The Roman Lower Danube Frontier

The Roman Lower Danube Frontier

Innovations in Theory and Practice

Edited by
Emily Hanscam and John Karavas

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)

© the individual authors and Archaeopress 2023

This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc-nd/4.0/ or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

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 iv

Preface
Researching the Romans on the Roman Lower Danube: Challenges and Opportunities vii
Ioana A. Oltean

Introduction
The Lower Danube *Limes*: Recentring a Roman Frontier Province 1
John Karavas and Emily Hanscam

Modelling Forts and Landscapes in Scythia Minor 13
Nathaniel Durant

Roman Camps in the Lower Danube: From Remote Sensing to Provincial Contexts 36
Ovidiu Țentea and Florian Matei-Popescu

Roads and the Roman Landscape in Moesia Inferior 63
Adriana Panaite

Sanctified by the Blood of Martyrs: The Creation of New Sacred *Loci* in Scythia Minor During the Early Christian Period (4th Century AD) 89
Patrick Lowinger

Ratiaria: The Focal Point in the Western Part of Lower Danube Frontier 110
Zdravko Dimitrov

Reflections on the Importance of Studies on the Lower Danubian *Limes* 136
Piotr Dyczek

List of Contributors

Zdravko Dimitrov has a MA in Classical Archaeology (2000) and a PhD (2004) from Sofia University and was made Associate Professor in 2014. Since 2001, he has worked at the National Archaeological Institute of the Bulgarian Academy of Sciences. He is the author of over 150 articles and four books, and the head of more than ten rescue excavations in Bulgaria and regular excavations at Ratiaria, Bononia and sanctuaries in the Rhodopes. He was a Mellon Fellow in Jordan (ACOR 2009) and Greece (ASCSA 2011) and received the Paul Getty Foundation Stipend (Algeria 2012). He speaks German, English, Russian and Serbian.

Nathaniel Durant is an Adjunct Faculty at both Husson University and Maine Maritime Academy who specializes in the Late Antique Lower Danube, especially in the province of Scythia Minor. He earned a PhD in Classics from the University at Buffalo in 2020; his contribution to this volume draws heavily on his PhD research. He served on the field staff as the GIS and Survey Specialist at the archaeological excavations of the site of Halmyris in south-east Romania. His research currently revolves around Late Roman forts, Roman frontiers and the integration of statistical models into archaeology.

Piotr Dyczek (prof. dr hab.) is Professor of Archaeology, Head of the Department of Classical Archaeology of the Faculty of Archaeology and Director of the Center for Research on the Antiquity of Southeastern Europe at the University of Warsaw. He is a member of DAI and the Bulgarian Academy of Sciences, a member of the scientific committee of LRCW and CRPA Implementer of European Union programs, Culture 2000, Tempus IV, Erasmus and Picasp. He has implemented over 30 research grants. He teaches classical archaeology and has supervised numerous bachelor's, master's and doctoral theses. He conducts excavations in Novae (Bulgaria), Rhizon (Montenegro) and Shkodra and Bushati in Albania. He has also excavated in Tanais (Russia) and in Serax in Turkmenistan. He specializes in Greek Bronze Age archaeology (MA, PhD), Illyrian archaeology, *Limes* archaeology (habilitation) and the history of ancient material culture and Roman provincial art. He is the editor of the journal *Novensia*.

Emily Hanscam is a Researcher in Archaeology at Linnaeus University, Sweden, associated with the UNESCO Chair for Heritage Futures, the LNU Centre for Concurrences and LNU Digital Transformations. She earned a PhD in Archaeology from Durham University (2019), researching Roman frontiers, archaeology and nationalism in East-Central Europe. She was previously a Lecturer in Archaeology for the University of Amsterdam and Project Manager for Archaeology at Halmyris, an international volunteer excavation project in Romania. Her research focuses on the politics of the past, critical heritage studies, and the reception of the Roman past with a focus on border landscapes. She is co-editor of *Digging Politics: The ancient past and contested present in East-Central Europe* (De Gruyter, 2023).

John Karavas is a graduate of the Universities of Oxford and Durham (PhD in Ancient History, 2001). His main areas of interest lie in the fields of Hellenistic and Roman History, Greek and Roman provincial archaeology (with a special interest in Roman frontiers) as well as ancient warfare. He has been associated with various research groups and institutes both in the UK and in East-Central Europe. Over the years he has participated in many excavations in Serbia,

Romania and Greece; between 2008–2020 he was the Director of Excavations at Halmyris, a Greek/Roman/Byzantine military and urban site on the Danube Delta in Romania. Since 2003, he has been a faculty member at the College Year in Athens Study Abroad Program (DIKEMES).

Patrick Lowinger possesses a MA in ancient history from American Military University and a MA in archaeology from the University of Leicester. Pat is currently a graduate student at Leicester where he hopes to one day complete his doctoral degree. His research interests include the establishment, abandonment and reuse of sacred loci across temporal periods and by culturally dissimilar groups. Currently his research is focused upon western Cornwall spanning from the Late Neolithic through to the Early Medieval period. He lives in Washington State with his wife and two adult children where he enjoys a variety of outdoor activities when he is not teaching.

Florian Matei-Popescu is a senior post-doc researcher at the Greco-Roman Archaeology and Epigraphy Department of the Vasile Pârvan Institute of Archaeology in Bucharest. His area of research focuses on all aspects of the history and archaeology of the Roman provinces in the Lower Danube area and beyond, with a particular interest on the Roman military presence, Roman frontiers studies and Latin and Greek inscriptions from the Imperial period. He published an important book on the Roman military presence in the province of Moesia inferior (*The Roman Army in Moesia Inferior*, Bucharest, 2010) and another one, in collaboration, on the Roman auxiliary units in Moesia superior (*Auxilia Moesiae Superioris*, Cluj-Napoca, 2018). He is a member of the Romanian *Limes* Commission, focusing on the frontiers of the province of Dacia Inferior and excavating the Jidova Roman fort from Câmpulung-Muscel (3rd century AD) and at the nearby Roman military bathhouses at Voinești (Trajanic period). He also excavates at the Roman military amphitheatre from Drobeta and at Ulpia Traiana Sarmizegetusa. He is currently working on a supplement of the series *Inscriptiones Scythiae Minoris*, focusing on the Roman frontier from Scythia Minor.

Ioana Oltean, FSA is Associate Professor in Roman and Remote Sensing Archaeology at the University of Exeter, specializing in the archaeology of the Roman Lower Danube *limes* provinces and in aerial archaeology. She investigates the impact of Roman conquest on local landscapes, settlement pattern evolution and society from the Late Iron Age to the Roman period in the Lower Danube area and beyond, to quantify the nature and extent of their change through Roman imperialist expansion. Since 1998 she has combined aerial reconnaissance, satellite imagery and LiDAR research with ground investigations in various parts of Romania, the Roman Empire and Latin America. She is a member of the Aerial Archaeology Research Group and of the Society for the Promotion of Roman Studies, and a regular contributor to the International Congresses of Roman Frontier Studies, Roman Archaeology Conferences and the Theoretical Roman Archaeology Conference.

Adriana Panaite is a researcher in the Department of Greek and Roman Archaeology and Epigraphy at the Vasile Pârvan Institute of Archaeology of the Romanian Academy in Bucharest. She earned a PhD in History from Bucharest University (2011), researching Roman roads in Moesia Inferior under the supervision of Professor Alexandru Barnea. Her research interests focus on Roman provincial archaeology, Roman roads, urbanism, landscape archaeology and ancient geographies. She has excavated at numerous sites along the Lower Danube since 1993, first as a student participant and later as an academic researcher; these include the ongoing

excavations at the Roman settlement at Tropaeum Traiani (Adamclisi, Romania), the Roman fortification at Dinogetia, Histria (Istria, Romania), Roșia Montană (Alburnus Maior, Romania), Novae (Svishtov, Bulgaria) as well as within the city of Bucharest.

Ovidiu Țentea is Senior Researcher at the National Museum of Romanian History, Bucharest, and an associate at Babeș-Bolyai University, Cluj-Napoca. He is interested in Roman urbanism, acculturation of the Danube provinces, archaeology of the Roman fortifications and their military settlements, Roman temples, Roman baths and landscape archaeology. He has worked on Roman sites in Colonia Dacica Sarmizegetusa and excavated Roman forts at Cășeiu, Gilău, Mălăiești and the settlements Sarmizegetusa Regia and Buridava (Stolniceni). He is the author of *Ex Oriente ad Danubium. The Syrian auxiliary units on the Danubian frontier of the Roman Empire* (Cluj-Napoca, 2012), *Bath and bathing at Alburnus Maior – Băile de la Alburnus Maior* (Cluj-Napoca, 2015), co-author of *Auxilia Moesiae Superioris* (Cluj-Napoca, 2018) and co-editor of *Dacia Augusti Provincia: crearea provinciei* (Bucharest, 2006) and of *Near and Beyond the Roman Frontier. Proceedings of the Colloquium held in Târgoviște*, *16–17 October 2008* (Bucharest, 2009).

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.

Bibliography

Breeze, D.J. 2011. *The Frontiers of Imperial Rome*. Barnsley: Pen and Sword Books.

Breeze, D.J. 2023. Brenda Heywood and the Vallum of Hadrian's Wall. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, Series 3, Volume 23.

Jones, R.H. and T. Ivleva Forthcoming. Visible invisibles: women and Roman frontiers, in R. Witcher and E. Hanscam (eds) *Resistance and Reception: Critical Archaeologies of Iron Age and Roman Worlds*. Oxford: Archaeopress.

Koranyi, J. and E. Hanscam 2023. *Digging Politics: The Ancient Past and Contested Present in East-Central Europe*. Berlin: De Gruyter. https://doi.org/10.1515/9783110697445

Lemke, M. 2015. Towards a military geography of Moesia Inferior, in L. Vagalinski and N. Sharankov (eds) *Limes XXII. Proceedings of the XXIInd International Congress of Roman Frontier Studies held in Ruse, Bulgaria (September 2012)*: 845–852. Sofia: NAIM-BAS.

Oltean, I.A. and W.S. Hanson 2015. Defining the Roman limes in Romania: the contribution of aerial and satellite remote sensing, in L. Vagalinski and N. Sharankov (eds) *Limes XXII. Proceedings of the XXIInd International Congress of Roman Frontier Studies held in Ruse, Bulgaria (September 2012)*: 889–899. Sofia: NAIM-BAS.

Oltean, I.A. and D.C. Lungescu In Press. Roman connectivity, networking and mobility along the Lower Danube frontier: a GIS approach, in *Proceedings of the Roman Frontier Studies Congress Nijmegen, 2022*.

Ţentea, O. 2016. About the Roman frontier on the Lower Danube under Trajan, in A. Panaite, R. Carjan and C. Capita (eds) *Moesica et Christiana: Studies in Honour of Professor Alexandru Barnea*: 85–93. Brăila: Istros.

Whittaker, C.R. 2004. *Rome and its Frontiers: The Dynamics of Empire*. London: Routledge.

[5] https://limesromania.ro/en/articole/about-the-project/the-team/ (Last accessed 26 June 2023).

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

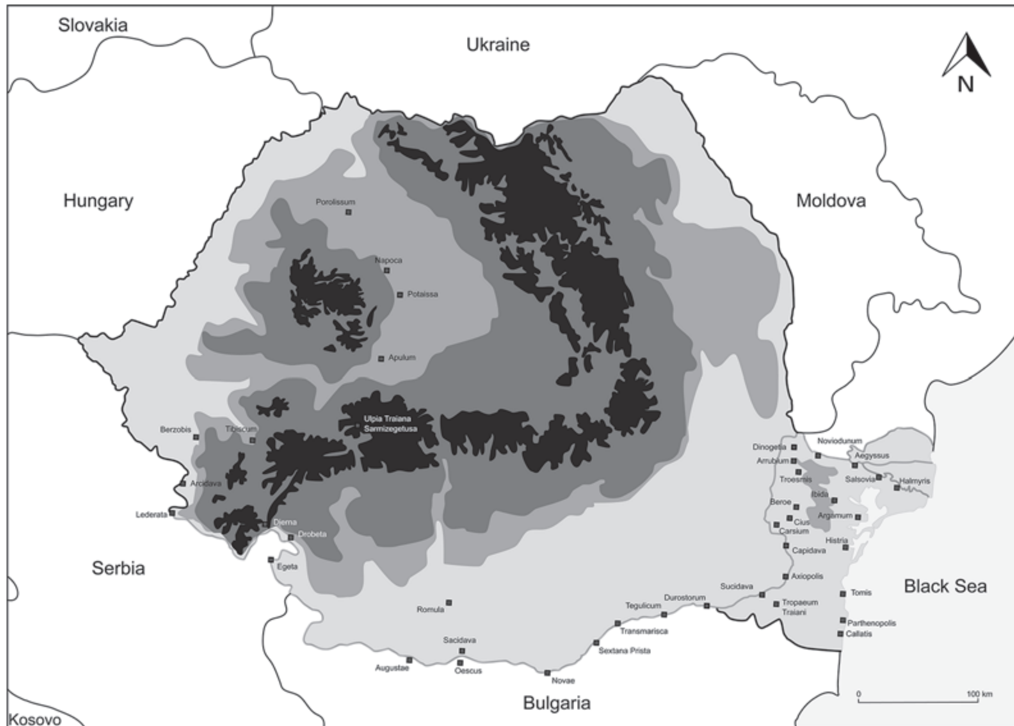

Figure 1: The Roman Lower Danube frontier with modern political borders (E. Hanscam, after Hanscam 2023: 313).

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

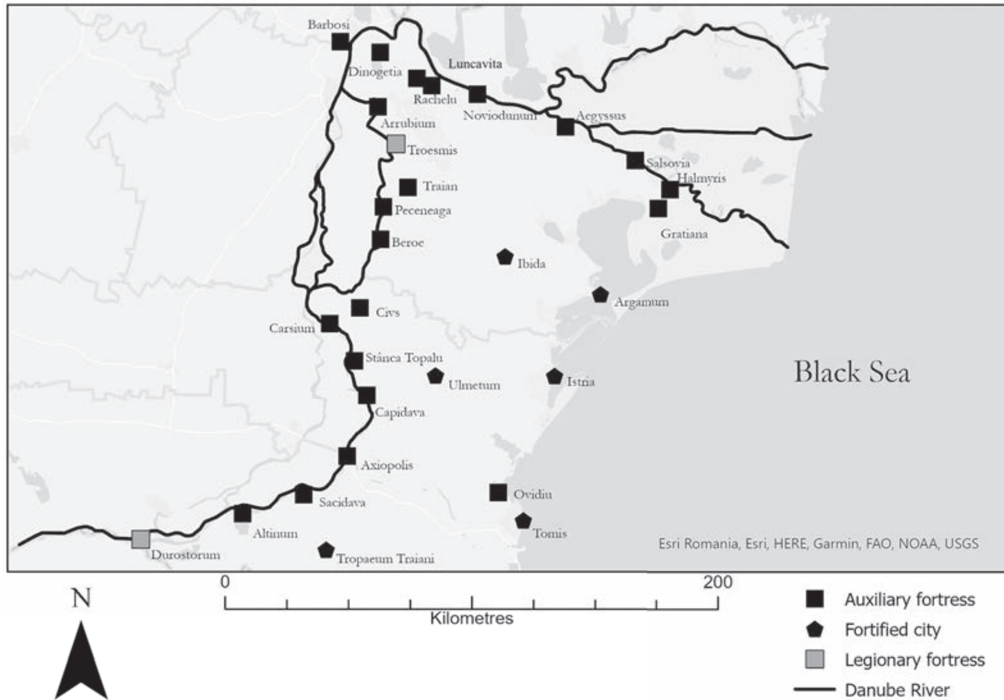

Figure 3: Map of the western Lower Danube frontier (figure by B. Buchanan, used with permission).

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

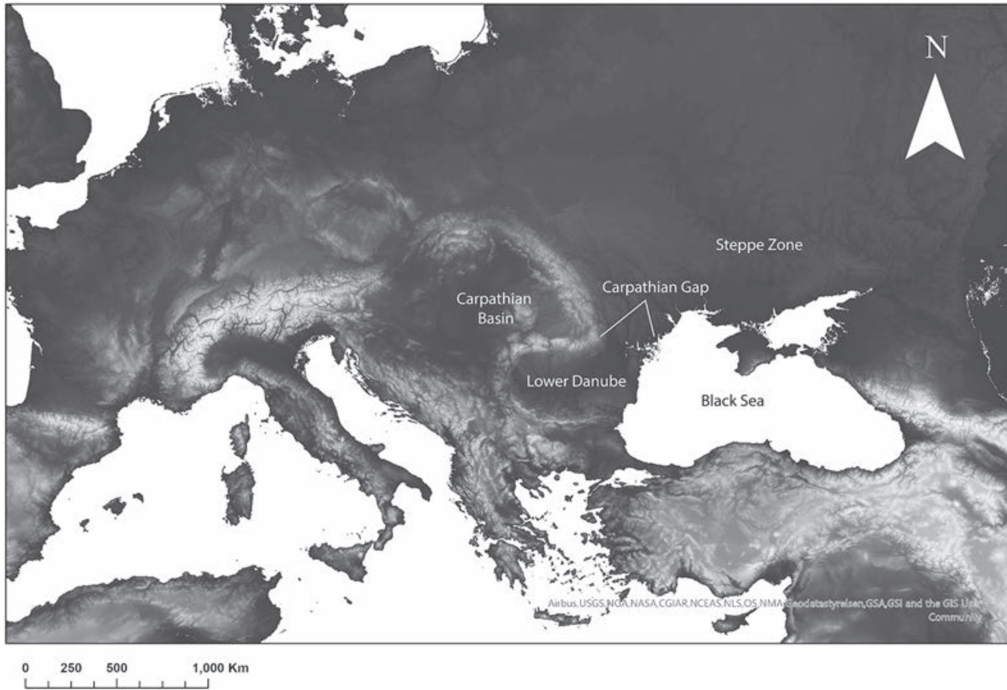

Figure 4: Geographic map of East-Central Europe (E. Hanscam, after Hanscam 2023: 311).

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.

Bibliography

Ancient & Epigraphic Sources:

Cassius Dio. *Roman History, Volume VI: Books 51–55*. Translated by Cary, E. and H.B. Foster 1917. Loeb Classical Library 83. Cambridge, MA: Harvard University Press.

CIL XIV. Dessau, H. 1887. *Inscriptiones Latii veteris Latinae*. Berlin: G. Reimerum.

ILS. Dessau, H. 1892. *Inscriptiones Latinae Selectae*. Vol. 1. Berlin: Weidmannos.

Philostorgius. *Historia Ecclesiastica*. Translated by Walford, E. 1855. *The Ecclesiastical History of Sozomen, Comprising a History of the Church, from A.D. 324 to A.D. 440*. London: Henry G. Bohn.

Modern Sources:

Alexandrescu, C.-G., C. Gugl and B. Kainrath (eds) 2016. *Troesmis 1: Die Forschungen von 2010–2014*. Cluj-Napoca: Mega Verlag.

Buchanan, B. and E. Hanscam In Press. Rivers and walls: the materiality of Roman frontier waterscapes on Hadrian's Wall and the Lower Danube, in A. Tibbs and P. Campbell (eds) *Rivers and Waterways in the Roman Empire*. London: Routledge.

Bunson, M. 2002. *Encyclopedia of the Roman Empire, Revised Edition*. New York: Infobase Publishing.

Childe, V. 1927. The Danube thoroughfare and the beginnings of civilization in Europe. *Antiquity* 1: 79–91. doi:10.1017/S0003598X00000089

Ciołek, R. and P. Dyzcek 2011. *Novae, Legionary Fortress and Late Antique Town, Vol. 2*. Warsaw: University of Warsaw.

Damian, O. *et al.* 2014. Valul mare de pământ. Cercetare arheologică preventivă pe Autostrada 2 Bucureşti – Constanţa, tronsonul Cernavodă – Medgidia, km 159+000–159+150 zona localităţii Făclia, com. Saligny, jud. Constanţa. *Cercetări Arheologice* 21: 291–326. doi:10.46535/ca.21.08

Damian, P. and A. Bâltâc 2007. The civil Roman settlement at Ostrov-Durostorum. *ISTROS* 14: 61–17.

Derks, T. and N. Roymans 2006. Returning auxiliary veterans: some methodological considerations. *Journal of Roman Archaeology* 19: 121–135. doi:10.1017/S1047759400006292

Duch, M. 2015. The impact of Roman army on trade and production in Lower Moesia (Moesia Inferior). *Studia Europaea Gnesnensia* 11: 235–260. doi:10.14746/SEG.2015.11.12

Gândilă, A. 2022. Fighting against nature: Romans and barbarians on the icy Danube. *Journal of Ancient History* 10(1): 135–164. doi:10.1515/jah-2021-0015

Hanscam, E. 2019. Postnationalism and the past: the politics of theory in Roman Archaeology. *Theoretical Roman Archaeology Journal* 2(1): 3. doi:10.16995/traj.370

Hanscam, E. 2023. Archaeology and the challenge of continuity: East-Central Europe during the Age of Migrations, in J. Koranyi and E. Hanscam (eds) *Digging Politics: The Ancient Past and Contested Present in East-Central Europe*: 307–346. Berlin: De Gruyter. doi:10.1515/9783110697445-013

Hanscam, E. and B. Buchanan 2023. Walled in: borderlands, frontiers and the future of archaeology. *Antiquity* 97: 1004–1016. doi:10.15184/aqy.2023.14

Hanson, W.S. and I.A. Oltean 2012. The "Valu lui Traian": a Roman frontier rehabilitated. *Journal of Roman Archaeology* 25(1): 297–318. doi:10.1017/S1047759400001227

Harris, W. 2016. *Roman Power: A Thousand Years of Empire*. Cambridge: Cambridge University Press.

Haverfield, F. 1915. *The Romanisation of Roman Britain*. 3rd edition. Oxford: Clarendon Press.

Hingley, R. 1996. The 'legacy' of Rome: the rise, decline, and fall of the theory of Romanisation, in J. Webster and N. Cooper (eds) *Roman Imperialism: Post-Colonial Perspectives*: 34–48. Leicester Archaeology Monographs 3. Leicester: School of Archaeological Studies, University of Leicester.

Hingley, R. 2014. Romanization, in C. Smith (ed.) *Encyclopedia of Global Archaeology*. New York: Springer. doi:10.1007/978-1-4419-0465-2_942

Hingley, R. 2018. Frontiers and mobilities: the frontiers of the Roman Empire and Europe. *European Journal of Archaeology* 21: 78–95. doi:10.1017/eaa.2017.17

Karavas, J. 2001. The evolution of Roman Frontier Defence systems and fortifications: the Lower Danube provinces in the first and second centuries AD. Unpublished PhD thesis, Durham University.

Light, D. and D. Dumbraveanu-Andone 1997. Heritage and national identity: exploring the relationship in Romania. *International Journal of Heritage Studies* 3(1): 28–43. doi:10.1080/13527259708722185

Lockyear, K., T. Sly and A. Popescu 2005. The Noviodunum Archaeological Project 2000–2004: results and conclusions from the pilot seasons. *Peuce S.N.* 3(3–4): 121–158.

Matei-Popescu, F. 2022. The origins of the province of Moesia: Romans, Greeks and Thracians, in T. Castelli and C. Müller (eds) *De Mithridate VI à Arrien de Nicomédie: changements et continuités dans le bassin de la mer Noire entre le Ier s. a.C. et le Ier s. p.C. Actes du colloque de Paris Nanterre, 2 et 3 mars 2018*: 121–152. Scripta Antiqua 166. Bordeaux: Ausonius Éditions.

Matei-Popescu, F. and O. Ţentea 2018. *Auxilia Moesiae Superioris*. Cluj-Napoca: Mega Publishing House.

Niculescu, G.A. 2004. Archaeology and nationalism in the history of the Romanians. *Dacia N.S.* XLVIII: 99–124.

Niculescu, G.A. 2023. Why nationalism survives in Romanian archaeology and what could limit its impact, in J. Koranyi and E. Hanscam (eds.) *Digging Politics: The Ancient Past and Contested Present in East-Central Europe*: 287–306. doi:10.1515/9783110697445-012

Oltean, I. and W. Hanson 2014. Integrating aerial and satellite imagery: discovering Roman imperial landscapes in southern Dobrogea (Romania), in W.S. Hanson and I.A. Oltean (eds) *Archaeology from Historical Aerial and Satellite Archives*: 315–336. New York: Springer.

Opriş, I. and A. Raţiu 2017. *CAPIDAVA II Building C1 – Contributions to the history of annona militaris in the 6th century*. Cluj-Napoca: Mega Publishing House.

Popa, C.N. 2015. Late Iron Age archaeology in Romania and the politics of the past. *Dacia N.S.* LIX: 337–361.

Popa, C.N. and E. Hanscam 2019–2020. Of Romans, Dacians and Romanians. *ARCHAICA* 7: 243–251.

Poulter, A. 1995. *Nicopolis ad Istrum: A Roman, Late Roman and Early Byzantine City*. Malet Street: Society for the Promotion of Roman Studies.

Poulter, A. 2004. Cataclysm on the Lower Danube: the destruction of a complex Roman Landscape, in N. Christie (ed.) *Landscapes of Change: Rural Evolutions in Late Antiquity and the Early Middle Ages*: 223–254. Aldershot: Ashgate.

Poulter, A. 2010. The Lower Danubian frontier in Late Antiquity: evolution and dramatic change in the frontier zone, c. 296–600, in P. Hertz, P. Schmid and O. Stoll (eds) *Zwischen Region und Reich: Das Gebiet der oberen Donau im Imperium Romanum*: 11–42. Berlin: Frank & Timme.

Poulter, A. 2019. *The Transition to Late Antiquity on the Lower Danube: Excavations and Survey at Dichin, a Late Roman to Early Byzantine Fort and a Roman Aqueduct*. Oxford: Oxbow.

Rubel, A. 2023. Dacian blood: autochthonous discourse in Romania during the Interwar Period, in J. Koranyi and E. Hanscam (eds) *Digging Politics: The Ancient Past and Contested Present in East-Central Europe*: 257–286. doi:10.1515/9783110697445-011

Sarnowski, T., L. Kovalevskaya and J. Kaniszewski 2005. Novae-Castra Legionis, 2003–2005. Preliminary report on the excavations of the Warsaw University Archaeological Expedition. *Archeologia* 56: 141–152.

Sommer, C.S. 2021. A European project: the Frontiers of the Roman Empire – protection and communication of World Heritage in an international context. *ICOMOS – Hefte des Deutschen Nationalkomitees* 79: 36–41. doi:10.11588/ih.2021.1.87245

Țentea, O. *et al.* 2019. Frontiera romană din Dobrogea. O trecere în revistă și o actualizare. *Cercetări Arheologice* 26: 9–82. doi:10.46535/ca.26.01

Whittaker, C.R. 1994. *Frontiers of the Roman Empire*. Baltimore: The Johns Hopkins University Press.

Wilkes, J.J. 2005. The Roman Danube. *The Journal of Roman Studies* 95: 124–225. doi:10.3815/000000005784016298

Zahariade, M. 1976. The structure and functioning of the Lower Moesian limes in 1st-3rd centuries AD. *Limes* 11: 385–398.

Zahariade, M. 1986. Vexillation in northern Dobrudja. *Dacia N.S.* XXX: 173–176.

Zahariade, M. 2006. *Scythia Minor: History of a Later Roman Province*. Amsterdam: Adolf M. Hakkert.

Zahariade, M. and N. Gudea 1997. *The Fortifications of Lower Moesia (AD 86–275)*. Amsterdam: Adolf M. Hakkert.

Zahariade, M. and J. Karavas 2015. A fort of the Danubian Roman frontier: Halmyris, in L. Zerbini (ed.) *Culti e religiosità nelle province danubiane Atti del II Convegno Internazionale Ferrara 20–22 Novembre 2013*: 575–584. Bologna: Emil di Odoya.