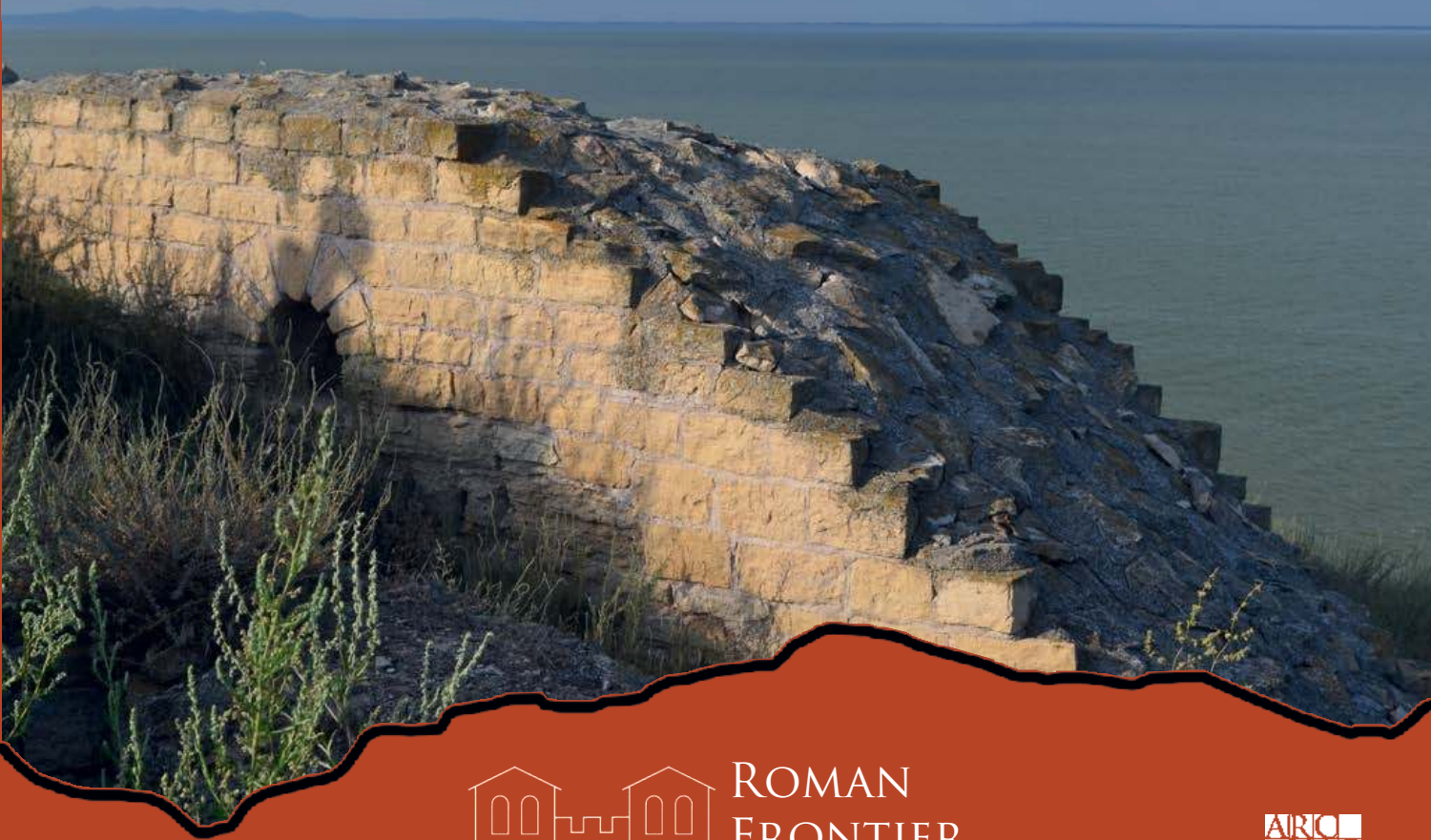
The Roman Lower Danube Frontier

Innovations in Theory and Practice

Edited by
Emily Hanscam and John Karavas



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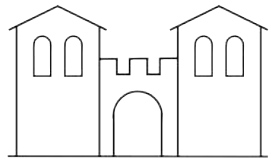

ROMAN FRONTIER STUDIES

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ARCHAEOPRESS ARCHAEOLOGY

Archaeopress Publishing Ltd
Summertown Pavilion
18-24 Middle Way
Summertown
Oxford OX2 7LG
www.archaeopress.com

ISBN 978-1-80327-662-5
ISBN 978-1-80327-663-2 (e-Pdf)

This book is available direct from Archaeopress or from our website www.archaeopress.com

Professor Mihail Zahariade at Halmyris, July 2014.

This volume is dedicated to the memory of
Prof. Mihail Zahariade (1950–2020).

Contents

List of Contributors

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Researching the Romans on the Roman Lower Danube: Challenges and Opportunities

Ioana A. Oltean

The Lower Danube Roman *limes* represents a complex archaeological landscape, with numerous military sites constructed along the border of the Empire within a distinct ecological and cultural setting. Currently, the Tentative UNESCO World Heritage Lists put forward by Romania and Bulgaria includes 49 and 32 sites respectively, with a further 10 from the Serbian section. They have been nominated as part of a wider effort to expand UNESCO's recognition to the entire Roman frontier, as 'a remarkable example of the Roman military architecture, construction techniques and their evolution' which serves to demonstrate the complexity and diversity of Roman strategic solutions to specific climates and topographies, or to political, military and social circumstances on the one hand, and 'the ambition of the Roman Empire to dominate the whole world by imposing its laws and lifestyle in a long-term perspective' as 'an important exchange of human and cultural values at the peak of the Roman civilization', on the other.[1]

The landscape the Roman army tried to control in the Lower Danube sector of the *limes* presented considerable challenges. While rivers are generally thought to provide clear distinctions between the territories under the Roman Imperial rule and those outside it, while at the same time reducing possibilities in cross-river movement thus making them more easily controlled (e.g. Breeze 2011: 92; Lemke 2015: 847), the precise line of the river is more difficult to establish east of the Danube's cataracts, with the area becoming a zone of connectivity rather than of separation (Ţentea 2016: 86; Whittaker 2004: 63–87). The Roman army had to control the Danube floodplain—stretching up to 30 kilometres in width—a flat corridor of swamps, marshes, rushes and lagoons with ever-changing ponds and rivulets, wood copses and solitary trees, floating reed islands and tall grasses interspersed with fluctuating, winding navigable channels with tricky water currents. River waters retained certain challenges to travel, but icy, wintry conditions transformed this landscape effectively into a wide plain which would have been considerably easier to negotiate. This floodplain became drier only later in the 20th century after the construction of a series of dams further upstream and after the extensive conversion to arable land all the way to the Danube Delta; it has been only more recently subject to EU-funded floodplain restoration plans as a green corridor for flood protection.[2] Nevertheless, its original extent may still be grasped from aerial photographic or satellite surveys and from early modern maps allowing us to better contextualize Roman efforts to control this landscape.[3]

[1] https://whc.unesco.org/en/tentativelists/6446/ (Last accessed 26 June 20233).

[2] https://climate-adapt.eea.europa.eu/metadata/case-studies/lower-danube-green-corridor-floodplain-restoration-for-flood-protection (Last accessed 26 June 2023).

[3] e.g. Captain T. Spratt's 1856–1857 survey of the Danube Delta which covers the entire Danube floodplain as far upstream as Hârşova, revised in 1865 and published in 1869 in the *Journal of the Society for Geography* in Berlin.

Though academic research in the area has been carried out since the 19th century, much work remains both in terms of the efforts to appropriately quantify the archaeological heritage of the *limes*, and the use of theories and interpretations for the available evidence. The most significant progress over the past decade or so has been in the efforts to better quantify the archaeology of the *limes*, with improved methods applied towards the identification of new sites and the clarification of site location, extent and structure. Much of these have ensued from a greater application of remote sensing prospection techniques, both geophysics and above-ground imagery, facilitated by international collaborations (e.g. at Novae, Troesmis, Noviodunum, Halmyris, etc.), from advances in technology making it more cost-friendly to smaller operators (e.g. drone platforms and sensors) and from unrestricted access to archival datasets (most notably high-resolution satellite imagery via Google Earth since the mid-2000s). Efforts have been further focused on the quantification of the Lower Danube *limes* in the context of both Bulgaria and Romania joining international efforts to prepare UNESCO nominations for their respective stretches of the Danube frontier, where the clear identification of *limes* components was a key part of the submission brief.

Despite these efforts, there are a number of issues that require substantial further attention. In terms of military installations, research has so far been focused on permanent fortifications (i.e. forts and fortresses) rather than temporary ones (camps), despite the latter allowing us a better understanding of the way in which Roman Empire expanded into the area, how the *limes* was built and the extent of Roman army incursions beyond the Danube itself. Moreover, while small and larger forts have been documented, with some size variation linked to developments in frontier strategy from the Early to the Late Empire, smaller installations (fortlets, towers) are less present; indeed, the lack of watchtowers is noted by the Romanian dossier as, if not for data bias, a potentially unique feature of this sector of the Roman *limes*.[4] That the former may be true is not only indicated by the presence further upstream of at least two examples of fortlets/watchtowers at Oryahovo and Batin, but also by the identification of such sites in Dobrogea along roads further inland at Greci and Poiana (Oltean and Hanson 2015), which indicate clearly the army involvement in controlling inland communication leading to the *limes*.

Furthermore, while the UNESCO nominations include linear rampart systems associated with the *limes* structure, other aspects are severely under-represented, including infrastructure supporting logistics, supply and connectivity between sites as key requirements for the army to function as a system. Roads and harbour installations are currently virtually absent from protected status briefs and require further investigation to clarify their layout, state of integrity and relevance as part of the frontier system. New information on extensive stretches of fossilized ancient roads across Dobrogea from aerial photographs and high-resolution satellite imagery is now becoming increasingly available, though their Roman date/origin and precise connection with different sites is not always fully apparent and needs alternative approaches such as absolute dating and GIS spatial analysis modelling (Oltean and Lungescu In Press). In the future, such investigations may better reveal the extent to which sites further inland, away from the Danube, have played a significant role in the functioning of the *limes*, thus demonstrating their significance as part of this system.

[4] https://whc.unesco.org/en/tentativelists/6446/ (Last accessed 26 June 2023).

Finally, though the demographic and socio-cultural dimension of the Roman *limes* features prominently as part of the nomination criteria, few settlements are included in the UNESCO nominations. If so, they relate to Late Roman or Early Byzantine fortified settlements on the Bulgarian *limes* and to major towns, e.g. Ratiaria, Oescus, Novae and Silistra, where the extent of research over many decades is difficult to collate and often inaccessible to international audiences. This reflects the fact that, with few exceptions involving prospection via fieldwalking, geophysical and aerial drone surveys, and only exceptionally involving excavation, little effort has been directed towards clarifying the full extent and complexity of civilian settlement associated with military bases (Noviodunum, Troesmis, Novae, etc.). A future priority should be the expansion of research agendas to consider settlement within wider hinterlands in order to better assess the impact of frontier establishment onto pre-existing settlement and society. This will also lead to an improved understanding of the impact of the *limes*' cultural ecosystem on successive changes in customs and beliefs.

While considerable amounts of data are still to be collated by future research, qualitative changes in the way we analyse and interpret it should be increasingly prioritized. Digitization and digital technologies for data analysis and modelling, such as GIS, should not only help direct field-based research to redress existing gaps in our data, but also to address increasingly complex theories on *limes*-specific processes and enhanced dialogue with empirical and experimental approaches to support a better understanding of water-based communication, warfare, and of increasingly diverse expressions of control, power and identity within a global/local framework.

In terms of its future impact in the expected, AI-dominated future world, perhaps the most important recent approaches in *limes* archaeology in the Lower Danube sector has come from the revision of past interpretations from the perspective of current theoretical frameworks. The past two decades have seen consistent, though unevenly distributed rebuttals of historicist and nationalist trends in local archaeological interpretations (see more recently various individual contributions in Koranyi and Hanscam 2023). The slight tendency in polarization towards Romania is indicative of a higher inclusion of the topic in the research agenda there and should be followed by a similar trajectory elsewhere in order to avoid disproportionate interpretations on its effect on constructing the modern archaeological narratives along the entire Lower Danube *limes*. Further benefits could come from the reassessment of the existing narratives from a decolonized perspective, particularly given the longevity and diversity of Imperial projects in the area throughout time into the modern period.

The present volume does much to provide a start for several of the new research priorities highlighted above, through a range of studies that bring new perspectives to the quantification of the archaeological heritage of roads and temporary camps, or collation of complex evidence on the Lower Danube *limes*, and to new attempts and approaches to interpretation. But as a final point, I would suggest that a key priority in the archaeological research agenda of the Lower Danube *limes* should be the promotion of an increasingly gender-balanced discourse. Much like elsewhere (e.g. Breeze 2023; Jones and Ivleva Forthcoming), from early on female archaeologists on the Roman *limes* in Romania have had a markedly minority presence, traditionally participating as junior partners in research teams and dedicated to the study of material culture and monuments rather than as excavation leads. Few exceptions, such as Doina Benea or Ioana Bogdan-Cataniciu, have done so only more recently and at great cost to

their personal lives, but for less recognition than their male counterparts. These days, female archaeologists are increasingly present within the discipline, but have yet to have a higher input into positions allowing them to shape *limes* research agendas—as evidenced by the current gender distribution within the Romanian National *Limes* Programme.[5] Nevertheless, embracing a gender-balanced approach would allow for traditional, testosterone-infused subjects and past priorities to receive a welcome diversification in perspective.

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The Lower Danube *Limes*: Recentring a Roman Frontier Province

John Karavas and Emily Hanscam

The Roman Lower Danube Frontier

This volume was conceived during a field season at Halmyris, in the Danube Delta, Romania. Halmyris is the easternmost fort on the Danube, the final Roman fort on the Lower Danube frontier encountered when sailing downstream along the Black Sea coast. The chapters that follow present new archaeological evidence from this section of the Roman *limes* and reinterpretations of older evidence using new theories and methodologies. Collectively, they make a compelling case for why the Roman frontier along the Lower Danube is vital for our understanding of Roman frontiers and frontier policy at large. This stretch of Rome's north-eastern frontier speaks to the defence of both the early and later Empire (including the Eastern/Byzantine Empire), to ways in which different peoples were received and integrated into the Empire, and to the transformation and abandonment of these borders. And yet, despite strong regional traditions of study in Romania and Bulgaria, the wider significance of this part of the Roman world continues to be under-recognized within international scholarship. We contend that not only do these regional traditions need to be more widely recognized within Roman frontier scholarship, but also that the Lower Danube as well as the province of Moesia Inferior (later Moesia Secunda and Scythia Minor) should be understood as a place that has had a significant impact on the formation of borders and identities in ancient and modern Europe. At the same time, the river has also facilitated connections and human mobility; V.G. Childe, for example, writing in 1927 highlighted the importance of the Danube as a thoroughfare for the movement of new technologies and ideas from the Aegean and Near East into the European continent. Indeed, the construction of the Roman frontier along the river's course explicitly attests to the Danube as a landscape of movement which the Roman state felt compelled to control. Today, of course, the Lower Danube serves as part of the border between Serbia and Romania, and the majority of the border between Romania and Bulgaria (see Figure 1). One effect of these modern national borders has been to facilitate a number of diverse research traditions in the region and to naturalize a focus on frontiers and exclusion.

The stretch of the frontier running over a thousand kilometres between Singidunum (modern Belgrade) and Halmyris in the Danube Delta was one of the most densely fortified regions of the Empire (Whittaker 1994: 183–189; Figure 2). There was a particular concentration of Roman military activity in modern Dobrogea (Karavas 2001: 5; Figure 3). Augustus began the process of establishing the province of Moesia at some point towards the end of his reign, a process completed by Tiberius in AD 15 (Matei-Popescu 2022: 121). It is apparent that M. Licinius Crassus went with four legions in 29 BC to conquer Macedonia and the territory which was later called Moesia, 'bringing an irrevocable Roman presence to the area' (Bunson 2002: 373), although his actions may not have been wholly approved by Augustus (Matei-Popescu

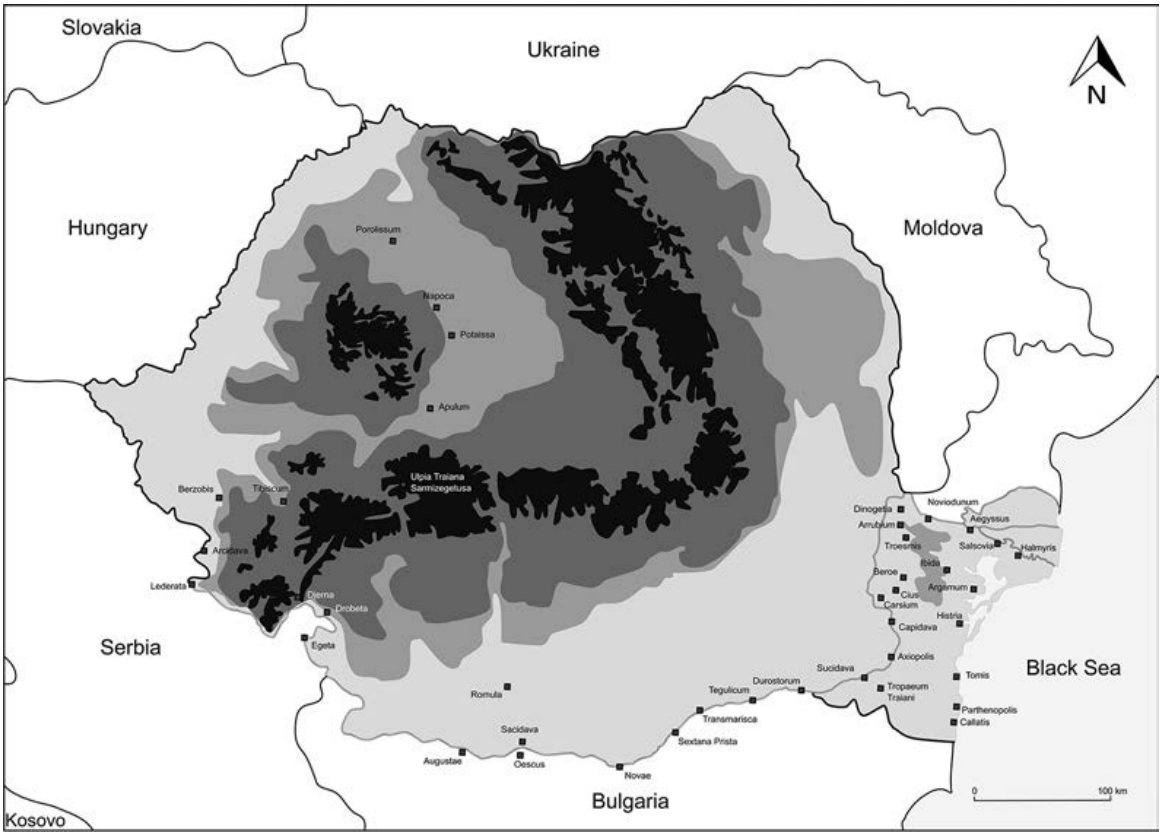

Figure 1: The Roman Lower Danube frontier with modern political borders (E. Hanscam, after Hanscam 2023: 313).

2022: 129). Prior to Crassus' campaigns, a multitude of peoples had fought over the valuable territory including the Thracians, Getai, Dacians and Moesi. Augustus saw how vital it was for the wider Roman military strategy to hold both the upper and lower Danube, thereby establishing the frontier along the course of a natural boundary (Karavas 2001: 1).

Although the exact date of Moesia's founding is debated (cf. Cassius Dio 55.29 and Harris 2016: 52), by the time of Augustus in the first century AD the Danube was clearly already well within the orbit of Roman power (Whittaker 1994: 43). Subsequently, the province of Moesia was split into Moesia Superior and Moesia Inferior after Domitian decided to reorganize the territory as part of his response to the Dacian attack of AD 86 (Karavas 2001: 65). Moesia Inferior—the modern territory of Dobrogea (Figure 2)—was then reorganized into Moesia Secunda and Scythia[1] sometime between AD 286 and 290 (Zahariade 2006: 34).

The Lower Danube frontier was initially developed during the 1st to 3rd centuries AD, but the archaeological knowledge of these periods is currently poorly known due to the later reconstructions of many sites (Wilkes 2005: 132). Much of our evidence for the early phase of the frontier comes from military diplomas and inscriptions (see e.g. Derks and Roymans 2006; Matei-Popescu and Țentea 2018). The early Lower Danube frontier included the legionary

[1] Scythia is often referred to as Scythia Minor to distinguish between the province and the greater area of Scythia which included the northern reaches of the Black Sea.

Figure 2: The Roman Empire in the 2nd century AD (figure by C. Unwin, used with permission).

bases of Oescus, Novae (see Dyzcek, this volume), Durostorum (all located in modern Bulgaria) and Troesmis in modern Romania. Cities such as Ratiaria, located upriver in Moesia Superior, are also important to the understanding of the Lower Danube region (see Dimitrov, this volume). Additional forts such as Iatrus and Dinogetia—all sharing architectural features and a similar, substantial, scale of building—were likely founded during a subsequent phase of construction activity during the late 3rd or early 4th century AD (Poulter 2010: 16). In the 5th century AD, the *limes* was reorganized; archaeological evidence demonstrates that existing forts such as Iatrus were transformed at this time and others such as Dichin were newly founded potentially for quartering Gothic *foederati* (Poulter 2010: 31). During the second half of the 5th century AD, the Eastern Roman Empire ceded control of the Lower Danube to the Goths, an act associated with one final phase of reconstruction occurring during the early 6th century AD. Byzantine control over the *limes* ended in the 7th century AD, and the latest coins from key sites date to the reign of Heraclius (Poulter 2004: 249). As such, the Lower Danube *limes* was one of the longest occupied frontiers of the Empire and the most long-lived of those within Europe. Its impact on the landscape and peoples of this region persisted long after the province was abandoned and, indeed, continues down to the present day.

Defending the Empire

For both Moesia and the later province of Dacia, defence of the Roman Imperial provinces in the wider vicinity appears to have been the primary concern and objective of provincial organization. Specifically, the garrisons stationed on the Lower Danube were primarily tasked with thwarting transborder incursions into Roman territory (Karavas 2001: 237). At the same

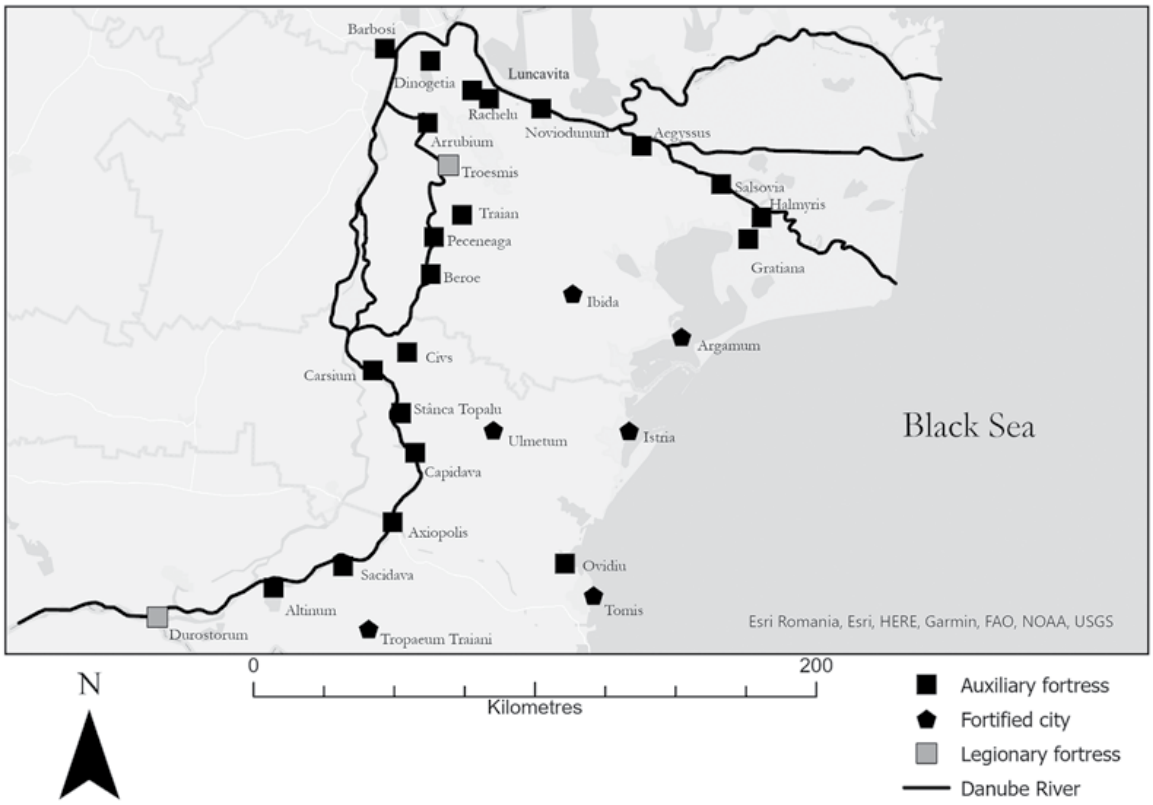

Figure 3: Map of the western Lower Danube frontier (figure by B. Buchanan, used with permission).

time, however, Moesia, on several occasions, would serve as a launching pad for future military campaigns that would evidently come to include both of Domitian's and Trajan's wars in Dacia. Moesia also provided a space for the relocation of populations from Roman Dacia—the tombstone of a governor of Moesia in the first half of the 1st century AD claims he brought 100,000 Dacian families over the Danube to the province (CIL XIV, 3608 = ILS 986; Harris 2016: 148). Stability in Moesia relied on the cooperation of Thracian client kings, and it was not until the governorship of Ti. Plautius Silvanus Aelianus in AD 57–67 that Rome managed to secure the mouth of the Danube (Bunson 2002: 373). Yet, Bunson (2002: 374) observes that Moesia Inferior remained 'remarkably barbaric' because of the constant movement of tribes: 'Rome annihilated the Moesi and the Bastarnae in great numbers, only to have them replaced by other Trans-Danubian races'. For this reason, Bunson (2002: 374) argues that Moesia Inferior was the 'least Romanised' of all the Danubian provinces (despite being occupied for longer than Dacia) and remained 'culturally Greek [...] ensuring that [the province] would be one of the starting points for the [later] empire's Hellenic East'. Such observations call for a brief consideration of how cultural change developed in complex regions of the Roman world such as the Lower Danube.

As elsewhere across the Roman world, the concept of Romanization has exerted significant influence on the development of Lower Danube Roman scholarship. Dating from the early 20th century, Romanization is a theoretical perspective advanced by scholars such as Haverfield (1915), to explain how local peoples were incorporated into the Roman Empire. Romanization

conceives of a process of gradual change and assumes that 'natives' desired to become more Roman. Hingley (1996) points out that the concept of Romanization echoed Victorian- and Edwardian-era ideas of progress and development, reflecting the prevalent colonial attitudes of the time when Haverfield was writing. Romanization, understood uncritically, is a 'fairly simple process of social evolution, which derived its logic from the assumption that social change occurred in all societies from a primitive form to a civilized way of living and that this process occurred in a measured and progressive manner' (Hingley 2014: 6372). These ideas are entangled with ideas of Western Civilization and imperial discourse, granting exclusive agency to the colonizer rather than the colonized, and limiting our ability to understand complex cultural interactions. Over the past 25 years, postcolonial scholars have thoroughly deconstructed the concept of Romanization, but its legacy remains strong within Roman frontier scholarship and in regions such as East-Central Europe (see e.g. Hanscam 2019; Niculescu 2023). As Ioana Oltean points out in the preface to this volume, the Lower Danube would benefit from the development of additional postcolonial perspectives, in order to address Roman imperialism and cultural change along the frontier.

Returning to our narrative, during the first century AD, the Romans concentrated their forces in Moesia Superior, while Moesia Inferior provided logistical support. The latter, however, 'suddenly became a theatre of war' during both Dacian Wars in AD 101–102 and 105–106 (Zahariade and Gudea 1997: 26). The vexillation altar of legions I Italica and XI Claudia found at Halmyris and dated to AD 101–105 is an important piece of epigraphic evidence, marking the construction of the stone fort at Halmyris, replacing the earlier Flavian turf and timber construction and indicating the continued importance of the region (Zahariade 1986: 173–176). After Trajan's defeat of the Dacians, however, Moesia Inferior enjoyed a relatively long period of peace between AD 117 (after a Roxolani invasion was repelled) and AD 170 when the Costobocae invaded during the Marcomannic Wars, and then until AD 238/240 when the Carpi and Goths attacked. Relating to these quiet periods, Zahariade and Gudea (1997: 55) have identified six different phases between AD 86 and 275, all related to fortification construction and military consolidation on the Lower Danube. The long century of peace, however, ended with nine invasions by the Goths between AD 238 and 269, and the death of the Emperor Decius in battle against Gothic army in AD 251 at Abritus (modern Razgrad, Bulgaria); consequently, Aurelian reorganized the entire Moesian frontier in AD 274/275 (Zahariade and Gudea 1997: 56). Yet, the *limes*, while garrisoned, was clearly not impenetrable; the Visigoths were able to intrude south of the Danube and eventually inflict a crushing defeat on Roman forces in AD 378 at the battle of Adrianople (modern Edirne, Turkey). One of the problems of using the Danube as a frontier was exposed in AD 384/5 when the river froze, presenting an opportunity for attacks at sites such as Halmyris (Philost. *Hist.Eccl.* X.6; Zahariade and Karavas 2015: 582). Indeed, the frequency with which the Danube froze over allowing incursions—potentially two dozen times between 29 BC and AD 1047—leads Gândilă (2022) to argue that the river itself was Rome's (and later, Byzantium's) most enduring enemy in the region.

An additional defensive system to the main frontier in Moesia Inferior—the Valu lui Traian—extended across Dobrogea from Axiopolis (Cernavodâ) to Tomis (Constanţa). Traditionally attributed to Trajan ('Trajan's Rampart'), it consists of three lines of fortifications, two of earth and one of stone (Hanson and Oltean 2012: 297). It may have been in use for an extended time from the Roman period into the Early Medieval period, which has led to debate over its origins. Hanson and Oltean (2012: 315) document that it has been attributed at various times

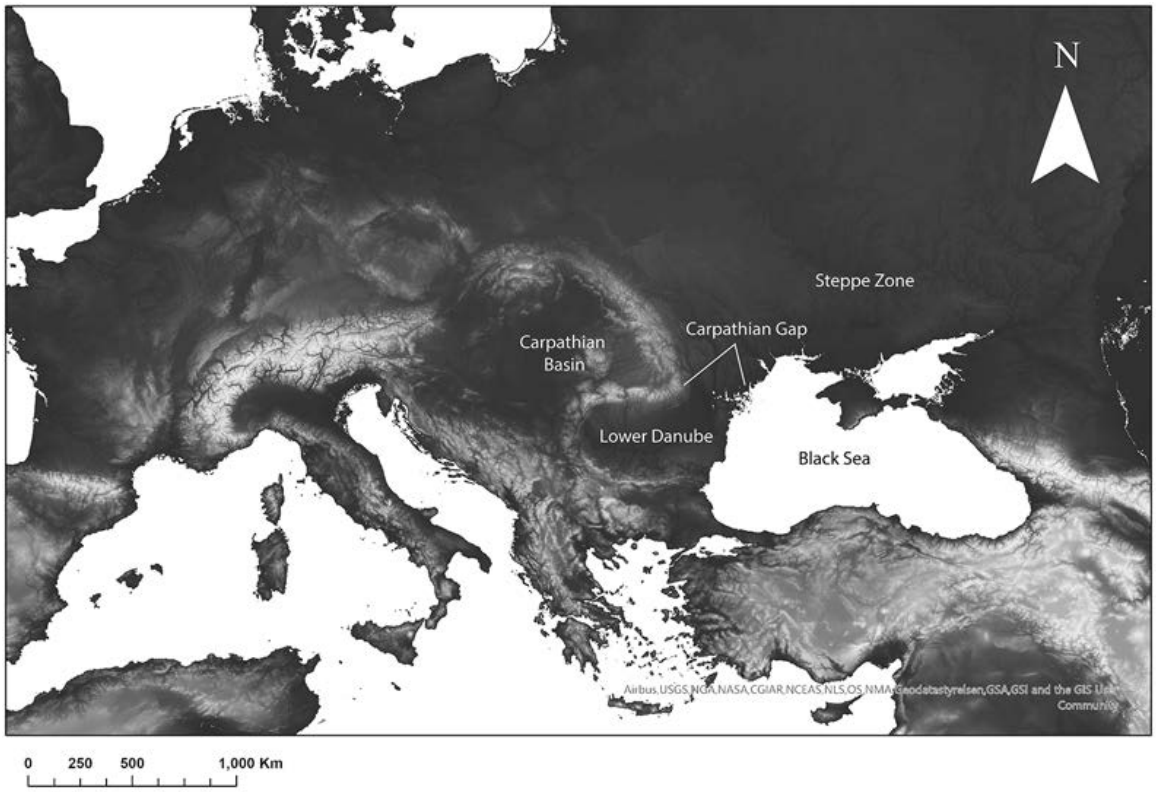

Figure 4: Geographic map of East-Central Europe (E. Hanscam, after Hanscam 2023: 311).

to: Trajan, Hadrian, Domitian, Theodosius, Constantine, Anastasius, the Byzantines, the 9th century and the 10th–12th centuries AD. The discovery in 1950 of a 10th-century AD Slavic inscription at the wall led to the widespread assumption that the whole system dated to the Early Medieval period, meaning that the wall was subsequently ignored in subsequent Roman frontier studies for several decades (Hanson and Oltean 2012: 297). Damian *et al.* (2014) detail the results of preventative excavations on the vallum, reemphasizing the possibility of a date in the 9th century.

Certainly, it seems odd that the Roman army would expend the effort in creating a defensive system such as the Valu lui Traian when it had already fortified the Lower Danube line. One reason could be the subsequent Roman recognition of the 'natural passage' formed by Dobrogea for peoples coming from the north (the Carpathian Gap, Figure 4)—this could have potentially prompted the construction of the Valu lui Traian after Hadrian withdrew from Wallachia (Hanson and Oltean 2012: 316). Still, very little research has been undertaken on the Valu lui Traian generally outside of a preventative context, further excavation is undoubtedly needed. In this context, landscape-centred perspectives are crucial for future work on the Lower Danube frontier—not only do we need a better understanding of the agency of the Danube itself (see Buchanan and Hanscam In Press) but we also need to recognize the impact of the wider landscape on the construction of the *limes* and its transformation over time. This is crucial, given the potential role of the 'natural passage' and the scale of the migration that it facilitated during Late Antiquity and the Early Medieval period (see Hanscam 2023).

We must also briefly consider life beyond the military on the Lower Danube and in Moesia Inferior. Compared with many other provinces, Moesia Inferior had relatively few urban centres other than the previously established Greek cities. The Romans, however, did establish several, including Tropaeum Traiani (Adamclissi, Romania) which was founded in the early 2nd century AD, Nicopolis and Istrum (Veliko Tarnovo, Bulgaria) which was founded by Trajan c. AD 101–106 on the river Osam, and Marcianopolis (Devyna, Bulgaria) which was founded in the 3rd century AD (Zahariade and Gudea 1997). Troesmis and Durostorum also deserve mention here, starting out as legionary forts but likely growing to have urban components as well (Alexandrescu *et al.* 2016; Damian and Bâltâc 2007). Urban areas also emerged around forts such as Halmyris, which featured a civilian (trading) harbour in addition to the military harbour for the Classis Flavia Moesica (Zahariade and Karavas 2015). There were also some villae *rusticae* near ports and along the road network, connecting the interior of the province with the Danubian fortifications and the Black Sea Coast (Duch 2015: 245). Local production of ceramics and wine began in the mid to late 1st century AD, inspired by the presence of the Roman military which boosted population numbers and demand (Duch 2015: 250). The Lower Danube is, in fact, one of several regions in South-East Europe featured on the 'Roman Emperors and Danube Wine Route', a Cultural Route of the Council of Europe certified in 2015 which links archaeological sites to modern vineyards in regions where the Romans are associated with wine production.[2] Despite these recent efforts in viticultural heritage tourism, archaeological narratives concerning the Lower Danube have primarily been focused on military control, but, as we argue below, there is potential for a far more complex understanding of this section of the frontier.

Transformation on the Lower Danube

One of the most significant events that affected the Lower Danube frontier was the fall of the province of Dacia in AD 275. Research on Roman Dacia has long overshadowed that of Moesia; held between AD 105/6 and 275, Dacia was one of the last provinces added to the Empire and one of the first to be abandoned. When the province was evacuated in the late 3rd century AD, the entirety of the Lower Danube again became the border of the Empire. This not only restated the importance of Moesia Inferior as a frontier province, but it also brought a significant new population moved south from Roman Dacia. Due in part to the strength of the Romanian national origin myth which centres on the Dacians and 'Daco-Romans', archaeologists have devoted much less attention to the Roman past of Moesia than Dacia, despite much of the province corresponding to the modern Romanian territory of Dobrogea.[3]

Zahariade and Gudea (1997: 13, 57) note the general lack of excavations in Moesia Inferior, especially those examining 1st–3rd century AD contexts, citing the significant reconstruction at most of the early Roman forts in Dobrogea in the Late Roman and Early Medieval periods (cf. Țentea *et al.* 2019). V. Pârvan was one of the first to begin any substantial excavations in Dobrogea, particularly after the end of the First World War; R. Vulpe published an initial monograph on the sites of Dobrogea in 1938, with a second volume in 1968 (Zahariade and Gudea 1997: 17), and Zahariade (1976) reviewed the defensive system of the province. In

[2] http://romanemperorsroute.org/ (Last accessed 17 September 2023).

[3] On Romanian nationalism and the Daco-Roman continuity thesis, see Hanscam 2019; Light and Dumbraveanu-Andone 1997; Niculescu 2004; Niculescu 2023; Popa 2015; Popa and Hanscam 2019–2020; Rubel 2023. Bulgaria did receive Southern Dobrogea from Romania in 1940, which had previously been part of the Bulgarian state until 1913.

English, Zahariade and Gudea (1997) currently offers the most up-to-date published summary, supplemented by Karavas (2001) on the fortifications of Moesia Inferior; for the foundation of the province of Moesia, see Matei-Popescu (2022). In Romanian, Țentea *et al.* (2019) is an important new contribution summarizing the state of knowledge on the fortifications in Dobrogea. Zahariade's 2006 monograph on Scythia Minor from AD 284–681 provides an important summary of the Late Antique period.

Over the past few decades, there has been a significant amount of research by international teams at forts such as Noviodunum and Halmyris (e.g. Lockyear *et al.* 2005; Zahariade and Karavas 2015), with additional landscape survey work undertaken by Oltean and Hanson (2014). Syntheses have been published on excavations at individual sites such as Troesmis (Alexandrescu *et al.* 2016), Novae (Ciołek and Dyzcek 2011; Sarnowski 2005), Nicopolis ad Istrum (Poulter 1995), Dichin (Poulter 2019) and Capidava (Opriș and Rațiu 2017). Differing research languages and traditions, as well as issues with the accessibility of published work, remain an obstacle to wider recognition of the scholarship on the Lower Danube, although there are signs this is improving.

A major indication of increased international attention is the collaboration taking place under the auspices of initiatives such as Romania's *LIMES* National programme,[4] implemented as part of the ongoing effort to include the Lower Danube within UNESCO's pan-European Frontiers of the Roman Empire World Heritage Site (FREWHS).[5] It would undoubtedly be an achievement to see the Lower Danube frontier recognized alongside other sections of the frontier including Hadrian's Wall and the western segment of the Danubian *limes* which was added in 2021 (Sommer 2021). As Oltean writes in the preface to this volume, these efforts also come with their own challenges, with questions regarding which *limes* sites are (or are not) included in the nomination and the implications of these choices. It is also important to reflect on how the inclusion of the Lower Danube within the FREWHS may affect our understanding of a segment of the frontier that has experienced considerable migration. As discussed by Hingley (2018), the reception of Roman frontiers and modern European borders are interconnected; not only are some of these frontiers still borders today, but popular perceptions of Roman frontiers such as Hadrian's Wall normalizes contemporary 'walled' borders (see discussion in Hanscam and Buchanan 2023). These issues pertain to all of the Roman frontiers but, we argue, they deserve particular attention on the Lower Danube, which is best understood as a zone of interaction and cultural transformation rather than solely as a hard defensive line. Researchers of ancient landscapes that are entangled with contemporary political and humanitarian issues such as Roman frontiers have a responsibility to be aware of the wider political context of their research and we hope this will be true of future Lower Danube scholarship. By doing so, we can also underline the relevance—and importance—of researching ancient borders like the Roman Lower Danube frontier.

International Collaboration

The inspiration for this volume arose from the authors' long experience of excavations at Halmyris (Karavas beginning in 2007 and Hanscam from 2011). With volunteer numbers increasing each year, in 2014, along with Prof. Mihail Zahariade, we founded 'Archaeology at

[4] https://limesromania.ro/ro/home/ (Last accessed 17 September 2023).
[5] https://whc.unesco.org/en/tentativelists/6446/ (Last accessed 17 September 2023).

Halmyris', an annual international fieldwork volunteer programme that culminated with over fifty volunteers in 2019. In 2020 excavations were cancelled due to the COVID-19 pandemic, and sadly that summer also saw the untimely death of Prof. Zahariade, to whom this volume is dedicated. We have been unable to continue excavations since. For a time, the ongoing work at Halmyris exemplified how Roman frontiers like the Lower Danube continue to connect disparate communities. Beginning with Earthwatch volunteers in the 1990s and early 2000s, international undergraduate volunteers from the late 2000s to early 2010s, and finally with the six seasons of 'Archaeology at Halmyris', the site attracted a diverse group of people to a relatively unknown corner of Romania. This project challenged and inspired us; we saw the potential of a site like Halmyris to not only educate undergraduate archaeology students, but also to provide all those interested in archaeology a chance to participate and to learn how the past can impact the present.

The chapters in this volume highlight the best of the international collaboration occurring on the Lower Danube today, with contributions from authors based in Romania, Bulgaria, Poland, the UK and the US. The chapters make use of a range of theoretical perspectives and methodologies, bringing new insights into themes encompassing the wider provincial landscape, including the identification of additional sites through predictive modelling (Durant), the potential for remote sensing to more accurately map temporary camps (Țentea and Matei-Popescu), the importance of understanding how the Roman road system in Moesia transformed the province (Panaite), the long-term impact of sacred Christian sites in Scythia Minor (Lowinger), the development of the provincial capital of Ratiaria in Late Antiquity (Dimitrov) and why it is important to understand the unique circumstances and challenges of the construction of the Lower Danube frontier (Dyzcek).

Our thanks go to all the contributors and to Brian Buchanan, Nathaniel Durant, Anders Högberg, Florian Matei-Popescu, Ioana Oltean, David Petts, Aimee Placas, Jonathan Quiery, Martin Sterry, Andrew Tibbs, Christina Unwin and Robert Witcher for their valued support in producing this volume. We will forever be grateful to the volunteers and field staff at Halmyris and to the residents of Murighiol, for their comradery, hard work, good humour and enthusiasm for the project. Finally, we thank Mihail Zahariade, whose passion for the Lower Danube and eagerness to share his love of Halmyris had a great impact on both of our lives; he is sorely missed, as a colleague and good friend.

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Modelling Forts and Landscapes in Scythia Minor

Nathaniel Durant

Abstract: The province of Scythia Minor served as one of the most important frontier regions during the late Roman period, defending the last stretch of the Lower Danube against the external invasions of the Goths, Huns, Slavs and other northern peoples. Thus, the frontier installations that served as the main bases for military operations in this region must have been placed with considerable care and forethought to provide a strategic arrangement against any incoming forces. Through modelling and statistical analysis, this study explores the spatial factors that went into the placement of frontier forts between the 4th and 7th centuries and reveals how many of these parameters remained significant throughout the period of Late Antiquity.

Keywords: Scythia Minor, Predictive Modelling, Landscape Archaeology, Late Antiquity

Introduction

Between the 4th to 7th centuries AD, the Roman province of Scythia Minor, located in modern-day south-eastern Romania, was repeatedly overrun by Gothic, Hunnic and other invasions from the north. According to numerous ancient sources, these invasions ravaged the countryside and even led to the capture and destruction of several frontier forts and settlements (Figure 1; Marcellinus Comes 422.3; Menander Protector, Frg. 21; Procopius, *De Bellis* VII.38.1). While this external stress may not have occurred daily, the sporadic yet destructive nature of the invasions, as well as the repeated indications in the archaeological and historical records of foreign occupation of Roman territory, suggest that a purely linear and static depiction of the frontier during this period may not be useful. Additionally, the copious internal and external military crises that plagued the Empire in this period indicate that the Roman administration could not effectively deal with the overarching defence of its perimeter. Thus, the system of frontier forts that had been established along the Black Sea coast and Danube in the 2nd century AD was repeatedly modified and developed to combat these persistent threats. Although the fortifications are often separated and categorized by size or function, from smaller towers up to larger forts and fortified cities, the purposes of all these constructions ultimately lay rooted in control and defence, and the individual fortifications themselves almost always worked in tandem with other installations.

There is significant evidence from the ancient sources that, in setting up their frontier defences and fortifications, the Romans took careful consideration of the surrounding landscape and opted for the most strategically viable locations (Ammianus Marcellinus 28.2.1; Arrian 9.1; Themistius 10.137b–137d). However, until recently, there have been only limited studies aimed at trying to quantify this strategy by exploring which factors played a major role in the placement of frontier fortifications. The core contribution of this chapter takes the form of a series of statistically generated predictive models, all created from the spatial characteristics of extant frontier forts located in Scythia Minor that were occupied during the 4th to 7th centuries AD. These models reveal some of the primary geographical factors that determined the placement of fortifications and how these parameters remained important

Figure 1: The location of the province of Scythia Minor within the Roman Empire c. 400 AD (N. Durant).

in Late Antiquity. Even more crucially, these models display significant shifts in frontier strategy throughout this period and how these modifications might fit within the occupation of the province. Finally, despite numerous Roman fortifications found through archaeological excavations in Scythia Minor and beyond, several frontier installations mentioned in the historical sources still remain unidentified on the ground. It is the hope that these models also can be used in narrowing down the locations of these missing sites.

A Dynamic Province

The importance of the province of Scythia Minor and the Lower Danube frontier is well known in modern scholarship, especially following the creation of a new Imperial capital at Constantinople in AD 330 (Whitby 2007: 135–136; Zahariade 2006: 21). Like many other provinces in the Roman Empire, the resources of Scythia Minor appear to have been largely based around agriculture, although ancient authors are divided on the fertility of the soil in this region (Zahariade 2006: 13). The central plains of the provinces would have offered considerable pasturage for sheep, cattle and horses; the breeding of horses was, in fact, well-established in this area even before the arrival of the Romans (Zahariade 2006: 15). However, from its earliest organization within the province Moesia by the Romans in AD 6, the series of low hills, plateaus and plains bounded by the Black Sea and the Danube made the region a natural access point to the interior provinces. Thus, it is hardly surprising that many northern peoples used this region as an ingress into the Roman Empire (Whitby 1988: 60–66).

Between the 4th and 7th centuries AD, these invasions are viewed as key chronological markers in the history of Scythia Minor as a whole, with ancient sources often portraying such incursions in cataclysmic terms regardless of their impact. Images of ravaged and plundered settlements and a limitless and unstoppable throng of foreign aggressors pouring across the frontier to devastate the provinces became the standard archetype in historical narratives with Scythia Minor and its neighbouring provinces often at the centre (Theophanes Confessor 5942). Indeed, the province itself received special privileges during the reign of the Emperor Zeno (AD 474–475; 476–491). During Zeno's reorganization of the church in AD 480, each city designated as a *polis* was given a bishopric, with Scythia Minor as the sole exception as 'these holy churches have been troubled by continuous incursions of the barbarians or have otherwise been afflicted by want' (Codex Justinianus 1.3.35(36).2). Despite this doom-and-gloom attitude stressed by historical authors, modern scholars have started to question this portrayal, acknowledging the impacts of foreign incursion, but also noting periods of relative peace and prosperity and the successes of the Roman army in repelling the invading forces (Kardaras 2019; Sarantis 2016; Whitby 1988). Due to its proximity to the Imperial capital, numerous emperors saw the value of maintaining a well-defended frontier in Scythia Minor and thus it is hardly surprising that there are repeated instances of the region receiving Imperial benefactions in the form of building projects or serving as the point of departure for numerous campaigns into *barbaricum* (Whitby 1988: 60).

In addition to revisiting these past historical viewpoints, the material culture supporting these invasions has been recently called into question. In both Scythia Minor and the adjoining frontier provinces on the Lower Danube, the burn layers, coin hoards and other typical archaeological hallmarks of turbulence and destruction have been linked by past authors to specific invasions with a seemingly unerring degree of accuracy (Ivanov 1999; Scorpan 1980). While it is still possible to link specific events in the ancient record to those in archaeological contexts, and several of these markers may indeed hold historical precedent, the over-eagerness of archaeologists in this region has led to an uncanny number of invasions and destructions ostensibly illustrated in the archaeological record, but with limited and insufficient data as corroboration (Vagalinski 2012: 323). Nevertheless, it is possible to gain a general representation of how the province of Scythia Minor was shaped by these invasions between the beginning of the 4th century and the middle of the 7th century AD and how the administration of this frontier province may have changed during these 300-plus years.

At the start of the 4th century, in addition to the creation and distribution of military units along the frontiers, the Tetrarchy instigated a comprehensive building programme along the frontier provinces aimed at addressing the growing need for security along the *limes*, particularly those along the Lower Danube (Zahariade 1999: 3). Indeed, the second half of the 3rd century marks the emergence of a novel approach towards the construction of fortifications that likely started around the reign of the Emperor Gallienus (AD 253–268) and soon became widespread throughout the Roman world (Poulter 2007: 30). While the dating of these forts based purely on stylistic grounds remains a difficult endeavour due to the variety of different architectural forms, there are some general trends. Circuit walls regularly reached over three meters in width and were bolstered with massive projecting U-shaped towers that were often oriented to concentrate enfilading fire on the most exposed sections of the fort. Often, large rectangular towers and additional bastions were also employed to enhance the defensive and surveillance capabilities of the fortifications (Poulter 2007: 29). Much of the Tetrarchic

building initiative was aimed towards repairing and rebuilding the frontier forts and cities that had been already set up by Trajan (AD 98–117) and later 2nd century AD emperors. This trend is best exemplified by a series of formulaic building inscriptions dating to between AD 298 and 305, discovered at sites in Moesia Prima, Moesia Secunda and Scythia Minor, which mark these comprehensive efforts of the Tetrarchy to 'construct the fortification for the eternal future of the republic' (*pro futurum in aeternum rei publicae praesidium constituerunt*) (i.e. the Halmyris Tetrarchic Inscription, see Zahariade 1997).

While the invasions of the Goths in the late 4th century AD and their subsequent settlement as *foederati* may have exposed the weaknesses of the Roman frontiers, the forts themselves largely endured despite this change. All of the forts along the *limes* and in the interior of Scythia Minor did see continued occupation (or reoccupation) in the last two decades of the 4th century and into the early 5th century AD, but their occupants were forced to adapt to a countryside that was no longer secure with a vast array of newly settled neighbours tethered to them as uneasy allies. However, the arrival of groups of Huns into Scythia Minor in the first half of the 5th century AD marks one of the major turning points in the history of the province as well as in the history of its fortifications. In three increasingly destructive periods between AD 404–408, 422, and 442–448, the Huns ravaged the frontier province, causing widespread devastation, and essentially negated much of direct Roman control over the province in the AD 440s until the death of Attila in 453. Even following the dissolution of the Hunnic regime, many sites seem to have not been fully reconstructed until the programmes of Anastasius I (AD 491–518), as the competing federate groups of Theodoric the Amal and Theodoric Strabo hindered Imperial aid in the province. The numismatic evidence from numerous sites in Scythia Minor corroborates this lack of Imperial control as the use of coinage remained significantly low during the second half of the fifth century AD (Guest 2007: 301). Between the absence of Imperial resources and settling of foreign tribes within the provincial lands and cities, any garrisons that had returned to or remained on the frontier defences must have relied on local support.

The 6th century AD marked the first comprehensive attempt to restore effective control over the frontier provinces since the arrival of the Huns. Although Anastasius began the processes of restoring frontier control and Imperial defences to Scythia Minor and other frontier provinces, the Emperor Justinian (AD 527–565) expanded the effort through the creation of the *quaestura exercitus* in 538. This position was given authority over Scythia Minor and Moesia Inferior as well as Caria, the Cyclades and Cyprus and seemed to be largely tasked with ensuring a consistent quantity of food and other supplies for the garrisoned troops (Curta 2002: 10–11; Torbatov 1997: 80). Complementing Justinian's administrative reforms in Scythia Minor and neighbouring provinces was an extensive building program aiming to restore many of the frontier fortifications and installations to working order and establishing new fortified sites at weak points. Although the main historical source for this programme in Scythia Minor, Book 4 of Procopius' *On Buildings,* is panegyrical and certainly may over exaggerate the role of this programme on a site-by-site basis, epigraphic and archaeological evidence are able to lend much support to its impact and overall extent (Sarantis 2016: 176–177). The best evidence for a coordinated building programme in Scythia Minor actually comes not from within the province itself, but from a series of inscriptions discovered at the site of Byllis in Epirus Nova (modern Albania). All four of these inscriptions allude to an individual named Victorinus

who clearly held some Imperial position as an architect (Feissel 1988: 137). Inscription II is especially notable and is reproduced in full as follows:

> By the providence of God and the Virgin Mother of God, Victorinus, the soul of generalship, correctly serving the aim and methods of Justinian the most-powerful lord, having erected the fortresses of the Moesians and Scythians and of Illyricum together with the whole of Thrace, piously builds the walls at Byllis (Sarantis 2016: 167–168).

Victorinus' prowess as a builder is echoed again in another inscription from Byllis which proclaims how one will 'never lament or fear the barbarians, having got the great Victorinus himself as my builder' (Sarantis 2016: 168). While we cannot say whether Victorinus was personally responsible for the construction of forts throughout the provinces of the Lower Danube, as his title is never given, it is likely that he did serve Justinian in an official capacity during a comprehensive building program (Sarantis 2016: 169–174).

Justinian's administrative policies and refortification of the Lower Danube provinces, coupled with significant diplomatic and military manoeuvres against the tribal federations, appear to have been largely successful, as only a few invasions managed to breach the Scythian frontier in his reign following these defensive measures. His successors, however, were not as fortunate. The rise in power of the Avars at the end of Justinian's reign and their domination and influence over the loosely organized groups of Slavs would create a new issue along the frontier. A cycle of invasions, Imperial payoffs, and more invasions caused control over the Danube provinces to gradually weaken, with increasing amounts of Imperial land settled by Slavs and Avars.

The campaigns of the Emperor Maurice (AD 582–602) at the turn of the 7th century AD arguably represent the last concerted effort towards exercising Imperial control within Scythia Minor and the neighbouring frontier provinces. Maurice inherited a series of fortifications that had suffered considerably during the raids of the previous decades, and any control and defence of the frontiers upon his ascension seemed to be largely ineffective due to a severe lack of manpower. As no standing army appears to have existed within the Balkan provinces during the early years of Maurice's reign, much of Maurice's defensive initiatives consisted of buying off the invaders while attempting to consolidate groups to form an effective fighting force. Indeed, Maurice's commanders appear to have been tasked with restoring links and control with major cities in Scythia Minor, likely focusing on those which had suffered from the raids and subsequent destruction (Whitby 1988: 159). By the end of Maurice's reign, 'the Ister [Danube] was agreed as intermedium between Romans and Avars but there was provision for crossing the river against Sclavenes', a crucial arrangement that restored official Roman control in Scythia Minor (Theophylact Simocatta VII.15.9).

Unfortunately, Maurice's recovery of Scythia Minor was to be relatively short-lived. Following the emperor's murder in AD 602, subsequent Imperial administrations focused on more pressing matters in the east and in the interior provinces, leading to increased ruralization and abandonment of sites within Scythia Minor. Sites in the interior of the province such as Tropaeum Traiani and Ulmetum may have gone largely out of use following the extensive raids of the Avars as early as the last decade of the 6th century AD, since, as mentioned above, the paths of these invasions often brought the invaders to the southern half of the province

(Liebeschuetz 2007: 130). Sites along the Danube, mostly consisting of the frontier forts and fortified cities, see their coin series last slightly longer with the latest coin find dating to between AD 610 and 616 for the majority of sites (Madgearu 2006: 157). Finally, sites along the coast, consisting primarily of the former Greek colonies transformed into the major cities of Tomis, Histria and Callatis, were able to survive in some capacity until the AD 630s and possibly even later, likely due to the influence of the Byzantine navy.

Clearly, the frontier fortifications in the province of Scythia Minor underwent a series of extensive changes between the beginning of the 4th century AD and the middle of the 7th century AD; a few overarching trends can be observed from the archaeological and historical narrative. In general, the history of the Scythian frontier can be divided in two major periods of stability (the 4th and 6th centuries AD) interspersed with two periods of greater turmoil (the 5th and 7th centuries AD). The importance of this frontier due to its proximity to the Imperial capital at Constantinople meant that when it was possible, numerous emperors would improve its defences and ensure that the interior provinces would be protected. Whether this took the form of extensive building programs such as those under Theodosius II or Justinian, of providing aid to the frontier troops with the Imperial army, or even creating a new administrative position to provide logistical support, the Scythian forts served as one of the primary focuses for military activity in Late Antiquity. Therefore, as this dynamic region went through several dramatic changes in occupation and organization throughout Late Antiquity, a change (or changes) in frontier strategy seems to be largely expected. Predictive modelling can thus serve as one of the tools to reveal these strategies and explore the rationale behind fort placement and occupation.

Predictive Modelling in Archaeology

With the emergence of digital applications in the field of archaeology in the last several decades, new forms of non-invasive techniques in archaeology have been developed in order to minimize the amount of otherwise costly excavation or other forms of ground-based research. One of these methods, predictive modelling, aims to determine 'the location of archaeological sites or materials in a region, based either on a sample of that region or on fundamental notions concerning human behaviour', thus allowing focus to be given to those areas which would likely yield the most significant archaeological remains (Kohler and Parker 1986: 400). The parameters of these models are almost always spatial and take advantage of the hypothesis that 'the location of archaeological remains in the landscape is not random, but is related to certain characteristics of the natural environment' (Verhagen 2007: 13). These approaches commonly take the form of either 'theory driven' modelling, in which landscape criteria for inhabited sites are generated based on the predicted preferences for a society, or 'data driven' modelling, where the model is created based on spatial data taken from extant archaeological sites (Verhagen 2007: 13–14). The models produced from this study fit within the latter group as spatial parameters garnered from existing frontier fortifications are combined and extrapolated in order to determine the most likely location of unidentified forts.

Even with the vast array of opportunities made available through the application of predictive modelling within archaeological discourse, the technique has not been without its critics. From the standard argument that such models cannot predict the location of all archaeological

sites, to the number of assumptions inherent in their development, predictive modelling has been met with resistance throughout archaeological applications (Verhagen and Whitley 2012: 53). However, as ultimately the strength of a predictive model lies in 'the data sets used, the spatial extent and resolution chosen, and the theoretical framework applied', my research aims to achieve these goals through establishing a well-structured framework based upon the case study of Scythia Minor (Verhagen and Whitley 2012: 89). It is my hope that these models can serve as an effective baseline for this region and as a catalyst for further research in this and other frontier provinces.

How can we then determine what factors influenced the frontier installations, use this data to model where the ideal locations of forts should be (thus predicting missing sites) and show if and how these trends changed over time? Much of the onus lies on the proper identification of parameters that are deemed to be statistically significant, that is, spatial qualities that are inherent within a majority of the observed sites as opposed to random locations in the landscape. Such parameters can best be recognized by statistical software which determines how well these traits fit within the established data. The accuracy of the model is also influenced by the choice of a proper statistical equation that best represents the data but also produces results that are meaningful. This present study employs a binary logistic equation to represent the data as this equation shows considerable sensitivity to changes at the 50% threshold. The use of this statistical model is well established in archaeology and remains suitable when the dependent variable (in this case, the location of a fort) is binary (yes/no) (Wachtel *et al.* 2018: 29).

When creating a data-driven predictive model based on individual sites, it is necessary to choose an equal number of points that represent locations where the sites are not present, referenced here as the 'absence set'. In many cases, this data set can be extremely difficult to portray, especially if the subject of the model is mobile, such as with animal migration patterns or the movement of weather. Fortunately, Roman forts do not relocate in this manner, but it is still almost impossible to determine whether every location in Scythia Minor does or does not contain a fort without proper archaeological investigation. There have been multiple methods used in creating an 'absence set' to rectify this discrepancy in knowledge, but the most commonly accepted technique is to simply choose random points within the study area, a method also employed in the creation of this model (Agee *et al.* 1989). Furthermore, a buffer zone of 1 km was created around all of the known sites in order to ensure that none of the 'absence set' random points are generated upon an existing fort.

Fort and Frontier Parameters

Although predictive models often employ a vast array of spatial features to identify areas of high archaeological interest, all of the parameters chosen for this model were derived exclusively from the topography. This choice was largely deliberate as ancient authors often stress the importance of the landscape in the placement of a fortification, referring to any ideal topography as a 'suitable' or 'convenient place' (*per loca opportune*) (Ammianus Marcellinus 28.2.1; Arrian 9.1; Kovacs 2008: 127). However, Romania remains one of the many countries where topographic data remains difficult to access and high-resolution imagery can be quite expensive. Fortunately, NASA's Shuttle Radar Topographic Mission (SRTM), an initiative undertaken in February 2000, provided nearly complete global elevation coverage at

one arc second resolution (about 30 meters per pixel) in the form of a Digital Elevation Model or DEM (Rabus *et al.* 2003: 241). While 30-meter resolution may not seem overly precise, the global accessibility coupled with the fact that nearly all of the fortified frontier installations analysed in this study have dimensions larger than 30x30 meters indicates that the DEM obtained from SRTM is more than appropriate for the current study.

Once the DEM of the study area was created, the site plans of all 60 analysed frontier installations were georeferenced (i.e. placed into their geographical position) on the newly created map (Figure 2). While the size of some forts fit into a single pixel, most fortifications occupied multiple pixels and thus it was crucial to confirm the accurate placement and positioning of their layout in the topography. Additionally, in order to better reflect the variety in landscape characteristics occupied by forts of a significant size, all spatial parameters were divided into three subcategories: minimum, maximum and average. Sixty points, representing the 'absence set', were also created within the study area using ArcGIS' create random points tool.

The first parameter, easily the simplest and chosen as a baseline, is the base elevation of a site above sea level taken straight from the DEM. At first glance, base elevation may appear as an unsuitable factor in the placement of sites, as sea level would scarcely be relevant to sites located within the interior of the province, but this parameter may actually bear statistical significance due to the layout of Scythia Minor. In addition to the Black Sea coast, much of the track of the Danube floodplain also lies along very low elevation contours, a trend that can also be seen within the river valleys of other streams in the province.

Slope and gradient, although well known to Roman military and architectural authors, as evident by Vitruvius' (VIII.6) description of aqueducts, remain largely absent in descriptions of fort and city construction. While a significant number of deviations in the landscape can be counteracted by subsequent excavation and levelling, a technique well observed in archaeological remains, it is unclear whether the Romans possessed a predilection towards more flat or sloped ground in their placement of frontier installations. In order to account for the significant variety in slopes observed within the known sites, minimum, maximum and average slopes were generated for each individual frontier fort along with a single value for each of the random points.

While the impact of base elevation in the placement of Roman frontier installations may seem undetermined, the role of relative elevation remains much less ambiguous. As mentioned in the previous section, literary sources from almost all periods of the Roman world allude to the importance of height in maintaining the control over the frontier and the provincial landscape, typically through the construction of forts and towers. Extensive studies along other frontier lines of fortifications including the German *limes* and Hadrian's Wall have demonstrated the importance of visibility between forts, fortlets and watchtowers for signalling and other forms of communication (Woolliscroft 2001: 13). These surveys indicated that even though the placement of frontiers and frontier installations were subject to local influence and factors, there remains an underlying focus on what Woolliscroft (2001: 155) has termed 'direct signalling systems in which every minor installation has a direct visual link to a fort'. This sentiment is best exemplified in a description of the reconstruction of the Rhine frontier under the Emperor Valentinian I who 'fortified the high ground on both banks of the Rhine with strongholds and forts, so that no attack on [Roman] territory could be launched

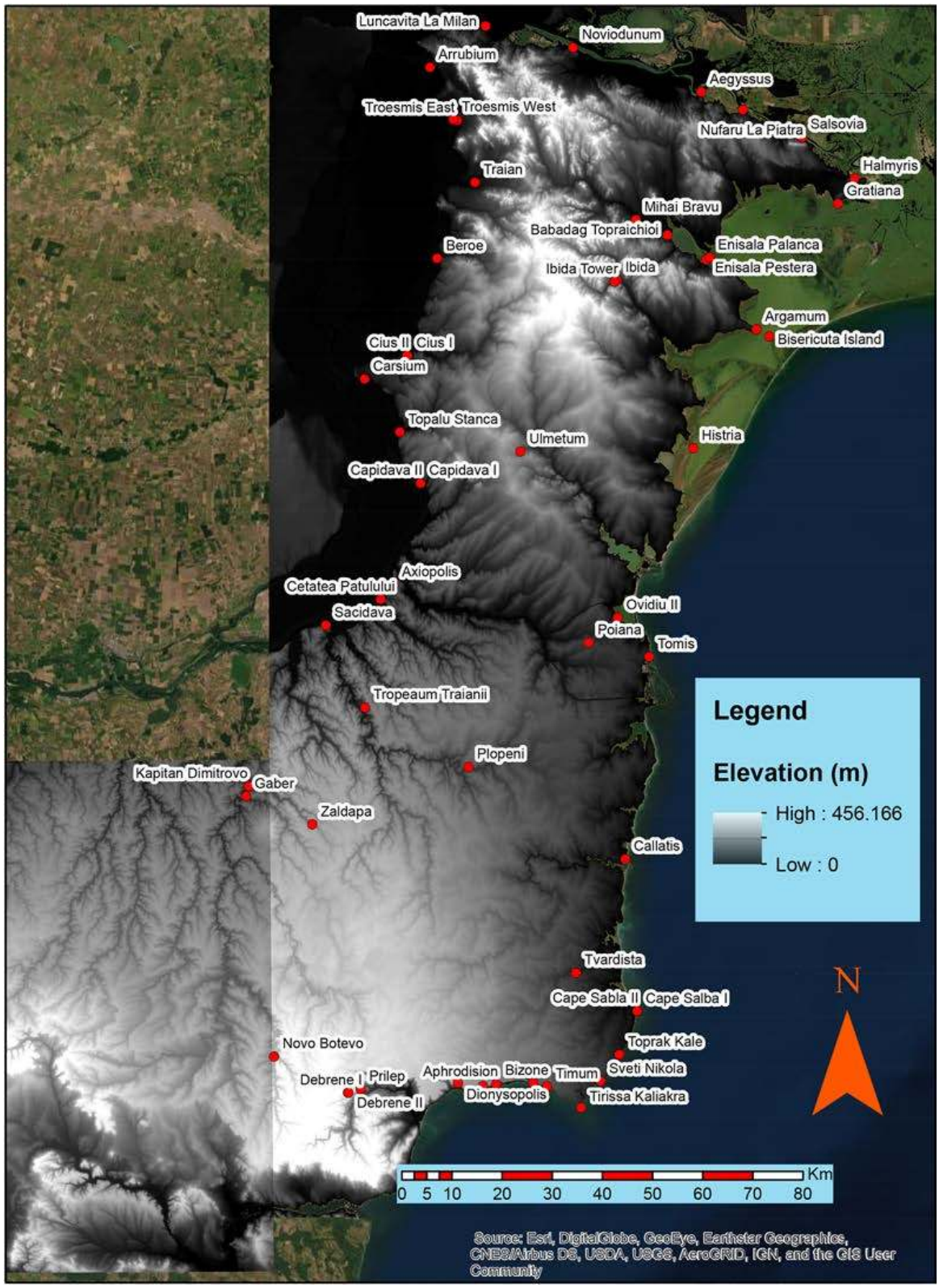

Figure 2: Full dataset of forts in Scythia Minor, 4th–7th century AD (N. Durant).

unobserved' (*utrubique Rhenum celsioribus castris munivit atque castellis, ne latere usquam hostis ad nostra se proripiens possit*) (Ammianus Marcellinus 31.7.6). While the construction of towers can provide a significant amount of artificial height over the landscape, the importance of elevated positions in the topography was well-known in Roman military strategy. In discussing the defence of a military camp, the late 6th century *Strategikon* (7.2.10) notes that foragers 'are to watch for a signal given from certain high and conspicuous places to let them know that some of the enemy may be approaching'.

Relative elevation parameters were created through two separate methods in ArcGIS: neighbourhood statistics and Topographic Position Index or TPI. The neighbourhood statistics tools in ArcGIS created two relative elevation maps by determining the average elevation around each individual pixel and then subtracting this value from the elevation of each pixel. The difference between each map lies in the radius of pixels chosen for the relative elevation, as two relatively short-range areas were selected: 3x3 pixels (approximately 90x90 meters) and 5x5 pixels (approximately 150x150 meters). The second method for creating relative elevation focused on a much wider scale (from 5x5 to 20x20 pixels or approximately 600x600 meters) and employed a technique originally developed for landscape studies: TPI or Topographic Position Index. TPI values also represent the difference in elevation between a central pixel and a surrounding neighbourhood but employ a different algorithm (discussed at length by Weiss 2001), and can be combined with slope to create a series of landform classes including ridges, valleys and shallow slopes (De Reu *et al.* 2011: 3442; Tagil and Jenness 2008: 914–916). TPIs were developed for 5x5, 10x10, 15x15 and 20x20 neighbourhoods and divided into two categories: those based on the maximum elevation points in the fort and those based on the average elevation values for the entire site, both being calculated from four TPI maps created for each neighbourhood size.

The final parameters created for the predictive model centred on the proximity to significant water bodies. In addition to mapping out the courses of the ancient coastline and the Danube River discussed earlier, this study employed ArcGIS' Hydrological tools to plan out and represent the interior rivers of the province. However, much of this representation is largely subjective as it relies on adjusting the stream threshold to match up with the river valleys displayed on the DEM. Unfortunately, as palaeolandscape reconstruction in Scythia Minor has largely focused on the coast and the Danube Delta, the current paths of the rivers must serve as the closest proxy to the rivers during the Roman period. The stream threshold is determined by the minimum number of cells that can flow into a pixel that would qualify it as part of the stream network. Scientific research in the extraction of hydrological data has also demonstrated a range of possible values for stream thresholds from 0.05 km^2 all the way to 4.5 km (Olivera *et al.* 2002: 73; Reddy *et al.* 2018: 103; Tarboton *et al.* 1991: 81;). Thus, four maps of water bodies, each linked to a specific threshold, were created to represent the various types of rivers, streams and river valleys present within Scythia Minor. The first two maps (with thresholds of 5000 (4.5 km^2) and 1000 (0.9 km^2) cells) represent the larger more significant streams in the Roman province, while the second two maps (with thresholds of 500 (0.45 km^2) and 100 (0.09 km^2) cells) represent secondary streams and rivers that may have been seasonal or even just swampy depressions in the landscape. A distance buffer was created from each of these maps and the distance to the nearest body of water was calculated for each individual frontier site and for each random point in the 'absence set'.

Overall, 22 separate parameters were created for 120 distinct sites (60 known and 60 unknown) and all the points were placed into IBM SPSS statistical software through a binary logistic regression to determine which factors bore statistical significance. However, due to the similarity of many of the spatial parameters, not all of the factors could be incorporated into a single model. Thus, six models were created to cover the entire range of possible spatial factors, while at the same time providing insights into specific combinations of these parameters. Additionally, in order to explore how these factors were considered throughout the 4th to 7th centuries AD, the 60 known sites in Scythia Minor were categorized based on which century or centuries they were occupied, distinguishing between sites with definitive occupational evidence and those with likely occupation.

Results

The first series of predictive models that were created centred on the entire dataset of forts and absence points (120 points in total). These models therefore represent the overarching trends in fort placement and location throughout the entirety of the 4th to 7th centuries AD without considering whether all of these forts were occupied at the same time. Overall, between the first six models generated for the entire dataset of sites, 18 of the 22 parameters were deemed as statistically significant (Figure 3 and 4). Between the 4th and 7th centuries AD in Scythia Minor, forts were more likely to be placed at lower elevations compared to sea level and at slightly higher slopes. However, even at these heights closer to sea level, in general forts were still more likely to be placed on higher average elevations than the surrounding landscapes, allowing them to survey and control both the immediate area of the fort as well as regions further afield. For example, a fort placed only 10 meters above sea level could still command a significant swath of the landscape if the surrounding area was less than 10 meters high. Taking into account the variability in the models, forts in this region seem to have been less concerned with maintaining visibility over the immediate area around the site (i.e. within 150 m^2) and instead were situated at locations that allowed for an extensive view of the overall terrain (600 m^2 and beyond). Maximum points of elevation in the landscape (i.e. hilltops or ridges) seem to have also been important concentrations for fort construction, perhaps even serving as the locations for towers or other means of surveillance that allowed the Romans to take full advantage of these prominent positions. Access to water for transportation and other daily uses was clearly an important factor in military operations as forts were much more likely located near to major bodies of water. However, dry river valleys or seasonal riverbeds seem to have been unappealing natural characteristics to have near a potential fort. There is no clear reason behind this relationship especially since it is unclear how many of these minor features existed as true year-round rivers in Late Antiquity. The river valleys, if dry or seasonal, may have offered excellent locations for clandestine ambushes that would have been much more difficult to spot or prevent due to the irregular topography; perhaps this was the reason that these areas were avoided.

In addition to establishing the main parameters for the placement of forts within Scythia Minor, another primary goal of this study is determining whether any of these factors changed significantly between the 4th to 7th centuries AD. Based on the historical and archaeological evidence already discussed and even taking into account the apocalyptic embellishments and propaganda present in the ancient authors, there is clearly a strong contrast made between the extensive building programs of the 4th and 6th AD centuries and the chaotic and persistent

Model	Base Elevation	Max Slope	Min Slope	Avg Slope	Max Rl 3x3	Min Rl 3x3	Avg Rl 3x3	Max Rl 5x5	Min Rl 5x5	Avg Rl 5x5	TPI 20x20	TPI 15x15
Full_Data_Max	Negative	Positive			Positive			Positive				
Full_Data_Avg	Negative			Positive			Positive			Positive		
Full_Data_Split1	Negative			Positive			Positive			Positive	Positive	
Full_Data_Split2	Negative	Positive			Positive			Positive				
Full_Data_MinMax	Negative		Negative									
Full_Data_MinAvg	Negative		Negative						Positive			
Full_Data_Total	Negative	Positive	Negative	Positive	Positive		Positive	Positive	Positive	Positive	Positive	
Full_Data_Max_NoBase	N/A	Positive			Positive						Positive	
Full_Data_Avg_NoBase	N/A			Positive			Positive			Positive		
Full_Data_Split1_NoBase	N/A			Positive			Positive				Positive	
Full_Data_Split2_NoBase	N/A	Positive			Positive			Positive				
Full_Data_MinMax_NoBase	N/A		Negative									Positive
Full_Data_MinAvg_NoBase	N/A		Negative						Positive			
Full_Data_NoBase_Total	N/A	Positive	Negative	Positive	Positive		Positive	Positive	Positive	Positive	Positive	Positive

Figure 3: Statistical relationships between fort location and spatial parameters in Scythia Minor between the 4th and 7th centuries AD. Positive indicates a direct relationship between fort location and a parameter (i.e. increase in the value of the parameter also increases fort location) while Negative denotes an inverse relationship (decrease in the value of the parameter increases fort location). The two orange rows labelled as 'Full Data Total' and 'Full Data NoBase Total' represent the combined relationships from all six previous models (N. Durant).

Model	TPI 10x10	TPI 5x5	TPI avg 20x20	TPI avg 15x15	TPI avg 10x10	TPI avg 5x5	Min Dis 5000	Min Dis 1000	Min Dis 500	Min Dis 100
Full_Data_Max										
Full_Data_Avg			Positive			Negative		Negative		Positive
Full_Data_Split1		Negative							Negative	Positive
Full_Data_Split2										
Full_Data_MinMax	Positive						Negative			Positive
Full_Data_MinAvg						Positive	Negative			Positive
Full_Data_Total	Positive	Negative	Positive			Positive/ Negative	Negative	Negative	Negative	Positive
Full_Data_Max_NoBase	Positive	Negative					Negative		Negative	Positive
Full_Data_Avg_NoBase				Positive	Positive	Negative	Negative		Negative	Positive
Full_Data_Split1_NoBase	Positive	Negative					Negative		Negative	Positive
Full_Data_Split2_NoBase			Positive		Positive	Negative	Negative		Negative	Positive
Full_Data_MinMax_NoBase	Positive	Negative					Negative			Positive
Full_Data_MinAvg_NoBase						Positive	Negative		Negative	Positive
Full_Data_NoBase_Total	Positive	Negative	Positive	Positive	Positive	Positive/ Negative	Negative		Negative	Positive

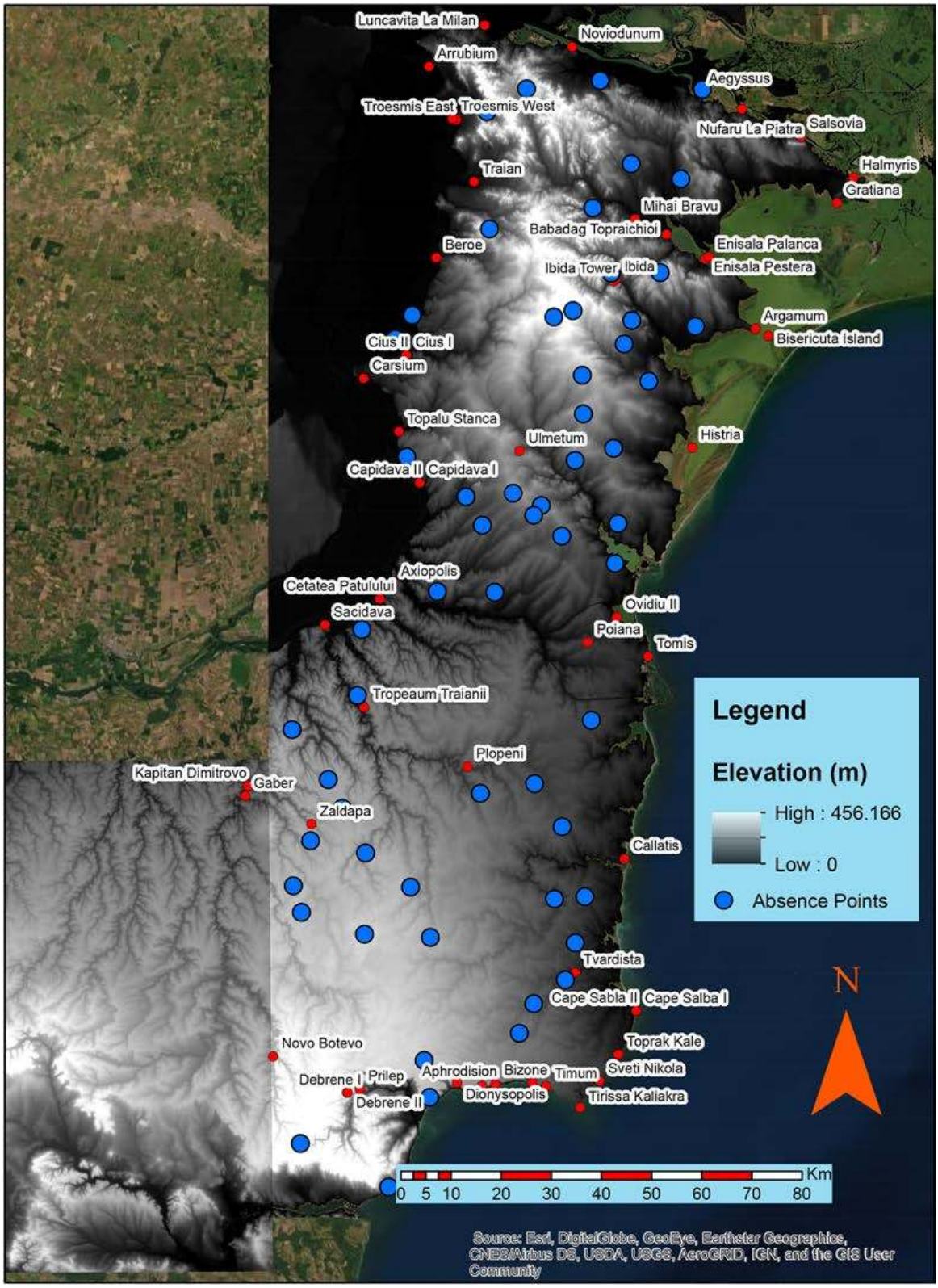

Figure 4: Full Dataset of Forts and Random 'Absence' Points (in blue) (N. Durant).

invasions of the 5th and 7th centuries AD. Prompted by the distinctive economic and military conditions in each of these periods, one might expect some change in military strategy that could be reflected through both the choice of sites, whether to reoccupy or rebuild existing fortifications, or whether to construct new and additional frontier installations.

The most startling revelation that emerged from these maps was that despite some small shifts in focus, the main parameters and relationships that were determined as statistically significant in the full dataset also appeared the same in each of the chronological groups. This fact indicates that there was no overarching change in strategy between the 4th and 7th centuries AD in the placement of a fort in Scythia Minor, and the same factors that governed the preferred location of frontier installations remained largely constant throughout the life of the province. However, while all of these parameters remained largely important to the Roman military between the 4th and 7th centuries AD, observing the maps of the models reveals that specific parameters may have carried more significance during individual centuries. Forts in the 4th century AD are concentrated only along the lines of the coast, major rivers and their immediate tributaries, and a number of highlands in the north with very limited possibilities in the southern half of the province (Figure 5). On the other hand, forts in the 5th century AD show a much greater variety in location, including along much smaller river sections over the whole of the province as well as a huge preference for the elevated regions in the northern half (Figure 6). Finally, forts in the 6th century AD again show a much more restricted selection, but one that is largely based around the placement of major rivers and their secondary tributaries throughout the entirety of the province (Figure 7). Unfortunately, the limited number of forts (ten) with definitive occupation in the 7th century AD prevented any century-specific model from being developed.

It is difficult to quantify these differences, although it does seem that the 5th century AD marked a time where a much greater number of locations were seen as suitable for the placement of a fort, possibly due to the great insecurities that plagued the area during this period. When comparing fort location between the 4th century and the 6th century AD, there appears to be a much stronger preference in the 4th century AD towards sites in the northern half of the province while the 6th century AD forts are just as likely to be found in the south. Similarly, it is unlikely that 4th century AD strategists were far fussier about their site choice, but it is still remarkable to observe the much larger areas within the 4th century maps deemed unsuitable for fort placement compared to those in the 6th century AD. One possible interpretation for this discrepancy is the significant shift in tactics the Empire was forced to adopt during the 6th century AD to combat the Slavs, Antae and other northern groups, necessitating a greater control over a larger number of rivers.

Conclusions

Created in the late 3rd century AD, the dynamic province of Scythia Minor lasted over four centuries until its abandonment in the mid-7th century AD, serving as one of the most important frontier zones in the Late Roman Empire. Taking advantage of the natural features in the landscape as well as the line of forts constructed by past Roman rulers, the Late Antique emperors saw the defence and control of this frontier province as crucial due to its proximity to the Imperial capital, ensuring that their building programs never neglected this region. Overall, this research has demonstrated the efficacy of predictive modelling within

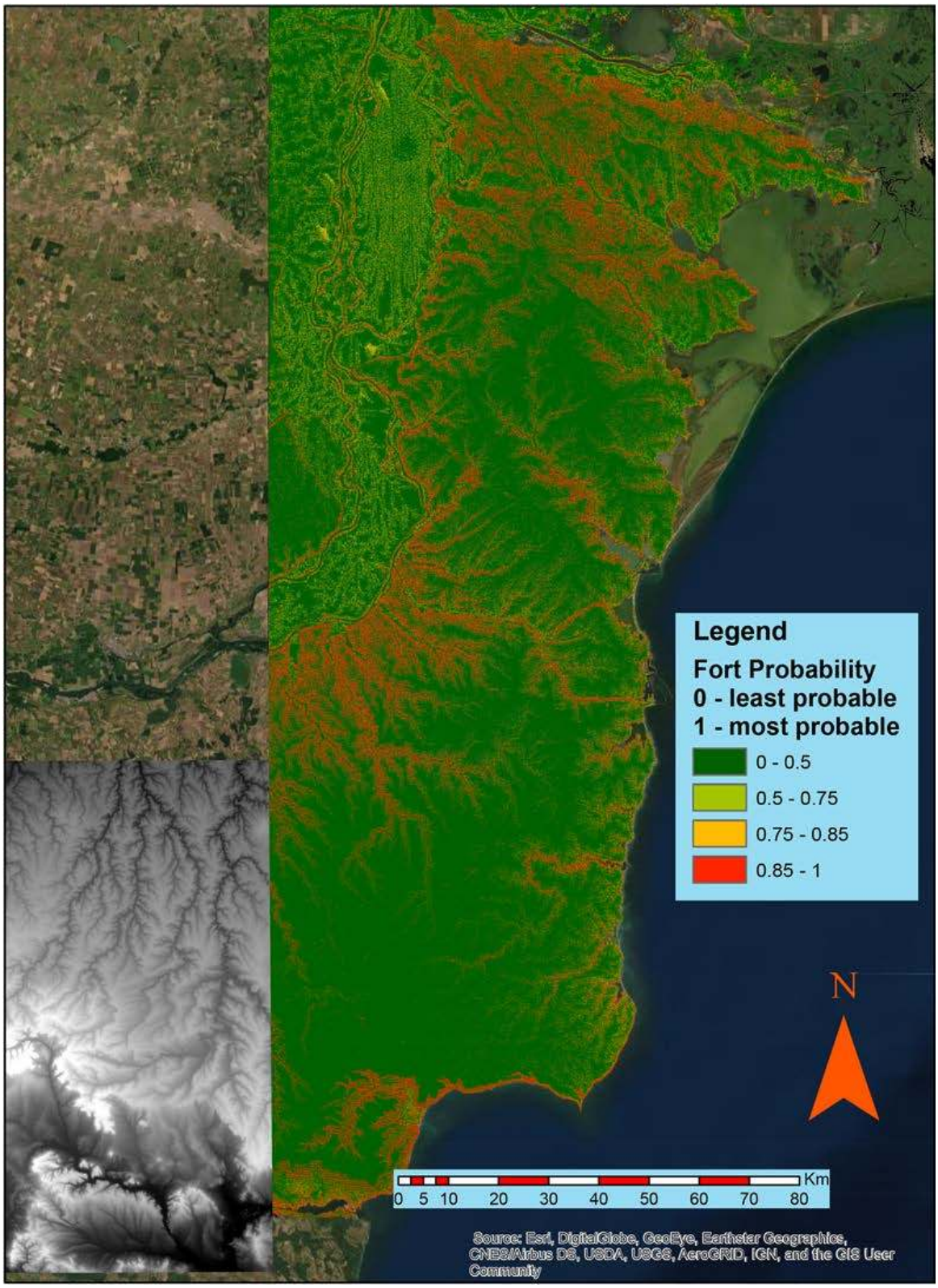

Figure 5: Predictive model of Scythia Minor forts using the full dataset (N. Durant).

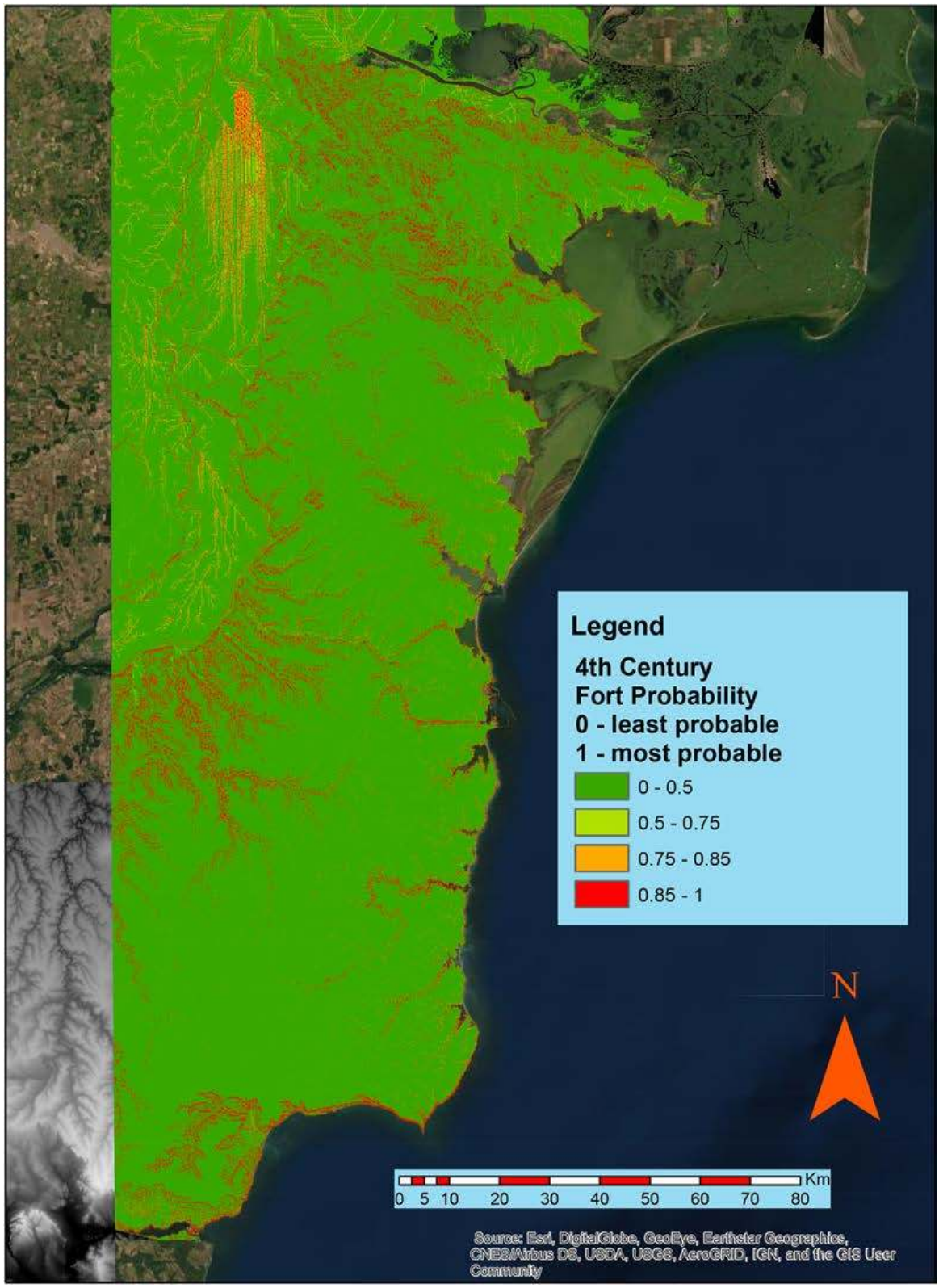

Figure 6: Fort probability in Scythia Minor in the 4th century AD based on sites with definitive occupation (N. Durant).

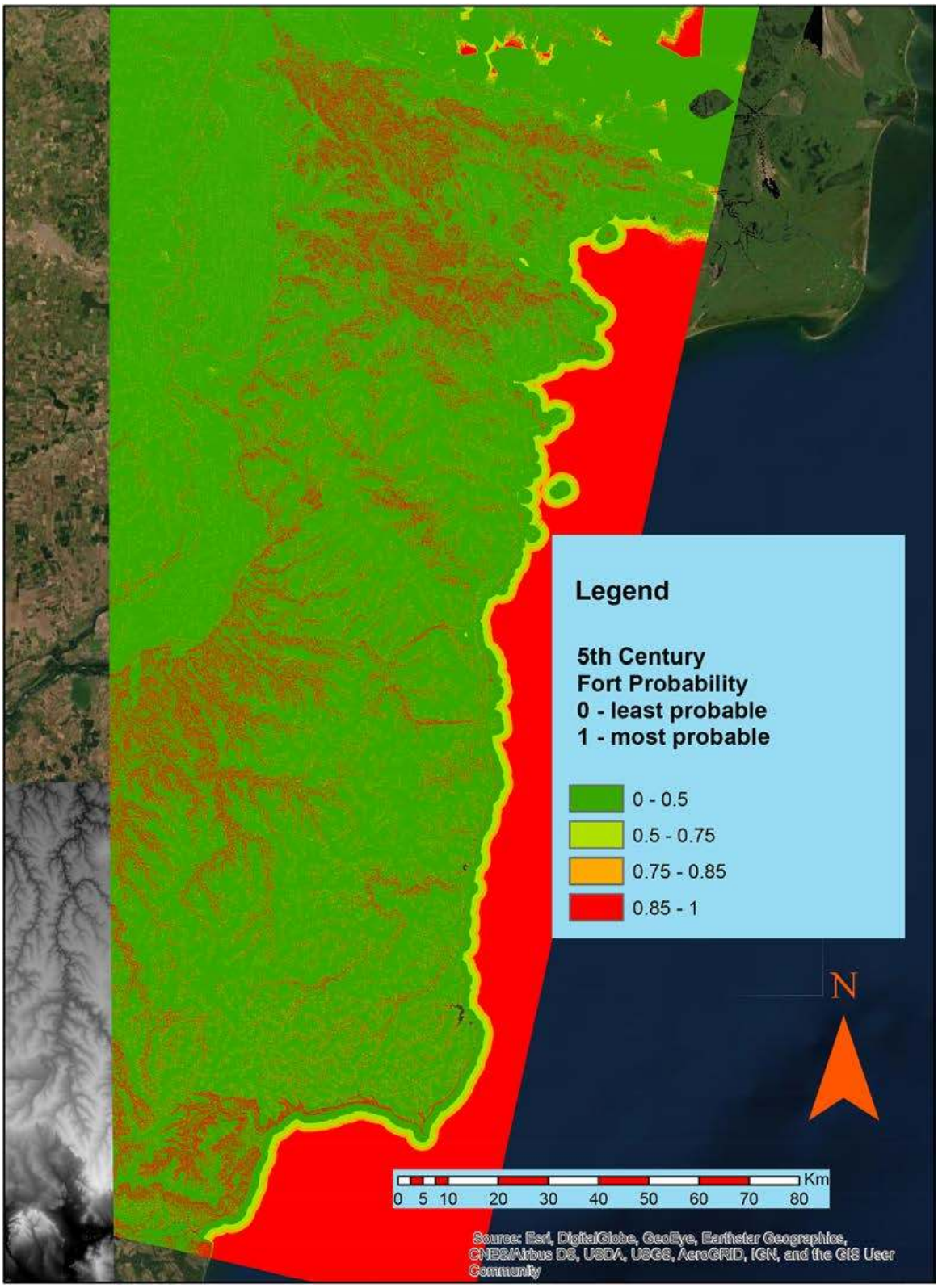

Figure 7: Fort probability in Scythia Minor in the 5th century AD based on sites with definitive occupation (N. Durant).

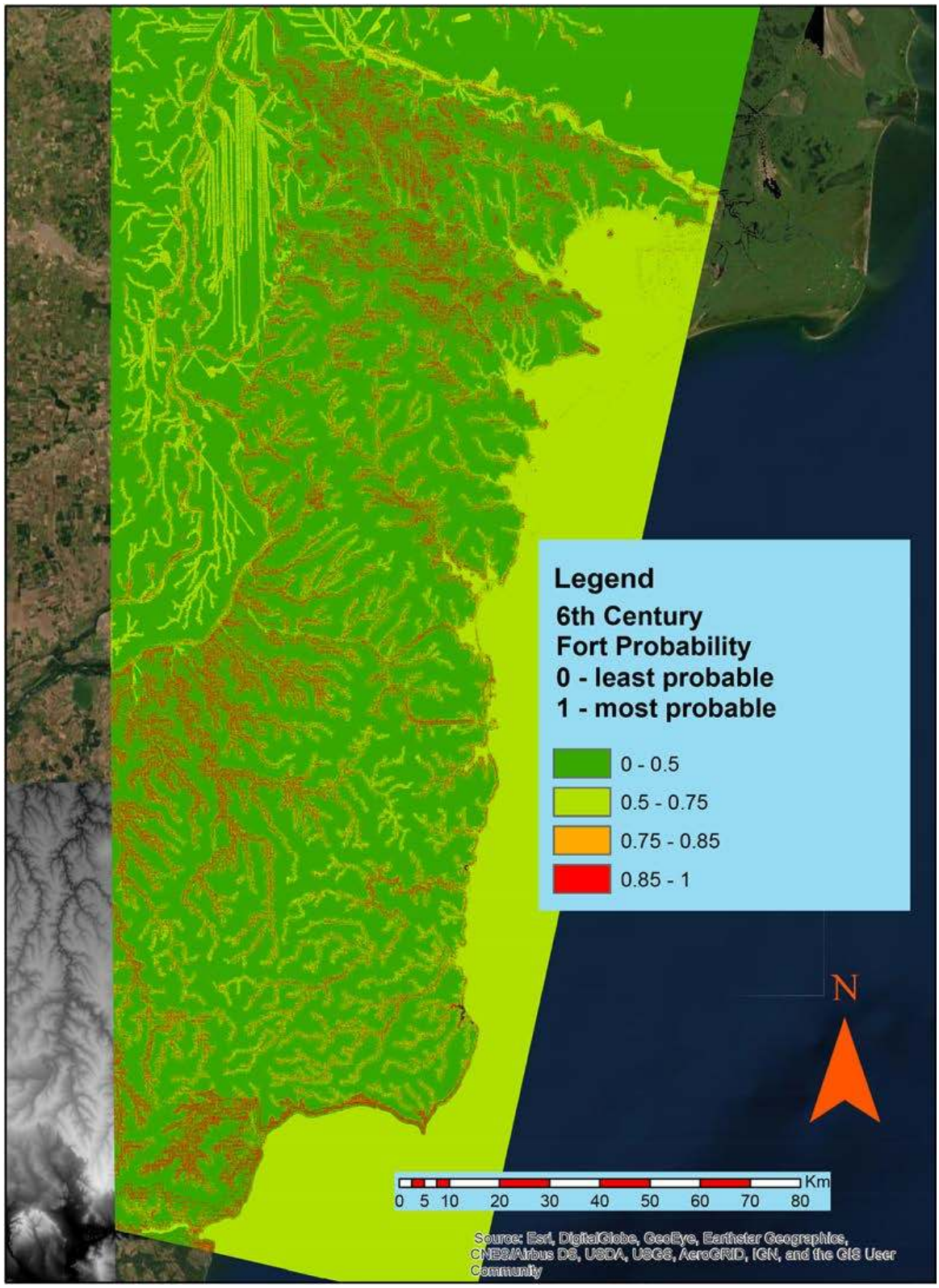

Figure 8: Fort probability in Scythia Minor in the 6th century AD based on sites with definitive occupation (N. Durant).

the archaeological sphere while shedding light on how the frontier of Scythia Minor and its forts developed between the 4th and 7th centuries AD. A comprehensive statistical analysis revealed that frontier installations built in this period were placed near major bodies of water and along high slopes at lower base elevations. The results indicated that a fort's relative elevation to its surrounding area was slightly more complex, but in general these installations were positioned on prominent features in the landscape that allowed for effective surveillance and control of the surrounding terrain. Even the installations located at lower elevations may have overcome the disadvantages of this terrain through the construction of lofty walls and towers.

Additionally, and perhaps most surprisingly, this practice largely continued unchanged between the Tetrarchic building programs of the early 4th century AD all the way up until the presumed end of military occupation in the middle of 7th century AD. Despite the considerable changes in military garrisons, foreign aggressors and even logistics surrounding the defence of the frontier, elevations, slopes and proximity to water all remained valuable factors in the construction or reoccupation of frontier fortifications. The primary differences in fort location between the 4th, 5th and 6th centuries AD seem to have been not in the choice of parameters, but rather in which parameter was seen to be more important. The significant variations in the appearances of the predictive maps between these three centuries may suggest substantial changes in frontier strategy but the geographical factors that determined the placement of frontier installations still remained the same. Finally, in addition to identifying the major spatial parameters that were important to the Romans in constructing fortifications, this research produced a considerable number of models that act as starting points in effectively identifying the locations of missing or expected frontier sites. Procopius' *On Buildings* alone lists dozens of fortifications in both Moesia Secunda and Scythia Minor whose locations are still unattested in the archaeological record. Furthermore, the flexibility of these models allows for future research both within Scythia Minor itself through their extension back into the 2nd and 3rd centuries AD but may also be brought to other frontier zones as well.

Acknowledgements

I would like to give many thanks to Dr Stephen Dyson, Dr Bradley Ault, Dr John Karavas and Dr Ioana Oltean for their constant support, advice and edits throughout my research and the creation of this chapter. Special thanks also to the editors of this volume.

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Roman Camps in the Lower Danube: From Remote Sensing to Provincial Contexts

Ovidiu Țentea and Florian Matei-Popescu

Abstract: The creation of the Roman frontier along the Lower Danube is one of the most debated issues related to the early Roman period within the region. From the Augustan to the Antonine periods the Roman army and its associated buildings moved eastward, step by step, from the Iron Gates to the mouths of the Danube, a movement which is both epigraphically and archaeologically attested. The process was fully accomplished by the first years of the reign of Hadrian when the area beyond the Danube, a military buffer of the province of Moesia Inferior, was given up and the units were instead garrisoned south of the Danube, or along the Olt River, in the newly created province of Dacia Inferior. The archaeological data have been rather scarce and unsatisfactory due to the situation in the field, namely that the older remains of the early Imperial period are beneath the late antique or early Byzantine forts and defensive structures. However, recent remote sensing surveys have provided important new information. Roman temporary camps have been identified (Carcaliu, Istria, Ovidiu and Căscioarele), which allow us to get a better picture of the Roman army deployment in this frontier area. From a rather static view of the army, accommodated within fortresses and forts from the reign of Trajan onwards, it is now possible to see an army on the move, deployed at times in other parts of the province. To these, the discovery of three marching camps, located beyond the Danube in modern Wallachia, but directly connected with the Lower Moesian army (the legion XI Claudia pia fidelis from Durostorum), should be also added (Vâlcele, Mărculești-Gară, Filipești-Cetățuie). This chapter will present the results of recent surveys and will set them into a broader provincial context.

Keywords: Roman Camps, Lower Danube, Remote Sensing, Roman Army, Roman Frontiers

Introduction

The temporary Roman camps are sometimes the only physical remains that can be noticed within a specific region where the Roman army was on the move. This is especially true for military expeditions along or in the vicinity of the frontier, during conflicts with people coming from outside the Empire, or even conflicts occurring beyond the frontier. And yet, the location of these camps within the wider frontier landscape has not been as thoroughly researched. This is an important element within any frontier landscape, but in particular on the Lower Danube frontier as the placement of the camps in relation to the Danube is suggestive of both military and civilian aspects of the frontier (Figure 1). The classic typology of the Roman temporary camps takes into consideration four general types, based on their function: marching, practice, siege and construction (Jones 2017: 522–523; Lepper and Frere 1988: 260–261; Richmond 1955: 300–303). Research has focused on the terminology of these camps, their typology and function, starting from the recorded sizes and calculation of the probable strengths of the garrisons (Jones 2011; 2012; Welfare and Swan 1995). Concerning the construction of the frontier as a military landscape, temporary camps have been studied in detail for what they suggest about the movement of the Roman army during the process of advancing in new territories.

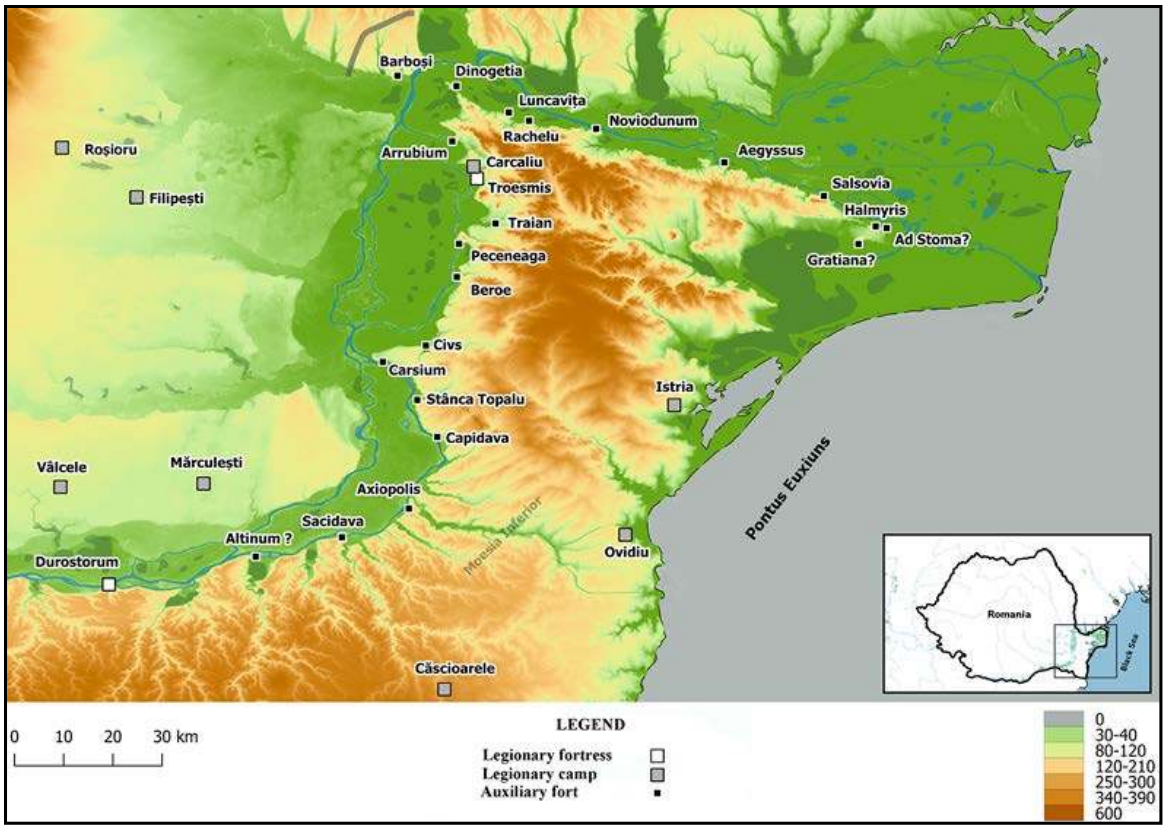

Figure 1: General map of the Roman fortresses, forts and camps from the north-eastern area of Moesia Inferior (O. Țentea and F. Matei-Popescu).

It is possible to follow the progress of the Roman army during an ongoing invasion through the spatial distribution of the temporary camps. G.S. Maxwell (1991: 111–113) suggestively described the concentration of the marching camps from Househill, Dunipace in modern Scotland as 'springboards for invasion'. Analysing the temporary camps from northern Britain, St. Joseph (1970: 163–178) defined four series: 'Stracathro-type' (based on the specific form of the gates from that camp, attributed to 1st century AD sites), 30 acres, 63 acres and 120 acres camps (based on the average sizes of every series). St. Joseph used acres, but we tend to use hectares when referring to the size of the camps. Jones (2011) devotes an entire section on the sizes of the camps. These series have been dated according to stratigraphic sequences and were based on the types of the gates from Ardoch, Stracathro and Ythan Wells, where different phases of the temporary camps overlapped (St. Joseph 1970: 163–178). Comparing contemporary camps, such as Ardoch (the largest camp) and likely Dunblane, it has been noticed that when the former was reoccupied, after its initial desertion, the number of the deployed soldiers increased, while the number in the last decreased (Hanson 1978: 149, note 4; cf. Jones 2011: 131). The explanation takes into consideration the specific topography of landscapes where there was enough space to erect a new camp, which was far easier than reusing the older defensive works.

The use of temporary marching camps as 'springboards for invasion' can also be seen north of the Middle Danube, in the area between Vindobona and Kelamantia, during Marcus Aurelius'

expeditions in the Marcomannic Wars. For instance, the camps of Radvaň nad Dunajom/Virt were located at the mouths of the Žitava River, an ideal place for cargo ships to offload their goods. That is likely the reason why the Romans camped there twice during two different military expeditions. Camp Two, likely the older one, provided enough space for one legion, while Camp One, significantly larger (830×600 m) and almost similar to the one at Logie Durno, could accommodate two legions, or some vexillations formed both of legionary and auxiliary detachments (Rajtár 2008: 174, abb. 4; Rajtár and Hüssen 2017: 542, fig. 4.13, 4.17). The location of the temporary camps near maritime and river harbours, or harbouring zones, must be connected with the possible transport of the military units by ship, the fastest and the most economical way to deploy units (Greene 1980: 40). The river confluences or natural defended beaches were used for harbouring the cargoes and ships (Roth 1999: 189–197; for Moesia Inferior see Lemke 2016: 23–24).

The Danube was primarily regarded by the Romans as a line of communication and less as a frontier. As C.S. Sommer (2009: 111–112) notes, the forts and fortresses along the Danube seem to have been placed in positions primarily favourable to controlling the river itself, locations with ideal harbours, especially at the mouths of the tributaries (e.g. Oescus and Novae), and less so at crossing points or at the end of roads connecting the river with the hinterland. Accordingly, the chosen locations depended greatly on the course of the Danube, at the beginnings or ends of large floodable areas, or at the beginnings or ends of mountain regions. However, we do not have any knowledge of a theoretical model or ideal situation, except for what we can infer from contemporary sailing practices (Jones 2018: 781). Furthermore, our understanding is limited by the insignificant number of palaeogeographical studies undertaken on the location of the harbours and harbour installations, as well as their functioning (some exceptions, focusing on the Mediterranean include Domínguez-Delmás *et al.* 2014; Driessen 2009). However, there are a few Roman forts on the Danube or on the western coast of the Black Sea in Moesia Inferior where the results of interdisciplinary studies complement our previous knowledge from excavations. Literary and iconographic sources, for example, detailing the role of the fleet during the Roman military expeditions, allow us to gain a clearer picture. Nevertheless, a more precise model to help us identify the locations of harbours or harbouring zones is still a desire (Jones 2018: 786).

The Provincial Context in the Lower Danube Area

Before considering the evidence for Roman camps in the Lower Danube, it is necessary to first present an overview of the existing archaeological evidence for the development of the frontier.

The establishment of the Roman frontier along the Lower Danube has attracted the most research attention in relation to the early Roman period. Step by step, from the Augustan to the Antonine periods, the Roman structures and army moved downstream, from the Iron Gates to the mouth of the Danube, which can be traced by both the epigraphic and archaeological record (Matei-Popescu 2010: 29–33; 2010/2011: 207–210; Țentea *et al.* 2019: 69–75; Tomas 2016: 19–24). A dual system combining both *limes* and *ripa* (*Danuvii*) are still mentioned by Tacitus in *Agricola*,[1] while during Domitian a *praefectus classis Moesicae et ripae Danuvii* is attested, which

[1] Tacitus, *Agr.* 41, 2: *tot exercitus in Moesia Daciaque et Germania et Pannonia temeritate aut per ignaviam ducum amissi, tot militares viri cum tot cohortibus expugnati et capti; nec iam de limite imperii et ripa, sed de hibernis legionum et possesione*

proves that the area east of Novae and the Jantra river (also overlapped by the tax district of the *ripa Thraciae*, see ISM I 67, 68; Tomas 2016: 104–108) was mostly patrolled by the Roman fleet (Tomas 2016: 1–13, 25–29).[2] It is likely that few units were deployed, since a military road had probably not yet been built (Tomas 2016: 57).[3] This changed under Trajan, when fortresses and forts were erected and the road was built (Tomas 2016: 58).[4] However, the Lower Danube frontier received its final shape only at the beginning of Hadrian's reign, when the area beyond the Danube in Wallachia, a military buffer for Moesia Inferior which was seized by the Romans during Trajan's war in Dacia, was given up. All military units were afterwards garrisoned south of the Danube, in Moesia Inferior, or along the Olt River, in the newly created province of Dacia Inferior (Petolescu and Matei-Popescu 2008; Țentea and Matei-Popescu 2015).

However, the archaeological data has been rather scarce and unsatisfactory due to the unique situation on the Lower Danube, with the late antique or early Byzantine forts and defensive works overlapping structures of the early Imperial period. Thus, with the exception of the fortresses at Oescus (Kabakčieva 1996; 1997; 2017) and Novae (Sarnowski 2016; Sarnowski and Tomas 2009–2010; Sarnowski *et al.* 2012) and recently, the fort at Capidava (Opriș and Rațiu 2019; 2021), archaeological excavations have rarely reached the first layers of occupation.[5] Therefore, the epigraphic sources are the only available evidence for Roman progress eastwards of Novae. Leaving aside the case at Appiaria, where two auxiliary cohorts are epigraphically attested in AD 76,[6] in all other cases important construction works were carried out during Trajan's war in Dacia, when some of the forts were built in stone (Sacidava and Rasova, AE 1981, 745–746; Carsium, ISM V, 94. See also Opriș 2006; 2018). Without further investigation, however, it is impossible to tell if those forts replaced previous timber forts, or if they were built in new locations; an answer to this question is not forthcoming, as fieldwalking only highlighted later stone structures. Such is the case of the fortress of the legion V Macedonica at Troesmis, also built during or at the end of Trajan's Dacian Wars (Figure 2a–b).

The landscape of the right bank of the Lower Danube (known today as the region of Dobrogea), where the fortresses and forts belonging to the Roman defensive system were established, has changed considerably since the Roman period. Until the past century, the Lower Danube landscape was probably very much like the ancient one. The contemporary archaeological landscape was greatly altered as a consequence of massive land improvement works made during the Communist period after the Second World War, at times deceiving the archaeologists working on the ground. Romans would have chosen areas outside of flood zones for their

dubitatum; historical comments in Ogilvie and Richmond 1967: 291–292.

[2] The tax district of the *ripa Thraciae* extended from Dimum (modern Belene), without being sure if Dimum itself belonged to *publicum portorii ripae Thraciae* or to *publicum portorii Illyrici* (*a finibus canabarum Dimensium usque ad mare*), and the Danube Delta.

[3] M. Arruntius Claudianus, AE 1969–1970, 595a = AE 1972, 572 = IDRE II, 373; PIR^2 C, 753; AE, 166.

[4] The starting point seems to have been Sexaginta Prista (modern Ruse), an important naval base, as implied by its Roman name, located at the mouths of the Danube's tributary Beli Lom river. See AE 1966, 356, attesting the *cives Romani consistentes* in AD 100.

[5] According to Baumann (2008: 191–192), archaeological levels dated to the period of Nero and Vespasian have been found at Noviodunum. Unfortunately, the image is less clear than it has been presented, as the evidence for this dating, coins and fragments of *terra sigillata*, have been found in disturbed archaeological contexts.

[6] AE 1957, 357: *[Imp(erator)] C(a)esar Vespasian[(us) Aug(ustus) pont(ifex) max(imus) tr(ibunicia) pot(estate) VII im]p(erator) XV co(n)s(ul) VII p(ater) p(atriae) PGEE* vel *P. Gel[...] / [le]g(atus) Aug(usti) p(r)o pr(aetore) cohh(ortes) [Mattiacorum(?) et Gall]orum qu(i)bus pra[esunt...] / e(t) Q(uintus) Varius Secundus [...]*. However, the reading is not at all sure since Sex. Vettulenus Cerialis is attested as governor of Moesia from AD 75 to 78 (Thomasson 1984: 125 no. 25).

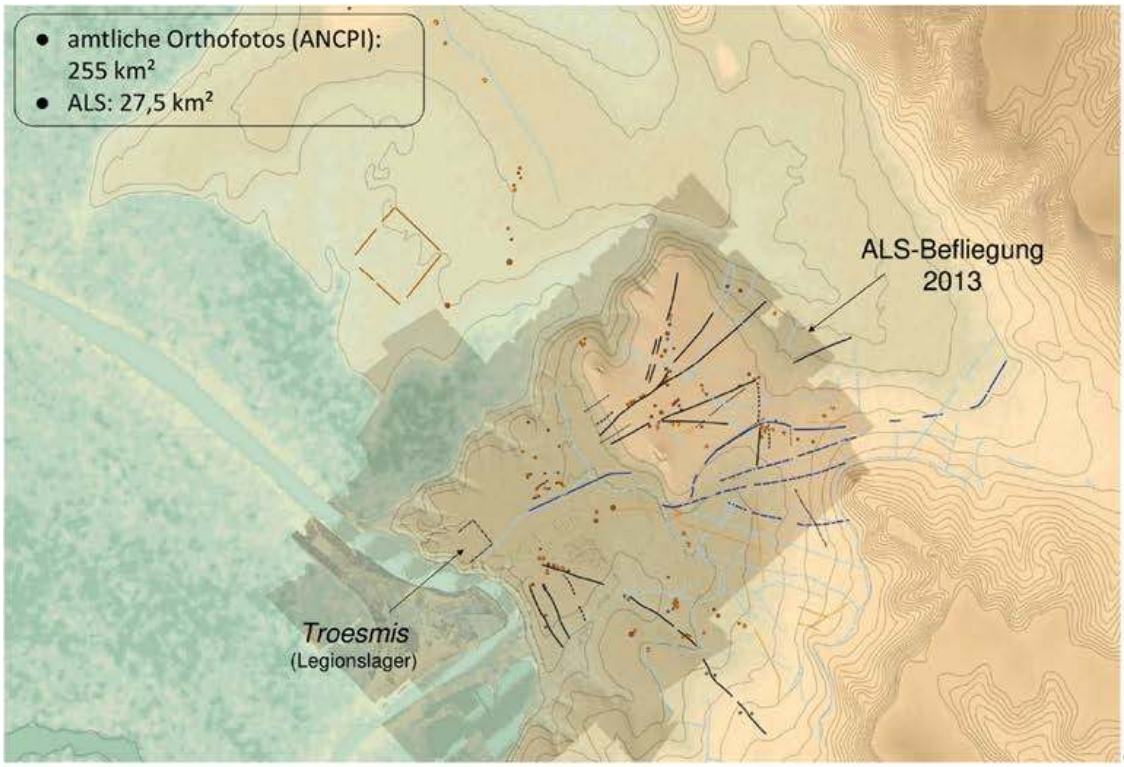

Figure 2: a. General layout plan of the Troesmis area: the legionary fortress, the canabae, the burial mounds and the legionary camp of Carcaliu (after Gugl 2020); b. Bird's-eye view of the Troesmis legionary fortress from the area of Carcaliu. Oblique aerial photo taken by Ioana A. Oltean and William S. Hanson in July 2008 (after Țentea et al. *2019: 42, fig. 12.1).*

c.

Figure 2: c. The location of the Troesmis legionary fortress and Carcaliu temporary camp. Processed satellite view, provided by Google Earth, overlapped upon the layout plan of the legionary fortress and the Late Roman (eastern) and Middle Byzantine (western) fortifications (after Gugl 2020: 111, Abb. 2).

forts and settlements and, as far as possible, for connecting roads (Sommer 2009: 104). The irrigation system on Insula Mare a Brăilei (Alexandrescu and Olariu 2017: 134–136), as well as the construction of the Danube-Black Sea navigation canal, have significantly changed the banks of the Danube, along with the active streams of the river (cf. Sommer 2009: 104 for other sections of the Rhine and Danube frontiers). As a result, numerous former streams and lakes, many of which are located in the proximity of the Roman forts, simply dried out. The Danube Delta also changed its shape over this period (Vespremeanu-Stroe *et al.* 2017: 57, fig. 9D).[7] Thus, some of the Roman forts along the Lower Danube are likely to have been connected to the river or one of its tributary branches—namely, Cius, Traian, Dinogetia, Luncavița and Rachelu (Țentea *et al*. 2019: 33–35, 39–41, 46–49, 53–54, 56). The forts were deliberately located next to these rivers, enabling access to fresh water, the ability to move goods and troops, as well as providing an additional layer of defence for the fort (Sommer 2009: 112).

Remote Sensing and Roman Camps

As noted above, the archaeological data on Roman camps has been very scarce until recently, especially in the Lower Danube area. The very presence of Roman camps has traditionally been connected with the movements of the Roman armies. Nevertheless, recent research has shown how complex these temporary structures were, and how an in-depth analysis is needed in order to gain a plausible picture of the activities of Roman soldiers on the move.

Recent remote sensing surveys on the Lower Danube have led to the discovery of several potential Roman camps, located at Carcaliu, Istria, Ovidiu and Căscioarele (Figure 1), which will be described below. As it can be seen, some of these camps could be related to certain dramatic historical events and they thereby change our perspective about the presence of the Roman army in this remote corner of the Empire, a landscape which functioned as a real bridge between eastern and western provinces and as a bulwark of the south-eastern Europe and eastern Mediterranean regions.

At Carcaliu (Tulcea County), a flattened rectangular earthwork with morphological characteristics potentially indicating a Roman camp has been noticed on Google Earth's satellite imagery (Figure 2c and 3a). The possible temporary camp covers a 57.7 ha surface (760 × 760 m; 320/460 m; Figure 4) larger than the estimated size of the fortress at Troesmis, probably overlapped subsequently by structures of *municipium Aurelium Troesmense* (Figure 2a; Gugl and Trognitz 2020: 113, fig. 4). Its form is visible as two parallel linear soil marks, a lighter one in the interior (the turf wall) and a darker coloured one in the exterior (the defensive ditch). There are no clear breaks alongside the ramparts, which could be related to possible entrances. Interestingly, it seems that the interior was divided into two unequal parts (Figure 3a).[8] The archaeological surveys involving multispectral imaging carried out in the field have not yielded relevant results, possibly due to the extensive flattening of the ground surface. Geophysical work will be required in the future to achieve better results.

[7] For the harbour from Halmyris, see Giaime *et al.* 2019: 323. For the changing of Histria's archaeological landscape, see Preoteasa *et al.* 2012: 201–222; Vespremeanu-Stroe *et al.* 2013: 246, 247, 250. For Enisala see Preoteasa *et al.* 2019: fig. 9.

[8] There is an example of a camp which is divided in equal parts: Steeds Stalls, by Inchthuthil legionary fortress in Scotland, https://canmore.org.uk/site/28932/gourdie-steeds-stalls (Last accessed 6 July 2023).

The plateau where the camp was located has an average height of 20 m, overlooking and delimited on three sides by the Danube floodplain. Between its location and the site at Troesmis lies the former Lake Igliţa, now drained. Nearby, on the western side, a small stream flows close to the western corner of the temporary camp, possibly maintaining its ancient course. The camp lies almost 2.5 km away from the legionary fortress at Troesmis, between the so-called eastern and western fortifications.[9]

Recently, another potential rectangular enclosure has been noticed more than 1 km westward from the large temporary camp, and 2.5 km which is a little over one *leuga* (i.e. approximatively 2.2 km; Piso 1991) from Troesmis. The enclosure is 120 × 110 m in size, which could relate to an auxiliary temporary camp (Figure 2c and 3a).[10] At Troesmis, recent Romanian-Austrian research noted the location of the legionary fortress, the *canabae* encroaching the fortress to the north and the north-east (26 ha, with houses aligned to the street network) and the military amphitheatre close to the south-eastern corner of the fortress, alongside the burial areas to the north and north-east of the *canabae* (30 ha), separated by a border ditch and containing different types of graves (Alexandrescu *et al.* 2016: 168-195; 445–449). The size of the legionary fortress is estimated between 16 and 22 hectares, as its western side, towards the Danube where the main entrance (*porta praetoria*) was located, has been naturally eroded (Alexandrescu *et al.* 2016: 190, fig. 137). The location of the epigraphically attested civil settlement (*vicus* or *civitas*) of the auxiliary units predating or postdating the presence of the legion is less clear. Since there were no surveys of the area, it is impossible to tell if the civil settlement, the *vicus* or *civitas*, overlapped an older legionary temporary camp, but we consider that such a possibility cannot be ruled completely out of the discussion.

The archaeological topography of the Troesmis area presents similarities to that of Dura Europos, the famous eastern outpost on the Euphrates. There, two different enclosures have been identified on the ground, located at variable distances from the city, both considerable in size (between 117 and 124 ha) and with visible interruptions at the location of the gates (James 2015: 331, fig. 23.2).[11] The fortification furthest from the city, located to the west, may have belonged to the legion III Cyrenaica, which camped there during the Parthic expedition of AD 115 (James 2015: 334, fig. 23.3).

Recent discoveries show that the north-western corner of Dobrogea was considered an ideal place for the accommodation and deployment of large auxiliary and legionary detachments. The phenomenon has certain similarities with the cases from Abernethy (Carey) or Girvan Mains in Britain,[12] as well as with the temporary camps constructed during the Marcomannic

[9] The closest analogies according to its size are the temporary camps of Logie Durno (57 ha; St. Joseph 1978: 271–287), Househill, Dunipace (720 × 650 m–46.8 ha; Maxwell 1991: 111–112), Schela Cladovei (650 × 576 m–37.5 ha; Tudor 1978: 300–301, no. 44), Margum (720 × 820–59 ha; Gudea 2001: 52; Jęczmienowski 2012: 36, Table 1), Radvaň nad Dunajom/ Virt (the large fortification: 830 × 600 m–50 ha; Rajtár 2008: 174, Abb. 4; Rajtár and Hüssen 2017: 542, fig. 4.13, 4.17) or Vrable (T1 trapezoidal form 755/800 × 510 m–35–36 ha; Rajtár 2014: 139; Rajtár and Hüssen 2017: 542, 4.16).

[10] The aerial photographs were taken by Ioana A. Oltean and William S. Hanson in 2008, within the framework of the STRATEG project (PNCDI II, P4, 91-010/ 2007, financed by the National Authority for Scientific Research).

[11] A separate discussion concerns the chronology of the three other fortifications westward of the ramparts of the city of Dura Europos. Some of these temporary structures could be connected with possible Parthic temporary camps, similar with the ones attested during the sieges of Hatra. See Foietta 2015: 300–301, fig. 1 (layout plan), 303, fig. 5 (chronology); Hauser 2013: 125, 129, 319, fig. 3.

[12] Abernethy (Carey) has been located on a terrace at the south of the River Earn, near its confluence with the River Tay (44.6 ha). A small fragment of a Samian bowl was found in the ditch on the SSE side, identified as south Gaulish and probably late 1st century AD (St. Joseph 1973: 220). Two camps have been noted at Girvan Mains, on the northern

Figure 3: a. The Carcaliu Roman temporary camp. Processed satellite view, provided by Google Earth (October 2013); b. Carcaliu, rectangular Roman camp, oblique aerial photo. Processed satellite view, provided by Google Earth (October 2013).

Figure 4: The general layout plan of the Istria area: the early Roman precinct of Histria (in red), burial area and the temporary camp (in red) (processed image after Stefan 2020: Pl. I).

Wars in the area between Vindobona and Kelemantia, beyond the Middle Danube. Unfortunately, it is impossible to connect the two temporary camps with any historical event since their chronology is unknown. Based on their form and size, they can only be largely dated within the 2nd and the 3rd century AD, although a possible dating in the last two decades of the 1st century AD is also likely since it seems to have been designed to accommodate larger legionary detachments. Moreover, it is also impossible to establish any connection between the camps and the legionary fortress, the *canabae* and the Roman *municipium* of Troesmis. They could have been built as a cluster (Figure 2c), but there is no clear indication that they ever functioned at the same time. Considering that temporary camps could only have lasted a few days, few weeks, or at most an entire winter (Jones 2017: 526–529), they are more likely to be connected with a possible military expedition. Further investigation could offer more details about their chronology, which could help us to connect their construction with known Roman military expeditions in that area. However, based on their sizes, analogous with the Margum legionary camp, we shall argue that they functioned during Domitian's wars on the Danube (see below).

A new possible marching camp has also been identified at Istria (Constanța County) (Figure 4 and 5a–b). It is visible on satellite imagery (dating to March 2014), 6 km to the south-west of the late Roman precinct of Istros/Histria and 700 m away from the modern village (Țentea *et al.* 2019: 69–73). The site is partially visible as a WNW-ESE oriented rectangular enclosure delimited by parallel linear cropmarks, the light marl to the interior indicating the rampart (probably made in turf) and the exterior darker one indicating ditches (Țentea *et al.* 2019: 71–

bank of the River Girvan, looking towards the North Channel, with the eastern camp encompassing an area of 22 ha (54.5 acres). A part of the latter camp was overlapped by another camp, where in its first ditch a glass vase dating to the end of the 1st century AD was discovered (Maxwell and Wilson 1987: 34–35).

72, fig. 24.2–5). Its estimated size is 470/480 m × 325/355 m, covering an area of 16 ha, similar to the camps of Ovidiu (480 × 360 m–17.2 ha) and Căscioarele (470/506 × 360/365 m–17.4 ha) (see below).

The satellite imagery (Figure 5a) reveals the presence of gaps on the western and northern sides of the potential camp at Istria with barriers in front of them, consisting of *tituli* largely used to block the entrances of Roman camps (see also the discussion of gate types in Jones 2011: 49). The features are severely flattened, but the northern and western sides are also identifiable on historic Romanian cartographic orthophotographs (August 1969) as well as on the digital modelling of the terrain and oblique aerial photos taken in July 2018 from a drone platform (Figure 5b). On the northern side, the interruption is almost 12 m long, located towards the eastern side, at 170 m from the north-eastern corner. A second entrance is clearly visible exactly at the middle of the western side. In order to check the feature and gain further structural details, Alexandru Popa conducted geophysical investigations on a 3600 sq. m surface in 2018. Two linear anomalies have been identified on the north-south direction confirming the rampart and ditch defences of the camp, with an entrance gap of 11–12 m long, and a barrier in front of 22 m in length (Figure 5b). The latter structure has two features, linear and curved, consistent with a *titulum*-type gate.

Recently, doubts have been raised regarding the identification of the *titulum*-type gate on the northern side (Ștefan 2020: 336). However, these are ill-founded, given the similarity in its appearance with the western gate where our interpretation has already been confirmed by geophysics (Țentea *et al.* 2019: 73, fig. 24.6). The entrance on the northern side seems to have been located asymmetrically, which leads us to assume that the main gate of the camp (*porta praetoria*) may have been located on the eastern side, towards Histria. A larger group of burial mounds, of a type similar to the broader funerary area of Histria, have also been noticed near the camp, but we are unable to establish whether there is a connection between these burials and the functioning of the camp. This could be clarified by future investigations.

The investigation is still underway, but the main characteristics of the camp allow us to provisionally date the structure within the 2nd to 3rd century AD. Nearby at Histria, the early Roman occupation has two different phases. During the 1st century AD until the reigns of Trajan and Hadrian, the Hellenistic spatial pattern was still in place. In the 2nd and the 3rd centuries AD, a new precinct was built, replacing the former classical Greek one and enclosing a larger surface, with new buildings constructed throughout the city. The discovery of a coin minted during the Hadrianic period, recovered from the plinth of the wall, has led to the argument that the wall was erected in the same period (Suceveanu 2009: 143). The later Roman period began with the construction of a new precinct covering a smaller surface towards the end of the 3rd century, following a violent destruction during Gothic raids at the middle of that century.[13] The city was eventually deserted in the first half of the 7th century AD (TIR L-35: 45–46; see also Preoteasa *et al.* 2012: 201–223; Ștefan 1974: 39–51; 2019: 9–92; Suceveanu 1977: 37–47, no. 1; Țentea *et al*. 2019: 41–43).

[13] SHA, *Max. et Balb.* 16.3: *sub his pugnatum est a Carpis contra Moesos. fuit et Scythici belli principium, fuit et Histriae excidium eo tempore, ut autem Dexippus dicit, Histricae civitatis*. See also Christol 1997: 93–95. Suceveanu (2009: 141) also mentions a possible second violent destruction under Diocletian (around AD 295), but this lacks direct evidence. It is highly probable that the city experienced more than three decades of decay after that destruction with the rebuilding slowly beginning under Probus and continued under Diocletian and Constantine.

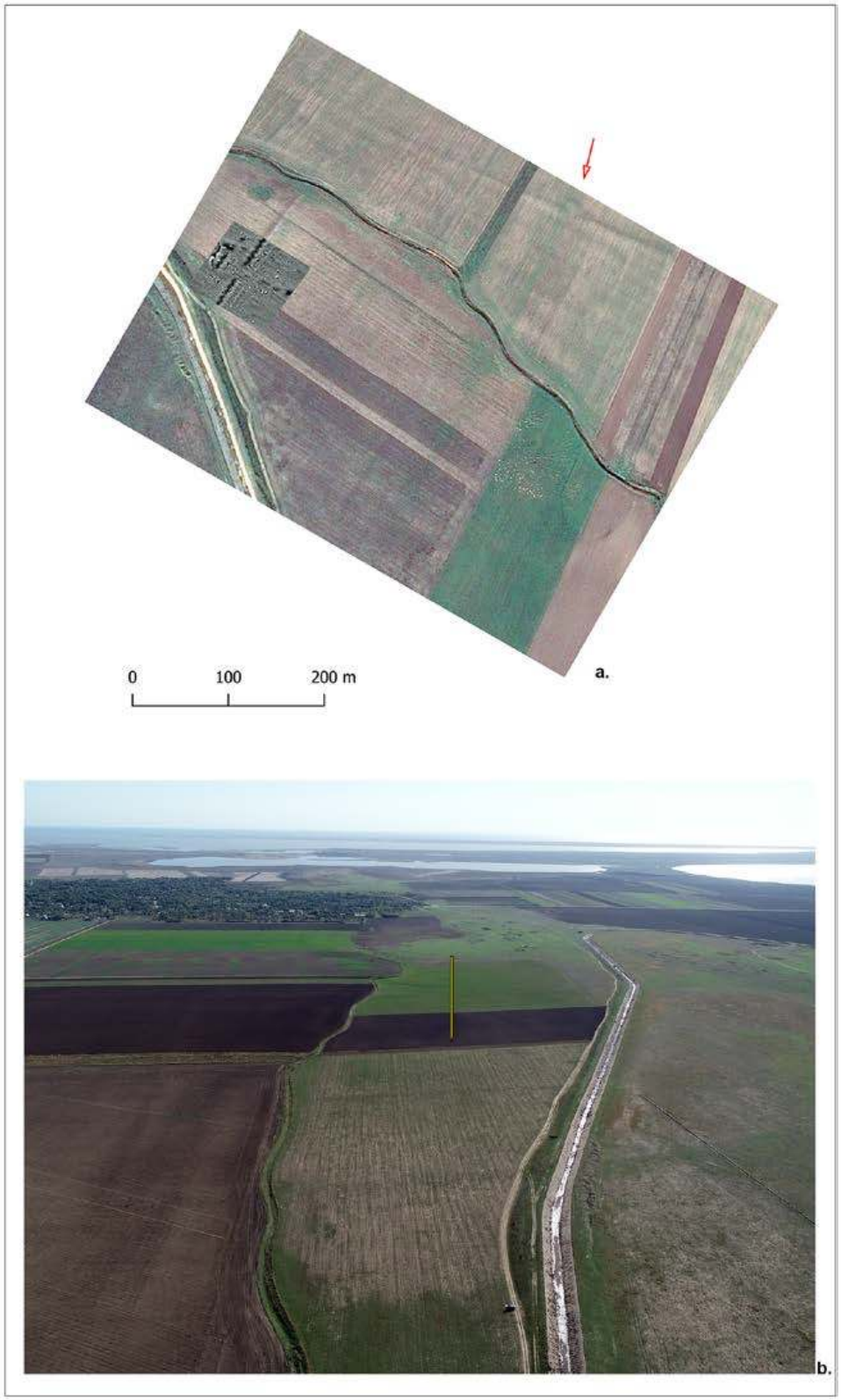

Figure 5: a. The Istria temporary camp: the layout plan of the titulum *overlapping the satellite view, provided by Google Earth, March 2014 (after Țentea* et al. *2019: 73, fig. 24.6); b. The Istria temporary camp, oblique aerial photo taken from the west.*

The form and size of the camp at Istria places it firmly in the Imperial period; therefore, we can exclude a possible connection with the defeat of C. Antonius Hybrida, the proconsul of Macedonia, in the proximity of Histria in 61 BC (Cassius Dio XXXVIII, 10.3; LI, 26.5). There is no other available information on military activities within the area of Histria during the early Imperial Roman period, therefore the marching camp may be connected with the possible destruction of the city of Histria (*excidium Histriae*), discussed above. However, this event did not take place in AD 238, but during the so-called *bellum Scythicum*, most probably in AD 252–253/254.[14] At that time the Borani first attacked Histria from the sea, using ships from the Bosporan kingdom, followed by the Goths, who had besieged Chalcedon. At the same time, M. Aemilius Aemilianus, the governor of Moesia (unclear whether Moesia Inferior or Superior), was proclaimed emperor by the army.[15] Another possible moment could have been the year AD 268, when the neighbouring Tomis was unsuccessfully besieged.[16] It is therefore highly possible that, during this period of turmoil, Roman army detachments were sent from the Danube frontier to defend the Greek cities on the coast. Indeed, the camp at Ovidiu (see below), not far from Tomis, seems to support such an assumption.

Another Roman temporary camp has been noticed north of Tomis, in the area covered by the modern small town of Ovidiu (Constanța County). Its features were visible in the aerial photos taken in May 1944. Much of the area is now overlapped by modern buildings (Oltean and Hanson 2007: fig. 5; cf. Oltean and Hanson 2015: 894). Only the southern corner and a small part of the south-eastern rampart and ditch may still survive in an area not yet covered by modern buildings (Figure 7b). The camp is visible on historical aerial photographs as a rectangular enclosure some 480 × 360 m in size, covering an approximate surface of 17.2 ha. The enclosure is defined by two parallel linear crop markings, with the inner light cropmark indicating the rampart of turf or compacted soil, while the exterior, darker cropmark indicates the ditch (Figure 6). There are no clear visible interruptions alongside the ramparts and ditches which could have highlighted the entrances (Figure 7a), as in the case of the temporary camp from Căscioarele (see below). The lack of apparent entrances could have various explanations, but we still wait for further investigations before formulating conclusions (Figure 8a–b). Nevertheless, the main entrance may have been located on the south-western side towards the city of Tomis, possibly hidden by a more recent field boundary line.

In the proximity, the lighter cropmarks of a burial mound cluster are also visible, but like at Istria, their relationship with the camp is not clear. On the 1944 aerial photograph, a small stream flowing through the camp is visible, which is another similarity to the camp at Istria.

Moreover, the camp at Ovidiu is similar in shape and size to the camps from Istria, Căscioarele and Vâlcele and it could date from the 2nd to 3rd century AD. As a possible marching camp,

[14] In AD 240, under Gordianus III, the *macellum vetustate conlabsum* was rebuilt at Histria, AE 1964, 277 = ISM I 168, it is therefore impossible to have had the city destroyed in AD 238, but sometime after AD 240; see also Doruțiu-Boilă 1964.
[15] Zosimus I, 26–27, 31–34, especially 34.2: Ἀναμείναντες (scil. Σκυθάι) δὲ τὸν χειμῶνα, τὸν Εὔξεινον πόντον ἐν ἀριστερᾷ καταλιπόντες, τῆς πεζῆς δυνάμεως αὐτοῖς διὰ τῶν ἠόνων κατὰ τὸ παρεῖκον συμπαραθεούσης, Ἴστρον καὶ Τομέα καὶ Ἀγχίαλον κατὰ τὸ δεξιὸν παραμείψαντες μέρος ἐπὶ τὴν Φιλεατίναν ἔβεσαν λίμην; See also Christol 1997: 129–130; Huttner 2008: 215–216. On Aemilianus see PIR^2 A, 330; Kienast *et al.* 2017: 203–204.
[16] Zosimus I, 42, 1: κατὰ τοῦτον δὴ τὸν χρόνον Σκυθῶν οἱ περιλειφθέντες, ... ἄραντες δὶα τοῦ Πόντου, Τομεῖ μὲν τειχήρει πόλει προσβαλόντες ἀπεκρούσθησαν; See also SHA, *Gall.* 13.6: *inter haec Scythae per Euxinum navigantes Histrum ingressi multa gravia in solo Romano fecerunt*; Goltz and Hartmann 2008: 283–287. This was, in fact, the idea stressed by Vulpe 1969.

Figure 6: The general layout plan of the Ovidiu area: the processed image was taken in May 1944 (after Oltean and Hanson 2007: fig. 5).

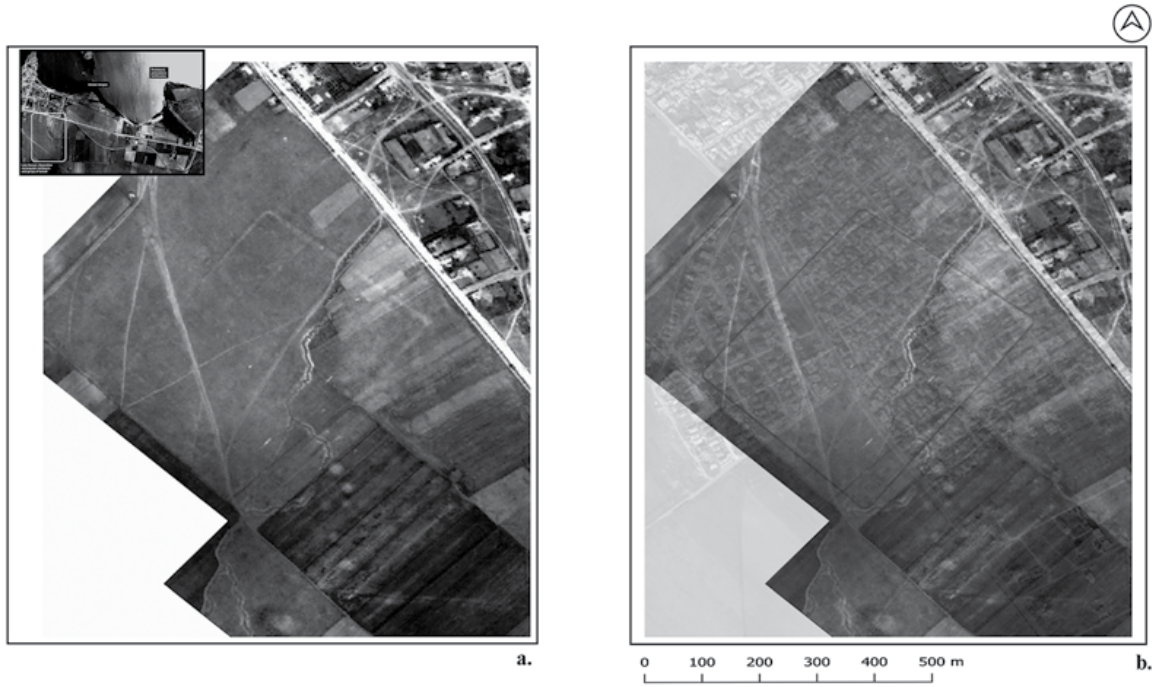

Figure 7: a. The layout plan of the Ovidiu temporary camp, as it was noticed on an old aerial photo; b. The layout plan of the Ovidiu temporary camp, obtained by the overlapping of the older aerial photo and the satellite image provided by Google Earth (September 2019).

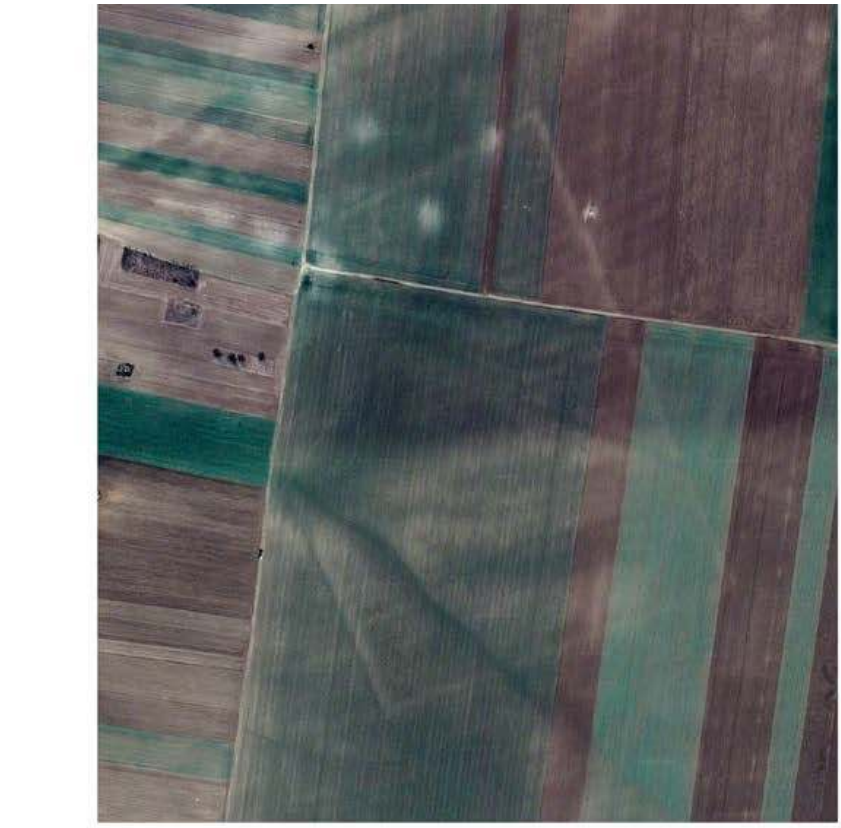

Figure 8: a. The layout plan of the Căscioarele temporary camp: processed image after the satellite view provided by Google Earth (January 2020); b. Aerial oblique view of the Căscioarele temporary camp (Țentea et al. *2019: 75, fig. 25.2)*

it could be connected with the siege of AD 267–268 already discussed (see above), but further investigations are necessary to establish the moment of its construction.

The general layout plan of another temporary camp, located at Căscioarele (Constanța County), has more recently been published, based on satellite photographs and aerial oblique and orthogonal photos (Oltean and Hanson 2015: 894, 995, fig. 4B; Țentea *et al.* 2019: 74–75). The specific features have been flattened considerably through intensive ploughing and are unfortunately invisible in the field, on the aerial oblique photos, or on the digital modelling of the terrain. The ramparts are visible as a lighter-coloured, almost rectangular cropmark, NNW-SSE oriented, having the following sizes: 365 m (N) × 506 (E) × 360 (S) × 470 (W); its surface covers almost 17.4 ha. The ditch is only visible on the western side as a parallel linear dark coloured crop marking alongside the ramparts. There are no visible gateways that could mark the existence of any entrances, just like the camp at Ovidiu. As we already discussed, this will be the topic of further investigations.

The camp is very similar in shape and size to the ones in Istria, Ovidiu and Vâlcele. It is located 80 km away from Durostorum, where, apart from the fortress (510 × 430–22 ha), two different settlements are attested: the *canabae legionis* and a civil *vicus*, the core of the future *municipium Aurelium Durostorum* (Donevski 1990: 238–239, fig. 1; Tomas 2017: 98–104). The latter was located 2.5 km eastwards from the fortress, close to the present Bulgarian-Romanian border (Donevski 2006b). The legion XI Claudia pia fidelis erected the legionary fortress at the end of Trajan's Dacian War, or a little bit later (Donevski 1990; 2006b). After AD 101, the legion was sent from Vindonissa (Windisch, Germania Superior) to the Lower Danube area, where it was first accommodated in the former fortress of the legion V Macedonica at Oescus (AE 1935, 78; AE 1985, 736c (LEG XI CPF); ILB 62; Matei-Popescu 2010: 133; Morfova 1959: 647, including tile and brick stamps of the Trajanic type: LEG XI CPF). A detachment is also attested at Novae, the fortress of the legion I Italica (AE 1965, 135; Matei-Popescu 2010: 133; Sarnowski 1987: 107, 110–111). Thereafter, the legion constructed *a fundamentis* a new fortress at Durostorum. It is first epigraphically attested there only in AD 116–117, when Q. Roscius Murena Pompeius Falco was the governor of the province (AE 1936, 14 = ISM IV 86; PIR^2 P 602; Matei-Popescu 2010: 133–141; Thomasson 1984: 132, no. 73).

The *canabae legionis* are epigraphically attested as *canabae Aeliae* in AD 145–148, when the *canabenses* erected a temple for Iuppiter Optimus Maximus.[17] They are located mostly on the northern and western sides of the legionary fortress at Durostorum (Donevski 2006a; 2011). The inscription was found eastward of Silistra, but on the *territorium legionis*, while other inscriptions were also discovered in the vicinity.[18] It is, therefore, highly possible that the temple of Iuppiter Optimus Maximus was located exactly at the border between the *canabae Aeliae* and the civil *vicus*, at almost one *leuga* from the *locus gromae* (Piso 1991: 137–141,

[17] CIL III, 7474 = ILS 2475 = ISM IV, 91: *I(ovi) O(ptimo) M(aximo) / pro salute Imp(eratoris) Caes(aris) T(iti) Ael(ii) Ha/driani Antonini Aug(usti) Pii et Ve/ri Caes(aris) templum et statuam / c(ivibus) R(omanis) et consis{s}tentibus in / canabis Aelis leg(ionis) XI Cl(audiae) / Cn(aeus) Oppius Soterichus et / Oppius Severus, fil(ius) eius, de suo fecerunt. Dedica/tum est per Tib(erium) Cl(audium) Saturni/num, leg(atum) Aug(usti) pr(o) pr(aetore), Tib(erio) Cl(audio) Iuli/ano, leg(ato) Aug(usti).*

[18] AE 1925, 109 = ISM IV, 92: *I(ovi) O(ptimo) M(aximo) / vet(erani) leg(ionis) XI Cl(audiae) p(iae) f(idelis) / missi IIII co(n)(sulatuum) qui / militare coeper(unt) Commodo / et Pompeiano et L. Aelio / II co(n)s(ulibus) et Nigro et / Camarino, Imp(eratore) Antonino II / missi ab M. Aurelio / Ant(onino) et L. Aur(elio) / Vero Augustis / sub Servil[i]o Fabiano, / leg(ato) Augustor(um) pr(o) pr(aetore) et / Cornelio Plotiano leg(ato)*, AD 162–163; AE 1925, 110 = ISM IV, 94; ISM IV, 112, a simple mention of the third cohort of the legion: *coh(ortis) III*, which could allow us to think that it was in charge in this area.

149–150, 153; Vittinghoff 1994). Especially, after AD 168, when the legion V Macedonica was moved to Potaissa, Dacia Porolissensis, the legionary fortress from Durostorum and the legion gain in importance, as this location controlled the whole area beyond the Danube and assured the connexion with the Pontic region and Tomis. It is probably not by chance that sometimes even the governor of the province is attested as being there, with Durostorum becoming the central seat of the governor during the Severan period (Piso 2014).

Roman temporary camps have also recently been identified beyond the Danube in Wallachia (Muntenia), in an area that was under the rule of the Lower Moesian governor during AD 106–118. Both auxiliary units and legionary detachments were present on the ground, at that time and thereafter, as a sort of buffer zone between Moesia Inferior and Dacia Inferior (Petolescu and Matei-Popescu 2008). Sarmatian tribes were allowed by the Romans to settle in this area, but the legionary fortresses of Durostorum and Troesmis (until AD 161) had the area under military surveillance. In case of conflicts or turmoil, detachments were sent beyond the Danube, as it was the case of the legion XI Claudia, which sent a detachment to Pietroasele (Muntenia, Buzău County) during Caracalla's reign (tile stamps *LEG XI CL ANT*, ILD 170–171; Țentea and Matei-Popescu 2015: 109–130). This is not the time, nor the place, to engage in a discussion about the presence of the Roman army in Muntenia, a topic partially tackled separately (Țentea and Matei-Popescu 2015: 109–130). Recent discoveries of camps at Vâlcele (commune Alexandru Odobescu, Călărași County; 520/530 × 350 m, 18.6 ha; see Oltean and Hanson 2015: 995, fig. 4a; Țentea *et al.* 2021: 339–340, fig. 3–4), Mărculești-Gară (Perișoru, Călărași County; 520 × 350 m, 18.2 ha),[19] Filipești (Surdila-Găiseanca, Brăila County; 529 × 355 m, 18.7 ha; see Țentea *et al.* 2021: 342–343, fig. 7–9) and Roșioru (Cochirleanca**,** Brăila County; 480 × 360/380 m; 17.7 ha; see Țentea *et al.* 2021: 343–344, fig. 10–12) can likely be connected with the legion XI Claudia and its fortress at Durostorum (Figure 9a–d and 10).[20] These three camps all have the same length as the fortress (which stands at 510 × 430 m; 21.9 ha), but are shorter in width (a ratio of 1:1.2). Based on their shape and size, they are also similar to the camps at Istria, Ovidiu and Căscioarele, and possibly to the fortress at Troesmis (Figure 10).[21]

Final Remarks

The new discoveries of temporary camps enable a better understanding of the Roman army deployment in this frontier area of Moesia Inferior. Starting from a rather static view of the army garrisoning the fortresses and forts from Trajan onwards, it is now possible to see an army on the move, occasionally deployed in various parts of the province when needed.

In terms of their spatial distribution, one can immediately see two different regional concentrations of temporary camps in the Lower Danube area (Figure 1). Two are directly connected with two of the Greek cities of the Western Pontus, Tomis and Histria, an area

[19] The sizes between the earthen walls are: 491 × 344 m; 16.89 ha. The sizes given by us consider the middle of the earthen walls, as we did in all the other cases above. See Țentea *et al.* 2021: 340–341, fig. 5–6.

[20] P. Polonic (1935: 21) noted another possible temporary camp beyond the Danube, not far from Silistra, at Ciocănești; see also Măgureanu 2015: 119–120, fig. 1; Zahariade 2018: 133–134. Detachments of the legion are attested in Muntenia in various places through brick and tile stamps of the *LEG XI CPF* type, all dated after AD 106 and before the construction of the Durostorum fortress: Voinești, Drajna de Sus, Târgșoru Vechi and Pietroasele. However, possible transports of building materials cannot be totally excluded (Matei-Popescu 2010: 164).

[21] The two small enclosures (50 × 50 m) noticed in the vicinity of the marching camps of Vâlcele and Roșioru can potentially be identified as rectangular ditched enclosures of Sarmatian burial mounds, currently flattened by intensive ploughing (Bârcă 2020).

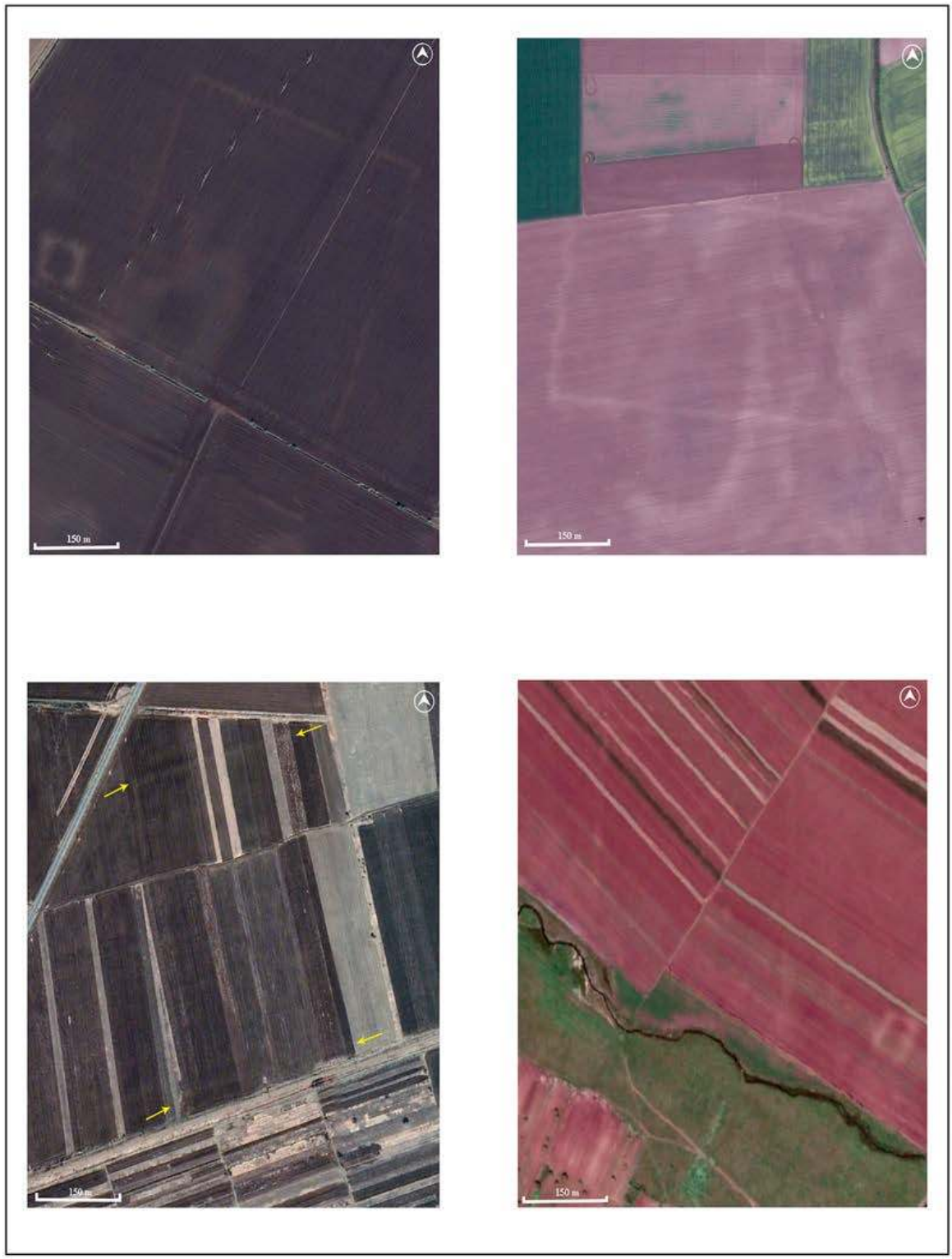

Figure 9: a. Vâlcele temporary camp, satellite image provided by Google Earth (October 2019); b. Mărculeşti-Gară temporary camp, satellite image provided by Google Earth (May 2017); c. Filipeşti-Cetăţuie, satellite image provided by Google Earth (October 2019); d. Roşioru temporary camp, satellite image provided by Google Earth (2015) (Țentea et al. *2021: 339–344, fig. 3–12).*

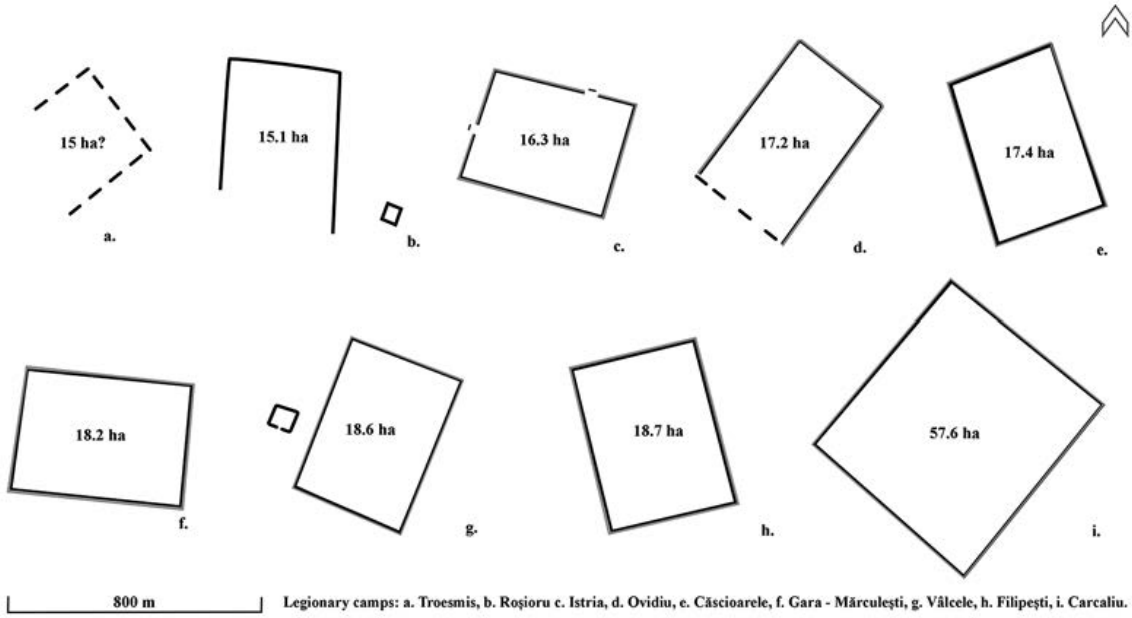

Figure 10: The layout plans of the Troesmis fortress (a) and the temporary camps from Roșioru (b), Istria (c), Ovidiu (d), Căscioarele (e), Mărculești-Gară (f), Vâlcele (g), Filipești-Cetățuie (h) and Carcaliu (i) (O. Țentea and F. Matei-Popescu).

where the Roman army was active since the Republican period. Others are connected with important crossing points and harbours of the Danube, being located some distance away from the two future legionary bases of Lower Moesia, Durostorum and Troesmis. Unfortunately, it is not easy to determine their exact chronology, but we can only guess that they must be earlier than the legionary centres built under Trajan and Hadrian (possibly Durostorum), since the earliest epigraphic information dates from AD 116–117. Moreover, it seems that in the proximity of Durostorum, four marching camps are located, one south of the Danube, at Căscioarele, and the other three north of the Danube at Vâlcele, Mărculeşti-Gară and Filipeşti. Whether they are connected or not with the military actions of the legion XI Claudia during the second Dacian expedition remains an open question. We think that they are connected to the Durostorum fortress and were erected after its construction during unknown military campaigns.

Among these, the possible camp at Carcaliu would be by far the largest, possibly to accommodate a higher number of legionary and auxiliary soldiers. If it functioned before the construction of the fortress of Troesmis, and considering its size and similarities to the camp at Margum in Moesia Superior (Dubravica),[22] then it is likely connected to the military expeditions against the Dacians who attacked Moesia Inferior in AD 84–85. After C. Oppius Sabinus' death, M. Cornelius Nigrinus Curiatius Maternus was commissioned governor and fought against the invaders.[23] As it was already underlined, Domitian' Imperial acclamations

[22] Margum was constructed on the Danube at the end of the road along the Morava Valley coming from Naissus (Cassius Dio LXVII 6, 3; Patsch 1937: 6), where the emperor had his headquarters and which could accommodate up to three legions (Gudea 2001: 52; Jęczmienowski 2012: 37).

[23] See PIR^2 O, 122; PIR^2 C, 1407; Strobel 1989: 35–43; Thomasson 1984: 125, nos. 27–28. For Maternus' career see the

raised from VIII to XI in the second half of the year AD 85 (Alföldy and Halfmann 1973: 358–359; Kienast *et al*. 2017: 110), which proves that more than one battle was fought, as it can be also understood from Maternus' number of decorations. He was decorated twice, which can be positively connected with Domitian's 10th and 11th Imperial acclamations, both dated from September to November AD 85 (Alföldy and Halfmann 1973: 356–358; Maxfield 1981: 148).

In such conditions, deploying a large number of units in various parts of the province would not have been something out of the ordinary, also taking into account the scarce military presence in that remote area of the province of Moesia before Trajan, still labelled as *ripa Danuvii* (see above). One can imagine the need of accommodation for large expeditionary forces, sent via the Danube, just like the units were sent in the expedition led by P. Vitellius from AD 12, attested by Ovid (*Ex. Pont.* IV, 7, 27–28; cf. Matei-Popescu 2017: 24–25). Thus, the marching camp of Carcaliu may be connected with Romans actions against the Dacians. The construction of the future fortress at Troesmis in the same area proves how important it was from a strategic point of view. It was an ideal place for a harbour and was also an important crossing point over the Danube. The road connects this crossing point with Tropaeum Traiani, where important battles were fought both under Domitian and Trajan. Moreover, the form of the camp was very similar to Domitianic camps in Britain, including Stracathro and Inchtuthil which were unfinished and abandoned in AD 86 or 87,[24] speaking strongly for a possible deployment of units from Britain to the Lower Danube area after the year AD 84. The legion II Adiutrix from Chester came first, alongside auxiliary units (Malone 2006: 47–48; Wilkes 2000: 106). Among them, the *cohors II Batavorum* is attested in the area by the inscription on the large funerary altar at Adamclisi (Berard 1994: 224–231; ISM IV, 5, fragment 1, northern side).[25]

Finally, the marching camps at Ovidiu and Istria, close to Tomis and Histria respectively, seem unlikely to relate to the Republican and Augustan period, even though the Roman army had been active there starting in 72–71 BC, in the context of Lucullus' campaign against the Mithridatic garrisons, and again in 61 BC. Some of these camps, and most probably those across the Danube in Muntenia, may indeed be linked with legionary detachments sent to the area sometime during the 2nd and the 3rd century AD.[26]

Acknowledgements

We are grateful to Ioana A. Oltean, who read this paper and made useful corrections and suggestions, and to Vlad Călina, who helped us in preparing the illustrations. Some conclusions

inscription from Liria Edetanorum: Alföldy and Halfmann 1973: 345 = AE 1973, 283 = IDRE I, 176; cf. CIL II^2/14, 125 = CIL II, 6013 and CIL II^2/14, 126 = CIL II, 3783 (p. 965).

[24] There are camps and a legionary fortress at Inchtuthil (Malone 2006: 45–48; Ogilvie and Richmond 1967: 69–76). The fortress was unfinished and dated to the Flavian period from coin and pottery evidence. For a good summary of both sites see Woolliscroft and Hoffmann 2006.

[25] For a short summary on the history of the *cohors II Batavorum milliaria* see Matei-Popescu 2010/2011: 218. For the funerary altar of Adamclisi see the summary by Strobel 1984: 237–239.

[26] Since there is no information available, except for Gothic raids in the 3rd century AD, it is possible that the camps relate to these tragic events, although earlier turmoil cannot be completely ruled out, such as the Costoboci raid from AD 170, which led, among other things, to the erection of new precinct at Callatis (ISM III, 97–100). The tile stamps of *XI PONT* type of the XI Claudia, uncovered at Sucidava (Gura Canliei), have been already connected with the legionary detachments sent to the area of the western Pontus, but only during the Tetrarchy (ISM IV, 160a = AE 2015, 1229; Irimia 1985: 151–153, fig. 1, 3; Matei-Popescu 2010: 135–136; Petolescu 1989: 167–169). However, the reorganization of the army started earlier under Gallienus, and this type could be dated a little bit earlier, corresponding to when there is information on the Gothic raids.

from this paper have been presented by Florian Matei-Popescu at Warsaw University, Faculty of Archaeology, within the framework of the Integrated Development Programme (ZIP), coordinated by Agnieszka Tomas.

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Roads and the Roman Landscape in Moesia Inferior

Adriana Panaite

Abstract: In recent decades, new ideas about the border areas of the Roman Empire have begun to attract scholarly attention. In 1994, Whittaker suggested the idea of a less static border, a common space for Romans and other peoples; the Lower Danube area is not an exception. This chapter considers the role of the road system in the conquest and integration of the Lower Danube area into the Roman Empire. The building of a coherent and functional system of roads helped bring the area of Moesia Inferior under the direct control and administration of the Roman authorities, especially given that the region was known for frequent movements of peoples, a rather pastoral economy and a lack of urban organization (Batty 2007). The Romans 'modernized' the previously existing roads and constructed new ones in order to assure good communication between the *limes* area, the inner part of the province and neighbouring territories. The construction of the roads had certain military and economic objectives, but they were important for far more than simply permitting the movement of soldiers and merchandise. By drawing upon a range of archaeological and epigraphic evidence, this study considers the transformation of the landscape of Moesia Inferior as a result of its inclusion into the Roman Empire.

Keywords: Roman Roads, Moesia Inferior, Landscape Archaeology, Borders

Introduction

The construction of the ubiquitous Roman road network was the first sign of Roman control over an area. From the geographical point of view, the area of the Lower Danube consists of several separate units (the Balkan Mountains, the Dobrogea plateau, the Danube valley, the Danube Delta, etc.), forming a real puzzle of ecosystems characterized by the variety of resources and forms of habitat. The arrival of the Romans at the Lower Danube and the transformation of this whole area into the Roman province of Moesia Inferior led to a radical change of the landscape. The army occupied and organized this sprawling space, resulting in an Imperial province located by the border. The operation is carried out gradually—an expression of the 'small steps' policy practiced by the Romans—over several stages of political and administrative development including *praefectura* and *ripa,* and military organization. All necessary infrastructure (e.g. fortifications, roads and customs stations) were doubled by civil measures to integrate the local settlements and the Greek towns from the Black Sea coast into the new administrative body and to facilitate the emergence of new ones.

In the last few decades, new ideas about the *limes* and the border areas of the Roman Empire have increasingly attracted scholarly attention. Scholars examined the creation of Roman border and frontier policy, arriving at different conclusions about the existence of a coherent border policy and of its development, drawing attention to military and strategic concerns as the crucial factor of Roman attitudes toward the borders of the Empire (Dyson 1985; Isaac 1990; Luttwak 1976). Whittaker's (1994) study suggests the idea of a less static border, based more on the concept of a frontier zone rather than on a frontier understood as a line; a zone acting as a common space for Romans and populations living beyond Rome's borders. The Lower Danube borderland area is an excellent example of such a fluid space (Figure 1).

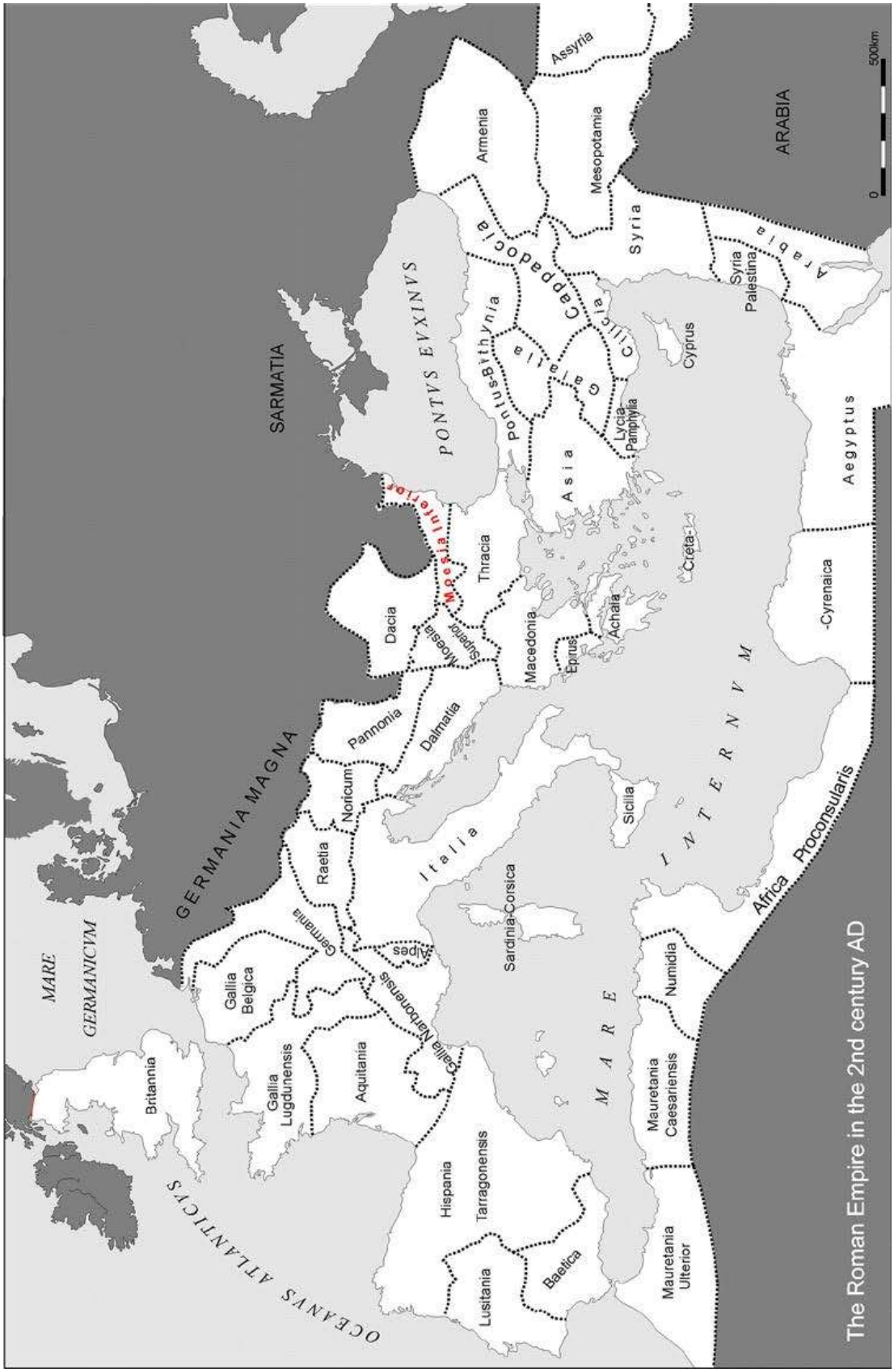

Figure 1: The Roman Empire in the 2nd century AD (A. Panaite).

The Danube was identified as a limit to Roman territory by the reign of Augustus (31 BC to AD 14), with the river acting as a demarcation line between the Roman Empire and *barbaricum*. This period of time, however, was characterized by a different concept of Roman territory than is commonly understood by modern historians today. Starting with the age of Augustus, the Vergilian idea of the *imperium sine fine*, or Empire without end, had begun to take hold in Roman minds. This concept influenced how the Romans perceived frontiers or borders in the early Imperial period. The concept of an Imperial frontier appears to have had little meaning during the early Empire, as the Romans seem to not have been accustomed to thinking about frontiers as physical and static boundaries (Graham 2006: 2, 57–72). Those areas were, in fact, key zones of interaction (Wells 2005: 49), as the economy of the Empire depended to a considerable extent on trade relations with the neighbouring populations. The existence of the Imperial borders and the populations in their proximity played a very important role in the political ideology of the Empire, a fact underlined by the surviving literary texts (Mattern 1999: 92–118). Accordingly, frontier zones like the Danube represent transition areas, especially during the early Empire, and the river should be perceived firstly as a riverine connection between different populations and secondly as a supply route (Isaac 1990; Whittaker 1994).

Half a century after Augustus, the placing of legions and auxiliary units at crossings of the Danube does not yet indicate the concept of a frontier cordon based on the river. Until 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 (Wilkes 2005: 150–151). While the creation of a cordon of military bases at regular intervals along the river may never have been defined as a strategic aim, such an arrangement appears to have been the end result of prolonged warfare along the Danube under the Flavians and Trajan in the 1st to early 2nd century AD (Opriș 2006: 237–248; Petculescu 2006: 31–41).

It is now apparent that the Roman military cordon along the Danube was the core of a complex pattern of relationships based on settlements and installations on either side of the river. In that sense, the Danube was no longer a line of demarcation but rather the spine for a military and civil association that grew up in the 2nd century AD and continued more or less intact until the later decades of the 4th century AD (Wilkes 2005: 156–159). In this regard, a well-known early 2nd century papyrus dating to AD 105 (Fink 1958), provides us very good information, especially for Moesia Inferior (Lemke 2016: 9–38). Showing a remarkable range of activities undertaken by the soldiers from *Cohors I Hispanorum*, the document refers explicitly to the soldiers stationed beyond the province. Three groups were located across the Danube, of which one was guarding crops, one was on an expedition, and one was scouting; the papyrus also mentions two groups engaged in supply work, as well as two guard groups and a detachment stationed at headquarters. The papyrus thereby shows that the far side of the Danube was apparently still considered to be 'inside the province' of Moesia Inferior. Despite having three detachments spread out, located at Castra (its exact location is unknown), Piroboridava (a Dacian *dava* and a Roman castrum on the river Siret, located in Poiana, Galați county) and Buridava (a Dacian *dava* and a Roman castrum on the banks of the river Aluta-Olt), the cohort was still officially recorded on the papyrus as being based in Stobi, the capital of Macedonia.

The establishment of the Danube frontier in the Lower Danube area in the first part of the 2nd century AD is strongly connected with movements of the Roman army in the context of operations carried out north of the Danube in the Wallachian Plain. Previously under the control of tribes located outside the Dacian kingdom but allied with Decebalus, Wallachia, southern Moldavia and the south-eastern corner of Transylvania passed under the authority of the provincial administration of Moesia Inferior during Trajan's reign, who also built fortifications in the area at Drajna de Sus, Mălăiești, Târgșor, Voinești and Pietroasele (Țentea 2016: 86–89; Țentea and Matei-Popescu 2016). The arrival of large numbers of Roman troops along the Danube appears to have impacted local settlements less than was previously believed, as archaeologists are now less willing to rely on simple external explanations for the end of a settlement. This is especially true for the interior of the province, where even the longer-term effects of being in the Empire for centuries are in some areas hard to detect (Wilkes 2005: 165).

The Danube frontier line would eventually become the most militarized area in Moesia Inferior. An important role was played here by the civilian settlements that appeared and developed around military fortifications. Throughout the early Empire, legionary veterans chose to settle in the immediate vicinity of the legion's headquarters where they had served. Auxiliary veterans, however, tended to settle down in areas less influenced by the Roman presence further to the south, although this is only observed in the 2nd to 3rd centuries AD. The veterans performed various administrative functions in the respective settlements, some of which even reached the legal status of municipium or colony (Mrozewicz 1982: 79–88). Those settlements represent the sites of interaction between soldiers and a range of other groups, giving rise to cultural exchange (Boyanov 2008: 71–183; Tomas 2016: 34–70, 98–118; 2017b). As we move further south, we notice that the anthroponyms continue to be local with pottery and even funerary practices preserving many of the local traditions (Aleksandrova 2013), as in other border areas of the Roman Empire (Wells 1999: 148–170; 2005: 71). 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 2016).

As a general feature of this area, 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 more easily controllable, as happened in Dacia after the Roman conquest and the reorganization of the territory into provinces (Oltean 2007). The presence of fortifications, which could represent focal points for revolts, could not be accepted by the Roman Empire in a new border zone. In this region, the defence function was taken up rather by the Roman camps along the *limes*. On the other hand, a detailed look at the populations living in this area allows us to better understand how the province of Moesia Inferior was organized later, to deduce its uniqueness as a border region, but also as an area located in the transition zone from Greco-Hellenic towards Latin cultural influences. Moreover, we will also be able to discuss aspects related to the number of inhabitants of Moesia Inferior. Scholars have a number of theories concerning the population of the province given its relatively large area, which would have been uninhabited when the Romans came to the region. In the next section I will deal with these aspects.

Local Populations, Romans and the Organization of the Province

After the conquest of Dacia, Trajan's reorganization of the *limes* of Moesia Inferior divided the territory of the province into three different parts: the bank of the Danube, where the Roman military camps were built, the interior, characterized especially by civil settlements or towns—like Tropaeum Traiani, and the littoral, where the old Greek colonies continued to develop after their inclusion within the Empire's borders. Each of these zones not only represented a geographical unit but also developed administrative features and even cultural characteristics, split among the dense Roman presence along the Danube, the Greek cities on the Black Sea coast and the local population in the interior of the province. Even so, they supplemented each other, ultimately comprising a cohesive whole with the Roman army playing a decisive role (Duch 2017: 371–397). It took the Romans almost two centuries to accomplish this, requiring a huge military effort since the local population showed fierce resistance (Batty 2007: 347–350).

The peoples known as the Getae were the largest population that the Romans met in the Lower Danube region (Bâltâc 2011: 28–35). Information about the Getae appears in written sources, to which archaeological information can be added (Irimia 1980: 66–118; 1981: 67–122; 1983: 69–148; 2007: 137–235; 2010: 83–128). Even so, reliable archaeological evidence is surprisingly limited. In addition to the Getae, a number of diverse peoples lived in the territories that would later form Moesia Inferior, including Greeks from the Black Sea colonies, Scythians (Irimia 2000–2001: 299–315), Sarmatians (Bârcă 2006: 3–28; 2013: 99–125; Oţa 2013: 317–320) and Bastarnae (Babeş 1994: 164–166).

Ancient sources provide information about two major operations to resettle large populations during the first century AD in the Lower Danube area, which was apparently uninhabited. These two well-known resettlement operations were performed by Aelius Catus (Strabo 7.3.10) and Silvanus Aelianus (CIL XIV, 3608; Conole and Milns 1983: 183–200). Under Augustus, Aelius Catus transplanted 50,000 Getae from across the Danube into Thrace. Strabo (7.3.11, 7.3.12–13) refers twice to Getae living on both sides of the river, suggesting the river itself was not a meaningful obstacle to movement. Romanian historiography has challenged with various arguments including archaeological evidence the interpretation that the area would have been deserted (Suceveanu 1977: 20, 21, 31–34), while Bulgarian historiography supports the colonization of South Dobrogea with Thracian elements (Torbatov 1997: 507–514). The frequent conflation of 'Geto-Dacian' and 'Thraco-Getic' were often used as means of supporting Romanian or Bulgarian nationalist claims to Dobrogea (Alexandrescu and Suceveanu 1988: 163–173; Iordan 2013). Regardless of the tribal names, all ancient sources stress the cultural closeness of the Dacians, Getae and Thracians and their occupation of both sides of the river Danube. The existence of local Getae should be extended also to the Roman Imperial period, as it is demonstrated not only by archaeological and epigraphic sources dating from the 2nd and 3rd centuries AD, but also by toponyms, especially those ending in -dava, that belong to the broader family of Geto-Dacian toponyms (Suceveanu and Barnea 1991: 34–39; Suceveanu and Rădulescu 2001: 291–306).

It is very likely that the region south of the Danube was depopulated after frequent clashes in the area, but not to the extent that it could be considered desolate. We should not understand Imperial resettlement as a means of filling an 'empty' territory, rather we should

instead understand it as a means of organizing and strengthening the area near the Danube, reinforced by economic interests (Mrozewicz 2013: 424–442). This action was primarily of a fiscal nature, as is apparent from the inscription praising Tiberius Plautius Silvanus Aelianus, governor of Moesia under Nero: *ad praestanda tributa*, but also with immediate consequences: *primus ex ea provincia magno tritici modo annonam p(opuli) R(omani) adlevavit* (CIL XIV, 3608 = ILS 986). At the same time, the epitaph emphasizes Plautius' dealings with foreign peoples: he suppressed an 'arising disturbance' of the Sarmatians; he brought 'kings previously unknown, or hostile to the Roman people, to the riverbank that he protected to adore Roman standards'; he returned relatives to the kings of the Bastarnae, Rhoxolani and Dacians after capturing them from their enemies and received hostages from them; he confirmed and extended the peace of the province.

Many researchers think the resettlements in the 1st century AD were meant to increase the population under Roman control south of the Danube (Gerov 1988; Mrozewicz 1987; Tomas 2017a). According to another opinion, their purpose was to create no-man's-land zones on the northern side of the river. Recently a new interpretation has been provided, namely that empty lands were created south of the Danube for security reasons, partly because of local conflicts and conquest, until zones under Roman control and friendly to foreign settlers could be established (Tomas 2016: 48–49).

There are also researchers who believe that Catus may not so much have 'transplanted' these Getae as 'allowed them free access' to the region, as an element of the deliberate Roman policy of bringing across friendly tribes to secure territory, and that Silvanus probably responded to a situation that was already in motion, admitting refugees from wars that were occurring without Roman participation and brokering deals between the various factions (Batty 2007: 404–405, 407). In a more recent article, Boatwright (2015: 139) argues that the resettlements 'were contested at Rome, because they did not demonstrate Rome's military superiority'. Silvanus' moving of peoples *en masse* was not an isolated case. It is significant that only a few years later, Lucius Tampius Flavianus, legate of Pannonia in AD 69, was also involved in taking hostages from Transdanubian groups and bringing them across the Danube (Conole and Milns 1983: 183–200).

The settlement of large numbers of peoples from beyond the frontier in the Roman Empire was thus a constant process. These actions could only take place because of the similarity of the cultures within and beyond Imperial borders. These borders were highly permeable and travel for both commercial and non-commercial purposes was not uncommon. Crossings took place in both directions throughout the Roman Imperial period and the Roman frontier should be seen as a zone created by political rather than cultural restraints. This reality contradicts the way we understand borders today. Most often, Roman borders were perceived as linear, strict borders, separating certain regional entities. Rather, for the Romans, border zones were key interaction areas as the economy of the Empire depended to a considerable extent on trade relations with neighbouring populations.

The existence of the Imperial borders and the populations in their proximity played a very important role in the political ideology of the Empire, a fact underlined by the surviving literary texts (Isaac 1990; Wells 2005: 49–50; Whittaker 1994). Although we cannot trace this movement archaeologically, we can only assume that the resettlement of peoples increased pressure on

the food and water supplies and generally on the environment. The implementation of Roman settlement patterns and forms of government runs parallel with measures for integration in the Empire. It is well-known that along the *limes*, near every military fortification, there is always at least one civilian settlement both depending on and supporting it (Ivanov 1999: 253–277; 2004: 172–177, 180–181). In settling new regions, Roman authorities were concerned primarily with creating the infrastructure that ensures the cohesion of space, important for production and trade, administration and military activity (Ivanov 1999; Matei-Popescu 2010); as we can see from the archaeological evidence from Novae (Tomas 2016). An intermediate stage in the organization and establishing of control in Moesia Inferior is represented by the presence of *strategiae* (administrative subdivision inside the Thracian kingdom led by *strategoi*, appointed by the king). There are traces of the Thracian *strategiae* in the area of the future Moesia Inferior, and especially in Scythia Minor. Members of the local aristocracy became *strategoi* under the Roman rule, which proves that up to Trajan and Hadrian, the administration of the Lower Danube territory was carried out by the local elite. Moreover, it seems that the system was not instantly abolished when this area was assigned to the province of Moesia after AD 46 (Matei-Popescu 2018: 107–118). Rome maintained the Thracian *strategiae* for a long time because the loyal Thracian elites voluntarily adopted elements of Roman culture, frequently functioning as cultural intermediaries. The *strategiae* also represented the future *territoria* of the newly founded Roman settlements.

The westernmost part of the future Moesia Inferior, inhabited by the Moesi and the Triballi, was organized into a military prefecture in the time of Claudius (CIL V, 1838 = ILS 1349: *praefectura civitatium Moesiae et Treballiae*), and from Ptolemy (III.9.3, III.10.5) we know that the *civitas Moesorum* was Ratiaria and *civitas Treballorum* was Oescus. Equestrian prefects were appointed to govern this administrative unit, often holding military posts simultaneously. The appointment of *praefecti civitiatium* suggests a means of overseeing the management of areas containing a number of different tribes, as opposed to colonies and municipalities (Cornwell 2015: 41–72; Elton 1996: 16–17, 37–38; Matei-Popescu 2010: 36–37).

The Greek colonies on the Black Sea Coast received the status of *civitates foederatae* after the campaign of Varro (72–71 BC). During the reign of Augustus, Callatis was a *civitas foederata*, Histria was a *civitas libera et immuna*, and it is possible Tomis had the same juridic status. Several inscriptions attest the introduction of the Imperial cult during the reign of Augustus in Histria and Callatis (Avram 2018). During the reign of Vespasian (AD 69–79), they were degraded to the status of *civitas stipendiariae*. The new political reality brought important changes on administrative, religious and social levels, as the relative autonomy cities like Histria had held during the Hellenistic period ended. Regardless of their legal status—*civitates foederatae, liberae et immunes*, or *stipendiariae*—the cities had to consider Roman interests and demands. Step by step, the social framework also changed, as more and more Romans became involved in the cities' trade and internal political life. At the same time, Roman citizenship was acquired by many of the cities' inhabitants (Matei-Popescu 2014: 173–208).

The kingdom of Rhoemetalces III became the procuratorial province of Thrace in AD 45 (Suceveanu and Barnea 1991: 22–35), while Moesia was granted the status of an independent province in AD 46. At that time, Moesia bordered the newly created province of Thrace at the Haemus Mountains (the modern Balkan Mountains). East of the river Yantra, the narrow area along the Danube (*ripa Thraciae*) formally belonged to Thrace but was under the control

of the Moesian army (Ivanov 1999; Matei-Popescu 2010). During Vespasian's reign, the administrative boundaries of Moesia were expanded to reach the Danube Delta. The province of Moesia Inferior was created by Domitian, who in AD 86 divided the area into Upper (Moesia Superior) and Inferior (Moesia Inferior).

In the first century AD, a number of fortification activities were undertaken with the construction of the first turf and timber installations, such as the first iteration of the fort at Novae (Sarnowski 2016: 175–188) or Halmyris (Suceveanu *et al.* 2003: 29–30). The construction of these military forts and their connecting roads was carried out from west to east following the stages of the expansion of the province. Along with the main east-west road along the Danube, which was slowly transformed into the road that defined the *limes*, additional secondary roads were constructed along the main rivers. Each tributary's mouth was invariably guarded by a legionary or auxiliary garrison. Coming from the west, the Romans were interested in a quicker connection with the areas already under control. In this respect, the best example is given by the road connecting Oescus with Philippopolis (Madzharov 2004). Represented on the Tabula Peutingeriana, the road connected several Thracian settlements, alongside which new settlements gradually appeared. Some of these later became fortifications or points of strategic and military importance, as is the case with the Sostra fortification (Hristov 2015). It is important to emphasize here that this road was intensely used until Late Antiquity, gaining even greater importance with the construction of the bridge over the Danube at Oescus by Constantine the Great (Bondoc 2009: 139–141; Tudor 1974: 135–166). Roads would also later be built alongside the rivers flowing into the Danube, with the water courses and topography of the region fulfilling a very important role (Figure 2).

The second construction period is characterized by the building of stone fortifications during the reign of Trajan from AD 98 to 117 (Țentea 2016: 85–93). There was a high degree of organization of the *limes* under Trajan, which continued during the time of Hadrian (AD 117–138) with the establishment of the southern border of the province Moesia Inferior. The repairing of old roads and the construction of new ones is a key element in the further organization of the area occurring during the late 1st and early 2nd century AD. The roads were especially important for the wars with the Dacians, ahead of which important military forces were dispatched to the area, military fortifications were built, and the Via Egnatia was repaired. All those actions show carefully considered and very strategically elaborated measures in the region, likely done under the personal supervision of the Emperor himself. Based on information provided by the foundation dates of several cities in Thrace, three major routes for advances from the south to the north emerged at this point (Boteva 2014: 195–204). These lines of advance later became very important roads, used until the end of Antiquity; as discussed in the following section, the transformation of the landscape in later periods was highly dependent on actions taken in earlier periods. When we refer to the organization of the province of Moesia Inferior and its inclusion in the Empire, it is important to consider aspects related to the presence of the local population, with an emphasis on the number and diversity of the peoples that lived in this area at the time of the Roman expansion into the area. What characterizes the politics of the Romans is the diversity of their actions which, taking into account pre-existing realities, combine diplomacy—through the organization of intermediate administrative territorial units such as *ripa* and *praefectura*—with military actions. This is the context in which access roads or previous roads will be transformed by the Romans into real highways, with the addition of new ones as the province is organized.

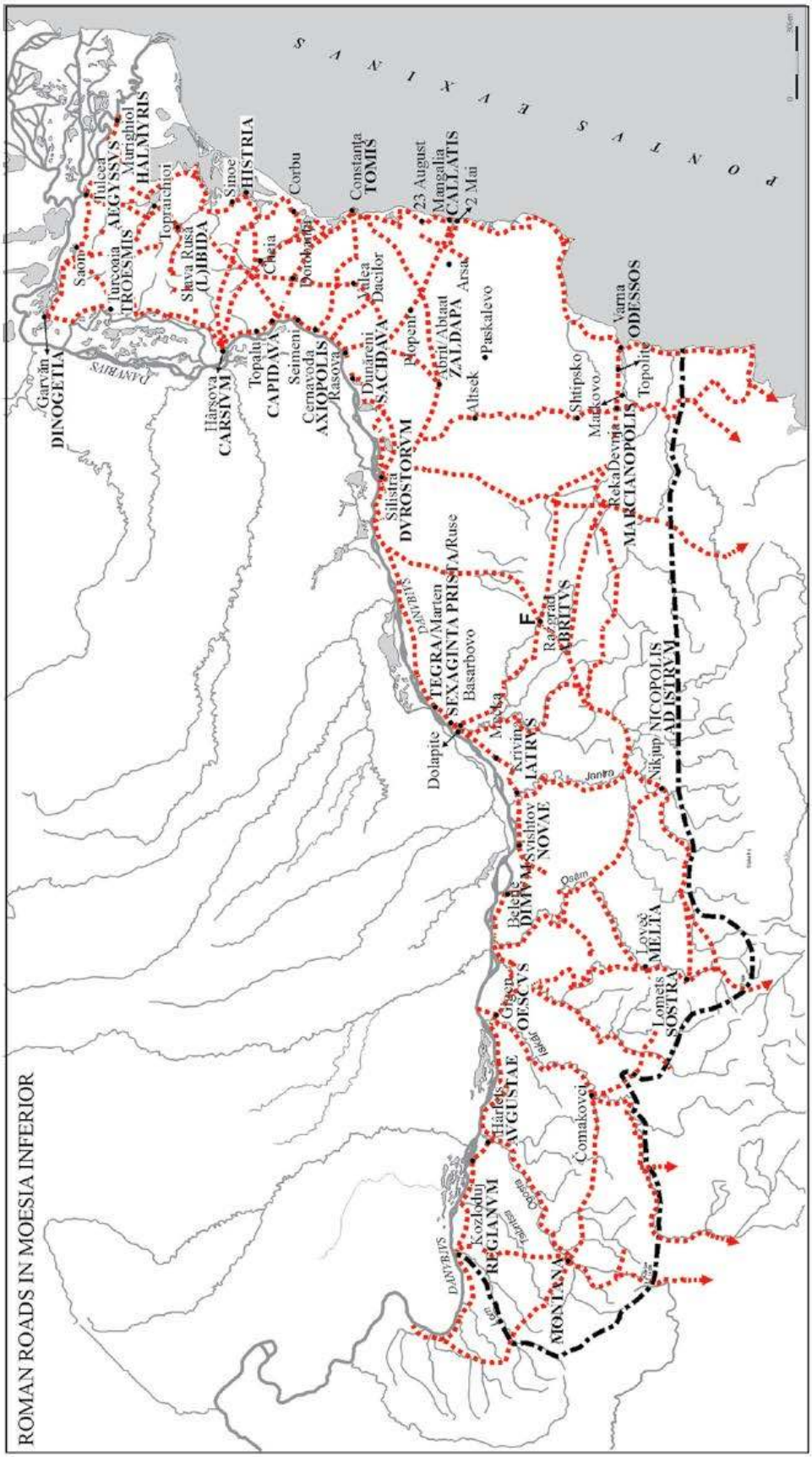

Figure 2: Roman roads in Moesia Inferior (A. Panaite).

Establishing the System of Roman Roads in Moesia Inferior

Factors that determine the shape of space and the creation of a specific landscape have their origin in elements of necessity: water and food supply, the need for raw materials, defence and the ability to respond quickly in case of attack, communication, etc. (Aston 1985: 11–29). In Moesia Inferior, as in other provinces of the Roman Empire, the Romans imposed a new system of land ownership, introduced new agricultural and farming practices and decisively influenced the organization and distribution of rural settlements (Bărbulescu 2001; Gerov 1988). The changes in the landscape are highly visible. Water provisioning and the access to raw materials—primarily stone and clay—leave traces in the landscape in the form of aqueducts and quarries. Each settlement administered a territory, the contours of which are frequently still visible within the landscape. They were all well-connected by a network of land routes. As time passed, cemeteries appeared next to the settlements, containing both mound burials and flat graves (Oța 2013). All of these features comprised the basic elements of a new reality: the Roman provincial landscape. The structure and appearance of this landscape should be understood as an intentional response of the Imperial authorities that considers the area's features, characterized by frequent movements of peoples, a rather pastoral economy and the lack of urban organization (Batty 2007: 350).

In his book about the roads of Roman Italy, Laurence (1999: 199) emphasizes the role of the communication infrastructure in the creation of a province, writing, 'What made a province Roman was the road system', he goes on to insist that 'the road was a device of power that produced a distinctly Roman space across Europe and the Mediterranean'. Roads are thus one of the main elements that characterize the Roman landscape throughout the Empire. Witcher (1997: 60) writes, 'They are not simply physical structures enabling movement to a destination. They also embody issues of ideology, power and identity, and are intimately involved with our social constructions of the world'. From the Roman point of view, building a coherent and functional system of roads is equivalent to bringing a certain area under the direct control and administration of the Roman authorities. The roads were complemented by the various settlements, either established or encouraged by the Romans, all working together towards the consolidation of the province.

The establishment of the road network was crucial to both the internal development of the province and the security of the frontier. As in other areas, the network in Moesia Inferior was based in part on pre-existing routes. Where those paths were formalized into Roman roads, it is important to stress the changes that distinguish them from their predecessors. Specific actions like installing milestones or paving road surfaces form the basis for redefining these roads as specifically Roman. In this way, the roads shaped the space and how the traveller perceived the landscape. At the same time, the milestones' inscriptions improved the useability of the road system.

We have scare information about road systems prior to the arrival of the Romans on the Lower Danube and the organization of the province of Moesia Inferior; the rivers were key elements in earlier transportation networks. The most important route connecting Thrace with the regions north of the Danube ran along the Hebrus and Strymon rivers, across the Trojan Pass, along the Osam and Vit rivers up to Oescus, and then along the river Olt. There was another route across the Rusalijski Pass and along the valley of Rositsa, likely continuing further along

the Osam and Yantra rivers. Through the Šipka Pass there was a further route going north on the valley of Yantra and its tributaries (Hristov 2002: 72–73, 78–79, 84–90). Another important observation considers the burial mounds and their concentration on a diagonal line extending from the area of Durostorum (Izvoarele), on the Danube, to the Black Sea coast, and then down to Callatis and further to the south. This data also confirms the existence of an inland route of travel starting from the Greek colonies, whose alignment could previously only be presumed based on Greek pottery discovered in adjacent settlements (Irimia 2007: 168; Oltean 2013: 202–219). The discovery of Greek artifacts—primarily amphorae—in interior settlements proves the connections (and thereby routes), predominately commercial, between Getae and Greeks from the colonies. In the settlements at Izvoarele, Satu Nou and Adâncata, there may even have been *emporia* or Greek enclaves in pre-Roman times (Irimia 2007: 169–174). Let us not forget that along this route, in the Roman period, there was a well-established Greek community at Urluia (Barnea 1969: 595–609, no. 2 and 3), in the territory later administered by the city of Tropaeum.

A similar situation is also well-documented for Axiopolis, which—before the Romans—was involved in the transit trade with cereals from the eastern part of the Wallachian Plain (Bărăgan) along the Carasu valley to Tomis (Suceveanu 1977: 105; 1998: 45). This is also the shortest link across Dobrogea, from the Black Sea coast to the Danube. These two paths, a northern west-east route from Axiopolis to Tomis and a southern west-east route from Durostorum to Callatis and south, were taken over by the Romans and later transformed into real 'highways'. The first building actions in this regard are recorded starting with the time of Augustus but become more visible in the time of Claudius (AD 41–54) and Nero (AD 54–68) (Conole and Milns 1983: 183–200), with particularly decisive actions recorded from Vespasian onwards (Batty 2007: 441–450).

An important group of epigraphic monuments from Nero's time gives us the opportunity to understand how the network of Roman roads expands from areas already under control to new ones, as a result of the expansion policy established by the Empire. Five inscriptions discovered on the territory of Thrace and dated in the year AD 61 have identical text and refer to:

> *tabernas et pr[aetoria] / per vias [militares / fieri iussit ...].* e.g. Mihiltsi (CIL III, 6123 = CIL III, 14207/34): *[Nero Claudius]/ Divi C[laudi f(ilius)]/ [G]erm(anici) Ca[esaris n(epos)]/ [Ti(beri)] Caesaris [Aug(usti)]/ [pr]on(epos), [div]i Au[g(usti) abn(epos)]/ [Ca]esar Aug(ustus) Ge[rm(anicus)]/ [po]tif(ex) max(imus), trib(unicia) p[ot(estate)]/ [VIII] imp(erator) VIII, co(n)s(ul) III[I]/ P(ater) p(atriae)/ [ta]bernas et praetor[ria]/ [pe]r vias militare[s]/ fie[ri] iussit per/ [T(itum) Iul]um Ustum proc(uratorem)/ [pro]vinciae Thrac(iae).*

Four of them are positioned on the main access routes in the area: Viamata/Mihiltsi on the road from Oescus to Philippopolis; Bučin Prohod on the road from Serdica to Montana; Ihtiman/ Mansio Helice and Belozem/Statio Parembole on the diagonal road from Singidunum to Constantinople (Ivanov 1973: 209–213), and the last one on the northern shores of the Aegean Sea, at Doriscus (Mottas 1989: 98–101; see Figure 2).

Developed road systems are absent from the landscape in the region of Moesia Inferior prior to the Roman conquest; at this time, communication networks were characterized by smaller

access routes. Their directions can be reconstructed based on the information gathered from different sources, such as archaeology, epigraphy and cartography. The Romans 'modernized' the existing road system and also constructed new ones in order to assure good communication between the *limes* area and the inner part of the province, as well as with neighbouring territories. For the first time, Moesia Inferior saw properly constructed roads built with military precision, providing links between settlements and allowing quick movement within the province, both for civilians and for the army, if needed (Figure 2).

Roads were one of the most visible signs of Roman occupation. Provincial roads were built to improve trade as well as security and services sprang up along the major routes to provide infrastructural support. Articles and monographs published in recent years now give us an overview of the Roman road network in the province of Moesia Inferior (see e.g. Madzharov 2009; Panaite 2015a: 593–600). Although few traces of the Roman roads have been discovered to date, their routes can be reconstructed, especially on the basis of milestone inscriptions, itineraries and cartographical sources (Fodorean 2014a), as well as from patterns of human settlement (Chevallier 1976: 43, 117).

All of this work has begun to fill this gap in our knowledge, but for the Lower Danube frontier we are still far from the level of understanding we have for other areas of the Roman Empire. Non-invasive surface studies of large areas across several chronological levels are still missing; this would allow us a better understanding of the evolution of the landscape in Roman times. It is still difficult to assess the full impact of Roman rule in this regard, but it is clear, at least, that the Roman road system significantly altered the landscape and created a 'distinctive geography' of the area, as Laurence (1999: 84) wrote referring to 'Italy that was structured according to the position of a person or place relative to the public road system'. We need to understand the roads as key features of Roman monumentalization, displaying the power of Rome through both the ease of travel and the scale of the structures that were utilised for the transport of peoples and goods.

Roads as Power

The system of Roman roads in Moesia Inferior developed in stages, by incorporating and expanding existing connections, but also by establishing new routes, especially as part of the process of provincialization after the conquest of a new territory. Roads were elements of a far wider system of spatial and non-spatial policies geared towards conquest and domination. The roads allowed the region to be conceptualized as a single unit. Roman roads should be understood as a mechanism of Roman power that physically reshaped the landscape after control had initially been asserted through military intervention. Roads and the promotion of travel were key for the invention and advertisement of Imperial power, transforming the landscape and bringing a new interconnectivity and potential for mobility (Laurence 2001: 91). Although the roads may have been built for different reasons, they still change the landscape and represent a main object of study for landscape archaeology. Once constructed, roads become visible elements of the landscape and condition the subsequent development and organization of space.

For the study of Roman roads, milestones are our main source of information, enabling the reconstruction of their course and direction and, presumably, of their chronology. Originally

practical aids for travel that provided useful information about distances, they gradually became instruments of communication and political propaganda, serving as symbols of Roman power. As Laurence (2004: 53) writes:

> the primary purpose of the milestone was to measure distance, but the renewal and the preservation of them caused the viewpoint to focus on the centralized power. Hence, we should see the milestones as a means of communication to the traveller by those with authority to set up the stones.

The name of the magistrate who built the road was also given on the milestones. With the emergence of governmental services in charge of construction and maintenance, and the growing interference of emperors, directly or through delegates, into this domain, the content of inscriptions on the stones changed. The text began to include not only the date of construction or repair, but also, in elaborate detail, the full or near full titulature (sometimes including genealogy) of the emperor or the amount of money spent on road repair. Milestone inscriptions give us a glimpse of Imperial policy and the upkeep of the road network, but also of provincial administration.

To date, about 109 milestones from the territory of Moesia Inferior have been discovered. There are 78 inscriptions dated within the Early Roman Empire (Figure 3) and 46 for the Late Roman period (Figure 4). The texts are written in Latin, apart from 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 (AD 383–395) and was found in Kipra. Sixteen of the milestones are overwritten (palimpsests): eight of these were found along the road along the Danube, four belong to the road along the Black Sea coast, and three on the north-south central road through Dobrogea, while 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 4th century AD. Only eight milestones were found in situ or very close to the place where they were located in Antiquity (Panaite 2011; 2012: 131–143; 2015a: 593–600; Panaite and Alexandrescu 2009: 429–455).

Most of the milestones belong to the road along the Danube, but there are also inscriptions associated with the other main or secondary roads. On the basis of these inscriptions, we can date the completion of the construction of the *limes* road to Trajan's time, the construction of the central Dobrogea route probably to Hadrian's time, and the period of their heaviest use up to the end of the 4th or the beginning of the 5th century AD. The milestones contain a range of different information: the name of the emperor or of the governor of the province, sometimes the distance between settlements (Panaite 2013: 69–76), and the name of the military units involved in road construction, etc.

The road along the Danube was primarily of strategic military importance, with fortifications and watch and signal towers positioned along it at set intervals. The road started from Singidunum and ran in its entirety on the right bank of the river (Fodorean 2014a; 2014b: 215–230; Ivanov 1999: 277–290; Madzharov 2009: 131–184). Having reached the mouth of the Danube, it turned south along the Black Sea coast and ran to Constantinople. This was the key

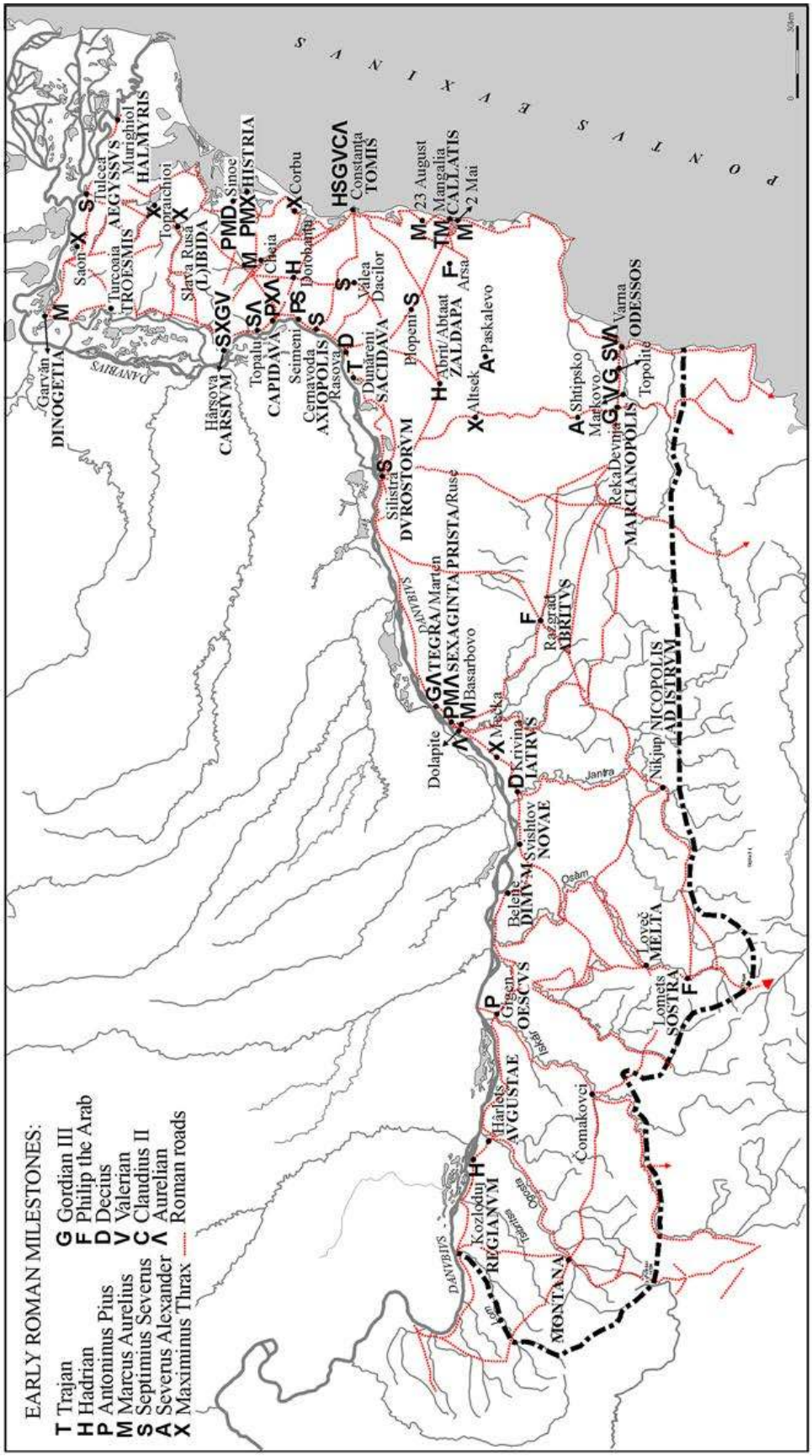

Figure 3: Early Roman milestones from Moesia Inferior (2nd century to middle of the 3rd century AD) (A. Panaite).

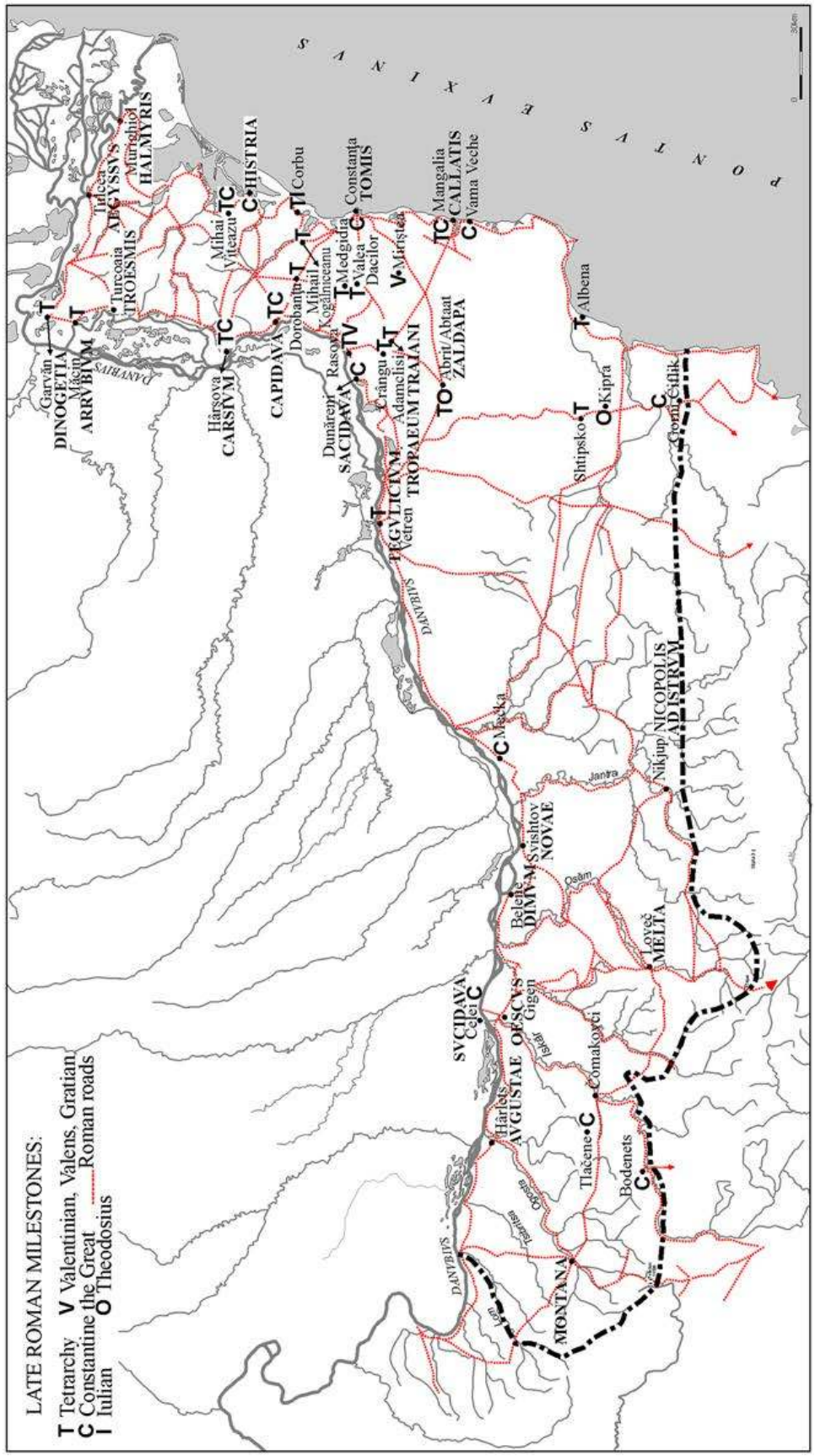

Figure 4: Late Roman milestones from Moesia Inferior (end of the 3rd century to the end of the 4th century AD) (A. Panaite).

road in the area, a road of strategic significance which altered the landscape and symbolized Rome's permanence.

Road construction along the Danube on the route Singidunum–Viminacium–Ratiaria–Oescus–Novae–Durostorum and continuing to the Delta and Black Sea, running through the forts of Aegyssus, Salsovia, and Halmyris likely began with the founding of the province of Moesia around AD 12, and was clearly continued in the reign of Tiberius (AD 14–37) (with work concentrating in the Iron Gates) and in the time of Claudius (AD 41–54). The earliest information on road construction in the Iron Gates area is dated to AD 33–34 and refers to construction works carried out by the legions IV Scythica and V Macedonica, as reported in two identical inscriptions carved on cliff faces at Gospodin Vir and Lepenski Vir: *Ti. Caesare Au[g(usti) f(ilio)]/ Augusto imperato[re]/ pont(ifice) max(imo) tr(ibunicia) pot(estate)/ XXXV leg(io) IIII Scyt(hica) leg(io) V Maced(onica)* (Mirković 1996: 30). The next inscription is dated to AD 46, during the reign of Claudius:

> *Ti. Claudio Drusi f(ilio) Caesare/ Aug(usto) Germanico pontif(ice) max(imo)/ trib(unicia) pot(estate) VI imp. XII p(atre) p(atriae) con)s(ule) desig(nato) IIII / leg(io) IIII Scyth(ica) leg(io) V Mac(edonica) montibus ex[cisis an]con[ibus .../ Ma]r(tii) Macri leg(ati) Aug(usti) propr(aetore)* (Petrović 1986: 41–52).

In AD 93–94, Domitian ordered a reconstruction of this road, which had deteriorated due to lack of use in the preceding years:

> *Imp(erator) Caesar divi / Vespasiani f(ilius) Domi/[tianus] Aug(ustus) Germ(anicus) pont(ifex) / maximus trib(unicia) pot(estate) XII / imp(erator) XXII co(n)s(ul) XVI censor / perpetuus p(ater) p(atriae) i[t]er Scor/fularum vetu[s]tate [e]t / incursu Danuvi c[or]/ruptum operibu[s i]/teratis O(?) [---] / LEG[---]* (ILJug 55); *Imp(erator) Caesar [divi] / Vespasian[i f(ilius) Domi]/[tianus Aug(ustus) Germani]/cus pont(ifex) m[ax(imus) tr(ibunicia) p(otestate) XII] / impe[r(ator) XXII co(n)s(ul) XVI cen]/sor perp(etuus) [p(ater) p(atriae) iter Scor]/[f]ularum [vetustate et in]/cursu Danu[vi corr] uptu[m] / oper[ibus iterat]is re[s]/titui[t ---* (ILJug 58).

Trajan continued the construction of the road in preparation for his Dacian campaign (Fodorean 2012: 99–117), reaching across the whole region to the Danube Delta (Ivanov 1999: 277–290; Madzharov 2009: 131–184) and adding a road to the north to Dacia (Figure 1). With the border on the Danube, there was no longer any need for a road to the south, because the communication network had changed as the Empire expanded. The road from Viminacium to Naissus along the Great Morava Valley was built instead, completing the network which ran along the Danube from east to west, north to Dacia and south to Dardania and Thrace. The construction of these roads coincides with the stages of the organization of the Moesian *limes* (Mirković 1996: 27–40; 2019: 236–251).

The *limes* road was built segment by segment, moving from camp to camp, but only after the fortifications had been raised. The first defences were built in the Iron Gates area—after which the road was built, culminating with the bridge over the Danube. Trajan's successful bridging of the Danube was an engineering triumph and the bridge itself was visually impressive. This was an example of intentional monumentality, meant to demonstrate the power of Rome (Thomas 2007: 4–5, 203, 267). Although dismantled by Hadrian in the second century AD,

Trajan's bridge was still worthy of praise four centuries later, as we read in Procopius' *De aedificiis* (4.6.11–16; Coulston 2001: 124). The construction of the *limes* road was carried out by numerous military units based in camps on the Danube. The phasing of road repair and restoration clearly mirrors—with some minor discrepancies—the construction and use of fortifications in Moesia Inferior. Cities peaked in development under Marcus Aurelius and Septimius Severus in the late 2nd and early 3rd centuries AD (Suceveanu and Barnea 1991: 33–34), with the roads following the same pattern (Panaite 2011; 2012: 131–143; 2015a: 593–600).

Another important road ran along the Black Sea coast and connected ancient urban centres, like Histria, Tomis, Callatis and Odessos, stretching from the Danube Delta to the later Imperial capital in Constantinople (Madzharov 2009: 184–202; Suceveanu 1992: 195–223). Its role was mainly commercial, although it had also strategic importance as it was the main route from the south. Initially, this Greek path was little more than a 'country road', so to speak, as most of the traffic went by sea, but the Romans transformed it into a proper road. During numerous conflicts in the area, this road took on a more military significance. For the campaigns of Lucullus (72–71 BC) and Hybrida (61 BC), this route represented the most important access road to the north. Trajan would also use it during the war with Decebalus. Exiled from Rome, Ovid would travel the same way on his journey to the remote city of Tomis (Batty 2007: 426).

There were another two roads parallel with the one that ran along the *limes*, one crossing the Lower Danube region from west to east at the foot of the Balkan Mountains, passing through Bononia–Montana–Čomakovci–Melta–Nicopolis ad Istrum–Marcianopolis and Odessos. The other ran south to north crossing Dobrogea, from Marcianopolis to Noviodunum and Aegyssus, passing through Zaldapa, Tropaeum Traiani, Medgidia and Ulmetum. The central section of the road from Melta to Marcianopolis was built in the second part of the reign of Trajan, immediately after the inauguration of the cities of Nicopolis ad Istrum and Marcianopolis. At this time Melta was already a functioning station on the road from Oescus to Philippopolis. The road was subsequently extended to the east, up to Montana, and then to Odessos in the west (Panaite 2019: 47–54). The construction of the road from Marcianopolis to Noviodunum and Aegyssus was started with all likelihood in the time of Hadrian, during the administrative reorganization of the province, as is strongly suggested by milestone inscriptions (Panaite 2012: 131–143).

Connections between the main roads and both the interior settlements and the camps on the Danube were assured by secondary roads, developed over time as part of the consolidation of the Roman administration across the region (Gugl and Panaite 2016: 449–458; Panaite 2006: 57–80; 2010: 373–380; Panaite and Bem 2016: 201–220). It is possible to assume that some of the roads, especially those connecting the Danube with the Black Sea coast, were superimposed on older ways of trade and communication. We know this is the case, for example, for the roads Durostorum–Callatis/Tomis and Axiopolis–Tomis. It is important to point out that the inland road network mainly serves to connect civilian settlements. But even for some of these, the results of the latest research seem to demonstrate the existence of small wooden fortifications that were operational for a very short period of time before the founding of the cities, as for example at Nicopolis ad Istrum (Paunov and Topalilov 2013; Vladkova 2000–2001: 100–107; 2002: 30–35).

The large military presence, which is normal for a border area, may give the impression of the absence of cities; this is not the case in Moesia Inferior (Aparaschivei 2010). Although less numerous than in other provinces, cities developed both in the hinterland of the province,[1] and on the Danube, where, after the departure of the legions, the *colonia* of Oescus appears, along with *municipia* at Novae, Durostorum, Troesmis and Noviodunum. In addition to these, there are other settlements resembling cities including some *vici* (Aparaschivei 2010: 51–53; 237–249; Bâltâc 2011).[2] The region flourished, as many veterans and newcomers settled down in the province; Moesia Inferior represented a gateway for both goods and people. The Empire's control of the area guaranteed the stability and the smooth functioning of the economy and trade, as well as the general development of the area. This is achieved by an increasingly visible military presence, primarily with respect to cities. Consequently, we can easily speak about the militarization of the region, demonstrated by the numerous small fortifications built in the territories of the cities, near mountain passes or along roads.

Built by soldiers to meet the demands of the army and the state administration, the roads were naturally also used for the transportation of civilian goods and persons, visibly improving the economic development of the province. However, the impact on the local population was not always positive. The most obvious downside was perhaps the monetary contribution that local settlements were required to make for road maintenance. In this regard, we know about the complaints of the people from Laikos Pyrgos and Chora Dagei in *regio Histriae*, asking for their road maintenance obligations (*leitourghiai*, *angareia* = *munera*) to be reduced (ISM I, 378).

The military function of a road is perhaps the most important. The road appears along with military conflicts, is built by the military and mainly serves to facilitate the movements of troops and military supplies. But the army does not influence only the roads; it is also the main factor that shapes the economy and local production. The numerous military troops quartered in the province and the civilian settlements accompanying them require supplies of food and building materials (Duch 2015: 235–260). The landscape is accordingly transformed by the appearance of numerous rural settlements and villas and new agricultural practices (Bâltâc 2011; Bărbulescu 2001). The reigns of Trajan and Hadrian are definitive for the administrative and military organization of the province, while after the reorganization of the border between Thrace and Moesia Inferior in AD 136 (Kolb and Zingg 2016: 13; Tomas 2016: 108–113), there followed a period of peace.

This period was disturbed by the devastating invasion of the Costoboci, who in AD 170 crossed Dobrogea from north to south almost unhindered, robbing the cities, among others Tropaeum Traiani (e.g. CIL III, 14214,12 = ISM IV, 50: *Daizus Comozoi interfectus a Castabocis*), reaching as far as Athens where they sacked the famous shrine of the Mysteries at Eleusis. In response to this event, some cities constructed their first defensive walls, including Callatis (ISM III, 97); Philippopolis (IGB III-1, 878); Serdica (IGB IV, 1902); Nicopolis ad Istrum (Slokoska *et al.* 2002: 91).

[1] Tropaeum Traiani, a municipium probably from its foundation (Popescu 1964: 185–203; Popescu 2013: 127–144; Panaite 2016: 163–172) and potentially Montana.

[2] For example: Sexaginta Prista, Axiopolis, Capidava, Carsium, Ulmetum, Melta, Comakovci and Emporium Piretensium; Vicus Novus, vicus Ulmetum, vicus Scenopesis, vicus Secundini, etc.

After the events of the mid-3rd century AD, there are two well-defined periods in the evolution of the Roman road system in the Lower Danube area: the reigns of Diocletian and Constantine, and those of Anastasius and Justinian. Starting with the reign of Diocletian, the Lower Danube region becomes very important for the Roman Empire. After the reforms of Diocletian and later Constantine, three new provinces with their own military units appear on this territory: Scythia, Moesia Secunda and Dacia Ripensis. Due to their strategic position, repairing and maintaining the roads represent an important task. This part of the Empire is constantly visited by the emperors. It is also important to add that many of the fortresses were repaired during this time. Both periods saw extensive reforms that led to the transformation of the state and ultimately extended the existence of the Empire; it was a special time for the Lower Danube region in particular. As one of the most important segments of the northern borders from the mid-3rd through the 7th century AD, the Lower Danube area experienced remarkable events affecting both the frontiers and the provincial hinterland. Once Constantinople became established as the Eastern capital of the Roman Empire, Scythia and the Lower Danube became even more strategically important, on which the attention of the Imperial administration permanently focused. This meant that the roads and fortifications either were repaired or rebuilt (Suceveanu and Barnea 1991: 178–208), and Roman roads continued to be used long after the fall of the Empire—some traces of them still exist today.

Conclusion—A Landscape Transformed

Despite the importance of the road network, we still lack a complete picture of the Roman landscape in Moesia Inferior. Although recent publications on ancient road-related topics in South-East Europe have multiplied and diversified, we are still missing a systematic study of the territory by large-scale intensive fieldwalking surveys, which can collect material and identify unknown sites. The use of non-invasive research methods (e.g. aerial photography, geophysical surveys, GPR, GIS and LiDAR), would also allow a better understanding of the Roman landscape in Moesia Inferior (Panaite 2015b: 17–50; Panaite 2016: 151–164). This is one of the reasons why it is still difficult to assess accurately what effect the Roman conquest and the subsequent period of Roman occupation had on the development of the landscape. Clearly, large numbers of new features were introduced, new types of settlement were constructed and new activities were carried out. We still lack observations related to the characteristics of the rural territory of the province, the land distribution and organization, the connections between the road network—especially the local roads—and the division of the arable territory between the various rural communities, known most often only on the basis of epigraphic sources. In other words, we can talk about a pattern of territorial organization?

A few aspects of landscape transformation under Roman rule are particularly important: changes in the distribution and form of rural settlements, changes in the nature of land use and agrarian exploitation and changes in the organization of the road network. Roman influences can be seen in different sectors: administrative, military, economic, social and so on. During this period, Moesia Inferior gains a number of new features that together seem to define a new reality. The Romans will impose a new system of land ownership, of agriculture and farming, and will decisively influence the organization and distribution of rural settlements. The Romans preserved some of the existing cultural features (in terms of religion, toponomy, local traditions for ceramics) and added new settlements, new forms of organization, and, as an integrative element, a more formal and extensive road network.

Topography and waterways are the major factors in determining the path of the access network throughout the area. The main trade and communication routes established by the Romans add structure to the organization of the landscape and the emergence of settlements. This influenced the location of the military camps, which in turn influenced the construction of the road network. The Roman army was clearly an important factor in Moesia Inferior. Military sites are associated with the emergence of settlements such as the *canabae* and *vici*, which played an important role in the urbanization of the province. Many army veterans were settled in the province as landowners (legionary veterans) or as the inhabitants of towns; some of them became active in local municipal administration. *Vici* and *canabae* both provided important centres for many activities and services directed at both the army and the civilians, including industry, trade, transport and religious activities. These sites had a huge impact on local economies and social life, and in this way, they contributed to the rapid transformation of the territory. The Roman army crucially influenced the development of the rural landscape through the construction and maintenance of the communication system, even more than it did through the creation of markets or the imposition of administrative structures. The network of Roman roads developed in provinces like Moesia Inferior influenced the location of settlements and supported the whole provincial mechanism; it is vital that we continue to investigate them.

Acknowledgements

I would like to thank Jonathan Quiery who took the initiative for a volume dedicated to the Lower Danube area and who invited me to be part of this project. I also thank the anonymous reviewers whose comments substantially improved the quality of this chapter. Special thanks to Adam Rabinowitz (Austin University, Texas) who read an earlier version of the chapter and whose questions and suggestions were really helpful. And last but not least, I extend my warmest thanks to Emily Hanscam, who patiently read earlier drafts and helped shape the content of the chapter into its final form.

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Sanctified by the Blood of Martyrs: The Creation of New Sacred *Loci* in Scythia Minor During the Early Christian Period (4th Century AD)

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Abstract: The turbulent events of the 4th century AD saw not only the accent of the first Christian emperor but the eventual supplanting of Paganism within the Roman Empire. This period was characterized by a vast, state-sponsored and richly funded building campaign which transformed urban, suburban and rural landscapes as well as the Empire's religious identity. The region of Scythia Minor was no exception. In many instances, earlier Pagan buildings were dismantled and/or repurposed for Christian worship. In others, new structures were erected at locations deemed especially sacred to the adherents of Rome's latest officially recognized religion. In these later cases, many of the newly constructed Christian buildings, often churches, shared a common feature which made them particularly hallowed. It was not the fine exterior stonework or the interior refinements which conferred holiness, rather the remains of the gloriously martyred that laid beneath the floors and altars. These people were believed to have been tortured and killed rather than renounce their faith in the One True God, an act which imparted holiness not only to their immortal souls, but also to the incorruptible flesh of the physical remains. While geographically distant from Rome and other commonly associated centres of early Christianity, Scythia Minor was in several ways no less influential in the development of Christian doctrine. For those living in the region, these sacred sites became the focal points of unified worship which catalyzed the formation of a cohesive regional identity, one which has largely persisted into our modern age.

Keywords: Ancestor Worship, Early Christianity, Constantine, Cult of the Saints, Scythia Minor, Sacred *Loci*

Introduction

There exists an abundant, albeit diverse, body of evidence which describes the transition of various sacred landscape(s) within the Roman Empire following Constantine's triumphal entry to Rome in AD 312, an act which was commemorated in the form of a triumphal arch. By the 4th century AD, the construction of a monument of this scale or type by victorious emperors had become commonplace; what was unique was Constantine's association with the god of Christianity. Within a century the Empire, which had been intensely Pagan, would be transformed into one which was predominantly Christian. The western Black Sea, including Scythia Minor, was a region of intense Christianization during the 4th century AD. One feature of this period was the establishment of new sacred *loci* by Christians, many of which appear to have been created *ex nihilo*. The concept of sacred *loci* is not unique to Christianity and is shared across numerous ancient and modern cultures. For those studying ancient landscapes and architecture, *loci* function as tangible locations of phenomenological experience for individuals and communities. More broadly, studies of sacredness and their associated *loci* remains an energetic space within academia (Coomans *et al*. 2012). The creation of these uniquely Christian *loci* relied upon the development of a form of ritual sanctification which created a tangible connection with the martyred dead through the construction of *martyria* (martyr tombs).

Over the past five decades, the intersectional nature of regional and localized geography, culturally diverse groups and assorted historical events have coalesced into a plethora of multidisciplinary studies addressing the phenomenological basis for the attribution of sanctity/sacredness to a particular place and/or locale by ancient and modern peoples. Research typically focuses on the creation of new *loci* and how they compare to other religious *loci* seen across the culturally diverse landscape of the Roman Empire. Generally, this analysis falls within one or both of the following two theoretical frameworks: placemaking and/or cultural memory. By applying an interdisciplinary approach, this chapter will attempt to bridge the gap between archaeological, historiographical and martyrological methodologies in the examination of this phenomena in the region of Scythia Minor (modern Dobrogea, Romania). This study is designed to expand upon the growing body of historical and ethnographic scholarship for a region which has often been considered of tertiary importance in the examination of late antique Europe.

Historical Background

The late 3rd and early 4th century AD was a period filled with civil and foreign wars, social turmoil and economic hardships. For many Christians, it was not the threats of foreign enemies or civil war that troubled them the most—it was the emperors themselves. For many scholars, the history of early Christianity is one which is synonymous with religious persecution. During the mid-3rd century AD, perhaps the best known of the state-sponsored persecutions of Christians occurred during the brief reign of the Emperor Decius (*r.* 250–251 AD) which was rekindled during the reign of the Emperor Diocletian (*r.* 290–305 AD). Recent scholarship, perhaps best represented by the work of Candida Moss (2013: 215–246), has called the general acceptance of a persistent and widespread persecution of Christians within the Roman Empire as being fallacious and/or greatly exaggerated. Whatever the historical truth of the matter might be, the importance of martyrs and their associated martyrological traditions were used by Constantine and the episcopal clergy to construct a new Christian identity which was tied not only to God, but the Empire's status as a Christian state.

Following the death of his father (the Emperor Constantius Chlorus) in AD 306, Constantine (Flavius Valerius Constantinus) appears to have been elevated to the rank of Augustus by a combination of political manoeuvring and popularity among military units located in Britain and northern Gaul. Following a series of tense truces and sporadic civil wars, in AD 313 Constantine and Licinius (Valerius Licinianus Licinius) emerged as the co-rulers of the Empire. Building upon the earlier Edict of Toleration issued by the recently defeated Emperor Galerius (*r*. 305–311 AD) in AD 311, Constantine and Lincinius issued the Edict of Milan. Despite the edict's pronouncement of religious neutrality within the Empire, the legal and social reality gave deference to Christianity, particularly in eastern portions of the Empire.

In AD 324, after a brief civil war, Constantine emerged as the sole and undisputed ruler of the Empire. To establish his rule and presumably his legacy, Constantine undertook what can be conservatively described as a zealous program of patronage designed to promote both Christianity and the emperor's role as the Empire's chief religious patron (Odahl 2010: 269–272). During Constantine's reign, thousands of religious spaces were created for Christians in the form of basilicas, shrines and monuments. This program of Imperial patronage was interwoven with the emerging cult of the martyrs and the growing phenomenon of Christian

pilgrimages. This patronage was personified by the Empress Helena whose own religious pilgrimage and religious fervour manifested in the construction of numerous churches in Roman Palestine. The most famous of which are the Church of the Holy Sepulchre, Holy Church of the Martyrium, Church of the Ascension and Church of the Nativity. As for himself, Constantine directed the construction and dedication of some of the most famous Churches in all of Christianity, namely the Church of the Holy Apostles in the city which bore his name, to which the epithet *Isapostolos* (Equal to the Apostles) was added. Constantine's intent was clear—he, as the martyrs and Apostles before him—was to be venerated in life as well as death as one of Christ's Apostles:

> He [Constantine] had in fact chosen this site in prospect of his own death, anticipating with an extraordinary fervour of faith that **his body would share their title with the Apostles** themselves, and **that he should thus even after his death become the subject with them of the devotions which should be performed in their honour at this place.** He accordingly ordered twelve cenotaphs be set up as sacred pillars in honour of the apostolic number, and that his own sarcophagus be placed in the centre of these ... Thus, ... with prudent foresight he had provided an honourable resting place for his body after death, and, having long before secretly formed this design, he now dedicated this church to the Apostles, believing that his tribute would be of no small advantage to his own soul (Euseb. *Vit. Const.* 4.60).

The next half century saw the continued growth and consolidation of Christianity not only within the Empire but outside as well, as Christians migrated either as heretics and/or missionaries beyond the Empire's borders. In AD 380, the Emperor Theodosius (*r.* AD 371–395) issued the Edict of Thessalonica which formalized Christianity's religious pre-eminence. Pagans and nearly all forms of their traditional worship were outlawed with severe penalties for those who breached the law. Pagans weren't the only group to be targeted; Christians whose beliefs did not fit into the theological dictates of the Niceno-Constantinopolitan Creed of AD 381 were formally declared as heretical and rejected from the body of the Church. By the dawn of the 6th century AD, the Roman state had been utterly transformed—the polyethnic religious system of the earlier Empire had metamorphosed into a monotonal religious orthodoxy rooted in the consolidation of a shared Christian identity. This identity had formed largely through the synthesis of a variety of religious expressions projected from regional epicentres, including the faithful living in Scythia Minor.

Methodological Approach

In the examination of various Christian religious sites, with a particular focus on churches and shrines, the region of Scythia Minor appears to have followed a similar pattern as observed in other regions of the Roman Empire. Although subject to nuance and the occasional exception, the general pattern describing the establishment of Christian churches, as *loci* of sacredness, fall into one of three modes/methods: (1) adoption/repurposing, (2) rededication and (3) creation. The first two methods are known both theologically and historically as *interpretatio Christiana*. While the examination of adoption(s) and rededication(s) of earlier Pagan sites is equally important in the analysis of the emergence of Christianity within Scythia Minor, such a treatment goes far beyond the limitations set forth by this chapter's necessary brevity. For purposes of this discussion, creation will be defined as the establishment of new *loci*

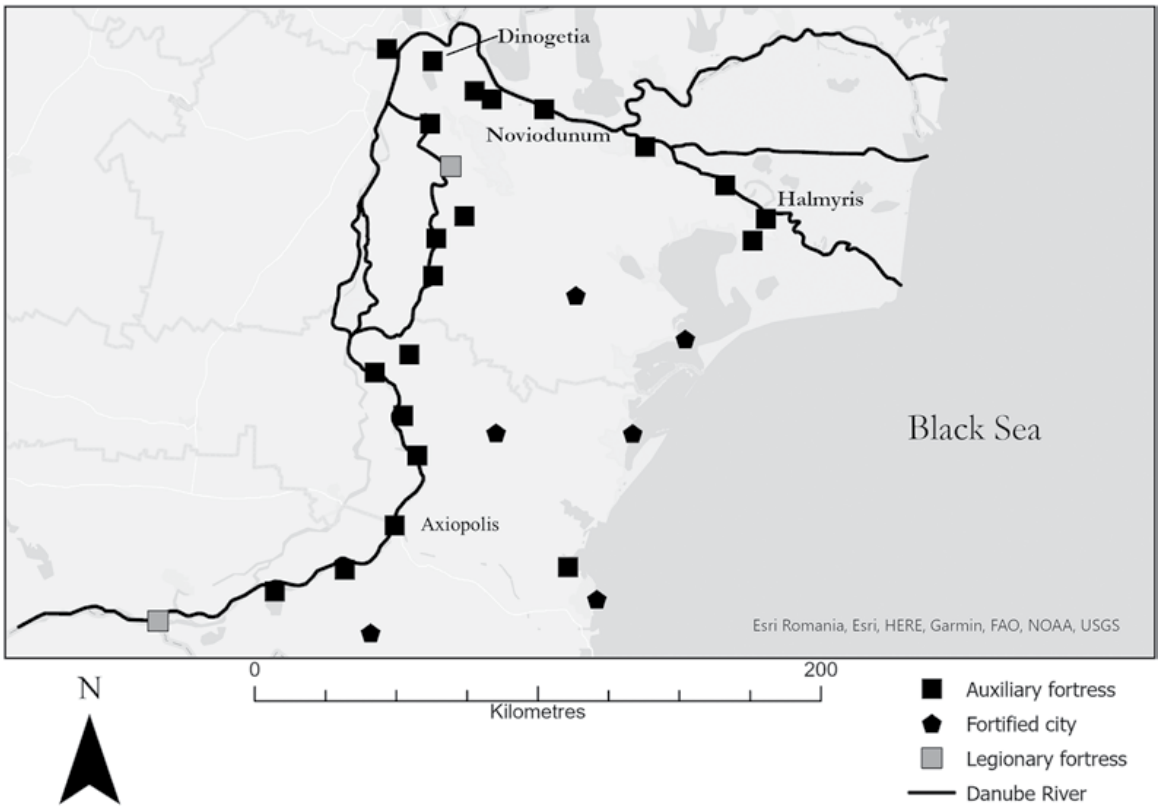

Figure 1: Map of the western Lower Danube frontier with Axiopolis, Halmyris, Noviodunum and Dinogetia highlighted (figure by B. Buchanan, used with permission).

of sacredness which were characterized by the absence of any pre-existent non-Christian (Pagan) religious activity.

This study identified four sites located on, or immediately adjacent to, the military fortifications of the 'Scythian' portion of the Lower Danubian *limes*, which from this point forward will simply be referred to as the 'Scythian *limes*' (Figure 1). Axiopolis, Halmyris, Noviodunum and Dinogetia were selected for their repeated appearance within the martyrologies and traditions of the region. This study purposely avoids the examination of large urban centres (cities) which occurred in the same region but were located a considerable distance from the *limes* themselves, such as Tomis or Histria. The locations examined herein, as is the case with all known fourth and fifth century AD basilicas located in Scythian Minor, fall within two general categories: intra urban (within city walls and/or boundaries) and extra urban (exterior). In some respects, this examination parallels that undertaken of the Middle Danubian *limes* (from Singidunum to Aquae) by the Institute of Archaeology, Belgrade which was published in 2018. An equally important study was Atanassov's (2012: 327–380) examination of Christianity along the Lower Danubian *limes* which systematically identified, through various martyrological sources, a total of 46 martyrs associated with the regions of Dacia Ripensis, Moesia Secunda and Scythia Minor during the 4th through 6th centuries AD.

Fortunately, there exists a significant amount of archaeological and literary evidence supporting the conclusion that during the late 3rd century AD the region(s) of Moesia Inferior and Scythia Minor were subject to a considerable influx of migrants from Syria and Asia Minor. It has been recently demonstrated by Baumann (2005: 100–102) that in the period ranging from *c.* AD 250–305 a considerable percentage of these migrants, in particular those originating from Syria and its adjacent provinces, were Christians. Explanations for this migratory surge into north-eastern Moesia Inferior and Scythia Minor range from displacement arising from prolonged destabilization along the Empire's eastern borders to regional droughts and localized crop failures. Although plausible, individually none of these explanations are convincing in and of themselves. More recently it has been argued, by Jeremic and Ilic (2018: 200–204), that the various persecutions (legal prohibitions and prosecutions) of Christians in the eastern provinces of the Empire was, for Christian migrants, the primary factor leading to resettlement along the north-eastern portion of the Danubian *limes.*

Admittedly there are considerable gaps in the archaeological and literary record. On the matter of historical reliability, martyrologies are extremely problematic and prone to mythicizing the protagonists. Normally the term *martyria* (singular *martyrium*) will be used to describe the stele, shrines or other structures, including buildings, which were constructed for the veneration of the martyred dead—those believed to have died for professing their faith as Christians (Eastman 2019: 1). For the purposes of this chapter, the term *martyria* will refer more narrowly to tomb-crypts located with Christian basilicas constructed during the 4th century AD. This study identified a total of nine (plus two unnamed) martyrs and their associated burial places (crypts) which were confirmed, albeit with varying degrees of confidence, by archaeological excavation(s).

Placemaking and Monumentalization

Archaeological landscapes are cultural landscapes with associated *loci* functioning as one of several components within a larger geographical region characterized by the intersection of personal and communal experiences and interpretations (Van Dyke 2008: 279; Rubertone 2008: 13–14). Cultural landscapes are manifestations of norms, ritual practices and traditions. They are internal, rather than external expressions of belief made by their associated communities. Thus, it is necessary to devise frameworks, often in the form of overlapping matrices, to better clarify the manner in which cultural landscapes can vary temporally and between culturally dissimilar groups rather than simply as 'sites' of isolated phenomena (Colwell-Chantaphonh *et al.* 2008: 67).

Archaeological landscapes are often multivalent. Landscapes are a complex synthesis of physical environments, patterns of settlement, roads and pathways, boundaries and frontiers, natural features, wilderness and ornate monumental constructs (Alcock 2002: 27–32). Unlike their naturally occurring kin, constructed monuments were built in order to establish a tangible point of remembrance with the people who interacted with them. Despite the development of methodologies which allow archaeologists to perceive layers, detect and identify various pieces of material culture, and otherwise interpret an archaeological monument or landscape, the result is often the determination of *what*, rather than *why* a place was considered as holy and sacred among the communities which operated within them (Rubertone 2008: 19).

The size and shape of religious monuments varies from place to place, culture to culture, ranging from megalithic circles, obelisks, tombs, as well those monuments which are the focus of this examination: Christian basilicas constructed during the 4th century AD in Scythia Minor. Monuments are not typically monolithic—although they may at first glance appear to be. Instead, they are found within a variety of landscapes and urbanization zones (urban, suburban and rural). Regardless of the location, culture or temporal period, these monuments link the past, present and future not only with the communities which established them, but also those which may inherit them by one means or another. This complexity necessitates a variety of interpretative approaches that avoid anachronism and/or false equivalence.

> Archaeology is only schizophrenic if the expectation is that archaeological inquiry must lead to a single truth, a single understanding of the past. We think that archaeology should not be about discovering the one 'true' past of a site or a region or a people; instead, it should embrace an axiology of material pasts, the study of relationships between humans and the material worlds of the past that people use to define the social worlds of the present (Colwell-Chantaphonh *et al.* 2008: 67).

Ancestors Worship and Veneration of Martyrs

Prior to the 4th century AD, the Romans were known to habitually visit burial sites in a series of annual festivals. The most well-known and documented being the *Parentalia* which took place during mid-February. Tradition and belief established that it was not only the living that participated in these celebrations, but also the dead, as invisible, and occasionally tangible spirits. That the spirits of the deceased where attendants at such affairs was demonstrated in the presentation of bits of food and wine—presumably from the same foodstuffs which were being consumed by the living participants (De Hemmer Gudme 2018: 362–363). This is confirmed by archaeological evidence in the form of specially designed tubes or reservoirs through which offerings of wine into the 'head-end' of some sarcophagi could be deposited (Chevallier-Caseau 2022: 337; MacMullen 2010: 597). Thus, through a combination of sober reflection and joyous remembrance, the spirits of the dead could continue to a peaceful afterlife, reaffirmed by occasional interactions with the living (*vigilia*). These interactions between the living and their departed kin were not limited to Greco-Roman society but were normative throughout the Mediterranean and Ancient Near East including ancient Israel (Sonia 2020: 203–207). By honouring and remembering the dead—the living insured *harmonia* between themselves and their unliving, but still extant, ancestors.

Prior to AD 325, there appears to be nothing resembling a formal structure governing the veneration and worship of martyrs. Identifying the point of its genesis is complicated by the considerable overlap and lack of distinction between *cura pro mortis* and *cultus martyrum* prior to the 5th century AD (Alchermes 1988: 5–6, 290–312). By and large, the mode and manner of ancestor worship was left to individual communities and appears to have been influenced by a mixture of local pre-Christian traditions and developing Christian doctrines. Despite the assertion of modern apologists, the majority of Christians during the 4th and 5th centuries AD continued to engage in ancestor worship, a practice which strongly paralleled their Pagan contemporaries.

> The centurion, therefore, seeing the opposition raised on the part of the Jews, set him in the midst and burnt him after their custom. And so we **afterwards took up his bones which are more valuable than precious stones and finer than refined gold, and laid them in a suitable place**; where the Lord will permit us to gather ourselves together, as we are able, in gladness and joy, and to **celebrate the birth-day of his martyrdom** for the commemoration of those that have already fought in the contest, and for the training and preparation of those that shall do so hereafter (Euseb. *The Letter of the Smyrnaeans* or *The Martyrdom of Polycarp* 18: 1–3).

Prior to *c.* AD 250 the burials of martyrs were, in general, neither a separate nor privileged affair. The individual care and maintenance of graves and tombs remained the responsibility of families. From *c.* AD 250 to the ascension of Constantine in AD 306, the disposition of those believed to have been martyrs appears to have shifted. The remains of martyrs were separated from the control of their families (*gens*) and passed, in a proprietary fashion, to that of the local bishop—who accepted responsibility (and control) on behalf of the wider church. From this point, the establishment of *despositio martyrum* (lists of the martyred) appears to have begun within Christian communities. These lists were accompanied by accounts of martyrdom (martyrologies), a genre characterized by three key events: the trial, torture and execution of their protagonists. Martyrologies often contain little or no additional biographical or historical information (Moss 2013: 74). The identification and subsequent burial of the 'truly faithful' was accompanied by a sense of awe and religious fervour which led to the adoption of 'feast days' in honour of the martyred dead in Rome and elsewhere.

Throughout the latter half of the 4th century AD, cities throughout the Roman Empire continued to develop *despositio martyrum* both formally (written) and informally (oral). Despite the widespread adoption of the practice, few cities could boast as extensive a list of martyrs as Rome. By AD 354, Rome recorded no less than 35 martyrs who were commemorated on 20 different feasts or name-days. The formal adoption of a yearly calendar of the saints (*Sanctorale*) as a cultural parallel to the traditional Pagan religious calendar (*Fasti Diurni*) was a powerful mechanism for the Christianization of the Empire's populace. An interesting, but often overlooked historical reality is that Rome's *depositio martyrum* and *depositio episcoporum* precede the formal development of martyrologies. The overwhelming majority of martyrs were first identified locally before their respective martyrologies were constructed—often decades, if not centuries later (Saghy 2010: 18). Thus, the 'truthful accounts' concerning martyrs could be easily manipulated to serve as templates for developing concepts of Christian pietas in a post-Constantinian Christian church.

Like their Pagan forebears and contemporaries, Christians of the 5th and 6th centuries AD continued to venerate the dead. As traditional ancestor worship among Christians began to decline, the practice was transformed into the formal veneration of martyrs (saints). The regular (often monthly) gathering at the burial locations of martyrs and participation in elaborate banquets, which included prayer offered to martyrs, became increasingly a common occurrence during this period (Frankfurter 2017: 827). In a manner similar in which ancestral spirits and a variety of *genii locorum* could be petitioned to act both in the physical and material worlds, so too could Christians expect the spirits of the martyred dead to intercede on their behalf—both in the material and supernatural realms. In a society where patronage was the norm, both inside and outside of Italy, the spirits of martyrs acted as invisible patrons,

who were identified and maintained by local ecclesiastical elites (bishops). The cult of the saints, as the practice eventually became known, was a particularly powerful tool in the transformation of a Pagan empire into a Christian one (Price 2008: 812). As we shall see, non-Christian traditions of ancestral veneration were combined and later supplanted by the Cult of the Martyrs, not just in Scythia Minor, but all along the Danubian *limes*.

Martyria and the Creation of Sacred *Loci*

Constantine ordered the construction of basilica tombs in urban and suburban areas, in what can be described as the establishment of Christian *martyria tropaia* (monuments to the victorious martyrs) (Heid 2007: 414–415). The emperor's building program was prolific and stretched to every corner of the Empire. Constantine, in his dual role as emperor and *pontifex maximus* dispensed with earlier legal restrictions, commonly known as sacral laws, which had previously protected a variety of familial religious dedications, including graves and tombs. This allowed himself, and various agents (religious and civil) acting on his behalf to unearth, uncover, or as was often the case, remove the remains of those identified as apostles and martyrs (either by Imperial records or local attestation). One of the most famous examples was Constantine's removal of the already established graves which resided at or near the Tomb of St. Peter and the Basilica of the Apostles (Heid 2007: 412–413). Prior to this, Rome's public 'display' of martyrs, as well as the pilgrimages undertaken to honour them, had previously been limited to the city's subterranean catacombs. Constantine's Imperial message was clear. It was Constantine, acting as God's anointed agent, who was to be associated with the establishment and patronage of not only *martyrium*, but also the Cult of the Saints:

> They [the 'prosecutors' of Christianity] had subjected God's servants to the most ignominious punishments: **he [Constantine] took vengeance on the prosecutors** and inflicted upon them just chastisement in the name of God**, while he held the memory of HIS holy martyrs in constant veneration** (Euseb. *Vit. Const.* 3.1).

And,

> And being fully resolved to distinguish the city [Constantinople] which bore his name with especial honour, **he embellished it with numerous sacred edifices, both memorials of martyrs on the largest scale, and other buildings of the most splendid kind, not only within the city itself, but in its vicinity: and thus at the same time he rendered honour to the memory of the martyrs, and consecrated his city to the martyrs' God.** Being filled, too, with Divine wisdom, he determined to purge the city which was to be distinguished by his own name from idolatry of every kind, that henceforth no statues might be worshiped there in the temples of those falsely reputed to be gods, nor any altars defiled by the pollution of blood: that there might be no sacrifices consumed by fire, no demon festivals, nor any of the other ceremonies usually observed by the superstitious (Euseb. *Vit. Const*. 3.48).

These legal reforms were followed by a zealous interest in martyrdom and its associated cult (Mackie 2003: 11–12). In the great western cities of Rome, Milan and Ravenna, the shrines which marked martyrs' graves were transformed into small memorial chapels (*cellae memoriae*) during the 4th and 5th centuries AD. What followed was a uniquely Christian phenomena—

the clustering and stacking of graves by Christians who desired for the remains of the deceased to be placed in close proximity to those of martyrs. As had been the long-standing laws concerning burials, in the previously mentioned cities, *martyria* and *cellae memoriae* were relegated to extra-urban spaces (outside the city walls)—a venerable (Pagan) tradition seen throughout the ancient Mediterranean.

The remains of the martyrs were believed to be innately sacred and through sympathetic transference transmitted this sacredness to the immediate surroundings, be it a grave, crypt or basilica. 'Sanctity [sacredness] was ascribed by Christians based upon the holiness of the people believed to be buried there, whose remains (*reliquiae* = relics) mystically exuded sacred power' (Eastman 2019: 3). This process is occasionally described as 'psychospiritual' due to the intersection of spiritual or sacred matters with the perceptions and beliefs of those interacting with them (Pargament and Mahoney 2005: 183). *Martyria* served as a locus for a variety of Christian religious practices. Prior to the early 4th century AD, there is only scant archaeological evidence attesting to their collective presence with Christian communities which necessitates a heavy reliance upon (later) textual evidence. The sites at which martyrs had been buried were associated with ritual practices designed to not only honour the deceased but to empower, embolden and reaffirm the faithful who gathered there. In his letter to Mellitus, Pope Gregory I (*r.* AD 590–604) dated as 18 July, AD 601, stated the following regarding the *interpretatio Christiana* of previous Pagan religious spaces—of particular importance was the role martyr-relics played in purification and sanctification of these sites:

> I have long decided after long deliberation about the English people, namely that the idol temples of that race should by no means be destroyed, but only the idols in them. [To consecrate these places] **take holy water and sprinkle it in these shrines, build altars and place relics in them**. For if the shrines are well built, it is essential that they should be changed from the worship of devils to the service of the True God... **So on the day of dedication or the festivals of the holy martyrs, whose relics are deposited there**, let them make themselves huts from the branches of trees around **the churches which have been converted out of shrines**, and let them celebrate the solemnity with religious feasts (recorded in Bede, *Ecclesiastical History*).

Within palaeo-Christian churches as well as those constructed after the beginning of the 4th century AD, the altar served a church's religious and visual focal point. Few visible objects within a church can be considered as sacred as an altar. Early Christian tradition, as well as modern practice, generally dictates those persons, usually a priest, who can approach and interact with an altar and/or the objects placed upon it. As observed at Halmyris and Noviodunum, the placement of altars was significant. In both of these cases, as was the norm throughout the Empire, altars during the period of examination were placed directly over their associated *martyrium*. The association of the remains of martyrs and (their) altars, both spiritually and physically, was depicted in early Christian writings:

> When he opened the fifth seal, **I saw under the altar the souls of those who had been slain for the word of God and for the witness they had borne**. They cried out with a loud voice, "O Sovereign Lord, holy and true, how long before you will judge and avenge our blood on those who dwell on the earth?" (Revelation 6: 9–10).

The Miraculous Nature of *Martyria*

For Constantine, as well as many Christians, the bodies of martyrs held a variety of sacred and magical properties—in the form of intrinsic energies which could be transferred, via a sympathetic system of supernaturalism. Perhaps the most illustrative account of the spiritual and supernatural role that martyrs played in early Christian communities is expressed by the 5th century AD bishop of Cyrrhus, Theodoret (*r.c.* AD 423–*c.* 460) who discusses the practices of Christians bringing a variety of votive offerings to the *martyria* while defending the practice within a Nicene-Trinitarian framework:

> ...Those who are well **ask [the martyrs] to protect** their good health, while those who are worn down by illness request release from their sufferings. The Childless ask for children, infertile women call out to become mothers, and those who have received this gift request that it be kept perfectly safe for them. They do not approach them like gods—rather they entreat them as men of God and **call upon them to act as ambassadors on their behalf**. Those who ask with confidence gain what they request—**their votive offerings** clearly testify to their healing. For some offer representations of eyes, some of feet, others of hands; some are made of gold, others of wood. Their Master accepts these little items of little worth, valuing the gift according to the merit of the one offering it. The display of these objects advertises deliverance from suffering—they have been left as commemorations by those who have regained their health. **They proclaim the power of [the martyrs] laid to rest there**—whose power proves that their God is the true God (Theodoret. *The Healing of Pagan Diseases* 8.63–64).

The interaction of Christian communities of the 4th and 5th centuries AD with recognized local martyrs (in the form of shrines and basilicas) was nothing less than robust. Individually, and at times communally, displays of *pietas* were commonly shown in the form of pilgrimages. The religious motivations of pilgrims during the 4th century were diverse, often intersecting with each other, with journeys undertaken in hopes of divine healing, spiritual purification, as acts of devotion or contrition. At times, these journeys took the form of elaborate 'pilgrimage routes' which brought the pilgrim into contact with not a single, but often several *martyrium*. This expression of faith was often manifested in the form of a variety of otherwise mundane objects, of common methods, which were either gifted, or more often purchased by the pilgrim at *martyria*. These objects regularly took the form of flasks (*ampulla*) and oil lamps (see Figure 2 and 3). These objects, and their contents (often water or oil), not only acted as memorabilia, but as a tangible connection to the holiness and sacred energies believed to be emanating from the *martyrium*. To date, archaeological excavations in the region of Scythia Minor have produced a variety of finds which attest to the activity of pilgrims both locally and abroad. The discovery of 23 lamps of the Constantinople Hayes 8 type, identified as 'contact relics', suggest pilgrims native to Scythia Minor travelled not only to Constantinople but also to the Holy Land (Opriș 2020: 1–12). While the popularity of local and extra-regional pilgrimages by Christians living in Scythia Minor is undeniable, how does this region compare to others? The historical phenomena of pilgrimages to Jerusalem, North Africa and Rome have often been the focus of those examining how this practice shaped early Christian concepts of piety and holiness, often to the detriment of regions like Scythia Minor—which itself had both a rich tradition of martyr veneration and pilgrimages. Absent future comparative studies specifically constructed to examine this question, it is unlikely anything other than generalized assertions

Figure 2: Ampulla (Flask) of Saint Menas late 6th century–mid 8th century AD (MET # 27.94.27, https://www.metmuseum.org/art/collection/search/447995*).*

Figure 3: Constantinople Hayes 8 lamp found at Halmyris (courtesy of F. Topoleanu).

will ever be offered on the role that these less-known epicentres played in the development of a broader Christian identity.

The Martyrs and *Martyria* of the Scythian *Limes*

This study identified four locations along the Scythian *limes* which, apart from Dinogetia, appear within the region's martyrological tradition and possess one or more pieces of confirmatory evidence to support the conclusion that a 4th century AD basilica and *martyrium* existed at each location. Of the 32 martyrs listed within various martyrologies only nine have been confirmed, by name, via archaeological investigation(s). To this total the unnamed martyrs found near Noviodunum were tentatively added, for a total of 11. These locations and their closest modern town or village are Axiopolis (Cernavoda), Halmyris (Murighiol), Noviodunum (Isaccea) and Dinogetia (Garvan) (see Table 1). Despite the complete lack of archaeological evidence to confirm the presence of a *martyrium* at Dinogetia, at Axiopolis there is evidence which suggests the presence of at least one *martyrium*, and so both of these sites were included for comparative purposes and a sense of completeness in the examination of the region.

Table 1: Summary of *Martyria* (Scythian *limes*)

Location (Scythia)	Martyrological Record(s)	*Martyrium* Identified	Archaeological Evidence	Martyrs (Confirmed)
Halmyris	Epictetus & Astion (2)	Yes	Osteological and Epigraphic	2
Axiopolis	Cyril, Quindeus & 6 unidentified martyrs (8)	No	Epigraphic[1]	3
Dinogetia	Faustinianus, Martialis, Ianuarius, Alexander, Afranus, Maximianus, Proculus and Euprepius (8)	No	None	0
Noviodunum	Gordianus, Macrobius, Valerianus, Flavianus, Heraclius, Paulus, Peregrinus, Minerius, Victor, Aquilinus, Zoticus, Attalus, Camasius and Philip (14)	Yes	Osteological and Epigraphic [2]	4 (+2)

[1] Epigraphic evidence records identifies three martyrs at Axiopolis: Cyril, Quindeus and Tasius (Barnea 1979).
[2] Epigraphic and osteological evidence identifies four martyrs: Zoticus, Attalus, Camasius and Philip. Two additional unidentified martyrs were discovered buried under the named martyrs (Baumann 2006).

The Martyrium of Epictetus and Astion at Halmyris

Between 2000 and 2004, the Christian basilica at Halmyris, located within the Romano-Byzantine fortress, was excavated by Mihail Zahariade. This location appeared in the *Notitia Episcopatuum* and the associated martyrdom of Epictetus and Astion was recorded within the *Acta Sanctorum: Passio Epicteti et Astionis*. According to the latter text, both men originated from the region Bithynia and upon arriving at Halmyris in AD 273, began proselytizing, denigrating the local and state gods and performing miracles. After a series of encounters with local officials, in AD 290 the region's military commander, Latronianus, ordered both self-professed Christians to be tortured and executed. The decapitated remains were then placed in a common grave which likely served as a point of localized Christian assembly in memory of the martyrs. At some point during Constantine's reign, the bodies of the saints were exhumed and placed within a newly constructed crypt and basilica. Methodological excavation revealed the basilica underwent three major phases of construction. The original (first) single-nave basilica measuring approximately 35 by 17 meters had been constructed between c. AD 325–350 (Zahariade 2003: 144–146). The key features of the building were the atrium, altar (placed over the crypt) and immersion baptistry. The basilica underwent two phases of expansion and internal reorganization: the first during the reign of Constantius II (*r.* AD 337–361), and the final phase of construction loosely associated with the reign of Anastasian (*r.* AD 491–518) and/or Justinian (*r.* AD 527–565 AD), which saw the deconstruction and removal of the original baptistry and construction of a new baptismal font (non-immersion). In 2001, the *presbyterium* was identified and following the removal of a significant layer of collapse a *hypogaeum* type *martyrium* measuring approximately 1.8 (l) by 1.8 (w) by 1.9 (h) meters was located (see Figure 4a–c). The eastern wall of the crypt bore a painted fresco with two registers, which

identified the remains as the 'martyrs' Epictetus and Astion (Zahariade 2003: 152). Subsequent osteological examination determined that both men had died in a manner consistent with their associated martyrology—i.e. torture and beheading. DNA analysis indicated both bodies originated in the region of Asia Minor (Zahariade *pers. comm.*).

The Martyrium of Attalus, Camasius, Philip, Zoticus and Two Unidentified Martyrs Near Noviodunum

In 1971, following the overflow of a creek at the modern village of Niculițel, locals discovered the ruins of a Christian basilica. The basilica measured approximately 36 by 14 meters (Baumann 2005: 80–132). The original construction of the basilica dated to the second half of the 4th century AD, although the possibility of an earlier basilica or martyr-shrine was suggested by the presence of earlier walls and ceramics. The *presbyterium* contained the original altar under which a *martyrium* was located. The *martyrium* measured approximately 3.7 (l) by 3.5 (w) by 2.3 (h) meters (see Figure 5a & b). Within the *martyrium* was a raised stone slab upon which was located a wooden sarcophagus which contained the remains of four males ranging from 35 to 50 years in age. This *martyrium* appears to have been constructed in an extra urban space during the same period as the basilica (*c.* AD 360s). The crypt contained two sets of inscriptions which identified the men as the martyrs: Zoticus, Attalus, Camasius and Philip (see Figure 6). Within the crypt was an inscribed stone floor slab which was translated as 'here

a

b

c

Figure 4a–c: The Martyrium *of Epictetus and Astion at Halmyris (courtesy of M. Zahariade).*

Figure 5a & b: The Martyrium *of Zoticus, Attalus, Camasius and Philip at Niculițel, near Noviodunum (ICEM Tulcea, CC BY-SA 3.0).*

Figure 6: The inscription of Zoticus, Attalus, Camasius and Philip at Niculițel (ICEM Tulcea, CC BY-SA 3.0).

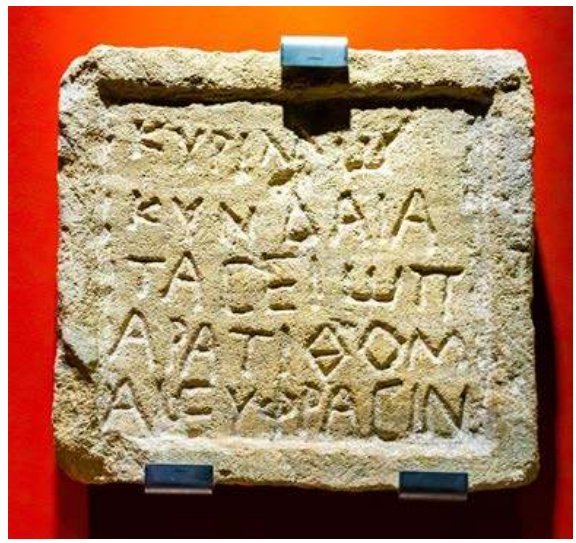

Figure 7: The inscription of Cyril, Quindeus and Tasius at Axiopolis (P. Lowinger).

and there are the blood of the martyrs' (Baumann 2005: 80–132). Osteological examination concluded the men had been tortured and subsequently executed via beheading. Adjacent to this *martyrium*, an earlier badly damaged *hypogaeum* type *martyrium* was discovered and the remains of two unidentified martyrs were exhumed. Although unidentified, the two sets of human remains found under the *martyrium* of Attalus, Camasius, Philip and Zoticus are generally accepted as 'martyrs' given the disposition and context in which they were found. This earlier crypt dated to the first half of the 4th century AD and researchers speculated the martyrs had been executed by Roman authorities Decius (*c.* AD 250–251) or Diocletian (*c.* AD 303–310). The discovery of the four identified martyrs allowed investigators to place them at Noviodunum despite conflicting martyrological accounts, including the *Martyrologium Hieronymianum* (Popescu 1989: 69).

Inscription (Martyrs) of Cyril, Quindeus and Tasius at Axiopolis

The only piece of archaeological evidence which confirms the presence of a martyr-basilica at Axiopolis was the discovery of a marble slab with an inscription naming three martyrs (see Figure 7). This slab appears to have been utilized as spolia in the (re)construction of the late 5th century AD fortification wall. Despite being listed (as martyred) at Nicomedia in the *Martyrologium Hieronymianum*, both Cyril and Quindeus appear to have been associated with the basilica located at Axiopolis. The Hieronymian martyrology also lists six unidentified martyrs associated with Cyril and Quindeus (Atanasov 2012: 333–334). Given the scant amount of archaeological evidence beyond this single inscription, the assertion of a 4th century AD martyr-crypt being present at or near the site appears to be highly plausible, but absent archaeological confirmation remains speculative as does any determination that the *martyrium* was located within or outside the town.

The Martyrological Tradition at Dinogetia

The *Martyrologium Hieronymianum* identifies a total of eight martyrs which purportedly met their ends at the Roman fortress of Dinogetia during an unknown period of persecution. Taking the martyrology at face value the following are linked to this location: Faustinianus, Martialis, Ianuarius, Alexander, Afranus, Maximianus, Proculus and Euprepius (Atanassov 2012: 333). The complete lack of confirmatory archaeological evidence mandates any assertion of the presence of a *martyrium* at this site be met with due caution and scepticism.

This chapter has focused on the creation of sacred *loci* at four locations in Scythia Minor. Using Antanassov's (2012) analysis as a guide, of the 32 martyrs he identified in Scythia Minor within various hagiographic literature, all were associated with towns and villages within approximately five kilometres of the *limes* or key military centres located along them. This leaves us with an equally important question, what, if anything, is the significance of the placement of these *martyria* along this portion of the Danubian *limes*? One possible conclusion is coincidence. Did each of these martyrs just happen to be living along the *limes* at the times of their death? The answer appears to be yes. These are not, however, the region's only martyrs. Tradition dictates martyrs at Tomis and Histria as well, some of which are conflated with those identified as having been martyred along the Scythian *limes* (Antanassov 2012: 329–340). Singularly, each of these *martyria tropaia* served as sacred *loci* for their respective communities. Whereas the *limes* formed the Empire's physical boundary, could these *martyria* have collectively formed a sacred one?

Shared Experiences and Local Identity

In her analysis of pre-Christian religious spaces, Rask (2020) demonstrates that religious spaces functioned as *loci* for the creation and manipulation of memories through the active presentation and construction of the past with culturally significant imagery and objects. Rask (2020: 129–130) further asserted, 'that frequent and accumulated religious imagery had phenomenological impact, helping to create an environment of shared religious experience'. For phenomenologists, their primary research tools are their senses—sight, hearing, smell, taste and touch. Per Tilley (2008: 273), phenomenology is a task which is neither necessarily easy nor difficult, while simultaneously being both. Phenomenological investigations of ancient religious practices require archaeologists and other researchers to interject themselves into the role of ancient religious adherents. This interpretation by proxy is not undertaken absent valid criticisms but remains one of the key methods for attempting to understand the experiential nature of religious beliefs and ritualized worship. As someone who has visited these and a diverse variety of sacred *loci*, the *martyria* of Scythia Minor are awe-inspiring to say the least. Crouching in the narrow spaces where some of these martyrs had been laid to rest, it is rather easy to entertain the sensation of sacredness early parishioners and pilgrims must have felt as they knelt in prayer and supplication. An earnest researcher need not be a Christian, or even religious, to understand the overwhelming emotional impact that 'sharing' in the death and exaltation of the glorious martyred must have been. These religious beliefs and the imagery which affirmed them created and maintained shared feelings of sacredness both individually and communally.

The use (often repeated) of culturally significant imagery in or around one's village, town or city served as locations of expected phenomenological experience. Personal and communal repetition leads to the establishment of *habitas*—both for the individual and the larger community. As stated by Frankfurter (2017: 128), 'these symbols and practices have become customary, creating traditions of what one *ought* to leave [experience] as appropriate to the [veneration] of the saint'. In post-Constantinian Christianity, the veneration of martyrs was used to legitimize and integrate episcopal authority both locally and throughout the Empire. For bishops it was the establishment, promotion and maintenance of the cult of the martyrs which cemented their own legitimacy as religious leaders within their communities. In local terms, it was the bishop who served as the conduit through which the miraculous powers of the saints could be manifested. Thus, bishops played a critical role in the formation of the collective identities of the communities they led (Saghy 2010: 17).

In addition to identifying themselves broadly as Christians, communities also associated themselves with the *martyria* located within their villages and towns. By the end of the 4th century AD, the practice of creating reliquaries, rather than *martyria* in the sanctification of altars and their associated basilicas, became increasingly common and by the late 5th century AD had become the predominant practice within Christian communities. This shift in practice marked a theological and temporal transition within the Roman Empire. The martyrs which once served as exemplars of Christian virtue in life and death became increasingly rare as Christianity became the hegemonic expression of religious identity throughout the Mediterranean and Near East. From the 6th century AD onward, martyrs became an increasingly distant point of cultural memory—albeit one that appears to have been no less important in continuing the development of a cohesive Christian identity.

In many of the locations where the crypts of martyred dead remained, a unique form of post-mortem adoption appears to have occurred. Rather than being associated with the regions of their birth or ethnic identity, the most common (or first) association or identifying label applied to martyrs was the place of their death and/or the location of their *martyrium*. The theological answer for this phenomenon appears to be centred on the premise that no matter where a martyr had originated from, it was the place of their trials, tortures and deaths which identified them. For example, it was Rome, the place of their purported deaths, not Jerusalem or Tarsus, which most early Christians identified with the apostles Peter and Paul. Anthropologically, the answer is much more complex. The desire for a community to identify itself collectively with their local martyr(s) appears to have been the driving force behind the creation of localized festivals and cultic practices. One particularly stunning example of this phenomena, which has many historical parallels to Scythia Minor, is found as an inscription within the catacomb of Basilla (Rome):

A long time ago, the story says, **Greece sent you here**.
By your blood, you changed countries;
And love of the Law **made you our fellow citizen and brother**.
Having suffered for the Holy Name,
You are now a dweller in the Lord and keep the altar of Christ.
I beg you, glorious Martyr, to favour the prayers of Damasus.

After the 4th century AD, Scythia Minor continued to develop a regional identity which distinguished *its* Christians from the rest of the world, making them a unique part of a greater whole, allowing for regional expressions of identity within a larger Christian context. Perhaps the best-known example are the 'Scythian Monks' of the 5th through 6th centuries AD who were recognized for their Christological treatise—the *Theopaschite Formula*—often given as, *'unus ex trinitate came passus est',* meaning that although God, Jesus could feel physical pain and endure prolonged suffering for the sins of mankind. This group continues to be the focus of study, recent examples including Matthew Pereira's (2015) dissertation entitled, *Reception, Interpretation and Doctrine in the Sixth Century: John Maxentius and the Scythian Monks*.

In a 2011 government census (National Institute of Statistics), 86.45% of the total population of Romanian citizens identified themselves as Christian Orthodox. Of the remaining religious denominations, the second and third most reported religious affiliation among Romanians were Roman Catholic and Protestant, respectively. This provides a clear indication that the overwhelming majority of Romanians are culturally Christian and identify themselves as such. Today, as was the case in Antiquity, the sites of *martyria* are a significant part of how many communities identify themselves in ancient Scythia Minor or modern Dobrogea (Hanscam 2018: 80–82).

Closing Thoughts and Considerations

This chapter examined the interconnected nature of sacredness, sanctity and identity which were used by early Christians of Scythia Minor to create new sacred *loci*. These *loci* followed much of the same pattern seen throughout the rest of the Roman Empire. What made them especially important to early Christian communities was that these *loci* were sites of religious worship to be revered and cherished, inspiring awe and cultural conformity. Despite these commonalities within the plurality of 'Christianity', Christianity is today, and was in Antiquity, expressed as a variety of *Christianities* (Brakke 2010: 92–96). The beliefs, practices, traditions and theological constructs did vary from town to town, region to region, throughout the Christian *oikouménē*. As has been argued throughout the course of this chapter, Scythia Minor was no exception. On the contrary, the land and its people were distinct, but not separate—an identifiable part of a greater whole.

This examination was as brief as it was preliminary. It begs numerous questions; if, and how, did these regional *loci* interact with each other? Can the existence of localized pilgrimages be detected? As research continues on the history and people of Scythia Minor, scholars will gain increasing authority in their combined ability to discuss the convergence of different peoples, including aspects of cultural diffusion, resistance and ethnogenesis. This foundational knowledge will provide an increasing number of historic datapoints for those constructing modern ethnographic and related studies. These are much broader questions than can be addressed here, necessitating future inquiry.

Acknowledgements

I would like to express my thanks to Dr John Karavas, Dr Emily Hanscam and the host of supporting staff and volunteers which made the Archaeology at Halmyris project such a

successful endeavour. Beyond these, I would also like to thank Prof. Sarah Scott and Prof. Simon James for their continued support of my research at the University of Leicester.

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Ratiaria: The Focal Point in the Western Part of Lower Danube Frontier

Zdravko Dimitrov

Abstract: Ratiaria is one of the largest centres on the Lower Danube *limes*. A Roman military centre, Roman colony and provincial capital, Ratiaria is an extremely important site for Roman archaeology, yet the site has so far been understudied. This chapter presents results of the most recent excavations and summarizes earlier excavations carried out in the 1970s and 1980s. The aim is to move Ratiaria's examinations into a new, more modern direction, with the publication of the results, but also a serious discussion, analysis and interpretation of the data with the aim of improving our understanding of the Danube *limes* of the Roman Empire. The current studies of Ratiaria—field surveys, test pits, excavations and analysis of materials—provide us with a much wider picture of the development of this great Roman city and its territory during the Roman era and Late Antiquity.

Keywords: Roman *Limes*, Ratiaria, Roman Archaeology, Frontiers, Forts, Material Culture

Introduction

This study is dedicated to the westernmost part of the Lower Danube *limes* zone during the Roman Imperial period from the 1st to 6th centuries AD, a region currently located within the territory of modern Bulgaria (Figure 1). More precisely, initially after the Roman conquest this area was part of the province of Moesia (Gerov 1949: 3–9; Ivanov 1999: 23; Syme 1971: 50–52; Tacheva 1997: 150–160). From AD 86, Flavius Domitianus divided Moesia into two provinces with the Cebrus River (modern Tsibritsa) as the dividing line: Moesia Superior lay to the west, and Moesia Inferior lay to the east (Gerov 1953: 17–33; 1980: 69; Ivanov 1999: 26). Geographically, the studied area is in fact the westernmost part of the Moesian plain, located between the Haemus Mountains (to the south, modern Balkan Mountains), and the Istros River (to the north, modern Danube) and confined between the Timacus River (to the west, modern Timok) and the Cebrus River (to the east). At present, this region forms the territory of almost the entire north-west of Bulgaria. It is of special interest from a historic and geographical point of view especially because of the connection between the Haemus Mountains and the Carpathian Mountains, which is at the narrowest point along the course of the Danube. This point, known as the Iron Gates gorge, is the natural divide between South-East and Central Europe. In Antiquity, and especially during the time of the Roman Empire, this point marked the beginning of the Lower Danube *limes*.

The foundation of this strategic military frontier of the Roman Empire began as early as the reign of Octavian Augustus (63 BC–AD 14; reign 27 BC–AD 14) and was completed under his successor Tiberius Claudius (AD 14–37). After conquering Macedonia, Dardania, Dalmatia and Pannonia, the Romans turned to the Thracian and Dacian lands, a process starting with the campaigns of Marcus Licinius Crassus (29–28 BC). The key battle between the Roman legions and the local peoples was fought in the area around the future Ratiaria (near the mouth of

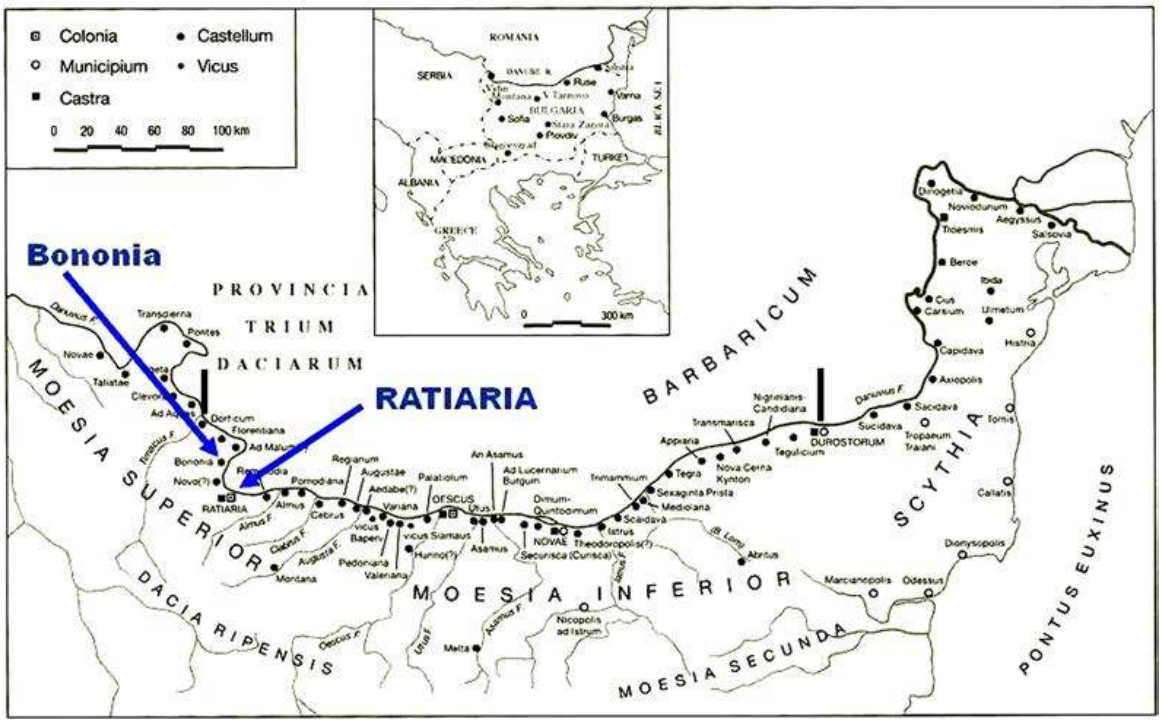


Figure 1: The position of Ratiaria and Bononia on the western Lower Danube limes *in the province of Moesia Superior, in modern north-western Bulgaria, Vidin district (after Ivanov 1999, used with permission).*

the Cebrus River, 35 km east of the village of Archar). Years later, it was here that the Romans began building the Lower Danube *limes*. During the reign of Tiberius and throughout the entire 1st century AD this was a serious military zone, exposed to severe continual attacks by peoples local to the area (Ivanov 1999: 13–26; Syme 1971: 47–58).

Later, after the Dacian Wars of Trajan (AD 101–106), when this part of the *limes* was constructed, a great city—Ulpia Traiana Ratiaria—developed on the site of an earlier military centre located on the Danube and was granted the status of a Roman colony. In Late Antiquity (4th to 6th century AD) Ratiaria became the capital of Dacia Ripensis, the new Roman province established by Aurelian (AD 270–275), after the withdrawal from Dacia and the large increase in population in the region. At the same time, military units returned with the legion XIII Geminia relocated to Ratiaria from Apulum (modern Alba Iulia, Romania) (Not. Dign. Or., XLII, 38). So far, no other archaeological site with such a complex and long history has been located in modern Bulgaria, and Ratiaria continues to be the focus of much of the Bulgarian archaeological work on the Lower Danube.

The aim of this chapter is to review the existing research of Ratiaria, one of the largest centres along the Lower Danube *limes*. Ratiaria was a military camp, a Roman colony and eventually a provincial capital, receiving the status of colony by at least AD 125, which is when the first inscription attesting to this status dates from (CIL III, 14499). In parallel, this chapter aims to present new data from field excavations, which resumed in 2013. During this most recent period of research, the excavation of many new focal points from the Roman and Late Antique

Ratiaria were discovered or under excavation for the first time—including streets, parts of the northern quarters, parts of the elite buildings, cult complexes and several public baths.

The chronology of Ratiaria is complicated. The site began its life as a Roman military centre in the early first century AD and occupation ended in the last decades of the sixth century AD after numerous (annually recurring) Avar invasions which are also attested to in the archaeological record. Many structures were repeatedly reoccupied and reused; due to their multi-layered nature, it is difficult to easily envision the earlier periods of the city's history. It is nonetheless vital that we attempt to do so, given the importance of the site for understanding the Roman system of the Lower Danube *limes*.

So far we have very little evidence from the earliest stages of Ratiaria as a Roman military camp. One of the most interesting and early complexes is the temple of Diana, dated to the period of the Principate (2nd–3rd century AD), but it has also been disturbed by later buildings. Most of our data comes from the era of Late Antiquity, when Ratiaria was the capital of a Roman province and a major early Christian centre with a bishopric. This chapter will focus on the latest data from different sectors of the excavations; it should be noted these are all in progress, so a complete picture of the historical development of the city is not quite possible. However, the latest research from Ratiaria further underlines the importance of focusing increasing attention on the development of the Lower Danube *limes* within Roman frontier scholarship, a system with a longevity of occupation rarely seen in the Empire.

History of Research in Moesia Superior

A small, yet a very significant part of the defence system of the Roman Empire is located in modern Bulgaria, namely the province of Moesia Superior (Figure 1). This is the section from the mouth of the Timacus River and the present-day village of Vrav to the village of Gorni Tsibar, where the modern Tsibritsa River (the ancient Cebrus River) marked the border with Moesia Inferior (Ivanov 1999: 26). In the ancient topography of the Danubian lands, this was the area between the Roman forts of Dorticum and Cebrus, which were an essential part of the defence system of the Roman Empire throughout Antiquity (Ivanov 1999: 95–106, 147–170).

The original province of Moesia was divided in AD 86, most probably due to military considerations. However, it was exactly this division of the Lower Danube area, as a border region of the Roman Empire in the 1st century AD, that resulted in a tangible and very significant difference between the military centres in the western part of today's Danube plain (modern Vidin region) and those in Moesia Inferior to the east. Studies of the centres along the Danube, which are in modern Bulgaria, often show differences between those that are in the region of Vidin (Ratiaria, Castra Martis, Dorticum and Bononia) and the others in the Pleven, Svishtov, Ruse and Silistra regions (Oescus, Dimum, Novae, Sexaginta Prista and Durostorum).

This difference is, certainly, primarily chronological, as the western parts of modern Bulgaria were brought into the Roman Empire much earlier, at the beginning of the 1st century AD (Genčeva 1991: 92–104; Tacheva 1997: 150–163; Zahariade 2009: 53–58). Military centres in these areas developed along similar patterns and almost synchronically with the centres westwards along the Danube, falling today within the territories of Serbia and Hungary. This

makes the coincidences and parallels in the development of Ratiaria and Bononia with centres such as Viminacium, Singidunum, Sirmium, Siscia and other sites in Pannonia and Moesia Superior logical and easy to explain.

Therefore, this new study will be focused mainly on Ratiaria, the largest centre in the western part of the Lower Danube *limes*. The satellite settlements, military forts, roads and road stations, *vici* (civilian settlements) and villas, which mark the overall development of this region, will only be discussed briefly. The important centres of military and civilian life shaping the landscape of the western part of the Lower Danube *limes*, such as Bononia, Castra Martis, Dortitum, the sites near the villages of Gramada, Makresh and Sinagovtsi (such as Villa Rustica, excavated in 2020–2021) will be the subject of further studies.

Colonia Ulpia Traiana Ratiaria

Ratiaria is located in the north-western outskirts of Archar, the largest village along the Danube in today's Vidin region (Dinchev 2015: 173, fig. 1–3; Velkov 1965: 1–24). The ruins of the ancient centre are both in the so-called Turkish quarter and in the surrounding field (Figure 2). There are also archaeological complexes under the other quarters of today's Archar—individual graves, whole vaulted tombs and significant amounts of material culture have been uncovered (Atanasova 1969: 87–103; Katsarov 1911: 853–862). At present, the

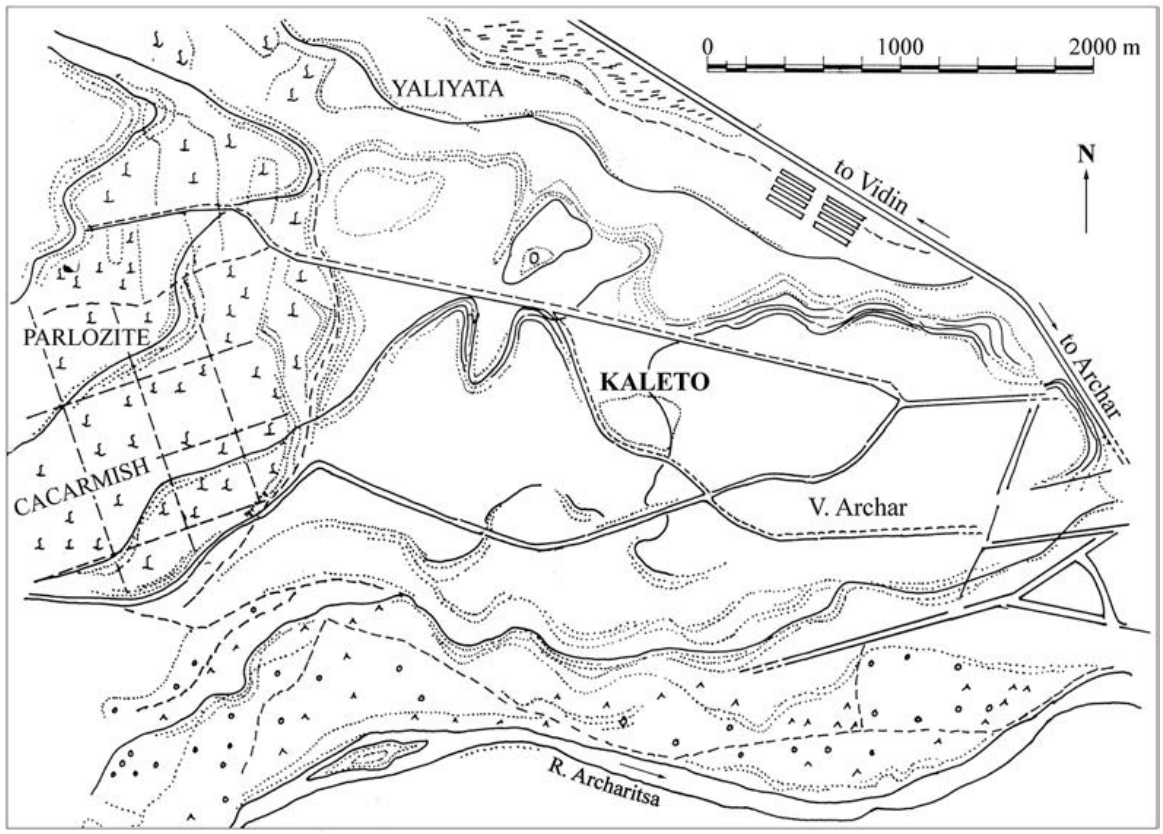


Figure 2: Ratiaria and the environs—Archar village, Kaleto locality and the necropolis (after Atanasova 1980, tav. XII, used with permission).

archaeological site spreads over 800 decares. Until now, only a small part of the site has been located, identified and recorded by archaeologists; fieldwork continues in order to locate, map and identify the remaining features.

Ratiaria is a huge Roman centre, featuring the most expansive archaeological remains in the western part of the Lower Danube frontier (Figure 3). The site consists of urban structures, satellite villages, villas, roads, a large port, necropoli and many other features; it is furthermore part of the 2020 nomination for the Bulgarian section of the UNESCO Frontiers of the Roman Empire World Heritage Site. Although occupation of the city ceased entirely as a consequence of its destruction during the invasions of the Avars and Slavs in the late 6th century AD, its ruins remained visible into the modern era.

This vast area of the Moesian lands was explored as early as the late 17th century by Count Luigi Ferdinado Marsili, who surveyed and recorded a number of sites and was involved in military operations of the Austrian army in the Danubian lands of the Ottoman Empire (Ivanov 1999: 55). In addition to locating the Danubian sites of the Roman Empire, Count Marsili made very detailed maps of the region from Novo Selo to Vidin (Ivanov 1999: 56–57; Ivanov and Stoichkov 1992: 77–80). In the 17th to 18th centuries, during Ottoman occupation, a large amount of processed limestone blocks were dragged out of the ruins to build the Ottoman fortress of Vidin (the so-called 'Kaleto' quarter in the centre of Vidin, see Vankov 1939: 6).

The remains of Ratiaria became increasingly appealing for interested individuals in the mid to late 18th and early 19th century (Dobruský 1890: 20–22; Dyakovich 1900: 147, 157–167;

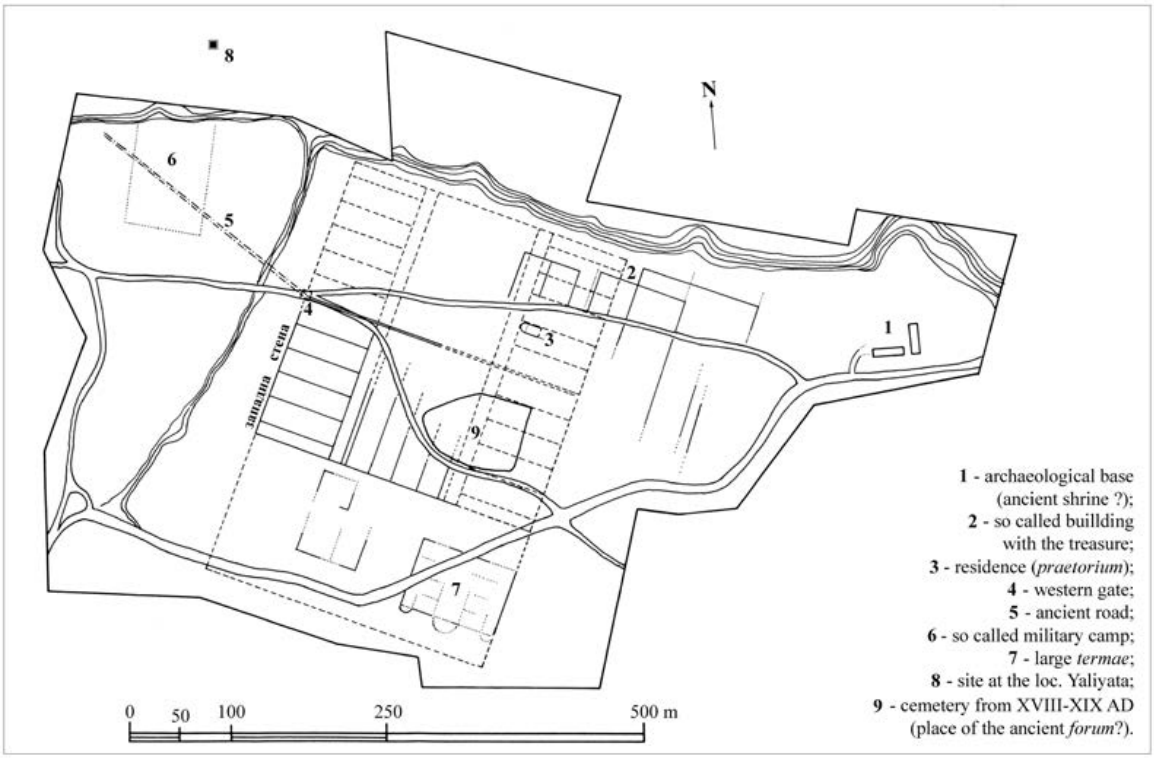


Figure 3: Hypothetical plan of Ratiaria, according to D. Giorgetti 1987, tav. A, used with permission.

Kanitz 1882: 97–99). Indeed, the first fieldwork conducted with a clear scientific purpose to collect data on the past of the Danubian region was undertaken by the Hungarian traveller and archaeologist Felix Kanitz in the 1860s and 1870s. In 1882, he published his studies in two volumes in Leipzig. Kanitz (1882: 96–99) visited and recorded the terrain near the village of Archar, where ancient Ratiaria was situated. At that time, the ruins, especially those of the rich necropoli west of Archar—in the Kakarmish and Parlosite areas, containing large funerary monuments and sarcophagi—were perfectly visible in the field. Many of the funerary monuments had already been relocated by local villagers to the square and next to the mosque in the Turkish quarter (Kanitz 1882: 96–99).

Ratiaria was one of the first sites excavated in Bulgaria, alongside Nicopolis ad Istrum and Oescus, by the founders of Bulgarian archaeology. We owe the exact location of the remains of the city and the first published materials to V. Dobruský (1890: 22–31) and B. Dyakovich (1900: 156–167). In the early decades of the 20th century, B. Filov, G. Katsarov, and other prominent Bulgarian scholars published a number of accidentally uncovered finds and tombs (Filov 1910: 8–16; Katsarov 1910: 216; 1911: 853–862). The first regular archaeological excavations of Ratiaria started after the Second World War, carried out in the period from 1958 to 1962 by Professor Velizar Velkov (1965: 1–24; 1966: 155–175). Some of the most significant excavations were carried out in the 1960s to 1980s by the Vidin Museum. At that time, J. Atanasova, an archaeologist at the Vidin Museum, excavated both at Ratiaria and in the centre of Vidin (Bononia) (Atanasova 1964: 24–28; 1969: 87–103; 1972: 141–152; 1978: 43–57; 1980: 83–92; 1991: 11–19, pl. I–III; 1995: 59–85; Atanasova and Georgieva 1986: 437–441; Atanasova and Gerasimova 1979: 21–33). In 1978, a Bulgarian-Italian team was formed of archaeologists from the National Archaeological Institute with Museum at the Bulgarian Academy of Sciences (NAIM-BAS) and the University of Bologna; this team would undertake regular annual excavations until the late 1980s.

An important factor in this period were the planned construction works of the socialist government in Bulgaria (1960s–1980s). Along with some of the planned development of Bulgarian cities, a grand scale of rescue excavations were carried out in the centre of Vidin. Significant remains of the Roman and late antique Bononia were uncovered. The archaeological excavations were carried out entirely by Atanasova from the Regional Museum of History in Vidin. Unfortunately, only a small part of the results of her work were published (Atanasova 1974: 337–344), but the museum obtained a good amount of uncovered material culture, which are of crucial importance.[1] In recent years, regular archaeological excavations have been resumed at both major Roman and late antique military and civilian centres in this westernmost part of the Lower Danube *limes*. The latest excavations at Ratiaria started in the autumn of 2013, and at Bononia in the summer of 2014, funded by the Ministry of Culture (Dimitrov *et al.* 2014: 303–306; Dimitrov *et al.* 2015: 391–394). One of the main problems facing researchers today is that the entire urban territory surrounded by the fortress walls of Ratiaria is still not identified—neither from the Roman period, nor from Late Antiquity. So far, separate sections of the western fortification wall have been studied (Atanasova 1995: 59–85; Atanasova and Popova-Asenova 1987: 85–96) and during the latest field seasons the course of the northern fortification wall was located (Dimitrov 2014: 107, fig. 9).

[1] In recent years, our team has been able to collect archival data from these excavations and publish some as yet unknown field data and finds from ancient Bononia obtained during the socialist period (Dimitrov 2016: 247–264; 2017: 50–75; 2018: 449–464).

According to epigraphic and historical sources, various military units were stationed in Ratiaria in the 1st century AD (Bollini 1980: 94–95, 102, 104–113, Tav. XV–XVII; Dinchev 2015: 173; Filow 1906: 36–46, 89; Giorgetti 1980: 18–20, 26; 1983: 23–24; Ivanov 1999: 91–92; Ritterling 1925: 1267–1279; Velkov 1965: 5; 1966: 157–158). During the reigns of Augustus and Tiberius in the early 1st century AD units of the legion IV Scythica might have been stationed at Ratiaria. This legion was very active on the Lower Danube *limes* and was among the main forces during the campaign of Marcus Licinius Crassus against the Getae and Bastarnae (29–28 BC). So far we have no direct archaeological evidence that this unit was stationed at Ratiaria, yet material culture indicating the presence of a military unit from the late reign of Tiberius in the AD 30s has already been uncovered; this will be discussed later in this chapter.

In the second half of the 1st century AD, other military units might have also been stationed in Ratiaria for different periods. According to historical sources, these were units of the legion IV Flavia and VII Claudia, which are known to have been present in other military centres of Moesia Superior, namely, Viminacium and Singidunum (Bollini 1980: 94–95, 102, 104–113, Tav. XV–XVII; Dimitrov *et al.* 2020: 657–661; Eck and Ivanov 2010: 201–205; Giorgetti 1980: 18; 1983: 23–24). During the 2019 field season we found three roof tiles with legionary stamps from the legion VII pia fidelis.

After the Dacian Wars (AD 101–106), Ratiaria developed as a large civilian settlement. Marcus Ulpius Traianus granted the developing city the rank of a colony, a centre enjoying the same rights as Rome. The full name of the city is well known—*Colonia Ulpia Traiana Ratiaria*. The earliest inscription with the name of the colony is from the time of Trajan's successor Publius Elius Hadrianus (AD 117–138). It was found and published by Václav Dobruský 1901: 763, No. 59 = CIL III, 14499). The inscription was carved on a marble slab, re-embedded in the wall of Stambol Kapia Gate, the southern gate of the Vidin fortress from the Ottoman period, during the construction of the Turkish fortress when huge quantities of stone were transported from the ruins of Ratiaria. According to previous research, the inscription dates to AD 125 (Dinchev 2015: 173), but the latest research dates the inscription to AD 131–133 (according to Nikolai Sharankov, based on the newly found military diploma of 9 September 132).

During the period of the Principate (2nd to 3rd century AD), Ratiaria was one of the three Roman colonies in the territory of modern Bulgaria, in addition to Oescus and Deultum. Alongside the neighbouring colony of Ulpia Oescus, near the present-day village of Gigen, Pleven region, Ratiaria was one of the largest and richest cities in the Roman period along the Lower Danube. This is attested and indisputably confirmed via the architectural remains and funerary monuments unearthed over the past 150 years. The following section of this chapter will present a summary of the archaeological evidence that best highlights the significance of Ratiaria, before turning to a discussion of the most recent excavations.

The Existing Archaeological Evidence for the Development of Ratiaria

The largest collection of sarcophagi in Bulgaria originates from the necropoli of Ratiaria. Over ten large sarcophagi from the ancient city are displayed at present in the *lapidaria* of the museum in Vidin, and in the National Archaeological Museum in Sofia. These are sarcophagi of various types including Anatolian garland sarcophagi, Danubian sarcophagi with a large inscription field and *tabula ansata*, sarcophagi without decoration but having an excellent

architectural form (Atanasova 1964: 24–28, figs. 1–4; 1972: 141–152, figs. 7–11; Dimitrov 2019: 112–127, figs. 2–28; Filov 1910: 8–16, fig. 3–4).

The architectural features from Ratiaria are mainly in the Corinthian order. They are also monumental with very elaborate decoration (Dimitrov 2015a: 563–579). Most of them likely originate from temple complexes (Dimitrov 2015b: 497–506), while others come from the exceptionally rich and perhaps the largest *thermae* in Bulgaria from the Roman period, the *thermae* of the so-called Imperial type at Ratiaria (Dimitrov Forthcoming; Giorgetti 1987: Tav. B). Ratiaria also features large temple complexes, similar to the ones known from Oescus (Ivanov and Ivanov 1998: 92–118). They are comparable not only in the Corinthian details, which are absolutely similar in style, order scheme, monumental vision and parameters, but also from the two recently uncovered epigraphic monuments from a cult complex dedicated to the goddess Diana, a cult also present at Oescus (Topalilov 2017: 292–296; Topalilov and Bru 2016: 217–222). The inscriptions were placed by the provincial governors of Moesia Superior during the reigns of Hadrian (AD 117–138) and Antoninus Pius (AD 138–161). Evidence of the rapid development of the city during the 2nd century AD are the materials found by chance in its area—in its vicinity or in more remote areas on its territory—including numerous funerary and dedication monuments (some of which have splendid artistic decoration), sculpture, thousands of coins, bone tools and a large amount of golden jewellery finds (Ruseva-Slokoska 1991: 17–18, 212).

This development of Ratiaria continued in Late Antiquity. From the end of the 3rd century AD and especially during the 4th to 5th centuries AD, the city advanced considerably. Ratiaria became the capital of the province of Dacia Ripensis and military units redeployed from Apulum in neighbouring Dacia were relocated to the region. Ratiaria also became the permanent base of the military units of the legion XIII Gemina (Dinchev 2015: 175, with ref. to: Not. Dign. Or., XLII, 38). The largest and most representative complex of Ratiaria from Late Antiquity is the Residence of the Provincial Governor, which was unearthed during excavations led by Prof. Georgi Kuzmanov (2000: 27–43) in the 1980s.

During the early Christian period, Ratiaria developed into an episcopal centre (Dinchev 2015: 176). A serious problematic point is that despite numerous and undeniably reliable historical data, no archaeological evidence, nor any church from the early Christian period of the city has been located so far. In the 1980s, an official inscription testifying to the development of the city in the 5th to 6th century AD was found near the western fortification wall of Ratiaria. It contains the following text: *Anastasiana Ratiaria semper floreat* (Dinchev 2015: 177, fig. 5; Velkov 1985: 886–889) and was considered by colleagues as a reliable indication that the city was rebuilt under Anastasius I (AD 491–518). There is, indeed, a lot of information about the rise of Ratiaria during this early Byzantine era. For example, under the rule of Justinian I (AD 527–565), the city was recorded as a *metropolis* i.e. as the main city among the other cities in Dacia Ripensis (Dinchev 2015: 177, with ref. to: Hier. Synecd. 655, 2). There is other information from Procopius of Caesarea, who glorified the construction works of Justinian I, including Ratiaria in the list of projects (Dinchev 2015: 177, with ref. to: Procop., De aedif. IV. 6, 24).

At the end of the 6th century AD, the entire western part of the Lower Danube *limes* was severely attacked by the Avars and Slavs. One of the most serious invasions of the Avars of AD 586 is described in detail in the historical sources (Dinchev 2015: 177, with ref. to: Theoph.

Sim. I. 8, 10). Thus, for instance, during the latest archaeological excavations at the western gate of Bononia, six levels were registered containing burnt wooden and adobe structures, which are in a clear-cut stratigraphic sequence. These same invasions likely led to the final destruction of Ratiaria, alongside all of the other sites on the western Danubian *limes.*

Recent Excavations at Ratiaria

The archaeological complexes in Ratiaria, unearthed in previous excavations by Bulgarian archaeologists (1958–1962) and by the big international Bulgarian-Italian team (1978–1989), are impressive, and continue to guide our work today. As written above, several large architectural complexes were located in the previous excavations at Ratiaria in the 1970s and 1980s: the large representative building, the so-called Residence of the Provincial Governor of Dacia Ripensis, considerable sections of the course of the western fortification wall and the western gate, the *thermae* adjacent to the western gate, several smaller buildings and one villa outside of the site (Atanasova and Popova-Asenova 1987: 85–96; Giorgetti 1987: 33–84; Kuzmanov 2000: 27–43).

Although these complexes have been badly damaged by treasure hunters, nevertheless, we resumed annual excavations at Ratiaria in the fall of 2013 and are also in the process of restoring the site. During recent excavations, from 2013 until 2022, the team located a number of previously unexplored architectural complexes, including: remains from the 1st century AD (comprising both the Tiberius-Claudius and the Flavian period), which were located stratigraphically under late antique Ratiaria; a temple of Diana from the time of the Roman colony (2nd to 3rd century AD); a complete bath from Late Antiquity, covering an *insula* north of the Residence; three buildings from the northern quarters of Ratiaria, located behind the northern fortification wall; and a residential building (Building A), which revealed the entire stratigraphy and chronology of the central area of late antique Ratiaria (Figure 4). In 2020, we also started excavating the Roman Imperial baths of Ratiaria, which are one of the largest thermal complexes from the Roman period in present-day Bulgaria.

The most important result of the recent excavations at Ratiaria was that our team reached layers from the 1st century AD under Building A which date to Late Antiquity. Thus, for the first time in the history of the excavations of Ratiaria, real remains of the earliest stage of the city's life have been unearthed, preserved in situ—likely dating from the time Ratiaria was a Roman military fort along the Lower Danube *limes.* Archaeological contexts from the 1st century AD were established north of the Residence building. They represent very thin (about 20 cm) preserved occupation layers from the time of Gaius Tiberius Claudius (AD 14–37) and Gaius Caligula (AD 37–41).

These levels were preserved only by chance under the walls of the late antique building and are especially well preserved beneath the lower level of the canal foundations under the *decumanus* north of the Residence. They are burnt, with charred wooden beams and negatives of removed building structures (probably walls and structures built of wood, soil and clay). Their stratigraphic profiles clearly show newly uncovered 1st century AD archaeological structures that are below the levels and remains of the late antique building (Figure 5a). Several fragments of pottery and coins from the second quarter of the 1st century AD (Figure 5b), as well as remains of metal hooks (severely burned), originating from a *lorica hamata* type

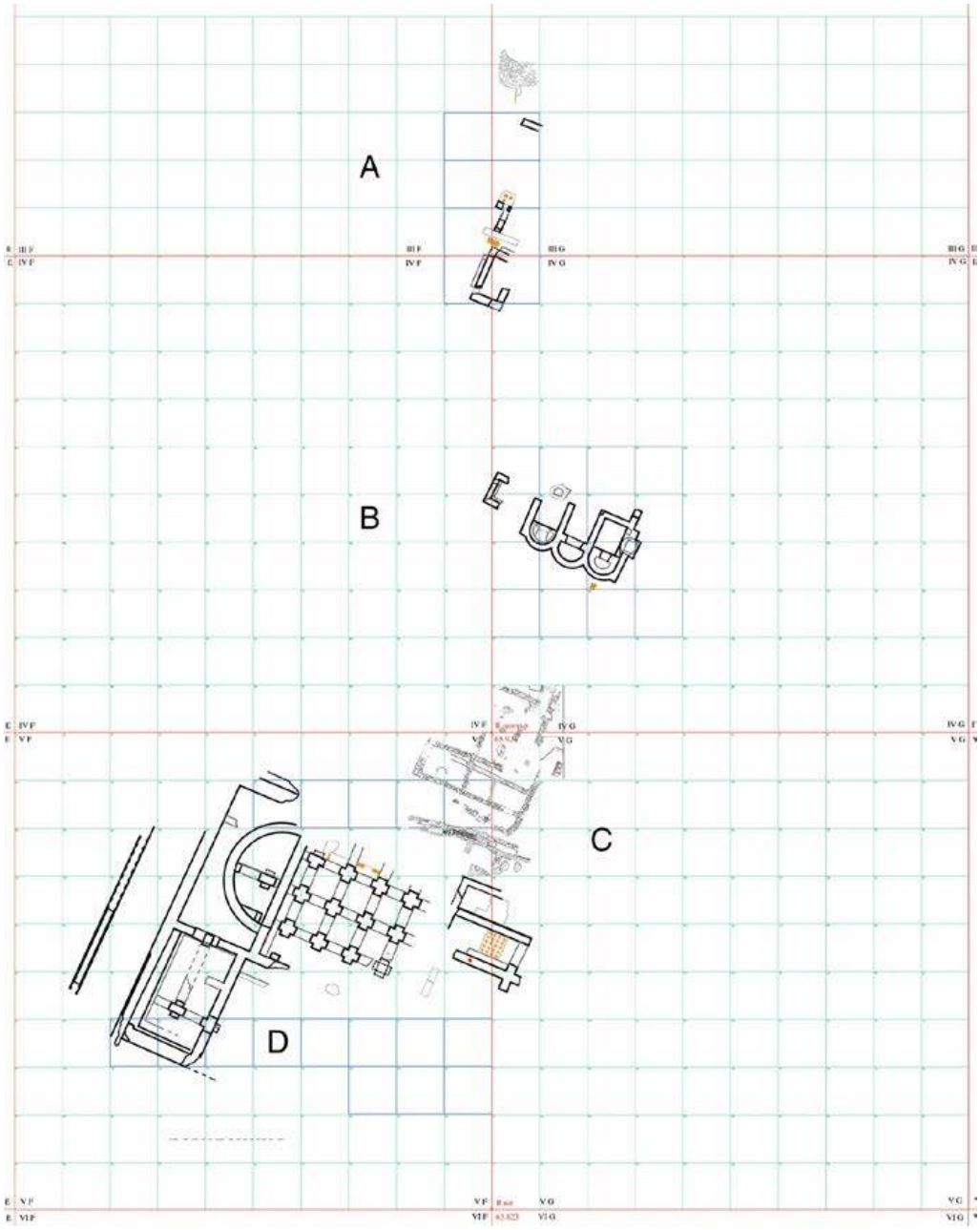


Figure 4: The general plan of the latest excavations (2013–2020): A. North quarter; B. Late antique thermae*; C. Building A; D. Residence (Z. Dimitrov).*

of armour, were also found in situ in the burnt layers along the remains of wooden and adobe structures. Additionally, even more pottery of the smooth *terra sigillata* type of Italic masters (Figure 5c), as well as two fragments of glass vessels of the Rippen Schallen type (blue and blue-green glass) were discovered in the other rooms of Building A, in the northern section of the complex (Figure 5d).

In 2016 together with Fionera Filipova, the director of the Regional Museum of History in Vidin, and Prof. Topalilov, about 500 meters east from the excavations in Ratiaria, in the area

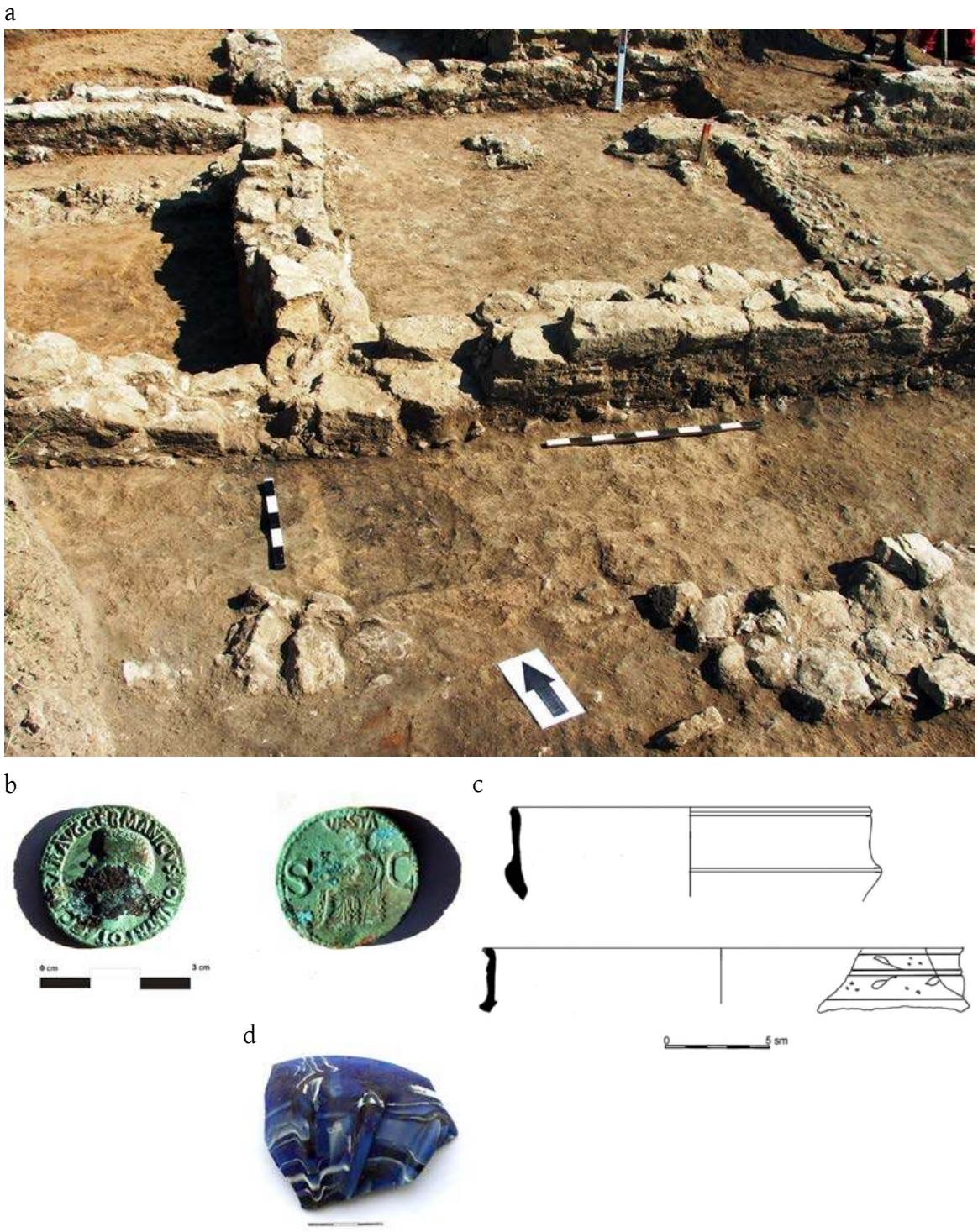


Figure 5: Remains from the 1st c. AD; a) The remains in the FV/20, burnt layers of the wood and adobe structures and structures below Building A (Z. Dimitrov); b) Bronze as, minted during the rule of Emperor Gauis Caligula (AD 37–41), found in situ in the burnt level with other remains from the 1st c. AD (Z. Dimitrov); c) Terra sigillata from Italy, found in the level under Late Antiquity in the interior of Building A (N. Rusev); d) A Rippen Schale fragment from a deep-blue glass cup, found in the level under Late Antiquity in the interior of Building A (Z. Dimitrov).

Figure 6: Remains from the Temple of Diana; a) The inscription of T. MINICIVS OPIMIANVS, governor of Moesia Superior under Hadrian (AD 117–138), located in the Temple of Diana (Z. Dimitrov); b) The remains of the temple walls (I. Topalilov); c) A clay lamp, found in the area of the temple during the 2020 excavations (Z. Dimitrov); d) A fragment of a limestone Corinthian capital from the interior of the temple, found during the 2020 excavations (Z. Dimitrov).

known in the present as the 'Pioneer camp', we found two highly important inscriptions dedicated to the goddess Diana. The first inscription is by T. MINICIVS OPIMIANVS, governor of Moesia Superior under Hadrianus (AD 117–138) (Figure 6a), and the second one is by P. MVMMIVS SISENNA RVTILIANVS, governor of the province under Antoninus Pius (AD 138–161) (Topalilov and Bru 2016: 217–222). They were placed in a temple of Diana built by the provincial governors of Moesia Superior, dating to the time of the Antonine dynasty, located at a distance from the Late Antique town. The temple is located in the north-easternmost terrace over the bank of the Danube, where archaeological work has taken place only in recent years. It is possible part of the earlier town of Ratiaria is located here, dating from the time of the Roman colony of Trajan.

After this discovery, we started archaeological excavations in the area of the temple, occurring for five seasons from 2016 to 2020. Here, again, the stratigraphy is complicated. To date, we have so far found the remains of a late antique necropolis, the remains of buildings from Late Antiquity and, most importantly, we registered two large walls from a building rectangular in plan, facing south-west, at a considerable depth below the late antique buildings, some of which were looted for building material (Topalilov Forthcoming). The remains of this building are massive. It was built of *quadrae* with walls that were 0.90–0.95 meters wide, registered at three meters below the late antique necropolis. All visible remains of the walls and the temple were built in the *opus mixtum* technique. Two of these walls, namely the outer walls of the temple building, might well be related to the period of the Roman colony and the inscriptions found here for the temple of Diana (Figure 6b).

We also uncovered material culture in this area, which may be related to the cult complex from the time of the Colonia Ulpia Traiana Ratiaria. This includes early Roman pottery from the 1st to 2nd centuries AD (featuring handles from an amphora of the Dressel type 2-4, dating at the latest to the reign of Trajan), household pottery from the 2nd to 3rd centuries AD, three ceramic lamps (likely used in the temple, Figure 6c) and a denarius from the reign of Claudius. We also discovered fragments of masonry; two details of Corinthian capitals dating back to the 2nd century AD are among the most significant finds. They belonged to the architectural decoration of the temple, part of the *acanthus* decoration of a column capital and part of a facing capital (Figure 6d).

Another highly significant complex uncovered during recent excavations is a late antique bath (not to be confused with the Imperial *thermae*, or baths, discussed below), situated north of the Residence, which was previously unknown (Figure 7a; Dimitrov 2014: 106, fig. 7–8; Dimitrov forthcoming). This was once a larger complex, however, most of it was destroyed by treasure hunters. After the excavations we were able to locate its southernmost part. It consists of three large rooms and the adjoining small *piscinae* pools (Figure 7b). These are perfectly structured thermal facilities, supplied with hot water—known as *caldaria*. In rooms no. 1 and no. 3, the suspension containing the hypocaust of the bathhouse, the walls in the *opus mixtum* technique, the floor levels, parts of the mosaic structures, whole marble slabs from the pavement, as well as several seats for bathers are perfectly preserved. In addition, the entire interior structure of room no. 3 has survived at a height of over three meters (Figure 7b). The bath was built in the late 3rd century AD, when the city expanded substantially and became the capital of the province of Dacia Ripensis. Most materials unearthed in this thermal complex are from the first half of the 4th century AD, corresponding with the reign

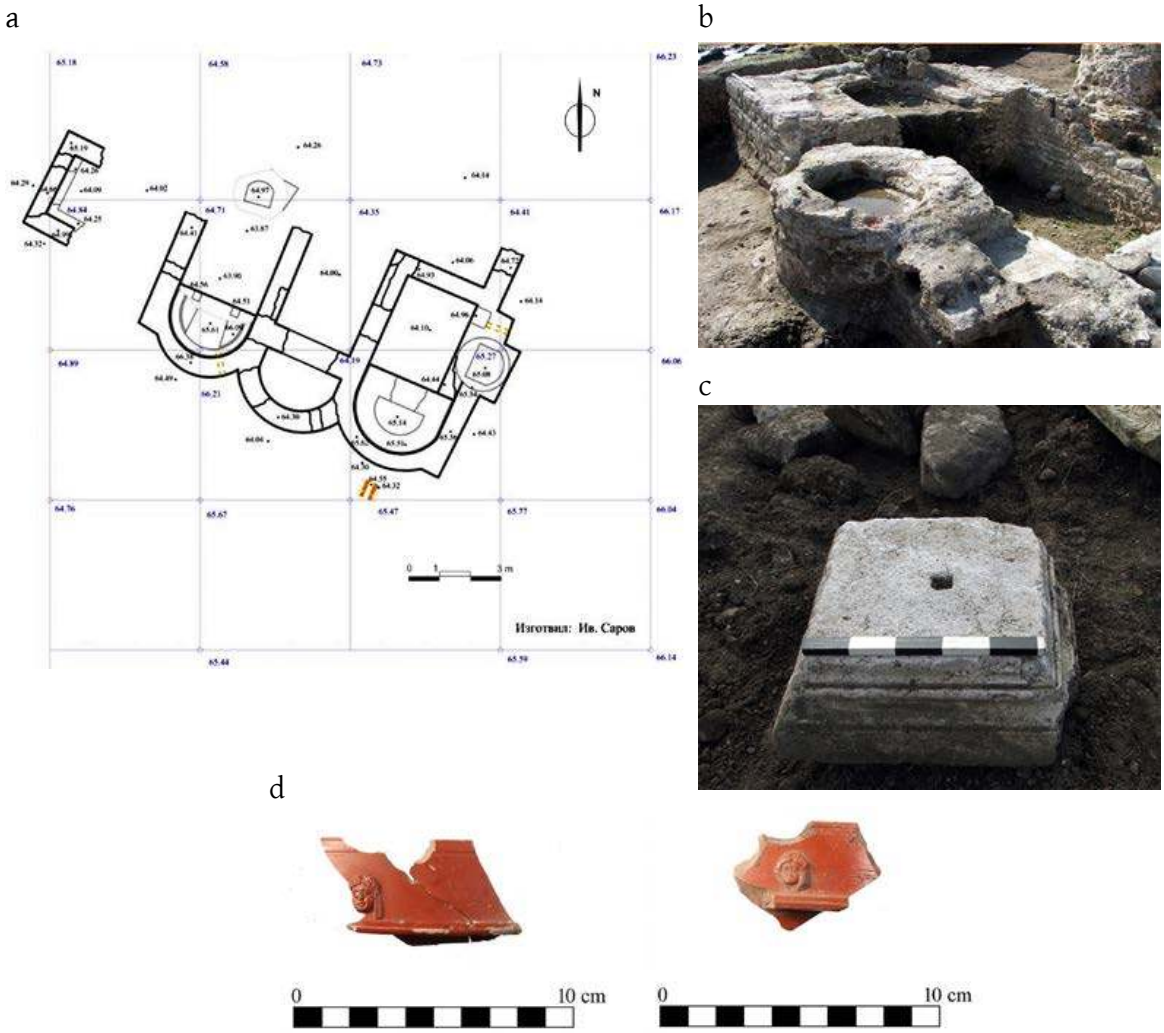


Figure 7: The Late Antique baths; a) General plan of the late antique baths in the centre of Ratiaria (Z. Dimitrov); b) Room number 3 including the construction of the walls, central basins and basins in outer walls (little piscinae*) (Z. Dimitrov); c) Ionic base from the* thermae *(Z. Dimitrov); d) Terra sigillata sherds from the* thermae *(Z. Dimitrov).*

of Constantine I the Great (AD 307–337) and his sons. The final use of the bathhouse dates to the disastrous Hunnic invasions of Ratiaria and the western part of the Lower Danube *limes* in the AD 440s. This is certain because we found no materials from the 6th century AD in the area (only one ceramic lamp and several coins were uncovered, which must have been brought here from elsewhere).

We found a significant amount of material culture on the site of this bath, as well as inside the premises, including several marble slabs from the interior of the bathroom, a base in the Ionic order and considerable quantity of fragmented mosaic panels (Figure 7c).[2] The flooring in the bath was made of ceramic segments of different hexagonal, oval and other complex shapes,

[2] The base was made according to the classical Ionic order scheme—a wide plinth, *tori*, *trochiloi* and listels in between. The massive plinth and the parameters of the base themselves are impressive, which suggests that this element must have supported serious weight.

and not of the typical mosaic tesserae. It must be noted that our team found considerable amounts of *terra sigillata* fragments—mainly Italic and Gaulish, in separate areas of the bath, the Residence and Building A, both in situ and in the layers damaged by treasure hunters.

Around Ratiaria, sherds of both smooth and relief *terra sigillata* have been found. In the central area, many fragments were unearthed from the famous ceramic centre in Arezzo (Arecium), Tuscany, as well as some fragments from the Padana Valley (northern Italy). There are *planta pedis* stamps on some of the sherds, indicating the potter. The pottery of Lucius Gelius stands out, which are the typical goods supplied to the military forts along the Danube during the reign of Tiberius (AD 14–37), Caligula (AD 37–41) and Claudius (AD 41–54). The presence of these ceramics indicates that we should look for remains from the 1st century AD, from the earliest period when the site was a military camp, under the very structures of late antiquity in the centre of Ratiaria (the bath, Building A, the streets and the Residence).

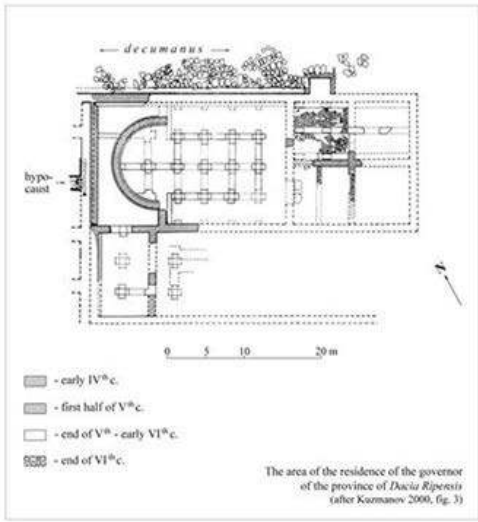
But with regard to the luxury pottery found in the layers of the late antique bath and under its foundations, we identified over 30 fragments of vessels with relief decoration (Dragendorf forms 25, 31, 35, 37, etc.). The majority of these sherds are most characteristic of the Flavian period (the second half of the 1st to the beginning of the 2nd century AD). The fragments are highly decorative, displaying images of Gorgon Medusa, floral motifs or zoomorphic scenes (Figure 7d). The pottery found in the area of the bath indicates fewer trade contacts or connections with major luxury ceramics production centres, perhaps suggesting the presence of structures from the second half of the 1st century AD. Concerning the sigillata, most are Gaulish products from the production centres in Lezoux and La Graufesenque, modern France. In comparison, at the nearby Residence fragments of *terra sigillata* from the early to mid 1st century AD were found—this is Italic *sigillata* by Aretinian producers or by northern Italic producers (*sigillata Tardopadana*). In any case, the *sigillata* fragments from the 1st century AD, found under (but also re-settled in the late antique layers) the architectural complexes of the Residence, the late antique bath and Building A, represent reliable evidence of earlier layers and archaeological remains in this central late antique area of Ratiaria. Likewise, this type of imported material is, beyond doubt, indicative of supplies to a Roman military fort.

The comprehensive excavations, which we conducted in 2014 at the quarters between the Residence and the northern fortification wall, also delivered important results. We established that during Late Antiquity in the 4th to 6th centuries AD, living quarters developed at this location which are completely different from the other residential buildings so far known from the centre of Ratiaria. These were small residential buildings, obviously accommodating the military needs in this area of the city. These complexes consisted of a small stone plinth with raw adobe brick walls on top of it (Figure 8a). The buildings were roofed with Laconic and Corinthian tiles. The foundations were dug into the ground, but the construction trenches were also filled with small amounts of crushed pebbles. Rows of dry limestone masonry and adobe walls were erected on these pads of pebbles. The entire outer sides of the stone walls were plastered at their bases.

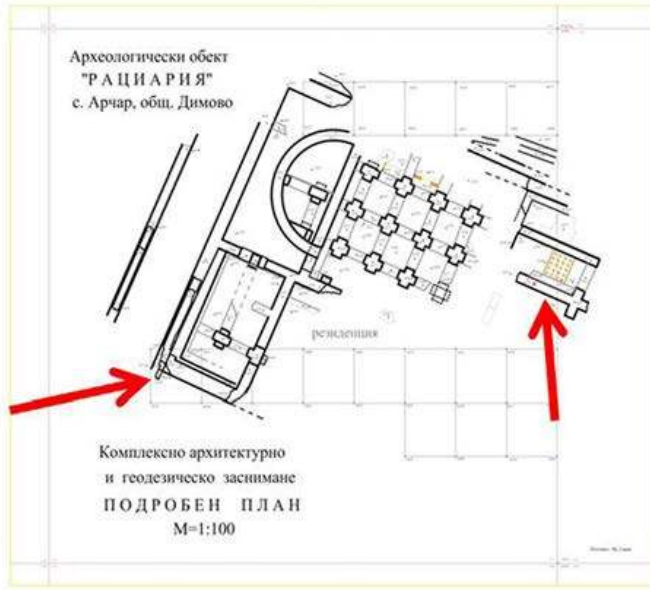
During the excavations, we identified three habitation periods: the 4th century AD, when there was one building with a hypocaust heating system; the first half of the 5th century AD, when the buildings from the 4th century were reconstructed, which we could not associate at this stage with any major events in the historical development of Ratiaria; and the last period

a

b



Old plan of the Residence – after the excavations in 80s



New plan of the Residence – after the excavations in 2013-14 with added walls in the western part and a hypocaust system in the eastern end

Figure 8: Remains from the north quarter and Residence; a) Structures in situ in the north quarter of Ratiaria, behind the north fortress wall (Z. Dimitrov); b) Old plan of the Residence after the excavations in 1989 (left) and current plan of the Residence after recent excavations (right).

from the mid 5th century AD, when the small residential buildings were completely destroyed by massive fires. The entire northern quarter of Ratiaria was burned in the AD 440s. Neither ceramic, nor numismatic material dating after the mid 5th century AD was found, the last coins dating from the reign of Theodosius II (AD 408–450). We can relate this archaeological evidence to the historical evidence provided by Priscus on the destructive blow dealt by the Huns of Attila along the entire Lower Danube *limes*. According to historical data, the invasions of the Huns took place in the years AD 441–448.[3] This destruction is similar to the evidence uncovered from one of the towers at Bononia (present Vidin) in 2018, a site 30km distant.[4]

The archaeological evidence at Bononia and in the northern quarters of Ratiaria is identical. Huge areas of completely burnt wooden and adobe structures, thick layers of destroyed buildings and eventual reconstruction by the levelling of these layers and raising the entire floor level. In both Ratiaria and Bononia, these entirely burnt archaeological layers contain the last 'minimum' coins (11 mm in diameter) of Theodosius II (AD 408–450), numismatic units that correspond to the period of the Hunnic invasions along the Lower Danube *limes*. The archaeological evidence from Ratiaria now attests to the fact that the previously flourishing colonial city along the Lower Danube never fully recovered after the devastating invasions of the Huns. As we can now see, whole areas of late antique Ratiaria (the northern quarters, the bath area) do not have any archaeological layers, cultural remains or materials from the late 5th to 6th centuries AD. It seems that large areas of the previously highly developed capital of the province of Dacia Ripensis had been abandoned. After the invasions of the Huns from the middle of the 5th century, a large part of the city was destroyed. Layers with completely burnt levels were uncovered in our excavations, and it is quite possible that during the restoration of Ratiaria in the 6th century AD, large areas of the territory were left open. The occupation level was also raised considerably, with a level of streets and buildings placed stratigraphically above the ruins from the middle of the 5th century AD. We can see this stratigraphy very well when examining Building A, discussed below.

In much of Ratiaria, stratigraphic data are sporadic, especially in the Residence, the northern quarters and the bath. Nevertheless, in the residential building, known as Building A, which is situated between the Residence and the late antique bath, we obtained excellent results in depth. As a result of the regular archaeological excavations, which are particularly significant given they have taken place after 25 years of treasure hunting, we can produce the first real and complete stratigraphy of Ratiaria from the time it was the provincial capital of Dacia Ripensis based on Building A (Figure 9a).[5]

Building A contains the first excavated structures in Ratiaria from Late Antiquity, with three floor levels dating from the late 4th to the 6th centuries AD (Figure 9b). The first period when the buildings were erected and occupied is from the end of the 3rd century AD to the 370s, and after that time there were subsequent periods of destruction and reconstruction. The second period when the building was used started in the late 4th century AD, lasting until the 440s, again relating to the invasions of the Huns, AD 441–448, when the city was razed to the

[3] According to Priscus (fr. 5) in the years AD 441/442–447/448 (see Velkov 1959: 41).

[4] In 2018, a 20 cm thick layer of burnt wood was established, which also contained a coin of Theodossius II (Dimitrov and Stavreva 2019: 217–219, fig. 2–3).

[5] These are quarters F V (squares 8 and 9), G V (squares 1, 2, 11, 21) and G IV (squares 71, 81, 91) according to the general plan of Ratiaria.

ground. The third stage, well recorded in historical sources, is the time when Ratiaria came back to life under Anastasius (AD 481–518), during the late 5th century and continuing into the 6th century AD.

During all three periods of the occupation of Building A (from the late 3rd to the 6th century AD) the floor level was made of compacted clay (Figure 9b). The difference in the floor levels from the first and second periods is about 10 to 15 cm, as there are no traces of destruction or the raising of the building level above a destruction level. At some point, likely during the AD 380s according to numismatic evidence, the plan of the building was redesigned and some of the walls were rebuilt with the interior renovated. Only towards the late 5th century AD, when the complex was restored, can we identify a new level, which is markedly raised. It spread above the level of destruction and fires from the Hunnic invasions.

Beneath the new position of the building we can see clearly the stratigraphic levels from the 4th to 6th century AD, showing unequivocally the difference in the height of the building level after the destruction in the mid 5th century AD (Figure 9c). Moreover, in these clear stratigraphic archaeological contexts we found material culture—pottery and coins—perfectly corresponding to architecture periods. They show unambiguously that the most prominent period in the life of this residential building was during the time of Constantine I the Great (AD 307–337) and his sons (AD 337–361). The reasons that necessitated the changes in the plan and the complete reconstruction of Building A in the third quarter of the 4th century AD are a matter of further study. Perhaps this was due to repeated Gothic invasions along the Lower Danube in the AD 370s and 380s, however, so far our data from this period are not completely reliable.

It is clear that the first stage of Building A's life concluded with the latest coins of Valentinianus II (AD 375–392), made between AD 384 and 387.[6] The second stage concluded with the coins of the first half of the 5th century AD (Teodosius II, AD 408–450), corresponding with the raids of the Huns along the Lower Danubian frontier, ending in AD 447/448. And, finally, the third stage concludes in the end of 5th to 6th century AD. Then, under Anastasius (AD 481–518) and in the 6th century AD the structures of the *decumanus* street between Building A and the Residence was built again, but on the another much higher level. We excavated and preserved the channel of the *decumanus*, which was built very well by limestone blocks, mortar and whole pieces of roof tiles (Figure 9d). As a conclusion to the discussion of Building A, we can note that this part of the centre of Ratiaria is entirely newly explored territory. This research in recent years has given us the opportunity to examine the undisturbed stratigraphy, which, unlike in the Residence which had been studied in the 1980s, has given us the opportunity to understand the chronology of the individual construction periods in Ratiaria from the end of the Principate and throughout the whole of Late Antiquity, from the end of the 3rd century to the end of the 6th century AD.

The Residence (Figure 8b; Figure 10b) from the centre of the late antique Ratiaria was partially explored by Prof. G. Kuzmanov (2000: 25–47) in the 1980s. As a result of these excavations, the western and northern borders of the complex were established and the chronology and the individual construction periods were determined (Kuzmanov 2000: 41–42). The function

[6] Context: Building A, G V/1: Level 63, 56 m.

Figure 9: Remains of Building A; a) General plan of the building, excavated from 2015 to 2019 (Z. Dimitrov); b) The walls of Building A and the corresponding levels from the end of the 3rd to the end of the 6th cen. AD: (I: First period, or end of the 3rd to the end of the 4th cen. AD; II: Second period, or end of the 4th to the middle of the 5th cen. AD; III: Third period, after the middle of the 5th cen. AD to the end of the 6th century AD). Roman numerals indicate walls, Arabic numerals indicate floors (Z. Dimitrov); c) Stone base from the third period of Building A, with the stratigraphy under the base showing the floor levels from the first, second and third periods (Z. Dimitrov); d) The channel under the decumanus street between the Residence and the south part of Building A, from the third period or end of the 5th to the 6th c. AD (Z. Dimitrov).

of the building, the largest in Ratiaria during Late Antiquity, was also proposed in the 1980s, but questions remain and more research is needed. It is clear that the Residence dates to late antique Ratiaria, but whose residence was this—the provincial governor's, the bishop's or someone else's? These are still open questions. We have also yet to locate the boundaries of the architectural complex to the east and south. Our excavations in 2015 showed that the

a

b

Figure 10: The Residence; a) Hypocaust system of the Residence from the 2015 excavation (I. Topalilov); b) General view of the Residence during excavation, looking towards the south-west (Z. Dimitrov).

earliest outer wall of the complex (currently this is the western wall) continues far to the south (Figure 8b). That is why we believe that the excavations of the so-called Residence are not even close to completion—neither in terms of the plan (the overall outlines of the complex), nor in depth. In the future we will especially aim to clarify the earlier periods below the foundations and to possibly establish the function of the building during the Roman and late antique periods.

In 2016, Prof. Topalilov examined the hypocaust, located in room no. 5 of the Residence, excavated by Kuzmanov in the 1980s in the north-eastern part of the architectural complex, running to the border with the later *decumanus* to the north (dating to the 6th century AD). During the excavations in 2016, it was established that the structure of this hypocaust was preserved (Figure 10a), a structure under which we would expect perfectly 'sealed' layers of the early period of Ratiaria—which are subject of further investigations.

In 2020, we began exploring the *thermae* which are the largest architectural complex of the Roman city, and the largest known Roman bath in Bulgaria with an area of nine decares. They were described earlier by Dario Giorgetti (1987: Tav. A, nr. 7) as Imperial Roman *thermae*. So far, parts of the courtyard (its south-western end) and the beginning of an inner room of the *thermae*—likely the *frigidarium*—have been studied. Remains of three huge walls in the *opus mixtum* style were unearthed in the work area, which were preserved in situ, and additionally two other walls, which are from a later period and were built of reused *quadrae* and architectural details. The structures of the three main walls, which represent the southern and western walls of the courtyard of the *thermae* and the surviving wall of the first bathroom, which we currently assume to be a *frigidarium*, are very large. They are made up of alternating rows of limestone blocks and bricks. In some places, the width of the structures reaches up to 3.20 m. In the excavated area, between the frigidarium and the courtyard, the width of the wall is 2.20 m. The highest surviving part of this massive wall is 3.50 m (at the time of the excavations).

The layers of occupation in these two rooms are also well-preserved, despite the many pits created by treasure hunters. In 2020, the layers containing material culture from the late 4th and the 5th centuries AD were examined. Two mortar floors were found in the bathroom, which are not from the time it operated as a thermal complex but are rather late alterations in the architectural plan of the large bath premises. It is most important to note that the cultural layers and architectural facilities continue in depth. In 2020, on an area of 250 square meters in the *thermae* of Ratiaria, we managed to reach a layer of the late 4th century AD.

There are also huge pieces of the destroyed walls of the Roman Imperial baths. In a small test excavation in quarters 15 and 25 of F XI, we identified seven different occupation levels in the Roman *thermae*. Currently, the total depth of the stratigraphic layers is 3.60 m. The whole Imperial *thermae* complex has three main stages, firstly, as the public bath complex discussed above; secondly, an early Christian three-aisled church was built in one part of the destroyed *thermae* in the 4th to 5th century AD; and thirdly, little dwellings were built in the 6th century AD in the ruins of former baths and church. The first floor level of the *thermae* is made from mortar and bricks. In the other periods, the levels are built from mortar, pebbles and clay. More of the architectural details and *quader* blocks are reused here in the constructions of the early Christian church and later dwellings. These structures would have been impressive in all historical periods. More than 35 architectural details in the Corinthian order with

large dimensions have also been found here. At the levels of the complex, many small finds which are connected with the *thermae* were found, including bronze coins, fibulae, combs and mirrors.

Considering the last two field seasons of 2020–21, we have to note the importance of the current excavations. Teams of archaeologists continue studying the largest architectural complex of Ratiaria—the Roman Imperial Baths, the largest *thermae* in modern Bulgaria. Their research is of primary importance not only for Roman archaeology, but also for the development of tourism and economy in the Vidin region. It is important for these studies and the restoration of Ratiaria to continue within the next few decades. From 2023, the archaeological team plans to re-enter the western necropolis of the city, where the remains of grave complexes can be found in the immediate vicinity of the western fortress wall. It has been over 40 years since any work has been done in the necropolises of Ratiaria.

Conclusions

This chapter reviewed the history of Ratiaria and the long period of research taking place at the site, describing its architectural remains, preserved and actively excavated at present, in order to underline the significance of Ratiaria on the Roman Lower Danube *limes.* So far, most of the material remains and the complex archaeological and historical data that we have obtained are from the period of Ratiaria as a capital city in Late Antiquity. Given this, it is highly significant that our excavations located the temple of Diana, which is the first preserved structure from the 1st century AD during the period of initial military occupation when Ratiaria was a Roman colony.

This new data from Ratiaria comes alongside considerable new information from the excavations at Bononia, at the forts along the Danube and especially from the recent rescue excavations in rural areas, where two new villas and parts of settlements have been unearthed.[7] From 2016 to 2021, the region of Ratiaria (today's Vidin district) has been the most studied in Bulgaria. During the rescue surveys and excavations of gas pipelines and new road networks, in addition to the villas at Sinagovtsi and Gramada, necropolises from the period of the early Roman era (140 graves) and the Principate period (2nd to 3rd century AD) have also been discovered. These new sites have greatly enriched our knowledge of the frontier area of Ratiaria, which was very important to the Roman advance in the first century AD, the Dacian Wars, and throughout Late Antiquity, up to the end of the 6th century AD.

In the future, the excavations at Ratiaria will be further expanded to address key questions, such as the extent of the boundaries of the fortified territory of Ratiaria, and to identify its main urban complexes from the era of the Principate and Late Antiquity. Presently, the chronology of the already investigated western fortress wall is not completely clear. It is of particular importance to uncover the episcopal complexes of the early Christian era and the earliest stages of the life of Ratiaria—the time of the military camps of the Roman army of the first century AD. So far, we have uncovered a significant number of finds that strongly suggest the presence of military units in the early Roman period. But we have just a few structures from recent excavations (2016–2018) that can be defined as belonging to the military history

[7] The sites at Gramada (3rd to 4th century AD) and Sinagovtsi (1st century BC to the 4th century AD).

of Ratiaria. Another important problem is the need to find the forum of the Roman colony Ulpia Traiana Ratiaria, which contained large public buildings, many architectural details of which have already been revealed, but the archaeological complexes themselves—temples, basilicas and others—still elude archaeologists. We hope to continue to study one of the largest and most important centres of Roman power in the western part of the Lower Danube, that developed so rapidly throughout the Principate and Late Antiquity, long into the future.

Acknowledgements

My thanks to colleagues from the Regional Museum of History – Vidin: Ilko Zvetkov, Vanja Stavreva and Nicole Blagoeva, and to the members of archaeological teams of Ratiaria, Bononia, Sinagovtsi and Gramada: Ivo Topalilov, Atanas Danov and Vladislav Zhivkov.

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Reflections on the Importance of Studies on the Lower Danubian *Limes*

Piotr Dyczek

Abstract: The Lower Danubian stretch was one of the most important sections of the Roman *limes*. Archaeological excavations have identified three key issues concerning the development and functioning of this part of the frontier. Firstly, is the question of how the frontier was developed and the specific solutions that were applied in this region. Related to this, another issue is the way in which the earlier timber-and-earth fortresses affected the layout of the subsequent stone fortresses and how this may have been connected to the *manus legionis*. The final issue concerns how legionary fortresses then turned into civil cities following the crisis of the mid-3rd century AD.

Keywords: Novae, Lower Danubian *Limes*, Camp Planning, *Manus Legionis*, Urban Planning

Introduction

While most researchers claim to have an intuitive understanding of the concept of the 'Roman *limes*', the same understanding is not shared by all. For some, the *limes* are a singular and uniform system of fortifications defending the Empire (Bidwell 2005: 74; Birley 1961: 160–170), for others, the idea of a uniform defence system is generally to be rejected (Hanson 2014: 6–9; Mann 1990: 53; Figure 1). The European Union's Culture 2000 program was an important international research endeavour designed to collect information and ideas, and to recommend new directions of study. The publications that appeared in its wake contain a synthesis of the current state of research on the Roman frontier (Breeze 2009; 2011; Breeze *et al.* 2005; 2022; Dyczek 2008; Harmandyová *et al.* 2008; Jilek 2009; Visy 2009). In 2003, the Bratislava Group—charged with advising on archaeological and scientific aspects concerning the Roman frontiers in countries wishing to join the pan-European Frontiers of the Roman Empire UNESCO World Heritage Site—introduced the following definition:

> The Frontiers of the Roman Empire World Heritage Site should consist of the line(s) of the frontier at the height of the empire from Trajan to Septimius Severus (about AD 100 to 200), and military installations of different periods which are on that line. The installations include fortresses, forts, towers, the *limes* road, artificial barriers and immediately associated civil structures (Breeze *et al.* 2022: 11).

This definition was formulated based on the current state of research and presents the current scholarly consensus. However, it does not fully reflect the evolution and dynamism of the term '*limes*'. Despite the progress made, there are still many issues to be resolved. David Breeze (2018: 3–4) counted 21 theories attempting to explain the functioning of the Roman *limes*. In order to be able to verify their correctness, research would need to be carried out on all the parts of the *limes* simultaneously, an ambitious but unattainable objective presently.

When the idea itself was originally created, as part of the EU Culture 2000 programme, it was understood quite differently, evolving during subsequent chronological periods. The idea

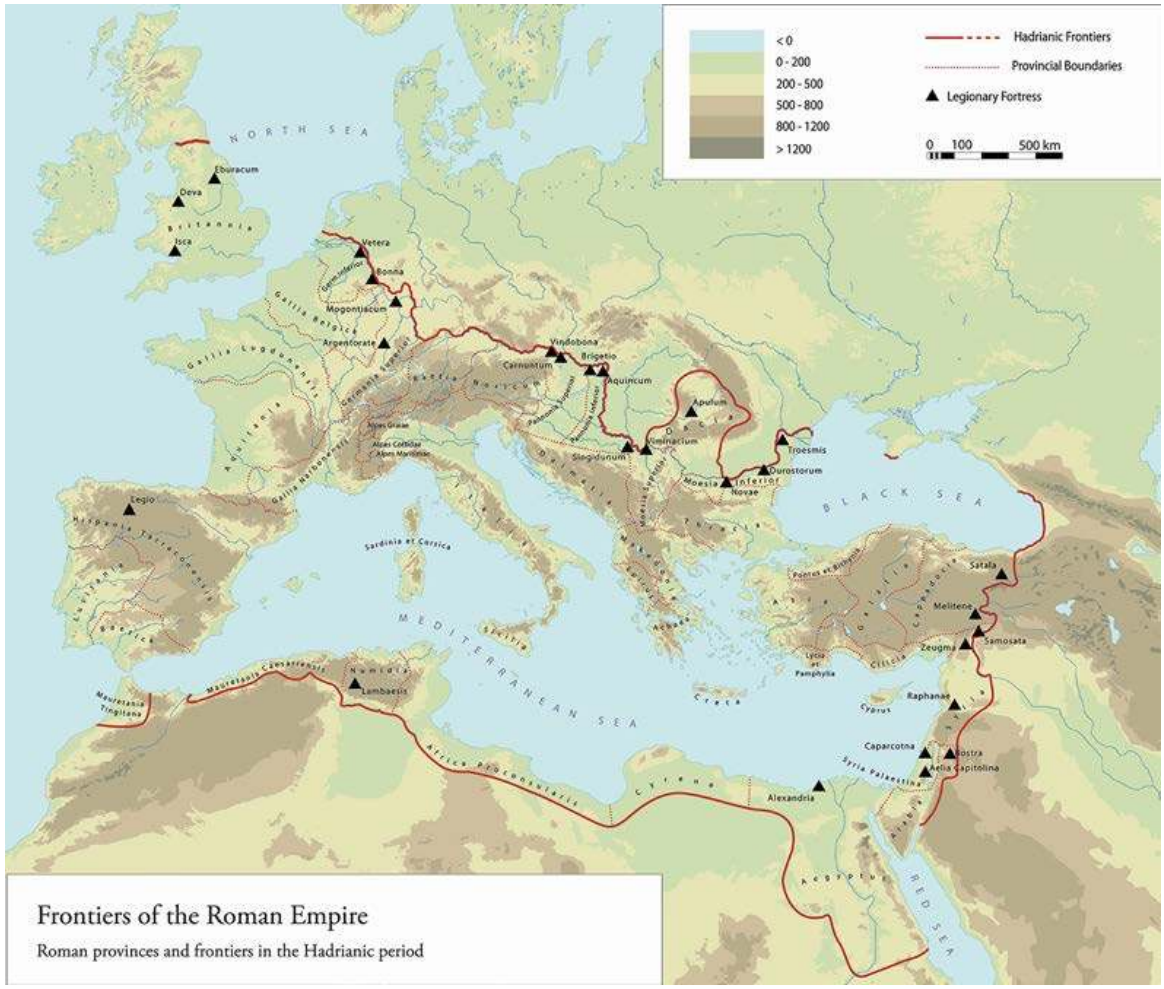

Figure 1: Map of the Roman Empire in the Hadrianic period (Culture 2000 team).

of the *limes* was intrinsically linked to developments and changes in the Roman army, the conquest of new territories, varying political contexts and economic opportunities. We can better understand the changing nature of the concept of the *limes* by concentrating on the Lower Danube frontier (Figure 2 and 3), and to that end, this chapter focuses on three aspects of the changes that have been recorded over time on the Lower Danubian *limes*.

On the basis of current research, it is apparent that the *limes* has developed differently in what is now South-East Europe. Certain regularities appear when we consider the Lower Danube, such as a relatively small number of legionary fortresses and no artificial defence systems, trends which occur with varying frequency also in other sections of the *limes*. It may be that they are of a universal nature and are more visible on the Lower Danube in view of the specific character of the region, namely that the legionary fortresses are located in undeveloped areas and a high amount of the remains of roads and infrastructure have been preserved. There are currently three explanatory hypotheses for why the Lower Danubian *limes* developed differently: the way in which this section of the *limes* was created, the flexibility of the transformation process from timber/earth into stone constructions and the transformation

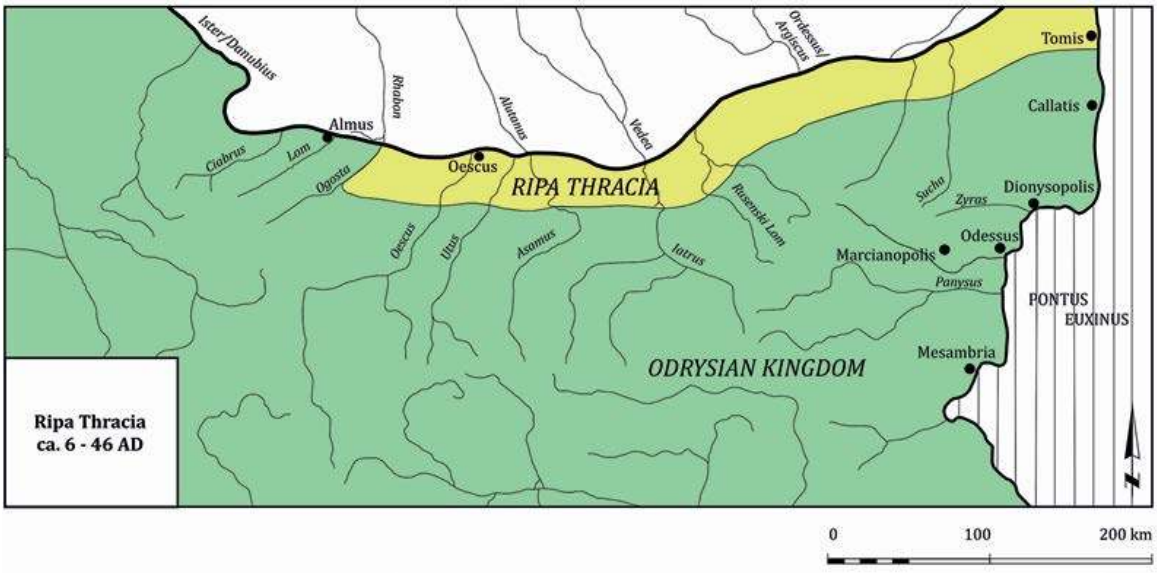

Figure 2: Ripa Thracia (P. Dyczek and A. Momot).

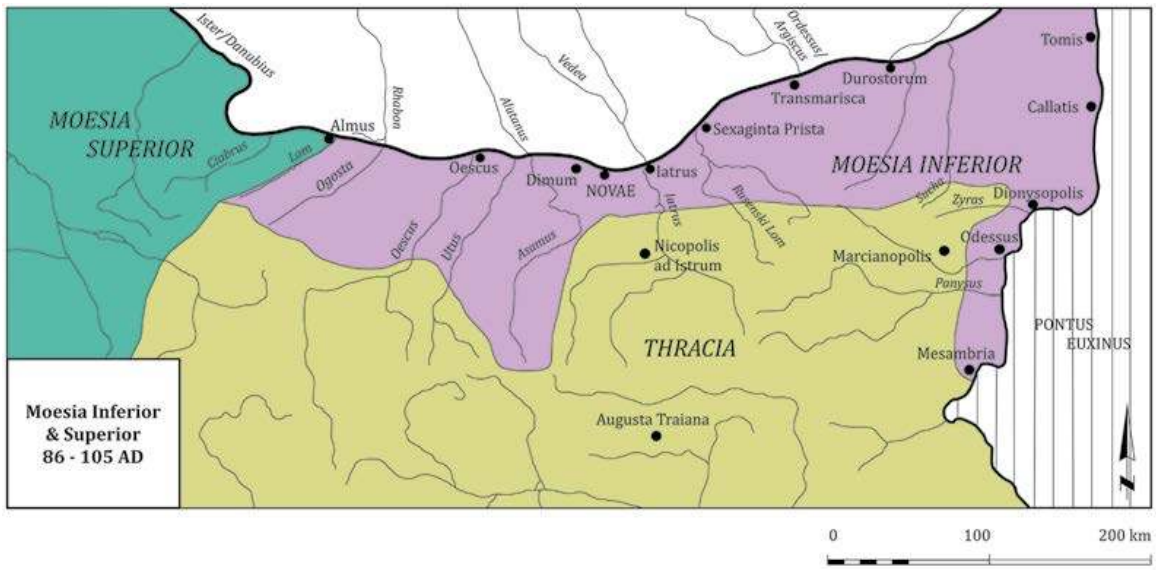

Figure 3: Map of Moesia Inferior (P. Dyczek and A. Momot).

of the military fort/fortress into a civilian city. This chapter will consider these hypotheses, focusing on the castrum Novae, the best-studied site on the Danube *limes*. Due to its location on the southernmost point of the Danube, Novae plays a key role in the defensive system of the entire province (Figure 2 and 3). Novae is useful to focus on for this analysis both because of the amount of research conducted on the site and because of the quality of preservation of a number of legionary buildings.

Creation of the Lower Danube *Limes*

Of course, the Romans took topographical conditions into account when creating individual sections of the *limes*. It was not only about the frontier itself but also its connection with the system of infrastructure created in the hinterland and the nature of the existing settlements. In the case of Lower Moesia, the situation was quite complex. From the topographical point of view, the terrain was very diverse, consisting of a high Danube slope, ranges of gentle hills crossed by a series of rivers flowing from the south and wide floodplains. These topographical elements naturally divided the territory into smaller areas, inhabited by different groups of people.

Roman expansion into these areas was gradual, rather than being a single event as in other Roman provinces. It seems that the initial idea was to ensure safe communication on the Danube (with the expedition of C. Scribonius Curio in 73 BC) and political reasons also later played a role (the war with Mithridates), as did economic reasons (the subjugation of the Greek colonies on the west coast of the Black Sea). The next stage, from 29 to 16 BC, meanwhile concentrated on the protection of Rome's allies by Marcus Licinius Crassus and Lucius Calpurnius Piso. The situation was carved in stone with the creation of the Ripa Thracia (Figure 2), formally belonging to Thracia but under the control of the Roman army, on a narrow strip of the southern shore of the Danube (Kolendo 1994: 87–100; Mrozewicz 2000: 295–310).

The date for the creation of the province of Moesia continues to be debated, the current view following Tacitus in choosing AD 15 as the year for the establishment of the province (see e.g. Aricescu 1980: 6; Mrozewicz 1982: 7; Sarnowski 1988: 18). Its division into Upper and Lower Moesia occurred in AD 86 (Figure 3; Duch 2017b: 372–379; Mrozewicz 2010a: 68; Zahariade and Gudea 1997: 51–53). However, the consolidation process was only completed as part of the preparations for the war with the Dacians under Trajan and the reorganization of the territorial division that followed (cf. Cătăniciu 2005: 727; Ruscu 2007: 214, 221; Syme 1971: 126; Tomas 2016: 101).

One might say that this gradual process of shaping the Danube *limes*, taking almost a century, is its hallmark. It was not an abrupt decision. Rome's actions were a reaction to the changing political situation in the region with the growing threat of the Dacians, and Rome therefore employed a different model of shaping the *limes* than in other parts of the Empire. The creation of the legionary fortress in Novae in AD 44 (Ciołek and Dyczek 2011: 9–10; Sarnowski 1988: 28), where the legion VIII Augusta was stationed, seems to be a turning point in the development of the Lower Danube *limes*, as it indicated a permanent strong presence of the Roman army in the region. However, it is only in the period of the Vespasian-Trajan era, in my opinion, that we should speak of a fully conscious planned process of building the Lower Danube *limes* (Ivanov 2012: 23; Sarnowski 1988: 27; cf. Opriș 2018: 147–161). In conquering these areas the Romans also took control of numerous local tribes, artificially dividing their original territories. Interestingly, they kept the names of the tribal territories, but completely subordinated the borders of these territories to their military needs (Poulter 2004: 226). Thus, the indigenous peoples were organized into new territorial units, *civitas territoria*, administered by *praefectus civitates* (Mrozewicz 1982: 75). In effect, more than forty sites belonging to this system were located on the stretch of the *limes* in modern Bulgaria, using data gleaned from written sources. Only a few of these have been verified archaeologically, including: Almus (modern

Lom), Augustae (modern Hărlec, Vraca district), Dimum (modern Belene), Sexaginta Prista (modern Ruse), Transmarisca (modern Tutrakan) and Nigrinianis-Candidiana (modern Malak Preslavec, Silistra district). Four legionary camps have also been discovered and investigated in this region: Ratiaria (modern Arčar, Vidin district), Oescus (modern Gigen, Pleven district), Novae (near Svištov) and Durostorum (modern Silistra) (Figure 2 and 3). It seems that the Romans acted differently when delimiting the borders of the entire province of Moesia. In this case, former tribal boundaries were probably taken into account, likely because they wanted to avoid disputes with local tribes in the early stages of creating the *limes* infrastructure (Ruscu 2007: 219–220; Tomas 2017: 21–24).

While Andrew Poulter's (2004) hypothesis concerning the arbitrary system of division of territories seems to be correct when it comes to administrative organization, from the economic point of view, it seems that the situation was different. Artifacts from Novae from the 1st century AD seem to confirm that the legions were exploiting land that had originally belonged to the local tribes. The area that the legion VIII Augusta managed once they arrived on the Danube extended to the Osam river in the west. Lime for the plaster applied to the wooden army barracks was shipped down this river from the vicinity of Biala Voda (Dyczek 2018: 530–536). At first, the soldiers also made use of pottery produced in local production centres (Dyczek 2016: 233–256; cf. Harizanov 2019), as well as of stockpiled wood needed to build a fort. Radiocarbon dating of the wood indicated that the trees had been felled before the legion arrived. Of course, various raw materials and products may have come from different tribal areas, but the findings of the excavations suggest that the tribal economic base has been preserved at the level of the legions' supplies.

This clear dichotomy of the territorial organization system, in my opinion, reflects the difference between a civil organization subordinate to the prefect, and a military organization related to *prata legionis*. Regardless of the provincial civil authorities, the legionnaires exploited various areas in different parts of the province, placing military units in those locations (cf. Matei-Popescu 2010: 77–124, 229). However, the area of direct exploitation (Sarnowski 2007: 16–17; Tomas 2017: 21–24), was located between the Osam rivers to the west, Iantra to the east and at least 15 km south of the fortress, corresponding to the reach of the longest aqueduct.

Such an administratively arbitrary treatment of the former tribal boundaries was obviously a potential internal threat. If we look at the currently known network of ancient roads crossing Lower Moesia (Panaite 2015: fig. 3; Tomas 2016: 95), we notice that some of these roads are not related to the new administrative division. It may be that these roads reflect the pre-Roman communication system, all the more so because they often run along tribal necropolises marked in the terrain by series of tumuli. To a certain extent, therefore, they reflect the former tribal territorial division, while at the same time, fieldwork reassures us that there were also Roman observation towers located along them. This leads to the hypothesis that there is a specific system of control of internal threats on the Lower Danube, consisting of certain defensive elements located also in the interior.

If we look at the structure of the Lower Danube *limes* in general, it consisted of three areas, which were formed over an equal period of time and were put together at the beginning of the 2nd century AD. The first area is a system of fortifications and observation towers located north of the Danube in the Moesian (Vladkova 2015: 187–194) and Dacian area (Bondar 1973:

152; Dyczek 1999: 12; Gudea 2001: 41–42, fig. 10). These structures served as an early warning of danger and to some extent prevented an immediate attack. Another area was made up of fortifications—fortresses and numerous fortlets as well as observation towers erected in a narrow strip on the southern bank of the Danube, especially in strategically important places. Finally, the third area included security control installations in the hinterland. In this way, a system was created that we called the 'network *limes*' because it was an integrated real network of fortifications covering a very large area. It also had a propaganda effect with impressive fortifications visible to anyone sailing on the Danube (Figure 4). The Romans often used a show of strength that discouraged potential aggressors; the extensive system of the 'network *limes*' gave the impression of an omnipresence of the army (Dyczek 2010: 147–155). The presented hypothesis of how the 'network *limes*' functioned on the Lower Danube incorporates some of Breeze's ideas (2018: 169–177, cf. Woolliscroft 2002). There is also a further important and characteristic element to be found only on the Lower Danube *limes*. Despite the creation of the province of Dacia, the *limes* forts to the west of Novae continued to function. In the defensive structure there were no changes, so the 'network' did not undergo any ruptures (Gudea 2001: 29–40; cf. Matei-Popescu 2010: 275–284).

These Roman military structures in Moesia, Dacia, on the southern bank of the Danube and in the hinterland of the province share certain characteristics despite being built in such geographically different areas:

1. They all date to the time when the outer borders of the Empire were being shaped in the 1st century AD, although some of them functioned also in later times; the impression is that in the 1st century AD, Rome still did not have a clear idea of how to organize the defence of its borders.
2. They were all the outcome of quick military action connected with campaigns against specific tribes and were maintained until the situation was resolved.
3. The structures used by the Romans were simple and easy to construct.
4. Land and sea routes were at the core of these systems with observation towers and occasionally fortresses being built along them.
5. The roads themselves did not always follow the shortest routes, rather they took advantage of the most convenient topographical conditions, which was the typical Roman approach as a rule.
6. The defensive aspects of these structures were very limited, their main purpose was to act as lookout towers and ensure communication.

The hypothesis presented above can help to explain some of the theories of how the Roman *limes* functioned, including protection against invasion, protection of travel in the border zone and control of civilian traffic. The excavations at Novae and archaeological investigations and prospection in the Danubian *limes* zone from Nikopol and Belene (Dimum) through Krivina (Iatrus), Ruse (Sexaginta Prista), Tutrakan (Transmarisca) to Silistra (Durostorum), have produced data in confirmation of these ideas, but further work is needed (Conrad 2006: 309–311; Conrad and Stančev 2002: 673–679). It should be noted, however, that elements of this system are also present in other sections of the *limes* (Breeze 1982: 55–65; 2006a: 60; 2006b: 59; Reddé 2006: 28–32; Woolliscroft 2002; 2005: 229; Woolliscroft and Hoffmann 2006), but so far they appear together as one system only on the Lower Danube *limes*.

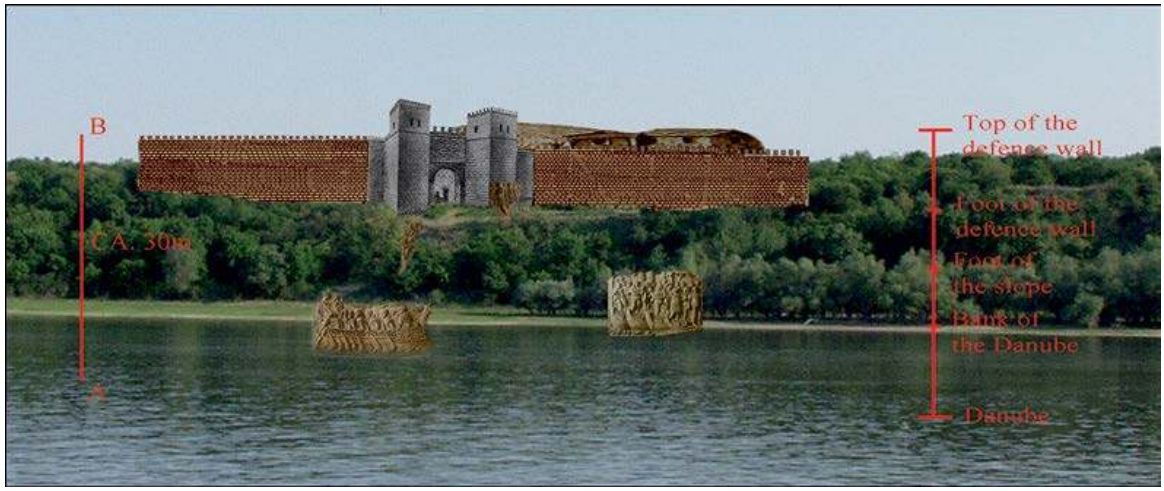

Figure 4: Reconstruction of the Fortress of Novae (P. Dyczek).

Legionary Fortress Transformation

Novae has also yielded unique data for reconstructing the architectural changes that occurred when the timber-and-earth camp of the first legion was replaced by the stone fortress. A relatively large body of evidence of the wooden architecture has been preserved which enables a comparison with the stone structures. There are sections of the original earth embankment and wooden gateway, the original system of ditches (Sarnowski 1984: 143–169), the wooden buildings from the *scamnum tribunorum* (Genčeva 2002: 59–60), fragments of the wooden architecture beneath the stone bath of the Flavian period (Dyczek 2009: 1477–1485) and, foremost, the army barracks of the first cohorts of the legion VIII Augusta. It is clear that the rebuilding proceeded gradually without compromising the defensive system. The embankment and the gateway were dismantled one by one and replaced with stone counterparts. Thus, the rebuilding must have taken place section by section, most probably from gate to gate. Irregularities seen in the curtain walls of the fortress attest to this successive method of rebuilding. It may have taken longer to complete, but the security of Novae was assured.

Rebuilding inside the fortress also went stage by stage. At present, it seems that the barracks were dismantled in succession, and stone buildings were constructed in their place. The whole legion could not have taken part in this work, only the detachment that was sent to Novae in advance. It is also possible that a small detachment of the legion VIII Augusta remained to oversee, for instance, the dismantling work. Construction teams may have been occupying the barracks until AD 72, and this could be at the root of the minor chronological discrepancy between Kolendo's date for the arrival of the legion I Italica, AD 69, and Sarnowski's, shifted to AD 71–72 (Kolendo 1990: 128–133; Sarnowski 2014: 82–83; cf. Absil 2000: 227–238). A probable scenario is that the legion's 'builders' arrived in AD 69, but the work was not finished until AD 72 and it is only then that the whole legion moved in.

Evidence of cooperation between different army units can also be observed during the period when the fortress was being prepared for the coming war with the Dacian tribes. Stamps on bricks and other building materials include those of the legions XI Claudia and I Minervia

pia fidelis (Duch 2017a: 102). They could have participated in the rebuilding or just supplied building materials, but while the latter option is possible in the case of the legion XI Claudia, it would not have been feasible to bring in roof tiles from faraway Bonna where the legion I Minervia was stationed. The legionists of the I Minervia worked in the Moesian *figlinae* and only stamped the tiles with their stamp.

The plan of some of the stone architecture inside the fortress simply repeated that of the earlier wooden buildings, for instance, the row of *tabernae* running along the southern side of the *via principalis* and the *scamnum tribunorum*. At least in two instances, however, the principles described by pseudo-Hyginus (*De Munitionibus Castrorum*) for the building of camps were not followed, showing the flexibility of the building scheme. Some buildings were located in parts of the camp other than those recommended by these rules and the reasons for this were purely practical, aimed at improving the internal organization of the fort (Figure 5). The legionary bath was first located in the *praetentura* by the *via praetoria* and *porta praetoria*. The ground topography determined such a location of the building, with a huge hypocaust basement built, taking advantage of a fairly steep slope of the whole plateau in the direction of the escarpment on the riverbank. Preparing for the wars in Dacia, the bath was dismantled, the ground levelled and an army hospital built in its place. The nearness of the *porta praetoria* leading to the Danube and the *via sagularis* would have undoubtedly facilitated transport of the wounded and sick from the harbour to the hospital. The bath was then moved to the praetorium (Biernacki 2016). Regarding the barracks on the eastern side of the *principia*, the double wooden barracks took up only half of the *scamnum* with the house of the centurion at the southern end. The *scamnum* was then divided into two parts by a street with more barracks deployed on the other side. This street disappeared in the stone phase. An extensive centurion's house occupied practically all of the area of the wooden barracks, that is, all of the northern end of the long barrack in stone, filling the rest of the *scamnum*.

This process of rebuilding occurred differently than in other parts of the Empire, where frequently there are substantial changes to be observed between plans of camps from different stages (Petrikovits 1975). That the history of development of two other nearby fortresses, Oescus (Kabakčijeva 2000) and Durostorum (Ivanov *et al.* 2006: 166–185), was completely different, seems to confirm this thesis (based on currently obtained data). Ultimately, the results of work in Novae demonstrate that—irrespective of the theoretically rigid rules for the planning and construction of the legion camps synthesized in the work of Hyginus' *De Munitionibus Castrorum*—the site has partly departed from these rules. The analysis of the plans of other legionary fortresses suggests that Hyginus' rules were generally followed (Ivanov 1999: 207–227).

The research carried out in Novae seems to indicate the existence of a way of building that is characteristic of the legion I Italica, the so-called *manus legionis*. The data on hand today indicate differences between buildings that serve the same functions but constructed by different legions. Differences of plan do not constitute conclusive proof as they could be largely dependent on local topography, but the choice of specific architectural solutions, as well as building and architectural decoration techniques, can be significant.

Topographically determined changes and resulting practical considerations concern the location of some constructions. It is mainly about the *valetudinarium*, which was erected at

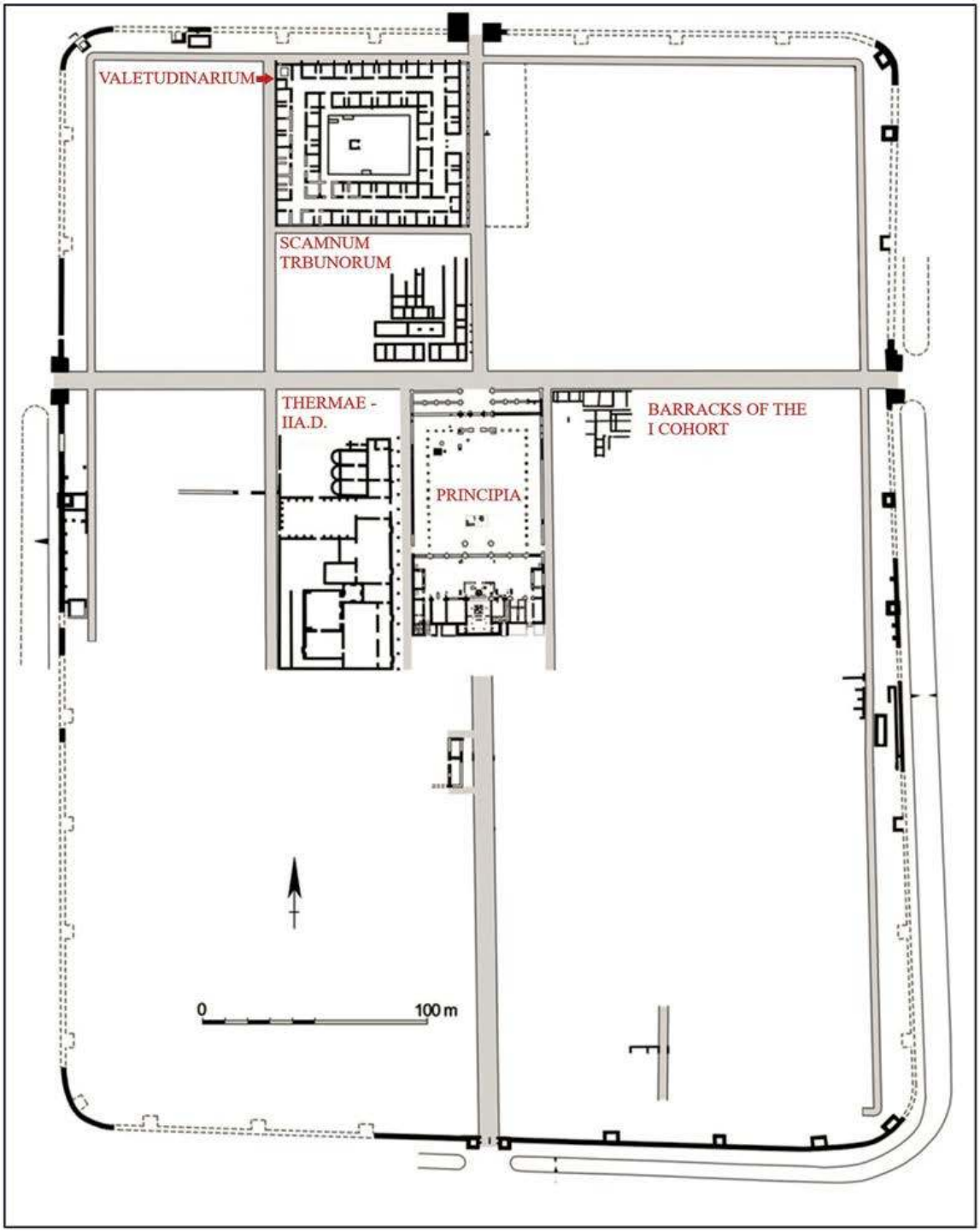

Figure 5: Plan of the castrum Novae (P. Dyczek).

the crossroads of *via sagularis* and *via praetoria* by the *porta praetoria*, leading to the bank of the Danube. In order to accomplish this, the legionary bathhouse had to be demolished. This location of the hospital is a clear example of the preparation of the fortress for war with the Dacians. In turn, the aforementioned bathhouse had been erected on the site where military barracks are usually located. This was due to a sharp drop in the ground level, which made it easier to build hypocaust systems and allowed large quantities of sewage to be discharged directly into the Danube.

The building habits, or the *manus legionis* are evident in the way the legionary buildings at Novae are built and decorated, especially if we compare them with other forts on the Danube (Ivanov 1999: 153–207). In the case of the legion I Italica, it is particularly evident, because Novae was the first and only fortress that the legion built literally from the ground up. It also seems that the way in which the legion was formed and hence the origins of the first legionaries had considerable influence on the camp architecture. It was not without reason that it was called the 'Italic' legion. The richness and architectural consistency of the buildings in Novae are obvious at first glance. The almost exclusive use of the Tuscan architectural order, practically unheard of in other military camps, is particularly evident only in Novae and not in other camps along the Danube, although we are aware of a few single examples of which the archaeological context is not clear. There is also an evident attention to aesthetic detail that gives the camp buildings a certain air of luxury. The nymphaeum of the Flavian bath was decorated with marble sculptures of nymphs of rather good quality. Marble imported from Greece was used for the architectural decoration within this bath, the plan of which recalls public baths rather than army facilities. The wall paintings are dominated by green and red floral motifs next to figural decoration and stuccowork. All these elements are typical of and inseparably associated with the legion I Italica; they do not exist in other Lower Danube fortresses built by other military units. The habits of the I Italica concern the planning and decoration of buildings as much as construction techniques, taking into account the properties of specific building materials. Over time these characteristic features weakened, but even so, the architects who planned the camp seem to have had more experience with public buildings rather than military architecture.

It therefore appears possible to identify several characteristic features of the *manus legionis* in the case of the legion I Italica in Novae. The fact that these features are not as easily recognizable in the case of other legionary camps above the Lower Danube is most likely due to numerous episodes of rebuilding. Only at Novae, is it possible to observe the process of planning and building such a structure from beginning to end. However, it also seems that this can only be expected of legions required to construct their own fortresses after having been formed as a legion. Whenever legions were stationed in existing camps, they adapted to the standing architecture and recognizing any characteristic features of specific legions is not only difficult, but also often simply impossible.

Transformation of a Fortress into a City

The third explanatory hypothesis for why the Lower Danube *limes* developed differently concerns the situation on the Lower Danube in the wake of the barbarian raids of the mid-3rd century AD (Kolendo 2008: 117–131), which were repeated later at relatively short intervals all the way through the 7th century AD. Despite the threat and short-term occupation of the

territory by the armies of Theodoric (Prostko-Prostyński 2008: 141–142), the defensive system here proved surprisingly permanent compared to other sections of the *limes*. Problems started after the death of Maximinus Thrax in AD 238 when the legion I Italica appears to have been condemned to *damnatio memoriae* (Dyczek and Kolendo 2017: 461–465). The military situation on the Lower Danube, however, quickly forced Gordian III to reform the legion in AD 285 (Duch 2011: 83; Sarnowski 1983: 61).

Scholars have frequently considered and debated how the legionary fortresses on the Lower Danube were changed into cities and towns, and what was the role of the reformed army in these centres (cf. Poulter 1983: 139–148; 2007: 1–96). The data from Novae have contributed to a new understanding of the issue. First, it seems that some of the legionaries from the legion I Italica stayed on in Novae after the legion was disbanded in AD 238. Most of these legionaries were likely soldiers who were natives of Moesia. For instance, the house of the centurion, which was deserted after the *damnatio memoriae* of the legion, appears to have been partially rebuilt before the barbarian raids c. AD 250. The walls of the old house were used in a discriminatory way, changing practically the entire arrangement of the area except for the central courtyard; the new building walls deviated from the orientation of the old ones by ten degrees. This provides evidence of the changes in the inner layout of the old fortress and the adaptation of the street grid to the new civil character of the architecture.

The same situation was observed when excavating the area of the army hospital (Dyczek 1999: 99–104), but in the case of Sector IV, as this area is designated, the transition took place after the Gothic raid of the mid-3rd century AD when the Goths devastated the hinterland of the city, even though they were unable to take it (Mrozewicz 2010b: 274–275). Tomb markers from the defiled cemeteries provide archaeological evidence for these dramatic events, markers which were reused as pavement slabs in the new street crossing the old army hospital grounds from east to west (Dyczek 1998: 17–29). This was a gradual process which was spread out over time and which concerned only part of the fortress. The new street grid, changed from that of the old fortress, was imposed to some extent, the idea being to service the new buildings that replaced the legionary structures. It shows that the 'urbanizing' of fortresses (on the Lower Danube) was originally an ad hoc affair without any overall plan. Buildings in the centre of the old fortresses were occupied and rebuilt, if they required less effort and fewer resources. Complexes that could not be easily adapted were partly dismantled and rather dense quarters of housing and workshop spaces were introduced instead. The characteristics that these new structures share include a main courtyard lined with a row of relatively small rooms and workshops, the outer walls of which formed solid curtains with few entries, all of them narrow, and only a small number of windows. The overall impression of the area of the army hospital was that of a defensive complex.

Interestingly, the buildings constructed before the Gothic raids demonstrate the characteristics of the legion I Italica's *manus legionis*, while after the raids the building technique changed completely. This suggests that Novae was populated by people possibly coming in from the devastated hinterland. A military diploma found in Novae, dated to 7 January AD 244, issued for Dolens, a legionary from the *cohors praetoria* (Narloch 2020: 282–284), who came from Nicopolis ad Istrum just 60 km south of Novae, confirms the idea that Novae's residents in this period consisted mainly of army veterans and their families. Other people would have joined them later. The veterans seem to have been the ones who, in this new role, had sufficient

resources to set up crafts workshops. Evidencing this is a hoard of 48 coins coming from the building that was raised on the ruins of the Centurion's house (Ciołek 2017: 79–98). This hoard is composed primary of autonomous coins, thereby indicating that the person hiding them was likely a veteran.

The army structure continued to function, most probably restricted to the *principia* (Sarnowski 1999: 57–63). At the same time, the population structure in the city changed. Material evidence of the presence of a small group of Goths makes a gradual appearance in the archaeological record (Dyczek 2019). Characteristic vessels attributed to the Goths are first seen in Novae in contexts from the late 3rd and early 4th century AD. So far, a longer (not to mention permanent) presence of Goths in the city in the second half of the 3rd century AD, after Cniva's attack, has been excluded. After AD 297 (Kokowski 2007: 243), when the Goths were given *foederati* status and started to settle on the northern bank of the Danube, among other places (Wolfram 1990: 67), a slow infiltration of their products into Imperial territory can be observed through the end of the 4th century AD.

During the 2011 excavation season at Novae, an interesting inscription was discovered (Dyczek 2015: 169–177). It mentioned the name of 'Novae' and *pastus militum* (Łajtar 2013: 67–111). Dating from the early 5th century AD, the inscription indicated that the army structure was in place and de facto functioning in Novae until this time. This presents us with a terminological issue because it has been commonly accepted to refer to the transformed fortresses as civil towns after the mid-3rd century AD raids. The buildings that have been excavated are indeed civil in function, although there are significant differences, like the absence of sanctuaries on one hand and the presence of large granaries on the other. There is also a difference concerning supplies. Inscriptions from Oescus and Novae regarding the *pastus* prove that the cities with this system of distribution were actually military towns (Sarnowski 2013: 134–146).

On the basis of our research and that carried out in other Lower Danube forts, we can assume that the process of their 'urbanization' was different from that of other parts of the Roman *limes*. This is likely due to the political and military situation caused by the pressure of the invading peoples like the Goths. In Novae, the situation was specific because of the aforementioned *damnatio memoriae* of the legion and the military leaving the fortress. After the re-forming of the legion, it was immediately involved in military activities outside Novae (Dyczek 2019). After about 20 years of a settlement hiatus, civil buildings are erected on the ruins of the fortress. These buildings are constructed not only by people seeking refuge here, but also those legionnaires who did not return to service and later also those who finished their service (which seems to be indicated by the military diploma discussed above). Finally, there were those who continued to function within the military structure, as the *pastus* inscription indicates. This evidences that the city continued to have a military character and was not fully a civilian city. Cities such as Novae were obviously different from the towns that were founded as civil centres from the start. Therefore, it seems that the 'urbanizing' process on the Lower Danube followed a different course. The old fortresses were architecturally transformed and given urban features, but their functioning is different, integrally linked to military tasks through Late Antiquity.

Conclusions

The results to date regarding the creation and evolution of the Danube *limes* seem to indicate its uniqueness. The analysis leads us to three hypotheses explaining the documented situation as currently understood. The Danube *limes* was created in stages over almost 100 years. Its structure was determined by both the topography and the political and military situation in the region, as well as by the existing population and access to raw materials. It functioned as a whole network system comprising three defensive spheres: a wide foreground, border strip and the interior/hinterland. Although the (civil) administrative structure was arbitrary, the military infrastructure considered the pre-Roman situation, i.e., the tribal division and the existing elements of the earlier infrastructure. The transformation of the legionary fortresses was also more flexible than in other sections of the *limes*; it was connected with the rotation of the military units, which reconstructed their headquarters during the preparation for the wars with the Dacians, taking into account the topographical conditions and new requirements. More clearly than in other parts of the *limes*, there are characteristic ways of building and decorating military buildings (*manus*), even though they all used the same raw materials. The later transformation of the Lower Danube fortresses into cities was a more complex process than previously understood. Despite the urban and civil urban layout, fortresses like Novae retained their military character. Their inhabitants were not only civilians looking for shelter but also the military, who carried out independent economic activity in parallel with their duties.

Hopefully, this chapter will inspire further scientific discussion of the transformation of other legionary fortresses into cities on the Lower Danube and beyond. The ideas discussed here need to be considered within the context of research from areas beyond the Lower Danube. The methodological and technical base for this exists, to be used within the framework of better structured international cooperation, involving especially the European Union programmes.

Acknowledgements

The project has been financed with resources provided by the National Science Centre, Poland, alloted on the basis of decision NOVAE DEC 2018/31/B/HS3/02593, ORCID 0000-0001-7011-524X.

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Roman Frontier Studies

Over the past few decades, there has been a significant amount of research on the Roman Lower Danube frontier by international teams focusing on individual forts or broader landscape survey work; collectively, this volume represents the best of this collaboration with the aim of elevating the Lower Danube within broader Roman frontier scholarship.

The Lower Danube, running between Singidunum (modern Belgrade) and Halmyris in the Danube Delta, was one of the most densely fortified regions of the Roman Empire. The region has long been a border zone, today forming part of the border between Serbia and Romania, and the majority of the border between Romania and Bulgaria. Despite its importance for understanding both Roman frontier policy and the relationship between ancient and modern borderscapes, the region has not yet made its full contribution to international Roman scholarship. Bridging the theoretical divide that exists between different regional research traditions, chapters in this volume focus on sites like Ratiaria, in modern north-western Bulgaria, while other contributors examine the complex landscape from a wider perspective oriented around roads, temporary camps, or early Christian sites. *The Roman Lower Danube Frontier* emphasises the importance of engaging with Roman frontier landscapes, particularly in regions such as East-Central Europe, where they remain part of a contemporary borderscape.

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