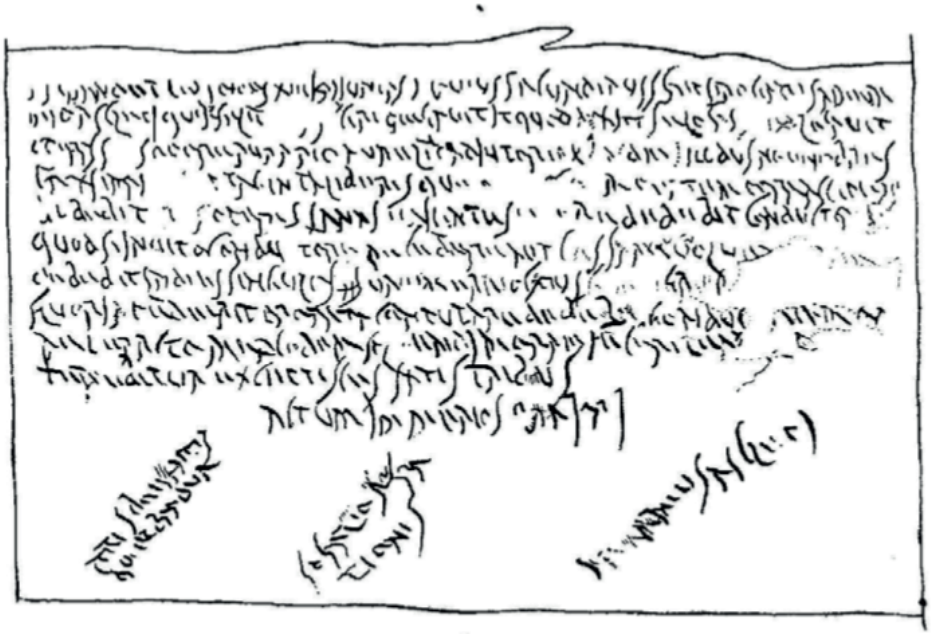

Fig. 1.4.1. Transcription of wax tablet D XI, 2nd century CE, in Latin cursive handwriting. (Source: M. Simion, Tablitele cerate de la Alburnus Maior / The wax tablets from Alburnus Maior. Capodopere 2015 / Masterpieces 2015, 38, photo: Marius Amariae).

From everyday documents like this, a lot of information can be gained. Memmius, who contracts himself and his children to work in the goldmine cannot write, so Flavius Secundinus (written Secuninus in the document), who is a Roman citizen, as his name suggests, writes for him. Below the contract and running angular to the main text, are the signatures the witnesses and the holder of the contract. The names of the men involved either directly in the contract or as witnesses to the contract, show that the gold mining community was composed of people coming from all over the Roman Empire – in this document alone there are two Roman citizens (though it is not known where exactly they were from), local inhabitants without the Roman citizenship as well as men coming from the southeastern parts of the Roman Empire (Greece to the Levant). Very interesting is the mention of a flood that could hinder the work in the mines; this suggests that floods were rather common in *Alburnus Maior*/Roșia Montană (Romania) and could be a real hindrance for the mining.

Closely connected to the wax writing tables are papyri and thin wooden slates, which are the ancient Roman equivalent to modern paper (as closely as it gets at least). Both papyri and thin wooden slates are written on with a pen and ink, thus they are no longer epigraphical sources, since epigraphy requires chiseling or scratching. The writing material papyrus is made from the papyrus plant, a grass, native in the Egyptian Nile swamps and growing to be up to three meters high. The fibre of the stem was processed to writing material already by the ancient Egyptians and abundantly used by the Romans all over their Empire. The writing material papyrus only survived the centuries and millennia in very dry conditions, therefore most of the papyrological records come from the fringes of the Egyptian deserts, though not all of them were written in Egypt. There is one papyrus that was most likely written in Aquincum, modern Budapest in Hungary, by a soldier stationed there, who sent his letter to his family in Egypt; it dates to the 2nd / 3rd century CE (P.Tebt. II 583 descr.; Adamson 2012). Thus, the document was preserved and gives us detailed insight into the thoughts that prayed on the mind of the soldier as well as a number of different information in addition. Aurelius Polion served with the *legio II Adiutrix*, stationed in the province of *Pannonia Inferior*. In his letter, written in Greek, he complains of receiving no letters from his family and he mentions furlough, which he wants to ask for in order to be able to visit his relatives back home, whom he seems to miss dearly:

"Aurelius Polion, soldier of the legio II Adiutrix, to Heron his brother and Plout-ou his sister and his mother Seinouphis the bread seller and lady(?), very many greetings. I pray that you are in good health night and day, and I always make obeisance before all the gods on your behalf. I do not cease writing to you, but you do not have me in mind. But I do my part writing to you always and do not cease bearing you (in mind) and having you in my heart. But you never wrote to me concerning your health, how you are doing. I am worried about you because although you received letters from me often, you never wrote back to me so that I may know how you … while away in Pannonia I sent (letters) to you, but you treat me so as a stranger … I departed … and you are glad that(?) …

the army. I did not … you a … for the army, but I … departed from you. I sent six letters to you. The moment you have(?) me in mind, I shall obtain leave from the consular (commander), and I shall come to you so that you may know that I am your brother. For I demanded(?) nothing from you for the army, but I fault you because although I write to you, none of you(?) has consideration. …" (Translation: Adamson 2012, 85)

The letter continues with greetings to members of Polion's extended family. Private letters, be they written on wax tablets or papyri or thin wooden slates, as discovered along the Hadrian's Wall in Great Britain, give the most intimate insights into the daily lives of the Roman men and women living along the Danube or in any other provinces or the Roman Empire. They are rare sources, which relate a completely different quality of information than official inscriptions and dedications, and it is the combination of all sources, including archaeological ones that makes the picture of the Roman Danube area 1,400 to 2,000 years ago as detailed as possible.

1.5. Numismatical Sources

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The numismatic research deals with coins, medals, money tokens and other subjects similar to money that have been used as currency in the past. Further, it covers the monetary history as well as the political, economic, social and cultural issues associated with currency objects. Very often ancient coins are image carriers of iconographic sources and provide valuable information on the Roman life. Since coins travelled long distances through the Empire in Roman antiquity, they also played an important role in the dissemination of visual messages and propaganda.

Thus, numismatic analyses of coinage from the limes sites can on the one hand provide an insight of the economic cicumstances of a specific period and on the other hand can provide iconographic information of high value. Monetary circulation leads to understanding and interpreting economic development. Iconographic analysis leads to understanding imperial policies and propaganda imposed to population in frontier provinces.

Coins and coin hoards can provide today's researchers with information on chronology, on routes of the circulation and on the locations from mints across the Empire. Changes in the circulation help us to understand the imperial monetary and fiscal policies through largest percentages from dominant imperial or regional mints.

The border regions along the Danube were some of the best-developed regions of the Danubian provinces. From an economical perspective this was the result of the military presence and high military mobility. These are of greatest importance for understanding both civilian

and military life at the frontier. Monetary circulation in the early and later centuries is directly connected to identifying monetary relation with the eastern and western provinces that are dominating in the number of coins present at the frontier during the 2nd century CE. With early income from western mints and provinces during the 1st and 2nd centuries the situation radically changes with long term war campaigns in the East. Vexilations from Danubian provinces were often the spearhead of imperial armies. Therefore, changes in the circulation for example in Upper Moesia are to be seen as a direct consequence of the participation of the Moesian legions (*legio IIII Flavia Felix* and *legio VII Claudia Pia Fidelis*) in the war against Persia at the Eastern frontier. Evidence for this can be traced through the sudden and enormous increase of coins from Eastern mints and the presence of Syrian merchants documented in inscriptions in *Viminacium* after units had returned to their home bases.

During the 3rd century it is of crucial importance to follow Roman provincial coinage and special *Viminacium* local coinage production in this important provincial mint. Following distribution of coins produced in Moesia Superior we can see strong relations of *Moesia* with other Danubian provinces dominantly Pannonian provinces and provinces in *Dacia*. Coins from *Viminacium* mint can be traced from *Carnuntum* to *Moesia Inferior* and deeply into *Dacia*.

There are relatively few mints that were located directly at the frontier or close hinterland. With *Viminacium*, *Carnuntum* and *Treveri* on a first line and *Siscia*, *Sirmium* and *Serdica* further inland, the locations of the mints suggest that Romans avoided to expose strategic facilities, such as mints, at the river sites. Therefore, the foremost line of mints did not operate for a long time.

A high percentage of the coins found in Moesia can be traced to a mint in *Stobi* (Northern Macedonia) produced in the early centuries. Whether this is related to the fact that many veterans spent their retirement in this region remains an open question. In this context *Scupi* shall be mentioned as one of the *coloniae* of the Moesian veterans.

Another important task of numismatics is the evaluation of coin hoards analysing the dating and distribution of the individual coins. These details provide an insight in historical events and crises that led the provincials to hide their valuable belongings and large quantities of coins in deposits. A large part of the hidden Roman hoards known today belong to the period of Roman soldier emperors and the crisis of the 3rd century.

Intrusions from the Barbaricum of Germanic and Sarmatian tribes as well as the usurpations of Ingenuus, Pacatianus and Regalienus all left catastrophic traces which can be followed through coin hoards. The distribution of these hoards testifies how deep the penetrations led into the hinterland of the Pannoniae, Moesiae and Dalmatia by the aforementioned barbarian tribes. These intrusions are measured by hundreds of kilometers into the hinterland. Civil wars and usurpations left almost equal consequences. The worst impact had Gallienus'

punishments of rebellious groups in the Pannonian and Moesian provinces playing havoc on both troops and civilians who supported usurpers.

A similar situation can be seen in the 4th and 5th centuries as well. Large coin hoards in *Horreum Margi* (present day Ćuprija in *Moesia Superior* / Serbia) with smaller all along the frontier suggest the fast downfall of the limes defences. Te great number of hoards, i.a. those from *Viminacim*, allow to retrace crisis after crisis and the ultimate fall due to the great invasion of the Huns in 441/443 CE.

Fig. 1.5.1. Gordian III, provincial mint of Viminacium, Year 4. Obverse with personification of province Moesia holding legionary insignia and flanked by bull and lion – emblems of the Legio VII Claudia pia fidelis and Legio IIII Flavia Felix. Obverse legend PMS COL VIM (Provincia Moesia Superior COLonia VIMinacium). National Museum in Belgrade. (© National Museum Belgrade, Serbia)

Imperial iconography and politics were distributed through visual messages on obverses (front faces) and reverses (back faces) of coinage. From political, religious or other reasons, coins always transmit multiple messages to different target groups. With high certainty it can be claimed that some series were addressed to a civilian population or other to troops, intended for local, regional or widespread use. A large percentage of the coins found along the lims origins from the mint of *Nicea* in Asia Minor carrying specific obverses dedicated to the military, e.g. legionary insignia, soldiers with weapons or insignia. Messages from the same mint that have been found locally in the province Bithynia in Asia report on frontier finds with obverses that show religious and clearly civilian themes. This difference in iconography indicates different policies for safe provinces deep within the Empire on the one hand and on the other for hot or militarised zones at the frontier.

A very special case is coinage with personifications of provinces flanked by emblems of legions. It was used for military propaganda purposes demonstrating the importance of the province and the reliance on the depicted legions. Examples to be mentioned are coins from Moesian and Dacian mints dating to the middle of the 3rd century (Fig. 1.5.1).

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2. APPEARANCE AND DEVELOPMENT OF THE ROMAN DANUBE LIMES

2.1. Geography and Topography

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River Danube is the second largest European river, second only to the great Volga. It stretches 2850 kilometres from its source in the Bavarian Alps to the Black Sea flowing through Germany, Austria, Hungary, Croatia, Serbia, Bulgaria, Moldova, and Romania, its delta touching the Ukrainian border. In Roman times the Danube had always been considered as a natural border. Romans first reached it in the conquests of Emperor Augustus (27 BC – 14 CE) during the early Imperial period, when the river Danube marked the border between the new province of Raetia and Barbaricum. The Greek historian Strabo mentioned that Tiberius, Augustus' successor on the throne, discovered the source of the Danube while campaigning in Germania Superior. Raetia covered what is now southern Germany (Schwarzwald area), the easternmost part of Switzerland, the westernmost regions of Austria (Vorarlberg) and the northernmost parts of today's Lombardy. Germania Superior was also spread over several modern countries, i.e. Germany, Switzerland and the French provinces of Alsace and Lorraine.

The Danube then flows east, marking the border between Noricum and Pannonia further north and east. Noricum became part of the Roman Empire at the same time as Raetia. Noricum is now within the borders of Austria and Slovenia. Pannonia on the other hand went through several administrative reorganisations under Roman rule. It became a separate province possibly already by the second decade of the 1st century AD or perhaps somewhat later, but certainly during the 1st century. During the reign of emperor Traian (98-117 CE) Pannonia was divided into two provinces, i.e. Pannonia Superior and Pannonia Inferior. Much later, under Diocletian's rule (284-305 CE), those two provinces were again divided into four smaller provinces, all named Pannonia but with a different adjective, namely Prima, Secunda, Valeria and Savia. The territory of the Roman province of Pannonia corresponds nowadays to the eastern Austrian region of Niederösterreich, most of neighbouring Hungary (without its eastern region, the Hungarian Great Plains), south-western Slovenia, northern Croatia, and the north-western Serbian region of Vojvodina. Flowing further, the Danube flows through the Roman province of Moesia, nowadays Serbia, as well as parts of Northern Macedonia and Bulgaria, and even the Romanian Dobruja and southernmost Ukraine. It became a province in the early years of the first century CE, but under the reign of Roman emperor Domitian (81-96 CE), during wars with Dacians, it was further divided into two provinces, Moesia Superior

and Inferior. The only part of the Roman Empire extending beyond the Danube Limes was the province of Dacia. It was also known as Dacia Traiana, named as such in 106 CE after its conqueror, the Roman emperor Traian (98-117 CE).

The Roman Empire was, among other things, characterised by an extensive road network, unmatched in Europe till modern times. While roads tremendously increased mobility within the Empire, they were more suited to the movement of troops and to travellers. Obviously, they were certainly extremely beneficial to trade as well, but transportation of bulk goods by road was nonetheless totally dependent on transport animals like donkeys, mules, horses or camels and on carts pulled by oxen for heavier loads. While often necessary, this was far from being always practical and it was usually slow and rather expensive, in any case certainly far more expensive than sea transport. This is why Romans used rivers whenever they could as the most efficient and economical way to transport large quantities of goods. Basically, every navigable river i.e. any river big enough for boats, was used as a transportation waterway and the main rivers were an essential part of the transportation network in the continental part of the Empire. Rivers like the Rhône and the Saône in Gaul, the Rhine and the Danube on the frontiers, the Sava in southern Pannonia, not to mention the Nile or the Euphrates and Tigris, witnessed heavy traffic for centuries and most of it was related to trade, be it food like cereals, olive oil, wine, raw material like marble or wool, construction material or any kind of consumer goods. While the Rhine and the Danube also represented the boundaries of the Empire and had an important military role, rivers like the aforementioned Rhône, Saône and Sava could be described as transportation arteries leading from the Mediterranean to the inland parts of the Empire, all the way to the limes area.

The diversity of the urban landscape in the Roman Empire was naturally related to local and regional historical heritage. While many areas of the Empire had a flourishing urban civilisation for centuries or even millennia, some parts barely started developing urban centres or had none at all before the arrival of the Romans. The Danube provinces would fall into the latter category. While some protohistoric places in what would become Pannonia and Moesia may be considered as proto-urban settlements if not towns in the Mediterranean sense, most of the area was completely devoid of any kind of urban landscape. The urban network only started developing with the Roman occupation and it basically followed the creation of Roman military bases and the road network which was connecting those military outposts and garrisons. Nonetheless, it would be wrong to assume that Romans built cities from scratch. Many places which would later become colonies or municipia were actually settlements before the arrival of the Romans, as clearly shown by archaeological research. This should hardly come as a surprise: prehistoric settlements were usually situated at convenient spots, in areas suitable for sustention of the local people, adequately defensible but also accessible, like for instance Segestica in Pannonia. Romans were obviously looking for the same advantages when choosing well-located garrison spots. Thus, it was quite fitting to take over places which were already inhabited due to the abovementioned reasons. However, since the Roman

Empire did not necessarily have the same geostrategic priorities as the native communities, Roman garrisons were not systematically situated in former important Iron Age settlements. As far as Pannonia is concerned, one may see more pronounced urban development along main communications, i.e. roads and rivers (besides the Danube, the Drava and especially the Sava, as Danube tributaries) as well as in the limes area, i.e. on the Danube frontier where basically all cities developed along military forts. Even in the interior of the province, large urban centres developed at places which first used to be important military garrisons, before becoming major trade, industrial and administrative centres after legions moved to the Danube area, Poetovio and Siscia being prime examples. Thus, one may say that the Roman army gave the main impetus to urban development in Pannonia and Moesia during the first century CE. Afterwards, while army presence was not the only cause of urban development - trade becoming progressively an important factor as well – the presence of garrisons certainly kept contributing to growth of cities, Carnuntum and Aquincum coming to mind as obvious examples. On the other hand, Siscia and Poetovio, some of the most important Pannonian urban centres, lost their permanent garrisons fairly early – Siscia likely already by the early Flavian period and Poetovio at the beginning of the 2nd century CE – but they still witnessed a continuous urban and economic growth without the presence of the military. Nonetheless, one should keep in mind that their manufacturing facilities were mostly producing for the frontier areas and that their economy, both as production centres as well as transportation hubs, was in all probability depending to a large extent on the trade with Pannonian garrisons and frontier settlements. The same assumption would apply for cities close to the Danube which, to our knowledge, did not keep permanent garrisons most of the time, but their growth certainly benefited from the trade and transportation directed towards the frontier. At the same time, such cities, like Mursa or Cibalae, must have also been production centres serving the needs of the neighbouring limes garrisons. Sirmium is a comparable case: a settlement since prehistoric times, a garrison in the Augustan period (and usually not completely devoid of troops in later times as well), situated next to one of the main road arteries of the Empire, a city on the frontier, a harbour on the Sava not far away from the Danube, an important trade and industrial centre on the provincial level and a Roman colony since Flavian times whose administrative importance had never been unimportant but only kept growing with time, becoming one of the major political centres of the Empire during late Antiquity thanks to its geostrategic position.

Just like any state defending its borders, the Roman Empire did not rely solely on its armed forces and fortifications to keep potential enemies out of its territory. It is, after all, a matter of common sense and financial possibilities. Considering the cost and time necessary to build a chain of forts or miles of walls and ditches, not to mention that you have to man them afterwards, it is hardly surprising that the Roman army tended to rely on natural obstacles whenever it had the possibility. A large river like the Danube will obviously impede the movements of large hosts and give time to defenders to concentrate their troops for a counterattack. Obviously, you still need soldiers to stand watch, but since their initial task is not to prevent the

attack but just inform of the enemy movements, you only need well placed watchtowers and not an expensive continuous line of manned fortifications. The Roman military facilities on the Danube limes were nonetheless a linear type of fortifications but, thanks to the presence of the river, they could be spaced and did not require a huge number of troops. This concept of frontier defence worked fairly efficiently for centuries but when Romans in the 4th century could not cope with the increasing number of enemy incursions, not to mention wholesale invasions, they again looked for a solution encompassing natural barriers. In order to prevent barbarians reaching Italy, they developed a chain of fortifications in the Alps, the Claustra Alpium Iuliarum, whose main purpose was to protect the mountain passes leading to northern Italy. Crossing mountains is not necessarily easier than crossing rivers when one guards the only practicable paths.

Coming back to the Danube, as one of the longest European rivers (as a matter of fact, the second-longest one), its appearance differs significantly from one section to another. However, its main characteristic, i.e. being a wide and fairly fast river remains constant. Without bridges – and in ancient times, only Romans had the know-how and the means to bridge a river such as the Danube – and without a large number of boats, any significant body of troops would have faced tremendous difficulties trying to cross the Danube. Besides, Romans took into account natural features whenever they provided an advantage for defence. Indeed, not all the stretches of the Danube have easily accessible banks. At certain places, those banks are rather steep, making the crossing of the river even more hazardous and difficult. From the Roman point of view, this was an excellent defensive asset since those hardly accessible stretches of the Danube provided better positions for fortifications, being at the same time excellent watching points due to their vantage position overlooking the surrounding area. As examples one may mention places like Lugio (Dunaszekcső), Ad Militare (Batina) or Cuccium (Ilok) in Lower Pannonia (nowadays Ilok). Certain stretches are actually gorges, the Iron Gates likely being the most famous, which are extremely difficult spots to cross a river in force and make excellent defensive positions. The Roman defensive line on the Danube was not solely a chain of watchtowers and forts stranded in the wilderness. Early on, civilian settlements started developing in the close vicinity of forts, profiting from the road network initially built to easily access the military infrastructure. Those settlements became trade and manufacturing centres, as well as supply sources for the army and the source of manpower for army recruits. The Danube limes became eventually a thriving area from an economic and social point of view, well populated and rather well urbanised as well as totally integrated to the wider network of Roman cities.

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2.2. The Historical Development on the Lower Danube

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The Roman conquest of the territories near the Lower Danube began in the first half of the 1st century BCE. Under the rule of Emperor Octavian (27 BCE-14 CE), the subjugation of the Balkans was an important step in the Roman Empire's expansion. Octavian succeeded in imposing his desire to consistently push and establish the northern boundaries of the Empire in the Rhine and the Danube region after the end of the civil war (31 BCE).

Marcus Licinius Crassus, elected Consul of Rome, was given great powers to pursue Rome's expansive interests in the Balkan Peninsula. In 29 BCE, the Romans declared the local tribe Dentelets attacked by the Bastarnae as their allies and entered Kyustendil Field (Bulgaria) to drive the conquerors back. The Romans managed to defeat and conquer significant territories and the next year they seized areas on both sides of the Balkan Mountains. With these two moves, the deserted Thracian lands were actually prepared for annexation by the Empire. In 11 BCE, General Lucius Calpurnius Piso suppressed the rebellion of the Thracians, who were constantly resisting, but the Roman principle to divide and conquer weakened them to a great extent.

Rome then pursued an aggressive conquest policy towards the Middle and the Lower Danube, and in 12 CE the new province of **Moesia** was formed with three legions operating – *legio IV Scythica*, *legio V Macedonica* and *legio XX Valeria Victrix*. The fourth legion was under the command of Marcus Licinius Crassus in Macedonia and sent to Scythia north of the Danube, where it defeated the local tribes.

The Roman marches largely depopulated the territories between the Danube and the Balkan Mountains, which led to a policy of permanent displacement of the neighbouring subjugated tribes.

The Moesian military contingent of legions and additional units were actively involved in the conquest of the other Thracian lands and the establishment of the new province of **Thracia**, and the *legio VIII Augusta* was also transferred to Novae (Svishtov, Bulgaria). Gaius Julius Roemetalces, whose name shows the Roman policy for gradual inclusion of the separate Thracian tribes, is the last ruler of Thrace (38-44 CE). In 45 CE, the last Thracian kingdom south of Hemus was annexed and the province of Thracia was formed.

[1] Based on a consortium work of the *Partnership under the Obligations and Contracts Act "Danubius" and RubliMedia business SPL*.

This led to the expansion of the Moesia province east to the Yantra River and, under the rule of Emperor Vespasian (69-79 CE), the full integration of today's Northeastern Bulgaria into the boundaries of the Empire began. Then the invasions of Dacians and Sarmatians were stopped. This expansion continued during the reign of the Emperors Titus (79-81 CE) and Domitian (81-96 CE). In 85-86 CE Domitian led a war against the Dacians. The Dacian commander Diurpaneus, was defeated by the Moesian governor Cornelius Nigrinus.

The Flavian period also saw the first formation of large, double-size units, both infantry and cavalry, of a nominal strength of 1,000 men (*cohors/ala miliaria*). These were the mirror image of the double-strength first cohorts of legions also introduced at this time. During this time, many cohorts were formed of Thracian soldiers and employed by Rome in Britain, Africa, Germany, etc.

The *cohors I Thracum* is attested on six – possibly seven – inscriptions in stone have been found in *Banna*/Waterhead, *Lavatrae*/Bowes and *Pons Aelius*/Newcastle dating at the end of the 2nd and the beginning of the 3rd century. The regiment was originally recruited among the local Thracians and was believed to have been first stationed in Britain at the Worcester auxiliary fort, just to the south of the city of *Viriconium*, where the tombstone of a trooper in the Thracian cohort was discovered (RIB 291) dating in the second half of the 1st century. The cohort was stationed there during the early campaigns of the governor Ostorius Scapula. They were also involved in the building of Hadrian's Wall during the 120's CE.

During the Flavian dynasty, the limes was expanded east of Dimum (Belene) when Dimum, Sexaginta Prista, Trimammium, Apiaria and Transmariska fortresses were built.

During the civil war, the Lower Danube defense system was significantly weakened and the area south of the river was subject to numerous barbarian invasions by the Roxolanis, Sarmatians, Dacians. After the end of the civil war, the northeastern point of the Roman border was *Novae*/Svishtov, where *legio I Italica* was located.

In 85 CE, the Dacians surprisingly invaded the lands south of Danube and conquered Northeastern *Moesia*. Emperor Domitian (81-96 CE) took on an expedition to protect the borders but failed to push back the barbaric invasion. The Emperor sent massive reinforcements, led by the Governor of *Moesia*, Cornelius Nigrinus who defeated the Dacians.

In 86 CE, Moesia was divided into two provinces: *Moesia Inferior* (East) and *Moesia Superior* (West) separated by the Tsibritsa River.

The fundamental changes in the military organisation of the Danubian provinces and the shift of the Roman military focus in Europe from Great Britain and the Rhine to the Danube entailed the formation of a new provincial army and the relocation of all legions and most additional units to the Danube. This led to a significant increase in the number of Roman garri-

sons and their reinforcement with new legionary and auxiliary forces and laid the foundations of the Danube border protection system, fully developed under the rule of Traian (98-117 CE) and of Hadrian (117-138 CE).

Traian began the largest military operation in ancient history in 101 CE with troops of 200,000 – 250,000 soldiers and allies. The number of the well-prepared Dacian troops and their federations was approximately the same. The war began heading in two directions – firstly, towards Sarmizegetusa and Drobeta (Romania), but the Dacians made an unexpected attack in Dobrudzha, which forced the Roman command to send an additional legion to Oescus. Claudius *legio XI Claudia* was divided into three parts and with the victory over the Dacians in 106 CE they settled in *Durostorum* (Silistra, Bulgaria).

After 106 CE, the consolidation of the new province of Dacia began. Between 117 and 119 CE, Dacia and Moesia Inferior were attacked by Sarmatians, Roxolanis, and Iazyges, who were pushed back, and a lasting peace ensued in the Lower Danube region, which led to a new limes structure. The territory west of *Novae* already was in the north Roman territory and this required relocation of the military contingent. In the province of Moesia Inferior, three legions were permanently relocated: the legio I Italica in *Novae*, legio XI Claudia in Durostorum and the legio VMacedonica in Tremsis.

The time of the Antonini and the Severan dynasty marked economic prosperity in Moesia Inferior and Thracia. Barbarian attacks by the Costoboci took place in 170 CE and, after the middle of the 3rd century, by Goths, Halani, Carpi and Roxolani.

At the end of the 2nd century and the first half of the 3rd century, the Balkan Peninsula played an important role in the Empire's political life, since it became the arena of the civil war between Septimius Severus and Pescennius Niger in 193 CE.

In 249 CE, Traian Decius was declared Emperor and crowned on the Lower Danube Limes. He fought the Goths until 251 CE when he was killed near *Abritus* (Razgrad). Over the next two years, Emilian was the Governor of Moesia and Pannonia. He overcame the Gothic crisis and in the beginning of 253 CE he was elected the Emperor by the Danube troops.

Due to the increasing Barbarian attacks and the impossibility of Rome to defend its vast border territories, Emperor Aurelian (271-275 CE) decided to evacuate the province of Dacia and the Danube once again became the northern border of the Empire. The large-scale administrative and military reforms of Diocletian (284-305 CE) and Constantine I (307-337 CE) included a complete reorganisation of the limes and were accompanied by extensive construction work.

Then, massive fortification construction work began on the right riverbank, which continued until the end of the 4th century. Existing fortresses were restored, new ones and such of different type and size were built at strategic locations. Archaeological analyses suggest a new

spatial distribution and location of the fortifications compared to the previous period. The topography took precedence over the strategy, the accessibility of both riverbanks was considered, as well as the local hydrography and flora, favoring the settlements on both sides of the Danube.

The invasion of the Goths and Huns in the last quarter of the 4th century destroyed a large part of the fortresses and at the end of the 5th century the Roman rule began new major reconstruction work carried out in several stages, the first one was under the rule of Emperor Anastasius, and the last major one – under Emperor Justinian I. Until the end of the 6th century, only smaller activities were carried out.

The limes ceased to exist as a defensive system under the rule of Emperor Heraclius, when Rome lost control of its provinces after the invasions of the Slavs and Avars. Part of the ancient fortresses were also used in the Middle Ages, and those located in strategic places – until the Russian-Turkish War in the years 1877-1878.

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2.3. Historical and Archaeological Development of the Roman Danube Limes

The Roman frontier along the Danube was gradually established in the 1st century CE 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 after 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. The presence of many Late Roman and Early Byzantine fortifications, some of which in considerably good state of preservation, is a distinctive characteristic of the Limes on the Lower Danube. It gives it some unique aspects that are not present at any other stretch of the Roman frontiers.

2.3.1. Focus 1: The Limes Shifts in Raetia and the Germaniae

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The development of the northern border in *Raetia* cannot be understood without the one in *Germania Superior*.

Since the Gallic Wars of Gaius Iulius Caesar in the middle of the 1st century BCE, the Rhine had been the northern border of the Roman Empire. When Augustus became the new Emperor in 27 BCE, he aimed at closing the gap between the Rhine and the upper Danube in order to defend Italy against Germanic incursions on the Rhine and Danube. Therefore, Augustus tried to bring the Germanic tribes between the Rhine and Elbe under his rule and incorporate them in the Roman Empire. This attempt resulted in the Augustan Wars against the Germans, a series of military conflicts between 12 BCE and 16 CE.

After the devastating defeat of the Romans in the Battle of the Teutoburg Forest in 9 CE and further unsuccessful efforts to conquer and secure the German territories at the eastern banks of the Rhine in the subsequent years, the Roman troops finally retreated to the left side of the Rhine and respectively right side of the Danube at the new Emporer Tiberius' demand in 16 CE. With this decision, however, the question of an appropriate defence and organisation of the rear area arose.

Several years later, with the reign of Claudius (41-54 CE), the Roman troops once again began to systematically advance eastwards across the Rhine and northwards across the Danube (Fig. 2.3.1). They did this for two reasons: firstly, they wanted to control further fertile areas in order to feed the army; and secondly, they wanted to conquer strategically important areas, also in the sense of better control. The change in the course of the border was characterised by a successive forward movement to the east and north corresponding with the construction of several new fortifications (Unterkirchberg, Rißtissen, Emerkingen, etc.) as well as the expansion and reinforcement of existing facilities (*Antunnacum*/Andernach). Initially, the

overland border only had the shape of a lane which was laid through the primeval forest. This is the original meaning of the Latin word *limes*, which later became the generic term for all the aggregate states of the Roman border fortifications on land, in contrast to a 'wet border' along rivers, such as the Danube and Rhine, which was called *ripa*.

After Tiberius' withdrawal to the Rhine border in 16 CE and Claudius' careful and gradual advances to Germanic regions it were the Flavian Emperors (69-96 CE) who pushed again the Roman expansion east of the Rhine and northern the Danube from Vespasian (69-79) onwards. Initially, the Roman troops ventured northwards across the Rhine to the foreland of Mainz towards the settlement area of the privileged *Mattiaci*, along the fertile trade route of the Lahn Valley and further south to the 'knee' of the upper reaches of the Rhine and Danube, the area called *agri decumates* by Tacitus (Tac.Germ. 29,3).

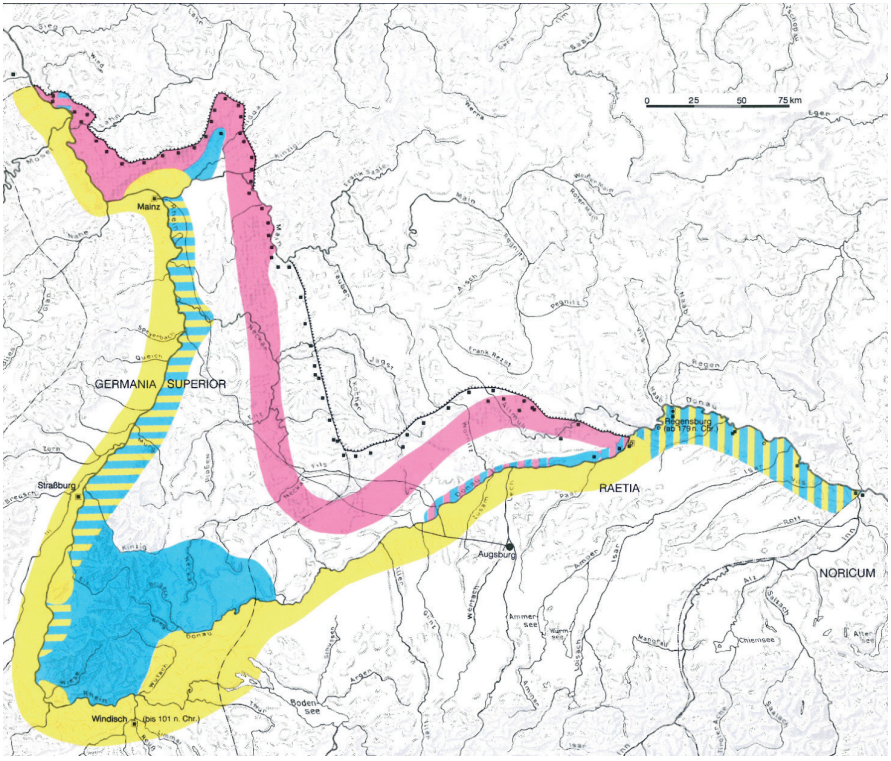

Fig. 2.3.1. Simplified presentation of the different phases of the occupation. Boundary zones up to Claudian times (yellow) and early Flavian times until around 80 CE (blue); boundary line from Domitian times until the middle of the 2nd century (red) and the Limes from the middle of the 2nd century until around 260 CE. (Source:
C.-M. Hüssen, Grabungen und Forschungen der letzten 40 Jahre im obergermanischen und rätischen Limesgebiet. Der römische Limes in Deutschland AiD Sonderheft 1992, 38 fig. 23).

Vespasian built a road from Strasbourg through the Black Forest and the Swabian Jura to the Upper Danube, secured by permanent troop camps. It was only under Traian – but already prepared under Domitian, for example through the conversion of the military districts to the two provinces of Germania Superior and Germania Inferior (from around 85 CE) – that the Romans systematically began to occupy the eastern and northern foreland of the two rivers and demarcate it from Germania Magna. Since then, the Limes along the Rhine ended at Neuwied and enclosed the fertile areas of the Lahn Valley with the Wetterau and the Taunus. From there, it took the route to the south, using the course of the Main from Großkrotzendorf first to Wörth, and later (from 150 CE) to Miltenberg at the southernmost point of the Main knee. From there, at first still from Wörth, it went overland to the Neckar, still in the province of Germania Superior, and then in Raetia from the fertile Nördlinger Ries to Oberstimm, which already existed in Claudian times as a wooden fort, only to meet the Danube again at Eining.

Henceforth, the Danube functioned as *ripa* of the Northern border from *Abusina*/Eining downstream. During the Flavian period this section of the *ripa* has not yet been secured by a dense chain of forts (later with Regensburg, Pfatter, Straubing, Steinkirchen, Künzing and Passau) along the southern bank of the Danube, presumably because there was no threat in the Germanic settlement area, with only the *Hermunduri*, a Proroman privileged Germanic tribe, settling there.

The Upper Germanic-Raetian Limes, with its 550 kilometers long course, which has been included in the UNESCO list of World Heritage Sites in 2005, received its final, most-eastward advanced development status in the second half of the 2nd century during the reign of Antoninus Pius (138-161 CE). Until then, it had become increasingly secured with densely sown watchtowers and forts built of stone. Having advanced further to the east, it now ran in a straight line from the Main knee near Miltenberg southwards, before turning east at the provincial border between Germania Superior and Raetia near Fort Schirenhof at Schwäbisch Gmünd northeast of Göppingen. With a slightly northward rising course (with towers e.g. in Möggling, Rainau, forts in Aalen, Rainau, Halheim, Ruffenhofen, Dambach) to the northernmost point of Raetia near the small fort of Gunzenhausen (with the bigger forts of Gnotzheim and Theilenhofen in the hinterland) on the Altmühl, the Raetian Limes bent into a southeasterly course (with the forts of Ellingen, Weißenburg in the hinterland, Oberhochstatt, Burgsalach, Biebig, Hegelohe, Pfünz in the hinterland, Böhming, Hienheim, Oberstimm in the hinterland until 120 CE, Pförring in the hinterland, with towers e.g. "Auf dem Pfahlbuck" and Zandt) and met the Claudian course of the limes again at *Abusina*/Eining which therefore can be considered the most western fort of the later Danube Limes.

The Limes, which was secured by a ditch construction in Germania Superior – where the natural conditions allowed it – and finally by a stone wall about three meters high as well as stone watchtowers at strategically advantageous positions in Raetia, lasted until the middle of the 3rd century. The political situation north and respectively east of the Roman Empire changed

threateningly, culminating in the invasion of powerful tribal groups such as the *Iuthungi* (*Semnones*) and the *Marcomanni*. After several incursions during the 3rd century, which were not only noticeable in the Raetian area and led to the abandonment of the regions beyond Rhine and Danube, the last phases of expansion and renovation of the Upper Germanic-Raetian Limes took place at the end of the 3rd century and especially in the 4th century by Emperor Valentinian I (364-375) transforming the Roman forts into fortress-like installations. The so-called Danube-Iller-Rhine-Limes now ran up the Rhine to the outlet of Lake Constance, along the lake, northwards overland to the upper reaches of the Danube and from there again as 'wet border' downstream to the east. In the inland, similarly developed forts were built as on the Limes, which were smaller and manned by a smaller group of soldiers than before, but had more the character of castles (*burgi*). This last organised border defence only went under with the attacks in the middle of the 5th century, roughly at the same time as the fall of the Western Roman Empire (476 CE).

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2.3.2 Focus 2: The Moesian Limes and the Roman Province Dacia

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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 CE. In the Late Roman period, those frontier defenses were modernized and turned into strongly fortified military bases.

The Rhine and the Danube were considered by Augustus as the best natural landmarks for drawing the northern border of the Roman Empire. The interest for both banks of the Danube appears after the foundation of the province Illyricum. The control of river traffic also determined the appearance of the first Roman civil communities on the Lower Danube.

Half a century after Augustus, the placing of some legions and auxiliary units at crossings of the Danube does not yet indicate the concept of a frontier cordon based on the river. Down to the end of the Julio-Claudian period, the visible Roman presence along the river itself and its major tributaries will have depended upon the fleets.

When the Roman emperor Claudius suppressed the Thracian state in 46 CE, the southern part of the Balkan Mountains was organised into the province of Thracia, while the territory between the Balkans and the Danube was added to the province of Moesia, but does not seem to have been garrisoned permanently for nearly a quarter of century.

After the division of Moesia for strategic reasons and the creation of the two new provinces of Moesia Superior (west of Ciabrus/Tzibritza river) and Moesia Inferior (bounded by the river Ciabrus/Tzibritza to the west, by the Danube to the north, the Black Sea to the east and the Balkans to the south) by Emperor Domitian in 86 CE, the limes on the lower Danube acquired its definite shape which remained basically unaltered until the end of the Principate.

Under the following emperors, the Danube border continued to be strengthened, through the organization of the province of Moesia and especially after the final annexation of Dobudja (year 46). Of course, some looting of the Transdanubian populations cannot be completely stopped, so the Empire cannot prevent the Dacians from crossing the Danube and attacking the south of the Danube. In fact, they will take advantage of every favorable situation and will constantly create problems for the Romans. Far from affecting Roman dignity, the payment of salaries was an advantageous way to keep the peace of their border provinces, by organizing barbarian clientelistic formations - relations expressed diplomatically by the title given to their leaders: *reges amici et socii populi Romani*.

After years of silence, the ever-dormant fire of war on the Danube erupts violently, according to written sources. In the winter of 85/86, the Dacians crossed the Danube and attacked the

less well-defended Moesia area, probably somewhere in today's Dobudja, one of the battles being able to take place right near Adamclisi, where Traian would later erect the famous Triumphal Monument. The conflict has several stages, complicated by Domitian's desire to turn against the Quadi and the Marcomanni, who had not helped him in the fight against the Dacians. The peace concluded in 89 between the Dacians and the Romans must be seen as a compromise, necessary because of the violence of the fighting and mutual exhaustion.

The preparations for Dacian Wars were one of the biggest imperial and development projects of Traian. The main cause of concern for the Romans was the rise of power of the Dacians. The other reason was the annual sums of money paid as subsidies to various barbarian princes who represented an appreciable financial burden, so not once did the Roman emperors proceed to reduce them. But the annexation of Dacia was equally considered significant – if not even greater – because of the spoils of war and the exploitation of its riches. Both infrastructure and local production was busted in the rate never seen before and barely seen afterwards. Dacia was not just a new territory. The conquest of new lands brought many changes along the Danube. Newly established provinces that were rich with gold and mines raised the income of the Empire significantly. Eliminating a long-term and dangerous enemy brought sense of freedom and security.

The Danubian frontier between Viminacium (Kostolac, Serbia) and Novae (Svishtov, Bulgaria) was abandoned and some of the military units previously quartered upstream from Novae were sent north of the Danube into the new province of Dacia. The remaining units that were available to be quartered elsewhere were transfered eastward by Emperor Traian to guard the Danube's right bank as far as the river delta.

After the conquest of Dacia and its transformation into a Roman province, it would seem that, from a strategic point of view, the existence of limes between the two provinces became superfluous. As has rightly been observed, however, the abandonment of the camps and the relocation of the troops could not be concretely proved; the number of raids obviously decreased, but only in comparison with the situation during the Dacian Wars. Of the more than 20 fortifications identified on the ground, some were probably left in operation in the 2nd-3rd centuries and used by the auxiliary troops mentioned in the military diplomas of this province.

All civilian settlements flourished and already under Hadrian a number of settlements became municipia completely changing the character of the civilian life and introducing a full-scale urban development. After the defeat of Dacia, the 2nd century has been a time of prosperity and the Danube was not a frontier anymore. Downstream from Viminacium, Lederata and Cuppae auxiliary troops moved away. At the forts that remained manned small garrisons were left to protect trade from pirates and bandits (latrones). All forts protecting bridges and river crossings kept their importance and continued to serve unchanged or with reduced garrisons.

Traian conquered Dacia, but its maintenance within the borders of the Empire is due to the emperor Hadrian. With the creation of a Roman province in the area of the old kingdom of Decebalus, Traian had left Muntenia under the supervision of the governor of the province of Lower Moesia, raising only auxiliary camps in certain key positions and building a line of defense along the Olt River.

Part of the territory situated north of the Danube, more precisely that part which later formed the province of Dacia Inferior and most of the territory of today's Muntenia, remained under the control of the army from Moesia Inferior, a significant part of the auxiliary troops of this province being deployed north of the Danube.

After the death of Emperor Traian, hostilities were reopened in the area by the Roxolans, but the conflict situation was settled by the peace concluded in the first year of Hadrian's reign. He reorganized the territory north of the Danube, creating two provinces, Dacia Superior and Dacia Inferior, probably since 118 (Dacia Superior is first attested on November 19, 119, and Dacia Inferior on July 17, 122, but the existence of the province of Dacia Superior implies the existence of the province of Dacia Inferior).

A little later, in the years 122/123 (first attested on April 14, 123), Hadrian detached the north-western part of the province of Dacia Superior and organized a new province, Dacia Porolissensis. The province of Dacia Inferior included the territory between the rivers Jiu and Olt, as well as the South-East of Transylvania.

The border of the province was established along the Olt River – Limes Alutanus, where small camps were built during the time of Hadrian and Antoninus Pius. The administrative organization of Dacia changed in 168, when the military commands of the three Dacians (Dacia Superior, Inferior and Porolissensis) were reunited under a *legatus Augusti pro praetore trium Daciarum*.

Limes Alutanus is not an ancient name, but a modern convention that conveys ancient notions. This line of fortification comprises 24 camps, currently in various stages of research.

The first description under the name of Limes Alutanus, used today for the Roman road and the line of defense on the lower and middle course of the Olt River, belongs to Grigore Tocilescu.

No major changes took place on the border of the province of Dacia Inferior, with these administrative reorganizations, the previously certified troops continuing to occupy the same camps, especially along the defensive line on the Olt River. The border was then moved east at the beginning of the reign of Septimius Severus, using the old military road from the time of Traian, which connected the legionary camp at Novae and the southeast corner of Transylvania, forming the so-called Limes Transalutanus.

It stretched from the Danube to the Bran Pass, on a length of about 235 km, being located at a distance of 10-50 km East of Olt. It was built in the early 3rd century (probably under Septimius Severus) and evacuated during the time of Philip the Arab, following the Carpi invasion. Strongly hit by their attack in 247, Lower Dacia will be lost, along with all of Dacia, only in the time of Gallienus.

Writing about leaving Dacia, the historian Eutropius shows that the emperor Aurelian settled the evacuated population in Moesia and created a new province south of the Danube, which he named Dacia. The legions withdrew from Dacia Traiana were fixed on the Danube, in the new province: *legio V Macedonica* at Oescus, and *legio XIII Gemina* at Ratiaria. The administrative reorganization during the reigns of the emperors Diocletian and Constantine determines the appearance of several structures: four prefectures (Gaul, Italy, Illyricum, Oriens), each headed by a *praefectus praetorio*; the prefectures were divided into dioceses, led by vicars ("deputies" of the praetorian prefects), and these in turn in provinces ruled by praesides. Thus, Upper Moesia was divided into First Moesia, Dardania and Praevalitana, and Southern Dacia, created by Aurelian into Dacia Ripensis and Dacia Mediterranea. The borders of the prefectures, as mentioned by the historian Zosimos (II, 3 2-3 3), date from the end of the 4th century - the beginning of the 5th century.

The biggest common attribute of all the limes sites in Moesia Inferior was obviously the Danube. The military importance of the limes is proven even today, by the more than 50 confirmed fortified spots on the limes of Moesia Inferior, from fortlet to legionary fortress, archaeologically identified and studied by historians. The predominant role of the limes was a military one, to defend the Roman world against the Barbarian invasions. As Dobudja was a border region, a large concentration of troops was needed here, to ensure both the defence of the area and military mobility, in case of the need for rapid interventions.

The first concrete manifestation of Roman authority south of the Danube was in the form of a pre-provincial body, subject to the authority of a praefectus civitatium Moesiae el Treballiae. As a geographical notion, Moesia probably represented the Danube land of present-day Serbia; the other territory was inhabited by the Thracian tribe of the tribes, approximately between the rivers Timoc and Isker. It would even seem that Moesia remained for a long time (possibly until about 46 CE) under the authority of proconsuls of Macedonia, but in the form of a special military command.

A geographical and administrative notion inherited from the Thracian kingdom of the Odrys is both that of Ripa Thraciae. It was represented in the first half of the 1st century CE. by the Danube bank (starting approximately east of the confluence of the Danube and Isker river), being under Roman authority.

The Macedonian V Legion stationed at Oescus, probably as early as Augustus, and remained there until it was moved to Troesmis (Lower Moesia), from where in 167 it left for Potaissa (Da-

cia). From the same period the IV Scythica legion stationed in Moesia (later Moesia Superior), most likely at Ratiaria. During Nero's reign this legion was sent to the East from where it will never return to Moesia.

After the emergence of the province of Thrace, the authority of the governors of Moesia will extend to the mouth of the Danube and the Sea. The limits of this province are those rendered by Pliny the Elder (Nat. Hist., Ill, 149): *Pannoniae iungitur provincia, quae Moesia appellatur, ad Pontum usque cum Danuvio decurrens.*

In the new political situation, the number of military units stationed in Moesia is increased. In the year 45, the *legio VIII Augusta* is brought here, which will be stationed at Novae. From the year 69/70 the *legio I Italica* is brought to Novae, which will remain here until the end of antiquity. At the beginning of the second century, the 11th legion of Claudia was brought to Moesia, which will be stationed at Durostorum. And this legion will remain here until the end of Roman rule.

Only after the end of the civil war and the victory of Vespasian after 69/70 CE, the first Roman auxiliary military units have been stationed in Dobrudja. This action implying also the establishment of the classis Flavia Moesica (former classis Moesica); most likely the main statio of the fleet was at Noviodunum/Isaccea (Tulcea county, Romania). Other stations were at Troesmis/Turcoaia (Tulcea county, Romania), Barboși (Galați county, Romania), Halmyris/Murighiol (Tulcea county, Romania), Aliobrix/Orlovka (Ukraine), Dinogetia/Garvăn (Tulcea county, Romania), Aegyssus/Tulcea (Romania) and probably at Axiopolis/Cernavodă (Constanța county, Romania). Its area of action was northern Dobrudja, its competence extending to the maritime area.

The work of organising the limes in Dobrudja began in the time of Traian, the system being completed by his successors. Fortified centres were built in the 2nd and 3rd century CE, such as Sucidava, Altinum, Sacidava, Axiopolis, Capidava, Carsium, Cius, Troesmis, Arrubium, Dinogetia, Noviodunum, Aegyssus, Salsovia – a total of 18-22 fortifications. Throughout the existence of the limes, military units were stationed in Dobudja, a total amount of approx. 12,000-13,000 troops.

For the transport of troops inside the province and on the limes area, but also for the efficient organisation of the military and civilian supply, a dense road network was created. The base of the road network consisted of three major imperial roads, viae, which came from the south and crossed the province longitudinally to the mouth of the Danube. The oldest of these was the one along the river, the Danube Road, which connected all the Roman garrisons from Novae to Halmyris, having as main points along the route: Durostorum, Sucidava, Axiopolis, Capidava, Troesmis, Noviodunum, Aegyssus. Another road ran along the coast from Argamum, Histria, through Tomis, Stratonis, Callatis, Bizone, Dionyssopolis, Odessos to Mesembria and Apollonia. Medial to these two routes ran a third path which, starting from

Marcianopolis, through Abrittus, Tropaeum Traiani, Ulmetum, (L)Ibida, reached the Danube limes with its branches at Troesmis, Noviodunum, Aegyssus. Between these three main roads a multitude of local branches – *semitae* – ensured the communication between the different settlements in the province.

After the abandonment of Dacia under Aurelianus, fast rebuilding measurements of the frontier were done. But as the crisis was still ongoing it took some time to restore the defence line. The actual build-up and repositioning of troops were not finished until Constantine the Great. But this was now age of *comitatenses* and *limitanei*. The troops along the Danube were nothing alike those before the Dacian Wars. In some sections there are more militia than military force, barely capable to fight off intrusions. Invasion of the Huns that came in the 4th century was definitely something they were unable to stop.

The last restoration of the frontier was done under the emperors Anastasius and Justinian at the end of the 5th – beginning of the 6th centuries CE. Major construction works that made the walls stronger and more durable are notable everywhere and even new fortifications emerged. Materials used were of high quality and capable to withstand more imposed force as stated in the latest material analyses. Justinian restored forts. Troops that defended them were neither improved nor were their number sufficient for the task to fulfill. The invasion of the Avars and Slavs completely wiped out the frontier at the very beginning of the 7th century and the Danube Limes was lost forever.

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2.4. Roman Installations along the Roman Danube Limes

2.4.1. Fortifications of the Roman Danube Limes

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Every Roman camp is, by default, a fortified site, i.e. a place we may call a fort or even a fortress if it is a bigger fortification meant to house a larger body of troops like a legion, for instance. Nonetheless, it would be wrong to assume that, as far as fortifications are concerned, Romans essentially shared the same notions as people in the Middle Ages or in modern times. Obviously, fortifications are primarily supposed to protect people within from the onslaught of enemies outside. In this respect, the Roman point of view would not differ considerably from the standpoint of a mediaeval warlord protecting his estate or from the perspective of monarchs in 17th century Europe building chains of fortifications to protect their kingdoms' borders. As a matter of fact, the latter analogy is more appropriate because of the somewhat similar geostrategic needs. While a medieval nobleman seeks to defend his property and status by fortifying his dwelling into an impregnable stronghold – as far as possible at least – and is not particularly concerned by the larger picture and feels no need to build linear fortifications to defend a vast territory (unless he owns huge estates), nations, be it the Roman or Chinese empire, or modern European states were governed by other priorities when defending their territories.

Nonetheless, when Romans started creating a line of forts on the frontiers, i.e. what we nowadays call the limes, their first intent was not so much to construct heavily fortified places which could resist long sieges but rather to build the infrastructure necessary to garrison troops needed to protect the borders of the Empire. Indeed, from the very beginning those places were protected and had ramparts and ditches, but they were nonetheless not heavily fortified. There are several reasons to that. The first camps on the limes, either legionary or auxiliary, were built on the model of marching camps, directly following their layout. As such, they were fortified with ditches as well as with wooden and earthen ramparts, which was good enough to prevent a sudden attack but they were never meant to sustain a long siege. That was not necessary, as a matter of fact. The potential enemy, people living on the other side of the Empire's borders were not skilled in poliorcetics and thus, investing in extensive fortifications in the 1st century CE would have been an expensive, time consuming and rather useless task from the Roman point of view.

Constructing marching camps, i.e. encampments fortified with banks and ditches when campaigning had been a standard practice which had proven its worth on numerous occasions by providing a temporary stronghold to Roman troops when moving through enemy territory. Besides having elementary defences, the marching camp was always built following a standard layout, so that every soldier knew not only where his century was pitching tents, but also where the commanding officers' accommodations, the assembly area, the storage areas, pack

animals and horses, etc. were. It is hardly surprising that the Imperial army chose to follow this standard pattern, familiar to every soldier, once troops were garrisoned for longer periods of time in a given place on the frontier. However, the marching camp layout and its simple defences were not chosen only because their construction was well known to the troops and because it was less expensive than building more solid fortifications. It was also a matter of operational and strategic habit in use during the Principate. Having ditches and ramparts would deter a sudden attack, but Roman troops at that time were not supposed to stay within the walls of their forts, sustain sieges and wait for relief. Camps were primarily meant to house troops, not to serve as defensive positions. For this very reason, when those camps truly became permanent garrisons during the 1st century CE, the first major reconstructions had more to do with improving the well-being of soldiers and raising the comfort of their accommodation than increasing the defences of the forts. The latter was not neglected however: as a matter of fact the original earth ramparts with revetments of piled turves, clay and timber were steadily replaced and improved with stone walls starting from the last decades of the 1st century CE.

Nonetheless, the strategic concept of frontier security did not rely on static defences. In case of perceived or real threat, Romans were to strike immediately and to carry war outside of Empire's borders, not to passively wait for enemy offensives to simply wear off before the barbarians retreat and go back to their lands. Therefore, when the limes was being built, both legionary and auxiliary camps were first and foremost perceived as barracks, places where soldiers were living when they were not campaigning and actively fighting the enemies of the Empire. Besides camps, linear barriers whose main role was to control borders and keep watch were also in function. They were normally composed of watchtowers and fortlets, but also ditches and earth banks with wooden palisades when needed, the Upper German-Raetian limes being a good example, or even walls, Hadrian's Wall in Britain being the obvious example. Such defensive lines, more or less fortified, were in reality not expected to stop attacks, but they could channel them and in any case soldiers stationed there were supposed to start the alarm so that a counterattack with troops garrisoned in the neighbouring forts might be quickly organised. Even so, whenever possible, natural barriers, such as rivers were preferred as boundaries. Thus, the Danube, which concerns us more particularly, was both the border of the Empire and a defensive line of sort.

This long time prevailing concept was perhaps the main reason why Romans did not start building complex fortifications matching later medieval fortresses or Vauban type bastioned fortifications. While the overall concept did not completely change in Late Antiquity – Romans were still counting on mobile troops to counter barbarian offensives – due to much bigger pressure on the frontiers and constant attacks, it became necessary to build up defensive positions to deal with the higher level of threat and the fact that reinforcements were not always available, forcing the garrisoning troops to rely more on fortifications while waiting for relief. In consequence, Roman military camps became more heavily fortified in the 4th century CE and chains of defensive structures on the main axis of advance leading from the frontiers towards

the interior of the Empire were also being built as part of an overall defensive strategy, the defence system of the Julian Alps, called by Ammianus Marcellinus *claustra Alpium Iuliarum*, being a fine example. At the same time, and for the same reasons, many city walls, built in previous centuries rather as a matter of prestige than anything else, also underwent massive reconstructions which made cities fortresses as well.

Remains of Roman fortifications in the Danube area are thus very varied, for many reasons like chronology, environment, historical context, the extent of archaeological research certainly not being the least important, as well as modern reconstruction which has been very extensive on some sites. Some remains are bare traces unearthed thank to archaeologists while others have remained visible in the landscape for millennia. While traces of fortifications belonging to the earlier period are commonly encountered in archaeological excavations, remains from Late Antiquity are usually more visible, not necessarily because they were more massively built – something to be expected from structures built of stone, concrete and bricks – but also because they are often built over earlier layers.

A short overview of such a vast topic is a daunting task but if one has to summarise the main points related to the development of Roman fortifications along the Danube limes, the broad lines may be presented in a chronological sequence.

The first forts, built in the first half of the 1st century CE were earth-and-timber structures, whose defences were reinforced by ditches, i.e. a single or double *fossa*. They were emplaced fairly loosely, usually at the endpoints of roads leading to Italy, i.e. at strategic points for securing lines of supply to the interior of the Empire. It would appear that a concept of linear defence of the frontier started really developing during the Flavian period at the latest and reached its more or less final form in Traianic time, when most of the fort locations remained a permanent feature of the landscape till the end of Roman times, even though they underwent several reconstruction phases over the centuries. Although even the forts built during the Flavian period were initially made of earth and timber, this first phase did not last long and very soon stone walls started replacing the original ramparts. Brick and stone buildings also gradually replaced the timber buildings inside forts and one may often observe several phases of reconstruction during the 2nd century CE.

Legionary fortresses were the first to be rebuilt in stone, such as Carnuntum or built in stone from the very beginning like the new Hadrianic fortess in Aquincum, while the process took more time for auxiliary camps, steadily going on during the Hadrianic and Antonine periods, quite a few forts being rebuilt in stone only after the end of Marcomannic wars. However, by the end of the 2nd century CE all of the forts along the Danube were certainly stone structures. A common feature were rectangular projecting gate towers as well as internal quadrangular angle-towers, while internal projecting quadrangular interval towers have been noticed in several auxiliary forts like Carnuntum or Campona. Round towers were a less usual feature but are also known from that period, in Vetus Salina for instance. In the early 2nd century CE projecting

angle towers were being added to quite a few forts, probably as a result of Marcomannic wars experience (Campona, Matrica, etc.).

The 3rd century crisis was not the best time for extensive reconstruction programmes but repairs were done on a regular basis. Large scale construction and refurbishing had to wait for the Tetrarchic period. Not only were old forts refurbished but new forts were built as well, constructed following a different pattern, i.e. irregular and polygonal, and their emplacement was often closely adapted to the terrain features, quite a few being constructed on heights. Contrary to old forts which normally had four gates, the late Roman forts as a rule had only one gate. Quite a few of the older forts were reconstructed and reduced in size, covering only a fraction of the space originally occupied, their former gates being walled.

The fan-shaped angle towers, attached to the rounded corners of the ramparts are a distinctive feature of early 4th century forts. In case of older forts, such fan-shaped towers regularly replaced the earlier projecting towers. All of these interventions and reconstructions, as well as the new layout of forts clearly show that by the 4th century Romans were facing more dangerous enemies. Barbarians likely did not become proficient besiegers yet, but there were so many of them and Romans did not have the means anymore to intervene rapidly everywhere. Thus, fort garrisons had to be ready to sustain a longer siege and needed defences better adapted to such unfortunate circumstances.

Late Roman fortifications certainly influenced future developments in military architecture in what would become medieval Europe, but that is another story.

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3. THE DANUBE IN ROMAN TIMES – CONNECTING WATERWAY OR NATURAL BARRIER?

3.1. Roman Inland Navigation in the Northern Provinces

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Since the beginning of time, river courses have decisively determined the origin and development of human societies. The dwellers living on the riverbanks benefited from the advantages offered by such a convenient location. The easy and near water supply increased not only the crop yields, also fishing was an important source of income from very early on. Owing to these favourable natural geographical conditions, societies based on the division of labour developed, from which the earliest advanced civilisations in Egypt and in Mesopotamia originated. At the same time, river traffic too progressed considerably, enabling easy transport of trade goods and people. Until the expansion of the modern railway network in the 19th century, inland shipping was the most important means of transportation and distributor of goods and partly also for the transport of people, in the Danube and the Alpine region.

Waterways are still by far the most cost-effective mode of transport today. If one assumes the Roman transport costs by sea, the cheapest variant, the transport of the same quantity over the same distance by river is six times more expensive, and by land sixty times more expensive! River and land transport were thus in a ratio of 1:10, what emerges from the price edict of Emperor Diocletian (284-305). The maintenance costs of river navigation resulted above all from keeping the towpaths clear.

Rivers rarely represented insuperable obstacles. In fact, until today, they have always been used as major traffic arteries. Especially near fords and later also near bridges, settlements soon grew, which benefited from the trade and cultural exchange that went with it. A location beside a river also offered additional shelter. All these advantages more than compensated the disadvantage of possible floodings.

The Danube has always been a transport route and a connecting link, but at the same time also a separating line and border. From the Neolithic period on, its waters carried goods and people of diverse origins and cultures to the numerous settlements along the banks of this powerful stream, from small fisher villages to large cities. Of course, to enable such exchanges, natural or men-made landings, ports, fords and bridges were required.

The Danube already plays a role in early Greek mythology. The Argonauts use the Danube (Istros) to escape from their Caucasian chasers.

3.2. Roman Riverboats

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Despite the fact that there is hardly any archaeological evidence for remains of Roman ships in and at the Danube, one can imagine quite well the different types used there and on other rivers and lakes in that area. One typical boat with a millennia-long tradition is the *monoxylon*, better known as **dugout canoe**, probably the oldest boat type in the world. Wherever people lived close to rivers, lakes or even the sea, dugout canoes were in common use. Until today, for instance at lake Mondsee in Upper Austria, professional fishermen go out with it for fishing and to control their fish traps. Even with simple tools, it is possible to construct a dugout canoe; the trees which are needed can easily be found along the seaside or respectively riverside. Several *monoxyla* of diverse historical periods were found in lakes all over Austria and Bavaria. Strabo(n), the most important ancient geographer, emphasised the navigability of rivers coming from the Alps (Geogr. IV 6, 10).

In some areas, the dugout canoe even became a symbol of prosperity, social status and power. An example of this is the so-called "gold ship" from tomb 44 (Latène A) from the Dürrnberg near Hallein (Austria), which was created in the middle of the 5th century BCE – a model of the dugout canoes used at that time for transporting salt on the river Salzach (Fig. 3.2.1)

Fig. 3.2.1. "Gold ship" from tomb 44 (Latène A) from the Dürrnberg near Hallein (Austria), which was created in the middle of the 5th century BCE – a model of the dugout canoes used at that time for transporting salt on the river Salzach.

One monoxyle comes from lake Klopeinersee (Fig. 3.2.2) and dates back to the time between 320 and 480 CE. This late antique dugout canoe is up to now the only Roman vessel ever found in Austria. It was used for fishing purposes, very common at that time. A small wooden model of a dugout canoe (Fig. 3.2.3) that was found in the small Roman village of Bedaium (today Seebruck) on the shores of lake Chiemsee and dates back to the 1st century CE, proves this. Probably it was a child´s toy. Bedaium belonged to the territory of the Noric municipal town Iuvavum.

Fig. 3.2.2. Roman monoxyle found in the Klopeinersee (Austria).
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Fig. 3.2.3. Small wooden model of a dugout canoe 1st century CE, Bedaium (today Seebruck, Germany).
© Fotografin St. Friedrich

Another very old vessel type are **rafts**, originally two dugouts with a platform fixed on them or even more simple, just logs bound together. Although not easy to handle, heavy load could be transported on them. Often, they were combined and connected to trains of barges. Downriver they floated with the current, but the crew had to punt to remain on track or to get in and out of harbours. Most parts of the Danube and many tributary rivers were navigable. Upstream, these vessels had to be towed.

For sure, also **plank boats** and ships were used to carry freight for the military camps and the civilian settlements all along the Danube. Most important for a successful economic use was a very low loaded draught of the ship. A very famous example for such a vessel is the so-called "wine carrier from Neumagen", part of a grave monument for a former wine merchant who died around 220 BCE. Its not demolished upper part was sculptured in the shape of a common merchant ship, designed for rivers. Stern and sternpost are decorated with dragonheads and, like warships; the bow has the form of a ram. Eight men on board are presented at their profile, but we also count 22 oars. As it is the sepulchre for a wine merchant, the cargo consists of four large wine casks. In 2007 and 2008, a wooden replica in original size was built by the University of Hamburg intended to give an idea how such a vessel worked. She was named Victoria and her measurements were 17.95 meters in length, 4.20 meters in width and 3.90 meters in height. She had a draught of 0.60-0.80 meters and an empty weight of twelve tons. That type of vessel was not only used on the Rhine or the river Mosel, but for sure also on the Danube and its tributaries.

Although not directly connected with the Danube area, three Roman shipwrecks of the 2nd century CE found in lake Neuenburg, Switzerland, provide very important information about the transfer of Mediterranean shipbuilding technology to the northern provinces of the Imperium Romanum. Still in a Central European building tradition, the new use of mortise-and-tenon joints, developed in the Mediterranean during Hellenistic times, allows the construction of vessels with much higher loading capacity and a length up to 40 meters (Fig. 3.2.4).

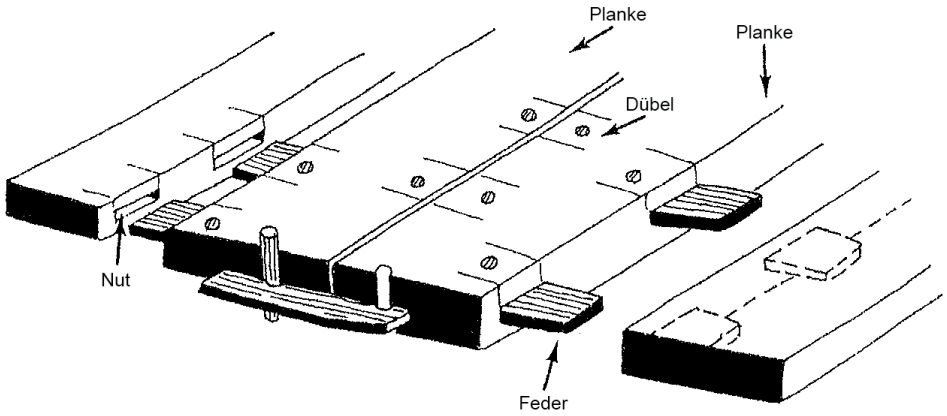

Fig. 3.2.4. Mortise-and-tenon joints. Drawing by Anna Windischbauer.

A prototype of these ships found in Lake Neuchâtel could be a barge brought to light in the Ljubljana (Laibach) Moor already in 1890. It's dated between the pre-Roman Iron Age and the early Imperial Period. It is the oldest plank boat found outside Italy. However, the planks are still sewn and not joined.

Not on the Danube, but on the Rhine, we find evidence of the combined use of the Roman ship types briefly discussed above. A total of six Roman shipwrecks of various types and sizes have been found near the auxiliary fort of Nigrum Pullum on the Lower Germanic Limes in the area of present-day Zwammerdam, in the Dutch province of South Holland. They are three dugouts, hewn out of oak logs in the traditional Central and Northern European fashion, as well as three barges, a rudder and a number of isolated planks, all with the typical Mediterranean mortise-and-tenon joints.

The only archaeological evidence for Roman ships on the Danube are the excavated naval boats from the Roman fort at Oberstimm, Germany. That type of naval vessel with 15.70 meters in length, 2.70 meters in width and with the height of 1.00 meter patrolled all along the Danube (Fig. 3.2.5). Dendrochronology data allocates one of the ships into the last decade of the 1st century CE and two into the first decade of the 2nd century CE. It needed 20 oarsmen to move the ship. Probably a sail could be raised to support them, if the wind blew from an appropriate direction. This type of naval vessel contains many elements of Mediterranean ship building traditions, but was adapted to the needs of daily duty in the northern frontier provinces.

Fig. 3.2.5. Two Wrecks of the Roman Ships Found in Oberstimm Exhibited in the Kelten Römer Museum Manching.
© Nemanja Mrđić.

Unfortunately, up to now, there are no ship finds on the Danube that date back to late antiquity, but there are different flotillas listed in the Notitia Dignitatum. An idea of the naval ship design of that period is displayed in the Museum of Ancient Shipbuilding in Mainz (Fig. 3.2.6). During the years 1981 and 1982, archaeologists excavated five shipwrecks in Mainz on the Rhine. They date back to the late 4th century CE, served a military purpose and belong to the so-called type Navis lusoria. They are a little bigger than the ships we know from Oberstimm, but ideal for patrolling along river creeks. They are of a length up to 21.70 meters, 2.80 meters wide and 0.96 meters in height; 30 oarsmen served on board and they could additionally use a sail, whenever possible.

Even after the end of Roman rule in the northwestern provinces the production of this type of ship did not stop. The Byzantine Empire used similar vessels and they are even known from the 16th century CE. A shipwreck of a Swedish military vessel was excavated at the east coast of the island of Rugen still following the tradition of a Roman Navis lusoria.

Fig. 3.2.6. Reconstruction of a late antiquity Roman ship, Museum of Ancient Shipbuilding in Mainz.

The transport of goods on inland waterways was the responsibility of the *nautae*. These common carriers organized themselves in councils that worked like the medieval guilds. In Gaul and in Germania Superior Inscription and monuments of *nautae* give a good impression of their organisation, like the *nautae Rhodanicae* (Rhône) or *nautae Moselliaci* (Moselle).

3.3. Roman Harbours and Landing Sites along the Danube

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The *Notitia dignitatum*, a late-antique register of civil and military offices, lists a number of ports, such as *Carnuntum*, *Vindobona*/Vienna, *Lauriacum*/Enns, *Adiuvense*/Wallsee, *Comagena*/Tulln und *Ioviacum*/Schlögen, which were used as bases for the flotillas. Unfortunately, there is only sparse information about actual harbour installations. For Carnuntum, a short note from the year 1823 situates the location of a harbour "*directly on the east side of Petronell, below the antique well*", today's "Pfaffenbründl", approximately 200 meters east of the parish church in Petronell (Obermayr 1967).

In Vienna remains have been excavated, which probably belong to the ancient port of Vindobona. Already "*in 1906, during excavation works for a new building on the corner Dominikanerbastei and Kaiser Franz Josef-Kai, in the direction of the Adlergasse, at a depth of nine meters, an extremely solid, excellently poured 60 cm thick concrete bottom was reached, which consisted of a mixture of pebbles, brick pieces and an almost insoluble binding agent embedded on a gravel layer. Based on the depth of this site, it's safe to assume that this concrete was the base of a Danube harbour*" (Kenner 1909). "*In 1999, several Roman ashlar blocks were found on the north side of the legionary camp, at today's staircase (Rabensteig 3) up to the Church of Maria am Gestade, at the foot of the camp level, which presumably were once part of a quay wall of a late antique harbour installation. The difference in height between the site of the find and the camp level was approximately twelve meters. Between 1901 and 1902, about half way up, a road, paved with flagstones, and the remains of a fortification, located directly on the antique steep slope of the Danubian river bank (gate system with ashlar blocks in front) was discovered. It is not known, when the first port facilities were built. Due to the type of construction, the remains date probably back to the late antiquity (4th century).*" (Mosser 2001).

So far, there is as yet no archaeological evidence for the other harbour locations mentioned in the *Notitia dignitatum*. Furthermore, in today's Austrian section of the Danubian limes, no remains of Roman ships have been found. However, the patrol boats excavated near the city of Ingolstadt, on the Raetian Danubian limes, in the neighbourhood of the Oberstimm Fort, give an impressive idea of the ship types that were used in Roman times on the Danube River.

Today many of the tributaries of the Danube are treated as unnavigable under modern terms or as only partially navigable, but with the average draught of their vessels of only 0.5 meters the Romans operated in these waters as a routine. This fact is confirmed by the location of some discovered naval vessels. The best example is river Velika Morava (*Margum*) which is

treated as navigable only for three kilometers upstream from its mouth into the Danube today but the position of *Horreum Margi*/Ćuprija as one of the central supply centres located deep inland in Mosia Superior approximately 100 kilometers from the Danube river suggests that almost the whole length up to present day Ćuprija was used for river transport.

A special supply task of the fleet from ancient *Margum* at the mouth into the Danube can be presumed by the different and unique name for the fleet *Classis Stradensis et Germensis* that could indicate a role not related to navigation on the Danube but upstream along the Morava river to *Horreum Margi*.

In the upper and middle part of Danube protected landing areas have been explored at multiple sites, while one does not find this situation in the lower course of the Danube. These areas of low banks were protected by defensive walls connected to the corners of fortifications closing the area and making it accessible only from the water or from the fort itself. Sites in Serbia that have confirmed landing areas are Hajdučka vodenica, *Diana*/Karataš and *Egeta*/Brza Palanka. Major river ports could be located at *Taurunum*/Zemun, *Singidunum*/*Belgrade*, *Margum*, *Viminacium*, *Novae*/Čezava, *Aquae*/Prahovo.

3.4. *Classes* and *nautae danuvi*

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Already during the regency of Emperor Claudius, the deployment of a Danube flotilla was mentioned. In the 12th book of his annals (Tac.ann. 7, 30), the important Roman historian Tacitus described how this flotilla was used in 51 CE or ship contingents that were especially set up for this purpose. It is however well documented that the *Classis Flavia Pannonica* existed since the Domitian period at the latest. The legions stationed along the Danube had however also their own nautical units, as i.a. indicated by a grave inscription for a m*agister navaliorum*, who served in the *legio XIIII Gemina* in Carnuntum (AE 2010, 1261, ll. 1-3).

The *Classis Flavia Moesica* was mentioned on a military diploma from Dacia (CIL XVI 97) in 92 CE. It was considered in multiple papers that, after splitting the province into Moesia Superiour and Moesia Inferior, the commander of the *Classis Flavia Moesica* remained in Moesia Inferior while the Danube section including the Iron Gates more upstream was controlled by the *Classis Flavia Pannonica* based in *Taurunum*. But so far this theory cannot be confirmed. At the moment the data available in Moesia Superior is too scarce to provide any detailed information on actions of the *Classis Flavia Moesica*, although the situation on the terrain suggests otherwise. The number of landing areas, the concept that cannot with-

stand without strong actions of the fleet as well as the fear of barbarian attacks mentioned in Late Roman written sources all testify that strong naval force existed and operated in Moesia Superior.

In the *Notitia Dignitatum*, a document revailing details of the Late Roman administrative organisation of the Eastern and Western Roman Empire, the *Classis Histricae* and its bases are documented at multiple locations, such as *Carnuntum*, *Viminacium* and *Egeta*/*Aegeta*. The *Classis Ratiarensis* with its *praefectus* was mentioned in the same manuscript (*Ratiaria*/Arčar in Bulgaria). The *Notitia Dignitatum* further mentions the *Classis Stradensis et Germensis* at *Margum* at the mouth of Morava river. At *Viminacium* there is an inscription mentioning the rebuilding of the Neptunes temple by the *Collegium Nautarum*.

3.5. Bridges and River Crossings

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Like the Trajan Column as its model, the Marcus Column, finished not later than 193 CE and located in central Rome (Piazza Colonna), shows reliefs arranged like an illustrated book, similar to a comic, depicting in chronological order the fights against the Marcomanni and Quadi (166-180 CE). At its bottom, the story begins with the Roman army crossing the Danube River over a boat bridge. This boat bridge depicted on the Marcus or Marc Aurelius Column was probably constructed in the area of *Carnuntum* (Fig. 3.5.1).

[2] Based on a consortium work of the *Partnership under the Obligations and Contracts Act "Danubius" and RubliMedia business SPL.*

Fig. 3.5.1. Boat bridge on the Marcus- or Marc Aurelius Column, Piazza Colonna in Rome (Source: G. Becatti, Colonna di M. Aurelio (Milano 1957) Fig. 4).

Such boat bridges, also called pontoon bridges, have been known for a long time from ancient war descriptions. Already Herodotus described in detail the construction of two boat bridges across the Hellespont, over which the great Persian king Xerxes led his army in 480 BCE to Thrace, to fight against the Greeks (Herodotus 7, 34-37). Another pontoon bridge across the Danube is depicted on the already mentioned Trajan Column. There is also archaeological evidence of stone remains of the so-called Trajan Bridge, built by Apollodorus from Damascus at the end of the Iron Gate, located near today's Serbian-Romanian border.

That another Danube crossing existed near *Carnuntum* is possibly indicated by a (presumed) small fort in the Stopfenreuther Au, on the left bank of the Danube, on the municipal territory of Engelhartstetten, north of Bad Deutsch-Altenburg and near the river mouth of the so-called Rosskopfarm, colloquially called the "Öde Schloss". The legionary camp of *Carnuntum* was located only three kilometers away. Whether in Roman times this fort was situated on the north or on the south bank of the main river, remains unclear due to the considerable changes in the riverbed over time. Already around 1850, E. von Sacken explored the visible walls and interpreted the found brick stamps, among which there was one of the *legio XV Apollinaris*, as the remains of a fortified bridgehead, where the Amber Road crossed the Danube. Also, the topography supports this interpretation, as this place was ideally suited for

a river crossing, due to "the mountains on the right bank and the narrow width of the stream". Until the first half of the 19th century, the remains of a square tower, surrounded by strong walls, and a smaller building were allegedly still visible. At the end of the 19th century, further explorations were carried out, often hampered however by floods.

At least one Danube crossing in the area of Vienna, where the 10th legion had the legionary camp of Vindobona as garrison, was used as a starting point for its deployment in the battles with the Marcomanni and Quads and which led them further to Laa an der Thaya and to Mušov. It has been possible to prove the existence of marching camps at these places. This crossing led from Roman *Vindobona* directly to the opposite northern bank, today Vienna Leopoldau. Brick finds marked with the stamp of the 10th and 14th legions prove this. In order to supply the legionaries advancing further into the "Barbaricum", the rivers March and Thaya were intensively used as waterways.

Today eight Roman bridges over the Danube river are known between the Iron Gates gorge and the river delta, the oldest of them were wooden floating or boat bridges. The first one was built near Dolni Vadin, a small village belonging the municipality Oryahovo (Bulgaria) and Orlea (Romania) by Cornelius Fuscus, commander of the Pretorian Guard of Emperor Domitian (81-96 CE) during the Dacian War. Later during the same war, Emperor Traian (98-117 CE) built two wooden floating bridges, transferring over it 200,000 troops, combat equipment and food supplies to the other side in the Loderata-Dierna section and near the Iron Gates gorge.

The most remarkable construction of this period is the stone-wooden bridge connecting *Drobeta*/Turnu-Severin (Romania) and *Pontes*/Kostol near Kladovo (Serbia), built between 102-105 CE. This bridge was 1120 meters long – one of the longest bridges in antiquity – with fortifications protecting the direct access to the bridge itself (Fig. 3.5.2-3). Although the bridge was disabled by dismantling the upper wooden construction several times up to the reign of Constantine, because of the fear that the Barbarians could use it, all 20 pillars could be discovered through sonar surveys on both banks and in the riverbed. This architectural masterpiece was designed and built by Apollodorus from Damascus, Traian's chief architect, and it is depicted on the reliefs of the Traian's column in Rome. A number of auxiliary forts was located in the vicinity of *Pontes* housing the soldiers of the *legio VII Claudia* who worked on both the bridge itself and the canals in order to lower the level of the Danube. Since there were additional bridges across these small canals, the name was assigned in its plural – *Pontes* in Latin (Bridges in English).

Fig. 3.5.2. Pons Traiani at Columna Traiana in Rome (Source: C. Cichorius, Die Reliefs der Traianssäule, Text volumes II and III. Plate volumes: vol I (Die Reliefs des ersten dakischen Krieges) and vol. II (Die Reliefs des zweiten dakischen Krieges). (Berlin 1896-1900) Plate LXXII).

Fig. 3.5.3. Pons Traiani / Trajan's Bridge between Kostol (Pontes) and Drobeta (Romania). Piers on the Serbian bank of Danube – present day situation (© Nemanja Mrđić, Archive of the Institute of Archaeology).

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4. VARIOUS ASPECTS CHARACTERISING THE ROMAN DANUBE LIMES

4.1. The Danube as Roman Frontier, Passage and Connection

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"The Ister [Danube] is of all the rivers with which we are acquainted the mightiest. It never varies in height, but continues at the same level summer and winter" (Hdt. 4, 48).

"Three days after the battle, Alexander reached the Istros [Danube]. This river is the largest in Europe; it drains a greater tract of land than any other river and forms the frontier to the territories of some very warlike tribes. Most of them are of Celtic stock – indeed, the source of the Istros is in Celtic territory – the most remote being the Quadi and the Marcomanni; then, flowing east, it passes through the country of the Iazyges, a branch of the Sauromatae" (Arr.succ. 1,3).

"And younder lies the mouth of the Hister River [Danube]. It rises below Mount Abnovae in Germania, opposite of the town of Rauricum in Gaul, and skirts round the Alps. Many nations call it Danuvius" (Plin.nat. 4, 79-81).

In Antiquity the *Danuvius* or *Ister* – both Roman names for the river Danube – was considered as one of the greatest rivers. Before the Roman conquest, geographers described it based on the obscure accounts of the contemporary travellers. According to one of the most characteristic and longest-living concepts, the Danube was thought to fork two branches, of which one was flowing into Adriatic Sea and the other into the Black Sea. These sources provide similarly obscure reports about the people living by the river. However, there is enough archaeological evidence about the Celts, Germanic tribes and others who occupied the Danube region on both banks of the river in the last centuries BCE or after.

With the Roman conquest the geographical horizon of the world became wider: maps and travel accounts were compiled informing about the ancient names of places and geographical benchmarks supporting the identification of archaeological sites. During the 1st century CE the Romans occupied the southern bank of the Danube, while its northern bank was inhabited by Germanic tribes. Although the river marked the border between the Roman Empire and the so-called Barbaricum, it also bound them together throughout the centuries to come.

For most of its length the Danube frontier is bordered by wide floodplains (e.g. Pannonian Plain, Danube Delta), which are separated by the outskirts of high mountain ranges (Carpathians, Little Carpathian Hills, Iron Gates) forcing the winding and meandering 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. There are parts of the still existing traces of roads to be discovered.

The Danube Limes as a complex of primarily military installations constitutes following elements: legionary fortresses, forts, fortlets, auxiliary troop bases and watchtowers, associated civil settlements (*vici* and *canabae legionis*), sanctuaries, necropoles, brickworks and harbours. For the various parts of the frontier the Romans developed individual solutions appropriate to the topographical and geographic features as well as the political situation of the times. The goal was to create a frontier system that enabled effective control of trade and transportation along the river Danube. At the same time, the system should allow the military to prevent intruders from entering the Empire.

Nowadays, the remains of the Roman frontiers consist of the vestiges of built walls, ditches, forts, fortresses, watchtowers and civilian settlements. Certain elements of the Roman Danube Limes have been excavated, some reconstructed and a few destroyed, yet it still represents the largest single monument of the Roman Empire and an outstanding testimony of the Roman military and technical genius. Besides demonstrating the largest extent of the Roman civilisation, the limes also provided exchange of cultural values through the movement of soldiers and civilians which stimulated the "romanisation" progress in the regions beyond the borders.

It was crucial for the Roman Empire to maintain good relationships with the neighbouring tribes and kingdoms. The Romans often aided the kings with valuable objects or money and provided them with diplomatic and political support, so that they could maintain their power, e.g. Emperor Antoninus Pius supported a Quadian pro-Roman king and in this context produced coins with the inscription *Rex Quadis Datus* (RIC III Antoninus Pius 620b). Archaeological evidence of this practise are the numerous and valuable metal finds including silver, brass and bronze vessel, weapons, jewellery, pottery etc. In addition to them various Roman everyday items can be found at sites on the barbarian side of the Danube river, e.g. in Zohor and Krakovany Stráže in Slovakia. This procedure is also mentioned in Tacitus' *Germania*: *"He [the Germanic monarch] is occasionally supported by our arms, more frequently by our money and his authority is none the less"* (Tac.Germ. 42).

Many items can only indirectly be associated with the Germans. As a consequence of the various wars, quite a number of slaves might have arrived as prisoners of war from the territories outside the Empire. In everyday life, trade across the Danube between the Roman Empire and the "Barbaricum" was a common thing; livestock (cattle, goat and sheep) and corn might have been the main items. Some of the barbaric pottery appearing on the frontier might have been taken to the Empire as containers of food, such as honey and beverages. In the middle of the 1st century CE Vannius, the king of the Germanic tribe of the *Quadi*, was expelled from his throne by his nephews Vangio and Sidó. The dethroned king and his followers were therefore received in the Roman Empire and settled in Pannonia at Lake Fertő in Hungary or

respectively Lake Neusiedl in Austria. There are a lot of sites, mainly burials, where Germanic objects, such as weapons and ceramics, have been found.

Besides smaller objects, also stone buildings can be found in the once Germanic area, e.g. in Bratislava-Dúbravka, Stupava, Cífer-Pác, Veľký Kýr. Those buildings of several rooms and often with bathrooms followed Roman architectural patterns. They are assumed to have been built by the Romans for members of the Germanic elite, but some researchers consider them as road stations.

On the heels of the legions, merchants and craftsmen arrived in the Danubian territory. They mostly followed the Amber route beginning at the port of Aquileia at the Adriatic coast. Then they trailed northwards. The Amber Road was one of the major European trading routes. Imports of amber and other raw materials from the Baltic and Central Europe came southwards along this route, while Roman quality products were delivered in the opposite direction. The trade between the Romans and Germans was supervised by the procurator and in the hands of the beneficiaries on local level. The regulation of the trade between the two peoples started from the 2nd century CE.

Legionaries were the first to cultivate the newly conquered territories. By building roads and bridging rivers, they paved the way for the creation of a civil infrastructure. "Romanisation" was also spurred on by urban development. The arriving craftsmen brought new technologies and aesthetic criteria. Roman houses, *villa rusticae*, and mansions were built of stone furnished with quality mortar and their interiors were decorated with painted plaster or mosaics, using also the underfloor heating system, the *hypocaustum*, e.g. there are well-preserved examples in Bratislava-Dúbravka, Stupava. Although after four centuries the Romans were forced to retreat, the era defined by historians as the Roman Period brought long-lasting civilisational benefits.

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4.2. *Limitatio* – Roman Land Surveying

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4.2.1. Technical Features

During the description of the technical features of the Roman buildings, it shall be firstly stated that there is a continuity in the methodology of the Roman construction process with its antecedents. Many of the technical knowledge of the Roman Empire was based on Assyrian, Babylonian, Egyptian, Phoenician, Etruscan and Greek experience. In addition, it was supplemented by the knowledge that came from the field of military technology and had a constant effect on civilian construction. The reason for the diversity of the Roman buildings was the diverse needs of the builders and founders. Besides the construction of the private individuals and the elite of the community, the large-scale building programme of the emperors for the military can be mentioned.

Presumably, Roman architects prepared plans basically drawn on papyrus. There is indirect evidence about this fact – e.g. the tomb of T. Statilius Aper, *mensor aedificior* (architect-surveyor) from the 2nd century CE. At the background of the tomb, a very large roll of drawings (90 centimeters or taller) is visible. In two cases, a stone model has survived: one is a 1:24 or 1:32 scale marble model of a Roman church found in *Ostia*, and the other example is a 1:24 scale limestone model of the *adytum* of the larger temple in Niha. The maps or site plans with public interest were carved in stone. The most prominent archaeological find in this context is the cadastral plan carved in marble of the Roman town *Arausio*, today's Orange in Southern France. However, the status of the architect changed in Roman times – the name of the architect faded into anonymity and remained unrecorded, whereas the name of the founder was given more importance and was associated with the building (Hajnóczi 2003, 154).

During the discussion on the Roman architectural phenomenon, the aesthetic principles described by Vitruvius shall be mentioned (Hajnóczi 2003, 155). The golden rule of triple shall be followed: *firmitas-utilitas-venustas* (*elegantia*), therefore the solidity, usefulness and beauty are all essential features (Taylor 2003, 24). According to the Vitruvian principles, during the creation of an architectural work, it is necessary to follow and satisfy six principles: *taxis/ordinatio* (ordering), *diathesis/dispositio* (design), *eurythmia* (shapeliness), *symmetria* (symmetry), *thematismos/decor* (correctness), *oikonomia/distributio* (allocation).

In the Roman construction method, several workshops have become known, where, regardless of the place of construction, building elements of the same type have been prepared and manufactured in series. The product of such "prefabrication" was the brick itself. Due to its

widespread and frequent use, it has inevitably become a cultivation of a certain size coordination system. The high level of engineering skills of the Romans enabled rapid urbanisation and the designation of regionally sized road networks. The exact execution of the technical work was also ensured by instruments such as the *groma*, *dioptra* and *chorobates*. For practical counting a spreadsheet, the *abacus*, was used as a tool (Hajnóczi 2003, 153).

The systematic land surveying and land measurement by means of highly technical equipment and with remarkable precision was mainly used in the late republic and the early principality period, the time of the great conquests. First of all, when establishing a new province, the ownership structure had to be clarified and official land assignments had to be made. The second important area of application of Roman surveying technology was the formal planning of various military installations. The best example of this high level of craftsmanship would be the 80 kilometers long, straight border line on the Upper Germanic Limes in the area between Walldürn and Welzheim.

When planning a new Roman settlement or military camp, the *agrimensores*, the Roman surveyors, laid a right-angled grid over the area, which was usually composed of squares, each with a side length of 20 *actus* (approx. 710 meters). Such a square corresponded to exactly 100 *heredia* (approx. 50.4 hectars), which is why one speaks of the so-called *centuriatio* referring to this form of land division. After the central point (for a camp or settlement) had been identified and the cardinal points determined with the help of a sundial, the *groma* – a horizontal cross (axis system) with right angles attached to a stick, rotatable and with plummets fixed on its four arms – could be aligned. The *groma* served for measuring right angles and drawing straight lines. Thus, the two main measuring axes, the *cardo maximus* and the *decumanus maximus*, were determined. So were the subordinate *cardines* and *decumani*, which ran parallel to them forming a chessboard-like road network. At the positions of their intersections, boundary stones were set, on the top of which an inscription with the number of the respective *centuria* could be seen.

In addition to the strict and regular *centuriatio*, another possible type of Roman land measurement is the so-called *scamnatio*. With this method, the area was divided into rectangular strips that were adapted to the relief, thus creating a far less uniform appearance.

The already mentioned *chorobates* was an ancient levelling instrument. The only evidence available for this tool today is the detailed description by the Roman architect and author Vitruv of the 1st century BCE (Vitr. 8,5,1-3). He explains that a *chorobates* consisted of a horizontal beam of 20 feet (approx. 6 meters) and vertical legs at its ends. It was levelled either by using plummets or by observing the level of water filled in a channel on the upper side of the beam. When the *chorobates* was perfectly levelled you could easily compare the elevation levels at the two ends of the beam and therefore determine the slope and altitude. Thus, the *chorobates* was crucial for the construction of aqueducts, viaducts and tunnels, as the correct inclination is of great importance for those installations.

The *dioptra* is a universal geodetic instrument that can be regarded as an early predecessor of the modern theodolite. With a *dioptra* both horizontal as well as vertical angles can be measured and determined. Therefore, the instrument could be used for the surveying of land as well as for urban planning but also for the construction of buildings and aqueducts on the one hand, on the other it was used for astronomical observations.

The sources for the Roman limitation, which can bring us closer to the technical methods of the ancient art of surveying, are, in addition to the original finds of surveying equipment and boundary stones, written records of various *agrimensores*, representations on grave steles and the rarely preserved cadastral plans carved in stone.

The construction works were performed both by slaves and free people. Initially, among them, there were many Greeks, mainly stonemasons, who played a significant role in shaping the external image of Roman architecture. The skilled workers were grouped into guild-like organisations, the so-called *corporationes*, and the construction work was carried out on the basis of contracts. "Technical Romanisation" was spread in the provinces by the military. The engineering faculty of the legions, cohorts, and cavalry also included architects, road builders, and surveyors (Hajnóczi 2003, 154).

The military constructions of the Romans can be divided according to different levels, dimensions and functions. During the construction of the limes auxiliary forts and legionary camps were created at the strategically important defence points (Borhy 2014, 45-53.; Borhy 2015; Visy 2003a, 109-122.), and watchtowers at specified distances between them, such as those found at Lepence (Musilová / Turčan 2011, 162-163). The most complex architectural unit is the Roman legionary fortified camp, with urban scale and towers. However, the road construction, bridge construction and the mining operations all have close relations to the military activities which can be complemented with the civilian engineering by military troops (Klee 2006, 65-70).

In the case of legionary camps, the two main roads intersecting at right angles, the already mentioned *cardo maximus* and *decumanus maximus*, were called the *via principalis* and *via praetoria*. The *via principalis* divided a camp into the *retentura* and the *praetentura*, the latter always facing towards the Barbaricum. At its intersection with the via praetoria the command building (*principia*) and the camp shrine (*fanum*) were placed. In the earlier periods, the fort was surrounded by a ditch (*fossa*) and a rampart (*agger*) and a palisade was constructed over the rampart (Mezős 2012). Later the palisade was replaced by a stone construction with gate towers and further towers. This structure can be visible in the case of Aquincum, Budapest (Láng 2013) (Fig. 4.2.1).

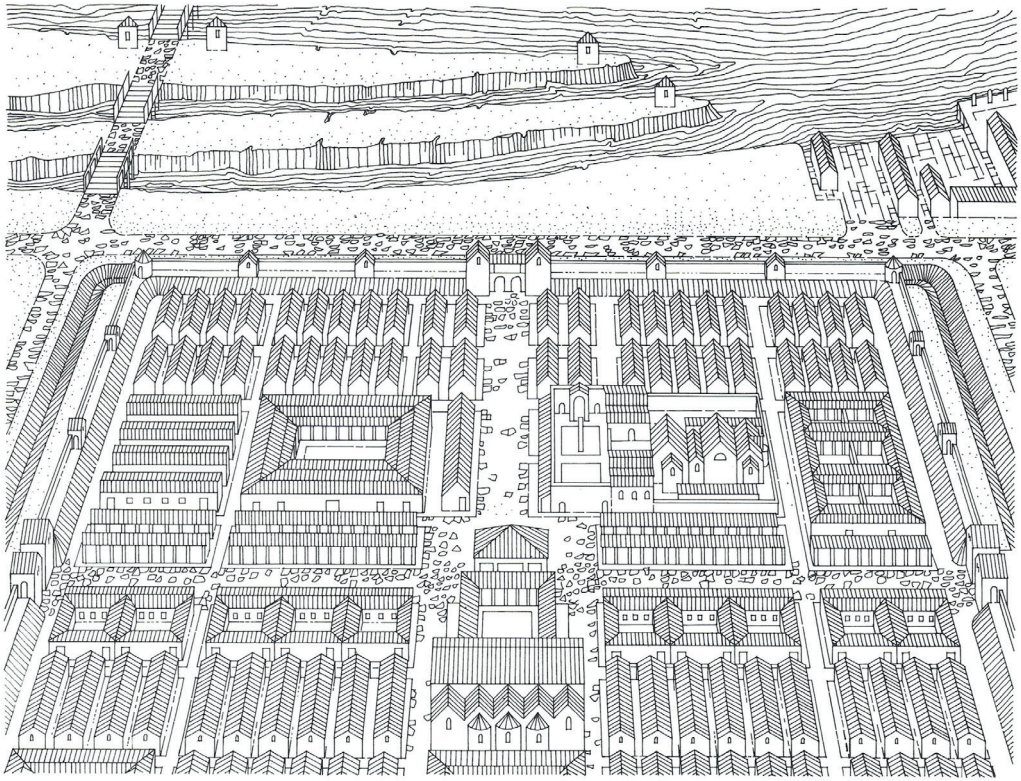

Fig. 4.2.1. The Roman Legion Camp of Aquincum, Budapest. Reconstruction drawing by Gyula Hajnóczi (Source: Gy. Hajnóczi, Pannónia római romjai. [Roman Ruins of Pannonia] (Budapest 1987) 119. Fig. 152).

Outside a legionary camp of the Danube Limes line, the *via principalis* turned into the limes road (also Danube road). The Pannonian limes road is described in the *Itinerarium Antonini* and the *Tabula Peutingeriana*, however its exact course cannot be reconstructed from the data contained in these two sources. The known sections of the limes road reveal that the military engineers planned the course of the road as close to the Danube River as the floods and the terrain permitted. The course of the Danube Road was planned meticulously and its length was measured in Roman miles (*mille passus*), calculated from *Vindobona*/Vienna, *Carnuntum*/ Bad Deutsch-Altenburg – Petronell, *Brigetio*/Komárom or *Aquincum*/Budapest. The structure of the limes road differed inside and outside the forts and settlements. The excavated road sections revealed that road foundations were often dug to a depth of 80 centimeters; a foundation of stone and earth was made that was then surfaced with gravel (Visy 2003b, 215).

4.2.2. Interplay between Military Camps and Civil Settlements

The regional division of the Roman Empire aimed both the security of the province and enabling its administration which resulted in the designation of territorial units (territories') with further subdivisions, in close connection with the road system and settlement network. The formation of this system was a historical process, the external borders were mainly geographically defined, and the outline of the inner borders were also determined by certain environmental conditions - mountains and rivers. The direction of the Danube has also largely determined the life of the area. That is why for example the Upper Pannonia (Pannonia-Superior) - the Western part, and the Lower Pannonia (Pannonia-Inferior) - became the Eastern part of Pannonia Province.

The late Roman concept of border protection was to create a system of multiple defenses. The main territorial division of the Empire was the system of provinces and the subsystem of territories, which were administrative districts under the control of civic settlements. Military districts also existed (territorium legionis). The ethnic division of the indigenous population was taken into account by the Romans in the formation of the Civitas.

In Western Europe, the germ of the development of urban culture is related to the Celtic *oppidum*. This phenomenon was also existing in the Eastern territories, e.g. in Pannonia, however they did not form a unified settlement system, therefore in these lands the beginning of urbanisation can be linked to the appearance of the Romans. But as a matter of there are numerous Roman towns that can be traced back to a Celtic *oppidum*. Prominent examples from along the Danube are Manching in Germany or Bratislava and Devin in Slovakia.

The creation of a civilised and cultured living environment was made possible by a combination of military, economic, administrative, technical and cultural organisation, which resulted in the differentiation of the settlement network. The cities recognised as Roman were the most prestigious, which privilege was provided for only civil settlement. The cities of Roman law were called *municipia*, most of which were then elevated to the rank of an even more privilege.

The several manifestations of settlements were civilised frameworks embedded in the cultural landscape; however, the military initiated this process, both directly through military constructions and indirectly by designating veteran settlements for decommissioned soldiers. In addition, the merchants and craftsmen settled in the neighbourhood of handcraft-workers who gradually adopted the Roman way of life provided the conditions for urbanization. Morphologically and in terms of their origin, the so-called installed settlements were the general forms of urban structures: a two-street system that preserved the memory of the former four-region Rome.

A frequent phenomenon with regard to the civil settlement in the surroundings of a legionary camp is the so-called double settlement. On the one hand, a military town for civilians closely related to the troops (*canabae legionis*) formed more or less directly along the arterial roads running from the *portae* of a legionary camp, and on the other hand, in many cases, another civil town was planned and established in a certain distance from the legionary camp (mostly approx. 2 kilometers), but still in its immediate vicinity.

Prominent examples of such double settlements along the Danube Limes are *Carnuntum*/Bad Deutsch-Altenburg – Petronell and *Vindobona*/Vienna in Austria, *Aquincum*/Budapest and *Brigetio*/Komárom in Hungary, *Durostorum*/Silistra in Bulgaria) as well as *Apulum*/Alba-Iulia in the province of *Dacia* on the other side of Danube River in Romania. This phenomenon is also widely spread on the *ripa* along the Rhine (*Bonna*/Bonn, *Vetera*/Xanten, *Noviomagus*/Nijmegen, *Mogontiacum*/Mainz) as well as in the Roman province *Britannia* (*Deva*/Chester, *Isca*/Exeter, *Eburacum*/York).

The construction of a Roman legionary camp followed a strict model, which is why most legionary camps have a very similar appearance. They were planned and measured by professional land surveyors. What is striking about the *canabae* along the arterial roads outside a Roman legionary camp is that in most cases they also seem to follow a regular pattern. Orthogonal structures can be recognised and a certain parcelling grid seems to have been laid out along those streets through the civilian settlement areas, although one would go too far to claim that they were planned settlements.

Civilian settlements around military camps, be it legionary or auxiliary forts, formed quite soon after or even at the same time as the establishment of the military structures. A certain supply train (*Tross*) always accompanied the Roman troops. There were civilian staff members, traders, craftsmen as well as the families of the soldiers. Further, it has to be considered that the permanent stationing of Roman troops meant a great sales market for the local community and therefore the presence of the military always was a considerable economic factor for a region.

What the *canabae legionis* were to the legionary camp, the *vicus* was to an auxiliary fort. In general, it can be stated that *vici* are better archaeologically explored than *canabae*, since the latter are very often overbuilt with modern structures. The reason for this phenomenon is that in many cases large cities have formed at the places of former legionary camps. Most of the ancient central sites have never lost their economic status and administrative functions over the centuries. Several European capitals stem from a Roman legionary fortress and its surrounding civilian settlements, e.g. *Vindobona*/Vienna, *Aquincum*/Budapest, *Singidunum*/Belgrade, mentioning only those along the Danube Limes.

The legion camps, the castrae and the forts of the auxiliary troops were built with a systematic internal system and frames and provided examples for the designation of civil settlements

(Láng / Bíró 2018.). However, the gradually developing, organic form of the grown settlement have also been realized in canabaes - the military towns which supplemented the castrae, and the vicus militaris associated with the castella, the military villages. In most cases, the settlements were surrounded by rectangular geometric rigidity, but the outer contour could freely dissolve according to the environmental conditions. The Romanization of the countryside and the raising of the number of villas contributed to all this. In the center of the land estates, in the center of the latifundios, there were complexes of buildings surrounded by walls on several hectares, the suburban villas burrowing next to the city, but the groups of smaller and larger majors, villa rusticas, were architectural concomitants of agriculture (Hajnóczi et al. 1995, 7-8.).

The roads served as important connections of the network of settlements along the Danube, Drava and Sava, and an ancient trade route bypassing the Alps, connecting Italy with north-eastern Europe, was also adapted to geographical conditions. These were imperial "highways". The road connection with Italy was established off the Amber Road.

The distances between the settlements were marked with milestones placed on an even schedule. These inscribed stone columns are very valuable artifacts because they indicate place names, distances, and the date of the statement. What is certain is that most of the landmarks were found along the Amber Road and the Limes.

Come to the point of the Limes in the Eastern territories of the Roman empire, it shall be stated that the significance of Pannonia for the Roman Empire was primarily determined by the defence of the central parts of the Empire - besides the natural protection provided by the Alps, therefore it could be easily approached by army marching along the Amber Road (Visy 2003b). The forts of the limes along the Danube garrisoned by the troops of one of the Empire's strongest armies that played a decisive role against the peoples beyond the borders (Ivánovits 1998; Ivánovits / Kulcsár 2018; Kulcsár 2018).

4.2.3. Continuity until Today – Roman *limitatio* Visible in Modern Structures

At the end of the 3rd century BCE, when the Romans started to colonise the Po Valley, they established the system of their *centuriatio*. As already mentioned above, the Roman *centuriatio* refers to the division of land into regular squares with a side length of 20 *actus* (approx. 710 meters) by professional *agrimensores* with special surveying instruments. After an occupation, the new land was measured and settlers were assigned with a certain number of *centuriae* which were clearly identified and recorded in cadaster maps.

In many places all over Europe, traces of the Roman *limitatio* have been preserved to the present day and can be recognised in today's parcelling, in the form of modern field bound-

aries, paths and even streets. Two of the of the most appropriate examples in this context are the surrounding area of Padua in Italy (Fig. 4.2.2) and the hinterland of Zadar in Croatia (Fig. 4.2.3). From a bird's-eye perspective, the Roman *centuriatio* is still visible at first glance. Until today, the land is divided into squares of 20 *actus* side length (with further rectangular subdivisions) and along their boundaries run the modern main streets in a chessboard pattern.

Similar phenomena can be found at several places all over the Roman Empire. Another prominent example is *Capu Vada*/Chebba in today's Tunisia (Fig. 4.2.4) which also shows a regular and extensive land division in its hinterland in squares of approx. 700 meters side length. Further, the rectangular and regular structures of the 1st century BCE military camp in *Torino*/Turin in Italy are still visible in the current city centre's road network and today's field boundaries in the area of the ancient provincial capital of *Dacia*, the Colonia Ulpia Traiana Augusta Dacica Sarmizegetusa, can be traced back to the Roman land division.

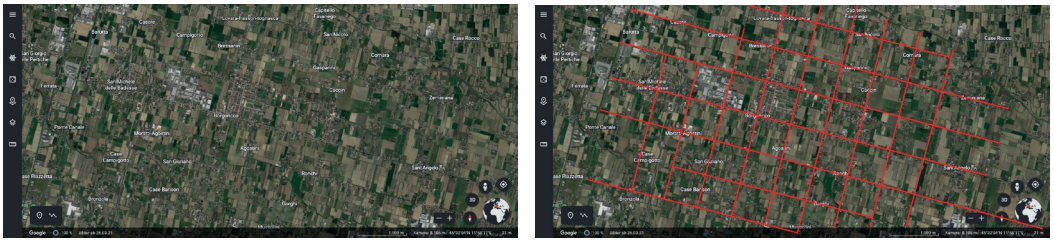

Fig. 4.2.2. Roman centuriation at Borgoricco near Padua (Italy)
Source: Google Earth, Borgoricco, Italia 45°32'04"N, 11°58'17"W, elevation 21M. [Online] Available at: http://www.google.com/earth/index.html [Accessed 23 June 2022].

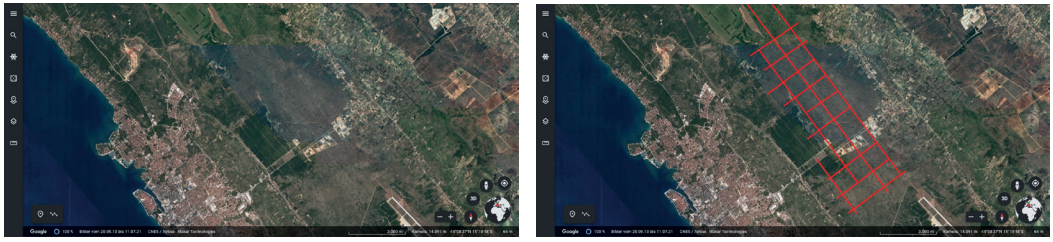

Fig. 4.2.3. Roman centuriation at Zadar (Croatia)
Source: Google Earth, Zadar, Croatia 44°08'37"N, 15°18'48"E, elevation 66M. [Online] Available at: http://www.google.com/earth/index.html [Accessed 26 June 2022].

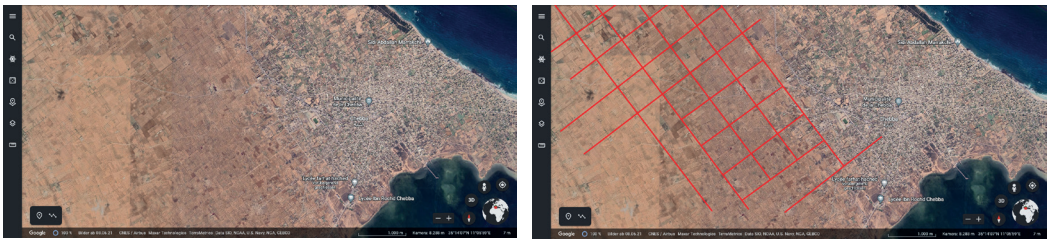

Fig. 4.2.4. Roman centuriation at Chebba (Tunisia).
Source: Google Earth, Chebba, Tunesia Croatia 35°14'07"N, 11°05'59"W, elevation 7M. [Online] Available at: http://www.google.com/earth/index.html [Accessed 23 June 2022].

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4.3. Barbaricum

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The geographical term *Barbaricum* is frequently used among archaeologists, historians and interested non-experts for the area beyond the northern limes of the Roman Empire. Sometimes it is mixed up with the term *Germania* (or *Germania Mater*) which is confusing and actually inaccurate, since from the Migration Period onwards not only German tribes settled in the land north of the Roman Empire. The name *Barbaricum* has already been used as geographical term when referring to land beyond the *ripa* (riverine border) along the rivers Rhine and Danube by the Roman historians Ammianus Marcellinus and Eutropius during Late Antiquity (Amm. 18,2,14; Eutr. 7,9).

The territory beyond the limes and adjacent parts of Lower Austria and southern Moravia were settled by Germanic tribes of the ***Marcomanni*** and the ***Quadi*** during the 1st century CE. From geographical and environmental point of view, this part is situated from the so called Bratislava Gate (Porta Hungarica) at the confluence of the two rivers Morava and Danube, up to the north along the Small Carpathians Hills which rise in the south at the Devín Castle Hill (Fig. 4.3.1). The favourable topography was also an advantage, with the Small Carpathian foothills extending to the fertile lowlands of the Danube country. The nearby areas were rich in mineral resources – bog iron ore was mined west of the highlands in the Záhorie region, the Danube River was a source of gold. Gold, silver and copper were mined in central Slovakia. The territory of Slovakia is hilly in its central and northeastern part and with lowland and fruitful plains in the south on the left Danube banks, the so-called Žitný ostrov. The concentration of German settlements is situated between the rivers *Marus*/Morava, *Cusus*/Váh, Nitra and *Granus*/Hron.

Fig. 4.3.1. Devín Castle. Aereal view of the castle with indication of the roman building from the 3rd century CE.
© Peter Chromek, Nadácia pre záchranu kultúrneho dedičstva/Foundation for Cultural Heritage Preservation.

The Morava river and its lowland, called Marchfeld in Austria and Záhorie in Slovakia, are today part of the Czech Republic, Austria and Slovakia. The Romans kept notably close and intensive relations with the Germans living in this fruitful area. Long lasting political and cultural dominance of the Romans can be observed in coexistence of these different socio-cultural and economic systems. Already after the first contacts with the Germans the Romans started to interfere in power and political inner affairs of the *Marcomanni* and *Quadi* that led to the vassal dependence of Germans on Rome.

Danubian Germans, particularly their elite upper class, profited from such way of coexistence, however. It was not only because of the gifts for allied tribe chiefs that helped keeping their position in the Germanic society, and, at the same time, their vassal relationship to Rome, but also of the common frontier exchange (trade) that mediated noticeable import inflow to this region. Moreover, the *Marcomanni* and the *Quadi* obviously used the convenient location of their tribe centres along the important long-distance main trade road – the Amber Route. This fact is evidenced by permanent and growing inflow of the Roman goods that is reflected not only by rich graves, e.g. Zohor (Fig. 4.3.2), Vysoká pri Morave, Stráže, but also by abun-

dant Roman pottery, glass and metal products in the area of Germanic settlements. Roman influence had an impact on the social structure as well as on the economy of the society of the *Marcomanni* and the *Quadi*. The acculturation process reached a considerable stage of Romanisation.

Fig. 4.3.2. Zohor, 2nd century CE. Nobility Grave No. 6/2010 with grave goods.
© Kristian Elschek, Archaeological Institute AÚ SAV.

A remarkable growth in population and power of the *Marcomanni* and *Quadi* manifested already at the end of the 1st century CE, but particularly in the 2nd century CE, as these German tribes had tried to get free from their vassal dependence. In such turbulent times, the Romans had to use their military power and to perform punitive expeditions onto Germanic territory to confirm and strengthen their authority and power in this frontier region.

Under Marcus Aurelius (161-180 CE), in the time of major Roman-Germanic confrontation in the Middle Danubian region, the so-called Marcomannic Wars, the situation reached a breaking point causing serious impact on the further mutual relations. The resistance of the *Marcomanni* and the *Quadi* could have been broken only after the seizure of their territory by numerous Roman troops.

The places of Roman stay can be traced, besides the well-known rock inscription from Trenčín-Laugaricio (178/180 CE) (Fig. 4.3.3), according to the remains of several Roman temporary field camps that were discovered in the vicinity of the Danube, at Žitný ostrov and at

the river Morava in Hviezdoslavovo, Chotín, Virt, Mužla, Iža (Fig. 4.3.4-5), Závod (Fig. 4.3.6) and Suchohrad. New discoveries of temporary field camps in Kráľová pri Senci, Cífer Pác (Fig. 4.3.7), Rovinka and Radvaň nad Dunajom have to be verified by archaeological excavations. Emperor Marcus Aurelius wrote the first part of his famous philosophical work entitled "Meditations" (*Ta eis heauton*) on the territory of Slovakia – in the "land of the Quadi up the *Granus* (Hron) river". Central Danubia eventually turned out to be fatal for the Emperor, however. While preparing an offensive intended to annex the trans-Danubian lands as new provinces with their names already chosen, *Sarmatia* and *Marcomannia*, he died from an illness in *Vindobona*/Vienna or *Sirmium*/Sremska Mitrovica. The Romans later never extended their frontiers beyond the Danube.

Fig. 4.3.3. Laugaricio. Inscription on the rock below the Trenčín castle, 179/180 CE.
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Fig. 4.3.4. Aerial view of Roman temporary camps in Iža.
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Fig. 4.3.5. Localisation of Roman temporary camps in the neighbourhood of the Roman fort in Iža.
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Fig. 4.3.6. Aerial view of Roman temporary camp in Závod.
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Fig. 4.3.7. Localisation and extent of two Roman temporary camps in Cífer-Pác.
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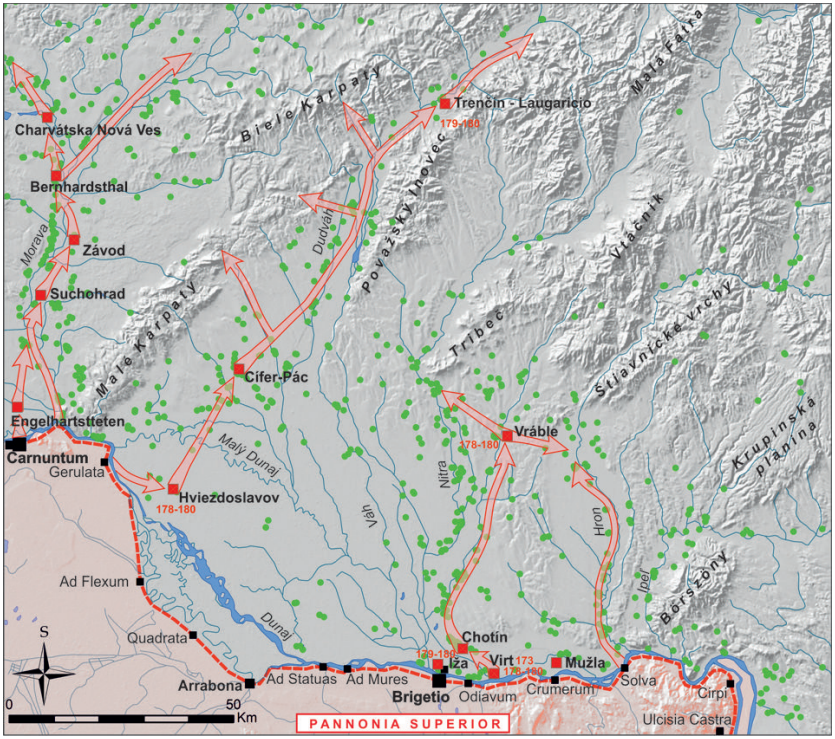

Fig. 4.3.8. Geographic distribution of presently known Roman temporary camps in the foreland of the North Pannonian Limes and presumed directions of movements of Roman forces during their expeditions into the territory of the Quadi.
© Ján Rajtár, AÚ.SAV.Nitra

After the Marcomannic Wars (166-180 CE), the Danubian Germans re-submitted themselves to the Roman power but very soon they took the initiative again. Consequently, the power and political situation as well as the mutual Roman-Germanic relations changed. On the territory of southwestern Slovakia a very unique phenomenon can be observed during that time, namely the architectures built in Roman styles but found in the Germanic environment. The oldest traces of the Roman military activities from the era of Augustus were unearthed in Bratislava-Devín. Other buildings found in Bratislava-Dúbravka (Fig. 4.3.9-11), Stupava (Fig. 4.3.12-14), Cífer-Pác (Fig. 4.3.15-16), Veľký Kýr (before Milanovce) and Podunajské Biskupice come from later periods, namely from the 2nd-4th century CE.

Fig. 4.3.9-10. Bratislava-Dúbravka, 3rd century CE, Roman bath- Foundations during excavation and today.
© Kristian Elschek, Archaeological Institute AÚ SAV

Fig. 4.3.11. Bratislava-Dúbravka, model reconstruction.
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Fig. 4.3.12-13. Stupava. Roman military station during excavations.
© Vladimír Turčan, Slovak National Museum-Archaeological Museum (SNM-AM)

Fig. 4.3.14. Stupava. Roman military station, visualisation.
© Peter Horanský/Vladimír Turčan.

Fig. 4.3.15. Cífer-Pác, the late-Roman homestead of Germanic nobility of the Quadi tribe.
© T. Kolník

Fig. 4.3.16. Cífer-Pác, a Germanic pit-house and the Roman Structure No. II. Visualisation: J. Minaroviech-Ratimorská, Radoslav Panáček.
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The **Helvetii** were repatriated by Caesar, settled in the western part of modern Switzerland 58 BCE, menaced by the Suebian Germanic tribes under Ariovist in the Neckar region (agri decumates). The area later combined in the province of Raetia was by no means uniformly populated. In the north, the population in the part called Vindelikia was Celtic, later Raetia prima with Augsburg as the administrative and Regensburg as the military centre. But even the Celts had superimposed themselves on an original, partly pre-Indo-European population, the actual Raetians (especially in the area of today's "Rhaeto-Romanic people").

With the conquest of the foothills of the Alps (see the list of subjugated tribes in the Tropaion Alpium above) and the temporary control of the West Alemannic area, tribal resettlements began under Roman influence south of the Main to the east into the Bohemian Basin. These included the Marcomanni and Quades.

For a long time, the area in the foothills of the Rhaetian Limes was sparsely populated. The **Hermunduri** seeped into this area and gained a privileged position as intermediaries in trade with the Roman Empire, similar to the Mattiacs in the Lower Main area; to the east of the Hermunduri along the Danube settled the **Naristers** (*Nariscae/Variscae/Varisti*), followed by the Marcomanni and Quades to the east, who according to Tacitus (Germ. 41-42) were ruled by kings. In the agri decumates, the Germanic tribes that had seeped in joined together to form the **Alamanni** from the 2nd/3rd century onwards.

Caracalla's Alemannic war in 213 CE is described in the Historia Augusta (Spart. Carac 5,4; cf. CIL VI 1, 2086) and in Cassius Dio (789,134*) as well as Aurelius Victor (Caes XXI). These wars also have a reflection in the Caracalla altar of Eining / Abusina (Vollmer 1915, 334/5 (211 CE)).

Under Valerianus and Gallienus around the middle of the 3rd century the dams burst. The distress in the country is described by Orosius, a Spanish presbyter from the 5th century (7,22,6-7). In the Historia Augusta, the Vita of Probus reports of the victory in 277 CE, which is also described in Augsburg in an honorary inscription (281 CE: Bay. Vorg. Bl. 1951/52, p. 277f.). This emperor was able to secure the Danube border and the Neckar land again by driving out the Alamanni as well as their confederates (**Juthungen**). However, the agri decumates remained lost; western Rhaetia could be secured on the Lake Constance-Iller line.

Constantius II (337-361) was once again successful against the Alamanni from 355 onwards, (Amm. Marc. 15,4-13), after changeful battles. Caesar Julian defeated the Alamanni at Strasbourg in 357. The victory against the Juthungian Alamanni in 358 CE is described by Ammianus Marcellinus (17,6). Decisive victories failed to happen because of the internal strife and suspicion of the commanders.

Thus, the internal weakening of Rome progressed through the internal struggles, already under the said Constantius, who was overthrown by Julian (361 CE), from which the Alamanni

under Vadomar profited (Ammianus Marcellinus 21, 3-4 and 361 CE about Julian, who against Constantius drives eastwards across the Danube, Ammianus Marcellinus 21,8,2-9,3).

Consolidation took place once again under Valentinian I (364-375), through the resettlement of the Alamanni in the Po Valley in 370 (Ammianus Marcellinus 28,5,15). We hear of the Juthungen once more in the 5th century, after which they seem to have been absorbed into the Alamanni tribal confederation.

The military organisation around 400 CE in Raetia is described in the Notitia Dignitatum in chapter 35. The Notitia Dignitatum represent the once again successful stabilisation efforts of Stilicho under the Emperor Theodosius the Great (379-395), although it was only written under his sons. This notitia is a systematising imperial book and presents in the mentioned chapter the military and political organisation under the leadership of the Dux Raetiae. The military actions of Stilicho in Rhaetia (401 CE) are praised in hexameters by Claudius Claudianus (Bell. Get. 329-403; 414ff.). These military actions, however, rather served the defence of Italy, for which Stilicho withdrew troops from the Rhine and Danube. The last efforts to secure the northern border are described for Aetius and Avitus (later emperor 455/6 CE) for 430 on the Rhine and Danube (Sid. Apoll. C. 7, 230-235 (in Avitum)). Emperor Mariorianus (457-461) also once again defeats an Alamanni swarm in 457 at Bellizona (Sid. Apoll. C 5, 373-381).

The penetretation of the **Sarmatians** into the Lower Danube basin vary from the 2nd century BCE to the 2nd century CE. **Iazyges** and **Roxolani** are two of the more historically attested groups of Sarmatians. Amongst the barbarian peoples with whom the Romans had rellations during the first two centuries CE, the Iazyges played a relatively significant role. Based on the great Hungarian plain in the middle Danube basin, they troubled the Roman authorities in Pannonia on numerous occasions, and were active during the Marcomanic Wars of the 2nd century CE. The Roxolani area of operations is difficult to establish, because they are located near the Danube by Tacitus in 69 CE, while other surces seem to point aut on Moldavia or the western part of today Ukraine. Further conflicts took place in 85-86 AD. During the troubled years 90s, they seem to have disrupted travel along the river. During the Dacian Wars they colaborated with both sides.

After creating of the Roman province of Dacia, and leaving the Wallachian plain under the supervision of the governor of Moesia Inferior, by buiding only forts in certain key position and setting up a defence line along the river Olt, treaties, rather flimsy, were closed with the Sarnatians in the area.

Once the Iazyges were pushed back and the Roxolani pacified through negotiations, Hadrian made administrative changes in Dacia. The former Dacia province was divided into two

provinces: Dacia Superior and Dacia Inferior (118/119 CE), and by the north-western frontier a new province was created around the center of Porolissum, Dacia Porollssensis (120/121).

After leaving Dacia, somewhere after the middle of the 3rd century CE, in parallel with the work of reinforcing the Danube limes, the Roman emperors set out to regain control of the territory north of the river. In fact, based on the information we have, the Roman influence in the north of the Danube was limited, during the first tetrarchy, to a number of fortified points (usually doubling those on the right bank) and a safety strip of along the river. Fights were fought only with the **Carpians**, some of whom were displaced to the territory of the Empire. Later, taking advantage of the political (then also military) conflict between Constantine and Licinius, the Goths and other barbarians repeatedly entered south of the Danube; their defeat and expulsion brought to Constantin, in 318-319, the titles of Gothicus Maximus and Carpicus Maximus. In 322/323, the **Thervingii** (Visigoths), led by Rausimodus, plundered Moesia and Thrace, but the barbarian invasion was repulsed. Constantine the Great pays special attention to the territory north of the Danube. Aurelius Victor (Caesares, 41,18) notes: *Pons per Danuvium ductus; castra castellaque pluribus locis commode posita* (a bridge was built over the Danube; in many places camps and forts were adequately erected). The Gothic peoples were soon brought under Roman obedience, in the quality of the foederati. Thus, the expression *Dacia restituta* that appears in written sources cannot be considered a simple figure of speech, even if it does not cover the *universa Dacia*, such as the conquest of Trajan.

The entry of the Goths into the North Pontic area led to the emergence of a new ethno-geographical notion: Gothia, which refers to the lands of the Bug and the Dniester, from where they started their raids. Also, on the coins minted by Constantine in Augusta Treverorum (Trier) appears the legend GOTHIA, along with Alamania, Francia, Sarmatia; these allegories are linked to the peoples who recognized Roman authority.

However, peace between the Empire and the barbarians was soon disturbed by the appearance of the **Huns**, a nation barely known until then. They arrived onto the Pontic steppes from Central Asia, and remain, even today, the archetypal nomadic people, fierce horseman, as Ammianus Marcellinus described them (e.g. Amm. Marc., XXXI, 2, 1). They attack first the Visigoths, then the **Ostrogoths**, forcing them to retreat to Moldavia (Eastern part of today Romania). Some of them, led by King Athanaric, asked and obtained permission from Emperor Valens to enter the Empire, „promising them that they would live in peace and give aid as needed"; after this agreement they crossed the Danube in 376, and the emperor orders that they be given food and fields to sow (Amm. Marc., XXXI, 4, 1-8). Treated harshly by Roman dignitaries, the Goths revolted, causing the Romans a real disaster in Adrianople (August 9, 1978), where emperor himself lost his life. Thrace and Illyricum are devastated, the barbarians being hardly appeased by the emperors Gratianus and Theodosius.

Three years after these events, even King Athanaric, fearful of the dangerous neighborhood of the Huns and longing for the riches of the Roman provinces, must take refuge on Roman soil.

He is received with great pomp by the emperor Theodosius himself in Constantinople, where he soon dies on January 25, 381.

In 451, Attila undertook a great invasion of Western Europe; Gaul is desolate, but on the Catalaunian Plains (near the present-day city of Troyes) it is defeated by a Roman-barbarian army led by General Aetius. Returning to the Danube lands, Attila died in 453. Rivalries broke out immediately between his sons. The power of the Huns is liquidated by a coalition led by Ardarichus, king of the **Gepidae**, at Nedao, in the year 454. The aftermath of these events is recorded by Jordannes (Getica 26): „And the Gepidae, by forcibly appropriating the regions of the Huns and ruling as conquerors throughout the territory of Dacia (totius Daciae fines) as worthy people, did not demand anything else to the Roman Empire than peace and annual gifts (*annua sollemnia*). The emperor then gladly agreed to this, and to this day the people receive the usual gift from the Roman emperor". The Gepidae soon occupied Sirmium (471), where their king established his residence; after the departure of the Ostrogoths to Italy (488), the Gepidae also entered Transylvania. Meanwhile the Longobards, another Germanic tribe, settled in Pannonia (c. 526/527), coming into conflict with the Gepidae. The Longobards conclude an alliance with the **Avars**, and the Gepidae are defeated in 567.

The original homeland of the Slavs was apparently between the middle basin of the Vistula (in some opinions even as far as Odra) and the upper and middle course of the Dnieper, and south to the upper course of the Dniester and Bug rivers. Arriving under the domination of the Goths (Jordanes, Getica 119), their expansion to the south begins after the crushing of the Hun power. A first mention of the **Slavs** dates from 517-518 and belongs to Procopius of Caesarea who notes (De bellis, VII, 40, 5): „When Justin, Germanus' uncle, had ascended the throne, the Antae, who lived near the Sclaveni, had crossed the Danube with a large army and invaded Roman territory. Not long before, the emperor had made Germanus commander of the army throughout Thrace. There he had quarreled with the enemy troops, defeated them in battle, and slaughtered almost all of them". Other attacks of them are recorded by the same historian for the years 530, 545, 548, 550, 551. Thanks to the extensive fortification work carried out during the reign of Emperor Justinian, the Slavic invasions were stopped until 578/579. „In the fourth year of the reign of Emperor Tiberius Constantine, a slave population of nearly one hundred thousand people gathered in Thrace and devastated Thrace and many other lands" writes Menander Protector (fragment 47). Against the Slavs, the emperor also aroused the Avars, as the same author relates (fragment 48), because he had neither the troops nor the resources to oppose their massive attacks.

The Avars were a nomadic people from Mongolia. Under pressure other Turanian tribes, they reach the mouth of the Danube (around the middle of the sixth century). In 558 the Avars sent a message to Constantinople asking for subsidies, as well as a territory in which to settle. They renew their application in 562. Emperor Justinian offers them a territory in Pannonia

Secunda (between the Danube, Sava and Drava), but the Avars refuse, because the area was targeted by the Longobards.

The relations between the Avars and the Slavs are sometimes tense, sometimes collaborative, in which case they attack the Empire together. The chronology of these confrontations is difficult to establish exactly. In 602, taking advantage of the disorganization of the limes, the Slavs crossed the Danube, settling on the territory of the Empire.

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4.4. Defence and Military

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The most important data about the Roman camp are provided by Polybius (VI, 27-32). For the imperial era, a detailed description of the camp we find in the writings of the main military authors: Pseudo-Hyginus, *De munitionibus castrorum*, and Vegetius, *Epitome rei militaris*. Archaeological excavations confirm or complete with new elements the data provided by the written sources.

The beginning of the organization of the military border (*limes*), determines the diversification of the ways of building a camp. Thus, there are *castra aestiva* and *castra hiberna*, which, prolonging their existence (especially those on the border), become permanent camp, built, either of earth or of stone or brick.

With the establishment of the Principate, a thorough reorganization of the Roman army takes place. The military reforms of Augustus will ensure its stability for the next three centuries; the Roman army becomes an army of professionals, with precise rules of functionning and operation, as well as corps of officers and generals of aristocratic extraction, but also career officers.

During the imperial times, each legion had a name, which come from the name of a deity (I Minervia, XV Apollinaris), from their insignia (V Alaudae, XIII Fulminata), from the names of the emperors (II, III and VIII Augusta, VII and XI Claudia), from the names of the peoples they fought with or the name of the province they were recruited from (I Germanica, IV Scythica, V Macedonica), or after the qualities proved in battle (VI Ferrata, VI Victrix, XXI Rapax). On various occasions the legions received epithets (pia fidelis, constans, vindex, felix, victrix, firma), and starting with Caracalla imperial nicknames/atributes (Antoniniana, Maximiana, Alexandriana Severiana, Gordiana, Philippiana, Deciana, etc.).

The legions were stationed outside Italy, in the provinces: in Britain - the legions II Augusta, VI Victrix, XX Valeria Victrix; in Upper Germany – VIII Augusta and XXII Primigenia legions; in Lower Germany – legions I Minervia and XXX Ulpia; in Raetia – legion III Italica; in Noricum - legion II Italica (the latter two created by Marcus Aurelius); in Upper Pannonia – the legions I Adiutrix, X Gemina and XIII Gemina; in Lower Pannonia - Adiutrix II legion; in Upper Moesia - IV Flavia and VII Claudia legions; in Lower Moesia – the legions I Italica, V Macedonica (until 168) and XI Claudia; in Cappadocia – XII Fulminata and XV Apollinaris legions; in Syria – the legions III Gallica, IV Scythica and XVI Flavia; in Judea - the VI Ferrata and X Fretensis legions; in Arabia - the III Cyrenaica legion; in Egypt - the second legion of Trajan; in Numidia – legion III Augusta; in Hispania Citerior – legion VII Gemina; in Mesopotamia – Parthian I and II legions. Septimius Severus (creator of the three Parthicae legions) encamped the Parthian Legion II at Alba, near Rome.

The commander of the legion was legatus (Augusti) legionis, of senatorial rank, former praetor (*vir praetorius*); he could advance as governor of a praetorian province. Under his direct subordination were six tribunes: one was of senatorial rank, tribunus laticlavius (who was also the deputy legate of the legion), the other five were of equestrian rank, tribunes angusticlavii.

Provinces containing several legions and auxiliary units were governed by a senator of consular rank who was supreme commander of all the troops therein. Usually, these men had previously held at least one military tribuneship (normally in their early twenties) and legionary legateship (normally in their mid-thirties). Similarly, if an army was assembled for a campaign, the senior commanders were senators of consular rank.

A legion was organized into ten cohorts, numbered from I to X, each comprising three *manipuli* of two *centuriae* each; so 60 *centuriae* with 80 people each; the first cohort appears to number 800 people. The legionary cavalry has 120 horsemen, grouped in four *turmae*, led by

decurions. To them were added: craftsmen, doctors, veterinarians, etc., so that a legion numbered up to 6,400 people, although a precise figure is not reliably recorded by any ancient source.

The distinction of centurions was also made according to cohorts, from cohors X to cohors I; thus, the order of the ranks was, from X (decimus) *hastatus posterior* (the lowest centurion in rank) to *primus pilus*, the commander of the first cohort (the highest centurion in rank). Depending on the title of the centurion and the order number of the cohort, it was also the order of the ranks and implicitly the advancement of the centurions in the legion.

The legions were recruited only from the citizens. The age of recruitment was 17-18 years. Until Septimius Severus, marriage was not allowed during military service – neither for soldiers, nor for centurions. The children of the legionnaires on duty remained illegitimate; only if in turn they entered the army, they received their father's name and were enrolled in the Pollia tribe.

The soldiers served in the infantry (mostly) or in the legionary cavalry; an *eques* (cavalrymen) was superior to a *miles* (ordinary soldier). The latter could aspire to some superior ranks (principales, which attracted the exemption of chores, being immune), such as: clerks in the offices (librarians, actuaries, exceptores) and stewardship (custodes armorum), non-commissioned officers (*cornicularii, commentarienses, speculatores, stratores, beneficiaries*), with different missions (*tesserarii, signiferi, vexiliferi, medici, architecti*); the highest of them was *optio*, who could aspire to the rank of centurion. On the battlefield, the commander's orders were transmitted through trumpets (*tubicines, liticines, buccinatores*) and standard bearers.

Many soldiers served their entire military career in the ranks, but there were opportunities for secondment to specialized tasks and for promotion. This was, for example, the case of Ulpius Amandianus, soldier of Legion XIV Gemina, who fulfilling different tasks, was hoping to be promoted centurion: *To Jupiter Best and Greatest of Doliche, for the safety of Emperor Caesar Gaius [Julius Verus Maximinus Pius Fortunate Invincible Augustus _ _ _ Ulpi]us Amandianus, soldier of Legion XIV Gemina, clerk of the above mentioned unit, armourer, standard-bearer, orderly (optio) of the second centurion in the e[ighth] cohort and candidate (for promotion to centurion), along with Ulpius Amandus, veteran of the above-mentioned le[gion], dedicated this to the deity* (CIL III, 11135=ILS 4311, Carnuntum-Petronell, Upper Pannonia, 235-238 CE; after Campbell, p. 32, no. 41). Another example is Lucius Septimius Constantinus, an optio, who expressly state his qualification to the centurionate: *To Jupiter Best and Greatest, for the welfare of our lord Marcus Aurelius Antoninus Pius Fortunate Augustus, Lucius Septimius Constantinus, orderly (optio) with the expectation of promotion to centurion, of Legion II Adiutrix Loyal and Faithful, Antoniniana, willingly and deservedly fulfilled his vow, in the consulship of Emperor Antoninus and Adventus* (ILS 2442, Aquincum (Budapest), Lower Pannonia, 218 CE; after Campbell, p. 32, no. 40).

Most often, we find information about a soldier's career from the inscription carved on his tombstone. The text often shows the chronological order of the functions held and the place or province in which they were performed. One can say without exaggeration that the funeral stones are the bearers of a cursus honorum, a true curriculum vitae of the deceased. A famous example is the tombstone of Tiberius Claudius Maximus, on which there is his own epitaph written by himself while still alive: *Tiberius Claudius Maximus, veteran, undertook the construction of this monument while he was still alive. He served as a cavalryman in Legion VII Claudia Loyal and Faithful, was appointed treasurer of the cavalry, guard of the commander of the same legion, standard-bearer of the cavalry, and in the Dacian war was awarded military decorations for bravery by Emperor Domitian. He was promoted to 'double pay' soldier (duplicarius) in the second ala of Pannonians by the divine Trajan, by whom he was also appointed to the position of scout in the Dacian war, and twice awarded military decorations for bravery in the Dacian and Parthian wars, and was promoted decurion in the same cavalry ala by the same emperor because he had captured Decebalus and brought his head back to him at Ranisstorum. After voluntarily serving beyond his time, he was honourably discharged by Terentius Scaurianus, commander with consular rank of the army in the new (?) province of [Mesopotamia (?)_ _]* (Philippi, Macedonia, 106 CE; after Campbell, p. 32, no. 42).

In the provinces, usually in the camps on the limes, there were also the so-called *auxillia* (auxiliary troops). Auxiliary troops can be grouped into regular units - *alae* (cavalry) and *cohortes* (infantry), as well as irregular - nationes and numeri. Their commanders were equestrian officers (prefects and tribunes), and their commands (grouped in three steps) were called militiae equestres (usually tres militiae, exceptionally followed by a quarta militia). The classification of auxiliary troops also takes into account the size of the troops.

The cavalry units – *alae* – were of two types: quingenariae – consisting of 480 horsemen grouped in 16 herds of 30 horsemen each, and milliariae – consisting of 1,008 people grouped in 24 herds of 42 equites each. The commander was called, in both cases, praefectus; but while the command of a quingenaria unit represented the third equestrian militia, the command of a milliaria unit was the fourth militia, and to this only the most valuable equestrian officers were promoted.

The infantry troops – *cohorts* – were also of two kinds: quingenariae – with a force of 480 infantrymen, grouped in 6 centuriae of 80 people each, and led by a *praefectus*, and *milliariae* – with the soldiers grouped into 10 *centuriae*, and led by a *tribunus*. This troops had some cavalry detachements, too.

Soldiers were recruited from different peoples, whose name their troop bears, being stationed in other provinces (usually as far away from their homeland as possible); the age of recruitment was 20-23 years, sometimes earlier. Gradually, however, as in the case of the legions,

starting with the second century, the local recruitment system was introduced. In the early imperial period auxiliaries were probably conscripted through a levy imposed on conquered peoples, and some conscription will always have been needed, though in the later period, with improved service conditions, the number of volunteers is likely to have made up a larger proportion. The service lasted 25 years, at the end of which the veterans were „left at home/ discharged" (*dimissi honesta missione*), receiving Roman citizenship (*civitas Romana*) and (or) the right of legitimate marriage (*conubium*) – which attracted the right of citizenship for his wife and children (born or about to be born); all of these rights (privileges) are inscribed on military diplomas. There are also cases when the soldiers were discharged before completing military service (*ante emerita stipendia*), for their bravery in the battle. Also, a number of units bear the attribute civium Romanorum, which means that they were recruited from Roman citizens. In the auxilia, the decurio who commanded a troop (turma) of cavalry in an ala ranked highest, and it was this officer who was most often promoted to the legionary centurionate; next came the centurions of an infantry cohort, and finally the decuriones or centurions of a partmounted cohort.

The establishment of the limes as the Northern border of the Imperium Romanum reflects the high organisation and planning of the Roman administration and management, as well as the developed communication network, and the vision of a long-term defence system. It is not a simple linear defence but a highly complex both military and civilian zone that turned the frontier in an economically well-developed region divided in many provinces of the empire. This is the best example of how military can be a crucial wheel of comprehensive and fast build-up. The majority of the large cities in the border provinces developed either on the frontier itself or in its immediate hinterland allowing exploiting all the advantages that were provided by the stationing of the troops along the border, and – hopefully – befriended barbarian tribes across the river. The military was a continuously highly paid population engaged in capital infrastructural build-up. Traders and craftsmen, followed by others looking for prosperity, were attracted to the new economic possibilities and financial potential of the new regions transformed into provinces, a characteristic of newly emerging societies. The constant movement of troops, from one hot zone to another, had influenced the exchange of cultural development and religious ideas.

The river itself functioned as a natural barrier and formed a major defensive element together with the chain of fortifications of different types and sizes. The forts along the river were connected by the so-called Limes Road, which ran more or less parallel to the Danube River itself and was the Roman equivalent of a modern highway. Transport with light ships was the backbone of supply, and even enabled long-range communication routes.

The establishment of the Northern limes meant a crucial change in Roman strategy and vision for the future. The original concept of the Imperium Romanum as empire without frontiers and end – *imperium sine fine* (Vergil Aen.1,279) – turned into a realistic concept, ac-

cording to the principle "hold what you actually can protect and defend". Legionary fortresses were the strongholds of defence. They were positioned at strategic locations, not just taking into account geography and enemy position, but also other aspects, i.a. land to support a high number of soldiers providing enough food and water.

The *Constitutio Antoniniana*, also called the Edict of Caracalla, was issued in 212 CE and granted full Roman citizenship to everyone in the Empire, but, even before it there were hardly any soldiers discharged from the auxilia who were not already Roman citizens. However, it was effectively removed the best motivation for serving in the auxiliary troops. On the other hand, the Roman Empire increased its tax base, thus securing new tax revenues.

In the surrounding area of the Roman military camps small settlements emerged, forming the civilian component of the frontier. Some cities even developed from the original *canabae legionis* which were the towns in the immediate vicinity of the legionary fortresses where traders, craftsmen and sellers as well as the soldiers' dependants lived. This close co-life of the army and civilians led slowly towards the downfall of the traditional army. The army concept changed and the troops were split into *comitatenses* (highly mobile army, selected and high quality force) and *limitanei* (sedentary border troops).

Troops of the Late Empire tended to remain permanently stationed in their garrison towns, and because service started to be in practice hereditary, the men became deeply rooted in the local society. In the 5th century in some frontier provinces lands were reserved for cultivation by *limitanei*, which can be descriebed as peasant soldiers.

Bridgeheads were the key points to influence barbarian tribes. Keeping them peaceful and under Roman cultural influence was top priority in order to enable peaceful life and prevent hostilities along the Danube. In order to use the river as major trade and cultural communication artery, it's both banks had to remain calm and safe. Culture and economy were the crucial factors for keeping the Barbarians under control, sometimes even more decisive than the military strength and the strong fortification systems on the Roman side. These bridgeheads were of enormous importance during both war and peace times. The bridgeheads that the empire maintained on the left bank of the Danube were the points where, during a war, the safe landing of troops and their access to protected areas on the north bank of the river was ensured. Being the points for trade with the Barbarians and imposing the influence of the Empire in non-conquered territories the bridgeheads had both a political and economic role in controlling the situation on the opposite bank of the Danube. The bridgeheads set on the opposite banks of the Danube were the key element of the early warning system that combined intelligence services with constant surveillance.

During peace times, the main duty of the army was the maintenance of order in the provinces. Next to this, Roman soldiers fulfilled a series of routine duties like guards, patrols, foraging expeditions, as messengers and guards of the provincial governor. Sometimes soldiers were

detached from their unit to serve in outposts in different provincies. The better educated soldiers were employed for secretarial work at headquarters. Soldiers were also in charge with the corn supply, tax collecting, or the maintenance of routes for communication and trade. The army was also involved in police duties in the community. The army tried to be as self-sufficient as possible, by making the items it needed and by building and maintaining forts, accommodation, baths, aqueducts, roads and bridges.

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4.5. Economy and Trade

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The constant presence of the Roman army and the imperial administration in the Northern provinces of the Roman Empire had major influence on the economy along the Roman Danube Limes. A new economy model based on agriculture in plains, while farming dominated in the hilly parts, as well as wood and stone working, handicraft, mining and especially trade was introduced. Those regions are in the same time interaction areas, as the empire's economy depended to a large extent on the trading relations with the neighboring populations.

The civil settlements which appear next to the military camps, developed outside the fortifications – *canabae* and *vici* – became an indispensable part of the garrisons. They demonstrate clearly the close cooperation between soldiers, army suppliers, merchants, traders, and manufacturers. Until late antiquity they feature as an important element of Roman garrisons.

Legionary camps and forts were obviously meant to be as self-sufficient as possible, but the garrisons could not exist in isolation and were heavily interconnected with one another and

with other centres near and far to ensure stable supply routes. The roman army fostered the development of a large number of specialized professions that at first glance have little to do with fighting battles, such as for example speculatores and negotiatores. The main soldiers responsible for provisioning a legion are frumentarii. They were initially supposed to collect frumentum (grain), and were in charge with the annona militaris. In the first and second centuries, they were recruited from among the legionaries. Next to them there were also lixae, who were also involved in suplying the legions and, since they seem to be slaves or freedman, they demonstrate the extent of civilian participation in army logistics.

The archaeological record demonstrates that food and other essential products were acquired by all available means: own production on the premises of the prata, taxation of the local population, transport on short supply routes within the province and long ones within the Empire as a whole.

The military agricultural land (*prata legionis*) is known above all from inscriptions, allthough not so many, and used for example as grassland, for cutting trees, and as quarries. Outposts further away from the camps, which were occupied by vexillations of the camp unit, served in the first instance to ensure the supply of resources, building materials etc. which were not available in the direct neighborhood of the camp.

What now seems even clearer is that the Roman military cordon along the river was the core of a complex pattern of relationships based on settlements and installations on either side of the river. In that sense the river Danube was no longer a line of demarcation but rather the spine for a military and civil association that grew up in the second century and continued more or less intact until the later decades of the 4th century CE.

In this regard, a well-known early-second-century papyrus, dated to 105 CE provide us very good information, especially for Moesia Inferior. Showing a remarkable range of activities undertaken by the soldiers from Cohors I Hispanorum, the document refers explicitly to those detached beyond the province. Three groups were across the Danube, of which one was guarding crops, one was on an expedition and one scouting; the papyrus also mentions two groups engaged in supply work, two guard groups and an element at headquarters. The far side of the Danube was apparently still considered 'inside the province' of Moesia Inferior. Despite having three detachments spread out, at Castra (its exact location is unknown), Piroboridava (a Dacian dava and a Roman castrum on the river Siret, located at Poiana, Galați country) and Buridava (a Dacian dava and a Roman castrum on the banks of the river Aluta-Olt), the cohort was still officially recorded at the head of the document as being based in Stobi.

Although the Roman state took care of the basic provision of the troops, not all the needs of the professional soldiers could be catered for, as service was long and they were often stationed in remote parts of the Imperium. The main task of the sutlers in the camp villages was to pro-

vide the soldiers with food and other goods and to offer varied services. The precondition for the close association between soldiers and sutlers was the enormous purchasing power of the soldiers, based on their regular payment.

While agriculture did not seem to play an important role in the camp villages, excavations have demonstrated various industries; finds and features proved the existence of bronze making, pottery kilns, brickworks, the production of glass, bone-working etc. Markets for the produce from the vicinity of the camp might have taken place here.

In the Limes region, in the military camps and their surrounding area, brick production is confirmed (Singidunum/Belgrade, Viminacium, Diana/Kladovo), covering the needs of building and repairing. The production of pottery for everyday use, but also of luxury items, such as glass vessels and oil lamps, is confirmed in Sirmium/Sremska Mitrovica, Singidunum/Belgrade, Margum/Dubravica, Viminacium, Novae/Svistov, Durostorum/Silistra and Ostrov.

The settlements and camps along the Danube were supplied with luxury goods from all over the Empire, from the Western production centres (Northern Italy, South Gaul, Germania, Noricum, Raetia) as well as from the eastern ones, especially from Syria and Palestine. Liquid agricultural products (olive oil, wine, garum etc.) were transported in amphorae along land and fluvial roads from the areas of the Black Sea, Northern Africa and the Northern Mediterranean. For the limes zones the most commonly seen amphorae type are Dressel 20 used in the transport of olive oil. Zeest 90 amphorae with olive oil from Ionia appeared toward the late 2nd century.

Recent discoveries in Novae shed light on supply of provisions for the army in the 1st century CE. Large pits explored in the central part of the camp contained, among others, large quantities of amphorae sherds which allowed to reconstruct entire forms, some of them unique. Long distance wine trade in the same period is also attested by a funerary monument of a negotiator vinarius and his wife (https://edh.ub.uni-heidelberg.de/edh/inschrift/HD016274). Further imports for the camp at Novae included pottery, with a special regard to the most appreciated terra sigillata, lamps, wine, glass, worked stone, lead and jewellery. The lamps came from Italy, the unguentaria from Dalmatia and Italy, the wine and olive oil from Italy and Istria, as well as the Pontic cities.

On both the Middle and Lower Danube there was a shift from imports of western Baetican and Istrian amphorae in the 1st to late 2nd centuries to those from the Pontic region and the Aegean, together with local products thereafter. This is the consequence of the fact that in the 1st century the army on the Lower Danube was expeditionary, whereas after the Dacian Wars it became stable/established on place until the 5th century. After the 1st century substantial numbers of locally produced amphorae from Hotnica, Butova and Pavlikeni (Bulgaria), all well-known production centres, suggest that the region around Nicopolis ad Istrum (Nikiup, Bulgaria) supplied at least ordinary wine to the garrisons on the Danube. The same can be

said for the usual tableware. Luxury pottery - terra sigillata - is also beginning to be imitated in local workshops, after - initially - it was identified in the early levels as imported goods, brought by soldiers with them, the main types coming from Gallia or from the workshops from Rheinzabern.

Special attention should be paid to the supply of wheat. Local production was not enough and much was imported. The main area from which wheat was obtained was Egypt and Africa in general, but closer areas such as Anatolia or Crimea can also be considered for the Lower Danube area. Special storage sites were built. They were called horrea, where food could be stored for an extended period of time and were usually located within the camps close to the main road, which made the loading process easier. Writing about building a camp Polybius (Hist. 6.27.3–5) notes that ample space needs to be designated for the horrea close to the praetorium, and from Tacitus (Agricola 22.2) we learn that the camps in Britain had enough food stored for one year. Horrea are not very well-explored in the Middle Danubian valley. Storage sites made of stone are known from Singidunum/Belgrade, Sapaja, Čezava, Boljetin, Talijata, Konopište and Kurvingrad. Also, for the lower Danube there are some examples in Capidava, Jatrus, Novae, Oescus.

Literary sources report on the important role that both imperial frontiers as well as the people nearby had in the political history of the empire. They account at length on invasions and discuss aspects related to the political views of the emperors, and sometimes they give us a hint on the economic aspects or the relations with the communities by the border. For example, we learn from Cassius Dio (LXXI, 19, 1) about the trade with the barbarians: „Marcus [Aurelius] did not receive at the same time the messages of all the barbarian nations, but as each of them deserved either the right of citizenship, or the forgiveness of burdens – forever or temporary – or even the granting of some steady grain aid. As the Yazyges proved to be of great use to him, he forgave them many of their duties and – one might say – all of them except those in connection with the assemblies and business. There was also a barrier to using own ships and to approach the islands of Danube. However, he allowed them to trade with the Roxolans, through the territory of Dacia, whenever the governor of this province allowed them".

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4.6. Interplay of Military and Civil Life

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Organizing a province, the Roman authorities were concerned primarily with creating the infrastructure that ensures the cohesion of space, which became functional in terms of production and trade, administration and military activity.

The Danube line would become the most militarized area in Lower Moesia. An important role will be played here, in addition to the military fortifications, by the civilian settlements that appear and develop around them. Implementation of Roman settlement patterns and forms of government runs parallel with measures for integration in the empire. It is a well-known fact that along the limes, near every military fortification, there is always at least one civilian settlement depending on it and working for its benefit.

Roman legionary bases along the northern frontiers of the Roman Empire – Rhine and Danube rivers – were commonly accompanied by two civil settlements, *canabae* – situated outside the fortifications, and the vicus, located about 1.5-3 km from the military base. This phenomenon is described as settlement duality.

The *canabae* of the legions installed in certain centres, but also military vici developed around the auxiliary military fortifications, can be considered as quasi-urban civil structures without legal autonomy.

The inhabitants of the *canabae* called themselves *canabenses*, and formed a community

of *cives Romani* (or *veterani et cives Romani*) *consistentes*. The epigraphic sources show that the canabae had their own magistrates, in which the offices were held by the inhabitants of extra-mural settlements. The quasi-municipal authorities followed the same model as municipal structures: two *magistri canabarum* and *aediles* were elected from *ordo decurionum* (*decuriones canabarum*), which was presumably formed from consistentes. The quasi-municipal administration of the canabae is attested as early as during the reign of Hadrian. An inscription (CIL III, 7474) discovered at Durostorum shows that canabae were called Aeliae, demonstrating thus the increasing importance of this communities: *To Jupiter Best and Greatest, for the welfare of Emperor Caesar Titus Aelius Hadrian Antoninus Augustus Pius and Verus Caesar, Gnaeus Oppius Soterichus and Oppius Severus, his son, constructed at their own expense the shrine and statue on behalf of the Roman citizens and those who dwell in the Aelian canabae of Legion XI Claudia. It was dedicated by Tiberius Claudius Saturninus, legate of the Emperor with propraetorian power* (after B. Campbell, The Roman army, 31 BC - AD 337: a sourcebook, London, 1994, p. 146, no. 244).

A settlement existing at a certain distance from the legionary base usually took the shape of a village – *vicus*. These settlements contained workshops and dwellings and related farmland and cemeteries, and were distinguished from *canabae* by their size and also by the fact that there were probably fewer Roman citizens in them. The mixed Roman and local population formed a community of vicani with its own administration represented by a magister vici or curator vicanorum. The settlement which developed further could be granted municipal rights. This could be the case of Ostrite Mogili, near legionary camp of Novae (Svistov, Bulgaria), where Polish archeologists made in the last years important research and discoveries (Tomas 2004(2007)).

The *canabae* provided goods and services for soldiers, supplementing such goods as were provided by the state, mostly manufactured locally or in the rural hinterland. Apart from the farms existing in the interior, pottery, stone works, and wine were transported from vicinity. Other merchandises were imported from further regions, most often this are luxury or better-quality products. It is commonly accepted that agricultural activities were not that important. Crafts, trade, and services were the most crucial activities of the civilian residents. Although supply distribution points existed inside the camp, it is possible that traders were allowed to enter the camp and sell their products, even when such activities weakened military discipline and were the source of chaos in the camp or fort.

The population included families of soldiers and providers of services, e.g. innkeepers, traders and artisans, as well as slaves and servants of individual soldiers (servitia castris). Soldiers with their dependants and camp-followers formed a specific civil and army community based on close family ties.

The excavations in the *canabae* of Singidunum revealed the baths, a square, various buildings, as well as necropoleis (Pop-Lazić 2002). In Viminacium, it has been possible to establish the location of various streets, aqueducts, and more recently – residential buildings and the amphitheatre. (Spasić-Đurić 2002). Recently, using modern research methods the location of the legionary camp in Troesmis and the identification of its hinterland was done. (Alexandrescu, Gugl 2015; Alexandrescu, Gugl 2016). The buildings of the *canabae* at Durostorum, studied for many years, has already been published a number of times, while quite recently excavations were also done in the vicus (Damian, Bâltâc 2007), while almost nothing is known about the neighbourhood next to the camp in Oescus (Gigen). According to archaeologists, the canabae could be placed on the territory of the later annex (Oescus II). Within the radius of 2 km around the military camp of Novae settlements traces were localized, among them: *canabae legionis*. The area extended to the West, on the way to Svištov for about 1.5 km was occupied by the *canabae* and there are some indications that the area covered by the later Novae II extension (a fortified annex) belonged to the former civilian settlement of the *castrum*. *Canabae* occupies an area of about 70-80 ha, during the period between 1st and 4th centuries, while latter became smaller, of about 20-30 ha (Tomas 2017).

Throughout the early empire, legionary veterans from the Lower Danube will choose to settle in the immediate vicinity of the legion's headquarters where they were active during the military service, while for veterans from the auxiliary units, their movement to settle down in no-Roman areas further to the south is observed only in the 2nd-3rd centuries AD. The veterans will perform various administrative functions in the respective settlements, some of which even reached the legal status of municipium or colony. Those settlements represent the sites of interaction between soldiers and a range of other groups and gave rise to cultural exchange (Mrozewicz 1982). As we move further south, we notice that the anthroponyms continue to be local, and pottery and even funerary practices preserve many of the local traditions as in other border areas of the Roman Empire. Moreover, the results of recent research undertaken in the rural area around Nicopolis ad Istrum reveals the low-grade contact or interaction between the local population and the military camp on the Danube, in terms of exchange goods or the provision of different services for the army (Weaverdyck 2021).

As a general feature of the Lower Danube, it can be said that the previously fortified settlements of the local inhabitants are likely to have been abandoned and the population moved to open settlements, which are easily controllable areas. The presence of fortifications, which could represent focal points for revolts, could not be accepted by the Roman state in a new zone included within the borders. In this region, this function will be taken up by the Roman camps along the limes (Panaite 2016).

During the Principate, the term of service in the legions varies from sixteen to twenty and later twenty-five years. Since the reign of Augustus, Roman soldiers were legally forbidden to have recognized marriages. The emperor Septimius Severus has granted them the right to

„live with" (to marry) their wives, and so wives and children had come to be considered typical features of soldiers' lives. By the 4th century CE wives and children had become a normal part of the military life.

Although, it has been suggested that both female family members and female slaves were present in the camps, based on finds of personal adornment, shoes, spindles and toiletries, it was only confirmed in Vindolanda, in the fort at Ellingen (Sablonetum) in Raetia, and in the legionary fortress at Vindonissa (Allison 2006a, 2006b).

Another source of information is represented by inscriptions. According to a study made on this kind of sources ten out of the 42 women known from Novae were certainly related to the military. There are two cases of presumably active soldiers who commemorated their wives. The first is a freedwoman commemorated by a trumpeter (*cornicen*), most probably of the First Italic Legion, and the second case is of a centurio who commemorated his one-year-old son (Tomas 2015). Also, a few categories of small finds associated or possibly-associated with women have been found in Novae (Tomas 2011).

According to studies made for the Danubian provincies, among the wives of the Danubian legionaries in the 2nd and 3rd centuries, 3-14% are certainly freedwomen, while among the wives of the soldier of the *auxilia* they constitute some 9-21% (Pfang 2001). Instead, there is not as much epigraphic evidence for soldiers'children.

Numerous women, innkeepers, landladies, moneylenders, shopkeepers, entertainers, etc. were bound to the army by economic ties.

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4.7. Life Along the Limes: An Insight into Roman Social History

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4.7.1. What Does Social History Mean?

Social history describes the development and structure of a society during a certain period of time, particularly the life of people of varied social layers in the respective society. In addition, social history explores how the people of those times dealt with their basic needs and how they satisfied them.

This chapter deals with the life of people – Romans and Non-Romans (*peregrini*) – who lived along the Danube limes. Until now, limes science has focussed primarily on the life of soldiers living in the forts along the fortified limes. In this context, however, also the local civilian population must not be forgotten.

The Danube limes existed for several hundred years as a trade and border area. During those times, there were constant changes in the social structure as well as in daily life. Therefore, only a general survey can be provided on the various individual topics.

4.7.2. Building Types

The Romans imported their typical building types to the provinces administrated by them. Therefore, traditional local pit-houses as well as Roman strip-houses can be found.

In the course of the imperial period, civilian settlements developed in the neighbourhood of almost every Roman fort along the Danube limes, where, above all, merchants and artisans but also relatives of the soldiers took up residence. Those settlements were normally located along the main arterial roads of the camps and had the same basic construction.

Along the main streets, narrow rectangular houses were built, often standing closely side by side, their short sides facing the street. These buildings were mostly built of wood and up to 30 meters long but generally only 6-12 meters wide. The entrance was on the short side facing the street; in the front were workshops or sales rooms, the private rooms were in the back. Due to their form and longish layout, archaeologists today call them Roman strip-houses (Fig. 4.7.1).

In big Roman cities, in addition to strip-houses, there also existed villa-like houses, built of stone around an inner courtyard, so-called Peristyl houses (Fig. 4.7.2). Many of those Roman houses had underfloor and wall heating, the so-called *hypocaustum*. Remains of such heat-

ing systems, which consisted of columns underneath the floor and hollow bricks in the wall, can still be found in archaeological excavations.

The Celts lived either in little homesteads or small settlements; there were only few larger Celtic towns which were called *oppida* by the Romans. The homesteads generally included some farm buildings, extending over an area of not more than 10,000 m^2 and were enclosed by a hedge or fence. The typical Celtic-Germanic construction form was the so-called pit-house: The house was built in a pit, its entrance led downwards and its roof almost touched the top edge of the pit.

Beside the settlements and Celtic homesteads, Roman estates and big farms (*villae*) could be found, which were typical for the Roman hinterland as it is called today. In those places, the everyday necessities for the nearby settlements were produced, e.g. wine, pottery, or fruit and vegetables in large quantities. Often slaves worked in those estates and farms.

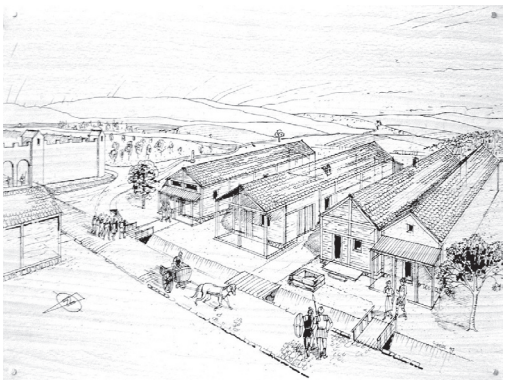

Fig. 4.7.1. Reconstruction of strip-houses. ©wikimedia/Dr. Marnik Wastyn, https://de.wikipedia.org/wiki/Datei:Rekonstruktionszeichnung_mehrerer_Streifenh%C3%A4user.jpg (05.05.2021)).

Fig. 4.7.2. Model of a Peristyl house. © wikimedia/JordiCuber, https://commons.wikimedia.org/wiki/File:Dionysosmosaik_(5).jpg (05.05.2021).

4.7.3. Alimentation

Thanks to several findings, we know about the food and nutrition of the Roman population along the Danube Limes. Such archaeological objects included for example figural balance weights, cutlery made of metal, e.g. spoons and knives (Fig. 4.7.3), as well as tableware such as plates, bowls and jars made of clay or metal and cookware, such as pots and sieves (Fig. 4.7.4).

Fig. 4.7.3. Knife from Carnuntum (Inv.Nr. CAR-M-1781).
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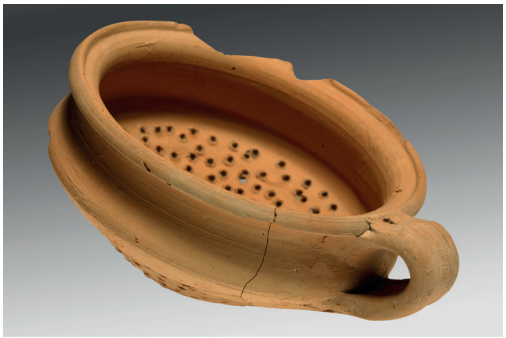

Fig. 4.7.4. Roman sieve (Inv.Nr. CAR-K-3500).
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In addition, at archaeological excavations, biological material of edibles is often found, such as oyster shells, date kernels and animal bones. In a late antique legionary bakery in Carnuntum, archaeologists uncovered a hand mill for grinding grain as well as dough remains and charred bread loaves.

Besides archaeological findings, preserved stone inscriptions also prove the origin of food. An inscription from the Carnuntum legionary camp mentions the profession of a *pecuarius*, who was responsible for cattle herds that belonged directly to the military.

Food was considered as either produced by the soldiers themselves (own herds, baking bread, ...) or purchased from the people in the surrounding area. The soldiers were entitled to a basic supply from the army. Everything beyond that, the soldiers could buy from traders or it was sent to them by their families.

The staple food of the soldiers and civilian population was grain, which was used to produce not only bread but, above all, a special extremely nourishing porridge, which the Romans called *puls*. It was the basic food of the soldiers, because it was easy to prepare, even on the road. The most important cereals in Roman times were spelt, barley, millet, rye, emmer, oat and einkorn wheat. Besides cereals, people ate regional and seasonal vegetables, cultivated above all on Roman estates in rural regions, which archaeologists today call *villae rusticae*.

Legumes, such as lentils and peas, and bulb and root vegetables, such as onions and celery, were very popular, but also leek, purslane and salads were cultivated. Besides vegetables, the following fruits were widely consumed: apples, pears, cherries, plums, several berry varieties, such as blackberries and gooseberries, as well as hazelnuts and walnuts. One of the most important side dishes for meat dishes was the European chestnut.

Information about the vegetable and fruit varieties known and consumed is provided not only by written evidence such as soldiers' letters, but above all by archaeobotanical finds (for example, fruit remains and seeds) discovered during archaeological excavations in garbage pits, fire layers and at the bottom of utilitarian dishes.

The Romans already used a great variety of regional herbs that grew in the Danube region to flavour their meals, as for example dill, coriander, basil, fennel, savoury and parsley. In addition, a spicy paste called *garum*, made of salt, fermented fish and spices, was imported to the Limes regions. To produce oil, flax was grown in the Limes area, in addition, olive oil was imported from Rome.

The animal bones found at Roman settlements and military places on the Limes show that the most important meat was probably beef, followed by pork. The Romans brought their own cattle breed to the limes area, which was bigger and had more flesh than the local Celtic animals. In addition, sheep and goats were eaten, but they were kept primarily to provide milk for cheese production. The bone findings also show that the people also consumed all kinds of poultry (chicken, duck, and goose).

Besides meat, also locally caught fish was served. The Romans knew how to fish with fishnets, harpuns and hooks. Ancient authors such as Pliny describe in detail the work of fishermen with their tools, and fishing hooks made of bronze can be found in many museums along the entire Limes, for example also in Austria and Slovenia. Seafood and mussels were imported from the Mediterranean regions and were part of the so-called "imported luxury goods".

The Roman upper class, as well as wealthy Roman merchants, also maintained a standard of living in the Roman provinces, for which they had various luxury products imported from the Mediterranean. This concerned both the nutrition and the housing situation. For this reason, for example, oyster shells, date and olive seeds and snail shells are found in garbage pits in Noricum.

Glazed Roman tableware (*terra sigillata*) was also one of the luxury products found throughout the Roman Empire, and thus also at the Limes, and was usually imported from the Italic region. For the Pannonian-Norse area, the popular tableware was often also produced in Gaul (southern France). The origin of archaeologically preserved individual pieces can often be traced by trademarks or manufactory labels. For example, pottery from Gaul is found several times in Carnuntum.

In terms of beverages, wine from Spain, Italy and southern France can be traced to the Austrian Limes. The remains (shards) of corresponding transport vessels, the wine amphorae, serve as evidence.

The Romans' most important beverage was wine. In antique times, wine was never drunk pure; it was always diluted with water and often blended with herbs. In order to store wine

for a longer time, it was often blended with resin. Although, according to literary sources, wine was already cultivated in Noricum (today Austria), there is not a single Roman wine-growing district known.

The wine containers that were found prove that wine was imported to the Danube limes from Spain, Italy and southern France.

The Romans were also acquainted with beer; however, it was mostly the Celts who consumed it and beer has never become a popular beverage among the Romans in the Mediterranean area. However, in the provinces along the Limes in today's German-speaking areas beer was a popular drink among the soldiers. It was brewed from wheat, spelt and barley; hop was as yet not used. Possibly, they added yeast instead. In any case, they used additives such as oak bark and honey which modified the taste and helped to preserve the beverage for a longer time.

4.7.4. Family Life

In the civilian towns near the legionary camps along the limes lived not only the relatives of the soldiers but also many artisans and merchants with their families. In the settlements and towns, they earned their living mostly as small entrepreneurs, and in the course of time, they intermarried with the local Celtic population.

This intermixture can be seen above all on the gravestones that have survived, which very often show a man in Roman dress beside a woman in Celtic costume. Only free Roman citizens were allowed to marry, slaves had no right to marry until the 3rd century CE.

The head of a Roman family was the *pater familias,* who had to take all decisions within the family and was also responsible for the veneration of the household gods. The patriarch had to officially declare his own children after their birth as family members. Women and children were completely dependent on the *pater familias*. The child mortality in Roman times was quite high; many families had up to twelve children.

Children were not only offspring, especially in the artisan class they also worked in the family business. Nevertheless, most of the Romans could read and write, as a basic school education was offered to almost all children. Children of wealthy families generally had their own private teachers.

4.7.5. Clothing

The clothes of the Roman and Celtic population in the Danube area were made of plant fibres (cotton, linen) and animal fibres (wool, felt, leather). The production process can be deduced from findings, such as spindle whorls and loom weights made of clay or bone, bronze thimbles and needles and needle containers made of clay or bone, as well as from pictures on antique objects showing the work process. The clothes were elaborately dyed with natural colours and partly embroidered with braids. Instead of buttons, they used *fibulae* and belts as fasteners.

The traditional Roman everyday dress for men and women consisted of a mid-length under-clothing with short sleeves (*tunica*), which reached down to the knees and was combined with other parts. A *tunica* was also worn by workers. As of the 3rd century CE, a *tunica* could also have long sleeves and reach down to the floor.

Men who were Roman citizens wore a *toga* consisting of one long panel of fabric over their *tunica*, and women dressed in a kind of longer *tunica*. Over this, they wore coats and scarves. Married Roman women also wound a long shawl, the so-called *palla*, around their body which also covered their hair. In the province, the women preferred hoods.

In colder regions, the Romans also adopted some local clothes which were quite comfortable and well adapted to the weather conditions, for example, a hooded traveller coat (*cucullus*) made of wool or leather, as worn by the Celts. This coat became an identifying mark for merchants and can be found on gravestones and wall paintings. On one gravestone from the Austrian city of Enns, the members of a merchant family are portrayed wearing these typical coats (Fig. 4.7.5).

The trousers, which reached down to the middle of the lower leg (*braccae*), were passed on to the Romans from the Gauls and Dacians. As of the 2nd century CE, these trousers made of wool or leather were part of the Limes soldiers' uniform, as can be very well seen on the Trajan Column in Rome.

Especially sepulchral steles showing pictures of the dead are an excellent source of information on the people's clothing style in the provinces. Particularly interesting in historic terms are the depictions of women, who were often portrayed wearing elaborate local costumes with traditional headgears, jewellery and *fibulae*. Their portraits beside men wearing Roman clothes also give evidence of the intermixing of cultures.

Fig. 4.7.5. Men in capuchins, detail on a gravestone
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Most of the portraits of women wearing local clothing date back primarily to the 1st and 2nd century CE. Pannonian women wore a fur cap, women from Noricum and Raetia a cloth hood, in the border areas the two dress styles often intermingled. After the 3rd century CE, the hoods slowly disappeared from the images as Roman dresses began to replace the local clothes.

This gravestone (Fig. 4.7.6) shows a woman's bust with a Pannonian hood and wing fibula on the shoulders, a typical accessoire. With her right hand, the woman named Umma pulls together her woollen coat.

Beside wing fibulas existed also other types, for instance cross bow fibulas (Fig.4.7.7). Brooches are often excavated from graves as burial objects.

Men are often depicted in the Roman *toga* to underline their social status as a free Roman citizen; sometimes they also wear a *tunica* with a cape over it, which is held together on the shoulder by a fibula. Whereas in many pictures women often hold an apple in one hand, many men are shown holding a scroll in their hands.

The Romans had different kinds of shoes made of leather or cloth, as for example sandals (*soleae*), closed shoes (*calcei*) and shoes made of one single piece of leather (*carbatinae*). The legionnaires wore heavy, nailed soldier sandals, called *caligae*. Even today, remains of leather footwear are still found in archaeological excavations.

Fig. 4.7.6 Copy of Gravestone of Umma second half of the 1st century CE (Kat. 974, Inv. Nr. CAR-S-699).
© Landessammlungen NÖ, Archäologischer Park Carnuntum / N. Gail

Fig. 4.7.7. Cross bow fibula, 4th century CE (Inv.Nr. CAR-M-2796).
© Landessammlungen NÖ, Archäologischer Park Carnuntum / N. Gail PROBEX

In the second volume of the Tropaeum Traiani monographic series, dedicated to the well-known Triumphal Monument, erected by Trajan în Adamclisi (Constanța Country, Romania), the author Mihai Sâmpetru deals with the problem of the depictions of prisoners on the battlements. Based on the conclusions of Tocilescu, Benndorf and Niemann, he identified three groups of peoples: fighters with felt hats and side slit shirts, considered to be Dacians (Fig. 4.7.8); bare-chested warriors with their hair tied in a knot at their temples – considered of Germanic origin, Burians or Suevians (Fig. 4.7.9), as described in Tacitus' *Germania*, and captives with their heads uncovered, wearing long-sleeved garments, which reach below the

knee and are untied from the chest downwards, considered to be Muntenian people, living in the north (Fig. 4.7.10). At the same time, Sâmpetru was the first researcher who, using these criteria, undertook a kind of statistical study of the prisoners depicted on the 23 surviving merlons. According to the above order, Sâmpetru identified twelve, six, and five prisoners respectively. Returning to their description, Alexandru Barnea's opinion was that the latter were Parthians. This assumption is not only based on their specific clothing and hairstyle but also on the literary sources which prove Parthian involvement in the conflict: a result of diplomatic contact between Decebalus and the Parthian king, Pacorus. On Trajan's Column, only the first two groups identified by Sâmpetru appear, namely in scenes XXXI–XLIV. In contrast, the third group does not appear at all. Instead, the Sarmatians appear on the Column before the battle of *Nicopolis ad Istrum* but are not represented among the prisoners from the monument at Adamclisi.

Fig. 4.7.8. Fighters considered to be Dacians.
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Merlon II, 68 fig. 6.1

Fig. 4.7.9. Warriors of Germanic origin.
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Merlon I, 68 fig. 6.3

Fig. 4.7.10. Captives considered to be Muntenian people.
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Merlon XVI, 68 fig. 6.6

4.7.6. Cult and Religion as Part of the Provincials' Social Life

The Romans peacefully integrated several peoples into the Roman Empire. They were successful, because they allowed the people in the new Roman provinces to keep their traditional local cults and ceremonies, as long as they accepted the Roman emperor as omnipotent ruler and practiced the emperor cult. This cult included the religious worship of the current emperor

as well as of the departed emperors. Through this cult, the people should identify themselves with the Roman Empire.

Many locals in the provinces, especially the members of the upper class, soon adopted the entire Roman lifestyle, including the Roman cults.

4.7.6.1. Mortuary Cult

In the Limes region, one can find a mix of Roman and Celtic mortuary cults, just as the people intermixed. The Roman custom, to erect a stone memorial in the form of a stele with a Latin inscription for the deceased was soon copied by the local people. As of the 2nd century CE, numerous grave steles were created, which show pictures of men, women, children and even of entire families. The Roman custom had prevailed over the Celtic burial mound.

From the 1st to the 3rd century CE, the dead in the Danube limes area were mostly cremated and buried in an urn. The burning of corpses on funeral pyres took place in a special cremation place on the edge of the settlements. During this ceremony, also beverages and dishes were sacrificed. The dead were then buried in an urn or another container in a pit together with burial objects, such as oil lamps. Above the pit, they erected a stone stele, which was subsequently painted. As of the 4th century CE, more and more inhumation burials were carried out, as a consequence, among other things, of Christianisation.

The graveyards were always located outside of the settlements, mostly along the main roads, so that travellers could see the graves as a first and last impression of a town.

Roman soldiers were often depicted with their weapons and armour on their gravestones. Families were buried in family graves (Fig. 4.7.11). The inscription on the steles indicated the name, origin and profession of the dead, as well as the name of the grave sponsor. In some cases, the deceased were buried together with some personal objects, such as jewellery or tools. Interestingly, in *Noricum* and *Pannonia* weapons were never found in the soldier graves.

4.7.6.2. Household Gods

Besides the typical Roman gods, such as Iuppiter and Mercurius, every Roman family had its own domestic gods, the so-called *lares*. These were protective deities guarding the estate and house. Originally, they were also regarded as the custodians of crossroads and fields. In their honour, small altars were often erected in the courtyards of the Roman houses and decorated with little statues. They were also closely connected with the *genius* (Fig. 4.7.12), the individual guardian spirit of the property owner. Both types of deities were worshipped on the

occasion of major events in the Roman family life, such as births, deaths, marriages, and they were regularly offered sacrifices.

Fig. 4.7.11. Gravestone of Privatius Silvester and his 12-year old daughter.
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Fig. 4.7.12. Genius, figurine (Inv.Nr. CAR-M-2574).
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There exist several *lar* depictions dating back to the period of the Roman Empire: busts, full-body statues, paintings, mosaics and little figurines, all of which only show men. It is quite interesting, that full body *lares*, often depicted in sacrifice scenes, are almost always dancing.

4.7.6.3. Gods in Everyday Life

In the areas along the Danube limes, various Roman gods were venerated. For example, Mercurius, the god of trade, was very popular in this economic region. He was often shown together with Minerva, the goddess of sanity and wisdom, and Apollo, the god of the muses. In addition to the typical Roman gods like Iuppiter and Iuno, especially Mars, the god of war,

was important for the Roman soldiers in the forts along the Limes. Furthermore, every Roman legion had its own gods (*genii*), who were worshipped in a small temple within the camps.

In the Roman civilian settlements, the remains of several temples were found dedicated to various gods, as for example to Asclepius, the god of medicine. But also, little statuettes give some indication of the most popular gods: along the Limes, figurines of Iuppiter, Mars, Eros, Hercules, Mercurius, Diana, Venus and Fortuna were found.

4.7.6.4. Immigrated Gods

In addition to Mars, the god of war, who was often worshipped together with Victoria, the goddess of victory, the soldiers also imported new cults to the Limes region, most of them originating from oriental areas, as for example, the Mithras and Isis cults.

The Mithras cult derives originally from the Iranian – Persian culture (Middle East), and, since the end of the 1st century CE, was also practiced in the military camps on the Limes. The subterranean sanctuaries with large depictions of Mithras as bull killer are typical of this cult (Fig. 4.7.13).

Fig. 4.7.13. Mithras as bull killer, cult image from Carnuntum (Kat. 80, Inv. CAR-S-97).

Also, the Egyptian goddess Isis was venerated in the Limes provinces. Like Mithras, it was mostly the soldiers who introduced her to the area. She was above all regarded as a goddess of women, who venerated her during special festivities and called on her for a good birth.

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4.8. Religion and Cults

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During its expansion, the colonial policy of the Roman Empire had been manifested in the dissemination of the Roman gods. The new and foreign gods were attempted to be incorporated by the natives into their own world of faith, in many cases matching them to their own gods. Consequently, a unique religious systems appeared in the different territories of the Roman Empire, and the variety and mixtures of religions and cults reflected in the construction activity in the Roman provinces.

Silvanus, considered by the Romans to be one of the chief gods of Pannonia, had a manifold meaning for the people of the province. This fact may also explain why the number of Silvanus inscriptions found in Pannonia is surpassed only by those mentioning Iuppiter. Nevertheless, only a few examples of the god's built memorials remained. Similar to Silvanus, other gods, such as Mercurius, Mars or Diana, were not presented and worshipped in the same way as in Rome, but in many cases images of gods were endowed with new attributes and qualities.

Presumably, only the reverence of the **Capitoline Triad** resembled in the whole Roman Empire. Their temple, as site for the cult statues of the triune, was typically located right next to the forum (Fig. 4.8.1). It always consisted of three rooms (*cellae*), each of them assigned to one of the three Capitoline divinities – **Iuppiter, Iuno** and **Minerva** – and provided with a corresponding cult image.

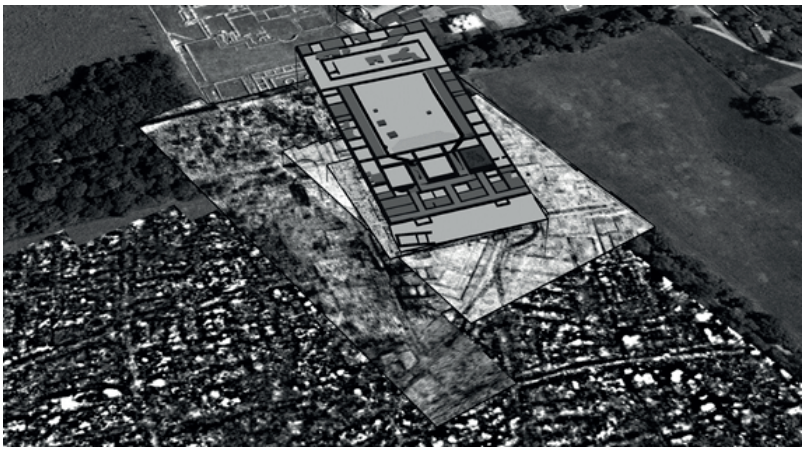

Fig. 4.8.1. The Roman Capitoline Triad temple at the longitudinal axis of the forum in Carnuntum: Perspective view of the archaeological interpretation of the forum of Carnuntum (top), based on the integrated analysis of the aerial (bottom layer), magnetic (layer 1), earth resistance (layer 2) and GPR data (layers 3 and 4).

A very important role in the religious life of the provincials had also the **Imperial cult**. Since the reign of Augustus, the Imperial cult was used as a political tool strengthening the bond between the emperor and the citizens all over the Empire. For soldiers in particular, this was a crucial connection, since the emperor was their supreme commander and the mutual loyalty between him and his troops had to be upheld at all times.

In addition to revering the traditional Roman gods and the emperor, other cults appeared along the Danube limes, according to the origin of the troops that were often recruited in the southeastern parts of the Empire. They brought new cults with them and particularly the eastern cults have attained a lot of followers providing them with the prospect of a contented life after death.

The adoration of **Iuppiter Dolichenus** in 2nd and 3rd centuries CE spread especially among soldiers. Memorials of the cult are therefore located near military camps all along the northern border of the Empire, including the provinces along the Danube. The cult of Iuppiter Dolichenus evolved from the consecration of the warrior god from the Syrian city Doliche in Commagene (today Dülük in southeastern Turkey), which stems from the Baal cult. Following the Roman occupation of *Commagene* in 71 CE, Syrian soldiers, merchants, and slaves reached various parts of the empire, thus contributing to the spread of the adoration for Iuppiter Dolichenus. His followers were mostly found among the army in the Danube provinces and the Rhine region due to the stationing of Syrian units.

Figs. 4.8.2-4. The Symphorus Mihtraeum in Aquincum, Budapest, Hungary. (Source: Budapest History Museum Aquincum Museum. With special thanks to Orsolya Láng and Ilona Lovász for the figures.)

The cult of **Mithras** came to the area via Italy during the 2nd century CE. It is a mystery cult that is often practiced in underground grottos or in cave-like cult rooms by its adorers. The central motive on the Mithras monuments is the so-called tauroctony or bull-killing scene which shows Mithras killing a bull. Other important symbols in connection with this cult are the snake, dog, raven and scorpion, sometimes additionally also a lion and a chalice. The Pannonian settlements of the ethnic groups with eastern origin, mainly from Syria, played a significant role in the spread of the cult. This aspect resulted the existence of communities in *Poetovio*/Ptuj, *Carnuntum*/Bad Deutsch-Altenburg – Petronell, *Savaria*/Szombathely, Fertőrákos and *Aquincum*/Budapest (Fig. 4.8.2-4) as well as at further towns in the Danube provinces during the middle of the century.

Among the various cults with Oriental origin, the one which is connected to Mithras earned the most followers in the Roman Empire. The adoration of the Iranian god of light, Mithra, dates back to the 14th century BCE in Persian territories. Nevertheless, the Roman cult of Mithras has only a limited resemblance to its ancestor. Therefore, two theories are known about the origins of the reverence for Mithras in Rome. The one side argues that the Roman Mithras religion derives from an ancient Iranian cult, although it has gone through significant transformations, while the other conception is that the Roman cult has developed independently from the Iranian cult.

Nemesis was originally the goddess of both bad and good luck. This is indicated by the origin of the name: νέμειν, with the meaning of "to give what comes". In Rome, during the imperial era, the victorious generals revered the goddess often called Invidia or Pax-Nemesis, and those who fought on the battlefield adored Nemesis Campestris with religious belief.

She was also the guardian of gladiators and venators, thus, Nemesea were mostly built in the immediate surroundings of amphitheaters. So far, shrines of Nemesis have been found at different sites in the Danube provinces: in *Flavia Solva*/Leibnitz, *Salona*/Solin, *Ulpia Traiana Sarmizegetusa*/Sarmizegetusa, *Porolissum*/Moigrad-Porolissum, in the civil town and the military town of *Carnuntum*/Bad Deutsch-Altenburg – Petronell, the civil town and the military town of *Aquincum*/Budapest and integrated in the amphitheatres of *Savaria*/Szombathely and *Scarbantia*/Sopron.

There was a significant community of admirers of Nemesis in *Aquincum* in particular, as evidenced by numerous inscriptions with dedication of Nemesis Regina, Nemesis Augusta, Nemesis Omnipotens – and proved by the statue of Fortuna-Nemesis excavated at the governor's palace and on the Western side of the amphitheatre of Civil Town in *Aquincum*.

Another important cult in the provinces along the Danube was the one of **Isis**. Important sanctuaries of this deity are the Iseum of *Savaria*/Szombathely and the temple in *Scarbantia*/Sopron.

In addition, the native population should not be forgotten either, as they also had their indegenous gods before the Roman conquest. For a long time, their cults were also preserved – some cults continued to be performed in their original ways but other indigenous divinities were identified with some Roman gods and the cult practices were adapted. Shrines were still erected for these gods in the early stages of the Roman conquest. Therefore, Celtic shrines have been found at several places. By and by, their personalities either merged with those of Roman gods or the memory of them faded.

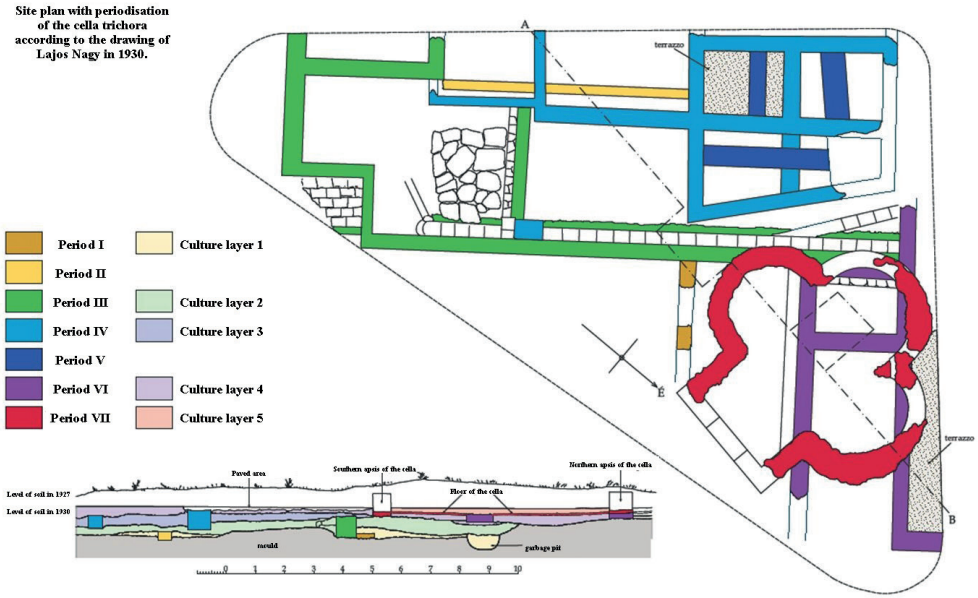

Fig. 4.8.5. Site plan with periodisation of the *Cella Trichora* – an Early Christian burial chapel – in Aquincum, Budapest, according to the drawing of Lajos Nagy in 1930. The drawing was made by Zsuzsanna Emília Kiss, 2016.

In the late phase of the Roman era, Christianity gradually appeared and conquered along the Danube. There were no consecrated buildings or churches used for liturgy before the 4th century and Christian communities gathered in private houses to pray and sit agape. During the 4th century the first churches were built (Fig. 4.8.5), and Christianity increasingly prevailed in the Danube provinces.

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4.9. Spiritual Exchange Between the Romans and the Local Population in the Eastern Danube Province

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Spiritual and cultural exchange between Romans and local population in Lower Danube lands flourished after Thrace and Moesia were completely conquered. The evidence of connection of Lower Danube Limes realities to pre-Roman Thracian culture and spirituality are the deities, worshiped by the Roman population. Some of them are Kybela (Cybele, Cibila - https://www.worldhistory.org/Cybele/), Dionisios, Atis, Orpheus, etc. As Professor Alexander Fol concluded in his academic research, the Thracian religiosity obtained a broad Mediterranean context in the Roman empire.

4.9.1. The Process of Spiritual and Cultural Penetration Between Romans and the Local Population in the Eastern Danube Province

The ingenious Roman principle at the heart of building a monolithic Roman empire, established and successfully applied all over the times till today, is “Divide and rule!” This principle was repeatingly used by Romans in Thrace and Moesia. For example, after the victory of Krasus against the Thracians Bessi (Bessae), he handed over the famous sanctuary to Dionysus in favor of the Odrysians, who were Roman allies. In the same way, Krasus intervened in the conflicts of the Getae (living in the lands of present-day Northeastern Bulgaria) with its neighbors and made them dependent on Rome, as well as their neighboring Black Sea Greek colonies. This principle, applied in Thrace and Moesia, led to incorporation of the newly conquered people into Roman society, by giving them citizenship and Romanizing them. The Thracian aristocracy and elite had willingly accepted and actively aspired Roman citizenship and culture, which led to a strong mutual social, economic and cultural homogeneity.

For example, many historically important Roman personalities, as seen from their biographies, were entirely or partly of Thracian ancestry. Some of them are:

- Flavius Aëtius, born in Durostorum Moesia Inferior [modern Silistra, Bulgaria]—died September 21, 454 CE): A Roman general and statesman with a dominating influence over the Emperor Valentinian III (emperor 425–455 CE). For 25 years, Aetius successfully repulsed raids on the possessions of the Western Roman Empire as a military commander and in fact the head of the empire under the weak Emperor Valentinian III. Aetius is best known for his victory over Attila at the Battle of the Catalan Fields in 451 CE.
- Gaius Julius Verus Maximinus, Maximinus Thrax, Roman Emperor from 235 to 238 CE, born in Lower Moesia, Eskus or Ratiaria (South Danube bank, todays Bulgaria). He was the first "barbarian" (without Roman citizenship) on the throne. During his reign, he never visited Rome, as he campaigned in the province of Germania
- Leo Thrax Magnus, Leo I, Eastern Roman emperor from 457 to 474 CE, A Bessian Thracian, born in Dacia Aureliana.
- Lucius Domitius Aurelianus, a remarkable Roman emperor from 270 to 275 CE, born in Ulpia Serdica (Today's Sofia), who defeated all the enemies of the empire and was given the title Restitutor Orbis (The Restorer of the World).
- Flavius Valerius Aurelius Constantinus (Constantine the Great), a Roman emperor from 306 to 337 CE, born in Naissus, Moesia.
- Spartacus, originating from the Thracian Bessi people, enslaved after a battle against Romans (Crassus) and taken to Rome; he led the slave uprising that had shaken the empire in 73–71 BCE and defeated several Roman legions during the Third Servile War.
- Gaius Galerius Valerius Maximianus, Roman Emperor from 305 to 311 CE; born in the area of Serdica (today's capital of Bulgaria, Sofia).
- Gaius Valerius Galerius Maximinus Daia, Roman emperor from 310 to 313 CE, born in Moesia.
- Justinian the Great, the Byzantine emperor from 527 to 565 CE, born in Moesian Dardania province, a founder of the Justinian dynasty (his Thracian name was Sabazii).
- Valerius Licinianus Licinius, Roman emperor from 308 to 324 CE, born in Moesia.
- Flavius Marcianus, Eastern Roman Emperor from 450 to 457 CE; born in Thrace.
- Belisarius, a famous general of the Roman military tradition in the times of the Byzantine emperor Justinian I (527–565 CE), born in Germane (nowadays Sapareva Banya in Bulgaria); leading campaigns for reconquering Mediterranean territory of the former Western Roman Empire and heading the imperial armies against the Sāsānian empire (Persia), the Vandal kingdom of North Africa, the Ostrogothic regime of Italy.
- Etc.

4.9.2. Spiritual Life of Local People in Moesia and Thrace Before and During Roman Times

The Lower Danube limes zone is one of the regions of the Roman Empire for which quite a wide range of ancient written descriptions have been preserved. Among the authors are Gaius Suetonius Tranquillus, Édouard Schuré, O. Alexandrov, Al. Fol, Matthew A. Sears, etc. Thanks to their writings one gets to know a lot of details on the life in the Lower Danube Limes. But, of course written sources have to be interpreted carefully and critically, since they provide a specific, sometimes politically determined view on the subject. Written sources could often be subjectively presented or even misinterpreted by the ones who comment on them, as well.

Greek and Roman authors, such as Herodotus, Plato and Strabo, further the geographer Pomponius Mela, the Moesian-born Gothic historian Jordanes, the Neoplatonic philosopher Porphyry, who wrote about the Getic and Dacian divinity Zalmoxis, and others, also provide information on the spiritual life of the Thracians and the exchange between them and the Romans.

In the last 20 years, many archaeological excavations reveal knowledge on Roman times and the Lower Danube Limes, thus providing a lot of material to academic researchers. Some of these sites are Heraclea Sintica, Cybele's temples in the Laketown of Durankulak Lake and Balchik, the Sborjanovo complex of the Thracian kings' tombs in the ancient capital of the Getae, Helis, eastern Moesia, the Valley of Thracian Kings, etc., located on today's Bulgarian territory.

Over the millennia, the Thracians created a complex cosmology and ritual practices. They had a wide pantheon of gods, many of whom seem to have later been adopted by the Greeks and the Romans. Prominent examples of later cults that have their origins in the Thracian religion are the Orphism and the Dionysian Mysteries.

In the years of 1955 and 1956, the researcher Georgi Mikhailov published about 160 names of Thracian divinities. Some of the best known, being adopted throughout the Roman empire are described below:

The Thracian Hero, also known as the Thracian Horseman, or The Thracian Rider, was a central abstract figure in Thracian religion and was considered as protector of life and health of the people, the god of hunting, fertility, life and death, all in all their main god – all-knowing and all-hearing. He was always depicted on a horse holding a spear raised high in his hand. Stone reliefs of the Thracian Horseman are exhibited in Bulgaria's museums originating from Thracian times, through the Roman period and into the Middle Ages. The Christian church succeeded in making the Thracian religious altars and gods disappear from anybody's eyes, but the cult and rituals still continued, some of them even until today in several parts of the modern Bulgaria.

In Christianity, the Thracian Horseman was represented as St. George on horseback slaying a dragon. The cult of the Thracian Horseman is an example of mutual penetration of spirituality between Rome and the conquered Thracian lands that became adopted and widespread in the whole empire. His image was mostly depicted in shrines and burials in Thrace, Hellas and Rome. Such examples are the many tombstones of Thracian soldiers who had served in the Roman Army and had been stationed in Colchester, Britain.

The Thracian Rider was a demigod for Thracians. In Greek and Latin inscriptions he is identified as "the hero" (hērōs, heros, hērōn, heron, eron, etc.). According to Dimiter Detschew, the name of the Thracian Horseman was probably related to the Thracian term for "hero," *ierus, or *iarus. In Roman iconography and inscriptions he was identified with Asklepios, Apollo, Dionysos, Silvanus, and other divinities. According to an inscription from the city of Odessus/Varna (Bulgaria), the Horseman was also known by the Thracian name of Darzalas. He carried the epithets sōtēr ("savior"), iatros ("healer"), and even megas theos ("great god").

The existing artifacts of the Thracian Hero are the reliefs and statuettes in the context of rituals or funeral ceremonies. In the inscriptions, the Hellene's and Latin epithets were often adapting the cult to specific heroes – the persons, to whom the burials were dedicated. The epithets were usually toponyms, names of tribes, or attributes of the horseman, and were characterizing the persons who died. Not much is known about the specific ceremonies related to the cult, which were a combination of the Hellene's and Thracian beliefs, but they were definitely related to the afterlife and to healing.

Cybele (Kibela, Cybila) is another remarkable example of a Thracian (Phrygian) goddess that has been adopted by the Hellenes and Romans. In the Museum of Ancient Civilizations in Ankara, there is a huge statue of Kibela which has been found in Hattusa, the capital of the Hittite Empire, in Anatolia with a text saying "The statue of the Goddess Kybele, the Mother Kibela – a protecting deity for the Hittites. The Lydians called her Kibebe, the Thracians knew her as Kibela. The Phrygians called the Mother Goddess Kybele and worshipped her as their main deity "Mother of the Mountains and Mistress of the Land, Mother Nature".

Kibela has been worshipped by the Hittites in Anatolia already since about 3,000 BCE. Scientists and researchers accept that she was adopted by later peoples from them. It was the most natural for the Thracians, who, according to Herodotus, lived along the southern coast of the Black Sea in today's Turkey during the same time, to worship Kibela as well and to pass on the cult and mysteries of Kibela to the other Thracian ethnical groups that lived on the Balkans. There are even hypotheses that the Hittites are relatives to the Thracians, who settled west from the Bosporus, as during the severe wars they had with Persians and Egypt they often asked the Phrygians and other Thracians for help.

Greeks and Romans took the idea of Cybele as the Mother of the Gods. People were carving rock monuments and setting shrines and altars in her honor (Fig. 4.9.1).

Fig. 4.9.1. Statue of Kibela, Aegina, the first capital of Greece
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The Cult of Cybele in Rome

In Rome, Cybele became known as Magna Mater (Great Mother). The Roman state adopted and developed a particular form of her cult and recommended her as a key religious ally in the Rome's Second Punic War against Carthage (218-201 BCE). Roman mythographers reinvented her as a Trojan goddess, and thus an ancestral goddess of the Roman people by way of the Trojan prince Aeneas. There are a number of temples to the goddess' honour in Rome. The Temple of Cybele or the Temple of Magna Mater was one of Rome's most important temples.

The Ancient History Encyclopedia writes:

"Originally, the Cybelean cult was brought to Rome during the time of the Second Punic War (218 -201 BCE). At that time the Carthaginian general Hannibal was wreaking havoc in Italy, posing a serious threat to the city of Rome. The Sibylline Books, books of prophecy consulted by the Roman Senate in times of emergencies, predicted that Italy would be freed by an Idaean mother of Pessinus; to many, this meant Cybele. A black meteorite, representing the goddess, was brought to Rome from Asia Minor in 204 BCE. Miraculously, Hannibal and his army left shortly afterwards to defend Carthage against the invading Romans; a temple honoring Cybele would be built on Palatine Hill in 191 BCE. The cult eventually achieved official recognition during the reign of Emperor Claudius (41-44 CE). Ultimately, her appeal as an agrarian goddess would enable her to find adherents in northern Africa as well as Transalpine Gaul.

Due to its agricultural nature, her cult had tremendous appeal to the average Roman citizen, more so women than men. She was responsible for every aspect of an individual's life. She was the mistress of wild nature, symbolized by her constant companion, the lion. Not only

was she a healer (she both cured and caused disease) but also the goddess of fertility and protectress in time of war (although, interestingly, not a favorite among soldiers), even offering immortality to her adherents. She is depicted in statues either on a chariot pulled by lions or enthroned carrying a bowl and drum, wearing a mural crown, flanked by lions. Followers of her cult would work themselves into an emotional frenzy and self-mutilate, symbolic of her lover's self-castration."

Today's Europe still remembers Cybele/Kibela. In Madrid, on the Plaza de Cibeles, there is a neoclassical fountain called the Fountain of Cybele (in Spanish: Fuente de Cibeles, or simply, La Cibeles). The sculptural group in its centre represents Cybele, the Phrygian earth and fertility deity. It has become one of the icons of the modern city. The fountain is the site where soccer enthusiasts come together to celebrate Real Madrid's trophies as well as the successes of the Spanish national team.

Madrid's Fountain of Cybele has a replica that bears the same name and is located in Mexico City. It introduces the goddess Cybele as the Roman goddess of fertility, who wears a crown and carries a scepter.

The understanding is that cult of Cybele was formally brought to Rome during the Second Punic War (218-201 BCE). In Moesia, in the Durankulak Laketown, Kibela's temple is the oldest one in continental Europe. It dates back to the late bronze age (about 4th century BCE).

Cybelean Festival in Rome

Another citation from the Ancient History Encyclopedia on Kibela/Cybele:

"In Rome, Cybele's popularity continued to flourish, partially due to her spring festival held in March (some sources say April) called the Megalensia. The festival included public games as well as a theatrical performance at Circus Maximus. It began on March 15 with a procession of reed-bearers (cannophori) and a ritual sacrifice; the latter was for the successful planting of spring crops. On March 22, after a week of fasting and purification, a pine tree (the symbol for Attis) was brought to Palatine Hill temple. Later, there was a banquet – a day of joy or Hilaria. Next came the Day of Blood, March 24, representing the castration and death of Attis. The celebration closed on the March 25 with a ritual bath or lavation of Cybele's image. All of the cult's priests or Galli were eunuchs, something that initially prevented Roman citizens from joining. Until the reign of Claudius, Roman law stated that no one could maintain his citizenship if he became a eunuch."

Orpheus (Fig. 4.9.2-3), a legendary person, known and admired all over the world for millennia, is a subject of the Greek and later of the Roman mythology, but with a different background reality of his origin, philosophy and contribution to the world, which makes him one of the most mystique figures of antiquity.

Fig. 4.9.2-3. Dionysus, Orpheus and Apollo miniature images, II - III century CE. Orpheus was found in the village of Tatul, and Dionysus and Apollo, in the temple of Dionysus in the holy Thracian city of Perperikon, in the Eastern Rhodopes, Bulgaria, where the tomb of Orpheus is. The miniature images were part of an ancient portable altar.

There are many myths in classical mythology about Orpheus's artistic performances but only little is known about his cosmological doctrine on the creation of the world and his schools. Maybe because only devoted followers were allowed to be part of his teaching, called Orphism, and to attend the mysteries. It was and is easier for the ordinary people, who were not initiated in the Orpheus's secrets, to better understand the musician and the singer Orpheus than the philosopher and the teacher.

Many ancient authors wrote about the man, who was preaching, "Help for the weak, solace for the suffering, hope for all" and "The world can be conquered by the lyre, not by the sword."

The French writer, philosopher and musicologist, Édouard Schuré stated, "In the Rodopi temple, in a cedar box, Orpheus kept numerous scrolls of papyrus with Egyptian characters,

tablets in the Bessi people language and Phoenician scripts." Euripides wrote about Orpheus' tablets in the tragedy Alkestis. Plato, Pythagoras, whose teacher was Orpheus, and Heraclides also wrote about him.

Euripides wrote in Alcestis:

> "CHORUS singing:
> strophe 1
> I have lived with the Muses
> And on lofty heights:
> Many doctrines have I learned;
> But Fate is above us all.
> Nothing avails against Fate
> Neither the Thracian tablets
> Marked with Orphic symbols,
> Nor the herbs given by Phoebus
> To the children of Asclepius
> To heal men of their sickness."

and

> "HERACLES: Why I turned back and am here, I shall tell you (to Admetus). Take and keep this woman for me until I have slain the King of the Bistones and return here with the horses of Thrace. If ill happens to me-may I return safely!-I give her to you to serve in your house."

Orphic gold plates with Orphic symbols were discovered in various places from southern Italy to Crete. Plato informs in his works that priests have piles of Orpheus books.

Virgil wrote in Georgics: Book IV BkIV:453-527, Orpheus and Eurydice:

> "Not for nothing does divine anger harass you:
> you atone for a heavy crime: it is Orpheus, wretched man,
> who brings this punishment on you, no less than you deserve
> if the fates did not oppose it: he raves madly for his lost wife.
> She, doomed girl, running headlong along the stream,
> so as to escape you, did not see the fierce snake, that kept
> to the riverbank, in the deep grass under her feet.
> But her crowd of Dryad friends filled the mountaintops
> with their cry: the towers of Rhodope wept, and the heights
> of Pangaea, and Thrace, the warlike land of Rhesus,
> and the Getae, the Hebrus, and Orythia, Acte's child."

The great Hellenic philosopher Pythagoras, who was under the extreme influence of the Orpheus spiritual disciple, wrote: "The word of Orpheus is written on Thracian plates."

For most of the ancient writers Orpheus was a real historical figure of a Thracian royal ancestry, born in the 13th century BCE, the king and the highest priest of the Thracian Bessi people, occupying the sacred Rodopi mountain and Thrace. He is said to have lived a generation before the Troja War and 500 years before the times of Homer. A thinker and a philosopher, and the putative author of the preserved poem Argonautica Orphica covering 1384 verses: "Hymns of the Mysteries" on the power of nature and the sacraments, "Ritaka" as magical songs about the healing properties of crystals and stones and "Magic botany" about the healing properties of the Rodopi plants.

Orpheus was a religious reformer and enlightener of the divine soul, the genius of spiritual Thrace and Hellas. Orpheus was called a 'theologian' by the ancient Hellenes. He was believed to be capable to change the hearts of the barbarians, and to tame the wild animals. His teaching was of a great importance in shaping the European culture as well. Orpheus was credited with introducing fasting, chasing out epidemics, predicting the future and cleansing from sins. The singer with the magical voice not only treated the souls of the sick, but also pointed the way to the divine. There was no other thinker and philosopher in that distant age that has been able to penetrate so deeply into the being and touch the endless fields of eternity. For this reason, many have followed in the footsteps of the great Thracian.

Prof. Alexander Fol wrote, "Thracians believed in the immortality of human intellectual energy. For the Hellenes, only the gods were immortal. In the cities of Hellas after the Mycenaean times and at the end of the second millennium BCE, Orphism became a literature and philosophical doctrine, while in Thrace it was practiced in oral folk rituals until the advent of Christianity. For the Hellenes, Orpheus was the singer, the cultural hero. While for the Thracians he was God. Orphism was a sign of the presence of God. Orphism for the Thracians was religiosity and hope, it was about the birth and death. The divine origin was called Dionysuo by the Hellenes, or Sabazius by the Thracians. Orpheus was a child of the cosmos, who died and was born again. The wisdom here is: a man dies, but his songs, writings, art, etc., remain to sound, the knowledge remains, as an immortal energy."

Herodotus wrote that the Thracians were immortalised because of their belief that they are constantly in the life-death-rebirth cycle. The Thracian aristocrats were happy daimons (δαίμων: god, godlike) in their deaths. The daimon, according to the ancient Hellenes' interpretation, was the intellectual energy that lied between man and God. When interaction takes place, the man becomes a god. That is why the best-known representatives of the Thracian happy kings and priests, who initiated mysteries to interact with the gods, Orpheus and Zalmoxis (Dionisios), were believed to be gods. Academics state, that there is a distinction between Greek Orphism, being the religion that the Greeks wrote about in their texts, inspired by the orally passed traditions of Thrace and the original Thracian Orphism.

In the recent decades, the Orpheus' doctrine about life and death came in the focus to audiences due to the Orpheus tablet, or amulet. It is a fourth century BCE amulet showing a

crucified man with the inscription (in Greek) ORPHEOS BAKKIKOS, meaning Orpheus Bacchus. The amulets in general were used as magical talismans, very popular in the late Roman Empire. Tablets were used in rituals as magic spells and Christian emblems as talismans. The Orpheus amulet, depicting Orpheus as crucified man originated in Italy and became part of the artifacts in the Kaiser Friedrich Museum in Berlin.

The publication of the National Geographic Traveler magazine "50 Tours of a Lifetime 2012" promoting the tablet became sensational, although many historians and experts found it inaccurate and misinterpreting historical facts. The tablet showing the cucification of Orpheus was published. The authors ask whether this was a Christ's prototype and mark the beginning of Christianity? Belief in the resurrection and the immortality of the soul were considered the basic principles of Orphism. There are certain researchers who argue that this was the reason why the Thracians accepted Jesus relatively easily. It was because his teachings were very close to Orphism. "Help for the weak, solace for the suffering, hope for all", Orpheus preached. An interesting detail is that early Christians called the Savior the Second Orpheus. They were both doomed to martyrdom, but overcome the bodily and merged with eternity.

"The church in the Greco-Roman world also had no problem connecting Orpheus with Christ" (Wessels, 1994, 34-36). In the catacombs in Rome, Christ is depicted as a shepherd, a teacher and as the singer Orpheus. As a "good shepherd" Orpheus became a kind of symbol of Christ (Wessels 1994,35, 36). The shepherd with a sheep on his shoulder depicts safe homecoming after the journey of death – this image is found around 240 in the earliest catacombs of Lucina (Van der Meer 1989,29. 35). Interestingly, again from a pre-Christian period, "Orpheus" turned up at an excavation site in Israel. A marble statue of the "good shepherd" was found at el-Mina near Gaza, in Israel. This "good shepherd" with a lamb on his shoulder goes back to pre-Christian art, and becomes the vehicle of a biblical context. Wessels (1994, 36) mentions another feature connected with Orpheus – the use of the symbol of a fish with reference to Jesus. From the third or fourth century before Christ, Orpheus is depicted as a "fisher of men". That is an old motif which predates Christianity. Christ is depicted in the catacombs as a fish: ichthys – the initials for the Greek for fish – are read as "Jesus, Christ, Son of God, Saviour" (Wessels 1994:36; cf. Cameron 2003)."

As Wessels (1994:49) puts it: "From its first appearance Christianity made efforts to suppress and slander the pagan myths and gods in the name of its own message, but that does not alter the fact that the church also sought some correction in the sphere of myth. We do not only find rejection of idolatry, demonisation of the gods who were previously believed in, but at the same time inspiration through images and stores like those of Odysseus, Orpheus and Asclepius."

Jesus was already called the Good Shepherd both by himself (John 10:11) and his followers in the New Testament. This metaphor is also used for God in the Old Testament.

Some of the other deities and gods of the Thracians, who influenced the Hellenic and Roman spiritual life and were in most of the cases given different names and characters, adapted to contemporary social and political environments, were:

Axiocersus: one of the Kabeiri (group of mysterious chtonic deities), identified with Hades (of Pelasgian or Phrygian origin).

Attis (alternative names: Ate, Ati): Thracian father of the gods, Cybele (Kibela, Kebap, etc.) was his mother and mistress. ".....the Phrygian god of vegetation, also considered a resurrection god (similar to the Greek Adonis). Supposedly, Attis was Cybele's lover, although some sources claim him to be her son. Unfortunately, he fell in love with a mortal and chose to marry. According to one story, on the day of their wedding banquet, the irate and jealous goddess apparently struck panic into those who attended the wedding. Afraid for his own safety (no mention is made of his bride), the frightened groom fled to the nearby mountains where he gradually became insane, eventually committing suicide but not before castrating himself. Regaining her own sanity, the remorseful Cybele appealed to Zeus to never allow Attis's corpse to decay. Myth claims that he would return to life during the yearly rebirth of vegetation; thus identifying Attis as an early dying-and-reviving god figure." (citation from the Ancient History Encyclopedia).

Bendis: goddess of the wild, hunting and youth initiation.

Bacchus (alternative names: Βακχ, Dionysos Zagreus, the Divine Prince of the Thracians; identified with Sabazios): god of wine, incarnation, fertility, religious ecstasy, learning through mysteries, festivity and theatre.

Sabazios (identified with Bacchus and Dionysos): Thracian-Phrygian god-healer, god of fertility and agriculture.

Semela: goddess of the earth, plants and fertility.

Zagreus: a chthonic cosmic god worshipped by the Orphics, the "First Dionysos". Among the Thracians he was the sun god, the son of Bendida.

Zamolxis: a figure of legend or of history, worshipped by the *Getae* and the Dacians, the northernmost Thracian peoples of the ancient world. Associated both with priesthood and with kingship, he was deified and became the object of a widespread cult among both northern and southern Thracian peoples.

Zbelsurd (alternative name: Sbelsurd): a thunder god depicted holding a lightning in his raised right hand, and to his right is an eagle with outstretched wings.

4.9.3. Influence of Rome in the Late Lower Danube Limes Times on Thracian Burial Traditions of Local Population of Lower Moesia

The worldview and the spirituality of the Thracians were strongly influenced by the Roman culture in Moesia, more significantly as from 3rd century CE onwards. The evolution and mutual penetration are excellently traceable in the burial practices and the entombment in mound tombs.

The Thracian tombs and temples are the only almost completely preserved representatives of the monumental cult architecture from Antiquity and the Byzantine period. On the territory of Bulgaria more than 60,000 mound tombs are known, of which only about 1,000 have been studied. Similar mounds and tombs have also been found on the Northern coast of the Black Sea, near the Caucasus region, in Asia Minor and Central Asia. However, the greatest concentration of mound tombs is recorded in Bulgaria.

The Thracian mounds are of different sizes, some of which are really huge, which sometimes confuses archaeologists who consider them natural hills.

Herodotus wrote the following about burial rituals in Thrace:

“Wealthy citizens are buried as follows. The dead man is exposed for three days, and after mourning him and sacrificing all kinds of animals, they begin to feast: then they bury him, burning him or burying him in the ground without burning: they make a mound and arrange competitions of all kinds, in which the biggest prizes are awarded winners in martial arts. “

In the pre-Roman period (5th-3rd centuries BCE, examples are shown below) the Lower Danube Limes population had been building solid mound tombs as burial facilities. They were executing very sophisticated burial rites and were using rich burial inventory, such as bronze and glass vessels, gold and silver jewelry and other valuables. Many of the tombs were looted by the Romans, but the surviving ones demonstrate a very high artistic value and complexity of skills in making the objects placed in the tombs. Below, we offer photo material for illustration of objects from the tombs. Thracians also used cremation of the dead, which was predominant in the 1st century CE. In the Roman period, as from the 2nd century CE onwards, simple mound burials started to become more and more common in Moesia, in addition to the cremation of the dead. In the 3rd century CE, the two types of funeral rituals were equally common. Thracians continued to use their special spiritual burial rites for their dead.

Some of the archaeological finds from the tombs are shown below (Fig. 4.9.3-11):

Fig. 4.9.4. Gold wreath and gold ring from the burial of a Thracian Odrysian aristocrat. The figure of Nike can be seen in the centre, wearing a peplos on top of a chiton.
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Fig. 4.9.5. Rhyton for Orphic ritual purposes, both items are dated at 4th century BCE.
© CHI

Fig. 4.9.6-7. Thracian gold earrings, 3rd century BCE, National History Museum, Sofia, viewed under a magnifying glass.
© CHI

Fig. 4.9.8-10. Bracelets and other jewelry of a wealthy Thracian woman from Lower Moesia, today's Vidin Area, 1 century BCE, NMH
© CHI

Fig. 4.9.11. Ceremonial set, 4th century BCE. It consists of a phiale, an amphora and seven rhytons with total weight of 6,164 kg of 24-karat gold. All of the objects are richly and skilfully decorated with scenes of Thracian myths, customs and life. It had been used as a royal ceremonial set by the Thracian king Seuthes III.
© CHI

The Royal Sveshtari Tomb (Fig. 4.9.12-14), in which the Getae ruler Dromichet was buried, is dated to the end of the 4th to the early decades of the 3rd century BCE, located in the northern part of the east cemetery of the capital of the Getae, Helis, part of the UNESCO World Heritage List since 1985.

Fig. 4.9.12-14. Royal Sveshtari Tomb.
© CHI

The tomb is built of smoothly worked stone blocks of soft limestone and has three chambers, containing exceptional architectural, sculptural, and painted decoration. A mound as high as a four-story building was erected above the tomb. The entrance of the tomb is decorated with columns with Ionic capitals. Next to the entrance is the room where gifts and sacrifices were placed. There are majestic and finely sculpted female figures (1.20 meters high) in the burial chamber, representing the Great Mother Goddess. Their hair, faces and clothes were dyed. There is still a dark brown color on their hair, yellow, blue, red and purple on some details of their clothes. And high up, on the semicircular wall, under the arch of the tomb chamber, the ritual of heroization of the the late ruler is painted.

There are two stony beds in the chamber, for the ruler and his wife.

The objects in the tomb, made of precious metals, have been looted in the antiquity. The treasures placed in the tomb are evidenced by the bones of five horses sacrificed to accompany their master to the afterlife.

Another notable example of the mutual penetration of the Roman and Thracian culture and spirituality is the unique Roman stone tomb of Durostorum/Silistra (today's Bulgaria) from the beginning of the 4th century CE, located near the antique necropolis. The tomb is richly decorated with frescoes and is one of the most emblematic symbols of the ancient civilisation in Moesia. It is one of the best-preserved tombs on the Balkans.

Its significance as a unique cultural and historical monument is determined by the late Roman architecture and the frescoes. The tomb is a single-chamber and rectangular vaulted building measuring 3.30 x 2.60 x 2.30 meters. The interior is covered with fully preserved frescoes depicting human and animal figures, as well as hunting and family scenes, which reveal the era of the Roman Emperor Constantine.

Durostorum was one of the most significant cities in the Roman Empire. The first written record on it is the order of the Roman emperor Trajan in 106 CE to transfer the legio XI Claudia from Pannonia to Durostorum. The legion was a blade force against the enemies of the Empire coming from the north across the Danube and was the most important military unit of the Roman Empire on the lower Danube. It was stationed in Durostorum from 106 CE to the 6th century CE without interruption.

In the 1960s, next to the above tomb, a tomb of a Roman general was discovered, equipped with gold jewelry, a scepter, a chariot and swords covered with precious stones. In the 1970s, a martyrium (mausoleum) of three of the twelve early Christian martyrs of Durostorum was discovered to the south of the tomb – another example of the cultural influence in Lower Moesia.

There are similarities in helmets and ammunition of Thracians and early Roman times (Fig.4.9.15-16):

Fig. 4.9.15-16. Thracian helmet and ammunition, National History Museum (NHM), Sofia.
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4.9.4. Broadly Experienced Cultural Practice of Roman Population in Moesia and Lower Danube Limes- Dionisios/ Zagreus Festivities

The Roman Moesian population in the Roman Lower Danube Limes adopted the respect of Thracians to wine. Thracians used the wine not as a drink, only, but for their spiritual ceremonies as well. They believed that with the wine they could reach their gods, and first of all, Dionysus/Zagreus. Wine was a sacred drink that accompanied the Thracians throughout their whole life as a connection with the divine. They celebrated the birth and death and all the other important events with wine. According to them, wine was releasing their souls and was a guarantee in the battle between gods and demons, by allowing them to obtain knowledge on the past and on the future.

Paintings on the Moesian ritual objects are of extraordinary artistic value, depicting dancing people and scenes with Dionysus – the God of wine, sacred animals and floral motives that reveal the richness of Moesian culture and the sacred meaning of wine. The exquisitely crafted sets of vessels with images of lifestyle and myths (as shown on the above photos) were serving the sacred spiritual ceremonies. Thracians processed gold and silver to produce jewelry,

burial (golden masks) and theatrical objects, etc. Today's craftsmen are still amazed by their exceptional artistic value. Many of the art details and shapes cannot still be repeated today.

Herodotus wrote that Hellenic heroes drank wine, which Achaean ships carried every day on the wide sea from Thrace.

Hellenic authors defined the habit of Thracians to drink undiluted wine as barbarian, as the Hellenes drunk it diluted with water. Homer wrote in his Odyssey, that the ratio between the wine and water was twenty on one....Romans were drinking wine diluted with water as well...

It was typically men who were drinking wine. A special wine ritual was executed for boys to become men. Sometimes, women also drunk the sacred drink, which made Plato write, that even "their women drank". The participation of Thracian women in sacred wine ceremonies was not allowed, as their role was considered to be mostly at home. Women could serve the wine to men but not drink it with them, as they did not know how to properly drink it without getting drunk. The presumption was that drunken women put in danger the general public order and relationship between men and women.

The pictures below evidence the ancient Moesian traditions in wine production and consumption (Fig. 4.9.17-20).

Fig. 4.9.17-18. Wine ceremonial vessels, Panagyurishte treasure, 4th century BCE, National History Museum, Sofia.

Fig. 4.9.19-20. Valchitran treasure (today's Northern Bulgaria) golden vessels and disks, a wine set which belonged to the head of the Thracians Tribali, occupying western part of Lower Moesia, dated to the Late Bronze Age, the second half of the 2nd millennium BCE. There are samples of chariot, decorated with water birds, found in the Western Balkans on the vessels.

Some of the authentic ancient grape varieties of Thrace which continue to have commercial value today are the piquant Mavrud, the energetic and tasty Melnik (known as the favorite wine of Winston Churchill; 500 liters of this wine were delivered to him every year), the light, the fragrant with vanilla aroma Dimyat, the elegant Pamida and the fresh harmonic Gamza (Kadarka).

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5. RESEARCH HISTORY

5.1. Germany

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The interest in the Roman limes dates back to the time of humanism in Germany, i.e. to the time when, through the rediscovery of the writings of antiquity (and in particular the work *Germania* of Tacitus), those inhabitants of the Holy Roman Empire of the German Nation north of the Alps rediscovered their own supposedly "primeval Germanic" history, which could be distinguished from the hated heirs of Roman tradition, whose bearers even overran the Roman Empire. The first representative who described the supposed Roman Limes at a Landwehr in Nassenfels in the district of Eichstätt as part of the "Bayrisch Cronik" and in a work published in Latin until 1533, "Annales ducum Boiariae" was Johannes Turmair (1477-1549), called Aventin. In the 17th and 18th century, research began again on a local scale. From the northernmost vertex of the Raetian Limes in Gunzenhausen, the priest Christoph Wägemann had quite correctly deduced from the wall there that the Limes was the result of a long-term development. According to general opinion, the limes research really started with Christian Ernst Hanßelmann. With his investigations, the gap between the Upper Germanic and Raetian Limes could be closed. He identified and dated several construction stages of this limes section, which he was the first to understand as a whole, ultimately to a period between Augustus at the beginning of the 1st century and Maximian at the beginning of the 3rd century. The contribution of Döderlein, a school rector from Weissenburg, as late as the first half of the 18th century, was that he was the first to walk down the middle section of the Limes for his first Latin, then German Limes monograph. The local starting point of interest is also evident in the report (a) by Abbot Werner of the Monastery Weltenburg near Kehlheim, who reports on the eastern beginning of the Raetian Wall, as well as (b) by Professor Buchner of Regensburg, who lived until the 19th century and published his "Reise auf der Teufels-Mauer" ("Journey on the Devil's Wall") in 1818, and (c) by the Eichstätt town priest Dr. Mayer, who published his "Genaue Beschreibung der unter dem Namen der Teufelsmauer bekannten römischen Landmarkung" ("Exact description of the Roman landmark known as the Devil's Wall") until 1837. With him, the dating of the Upper Germanic and Raetian Limes to the age of Hadrian was consolidated as the end point of a multi-stage expansion.

The historical interest in the limes continued to grow during the 19th century. This is also reflected in the creation of historical associations and the protective regulations imposed by the state. The limes was also mapped in detail for the first time. But it was not until the unification of all the German states into an empire in 1871 that a supra-regional effort became possible, particularly under the leadership of the Reichslimeskommission (Imperial Limes Commission), which was largely inspired by Theodor Mommsen. In a total of 15 volumes of "Der obergermanisch-rätische Limes des Römerreiches (ORL)" ("The Upper German-Raetian Limes of

the Roman Empire"), the old research and new excavations were published until 1939, when the commission was dissolved.

During this time the ORL was divided into stretches that are relevant until today: The Upper Germanic Limes comprised the stretches 1-10 (up to the Odenwald Limes), the stretches 11-12 the Baden-Württemberg part and the stretches 13-15 the Bavarian part of the Raetian Limes. In these stretches the guard posts, the limes towers, were mapped individually (e.g. Route 15, Tower 1 = GP 15/1). Voluntary excavators, route commissioners, were appointed for the stretches.

Until 1939, the Imperial Limes Commission was mainly responsible for the limes of the last expansion phase, while the Romano-Germanic Commission in Frankfurt, the Late Roman Commission of the Bavarian Academy in Munich and the branch offices of the Bavarian State Office for Monument Protection were responsible for the preliminary stages of the Upper Germanic-Raetian Limes from the Tiberian-Claudian period as well as for the retreat stage on the Danube-Iller-Rhine line. The district archaeologists of Kehlheim and Deggendorf and the city archaeologists of Straubing and Passau worked on the eastern sections of the "wet limes" down to the Austrian border. Especially, but not only with the emergence of new scientifically supported investigation methods in aerial archaeology and geophysics, supraregional cooperation with powerful research institutions was crucial. These could – and still can – be found at universities such as Frankfurt, Würzburg, Erlangen-Nuremberg, Munich, Passau, often in cooperation with the institutes of ancient history there.

In preparation of the declaration of the Upper Germanic-Raetian Limes as a World Heritage Site in 2005, the German Limes Commission was established to coordinate research on the Upper Germanic-Raetian Limes. All these efforts, as well as the attempts to include the "wet border" of the province Germania Inferior and the river border along the Danube of the province of Raetia and east of it down to the Black Sea in the UNESCO World Heritage List, serve to protect the already much damaged remains of the Roman heritage along these borders from the North Sea to the mouth of the Danube.

For the same aim, in addition to communicating the World Heritage theme, associations of non-governmental archaeological museums in Bavaria have been set up which develop and coordinate visitor-oriented mediation strategies for the Danube Limes.

Just as research is clearly determined by the political framework conditions, the research perspectives and questions posed in the context of the limes are also determined by the prevailing political conditions, as David J. Breeze recently demonstrated (2018). While research in the era of nation-states in Europe tended to recognise the dividing, linear aspect of the Roman border, research in the 1990s increasingly emphasised on the communicative function of the limes (e.g. S. von Schnurbein 1992), both along the course of rivers and along the advanced fortifications on land. This perspective has rather strengthened over the last 15 years. It is not

denied that it was precisely in the intensified phases of the conflict from the end of the 2nd century CE onwards that the delimiting function gained the upper hand. But it is also recognised that the limes, both over land and along rivers, fulfilled a function of communication control as well and – as far as rivers are concerned – of faster communication and better transport. Even along the borders over land, specially constructed country roads were not only built for the relocation of troops, but also for other communication and transport purposes. Research on the limes in its state since Antoninus Pius has become so fragmented in the meantime that the discussion is going on as to whether individually identifiable expansion and renewal measures are due to a general change in policy or military strategy or whether they are only attributable to local necessities for repair. Here, future excavations, the application of new techniques (e.g. Airborne Laserscan-DGM-data) and interpretation activities will provide further information. Many things remains unclear, but it is apparent that research on the limes encompasses much more than the investigation of forts, walls, towers and palisades. This is also shown by Stefan Pircher's excellent analysis of the Raetian and Noric Danube Limes (unpublished master's thesis), which reveals the often still deficient state of research on Roman frontier, military and civil buildings. There is still a lot to be done in this field.

5.1.1. Bibliography

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5.2. Austria

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In Austria the Roman heritage has always been of great importance. The records of the monk Eugippius, who wrote the vita of Saint Severin at the beginning of the 6th century and who belonged to the monastery of *Favianis*, have been know ever since and inform about the monumental and significant Roman remains and about *Favianis* as the ecclesiastical center with the Order of Severin. The importance attached to the Roman cultural heritage since the Middle Ages can be recognised by the fact that various historical people referred to this heritage and tried to connect it with Vienna. One of them was Otto von Freising, who lived in the 12th century and recorded the deeds of Frederick I Barbarossa. In this factual report he tries to connect *Favianis* with the Babenberg royal seat in Vienna in order to increase the city's ecclesiastical and political importance. Today we know that the Roman *Favianis* is a predecessor of today's Mautern, which lies about 80 kilometers from Vienna up the Danube. This and similar reports show how important the Roman heritage has been ever since in Austrian history.

Large parts of the Roman substance were lost during the boom of the European cities in the 11th to 13th centuries and the associated stone robbery to purchase building materials. In this context, it is noticeable that the state of preservation of the Roman buildings in the Austrian Danube region diverges to a great extent. While in Lower Austria (the eastern part of the Austrian Danube region) upright Roman ruins have been preserved, those in Upper Austria (the western part of the Austrian Danube region) served as quarries in many cases and were massively exploited. In particular, remains of the massive fortifications of late antiquity were very clearly visible until modern times and were often misappropriated, e.g. the so-called Roman Tower of Tulln, a horseshoe-shaped tower flanking the Roman cavalry fort *Comagena* which became a municipal armory and salt warehouse.

At the end of the 18th century, so-called ruin romanticism emerged in England, a fashion that was also reflected in Austria to a certain point. For example, artificial ruins were built in the Schönbrunn Palace Park which in turn made Roman antiquity popular and made it a new subject of poetry, painting and other arts.

With the destruction and loss of cultural assets during the French and Industrial Revolution, a new awareness of the dangers for archaeological and historical objects and buildings developed and with it, for the first time, the intention to preserve and protect them. The cultural and historical value of these objects which were evidence of the national heritage was recognised, and thus, according to the political tenor of the 19th century, they stood for the identity of the respective nation. Archaeological objects were exhibited in museums for the first time in the early 19th century.

The first, although unsystematic, investigations on the Austrian Danube Limes included the discovery and drawing documentation of a mosaic floor in the civil town of *Lauriacum*/Enns in 1765, as well as the research work of the Benedictine Father Schaukegl from Seitenstetten, who was responsible for the recognition of the fortification of *Ad Muros*/Mauer on the Url as a Roman fort and for its documentary recording.

Since the 19th century, actual research work has been developing around the Roman legacies, as well as the material legacies of other epochs, in Austria. Even if a certain part of the population was now well aware of the scientific and identity-creating importance of the archaeological objects, the focus was still primarily on researching the remains and less on preserving them.

However, since there were no regulations under monument law at this early time, anyone with the necessary financial resources could carry out archaeological excavations. The pre-emptive right for the imperial collections existed since 1812 and was replaced by a new regulation in 1846, which said that every find was to be divided equally between the finder and the landowner.

The "father of Austrian archeology" Joseph Gaisberger carried out the first systematic archaeological excavation on the Austrian Danube Limes in the area of Fort Schlögen during the years from 1838 to 1840. In the years of 1851 and 1852 excavations followed in the legionary camp of *Lauriacum*/Enns. In the decades that followed, various associations and museums were founded in order to research, preserve and present Roman legacies. In the last third of the 19th century, large excavations were finally conducted on the limes and in 1897 the Austrian Academy of Sciences was founded based on the model of the German Limes Commission. Until the outbreak of the First World War, the academy together with the Austrian Archaeological Institute, founded in 1898, carried out extensive archaeological research activities mainly in the legionary camps of *Lauriacum*/Enns and *Carnuntum*/Bad Deutsch-Altenburg – Petronell.

Since the beginning of the 20th century, the archaeological monument preservation had also developed in Austria and people no longer detached the monuments out of their original context, but restored them on-site and preserving them in their original condition as well as possible. After the First World War, however, due to the lack of funds Austria was not able to carry out archaeological research activities with modern methods, which made it possible to swiftly examine large areas. In 1923, the Austrian Monument Protection Act was enacted.

When Adolf Hitler came to power in Germany in 1933, archaeological research increased due to ideological reasons. The National Socialists understood the Germanic past as part of their ideology, which they wanted to highlight and legitimise through prehistoric research. In this nationalistic way of thinking, they saw themselves as descendants of the German people and

the Germans' legacies as evidence of an early Aryan period. This made prehistory and early history a crucial science and an important tool for the National Socialist propaganda.

In the course of the construction of large-scale facilities shortly before the outbreak of Second World War (highways, factories, etc.) various large-scale archaeological landscapes were discovered. Therefore, the Nazis required new methods of monument preservation in order to document these areas quickly and according to appropriate standards, in case they could not be saved from destruction. With this, they laid the basis for the later modern archeology and monument preservation. In addition to aerial archeology, new scientific, conservation and documentation methods were implemented.

During the reconstruction work after the Second World War, numerous important discoveries were made in *Lentia*/Linz and *Vindobona*/Vienna and in the course of increasing settlement extensions further knowledge about *Lauriacum*/Enns and *Carnuntum*/Bad Deutsch-Altenburg – Petronell could be gained.

The increasing interest in archaeological monuments, the growing awareness of the past as well as the sites' attractiveness for visitors finally made it possible to conserve and protect the excavated limes monuments through structural measures and thus make them accessible to interested parties. The essential elements of today's archaeological monument landscape along the Roman Danube Limes are the preserved remains on-site and their harmonious integration into the modern landscape and urban environment.

Together with three other countries – Bavaria/Germany, Slovakia and Hungary – Austria submitted its nomination dossier covering the respective section of the Roman Danube Limes to be inscribed as World Heritage Site to UNESCO in 2015. The nominated group of sites consited of 98 components (22 of them in Austria) and some of those again divided into of several component parts. Due to a request at short notice to change the dossier (Hungary asked to withdraw *Acquincum*/Budapest from the Tentative List) shortly before the 43rd session of the UNESCO World Heritage Committee held in Baku in July 2019, the nominated section of the Danube Limes could not be inscribed as World Heritage. But in July 2021, the western section of the Roman Danube Limes including the sites in Germany, Austria and Slovakia finally became UNESCO World Heritage.

Under the project title "Frontiers of the Roman Empire", the entire course of the Roman Limes is to become a multi-component UNESCO World Heritage Site. The Western section of the Danube Limes, meaning the fortifications along the Danube in Bavaria, Austria, Slovakia and Hungary, forms the third section of this major project after the Hadrian's Wall and the Antonine Wall in Great Britain (1987/2008) and the "Upper German-Raetian Limes" in Germany (2005).

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5.3. Slovakia

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The inhabitants of what is now Slovakia encountered monuments after the Romans as early as the Middle Ages. They reused torsos of Roman sculptures and building material (such as bricks, stones etc.) from former Roman buildings in secondary applications, the so-called spolia, to build their own buildings. We can find the material used in this way in several locations, especially close to former Roman border. These include the objects from Bratislava and its surroundings and several locations from western Slovakia.

The first comprehensive knowledge about the Roman times is found in the works by Humanist scholars (e.g. Antonio Bonfini, Pietro Ranzano, Georgius Purkircher). They wrote about the history of the Kingdom of Hungary and thus also about the region of Pannonia. Some authors tried to search for the origins of Hungarian (Kingdom of Hungary) cities in ancient Roman traditions and "antiquitise" their history. An example is Bratislava, whose medieval Latin name was Posonium; some Humanists spelt it as Pisonium in a reference to a mythical founder of the city named "Piso", a member of a Roman "Piso" royal family.

The Renaissance saw initial signs of documenting, collecting, and preserving archaeological monuments. Understood as antiquities, these were often traded or collected or used as artistic decorations of other items. Renaissance goldsmiths liked using ancient coins to decorate things, e.g. the chalice from the St. Emmeram's Cathedral in Nitra. The 16th century chalice is decorated by 15 Roman golden coins from 1st to 5th century.

The 18th-century scholars followed up the Humanists. Roman times were usually echoed in their works on the history of Kingdom of Hungary and Hungarian cities. In 1753, the University of Trnava published a thesis by Georgius Csussen who deals with the Roman provinces in general and then shifts to focus on Pannonia. Several works were also by foreign authors. They polemicised about the reports by ancient authors and looked for selected sites, known from the ancient sources, in Hungary or present-day Slovakia. For example, Richard Pococke (1704–1765), an English-born traveller, suggested the location of the Gerulata camp was in Karlburg, which was the German name of present-day Rusovce (now Bratislava-Rusovce). In the location of "Leanywar" near Komárno (now Iža), he described an "enclosure about a hundred and thirty paces square, with an entrance on each side, and fosses drawn".

In the 19th century, the study and research of the Roman period became institutionalised. The establishment of museum institutions and associations initiating collecting and scientific research activities led to improvement in quality. Florián František Rómer (1815–1889, Hun. Romer Floris Ferenc, Ger. Floridus Franz Romer), who worked at the academy in Bratislava and Pest, was a prominent figure. He is considered one of the founders of modern Hungarian archaeology (Polla 1996, 167–172).

The year 1852 marked an important milestone in the research of Roman times in Slovakia. That year, a gale uprooted one of the poplar trees growing near the castle rock in Trenčín and laid the rock bare. Ľudovít Stárek (1803–1863), the Trenčín parish priest, noticed a Latin inscription, which had been known from earlier sources but got covered by vegetation with time. In 1854, Stárek, the rediscoverer, documented and published the inscription. Though considered a forgery, its authenticity was later confirmed by Theodor Mommsen. The interpretation of the inscription was refined in 1955 by a published inscription from the Algerian town of Ain Zana. Over the years, it has become an epigraphic monument of multiregional significance, studied to date.

Initial research of the settlement in Stupava, Rusovce[3] and Iža took place in the second half of the 19th and the first half of the 20th centuries. At the same time, the emerging museums, associations and, exceptionally, schools were building up their art-science collections featuring items from Roman times. Often, the items did not come from the territory of Slovakia but other then-known Roman sites. They are part of the collections of Slovak museums today, including the Podunajské múzeum in Komárno which manages, among other things, the findings from the Roman legionary camp of Brigetio (now Komárom-Szőny). On the other hand, collections of foreign institutions and private collectors include items discovered in Slovakia, e.g. museum`s collections in Vienna, Budapest Prague etc.

The findings brought by what were mainly enthusiasts, researchers and amateur archaeologists were followed up by professional archaeologists. The founding of Comenius University, the Slovak Academy of Sciences and museum institutions made archaeological and historical research of Roman times institutional and professional, extending to interdisciplinary research involving several departments. The results of many years of research have provided us with knowledge of archaeological sites and the territory of Slovakia in Roman times in an international context. Today, the finds from Roman times are in expositions, exhibitions, and collections of several Slovak museums and institutions. Selected monuments, buildings from Roman times, are presented as in situ monuments.

Many years of efforts to receive an international nomination for the Roman monuments on the middle Danube for inscription on the UNESCO's World Heritage List brought their fruit in 2021, July 30th in the Chinese city of Fouzhou. It was decided about Gerulata castellum and castellum in Iža as a part of the inscription The Danube Limes (Western Segment).

[3] The uncovering of architectures identified with the Gerulata castellum in the Bergl location started in 1960s.

Fig. 5.3.1: A tomb of Quintus Atilius Primus used as spolia in Roman Catholic Church in Boldog.
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Fig. 5.3.2: A Roman relief used as spolia in Bratislava Castle.
© Juraj Kucharík

Fig. 5.3.3: Research of the Gerulata castellum in Bratislava-Rusovce in the Bergl location in the 1960s.
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5.4. Hungary

5.4.1. History of the Limes-Research in Hungary

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In the beginnings, the Hungarian section of the Limes was only explored in parts, in connection with the monuments, excavated settlements and fortifications along the Roman border. Even before this research, descriptions of the Pannonian Limes have survived which contain useful data. The examples of these sources are the *Itinerarium Antonini* and the *Tabula Peutingeriana*, which describe the road network of the province.

In the second half of the 19th century, Flóris Rómer researched the history and geography of *Pannonia* in details, discovering and exploring several fortified sites along the Limes and proposing the mapping of the entire Pannonian Limes. His research and excavations also provided the brief data for the description of *Brigetio* and Aquincum. (Hampel 1891, 32.)

Later, in the 1880s, Dr. Bálint Kuzsinszky urged the exploration of the Danube fortifications, as in the drought years traces of the previously disappeared roads and fortifications became visible and easy to document, but due to lack of funds, the excavations did not start again.

The need for programmatic excavations and accurate mapping of the Pannonian Limes was expressed for the third time during the early 20th century. In 1905, an article on the past and the planned programme of the limes exploration was published in the Archaeological Bulletin (Archaeologiai Értesítő). In this paper, Dr. Bálint Kuzsinszky outlined the proposed scientific and financial programme, and Gábor Finály collected the settlements to be explored (Kuzsinszky – Finály 1905).

In 1906, Gábor Téglás published a paper entitled Limes Studies, in which, in addition to describing and referring to the *limes* studies in Germany, he outlined the tasks of Hungarian archaeologists and scientists and defined the programme. According to him, by this programme, the Hungarian limes section could have been mapped in 8-10 years (Téglás 1906). He listed the Hungarian researchers whose names are associated with the exploration of settlements and fortifications near the Limes - Flóris Rómer, Imre Henszlmann, Károly Torma, Balázs Orbán, Róbert Fröhlich – as well as the fortifications mapped by them. It should be noted that at this time a significant section of *limes dacicus* was in the territory of Hungary, and its research and mapping was more advanced than the survey of the *limes pannonicus*.

In the same year, Dr. Bálint Kuzsinszky proposed the establishment of a committee for the mapping and excavation of the Roman Limes to the Archaeological Committee of the Hungarian Academy of Sciences. The Committee accepted it and proposed that this committee shall be set up within the framework of the National Commission for Monuments (Heinrich 1907, 344.).

The Commission considered the proposal to be justified, but as there was no financial support for it, it was suggested that a few "sample tests" should be carried out first. Consequently, Gábor Finály excavated the *ad Herculem* fortress in Pilismarót between 1906-07 (Forster 1913 248.).

Although researches and excavations have been carried out, no real organised work has been done. For this reason, when Bálint Kuzsinszky was elected the member of the Archaeology Committee of Hungarian Academy of Sciences in 1913, he assigned the initiation of the Limes research as his main mission (ArchÉrt 1913 185.). Nevertheless, as Árpád Buday's 1929 study shows, the systematic, planned research could not be carried out (Buday 1929). This is confirmed by Lajos Nagy in 1929, who expressed in his article on *Ulcisia Castra*, that "in Hungary, research on limes has not even begun" (Nagy 1929 3.). The name of Ákos Szalay (1894–1930), an architect and archaeologist, should be mentioned in connection with the research of limes, who travelled along the Danube to survey the ruins and landforms visible on the surface that might indicate the presence of Roman remains and thus determine where it was worthwhile to carry out research (Márton 1930 267.).

In 1934, Tibor Gerevich considered the survey of limes as a global, Central European issue, that is independent of political boundaries (Gerevich 1934 21.).

In 1935 the Hungarian Historical Museum excavated the Danube Limes line between Oroszvár and Szőny, as well as the camp of Campona and the sanctuary of *Mithras* in Nagytétény (Statisztikai Évkönyv 1935 105.). It can be said that the limes research was already going on in a planned way, and in 1935 the National Committee for Monuments and Sites set up a subcommittee for the exploration of the Roman border forts with the aim of joining the international limes research (Gerevich 1935 71.).

Therefore the really planned, systematic and large-scale excavations really began only in the 1930s. István Paulovics, one of the outstanding archaeologists of the period, is associated with the excavations of *Brigetio* (Szőny), *Cirpi* (Dunabogdány), *Campona* (Nagytétény), *Intercisa* (Dunaújváros), among others.

The survey continued after the World War II and the results of the research were included in the summary works. It was the case with Jenő Fitz's writing in 1955 with the title of 'Watchtowers between *Intercisa* and *Annamatia'* (Fitz 1955), and Sándor Soproni's book published in 1978 with the title of 'Die spätrömische Limes zwischen Esztergom und Szentendre' (The Late Roman Limes between Esztergom and Szentendre).

This was preceded by a lecture given by Sándor Soproni at the Limes Romanus conference in Bratislava in 1959.

The following important summary of limes was Sándor Soproni's 1969 paper presenting the Limes Sarmatiae. Despite is not on the *ripa* line, but it is linked to it as a parallel border defence system (Soproni 1969).

It can be stated that 1976 was the year of limes in Hungary. In this year the 11th International Limes Congress (Fitz 1977a) was held in Székesfehérvár and Jenő Fitz's summary work 'Die Römische Limes in Ungarn' (The Roman Limes in Hungary - Fitz 1976) was published, in which he presented all the results of his previous research, and the following year he edited the proceeding book of the congress (Fitz 1977b).

In 1977, Dénes Gabler wrote a more than 20-page essay on the early history of the Danube Limes using the data of ceramics, which was accompanied by a paper by Barnabás Lőrincz analysing stamped bricks (Gabler – Lőrincz 1977).

From the late 1970s to the present day, Zsolt Visy has been researching the limes in a comprehensive way and documenting the Hungarian part of the Roman Empire with aerial photographs. In 1978 he published a part of these researches (Visy 1978).

In 1985, Sándor Soproni's studies on the last period of the history of the Hungarian Limes was published in Germany under the title 'Die letzten Jahrzehnte des Pannonischen Limes' (The Last Decade of the Pannonian Limes) (Soproni 1985).

Among the archaeological researchers, the name of professor Gyula Hajnóczi (1920-1996) shall be mentioned. The archaeologist-architect professor of the architecture of Antiquity had led several preservation works related to Roman monuments and fulfilled fundamental researches on the problem of the interpretation of architectural space. (On his oeuvre, see the thematic issue of Építés - Építészettudomány 49 (2021) 1-2.) During his education works, published books on the architectural history of Antiquity (Hajnóczi 2003), the collections of Roman architectural sites (Hajnóczi et al 1995) and has worked on the survey of Carnuntum, and the survey and preservation of Aquincum or Savaria. In Baláca, besides the central building's historic restoration providing a long-standing protection for the architectural details, the spatial delimitation of the central space and on the coverage of the cloister and the room tracts can be also emphasized (Vukoszávlyev 2018 364.).

Apart from Jenő Fitz, only Zsolt Visy published an independent work on the entire Hungarian Limes in 1993, with the title of 'A római limes Magyarországon' (The Roman Limes in Hungary, bilingual, Hungarian-English book: Visy 1993). In 2000, a volume in Hungarian (Visy 2000), and in 2003 in English (Visy 2003a), presenting aerial photographs taken over the decades were also published.

In addition to the works mentioned above, the 'Archaeological Handbook of Pannonia' (Pannónia régészeti kézikönyve - Fitz – Mócsy 1990) published in 1990, the 'Hungarian Archaeology at The turn of the Millennium' (Magyar régészet az ezredfordulón - Visy 2003b) published

in 2003 and 'Die Römer in Ungarn' (The Romans in Hungary - Borhy 2014) published in 2014 shall also be mentioned. All three summaries deal with the issue of limes detailed in several chapters.

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5.4.2. The Main Features of the UNESCO World Heritage Nomination of the Hungarian Section of the Danube Limes

(Summarized by Gergő Máté Kovács, based on 'Frontiers of the Roman Empire – The Hungarian section of the Danube Limes' World Heritage Management Plan implemented for the UNESCO World Heritage nomination process. Gyula Forster National Heritage and Asset Management Centre - Budavári Real Estate Developer and Operator Nonprofit Ltd. - Prime Ministry of Hungary - Teampannon Ltd., Budapest, 2017.)

The Frontiers of the Roman Empire – The Danube Limes (Western segment) World Heritage nomination was the result of cooperation between four state parties (Germany, Austria, Slovakia, Hungary). Responsibility for the management in each country carried out in accordance with their national legislative and management system. Whereas the expected inscription on the World Heritage List will result a new independent European World Heritage Site (FRE - The Danube Limes) therefore a new overarching framework is needed to support international collaboration in those fields relevant to the overall management and development of the FRE properties. This envisioned framework could be the 'Frontiers of the Roman Empire World Heritage Cluster' (Fig. 5.4.1).

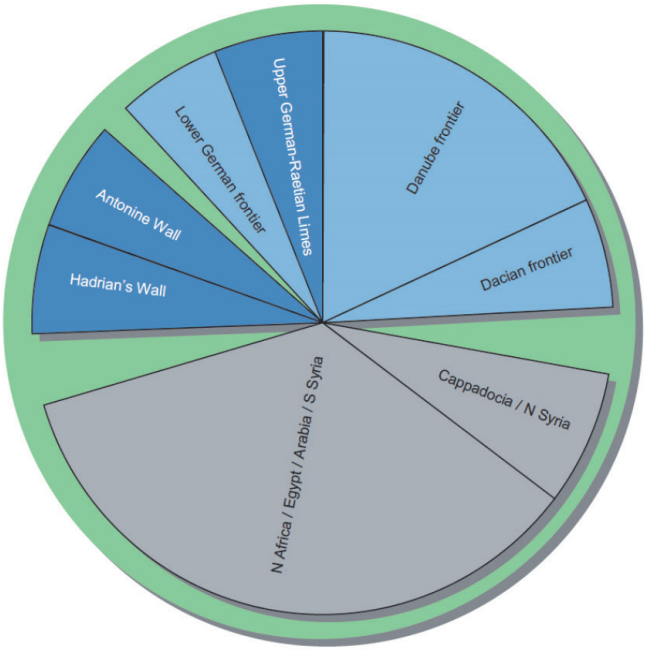

Fig. 5.4.1. Chart of the envisioned framework of the 'Frontiers of the Roman Empire World Heritage Cluster' (Ployer/Polak/Schmidt 2017, 106. Fig. 8.2.)

The nomination of the Frontiers of the Roman Empire - the Hungarian section of the Danube Limes as a World Heritage Site and the preparation of the related World Heritage Management Plan had several international and national precedents. The following chapters aim to provide a general overview of the framework and principles of the UNESCO World Heritage nomination of the Hungarian sites and the general features of the selected sites (according the nomenclature of the nomination: component parts based on the World Heritage Management Plan ('Frontiers of the Roman Empire – The Hungarian section of the Danube Limes' World Heritage Management Plan implemented for the UNESCO World Heritage nomination process).

5.4.2.1. The Framework and Strategy of the Nomination at the National and International Level

Between 2008–2011, the international project called Danube Limes - UNESCO World Heritage, funded by the European Union's Central Europe Programme had the aim to prepare the nomination of the Limes sites in Hungary and Slovakia for World Heritage candidacy.

The 36-month project resulted in the tentative nomination of the Hungarian section of the Danube Limes in 2009 and the first version of the Hungarian nomination dossier including the management plan was completed by autumn 2011. The same year, in December 2011, the Hungarian Parliament approved the Act LXXVII of 2011 on World Heritage, which formalised and tightened the UNESCO requirements (the existence of protection at a national level) by requiring the existence of legally validated protective status for natural or cultural heritage (monumental or archaeological) even for candidate sites.

On 14 September 2016, the government decided to support the nomination of the Frontiers of the Roman Empire – Ripa Pannonica in Hungary as a World Heritage site.

Meanwhile, at an international level, significant steps have also been taken to coordinate the management of the sites within the Frontiers of the Roman Empire (FRE) which are already on the World Heritage list (Hadrian's Wall (1987) and the Antonine Wall (2008) in Great Britain and the Upper German and Raetian Limes (2005) in Germany) as well as to increase the effectiveness of international cooperation. In 2012, the States responsible for the FRE elements already inscribed on the World Heritage List established an Intergovernmental Committee to ensure professional cooperation between the State Parties and to approve the nomination of additional sites to join the FRE as an extension of the World Heritage List. Countries with the intent of joining the FRE international series (currently, apart from Hungary, the Netherlands, Austria, Slovakia, Croatia, Serbia, Bulgaria, Romania and, and further parts in Germany) have been in close cooperation with UNESCO and ICOMOS to discuss the possibility of expanding the serial transnational property and the option how to submit new nominations.

The Economic Development and Innovation Operational Programme for the 2014-2020 EU budget cycle focuses on the development of World Heritage tourism. The implementation of the same objective in the Central Hungary region is supported by a Hungarian Operational Programme "Competitive Central Hungary". The development of the Hungarian section of the Danube Limes for tourism purposes was supported, among others, by the Hungarian Limes Association's accession in 2011 to the EU co-financed project "Developing the Frontiers of the Roman Empire as a Transnational European Sustainable Tourism Product", which was co-financed by the United Kingdom, the Netherlands, Austria and Hungary with the identification number ENT/TOU/11/411B. Based on the experiences, the preliminary draft of the National LIMES Cultural Tourism Development Concept was prepared in 2014. The proposals of the plan were important starting points for the development of the "presentation-visit strategy" part of the management plan and within its guidelines and the framework, the detailed tourism programme shall be developed for the site.

5.4.2.2. Major Characteristics of the Nominated Sites – Aspects of Selection, Categories, Attributes

Out of the 320 explored LIMES archaeological sites in Hungary, the 2009 nomination included 189 sites with 36 road sections, and the first version of the Hungarian nomination for the international project implemented between 2008 and 2011 included 121 sites.

In the frame of the unified DE-AT-SK-HU nomination, further selection was required due to the modified international requirements and also by the aspects of sustainability and technical requirements. As a result, the decision was taken to nominate 65 archaeological elements: 54 separate sites and 11 clusters (site ensembles). Within the 11 clusters, altogether further 44 sites were nominated. This resulted in a total of 98 items (sites) – according to the terminology used in the nomination – 98 component parts. In case of each component parts, the core zone and its buffer zone have been designated.

The 98 sites (component parts) are located in 7 Hungarian counties – along the Danube. The sites belong to 50 municipalities bordering the Danube and five of them are located in the administrative areas of Budapest on both banks of the river.

The location of the sites is unevenly distributed along the Danube. The highest density is in Komárom-Esztergom county on the Western territory (13 sites and 20 additional sites – including 14 temporary camps – in 3 clusters), Budapest and Pest county (14 sites and 9 additional sites in 4 clusters) and the Eastern parts of Tolna and Baranya counties (13 sites and 8 additional sites in 2 clusters). The presentable sites are also predominantly found in Budapest and its northern environment, on the Danube Bend.

The entire current length of the Danube in Hungary was the river border of the Roman Empire. From the 417 km long course of the Danube in Hungary, 142 km still acts as a national border. At the same time, the trans-European transport corridors (logistical and communication role) along the Danube are among the dominant infrastructural axes for the European integration of the country and the whole Carpathian Basin (M1 and M6 motorways, railways 1, 40-46, 150, and EuroVelo cycle route 6. The 417 km long river valley is one of Hungary's main ecological corridors: the diversity of natural riverbanks, tributary systems and habitat-rich islands and reefs preserved along 60% of the river course is a significant natural asset.

The 98 sites (component parts) proposed for nomination are part of a network of globally significant Roman frontier systems, which preserve European values due to their diversity and integrity (Table 1). The categorisation of the sites is based on archaeological research and correspond with international agreements.

Table 1 - the categorisation of the sites in Hungary. Source: 'Frontiers of the Roman Empire – The Hungarian section of the Danube Limes' World Heritage Management Plan, Page 28.

MAIN CATEGORY	SUB CATEGORY	SITE	CLUSTER	LATIN DENOMINATION
fort	fortress	2	1	castra legionis
	fort	17	3	castra (castellum)
	camp	14	1	castrum/castra
	fort	3	1	castellum, castra praesidiaria
	fort	2	-	castellum
	fort	1	-	castellum
	fortlet	2	-	castellum, burgus
	fortified riverport/ bridgehead	6	1	burgus
watchtower	watchtower	23	4	burgus
settlement	(civil town) municipium	2	1	municipium
	(military town) canabae	2	1	canabae
	vicus	8	2	vicus
	brick/pottery kiln	3	1	fornax
road	way station	2	-	mutatio mansio
	limes road	18	2	via

The system of attributes - alongside the definition of Outstanding Universal Value - is the basis for protection and conservation (clearly, it declares the object of protection). A total of 5 groups of attributes have been defined for the Hungarian section of the Danube Limes, which can be further subdivided into subgroups. The groups are as follows: 1: the manifestation of a comprehensive imperial concept, standardisation; 2: expression of the complexity of the river subsystem; 3: expression of regional diversity; 4: documents of a mediating and disseminating role in the establishment of a common intellectual culture in the Danube Region; 5: witnesses of the historical continuity of spatial structures with almost 2000 years history.

5.4.2.3. The Present Conditions and the Presentation of the Sites

More than 60% of the sites are located in the open countryside, about 25% in the interior, and almost 10% in a transitional situation. Particularly in areas bordering on internal areas, there is a risk of building development. The location close to an inner area is more favourable in terms of visitor amenity and the creation of conditions for visitor amenity, but management and conservation for maintenance purposes may be hampered and challenged by development. In the case of the location in the open countryside, the main risk is the cultivation.

The ownership of the plots (in the core zones and buffer zones) comprising the sub-locations is very diverse and constantly changing. According to the last updated database, only 10% of them are state-owned, with 40% of them having even a small presence of the state or municipality as owner. The remaining 50% are mixed. Therefore, an intensive communication and cooperation are required.

Among the 98 sites, 34 (35 at low water) have one or more heritage features (ruins) visible on the surface. Of these, 19 have some form of representation. Of the 31 sites not visible at the surface, a further 20 have a realistic chance of being designated in the foreseeable future (including some that require excavation, such as Komárom-Szőny, or Kölked).

Some of the 34 (35) sites are located in an open-air area, others are indoors. Between the 34 visible sites, 16 are unpreserved, most of them highly vulnerable. The assessment of these features is ongoing to decide on their conservation or reburial (in particular 4 of the sites located below the Danube water level, in floodplains or flood-prone areas).

There are several ways of displaying ruin monuments. The choice of how to display them is fraught with risks for the protection and preservation of Roman archaeological heritage features (and archaeological monuments from other periods. At the same time, the requirements of tourism and education argue in favour of a varied and attractive presentation. Besides the alternative or additional methods of the possible and practical forms of presentation can be the followings:

- conservation, additions
- partial reconstruction
- complete reconstruction - rebuilding or 1:1 scale model
- protective roof
- protective building
- placement of artefacts in museums
- ruin garden, archaeological park (presentation of ruin complex)

The currently existing forms of presentation on the Hungarian section of the Danube Limes are the following (Table 2).

Table 2 - the ways of presentation of Roman monuments in Hungary. Source: 'Frontiers of the Roman Empire – The Hungarian section of the Danube Limes' World Heritage Management Plan, Page 70.

FORM OF PRESENTATION	NUMBER OF SITES	LOCATION AND NAME	COUNTY AND MUNICIPALITY
in the archaeological park (without museum)	1 site	Dunakömlőd, Sánc Hill, Lussonium castellum	Tolna County: Paks
ruin gardens	9 sites	Vár-berek, Gardellaca (?), Late Roman Fort (katonai bázis) - Altáró -Erzsébet-akna, villa(?) and vicus	Komárom-Esztergom County: Tokod,
		Gizellamajor, late Roman fortlet	Pest County: Visegrád
		Lepence 2, Solva 35. fortified riverport (burgus)	Pest County:Visegrád
		Kőbánya, Solva 24. fortified riverport (burgus)	Pest County:Visegrád
		Sibrik-domb, Pone Navata (?) late roman fort (castellum)	Pest County:Visegrád
		Dunamező-dűlő, Solva 38. fortified riverport (burgus)	Pest County: Verőce
		Horány, Ulcisia 8. fort	Pest County: Szigetmonostor
		Roman Bath	Budapest, District 3 (Aquincum)
		Öreg Hill, Intercisa castellum/vicus	Fejér County: Dunaújváros
museums (with archaeological park*)	3 sites	Várhegy, Solva castellum	Komárom-Esztergom County: Esztergom
		Aquincum Museum Aquincum civil town (municipium)* Aquincum, bath-complex in the legionary camp Aquincum, canabae, so-called Hercules villa	Budapest 3. kerület (Aquincum)
		Öreg Hill, Intercisa castellum/vicus*	Fejér County: Dunaújváros

public area	7 sites	Petrol Station (Roman watchtower), Cirpi 2. burgus	Pest County: Leányfalu
		Aquincum, civil town – Roman Bath	Budapest, District 3
		Flórian Square and its surroundings, Aquincum 2-3rd century legionary camp (castra legionis)	Budapest, District 2 and 3
		Március 15. Square, Contra Aquincum (Contra Teutanum?), castellum	Budapest, District 5
		Nagytétény, Campona, Roman Fort (castellum) and vicus	Budapest, District 22
		Matrica castellum and vicus (with bath)	Pest County Százhalombatta
		Öreg-hegy, Intercisa castellum/ vicus	Fejér County: Dunaújváros
private area	1 site	Dunakeszi Port (Duna sor), Ulcisia 9. fortified riverport	Pest County: Dunakeszi

For an overview on recent research on World Heritage sites and all other Roman frontier sites, visit https://clir.hu.

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5.5. Serbia

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Research on the Roman frontiers began in Serbia rather late. Excavations were rare and relatively unbalanced both through time and geography. The only systematic projects were the explorations on *Singidunum*/Belgrade, *Viminacium* and *Diana*/Kladovo that included long-term excavations, conservation, and presentation segments.

5.5.1. Srem region or Lower Pannonian Limes

Major part of the archaeological research in Srem was conducted while it was part of the Austro-Hungarian Empire. Unfortunately, nothing was ever presented, and these results are not available today. Modern excavations focus on *Sirmium*/Sremska Mitrovica, its hinterland, roads and aqueducts. The defence line was barely touched. Very few sites in Pannonia have clear legal status as cultural heritage. New motivation in connection with the ongoing UNESCO nomination gave new strength to finish what had been started so many decades ago.

During the tetrarchy the forts in *Pannonia Inferior* flourished, although without legions as the backbone of the defence system in the early centuries. The rich hinterland in Srem between the Sava and Danube, with *Sirmium* as one the tetrarchic capitals of the Roman empire brought the limes of the province *Pannonia Secunda* in the very focus of the researchers. The only units explicitly mentioned by name in Flavius Vegetius Renatus' *De re militari*, also known as *Epitoma rei militaris* ("Concerning Military Matters"), were *Ioviani* and *Herculiani* or the *legio V Iovia* and *legio VI Herculia*. Both units were famous for using *martiobarbuli* or *plumbatae* – specific ranged weapons. They were often treated as special forces corps with the main function to protect *Sirmium* as the capital. The presence of the *Classis Flavia Pannonica* is notable on many sites.

Plans for the presentation have been initiated only recently after the sites had become part of Serbia's UNESCO Tentative List. All sites have good potential for presentation if the current problems are overcome. The major problem on the majority of the sites remains the private ownership that should be carefully analysed. The bridgehead at *castellum Onagrinum* at Begeč is in the initial phases. The sites of *Acumincum*/Stari Slankamenand *Rittium*/Surduk are to be explored by geophysical surveys and planned to be expanded as archaeological parks. Sites in public areas (*Ad Herculem*/Čortanovci and *Cusum*/Petrovaradin) are being already prepared for different types of presentation as they have no issuess with ownership and are located in highly protected zones.

Taurunum/Zemun, one of the most important bases for the river fleet, lies under the modern urban center. Only the section of the Roman cemetery will be marked and described on info boards as there are no other ways for presentation at the moment.

5.5.2. Central Serbia (Moesian frontier)

Excluding at capital sites, such as *Singidunum*/Belgrade, *Margum*/Dubravica and *Viminacium,* the archaeological research along the Serbian Danube Limes is not yet well-advanced. Several smaller sites had only a few trenches excavated to confirm their stratigraphy but the results of these researches are more or less not adequately published.

Singidunum/Belgrade is the second largest site and legionary fortress and presented partially in the modern urban environment. Small-scale remains are visible in Kalemegdan park and within the ramparts of later fortifications. The best-presented section is located in the Roman hall of the Belgrade city library.

The scientific excavation project with the longest research tradition in Serbia is the one of *Viminacium*, capital city and legionary fortress. The excavations began in 1882, and continued in 1902/1903 with large decades long pauses after until the 1970s. From 1973, systematic or protective excavations ran almost continuously until the present day. This resulted in more than 14,000 excavated graves, entire urban sections explored by geophysical surveys and multiple monumental buildings presented within the ancient city and legionary fortress. Today it is the largest and best-developed Archaeological Park along the Limes in Serbia with a tradition since 2006. At the moment, this is still the largest active multidisciplinary project employing more than 30 experts from different scientific branches, and with its own basic sources of financing. All facilities for mass tourist visits and developed tourist infrastructure exist with plans for further systematic development. Newly discovered ships in the area of the ancient riverbed (today the banks of Danube are 3.5 kilometers away from the site, at least 2 kilometers further than originally) dating in a period about 1,600 ago bring new possibilities for a Roman navigation museum on-site. Several events already have a long tradition and are organised annually.

The auxiliary forts and Roman towns between *Singidunum*/Belgrade and *Viminacium* are being surveyed and in process of posing legal protection (*Ad Octavum*/Višnjica, *Castra Tricornia*/Ritopek, *Aureus Mons*/Seone, *Margum*/Dubravica).

5.5.3. Projects Djerdap I and II

Djerdap or the Iron Gates gorge is one of the most beautiful areas of the entire Roman frontier regions. It includes the deepest and narrowest points of the Danube river and is the largest and longest composite gorge in Europe, a National Park in Serbia and internationally recognised geopark. Most of the Roman sites have been submerged when building the hydroelectric power plant Djerdap I, but what remains provides extraordinary potential with a non-classic approach to present Roman cultural heritage. There are possibilities for pre-

sentation at several locations starting from *Cuppae*/Golubac, *Novae*/Čezava, *Gerulata*/Miroč, and Hajdučka vodenica.

26 known Roman sites are now submerged into the waters of the Danube. In 1970, after the dam of the new hydroelectric power plant had been built, the level of the Danube rose by five to 20 meters depending on the position in the gorge. Eight of these sites are included in the UNESCO nomination process that are proved to still exist.

The imperial tablets in Gospođin Vir and Kazan are accessible only via boat. They could be presented to visitors from the water in the short term and plans could be made to enable the overland access in future overcoming the steep cliffs. The original Roman roads and fortification elements are five to 20 meters under the Danube's water level. Underwater surveys of the sites are in progress.

The exploration of Djerdap began in the first half of the 18th century. During the 19th century, engineering endeavors and the growth of interest in historical research, combined with the opening of Serbia and the Balkans to Western Europe, made the Iron Gates an exotic tourist destination. Felix Kanitz toured through the Danube region several times in 1866, 1887 and 1896 and after each of those trips, he systematically published the results of his surveys. In numerous books and travelogues, he published data on more than 80 different sites, mostly Roman fortifications.

The archeological understanding of Djerdap, although the research was intensive, is unfortunately not completely known. The focus of the research was on fortifications, while settlements, villas, sacral buildings and necropoles remained largely unknown. The excavation of the fortification primarily resulted in the recording of the dimensions, shape and size of the defensive walls, while the interior was not fully explored. Therefore, the internal organisation of the fortification is not precisely documented.

This region has one unique defensive element: walls closing the mouth of small tributaries to the Danube. In the gorge with often vertical cliffs, these small streams represented the only way inland and therefore had to be closed with defensive structures.

An overture to extensive research were the systematic excavations at *Taliata*/Veliki Gradac near Donji Milanovac in 1958.

In 1964, the Republic Commission for Scientific Research and Protection of Cultural and Natural Monuments in Djerdap was formed, with the main activity to manage all research works, but also to provide financial resources for them. The commission consisted of over 20

members, the president was Dr. Lazar Trifunović and the secretary Dr. Borislav Jovanović. The commission was formed of four subcommittees to facilitate coordination of protection activities:

- for archaeological research,
- for the relocation of cultural monuments,
- for ethnographic research,
- for protection of natural resources and heritage.

The largest salvage and research project "Djerdap I" took place in the Iron Gates gorge from Golubac (Livadice site) to site Sip (Roman canal and fortification) from 1965 to 1970.

The research began with extensive surveys of the area of the Djerdap gorge in 1956, which were planned and led by the Institute of Archaeology. This pre-project resulted in an extensive study for the entire area, which was assumed to be submerged by the formation of an accumulation lake. All associates of the Institute of Archaeology participated in these works with the help of external associates from all other institutions as this had become the largest ever project in Serbian Archaeology. The Faculty of Philosophy from Belgrade, the National Museum Belgrade together with smaller museums (Belgrade City Museum, and museums from Vršac, Niš, Požarevac, Zaječar and Negotin), the Military Museum, as well as all Republic and Regional Institutes for the protection of Cultural Heritage took part in the excavations.

The Djerdap projects have also been the first real multidisciplinary projects in former Yugoslavia that included anthropologists, paleozoologists and geophysicists.

Funds for these researches as well as for the relocation of the Trajan's tablet (*Tabula Traiana*) were provided by the investor. Unfortunately, further financing was suspended after the building of the dam, because they then considered their obligation to be fulfilled.

All the main institutions dealing with archeological excavations were involved in this project, led by the Institute of Archaeology from Belgrade, which coordinated the research and tried to unify diverse documentation systems that existed among the institutions. In preparation for this project the creation of a common national documentation system was a major leap as up to that point there was no standard in documenting excavation results . The results of these papers have been published in a series of reports, exhibition catalogues, studies, and conference acts. Among the most important are "Starinar XXXIII-XXXIV" (published in 1984) and "Roman Limes in the Middle and Lower Danube".

The second major salvage campaign – "Djerdap II" project – lasted from 1980 to 1984 prior to the construction of the Djerdap II hydroelectric power plant, 80 kilometers downstream from the existing one. 15 sites were covered by these excavations (fortifications, settlements, road remains), from *Diana*/Karataš to *Aquae*/Prahovo and Kusjak, close the Serbian-Bulgarian border.

The research within this project was conceived somewhat differently, primarily due to the quite different configuration of the terrain, more accessible and easier to excavate. Opposite the cliffs and the narrow space within the Karataš gorge, the banks of the Danube open into a wide and more or less flat river valley. The research in this phase covered the next 80 kilometers of the right riverbank. The first works began in 1980 and continued for the next four years until 1984. The flat terrain with large visibility zones enabled them to be distributed even more evenly and over greater distances, at least when it comes to sites in the function of the Roman Limes.

The principle in the research remained the same as in previous campaigns. The works were concentrated on sites in the immediate vicinity of the river, which were directly affected by the flooding. In this case, too, a number of sites located on plateaus and elevations above the new water level and therefore outside the submerged area, were covered by the archaeological works.

The results of these excavations were published in a special series of publications, the "Djerdapske sveske / Cahiers des Portes de Fer I-IV" (1980-1987). After this campaign had ended, only small-scale excavations have been carried out on the *Diana* fortress in Karataš near Kladovo until today, as well as at the sites of Mala Vrbica Konopište, Mihajlovac – Mora Vagei, *Egeta*/Palanka Brza.

During these two projects attempts were made to document the sites in the area between Golubac and the mouth of river Timok (where Bulgarian section of the Danube Limes starts) to the maximum extent. In the course of the building of those to dams at least 26 Roman sites have been submerged in the Danube.

Recent underwater surveys, conducted in order to examine the state of preservation of the submerged sites in the Iron Gates in the "Djerdap I" research area, showed that the most important sites still exist. The year 2020 was a sad anniversary, since for 50 years so many important sites have been lost to the Danube. The strength of the Roman walls must have been extraordinary, as for five decades by now they are opposing the force of the Danube river.

After a number of surveys and excavations carried out in previous decades, all research stopped for some time. Since then, many of the documented sites have been almost completely destroyed or seriously endangered. Examples for problematic sites at which researchers face a lot of difficulties are *Burgenae*/Novi Banovci, *Lederata*/Ram and *Cuppae*/Golubac. Roman *Lederata*, on the hill above the modern village of Ram, out of sight of the local population, was systematically looted. The looters destroyed a significant part of the Roman fortifications with their illegal trenches, which are visible even on satellite images.

The situation varies from site to site. Some, like *Singidunum*/Belgrade, lie under modern settlements. The remains of the Roman legionary camp are located under the Kalemegdan Park

and Belgrade Fortress. The Roman settlement and cemeteries are located below the current city centre. Thus, the possibility for the presentation of the ancient architecture is quite limited, but almost all the necessary infrastructure exists. On the other hand, the Roman city and the legionary fort of *Viminacium* are far from modern settlements or important routes. It required major efforts to establish access roads and even basic infrastructure for operation of the Archaeological Park. The possibilities of presentation, reconstruction and visualisation are practically unlimited, but dependent on the pace of acquisition of the fields that are still mostly in private hands. In the eastern part of the Limes, the sites are located either under modern settlements or very close to them. Sites such as *Diana* and *Pontes* are well-preserved and have excellent opportunities for presentation. It is a particularly interesting idea to use holographic technology to visualise a Roman bridge, which would not interfere with navigation on the river itself.

As the presentation of the 450 kilometers long Limes section of Serbia requires many activities involving management and presentation, it was proposed to establish regional centres for a better control over UNESCO-protected sites. So far, the idea is to organise four centres as regional hubs. The centre for the area of Srem can be in Novi Sad. Belgrade and *Viminacium* could manage the central zone. Kladovo could serve the eastern center, in charge of controlling Djerdap and part downstream towards Bulgaria. Further, there is the idea to designate or establish a central institution that would take care of the overall coordination of the entire Limes area. However, in the current financial crisis, this is unlikely to be implemented.

Being on the World Heritage List is the ultimate recognition of international value. The responsibility of maintaining this status is probably an even more difficult task than the nomination itself. The preservation of the Roman heritage for future generations is the primary task of this project.

The auxiliary fort of *Diana*/Kladovo is one of the best excavated and presented sites. It lacks most of the visitor infrastructure. At the moment, there are no traditional festivities or events. The site is not actively presented and has no tourist facilities. The municipality of Kladovo is interested and motivated for improving the presentation of the site which has excellent potential if connected to a common presentation concept together with the Archaeological Museum of the Iron Gates in Kladovo and the *Pontes*/Kostol site.

The Traian's Bridge at *Pontes*/Kostol (on the Serbian side) and *Drobeta*/Drobeta-Turn Severin (on the Romanian side) is a Serbian-Romanian transnational nomination site. There is a close border bridge crossing at the dam of the hydroelectric plant Djerdap I about 16 kilometers upstream. The piers of the ancient bridge on both of the banks are still visible and presentable as well as the forts on the approaches to the bridge. The potential for virtual presentation is enormous. There is a project ongoing with the aim to create a hologram image of the virtually 3D-reconstructed Traian's Bridge. This virtual reconstruction would neither affect the original remains nor interfere with modern navigation on the Danube but it would give an

adequate impression of the ancient construction. The municipality Kladovo is highly interested and motivated for presentation of the site.

Most of the sites downstream from *Pontes*/Kostol face a suboptimal situation for high exploitation because the land is mostly in private hands.

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5.6. Bulgaria

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In 2016 and 2017, the Association of Danube River Municipalities "Danube" conducted an extensive study on the Limes archaeological sites in the Bulgaria's Danube region (the sites, registered on the BG archaeological map). This study was a part of a larger study on the Roman heritage in the cross-border region Romania-Bulgaria.

The Study assesses the historical-archaeological value of the Roman sites and the state of the technical and tourism infrastructure at site. It applies analysis of written sources and in-situ assessment of all the identified sites. The field work describes and documents the current state of the archaeological site.

Based on the findings of the Preliminary Study, this part of the paper identifies research gaps in studying archaeological Danube Limes sites in Bulgaria. The paper covers the Danube Limes sites in Bulgaria in the following parts: short history of research and sources/ archaeological research; state of excavation and authenticity of the historical structure; interventions in the structure - conservation and restoration, exhibition, construction.

It starts with an overview and analysis collectively the Danube Limes sites in Bulgaria: general characteristics in terms of location and link with the other structures, the level of research; degree of integrity and preservation, preserved authenticity; conducted interventions in the structure - conservation-restoration, exposition, construction. This review highlights the research and exploration gaps, outstanding work for excavation, conservation, restoration and exposition that the stakeholders need to address.

The Danube Limes sites in Bulgaria have been systematically studied, some of them for more than a century; the first excavations of *Ulpia Oescus*/Gigen date back to 1904 and those of N*icopolis Ad Istrum*/Nikyup to 1900. Nevertheless, the level of research is still considered to be insufficient. Interest in the various Danube sites has been different over the years. Apart from the Bulgarian archaeological explorations, expeditions from other countries were undertaken, including Italien expeditions to *Ratiaria*/Archar, German expeditions to *Iatrus*/Krivina and British expeditions to *Nicopolis Ad Istrum*/Nikyup. At present, only a Polish research project in Novae is still operating. Some have been studied intensively, such as *Ulpia Oescus*/Gigen, *Nicopolis Ad Istrum*/Nikyup and *Novae*/Svishtov; others, such as *Ratiaria*/Archar and *Durostorum*/Silistra, not in so much detail, and for the majority of sites only drillings have been made. There are also Roman sites known from ancient sources that are not yet localised, but their identification is important in order to obtain a complete view of the defence system along the Lower Danube Limes.

[4] Based on a consortium work of the *Partnership under the Obligations and Contracts Act "Danubius" and RubliMedia business SPL.*

In Bulgaria 98 archaeological sites of Roman heritage have been identified so far, distributed by region as follows: 17 in Vidin, 9 in Montana, 15 in Vratsa, 30 in Pleven, three in Veliko Tarnovo, 10 in Ruse and 14 in Silistra.

The examination of the legal status of the sites in Bulgaria shows that 25% of them are state property, 15% are municipal and 11% are with joint ownership between the state and the relevant municipality. Fully private are 11% of the sites and 38% are shared state, municipal and private property.

80% of these sites in the Bulgarian Danube region are located outside urbanised areas, a large part of them at a distance of one to ten kilometers from the next site. 20% of the sites are located entirely or partly in modern settlement areas (cities or villages), with large parts of their ruins under modern building structures. At twelve of the sites located in urbanised areas, conservation, restoration and exposition activities were carried out and they were integrated into the urban stuctures as tourist sites of cultural heritage. Some of these are the ancient fortress *Castra Martis*/Kula, Belogradchik (also: Kaleto), ancient *Bononia*/Vidin under the medieval and Ottoman fortress Bdin, the fortress *Nicopolis*/Nikopol, the ancient fortress *Sexaginta Prista*/Ruse, the northern fortified wall of *Transmarisca*/Tutrakan, part of the ancient *Durostorum*/Silistra with its Roman villa and Roman tomb inside, etc. In the ancient city of *Almus*/Lom, archaeological excavations were carried out, but only minimal conservation efforts were made.

Examples for sites located in urbanised areas are the Roman city *Ulpia Oescus* near today's village of Gigen, and *Novae* near Svishtov. Some of the ancient ruins have been preserved and restored, while at others archaeological excavations and restoration activities are still going on.

At more than one third of the sites in the urbanised areas no archaeological excavations have been performed, e.g. the ancient fortresses of *Palatiolum*/Baykal, *Trikesa*/Dolno Linevo, *Cebrus*/Dolni Tsibar etc. Archaeological drillings have been made for the ancient of fortress *Regianum*/Kozloduy.

Some of the most significant historical sites are located at the border of urbanised areas, where archaeological excavations and restoration activities have been carried out and which function as tourist attractions, e.g. the Roman fortress at Belogradchik (also: Kaleto), the ancient fortress *Storgosia*/Pleven, the road station and ancient castle *Dimum*/Belene, the ancient city *Novae*/Svishtov, the ancient and medieval settlement *Iatrus*/Krivina, the fortress at Cherven and the Roman tomb in Babovo in the municipality of Slivo pole.

For 60% of the identified sites no archaeological excavations have been carried out. For 11% of the sites excavations were made, but no conservation and restoration work was undertaken. Only 23% of the all sites have been studied, and archaeological excavations, conservation and

restoration activities have been undertaken. The Regional Museum of History of Ruse is very active in their exploration work and carries out annual excavations in *Sexaginta Prista*/Ruse, *Trimamium*/Mechka and other less popular sites, such as the fortress at Batin, the fortress Scaidava and the necropolis at the village of Marten belonging to the Fortress Tegra.

Sites of great scientific interest for the Bulgarian and foreign scientists are *Ratiaria*/Archar (studied jointly with Italian teams), *Iatrus*/Krivina (studied together with German scientists), *Novae*/Svishtov (studied jointly with Polish teams and using state-of-the-art methods), *Nicopolis Ad Istrum*/Nikyup (jointly with English experts).

The archaeological and scientific priority lies with the sites of the Roman legionary camps at *Ratiaria*/Archar, *Novae*/Svishtov, *Ulpia Oescus*/Gigen, and *Durostorum*/Silistra. Major settlements and fortresses along the Danube Limes also have great scientific potential but unfortunately many of the sites, especially in Northwestern Bulgaria, have lost a lot of their archaeological potential, since there has been a lot of devastating treasure hunting and looting. Unfortified settlements and roads as engineering facilities are not of priority in the current archaeological research work.

Generally, we can conclude that sites located outside settlements have a well-preserved connection with their physical context and a largely preserved authenticity. The natural and anthropogenic risk factors pose a serious threat to the surrounding environment, especially coastal erosion, landslides in the Danube riverbed, and treasure hunters that often cover large areas.

In the settlements, the authentic material structure of the context is irretrievably lost, but in case of proper urban planning the archaeological remains can be appropriately exposed in park environment, as shown by the good examples of Vidin, Belene, Pleven, Tutrakan and Silistra (for parts of the ancient fortresses). This is also possible in Lom.

For sites located in or near settlements (Novae, Trimammium), there is interconnection of the archaeological site with the other functional systems of the settlement structure, which is an underdeveloped potential for the whole system.

63% of the sites are currently in poor or very bad condition. Sites often have an undisturbed natural frame or have been destroyed by treasure hunt invasions by machines or trenches. A large part of them is located in uncultivated and deserted terrains, which to a great extent affects negatively their emotional perception.

Sites of a highly positive emotional impact, with clear aesthetic qualities include the Medieval and Ottoman fortress Bdin (Vidin); Road station and ancient castle Dimum; Fortress Cherven (village of Cherven, municipality of Ivanovo); Ancient Fortress Sexaginta Prista (Ruse); Ancient city Transmariska – northern fortified wall (Tutrakan), Kaleto Fortress (Belogradchik), etc.

For less than 20% of the sites conservation and restoration measures have been applied, and even less are well exposed and socialized. This to a certain extent is due to the fact that comparatively small percentage of the archaeological sites along the Danube Limes are studied. Most of the restorations carried out are already physically and morally obsolete, and the sites are in a poor condition. Few of the sites currently have project readiness.

Some of the most representative sites after intervention include the Medieval and Ottoman fortress Bdin, which is very well exhibited and perfectly socialized in the urban life of the park, the road station and ancient castle Dimum, where the realized project with European funding is of high quality restoration and conservation activities, perfectly exposed and socialized in a park environment, part of the urban life; Ancient fortress Sexaginta Prista (Ruse) and Ancient city Transmariska (Tutrakan) for which mobile applications were also developed.

Most sites under consideration are predominantly large in size, complex and multi-layered and their degree of study is different. In the present case, a major part of them were not examined archaeologically or were examined only partially (with a few exceptions such as the Iatrus at Krivina, the Batin fortress and the Roman tombs at Batin and Silistra).

Many of the sites have a good (51%) or very good (38%) preserved authenticity of the archaeological substance.

We can summarize that in the past 2,000 years, most of the fortresses and sites close to the Danube river bank have lost part of their structures (often the northern fortified walls – for example, Trikesa in the village of Dolno Linevo, Valeriana in the village of Dolni Vadin, Burgo Zono, etc.) due to a landslide in the river bed, which has changed its flow, moving about 20 meters to the south, that is, in the Bulgarian territory. This applies especially to the sites located at a lower altitude, some of which are currently fully flooded by the Danube river (Apiaria in the municipality of Slivo pole).

The anthropogenic factors are very devastating for the archaeological sites and should be limited as much as possible by legal restrictions. Investment intentions affect negatively the sites located in the urbanized territories and the arable land and treasure hunting affects the all the rest. A very serious problem is the treasure hunt, which led to almost complete destruction of many sites, especially in Western Bulgaria.

For each one of the sites, the immediate surrounding environment was examined as a framework, the condition and the attractiveness of this physical context, its authenticity and contribution to the adequate exposure of the immovable cultural property.

5.6.1. Bibliography

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5.7. Romania

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The emergence of professional archeology, both research and educational institutions, as well as museum institutions is the result of a process that took place in the XVIII-th and XIX-th centuries, which is the period of the "Enlightenment", "Age of Nations", and the invention of the concept/idea of national state.

The generic expression „antiquarians' period" refers, in Romanian archeology, to that period of the XIX-th century which, although characterized by amateurism, will contribute, in some cases decisively, to the formation of the scientific spirit. In the Kingdom of Romania newly born at that time, the National Museum of Antiquities in Bucharest was, without a doubt, an institutional landmark, through which the transition will be made from accidental and destructive excavations to those of a systematic nature.

In Transylvania, part of the Austro-Hungarian Monarchy, the study and practice of archeology is the consequence of the creation of infrastructure and the development of archeology, on the one hand under the influence from Buda, on the other hand under the influence from Vienna and German influence.

The "practice of archeology" in this early period was represented by the organization of private collections of antiquities and field trips (or walks) in an attempt to find traces of the past.

In February 1817, Baron Samuel Brukenthal founded in Sibiu the museum that still bears his name. The collections included, as in other comparable places in Europe, exhibits of art, archeology, numismatics and mineralogy, later completed with other fields of exhibition interest.

Literary or epigraphic sources in connection with the limes of Dacia or the defensive system are almost completely missing. However, there is a vague information, repeated by two ancient authors (Eutropius, VIII, 2, 2; Festus, VIII, 2) that the length of Dacia's borders measured "*decies centena milia passum in the circuit*", i.e. almost 1479 km. The route of the border in the form we know it today could be established by locating in the field and the archaeological research of the camps, because the border line is always in front of them at a certain distance.

The first investigation on the Roman frontier from Transylvania were undertaken by Hungarian or German-born scholars. Károly Torma, Árpád Buday or Téglás Gábor made the first steps to identify and research roman archaeological sites.

The first important research on the Roman border in Dacia belongs to Torma Károly, who in 1862-1863 identified the first elements of the northwest limes: towers, *burgi* and *vallum* sections, making surveys in the field in the Porolissum area (Moigrad, Sălaj).

The field surveys were accompanied by accurate descriptions of the location and state of preservation, ground plans and altimetric profiles.

He is the first one who use the term *limes Dacicus*, a modern concept created in order to name the north-western stretch of the frontier in Transylvania, between the auxiliary fort at Bologa and Porolissum.

He assumed that the whole western limes consisted of towers, *burgi* and continuous *vallum*. In 1910, A. Buday identified the towers he discovered, as well as new ones, investigating a wider area to the vicinity of Porolissum. His method was based on a large-scale survey accompanied by detailed descriptions and site photos (for the first time on the frontier of Dacia Porolissensis). He also made a series of altimetric profiles of the encountered ruins (especially watchtowers and fortlets but also several linear fortifications). Besides a series of new finds and accurate descriptions, he made the first topographical map of the Meseș Mountains containing the main toponymy of the Roman frontier sites.

Between 1891-1903, G. Téglás focused himself among others on the north-western frontier of Dacia Porolissensis, and he published a study where he strongly supported the existence in Dacia Porolissensis of similar linear frontier systems like in the provinces of Germania and Raetia.

In the early 1930s, Constantin Daicoviciu researched the same area and found that apart from towers and burgi, there were only small *vallum* sectors in the Porolissum area, but otherwise there was not a continuous limes. He is denying a complete linear frontier of a Germanic type in Dacia Porolissensis. The only physical organization consist of watchtowers, fortlets and forts, strategically located within the local relief.

In the 1940s, Radnóti Aladár used aerial photographs for the first time and only then, to identify the border in the Meseș Mountains area, again supporting the existence of a continuous wave, but without convincing arguments.

From the 1940s to the 1960s, the problem of the northern limes was researched by István Ferenczi, who identified known towers and new ones, clarifying the geomorphology of the terrain.

The route and elements of the limes could be established through research that began, more or less systematically, around the middle of the twentieth century and continues today. However, the research of the limes acquired a character organized only in 1949 after the establishment of the Institute of Archeology of the Academy of the Socialist Republic of Romania.

From 1965, Nicolae Gudea also started to work on the northwestern limes, and he carried out several archeological researches inside the watchtowers. In fact, he is the one who prepared the most recent repertoire of camps in Dacia (Der dakische Limes. Materialen zu seiner Geschichte, Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz, 44, 1997,2, 2-113), the

work being published with on the occasion of the XVII International Congress of studies on the Roman borders, organized in Zalău, in 1997.

At the same time, a series called "Guide to the Monuments of Dacia Porolissensis" was prepared, several issues presenting the camps of Dacia Porolissensis, in parallel German and Romanian versions. Since the 1970s, N. Gudea has been intensely concerned with the defense system of the Dacian provinces as a whole and has also tried to draw up lists of its fortifications. The work, published in 1997, aims to provide researchers of the Roman borders with an updated list of the fortifications of the Roman military borders in Dacia. A lot of technical and chronological data are provided, as well as bibliographic data about cities and troops. Although impossible to be complete, it provides an overview of the Dacian limes. On some sections, the exact route of the border fortifications is still unclear; there are also unanswered questions about the deployment of troops and the dating of some fortifications.

The Limes of the Dacian provinces is still little known outside Romania, because the works of Romanian archaeologists dealing with the complex issues of the borders of the empire, fortifications or military history are not widely known. Outdated works are still consulted, some from the 19th century, which contain romantic or false hypotheses. In some there are inaccurate maps of the Dacian provinces, others give an incorrect border line or a wrong type of border.

The auxiliary camps, part of the limes system, are much better researched, especially in terms of internal planimetry and chronology. Lately, they are also being researched with modern geophysical equipment, in many cases with good results.

The last large-scale limes initiative belongs to Alexandru V. Matei, who identified several sectors of limes with a stone wall.

The line of the Limes Transalutanus has been established since 1885 by C. Schuchhardt and described in detail by Gr. Tocilescu and especially by P. Polonic; In the XX-th century, it was researched by a number of archaeologists, such as C. S. Nicolăescu-Plopșor, D. Tudor, R. Vulpe, Cr. M. Vladescu, I. Bogdan Cătăniciu and R. Avram.

Nowadays, its route is not as well observed as at the end of the 19th century, therefore it is difficult to contradict the archeological observations, so many times confirmed, of P. Polonic. The Limes Transalutanus research raises some questions, to which the right answer has not always been given: its route, the way it is made and especially its dating. Most often the opinions expressed were based only on surface research, although even newer research did not lead to satisfactory results.

Recently, between 2014-2017, a new project, based on the new technologies in the fieldwork focused on the Limes Transalutanus. If the technology is not new in the international practice, the technological sequence, developed for a linear target, is an innovative concept. The technological model may be resumed in its main components: integration of available archives

into a GIS application, investigation by high resolution aerial photography, high detail geophysical and photographic (optical and hyperspectral) prospections by UAV (drone), ground geophysical studies, archaeological field surveys (linear and systematic; with surgical test diggings), geostatistical data integration (data fusion). This collection of methodological components allowed a gradual tackling of the investigated historical topic and geographic area, from its general background to the highest level of detail, a process completed with a multivariate statistical integration of data sets, with the purpose of highlighting some essential interpretative scenarios. As elements of novelty, it is woth to mention an experimental UAV (designed for low altitude airborne geophysics) or an experimental section of the GIS application, intended to collect all toponyms ever recorded in a test perimeter, trying to reconstruct – along all other data, as physiography and geophysical data – the former landscape of the area.

Starting from 2014, a national program – Limes National Program – dedicated to the research of the Roman borders in Romania was instituted, as a result of which the process of inscription in the Indicative List of the UNESCO World Heritage of the limes sector called "Frontiers of the Roman Empire – The Danube Limes (Lower Section)" was finalized. This is a multinational effort belonging to Croatia, Serbia, Bulgaria and Romania. At the same time, the other part of the Roman borders on the territory of Romania, "Frontiers of the Roman Empire - Dacia", was inscribed on the same indicative list. The size, structure and characteristics of the borders of the province of Dacia are exceptional, offering over 300 archeological sites for nomination, including legionary and auxiliary forts, smaller fortifications (burgus, fortlet), a lot of watchtowers and other linear fortification barriers, spread over most of the country. The ongoing results of the research and investigations undertaken by the members of the comission working for this program are published in a review also called Limes, which is available online.

The research of the Lower Danube limes related to the period of 1st to 3rd centuries CE is very difficult because a great number of fortifications were restored and reused during the subsequent periods of time: late Roman, Byzantine and even during the Ottoman domination. It is also important to stress that a small number of excavations or other types of investigations (e.g. geo-magnetic etc) managed to reach the early roman levels. To this, an important aspect to point aut is the fact that investigations were carried aut separately by the researchers belonging to the modern states – Romania, Bulgaria, Serbia – existing today on the territory occupied in the Antiquity by the provincies Moesia Inferior and later by Scythia Minor, Moesia Secunda, Dacia Ripensis.

The literary sources concerning the fortifications of Lower Moesia are comparatively few in number and information they offer is rather fragmentary. Archaeological investigations and research, starting with the simple investigation and description of ruins in the field to rescue excavations or simply trial trenches, provide the most important and certain information about the early roman fortifications in this area.

The first historians to mention and describe remains of the roman fortifications were the Romanian historians from the Middle Age – XVII and XVIII century: Miron Costin and Dimitrie Cantemir. In 1827, Gheorghe Seulescu published the first monographic work of an ancient settlement: *Descrierea istorico-gheografică a cetății CAPVT BOVIS (Capul Boului seau Ghertina) a căreiia ruine se află în apropierea Galațului*, dedicated to the roman ruins from Barboși.

The study of the ancient relics began to be more important with the activity undertaken by the National Muzeum of Antiquities from Bucharest: investigations on the field carried out by the topografer P. Polonic, and excavations made by Gr. Tocilescu. During the years 1897-1898 Polonic was focused on the right bank of the Danube sector comprised between Durostorum (Silistra) and and the mouths of the river, and also on the Black Sea coast from Dunavățu to Cape Midia. His reports included data about the description, plans and dimensions of the fortifications, and state of their conservation at that time. Each description is accompanied by drawings, topographic information, and the position on the limes. About the same time C. Schuchardt, travelled and carried out research during the First Warld War, especially in Dobrudja, foccusing on the walls crossing this region between Danube and the sea, on a line connecting Axiopolis (Cernavodă) with Tomis (Constanța). Gr. Tocilescu was instead the first archeologist starting excavations in many of those archaeological sites, and also in Tropaeum Traiani, discovering and investigating the well-known Triumphal Monument erected by Trajan, and the roman city next to it. In parallel, Tocilescu collected, analysed and published the epigraphical material recovered within the fortifications on the limes. Archaeological activity, especially for Dobrudja was promoted by V. Pârvan, who started to examine several forts in the area.

After 1918, archaeological research, both surveys and excavations, proper developed on a large scale was taken over by the first generation of Romanian true archaeologist, the disciples of Pârvan. A valuable contribution was published in 1938: the first monograph on Dobrudja, wrtitten by R. Vulpe, listing some 45 forts on the Danube limes.

Since the 1950s, an improved research situation has been observed as a result of the increased systematical archaeological activity in such sites as: Sacidava, Capidava, Dinogetia, Barboși, Noviodunum, Halmyris. The new information was integrated in the new monographies dedicated to Dobrudja, published in 1968 and 1991. Questions related to the history of the military units were discussed by A. Aricescu. General reports on the limes of the province, or on some sectors, were drawn up in the past years and delivered particularly on the occasion of international congresses on the frontiers of the Roman Empire. Special mention should be made of C. Scorpan work, *Limes Scythiae: Topographical and stratigraphical research on the late Roman fortifications on the Lower Danube*, published in 1980 with a lot of references to the early Roman period.

Special works dedicated to the system of fortifications of Lower Danube Roman limes were prepared by M. Zahariade and N. Gudea (1997, 2005). In the 1997 paper, Roman fortifications were, for the first time, both integrated into a system and presented individually in a relatively consistent manner and in a certain order. Also for the first time, there was a compilation of literature on the province's defense system and military history. Their works give us a general image of the limes, its development, state of research, as well as military, economic and social aspects connected with the presence of roman army at the Lower Danube.

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5.8. Moldova

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5.8.1. The Molodovan Research History on the Roman Heritage

The research of the Roman archaeological sites on the territory of the Republic of Moldova are especially related to the Soviet period carried out by the researchers G.B. Fedorov and E.A. Rikman. In 1950, G.B. Fedorov initiated the first surface research. He also undertook excavations in 1953-1954 in the settlement of Lopatna, and in 1954-1955 in the necropolises of Mălăieşti and Bălţata. G.B. Fedorov also made the first map with archaeological discoveries from the first half of the 1st century AD, including those belonging to the Sântana de Mureş-Černjachov culture.

E.A. Rikman began in 1953 the research of the necropolis from Lăpuşna and of the settlements from Solonceni and Lucăşeuca. During more than two decades he carried out large-scale excavations in the settlement and cemetery of Budeşti (1954-1957), in the settlements of Bălăbăneşti (1956-1957), Zăicana (former Zagaicani), (1957-1958), Delacău (1958-1960, Comrat (1960-1961), Sobari (1962, 1965, 1967, 1971) and Ruseni (1972-1973) and in the necropolises from Bălţata (1963-1964) and Hansca-Lutărie (1967-1970). His fieldwork has been accompanied by numerous publications. In 1975 E.A. Rikman publishes the first repertoire of Sântana de Mureş-Černjachov cultural complexes from the Republic of Moldova and a valuable monography for that period. These first excavations and publications, which can be considered pioneering, also contain many gaps, among the reported shortcomings being the incomplete recording of data during field research, the sometimes-telegraphic style of the texts of excavation reports, the absence or very small number of illustrations of these reports, the poor and incorrect quality of some of the illustrations in the publications.

Systematic or rescue archeological investigations in the objectives of the Sântana de Mureş culture from the Prut-Nistru interfluve from the following decades have already been carried out by other generations of specialists. These include the large-scale excavations undertaken in 1974-1978 by archaeologist I. Rafalovič in the famous Sântana de Mureş-Černjachov necropolis from Dănceni, being published a monography, but which is quite modest on scientific level.

Research has shown so far that the most important connections and relationships related to roman era were those in the economic sphere. The intense trade and other relations between

the local and migrant populations from the north of the Lower Danube with the Roman Empire are reflected, from an archaeological point of view, through coins, glass and ceramic containers, ornaments and various other Roman products discovered in the settlements and the necropolises of the Sântana de Mureş-Černjachov culture. A certain place among the products of Roman character penetrated in the extra-provincial environment is occupied by the domestic ceramic vessels. Unlike coins or several other categories of pieces (glass containers, amphorae, ornaments) that have been the subject of systematic and long-lasting research, Roman pottery in common use in the Sântana de Mureş-Černjachov complexes did not attract the proper attention of archaeologists. Only recently there has been a certain interest in this field, with several preliminary studies published. However, a detailed analysis of this category of Roman products could bring useful information for a deeper knowledge of the material culture of the populations that lived in the Sântana de Mureş-Černjachov culture environment and for a more nuanced appreciation of the relations of the bearers of this culture with the Romans in the 4th century BCE. Also, the careful research of the usual imported ceramics allows to complete the knowledge regarding the economic history of the North Danube lands in the late Roman era. In addition, the study of the typology, as well as the chronological framing of these pieces, can greatly facilitate the dating of the complexes in which they were located, of the settlements and especially of the tombs.

The archaeological rescue research started in 2013 at Lipoveni II site from Dealul Nisipăriei point had a small character, comprising a total area of about 150 s.m., half of which was investigated in the last excavation campaign.

As a result of archaeological research in the summer of 2016, it was found that the Christian era is documented by vestiges from the late Roman era (Sântana de Mureş – Cerneahov culture from the 4th century CE) and pieces attributed to two stages of the Middle Ages. The most intense habitation corresponds to the 1st millennium BCE and the late Roman era, the other cultural-chronological horizons being represented only by ceramic fragments or scattered objects.

The archaeological investigations from Făleştii Noi I site (Făleşti district) from 2016 had a preventive character, the purpose being the research of a land with archaeological potential in the area related to the R16 road (Bălţi-Făleşti-Sculeni), which was in the process of rehabilitation.

For this, three sections were drawn in the perimeter of the site, two in the immediate vicinity of the R16 road, and the third in the central area of the site. The archeological site of Făleştii Noi I was discovered in 2015 by E. Mistreanu and I. Noroc, being located 2.5 km northwest of the northern extremity of the village of Făleştii Noi. Sections I and II (with dimensions of 8x2 m and 10x2 m) provided archaeological materials represented by ceramic fragments and archaeo-zoological remains. The ceramic collection is composed of fragments of vessels worked on the wheel from fine gray paste, shards of containers worked on the wheel from

coarse paste and fragments of imported Roman amphorae. According to the technical-morphological peculiarities, this pottery falls within the cultural and chronological horizon corresponding to the late Roman era (3rd-4th century CE) belonging to the Sântana de Mureş-Cerneahov complex from the 15th century.

Although they are not numerous and spectacular, the archeological vestiges discovered will contribute to a better knowledge of the inhabitation both from the Eneolithic era and from the late Roman period in the given area.

Among the main Roman Limes in Moldova is the historical monument "Trajan's Wave", a fortification from the late ancient period, documented for the first time on March 13th, 1489. The waves are located in the southern part of Moldova and there are 2 main branches: "lower" and "upper". The historical monument is a fortification located between the village Vadul lui Isac on the banks of river Prut and the Sasâc estuary on the Black Sea, and has a length of about 126 km, of which on the territory of the Republic of Moldova there is only a portion of about 34 km. The fortification is imposing and consists of a wave of earth of over 3 m high, an afferent ditch facing north, 2-3 m deep, and between the ridge and the ditch has a berm, an earth platform, wide over 3 m. This strong defensive system of linear fortifications in the form of earth waves and sharpened log reinforcements speaks of the Romanian presence on the territory of the current Republic of Moldova. Their origin is related to the name of the Roman emperor Trajan. The creation of this neutral zone became necessary with the establishment of the new Dacian province, which considerably increased the importance of the region so much that to increase the need to strengthen the border area in North of the place where the Danube flows into the Black Sea.

Some segments of this linear fortification of impressive proportions were investigated by excavations in 1954 and 1986-1988, and by geophysical prospecting in 2017, proving that this defence wave was built only of earth, without detecting elements of wood or stone. On the area of the Lower Traian Wave, scientists identify three parts. The first is 34 km, from the village of Vadul-lui-Isac to the village of Tabacu near Lake Ialpug. This part is characterized by the existence of a berm (a flat surface between the wave and the ditch). That part has been very carefully arranged and has been best preserved.

Such defence systems that played an important role in the defensive military system needed periodic repairs and restorations. Therefore, it should not be surprising that in the ditch of the wave, as well as in its immediate vicinity, there were identified Roman coins from the 3rd-4th centuries (starting with the period of Emperor Diocletian and ending with that of Emperor Constantius II).

The height of the "Waves" currently does not exceed 1.5-3 m.

During the time of Duca emperor (Vodă), a marble stone with the inscription "Emperor" of the

son of Nervii, to Trajan was found here. Roman coins from Trajan, Antonius Pius, Philippus Arabs were found nearby.

Upper Trajan's Wave starts, as well as the lower wave one from the bank of Prut river near the southern edge of the Leova city continuing towards Copcui, Selişte, Cazangic, crosses Sarata meadow to Ecaterinovca and Gradiste in Cogâlnicul valley and then through the Coştangalia meadows and Schinoasa reaches Batâr, from where it crosses the valley of the Ceaga brook, and near Sălcuţa it passes Botna and ends on the Chiţcani-Copanca plateau on Nistru river.

The height is about 9 m, the width at the base - 24 m. The level of its preservation is somewhat satisfactory, some parts being affected by annual plowing, country roads, etc. Its length is 120/138 km. The waves of Upper and Lower Trajan are located at a distance of about 70 km, cross the territory of Bessarabia approximately on the WNW-ESE axis. These structures are also known as "Trajan's Road", "Trajan's Trench", "Trojan", "Trojan", and more rarely, in some places "Snake Wave", "Dragon's Wave", "Giant's Mound".

This constructive element was interpreted as a defensive element, especially if it is taken into consideration the fact that the ditch was in the western part of the wave. In this case, according to the requirements of the military defence strategy, the danger was from the west of the river. Finally, a last defensive system of this type was signalled along the Lower part of Nistru river, known as the Snake Wave. It is more fragmentary and consists of several segments. The one next to Palanca has as legend the inscription given by F. Volan on September 24, 1789: "The ruins of an old wave known as Trajan's Road".

The level of preservation of the defensive structures was strongly affected in the last century due to anthropogenic factors (intensive plowing, erosion, runoff, changing course of streams). The main issue of these imposing constructions is by whom, when and why they were raised. The approaches to this topic have been in the attention of historians since ancient times. Dimitrie Cantemir, in "Description of Moldova", this structure is called in the text "the ditch of Emperor Trajan" and that it has "a ditch between two waves" crossing the river Hierasus (probably Siret) near the village of Trajan (the old name of the village Vadul lui Isac) and Botna at Caușani, passes through the entire Tatar territory and ends at Tanais (Don – Danube). This is exactly how the wave is represented on the map that accompanies the work (the map is later taken over by others – Luis Félix Guinement1769; George Luis Le Rouge 1770).

The "Upper Trajan's wave" one has a length of 138 km, having its border between the small city Leova to the west and the village of Copanca near Chiţcani to the east, and in the Cimişlia district near the villages of Pervomaisc, Grădişte, Coştangalia and Satu-nou.

In 1991 a group of researchers led by Alexei Roşca from the Department for the Protection of Monuments of History and Culture carried out preventive archaeological excavations at Upper Trajan's Wave. The Chisinau-Reni highway was meant to cross the respective sector near

the villages of Selemet and Satul Nou (Cimişlia district). The contour of the construction did not stand out at all on the ground surface. The research included five surveys, with a total area of 510 m.p., which provided information about the constructive elements of the complex (wave-berm-ditch), and the recovered archaeological material consisted of two ceramic fragments attributed by the authors of the excavations sec. III – IV B.C., a piece of strongly corroded iron and a piece of adobe. The ditch was identified in all five surveys, - it had a trapezoidal shape, its width at the mouth varied between 2.80–3.0 m, and at the bottom it was about 2.1 m. The traces of the berm and the wave were certainly found only in one case: the berm was 1.96 m wide, and the remains of the wave – a height of up to 1 m. In none of the surveys were traces of any stone or wood structures.

Some other preliminary research was carried out in 2020, had limited character, but new information was obtained regarding the shape, dimensions and filling of the ditch on certain segments within the localities of Leova and Cupcui, but also some clues and materials that argue for dating this important linear fortification it to Roman times (2nd-4th century CE).

In 2016, on the occasion of a pilgrimage carried out on a portion of the Upper Trajan's Wave from the N-W edge of the Ecaterinovca village estate, a settlement belonging to the Sântana de Mureş-Cerneahov culture was found. The resort is located on the Eastern slope of Jeparului / Ecaterinovca Valley, at a distance of about 3.3 km W of Ecaterinovca village partially investigated by rescue excavations in 1978 by archaeologists T Şcerbacova and I. Vlasenco.

The newly discovered settlement has a length of over 1 km and a width of about 0.3 km, its S-E part being on the estate of Ecaterinovca village, and the central and N-W part - on the agricultural hearth of Ialpugeni village. In its southern half, the site intersects with Upper Trajan's Wave, which has the NE-SW orientation on this segment, but it is completely leveled, without being observed either the actual wave or the related ditch. It should be emphasized that the archaeological objective on the Jeparului / Ecaterinovca Valley is the first settlement with living spaces from the Roman era known until now, which intersects with Upper Trajan's Wave, thus having a special scientific significance.

There were discovered about 200 ceramic fragments, some animal bones and pieces of burnt clay, recovered almost exclusively from the first three layers of excavation (depth 0-0.6 m). In the perimeter of the second survey, which was carried out 14 m S-E were partially discovered the remains of a surface construction, consisting of burnt clay and burnt wood, and a segment of a ditch, with a width of 0.35 m and a depth of 0.6-0.7 m, and as an archaeological inventory - a few shards of ceramic containers and faunal remains.

Through the thorough perieghetic research carried out in the settlement area of Ecaterinovca-Valea Jeparului, two imperial Roman coins were found, one silver and one bronze, a silver rivet, some iron utensils, three sandstone folds, two small fragments of glass vessels and numerous fragments of ceramic vessels worked on the wheel from fine and coarse paste.

5.8.2. Roman Archaeological Sites in Moldova

Settlement and Necropolis from Budești

The largest archaeological complex from the late Roman era on the territory of the Republic of Moldova consists of the settlement and necropolis from Budești (Chișinău municipality), attributed to the Sântana de Mureș-Cerneahov type culture from the second half of the 3rd to the 4th century CE.

The identification of the archaeological complex was made by accidentally due to the construction of a farm complex, about 1.5 km South-West of the village and about 120 m North of Chișinău – Vadul lui Vodă road, being discovered three tomb containing inventory objects.

This valuable archaeological settlement was researched by extensive excavations, carried out by Emanuil Rikman in 1954-1957 and by Gheorghe Cebotarenco and Tatiana Șcerbakova in 1973, but not exhaustively. Within the settlement there were discovered ten surface dwellings, provided with hearths arranged of stones and clay, a deep dwelling, two furnaces for reducing iron ore, a pottery furnace with reverberation and various household annexes, which prove the existence of an intense dwelling. More than 370 graves (predominantly, burial), 15 cenotaphs and 20 burial pits have been unearthed from the necropolis.

The imported Roman ceramic represent about 1,78% of the entire ceramic within the settlement. Among them were amphorae, mugs, tureens.

The Roman influence on the human community from Budești is reflected in different areas, such as: architecture (large dwellings with two rooms), equipment (pottery workshops, spinning grinders, metal tools), dress (diversity of jewellery, dressing objects and accessories), religion (replacing incineration by burial, Christianity).

It is also to be mentioned that one of the important aspects of spiritual life – the knowledge and practice of writing by using Latin letters. The discovery was made into a grave, thus on a recipient used to store sewing needles, on which surface were engraved Latin letters: F and S. Lattin letters were also discovered on an amphorae

The items bearing Latin inscriptions, together with other materials discovered in Budești complex, prove that fact that the human community was in the middle of Romanization.

Numerous archaeological materials are preserved today in the collections of the National Museum of History of Moldova in Chisinau. Several articles and two archaeological monographs, signed by Emanuil Rikman (1967) and Vlad Vornic (2006), have been dedicated to the valuable archaeological discoveries dated in late antiquity from Budești.

Roman Necropolis from Petreşti (Ungheni district)

The cemetery from the 2nd-4th centuries CE from Petreşti is one of the largest and most representative funerary sites from the Roman era on the territory of the Republic of Moldova. The necropolis was identified during the preventive investigation of a tumulus from the Bronze Age, being thoroughly excavated in 1986 and 1988 by Evghenii Iarovoi, Serghei Kurceatov and Andrei Cirkov.

Among the archaeological monuments from the micro-zone of Petreşti commune, mostly impressive are the flat necropolis from the Roman era with two cultural-chronological horizons, one attributed to the Sarmatians, and another belonging to the Sântana de Mureş-Cerneahov culture from the time of the Goth migration (second half of the 3rd century - 4th entury CE).

Being located on a promontory to the South-West of the town, at a distance of about 0.1 km from the intersection of the Chisinau-Sculeni highway with the road leading to Petreşti, this ancient necropolis was discovered in 1986 on the occasion of carrying out rescue excavations at a prehistoric mound that enters the construction area of the irrigation system near the village of Petreşti.

Extensive research carried out in 1986 and 1988 revealed the entire surface of the site, being discovered 46 tombs and 35 Sarmatian cult ditches and 195 Sântana de Mureş type burials, of which 190 were buried and 5 cremated. A rich funerary inventory was also collected consisting of ceramic and glass vessels, ornaments and clothing, tools and utensils made of metal, stone, clay and other materials.

Tombs were not usually found inside the square and rectangular arrangements, while the circular arrangements always contained graves. Inside most of the arrangements there was various inventory, but we also have structures without discoveries. It is assumed that they could have a "commemorative" character, as arguments being invoked the fragments of Roman amphorae from the construction ditches, which could have constituted the remains of the funeral feast.

These important archaeological discoveries from Petreşti are still to be capitalized, the heritage pieces being preserved at the National Museum of History of Moldova in Chisinau and at the Museum of History and Ethnography in Ungheni.

Medeleni Sarmatian Cemetery (Ungheni district)

Medeleni sarmatian cemetery is located at the left side of the road Chisinau-Sculeni, about 1 km north of the river Prut and 1.3 km north-north-east of the Medeleni village. Reported in the winter of 2015 during the reconstruction of the irrigation system in Blindesti, the site was partially investigated, by rescue excavation, this spring. It was explored an area of 864

square meters, there having been discovered five north-south oriented inhumation graves and a religious complex bounded by grooves and provided with entrance in the south. All the graves were disturbed in antiquity, skeletons being partially or fully torn. According to the inventory and anthropological measurements, the graves belonged to females' people. From all complexes, stands the tomb 1, which was provided with a rich inventory, consisting of three pendants and 11 vestment gold applies, 13 agate beads and a clay spindle whorl. The analysis of the inventory items with chronological value and of other objects confirm the dating of discovered complexes in the second half of the 1st-2nd century CE. Regarding the ethnic-cultural affiliation, rite, funerary practices and inventory items plead for assigning Medeleni necropolis to Sarmatian antiquities.

The burial site includes two partially overlapping cemeteries. The first and oldest cemetery contains 40 burial graves and 35 ritual ditches of rectangular or circular shape, being dated in the 2nd-3rd century and attributed to the Sarmatians of Iranian origin. In the second necropolis, 195 tombs (five cremation and 190 burial) and six burial pits were discovered, as well as a rich inventory of pottery and objects. Chronologically, this necropolis falls into the 4th century CE and belongs to the Sântana de Mureș-Cerneahov culture.

The necropolis referred to was partially investigated by rescue excavations in the spring of 2015 by the National Archaeological Agency, in cooperation with the National Museum of History of Moldova in Chisinau and the Ungheni Museum of History and Ethnography.

Prepelița Archaelogical Site (Sîngerei district)

Discovered in 1974 by Veaceslav Bikbaev and verified later by the same archaeologist in 1993 and the specialists of National Agency for Archaeology in 2016, the Prepelița XII site could be identified as an opened settlement with traces of habitation of various periods, basically being attributed to the Chernyakhov culture the 4th century CE.

The site is located about 1.5 km from the Prepelița village, on the left side of the Ciulucul Mare river, crossed by the R14 (Bălți–Sărătenii Vechi) road. The SMC-type settlement has a length (in the latitudinal direction) of about 0.7 km and a width (in meridional one) of about 0.25 km.

Due to the R14 road reconstruction, in the autumn of 2016, a survey was executed and prospect research was carried out in the perimeter of the Prepelița XII site. The survey, in the form of a trench of 2×18 m, was excavated in the southern side of the road, at a distance of 8 m from the road, on a relatively plain terrain, where a few pottery fragments were discovered.

As a result of the excavations, an agglomeration of pieces of burnt clay and stones was discovered, as well as nine small and medium sized pits, most of them without any finds. On the basis of a fragmentary bowl, worked on the wheel of fine gray paste, the pit no. 1, which was

of cylindrical shape, with a diameter of 0.75 m, dates back to the Chernyakhov culture. Another circular pit, with a 1.25 m diameter and a threshold, has been attributed to the late Hallstatt (6th-5th centuries BCE) based on the hand-made pottery fragments. The agglomeration and the bulk of the pits could not be dated because the lack of the characteristic artifacts. It is interesting to note, however, that some complexes overlapped.

Among the materials found on the surface of the site, we would like to note a bronze arrowhead provided with a gloving tube and three winglets, dating back to 5-4th centuries BC, a clay spindle whorl decorated by incision, a bronze rectangular gasket from a buckle and a fragment of a cup of green glass with thick walls, ornamented with hexagonal faces, all belonging to the Chernyakhov culture. The clay spindle whorl and the bronze arrowhead date back more or less widely, but the glass fragments, falls within the Straume VIIA series, which is characteristic of the later phases of the Chernyakhov culture, corresponding to the second half of the 4th – the early 5th century CE.

Necropolis from Brăviceni (Orhei district)

Discovered during some building work, the site was investigated in 1977, 1980 and 1981 by rescue excavations coordinated by the late archaeologist Vasile Grosu. Following three archaeological campaigns, a large part of the necropolis was unveiled, exactly an area of 4588 m^2, disclosing 173 tombs and 53 pits, along with about eight burial graves destroyed by urban works. Of the 181 discovered tombs, 180 are burial and only one cremation, revealing the biritual character of this cemetery.

The inventory found in the necropolis of Brăviceni is varied, comprising over 100 pottery, a glass and fragments of a glass cup, four silver coins, 16 bronze or silver fibulae, eight bronze, silver or iron buckles, six bone combs, about 465 glass, coral or carnelian beads, 25 pendants-amulets of metal, glass, shell or bone, three silver or bronze temple rings, seven clay spindle-whorls and a glass one, seven iron knives, two poultry bone tubes, a bronze tweezers, a bronze scissors, an iron padlock and an iron arrow head.

There were discovered four silver coins (dinars issued by the emperors Trajan, Lucius Verus, Marcus Aurelius and Commodus) discovered in graves. Among pieces of the inventory, that can be used for dating and periodization of the investigated necropolis, there are fibulae, buckles, combs, beads, pendants, glass recipients and some types of pottery, generally dating with 4th century AD. Roman pottery constitutes 5.7%.

Roman Settlement from Cărbuna (Ialoveni district)

The settlement was discovered in May 2020 in a private household during excavation work, when several fragments of ceramic vessels were discovered. The investigations proved that it is a new small archaeological site, with traces of habitation from the Roman era (3rd century CE).

This archaeological point is located in the North - West part of Cărbuna village. The ceramic materials, most of which come from a single vessel, were found grouped (probably in a shallow pit, the outline of which could not be delimited), in a dark gray soil containing few pigments of burnt clay and coal.

Based on the recovered fragments, the mentioned vessel could be partially completed and reconstituted, proving to be an amphora worked on a wheel made of fine gray paste. The vessel had an ovoid body, a short cylindrical neck and a mouth with a thickened lip on the outside (diameter of the mouth – 13 cm), band torches, with a groove on the outside and the bottom, most likely on an annular support.

Along with the remains of this grey wheeled amphora there were found some small shards from a pot made by hand from coarse paste and a fragment of a handle from a Roman amphora made of coarse coloured yellow-pink paste, from Heraclea Pontica, a well-known urban and production centre on the southern shore of the Black Sea.

It must be emphasized in the context that a small number of ceramic fragments dating from the century III AD, including one from a Roman bowl of reddish fine paste, another from a bowl worked on a wheel of fine grey paste and the third from at a Roman amphora were discovered in 2019 at a point about 2 km ESE of Cărbuna, on the left side of the Căinari stream and the R29 road, these vestiges probably attesting to the existence of a other small seasonal settlements from the Roman era.

5.8.3. Bibliography

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