

LIMES XX 
24. INTERNATIONAL LIMES CONGRESS
SERBIA, SEPTEMBER 2018

**BOOK OF
ABSTRACTS**



Institute of Archaeology
Belgrade, Serbia

24. LIMES CONGRESS
Serbia 02–09 September 2018
Belgrade – Viminacium

BOOK OF ABSTRACTS

Belgrade 2018

PUBLISHER
Institute of Archaeology
Kneza Mihaila 35/IV
11000 Belgrade
<http://www.ai.ac.rs>
institut@ai.ac.rs
Tel. +381 11 2637-191

EDITOR IN CHIEF
Miomir Korać
Institute of Archaeology, Belgrade

EDITORS
Snežana Golubović
Institute of Archaeology, Belgrade
Nemanja Mrđić
Institute of Archaeology, Belgrade

GRAPHIC DESIGN
Nemanja Mrđić

PRINTED BY
DigitalArt Beograd

PRINTED IN
500 copies

ISBN 979-86-6439-039-2

CONGRESS COMMITTEES

Scientific committee

Miomir Korać, Institute of Archaeology (director)
Snežana Golubović, Institute of Archaeology
Miroslav Vujović, Faculty of Philosophy, Department of Archaeology
Stefan Pop-Lazić, Institute of Archaeology
Gordana Jeremić, Institute of Archaeology
Nemanja Mrđić, Institute of Archaeology

International Advisory Committee

David Breeze, Durham University, Historic Scotland
Rebecca Jones, Historic Environment Scotland
Andreas Thiel, Regierungspräsidium Stuttgart, Landesamt für Denkmalpflege, Esslingen
Nigel Mills, Heritage Consultant, Interpretation, Strategic Planning, Sustainable Development
Sebastian Sommer, Bayerisches Landesamt für Denkmalpflege
Lydmil Vagalinski, National Archaeological Institute with Museum – Bulgarian Academy of Sciences
Mirjana Sanader, Odsjek za arheologiju Filozofskog fakulteta Sveučilišta u Zagrebu

Organization committee

Miomir Korać, Institute of Archaeology (director)
Snežana Golubović, Institute of Archaeology
Miroslav Vujović, Faculty of Philosophy, Department of Archaeology
Stefan Pop-Lazić, Institute of Archaeology
Gordana Jeremić, Institute of Archaeology
Nemanja Mrđić, Institute of Archaeology
Ivana Kosanović, Institute of Archaeology
Milica Marjanović, Institute of Archaeology

CONTENTS

1. Fortifying our frontiers.....23

- Andreas A. Schafitzl: Crumbled stones and burnt wood – results of the excavation on the Raetian Limes in Laimerstadt (Bavaria).....23
- Daniel Burger, Peter Henrich, Markus Scholz: A new Roman early imperial military camp at the lower Lahn.....23
- Sirma Alexandrova: Early Roman temporary military camp near the village of Polenitsa, Sandanski municipality, SW Bulgaria.....24
- Rebecca H Jones: Our ditches are missing! Camps without defences.....24
- Birgitta Hoffmann: The Roman Gask Project.....24
- David Woolliscroft: How long was the Roman Gask Frontier (and when)?.....25
- W.S. Hanson: Understanding the design of the Antonine Wall: some problems and issues.....25
- Matthew Symonds: Thinking small: the role of fortlets in building frontiers.....25
- Horațiu Cociș: Burgus-type structures from the frontier of Dacia Porolissensis.....26
- Felix Marcu, George Cupcea, Aleksandra Jankowska and Jacek Rakoczy: New LiDAR data on the NW limes of Dacia.....26
- Alexandru Popa: Geomagnetische Prospektionen an römischen Militäranlagen im SO Sie-benbürgen / Geomagnetic prospections in the Roman Military sites in south-east Transylvania.....26
- Cristina Mitar, Adriana Rusu Pescaru, Eugen Pescaru: Cigmău – an unusual fort near the imperial border.....27
- Florian Matei-Popescu, Ovidiu Țentea: Moesia Superior and Dacia during Trajan: Army and Frontiers.....27
- Perica Špehar: Non-invasive prospection of the site Egeta.....27
- Snežana Nikolić, Ivan Bogdanović, Goran Stojić, Ljubomir Jevtović: Exploring Viminacium: New excavations on the legionary fortress.....28
- Daniel Burger: New researches of the roman fortress of Mogontiacum/Mainz.....28
- Uwe Xaver Müller: The internal structure of the legionary fortress of Mogontiacum/ Mainz (Germany) – First insights.....29
- Lisa Berger, Steve Bödecker, Friedrich Lüth: Large scale geomagnetic survey: the legionary fortresses of Vetera I (Xanten/Germany).....29
- Steve Bödecker, Friedrich Lüth, Lisa Berger: Large scale geomagnetic survey: the surrounding area of the legionary fortresses of Vetera I (Xanten/Germany).....30
- Friderika Horváth, Mate Szabó, Istvan Viczián: Mud Max – Revealing Roman landscape in the modern industrial environment on the Brigetio – Azaum limes section, Hungary....30
- István Gergő Farkas: New finds from the auxiliary fort Lugio/Florentia (Dunaszekcső, H).....30
- C.-G. Alexandrescu, C. Gugl, G. Grabherr, B. Kainrath: Military and civilian sites in the hinterland of Troesmis.....31
- Mihail Zahariade: Limes Scythicus qui latius diffusiusque porrigitur (CTh. VII 17.1). A commentary on a 4th and 5th century segment of a Danube river frontier.....31
- Stefan Traxler, Gerald Grabherr, Barbara Kainrath, Wolfgang Klimesch: Burgus & Quadriburgium. Two Late Antique fortifications in Northwestern Noricum.....32
- Gerald Grabherr, Stefan Groh, Barbara Kainrath and Stefan Traxler: Before the Legion arrives – The presence of the Roman army on the western ripa Norica.....32
- Julian Bennett: The fort at Çitköy-Sabus reconsidered.....32
- Maciej Czapski: On the edge of the Roman Empire – a defensive system of the south region of Mauretania Tingitana.....33
- Zbigniew T. Fiema: The Roman Fort in Hegra.....33
- John Peter Oleson: Tradition and Innovation in the Trajanic Auxiliary Fort at Hauarra (Hu-

mayma), Jordan.....	34
• Mark Driessen: Power Over or Power With? Monumentality in the Desert: the Roman legionary fortress of Udhruh (Jordan).....	34

2. The Purpose of Roman Frontiers: A Debate.....35

• Christof Fluegel: Military Architecture as a Symbol and Object of Intimidation.....	35
• Alan Rushworth: To protect communications and movement in the frontier zone.....	35
• Eberhard Sauer: The defensive purpose of Roman frontiers.....	36
• Markus Gschwind: To control transhumance.....	36

3. Long Way to Travel.....37

• Francis Tassaux: The road and rivers network within the Illyricum Digital Atlas (IllyrAtlas).....	37
• Vladimir Petrović, Mihai Popescu: De l'Adriatique aux Carpates : voies parallèles, chemins alternatifs, déviations routières.....	38
• Chaim Ben David: Back to the Via Militaris east of the Via Nova Triana in Arabia.....	38
• Florin-Gheorghe Fodorean: The roads of Roman Dacia. New research, new perspectives.....	38
• Željko Miletić, Silvia Bekavac: Octavian's Footprints: Hillforts, camps and roads between Burnum and Synodium.....	39
• Ivo Glavaš: Beneficarii consularis stationes along the Roman road Aquielia–Dyrrachium. State of research.....	39
• Igor Vukmanić: The Limes road in Croatia – Known data, new interpretation.....	40
• Gerda Sommer v. Bülow: Die Bedeutung des Siedlungsplatzes Gamzigrad für das Sicherheitssystem der Provinz Dacia ripensis.....	40
• Ioana Oltean, João Fonte: The road to be taken: a GIS-based analysis of the spatial and networking patterns pertaining to the Roman conquest of Sarmizegetusa Regia, Dacia...40	40
• Sara Zanni, Biljana Lučić, Alessandro De Rosa: Seek and ye shall find. A spatial approach to mapping Roman roads and buried archaeological sites in the Srem region. The case study of Tapavice site.....	41

4. Hold the Line!!!42

• Andrew Poulter: Roman Tactics and Frontier Defence in the Early Empire (1st to 3rd centuries AD).....	42
• Janka Istenič: Traces of Octavian's military campaigns in the north-easternmost part of Roman Italy and western Illyricum.....	43
• Ze'ev Safrai, Ran Ortner: My Home is My Fortress - Combat in built-up areas in the Roman Army.....	43
• Jaime Noguera: Traces of Sertorian's military campaigns in the north-east of Hispania..45	45
• Emzar Kakhidze, Lasha Aslanishvili: Roman garrisons on the edge of the eastern frontier.....	46
• Hans-Peter Schletter: Tropaea in Gelduba? Neue Befunde zur Bataverschlacht in Krefeld - Gellep.....	46
• Viktor Humennyi: Garrisons of Syria and Rome's military strategy during the late second-early third centuries CE Parthian campaigns: the case of Dura-Europos.....	47
• Renate Lafer: Has Septimius Severus ever been in North Africa fighting against the Garamantes? A reconsideration of the campaigns of the emperor.....	47
• Kai Juntunen: The Myth of a Legion Lost – The Incident at Elegeia in Xiphilinus' Epitome of Cassius Dio.....	47
• Lorenzo Boragno: The Frontiers and the Mirror.....	48

• Krzysztof Narloch: The Cavalry of the Roman Army in the IV and V century.....	49
• Andrzej B. Biernacki, Elena Klenina: Armamentarium of the I Italian Legion in Novae (Moesia Inferior).....	49
• Andreas Schwarcz: The frontier defence in Noricum before and after the Marcomannic wars.....	50
• José Manuel Costa-García, David González Álvarez, João Fonte, Andrés Menéndez Blanco, Manuel Gago Mariño, Rebeca Blanco-Rotea, Valentín Álvarez Martínez: Not all the enclosures look the same! New archaeological data for the study of the conquest and occupation of NW Iberia in Early Imperial times.....	50
• Ioan Piso: Some Significant Permutations in the Auxiliary Camps of Dacia.....	51
• Karl Strobel: The Lower Danube and the Balkans: Strategy and Tactics from Hellenistic Republican Warfare to the Flavian Defence-System.....	51
• Zsolt Viszy: Recent research activities along the Pannonian Limes in Hungary.....	52
• Christoph Rummel: Fleeting Fleets – Who did control the Rivers and Seas?.....	52
• Nemanja Mrđić: Classis and its Bases - Viminacium and other ports in defense systems of Moesia Prima and Dacia Ripensis.....	53

5. A Farewell to Arms54

• Liviu Petculescu: The swords in Roman Dacia.....	54
• Boris Rankov: Roman 'cavalry sports' face-mask helmets and the spectacle of pantomime.....	54
• Boris Alexander Burandt: Marble soldiers on Marcus' column: a comparison of its depictions of Roman military equipment and the archaeological finds.....	55
• Martijn A. Wijnhoven: On the origin of mail and the evidence of its early use in the Roman Republic.....	55
• Radu Iustinian Zăgreanu: Weaponry and military equipment from the auxiliary fort of Arcobara.....	55
• Miroslav Vujović: Weapons and Military Equipment from the Roman camp Novae at Čezava (Serbia).....	56
• Frederik-Sebastian Kirch: Weapons in the vicus and the fall of Weißenburg A Comparison between three points of excavations with roman and germanic Weapons at Weißenburg in Bayern (Bavaria).....	56
• Monica Gui: 3rd century cavalry (equites legionis?) equipment illustrated on a few monuments from Dacia Superior.....	57
• Ildar Kayumov: Some thoughts on the construction of the Roman scorpio of the Principate period.....	57
• Maria Novichenkova: Roman military cingulum details of Early Principate from a sanctuary Gurzufskoe Sedlo at Mountain Taurica.....	58
• Fazekas Ferenc: Militaria Lussoniensia. Römische Ausrüstungsgegenstände und Schutzwaffen aus Paks-Dunakömlöd / Roman military equipment and defensive weapons from Paks-Dunakömlöd.....	58
• Jelena Lj. Cvijetić, Ivana D. Kosanović: Inscriptions and stamps on Roman weapons and military equipment from the Serbian part of Limes.....	59

6. Production, Industry and Trade60

• Erik Timmerman: The impact of Rome on socio-economic life along the Lower Germanic Limes: blessing or curse?.....	60
• Ella Magdalena Hetzel: Craftwork in Roman Cologne.....	60
• Martin Lemke: Supplying Novae. The logistic network for provisioning the legio I Italica...61	61
• Merab Khalvashi: On the relationships between Romans and locals in eastern Black Sea littoral: brown clay amphoras discovered in the fort of Apsarus.....	61
• Damjan Donev: Patterns of urban settlement on and behind the Danube Limes - a geographical perspective.....	61

- Slavtcho Kirov: Patrimonium caesaris in the Danubian provinces I-III century p.C.....62
- Felix Marcu, George Cupcea: Supplying the Roman Army on the limes of Dacia Porolissensis.....62
- Mateusz Żmudziński: Comments on the trade in the Late Roman Period.....63
- Juan Manuel Bermúdez Lorenzo: The praefectura annonae along the limes: A comparison of the administrative structures of the Praefectura annonae along the limes provinces...63
- Ionuț Bocan, Catalina Mihaela Neagu, Mihaela Simion, Decebal Vleja: The Entry Gate of Luxuries in the Province of Dacia; Imports from Lezoux to Micia (Vețel, Hunedoara County, Romania).....63
- Tatiana Ivleva, Matt Phelps: Frontier glass: a recipe and production technology for Romano-British glass bangles in the northern British frontier zone.....63
- Lucretiu Birliba: Les bénéficiaires des gouverneurs et les stations douanières en Mésie Inférieure.....64
- Saša Redžić, Ivana Kosanović, Mladen Jovičić, Ljubomir Jevtović: New evidence of brick production at Viminacium.....64
- Mirjana Vojvoda, Adam Crnobrnja: Circulation of Provincial Coins »Provincia Dacia« at the Territory of Present-Day Serbia.....64
- Silke Lange: Some thoughts about the spread and origin of Wooden artifacts found in Roman contexts in the Netherlands and elsewhere65
- Ivana Ožanić Roguljić, Angelina Raičković: Evidence of cheesemaking in lower Pannonia and upper Moesia.....65

7. What about us? Exploring the lives of women and children on the Frontiers66

- Andrew Birley, Elizabeth Greene: Women and War: The composition of the Vindolanda Severan-period military community.....66
- Claire Millington: At home on the base? Examining the accommodation of auxiliary fort commanders and equestrian legionary tribunes on western frontiers.....67
- Anna Mech: Female religiosity in military settlements in Southeastern European provinces.....68
- Kaja Stemberger: Do expressions of identity draw borders? Case study of female identity in Roman-period Slovenia.....68
- Ilija Danković, Ilija Mikić: Recent discovery of a sarcophagus in Viminacium. Evidence of mors immatura?.....69
- Milica Marjanović: Commemoration of children in the province of Upper Moesia – evidence from limes and its hinterland69
- Decebal Vleja, Mihaela Simion, Catalina Mihaela Neagu, Ionuț Bocan: Woman at the Edge of the Empire. Case Study: Domitia from Micia (Dacia)70
- Jelena Anđelković Grašar: Women in the visual culture of Late Antiquity in the Central Balkans: The inferior sex got a new exterior?.....70
- Olga Špehar, Branka Vranešević: Mater Castrorum: representation of an ideal Empress or the rebirth of a Republican ideal woman?.....70
- Anne Chen: Digital Technologies and the Possibilities for Gender and Family Research Along the Limes.....71

10. Going wild! The roles of wild animals in life and death on the frontier.72

- Sue Stallibrass: Wild animals in the frontier zone: food, fun or fantasy?.....72
- Sonja Vuković – Bogdanović: Venison, spectacles and furs: Remains of wild beasts from Viminacium (Upper Moesia, Serbia).....73
- Monika Mraz: Taking the bear by the tooth!.....73
- Ivan Radman-Livaja, Ozren Domiter: Roman fishing implements from Siscia.....74
- Miroslav Vujović: Elephant in the Room.....74
- Dimitrije Marković, Milan Savić: Case of the wounded beast: Red deer tibia with projectile

- trauma from Viminacium (Serbia).....75
- Teodora Radišić: Hunting on the other side of the Roman frontier: case of the Late La Tène site Židovar.....75
- Mirjana Sanader, Joško Zaninović, Mirna Vukov: A new attempt at interpreting arrowheads from the Roman legionary fortresses Burnum and Tilurium in Dalmatia76

11. Religion and beliefs on the frontiers77

- Nadežda Gavrilović Vitas: The Cult of God Mithras on Roman Danube Limes in Lower Pannonia and Upper Moesia.....77
- Ozren Domiter: Understanding the Cult of the Danube Horseman: New Approaches.....77
- Ljubica Perinić: What are we missing? On the invisibility of Silvanus Orientalis.....78
- Dan Augustin Deac: The Materiality of Religion in the Civilian Settlement of Porolissum (Roman Dacia).....79
- Ivan Radman-Livaja: New evidence for the worship of Epona on the Danubian limes.....79
- Ljubiša Vasiljević: Archaeological monuments of Silvanus and his cult community (Mars, Diana, “woodland deities”) in part of Danube limes in Serbia.....79
- Tatiana Ivleva: Embodied religion: Norico-Pannonian gestural language on funerary monuments80
- Nicolay Sharankov: Local cults for Roman use: The sanctuary of Dominus Plester and Diana Plestrensis80
- Tomasz Dziurdzik: Expressing regional and professional religious identities in Roman army: the case of female cavalry “sports” helmets81
- Carsten Wenzel: Votum solvit! – Sanctifications of military personal and a new sacred area in Roman Nida (Frankfurt am Main-Hedderheim).....81
- Csaba Szabó: Religion in the making in Roman Dacia: space sacralisation and religious appropriation on the frontiers of the Empire.....82
- Catherine Leisser: Ritual Artefacts: Right or Wrong?.....82
- Dănuț Aparaschivei: Pilgrims from the province of Scythia in Ephesus83
- Stefanie Hoss: Christian symbols on the weapons and equipment of Roman soldiers.....84
- Erin Darby: Christians in the Late Roman army of Palestine: New evidence from ‘Ayn Gharrandal (Arieldela), Jordan84
- Vinka Matijević: Classical heroes and biblical characters. About the Roman belt found in Zmajevac (Ad Novas).....85
- Reinhardt Harreither: Christian soldiers as martyrs at the Danubian frontier.....85

14. From East to West my Legions are the Best!!!86

- Juergen Trumm: Trajan, legio XI and Caius Iulius Quadratus Bassus - the last legatus legionis of Vindonissa (Windisch/Switzerland).....86
- Domagoj Tončinić: Die Denkmäler der Legio XI in der Provinz Dalmatien.....86
- Ran Ortner: The Cestius Gallus And The XII Roman Legion Campaign to Jerusalem in 66 A.D. and its historical-strategic consequence.....87
- Louisa Campbell: Barbarians on the Edge of Empire – Colouring in the Antonine Wall Distance Stones.....88

16. Stand your Ground!.....89

- Lecat Zénaïde: The African Limes during the Byzantine Period: a Networks Stratigraphy..89
- John Steinhoff: The Numidian Limes from Mesarfelta to Thubunae: An Interdisciplinary Approach.....89
- Michal Dyčka: Modus Operandi of the Odenwald Limes90
- Elisabeth Krieger: Watch out for Watchtowers! Fakten und Fiktion zu deren Rekonstruktion90

- Maciej Marciniak: Reasons for adaptation of troops to the Roman world.....91
- Andrzej B. Biernacki, Elena Klenina: Tuscan and Ionic Order in the Architecture of the Legionary Camp of Novae (Moesia Inferior).....91
- Ivan Gargano: Locating the VIth century Βιμινάκιον92

17. Limes in fine? Continuity and Discontinuity of Life in the Forts of the Roman Frontiers94

- Simone Mayer: Who lies there? Late antique inhumation graves at Augusta Raurica94
- Anna Flückiger: Coins, Chronology, Continuity, and the Castrum Rauracense: New research on the Castrum and its 'suburbium' during Late Antiquity94
- Dan Matei: The post-Roman life in the former castra of Dacia – an overview95
- Alexandru Rațiu, Ioan Caol Opreș: New research concerning the first phase of the Capidava Roman fort (Moesia Inferior)95
- Berber Van der Meulen: The Late Roman limes in the Low Countries: (dis)continuity in a frontier zone96
- Piotr Jaworski, Radosław Karasiewicz-Szczypiorski, Shota Mamuladze: Rise and Fall of Apsaros (Gonio, Georgia). Latest Findings on the Chronology of a Roman Fort on the Eastern Edge of the Empire.....96

18. Transformation of Limes in Late Antiquity98

- Vujadin Ivanišević, Ivan Bugarski: Spatial, Military and Economic aspects of Roman Defence on the Upper Moesian Limes98
- Agnieszka Tomas: Late Roman annex in Novae (Moesia inferior)99
- Conor Whately: Demilitarizing the Southeast Frontier at the End of Antiquity.....99
- Maxime Petitjean: L'évolution du système défensif du Bas-Danube au IVe siècle et la 'grande stratégie' de l'Empire romain tardif99
- Sofija Petković: Early Byzantine Horizon in the Fortification of Pontes – Trajan's Bridge.. 100
- Brahim M'Barek: From the imperial court to the field, Πυργοκάστέλλον - Pyrgocastellum. A architectural innovation imagined in Constantinople and implemented by Justinian's men on the border..... 100
- Antoan Tonev: Foederati – beyond or on our side of the limes? How Romans prefer them... 101
- Sebastian Schmid: The Roman fort at Arelape/Pöchlarn and its development in Late Antiquity..... 101
- Dominic Moreau: Le concept de "limes" dans les sources textuelles antiques / The Concept of "limes" in the Ancient Textual Sources 102
- Thomas Becker: Militärisch und/oder zivil ? – Zur spätantiken Nutzung des mittelkaiserzeitlichen Kastells von Dormagen (Rheinkreis Neuss/D) / Military or civilian ? – The late antique use of the auxiliary fort or Dormagen..... 102
- Ignacio Arce: A Tetrarchic Roman fort under the Umayyad palace of Khirbat al-Mafjar (Jericho)? An hypothesis on the location of the missing Roman forts at Ariha-Jericho (Palestina) and the sequence of transformation and reuse of the site..... 103
- Harry van Enckevort, Joep Hendriks: The afterlife of the Dutch part of the limes ad Germaniam Inferiorem..... 103
- Mihailo Milinković: Is there a "hinterland" of the limes in Early Byzantine Illyricum? New observations almost 60 years after the introductory study of Đorđe Stričević..... 104

19. Who Were the Limitanei?105

- S. Thomas Parker: New Evidence about the limitanei on Rome's Arabian frontier..... 105
- Alan Rushworth: Limitanei: the African perspective 105

21. Life and health on the Roman Limes107

- Nataša Miladinović-Radmilović, Ilija Mikić, Dragana Vulović, Ksenija Đukić: The appearance of ulcer on one skeleton from Viminacium and the possibility of its' treatment in Antiquity..... 107
- Dragana Vulović, Ilija Mikić, Ksenija Đukić, Nataša Miladinović-Radmilović: Case of myositis ossificans traumatica on one skeleton from Viminacium..... 107
- Ilija Mikić, Nataša Miladinović-Radmilović, Dragana Vulović, Ksenija Đukić: Possible explanations for mass skull burials at Viminacium..... 108
- Aleksandar P. Simić, Gordana Jeremić: Roman Medicine and Healthcare on the Upper Moesian Limes in Serbia – Archaeological Evidences..... 108
- Emilija Nikolić, Snežana Golubović: Burial Structures of Viminacium: Building and Construction..... 109
- C. Scott Speal: Settlement Size, History, and Mortality at Roman Viminacium: Testing the Urban Graveyard Hypothesis..... 109

24. Arts and Crafts along Limes111

- Ivana Popović: Roman Cameos With Female Busts from the Limes Region: Their Meaning and Role in the Political Propaganda 111
- Iva Kaić: Roman engraved gems from Burgenae in the Archaeological Museum in Zagreb 111
- Bojan Đurić: The Sirmium sarcophagus production on the Danube Limes and the Titel sarcophagus in Timișoara..... 112
- Boris Alexander Burandt: Entertaining the Empire – Rome's frontiers and the arena industry 112
- Mihaela Simion, Decebal Vleja, Ionuț Bocan, Catalina Mihaela Neagu: The Entry Gate of Luxuries in the Province of Dacia; Roman Engraved gems from Micia (Vețel, Hunedoara County, Romania) 112
- Ana Cristina Hamat, Georgescu Ștefan Viorel: Roman Jewellery from South-West of Dacia 113
- Ortoľ Harl: Military virtue as depicted on official and personal monuments from the Danubian provinces..... 113
- Biljana Lučić, Miroslav B. Vujović, Jasmina Davidović: The Tomb With Paleochristian Wall Paintings From Sirmium 113

25. First Contacts between the Roman Military and the local people115

- Nick Hodgson, James Bruhn: Roman frontiers create new societies in the lands beyond: a shift to pastoral farming and social re-structuring caused by the building of Hadrian's Wall 115
- Pete Wilson: Allies, Enemies, Partners or Protagonists? Rome and the Brigantes in the First Century AD..... 116
- Karl Oberhofer: At the back of beyond? Actual perspectives on the lower Alpine Rhine valley regarding the first Roman contacts 116
- Balázs Komoróczy, Marek Vlach, Ján Rajtár, Claus-Michael Hüssen: The latest discoveries and research results of the Roman military presence in Middle Danube barbaricum 117
- Andrew Lawrence: Roman Contact und Impact in the Swiss Plateau (100 BC – 20 AD).. 117
- Fraser Hunter: First contacts in Scotland: a review of old and new evidence..... 117

- Thomas Grane: Roman bronzes as a medium of diplomacy.....117
- Thomas Schierl: JUST TELLING STORIES. Augustus and Central Germany: Illustrating military history or telling another story?.....118
- José Manuel Costa-García: But Gaius, those locals seemed friendlier! The rationale behind the military deployment during the early stages of the Roman military presence in NW Iberia118
- Milica Tapavički Ilić: Limes in Serbia - the early days119
- Dragana Nikolić: Roman Conquest of the Western and Central Balkans in the Light of Recent Research119

26. Re-evaluating old excavations: are they worth it?.....120

- Orsolya Láng: Old excavation – new results: examples from the Aquincum Civil Town” – a key-note paper.....120
- Simon James: The Roman military base at Dura-Europos: from archive and field to new synthesis.....120
- Simone Mayer Digging in the archives – The 19th c. excavations of J. J. Schmid in Augusta Raurica121
- Malcolm Lyne: A pharos-headed pin from Richborough and its implications121
- Veronika Fischer: The barracks of „Ostkastell IIIb” in Straubing/Sorviodurum (Bavaria) and new knowledge about the cohorts I Flavia Canathenorum milliaria sagittariorum.....122
- Eduard Nemeth: Different methods, different terms: understanding old excavations.....123
- Eva Steigberger: Hidden treasures? What you ask is not always what you get123
- Hans Jost Mergen Niederbieber and early 19th-century research at the Upper-German Limes123
- Nora Lombardini, Elena Fioretto: Archaeological remains along the Danubian Limes: through centuries of travelers to a new instrument for intercultural dialogue124
- Philip Smither: Revisiting Richborough: A reassessment of the excavations of J.P. Bushe-Fox (1922-1938)125
- Martin Wieland: Bridge over troubled water: The roman bridge in Cologne between old research and new questions125

27. Saxon Shore126

- Sofie Vanhoutte: Cross-Channel Connections. The fort at Oudenburg (Belgium) within its wider context: new insights into the Litus Saxonicum126
- Tony Wilmott: Recent excavations on the seaward side of the Saxon shore fort of Richborough126
- Nathaniel Durant: A Tale of Two Frontiers?: Hadrian’s Wall and the Saxon Shore Forts in the 3rd to 5th centuries A.D.....127
- Philip Smither: ‘I’m not so (Saxon) shore’: Richborough in the 3rd - 5th centuries AD....127
- Michael Fulford: A Roman coastal fortlet or signal station at Reedham, Norfolk, England..128
- Mark Tucker: A Revaluation of the Western Shore forts.....128
- Malcolm Lyne: Excavations at Pevensey Between 1936 and 1939.....128
- Lloyd Bosworth: Recent Geophysical Survey at Portus Lemanis.....129
- Raymond Brulet: The opposite coastline: problems to be solved about continental Litus Saxonicum.....129

29. Mapping the Edge of Empire131

- Eugen S. Teodor: Hiding in Woods. Gaps in delineating the Boundary along Limes Transalutanus.....131
- Hannsjörg Ubl: Zur Toponomastik der römischen Limeslager an der österreichischen Donau nach den Listen der Limitantruppen von Noricum ripensis und Pannonia prima in

- der Notitia Dignitatum131
- Alexandru Flutur, Adrian-Cristian Ardelean: “Limes Sarmatiae” – Ancient maps, new interpretations.....132
- Carolyn Snively: The Border or its Zone? The Situation in Southeastern Dardania.....133
- Brian Turner: A Soldier’s Map: Velleius Paterculus on the Limits of Empire133

30. [Continuation of] Building materials: Elements of construction, elements of expression?135

- Craig A. Harvey, M. Barbara Reeves: Ceramic Building Materials from the Roman Fort at Hauarra (modern Humayma, Jordan): An Examination of the Manufacturing Processes.135
- Piotr Dyczek, Janusz Reclaw: “House with a peristyle” from Novae. Centurion house of the first cohort of legio I Italica?.....136
- Balázs Komoróczy, Marek Vlach, Lenka Lisá, Claus-Michael Hüssen, Ján Rajtár: On the trail of ephemeral building materials of the Roman military campaigns to the Middle Danube barbarian territories.....136
- Kathleen O’Donnell: The Quarry Inscriptions of Hadrian’s Wall.....137
- Tanja Romankiewicz, Benjamin Russell: Earthen Empire: earth and turf building in the northwest provinces.....137
- Tomáš Janek: Bricks! Bricks everywhere! - Roman legionary production and distribution of building ceramics138
- Martin Mosser, Michaela Kronberger: Stone extraction for Vindobona – regional infrastructure and economic relationship by the example of a legionary garrison in Pannonia.....138
- Erik Hrnčiarik, Milan Horňák: Newly discovered Germanic farmyard with Roman-style buildings in Slovakia.....139

31. Bath buildings.....140

- Robert Darby, Thibaud Fournet: Military Baths and Local Adaptation: A Case Study of the Auxiliary Baths of the Cohors II Galatarum at ‘Ayn Gharandal (Arieldela), Jordan140
- Britta Burkhardt: Baths on the Frontiers of Roman Dacia141
- Ioan Carol Opreș, Alexandru Rațiu and Tiberiu Potârniche: Roman military baths from Capidava (2nd – 3rd c. A.D.).....141
- Bebina Milovanović, Emilija Nikolić, Dragana Rogić: Body Function and Life Process of a Roman Building: Viminacium Baths141
- Gabriella Fényes: Thermae Maiores – The military bath of the legio II Adiutrix in Aquincum.....142
- Judit Pásztókai-Szeőke: Dishing the dirt on the textile tools found in Roman (military) baths.....143
- René Ployer, Eva Steigberger: My bath is in my fort? Bath buildings in military context in Noricum and Western Pannonia143

33. Presenting the Roman Frontiers144

- Richard Hingley, Kate Sharpe: Roman Frontiers in the UK: assessing what visitors value about the Roman past145
- Snežana Golubović: Viminacium: public presentation and visitor research146
- Jennifer Morscheiser: Welterbe als Chance – oder wieso die Römer auch in Krefeld waren146
- Christof Fluegel: The Mittelfranken-Limes-App: audience research and testing.....147
- Patricia Weeks, Lyn Wilson, Al Rawlinson, Carsten Hermann, Erik Dobat: The Antonine Wall: digital resource development for new audiences147
- Boris Alexander Burandt: Between archaeology and cliché – a study on Roman military reconstructions and reenactment148

- Mike Bishop: Turma! Hadrian's Cavalry Charge in Carlisle..... 148
- Tom Hazenberg: Cement for the limes. Interpretation Framework and Curatorship for the Dutch limes 149
- Bill Griffiths: The Hadrian's Cavalry Dispersed exhibition 149
- Balázs Komoróczy, Pavla Růžičková, Marek Vlach: The Romans deep in barbaricum. Conception, current state and perspectives of the Roman military monuments presentation in the Czech Republic 150
- Andrea Chiricescu: Working with the local community on the Roman Limes. First steps in developing a sustainable site management framework..... 150
- Thomas Becker Limes-App Hessen „Explore“ – moderner Weg der Denkmalvermittlung / Limes-App Hesse „Explore“ – a modern way of heritage transfer 150
- Dániel Kővágó: Visitors in bowler hats and baseball caps – Aquincum then and now.... 151

34. Roman Egypt 152

- Steven E. Sidebotham: Results of Fieldwork at Berenike (a Ptolemaic-Roman Port on Egypt's Red Sea Shore): 2013-2018 152
- Rodney Ast: New Greek Inscriptions from the Temple of Isis at Berenike..... 152
- Joan Oller Guzmán: Controlling the Mons Smaragdus: The Presence (or Absence) of the Roman Army in a Productive Frontier Region 152
- Steven E. Sidebotham: Survey of the Berenike-Nile Roads 1987-2015: The Highways, Military Installations, Mines and Quarries..... 153
- Julia Lougovaya-Ast: Pleasure and Entertainment on the Roman Frontier 153
- Iwona Zych: The Blemmyan record in Berenike of the late period (4th–6th centuries AD). 153
- Julien Cooper: Trade routes, raiding, and mining: thoughts on the Blemmyean desert state in Late Antiquity 154
- Peter Sheehan, Dmitry Karelin, Maria Karelina, Tatiana Zhitpeleva: Babylon of Egypt: the Reconstruction of the Diocletianic Fortress..... 154

35. Small finds assemblages as a means to understanding social and economic patterns within the settlements close to Roman camps 155

- Paul Franzen: What can small finds do for you? 155
- Weights as an indication for trade and commerce and as a means to determine whether the context is military or civilian..... 155
- Hannes Flück: Bling for the fling – a fibulae assemblage from the canabae legionis of Vindonissa and its interpretation 156
- Birgitta Hoffmann: Glass in the military settlements: between local production and luxury acquisitions 156
- Anna Walas: Finds distribution analysis and the relationships between fort and annex at Flavian Elginhaugh, Scotland 156
- Tony Wilmott: Small finds and environmental evidence from the seating ban of the Chester amphitheatre 157
- Stefanie Hoss, Julia Chorus, Julie Van Kerckhove and Carlijn van Maaren: Vicus on the Rhine: the mini-vici of the Lower Rhine between Utrecht and the sea 157
- Orsolya Láng, Andrew Wilson: First steps on a long journey: preliminary results of the research on millstones from the settlement complex of Aquincum..... 158

36 General session 159

- Aránzazu Medina González: Hic non finit Imperium Romanum. The concept of “no-frontier”..... 159
- Peti Donevski: Was Durostorum a seat of the governor of Moesia Inferior province?.... 159

37. Rome and Barbarians 160

- Catalina Mihaela Neagu, Mihaela Simion, Decebal Vleja, Ionuț Bocan: Searching life in death. A specific community in Roman Dacia - Alburnus Maior 160
- Marko Jelusić: In the service of Rome? - Mobility and ethnic interpretation of the shield bosses with a star-shaped flange and faceted / fluted bowls 160
- Fraser Hunter: What makes a barbarian? Studying barbarian material culture on Roman monuments 160
- Jonathan Quiery: The Place-Making Effects of Roman Military Tropaea in the Provinces: Roman and Barbarian Identities..... 161

POSTERS162

- Sven Conrad, Lyudmil Vagalinski: The Mouth of Yantra River at the Lower Danube. Fortifications and Settlements from the 1st to the 6th c.....162
- Sophie Hüdepohl: The late Roman fort of Guntia / Günzburg (Raetia secunda) – 4th century grave inventories reflecting evidence of migration and cultural exchange.....162
- Dávid Bartus: Where did Valentinian die? New excavations in the legionary fortress of Brigetio.....163
- Dorel Bondoc: The Roman fortress and the detachment of Legio VII Claudia from Cioroiu Nou, Dolj County, Romania.....163
- Silva Sabkova: The lower Danube Limes in Bulgaria between the rivers Iskar (Oescus) and Yantra (Iatrus) during the first century of Roman occupation (1st c. AD): Relationships between the fortified system and the landscape.....164
- Sabine Deschler-Erb/Regine Fellmann/Andrew Lawrence/Michael Nick/Jürgen Trumm: Offering to the Gods – A Ritual Deposition and Other Forms of Religious Communication in Vindonissa.....164
- Nina Gostinski: Slaves in Teutoburgium?.....164
- Ivana Živaljević, Sonja Vuković – Bogdanović, Ivan Bogdanović: Fishing at the Upper Moesian frontier: Remains of freshwater and migratory fish from Viminacium (Upper Moesia, Serbia).....165
- Brahim M'Barek, Dominic Moreau, Nicolas Beaudry: A Stronghold of the Lower Danube's Hinterland: New Fieldwork on the Fortifications of Zaldapa, Bulgaria.....165
- Adam Pažout: How to trace and date the Roman roads? A case study from the territorium of Antiochia Hippos.....166
- Simona Regep: Stone made projectiles found in the Roman fort of Mehadia (Caraş-Severin County, Romania).....166
- Kira Lappé: The Roman Army in the Lower Danube and Balkan Region167
- Kira Lappé, M. Meszar, K. Hornek, M. Wagreich: Layers of Vindobona167
- Monica Gui: Scrawl, scribble, doodle – killing time in military tileries of Roman Dacia...167
- Réka Neményi: „Borderland Christianity” – Small finds and their significance on the Hungarian section of the Danube Limes (4th –5th centuries).....168
- Suram Sakaniya: Gagra temple in the system of Pontus limes.....168
- Alik Gabeliya: Fortifications of the Inner-Caucasian Limes in Abkhazia.....169
- Stephen Matthews: Moving Supplies in the Roman Dobrogea169
- Joanneke van den Engel-Hees, Herwin van den Engel: Hidden gems: Roman finds in the PUG-collection in Utrecht.....170
- Martin Mosser: Stone extraction for Vindobona – regional infrastructure and economic relationship by the example of a legionary garrison in Pannonia.....170
- Xue Cheng: This is the first time to study the construction technology of the beacon tower in the Han dynasty in xinjiang of China. It is of great significance to understand the construction technology of rammed earth in xinjiang171
- Tong Yangyang: Using the objective and plenary data to analyze and demonstrate the relationship between the construction of Ming's Great Wall, the climate changes and wars of the agricultural and nomadic peoples.....171
- Michael Speidel: Aspects of Roman imperial power in Transcaucasia171
- Gordana Jeremić, Selena Vitezović: Exploitation of wild animal resources on the Limes in Upper Moesia172
- Dragana Nikolić: Digitizing Ancient Epigraphic Heritage: Project EpiDoc XML Encoding of Roman Inscriptions from Serbia172
- Marius Streinu, Aurel Stănică, Alina Streinu: The last frontier. The extra muros civil settlement from Noviodunum. The beginning of a new research172
- Mátyás Bajusz: Roman quarries on the Northwestern border of Dacia. The sandstone and volcanic stone quarries of Porolissum173
- Călin Timoc: The Danube limes fort from Pojejena in a new light of non-invasive inspections173

- Jana Kopáčková: Production of Olive Oil and Wine in the Vicinity of Limes Delmaticus...173
- Mariana Balaci Crînguș: La situation des femmes sur le limes danubien de la Dacie entre religion et implication sociale174
- Lajos Juhász: Perforated coins from the Aquincum-Graphisoft cemetery174
- C. Scott Speal: Sex, Risk Allocation, and Roman Patriarchy: Excess Male Mortality on the Danube Frontier175
- C. Scott Speal: Establishing the Health Correlates of Social Status on the Danube Frontier using Grave Construction: The Viminacium Mortuary Complex175
- Stanko Trifunović: Archaeological Characteristics of Sarmatians Limigantes Culture176
- Judit Pásztkai-Szeőke: A small secret of the sea-silk from Szemplőhegy (HU)176
- Agnieszka Tomas: A face padlock from Novae (Lower Moesia). On the distribution and function of Roman puzzle locks.....177
- Tomasz Dziurdzik: Demystifying the Roman fort at Gračine (Bosnia and Herzegovina)..177

List of Participants178

ABSTRACTS

the two regional field armies, also listed in the Notitia and commanded by the same comites, predominantly consisted of cavalry vexillations, new legions and legionary detachments established from the late 3rd century onwards to serve alongside the old African legion, III Augusta. These African/Mauretanian comitatenses were very similar in composition to the higher ranking regiments of limitanei in other frontier commands, such as that of the dux Britanniarum. Such regiments were accorded higher status than the cohorts and alae and were sometimes termed ripenses during the early to mid-4th century (though strictly speaking this label probably only applied to those stationed along the Rhine/Danube riverine frontiers). Clearly the manner in which the two North African commands evolved had resulted in the promotion of these regiments to the rank of comitatenses at some stage (perhaps even prior to the formal definition of limitanei as a military grade from the mid-4th century onwards). This emphasises that the ranking of troops could involve a significant element of chance or contingent circumstance, with almost identical units eventually falling into different grades.

The paper will go on to examine what the documentary and archaeological evidence can tell us about the role of the African limitanei, showing how their distribution related to the unique requirements of the North African frontiers, and how these troops interacted with the wider tribal society of the frontier zone.

21. LIFE AND HEALTH ON THE ROMAN LIMES

Session organisers / Chairpersons:

Nataša Miladinović-Radmilović, Institute of Archaeology Belgrade (E-mail: miladinovic.radmilovic@gmail.com)

This session includes anthropological research of osteological material from old and new archaeological excavations along Limes. This will imply the impact of historical circumstances on the social and health status of the rural, urban and military populations, their paleodemographic structure, the reconstruction of economic relations and the diet, the level of medical care and protection, intentional and accidental traumas, everyday occupations and habits, relations towards children, as well as the reconstruction of funeral practice.

The appearance of ulcer on one skeleton from Viminacium and the possibility of its' treatment in Antiquity

Nataša Miladinović-Radmilović, Ilija Mikić, Dragana Vulović, Ksenija Đukić

Viminacium (Stari Kostolac) was the largest and the most important city in Moesia Superior (Upper Moesia). It was the provincial capital, administrative, religious, military and trade centre. It was built on a strategic location at the confluence of the river Mlava and the Danube, on the crossroad of both land and river routes with large military and trade potential.

On one of the necropolises of Viminacium, Pirivoj, in grave no. 325, skeletal remains of a juvenile female individual were discovered. The burial is dated into the first half of the 3rd century. The deceased juvenile was laid on the back with hands clasped on her stomach. The orientation of the grave was North–South.

Anthropological analyses revealed traces of osteomyelitis with proliferative periostitis on the left tibia and left fibula. The source of infection was related to a large ulcer on the left tibia. The current appearance of the bone shows poor health treatment of the ulcer and active inflammation at the time of death.

In this presentation, we will also focus on the ulcer aetiology and possibility of its' treatment in Antiquity. Treatments will also be briefly discussed, with preparations based on silver and lead, vinegar, honey, etc.

Case of myositis ossificans traumatica on one skeleton from Viminacium

Dragana Vulović, Ilija Mikić, Ksenija Đukić, Nataša Miladinović-Radmilović

The Roman city and military camp of Viminacium is situated between the villages of Stari Kostolac and Drmno, 12 kilometres eastwards from Požarevac, close to the confluence of the Mlava and the Danube. During its' history, it became the biggest urban settlement and the capital of the province of Upper Moesia (Moesia Superior), later the First Moesia (Moesia Prima). It represented one of the most important military strongholds, not only in Upper Moesia, but it also represented the area from which Roman legions operated in other provinces as well.

On one of the necropolises of Viminacium, Pećine, in grave no. 5785, skeletal remains of a juvenile male individual were discovered. The funeral took place in the Late Antiquity period. The deceased juvenile was laid on the back with hands clasped on his stomach. The deceased's skull was not found. The orientation of the grave was West–East.

Anthropological analyses revealed a fracture of the right femur followed by myositis ossificans traumatica.

Myositis ossificans is defined as a localised formation of heterotopic non-neoplastic bone in muscle or soft tissue. It usually represents one of the complications of fractures, like in our case here. The trauma to the bone can damage the overlying muscle and, occasionally, the muscle tissue will respond to the trauma by producing bone directly in the muscle tissue itself. This

condition is known as myositis ossificans traumatica (post-traumatic myositis ossificans or myositis ossificans circumscripta) and is most likely to occur in response to trauma in young male individuals, and in the femoral (the quadriceps muscles) or humeral region (brachium muscles).

Possible explanations for mass skull burials at Viminacium

Ilija Mikić, Nataša Miladinović-Radmilović, Dragana Vulović, Ksenija Đukić

Viminacium is located close to the confluence of the Mlava and the Danube, near the village of Stari Kostolac. It represents an extremely complex site with a long history of re-search. There was a large number of necropolises in its surroundings: late prehistoric necropolises with bi-ritual burials, several Roman necropolises, also with bi-ritual burials, as well as several necropolises with inhumation from different medieval periods.

In ancient Viminacium, so far, four graves with mass burial, mainly skulls with a slightly lesser amount of bones from the postcranial skeleton, have been found.

In the archaeological context, there are two funeral practices: incineration and inhumation. Within them, we can distinguish individual, group and mass burials. Under individual burials we comprehend the placing of skeletal remains of one person inside a grave pit, a grave construction, or a built tomb. Group funerals involve the laying of skeletal remains of two or more persons, usually members of one family, who are buried at the same or different period of time, into a grave pit, a grave construction or a built tomb. Mass burials involve the storage of skeletal remains of more individuals, usually at the same period of time, under specific circumstances (massive death toll due to natural disasters, massive death toll as the consequence of various epidemics, as well as massive death toll as a result of armed conflicts, etc.). Secondary mass burials are mostly partial, and much more attention and care is dedicated to the skulls. On one of the necropolises of Viminacium, Pećine, in grave no. 4924, skeletal remains, mostly skulls, of more than 150 individuals were discovered.

In this paper, we will try to explain this phenomenon, on the example of grave no. 4924, and show all possible causes for mass skull burials at ancient Viminacium.

Roman Medicine and Healthcare on the Upper Moesian Limes in Serbia – Archaeological Evidences

Aleksandar P. Simić, Gordana Jeremić

After the arrival of the Roman army the first professional medics probably made their appearance in the territory of Upper Moesia, predominantly in Singidunum and Viminacium. The means of treatment, and therefore the level of medicine, can be knowledgeable from several different sources, while the most accurate data are those obtained by the archaeological discovery of original medical instruments. In ancient Rome more than 150 different types of surgical instruments have been used. More than 300 medical and surgical instruments of various types so far have been found on the Upper Moesian Limes from Singidunum to Aquae.

Roman citizens in Singidunum (Belgrade) lived in good conditions in both the town and the surrounding villages. From archeological excavations of the area of canabae and castrum, 28 various medical mainly surgical objects have been found. Also several medical objects have been found in various settlements, smaller fortifications or villae rusticae of ager Singidonensis. Even though at the main castrum of Singidunum no hospital has been discovered yet, just south of Belgrade, epigraphy from auxiliary fort Demessus (Guberevac/Stojnik), at the mining area at Kosmaj, has the word valetudinarium inscribed on it.

Presence of some graves of doctors and pharmacists and their discovered equipment testifies that medical care was at the highest possible level in Viminacium (Stari Kostolac), capital of Moesia Superior. In several tombs in Viminacium many surgical instruments from I to III century have been found. Medical instruments of an eye doctor - "medicus et chirurgus oculus" were excavated on the southern city-necropolis.

Downstream from Viminacium several surgical instruments are found on different sites: in Le-

darta (Ram), Cuppae (Golubac), Castrum Novae (Čezava), Smorna (Boljetin), Taliata (Donji Milanovac) and at Transdierna (Tekija). At the site of Diana (Karataš) most of the medical instruments have been found dating from the II and III century, mainly made of bronze.

Well preserved traces of sewer system and water pipes even aqueducts were found not only in the town territory of Singidunum, Margum, Viminacium and Taliata but also further away. Interestingly in Singidunum, Margum, Viminacium, Porečka Reka, Transdierna, Diana and Egeta (Brza Palanka) the existence of thermae and balnea was archaeologically or epigraphically documented.

Burial Structures of Viminacium: Building and Construction

Emilija Nikolić, Snežana Golubović

Viminacium, today an archaeological site near Kostolac in Serbia, was the largest Roman city settlement in the province of Moesia Superior and a significant military center founded in the I century AD. Archaeological excavations were mostly performed in necropolises, where over 13,500 thousand graves with cremations and inhumations were researched. Above-ground parts of buildings have been very poorly preserved, due to the war destructions in the ancient period and degradation for the purpose of building new constructions afterwards. Although most of them were looted, the graves and tombs have become the source of the greatest amount of information about Viminacium architecture. They provide us with valuable data on used materials, masonry techniques, constructions, as well as architectural forms.

The southern Viminacium necropolises were extensively excavated during the seventies and eighties of the XX century, but also in smaller scale during the last few years. Burials in these necropolises were performed from the middle of the I to the middle of the VI century. The variety of burial structures were found here, which enabled researchers to set up typologies of its masonry constructions, dated to the period from the middle of the III to the middle of the V century. Since the beginning of the XXI century, eastern necropolises have been researched, offering us more information on Viminacium masonry burial structures.

The numerous masonry graves were discovered in Viminacium necropolises, as well as several overground and underground monumental tombs called memorial buildings or family mausoleums by researchers, having various spatial organizations and forms. According to some of the researchers, the grave with trapezoidal cross-section was the specificity of Viminacium. Most of the wall painted graves had this cross-section.

The simple gravestones of Viminacium have not been preserved in situ, but many of them have been saved being used as building material or spolia in the Middle Ages. It was also done in the ancient period when the gravestones were used for the construction of later graves or city walls. Also, the building material – bricks and stone blocks, originating from various ruined structures, was often secondarily used in the ancient graves. These processes bring valuable information on ways of reusing the structures and materials during the ancient period, but also on the relation of the ancient people to the past.

Settlement Size, History, and Mortality at Roman Viminacium: Testing the Urban Graveyard Hypothesis

C. Scott Speal

It is a widely held view that ancient cities were decidedly unhealthy environments. Some scholars would go so far as to proclaim an 'iron law' in which larger pre-Industrial cities with populations of over 10,000 or so were unable to sustain their numbers without constant immigration from the rural hinterlands due to excessive levels of mortality. Critics, on the other hand, have cited the trend of increasing urban growth over the last several millennia, and the ability of the rural component of urbanized civilizations to grow in unison with their urban counterparts, to discredit this 'Urban Graveyard Effect' as any such general principle.

The present study therefore examined mortality at the city of Viminacium on the Danube fron-

tier in an attempt to test the Urban Graveyard Hypothesis using skeletal remains from a provincial Late Roman context. Given the known trajectory of urban development at Viminacium, which began as a small military outpost on the Roman Limes in the 1st Century and concluded as a large, regionally important political and economic center of some 30,000 persons during the 5th century, it was possible to study changes in health as settlement size and density increased over this period through the examination of osteological material from the graveyards surrounding the ancient city. Associated grave goods were used to assign chronology to 93 skeletons recovered from the immediate vicinity of the city. Recently developed skeletal aging techniques designed to transcend some of the traditional limitations of paleo-demography allowed construction of an overall composite mortality curve for the site, as well as evaluation of changes in survivorship and the age-dependent hazard of death over time as the city grew, through computational survival analysis using STATA analytical software.

Mortality estimates produced through the survival analysis for the 4th Century—associated with the highest degree of urbanism—suggest greater survivorship at that time than during either preceding period. This finding contradicts the tenets of the Urban Graveyard Hypothesis. Instead, analysis found survivorship to be clearly lower during the 3rd Century, and the hazard of death for all ages from adolescence up to around age 60 to be substantially higher during that period, than in either earlier or later centuries. These results tend to suggest that historically specific conditions, namely the Third Century Crisis known from ancient literature and documentary sources, were more influential upon population dynamics than overall settlement size or density at ancient Viminacium.

24. ARTS AND CRAFTS ALONG LIMES

Session organisers / Chairpersons:

Ivana Popović, Institute of Archaeology, Belgrade (E-mail: ivpop055@gmail.com)
Bojan Đurić, University of Ljubljana, Faculty of Arts (E-mail: bojan.djuric@gmail.com)

Roman Cameos With Female Busts from the Limes Region: Their Meaning and Role in the Political Propaganda

Ivana Popović

In the Limes region about 40 cameos with the representation of the female bust in profile were founded. In contrast to the summarily treated faces, the female hairstyle on the cameos is represented in detail, authentically reflecting the fashion dictated by the empresses. Judging the depicted hairstyle the datation of the cameos were possible: 1) Late Antoninian Period, between 160 and 180; 2) Severan Period, between 200 and 230; 3) Late Severan – Period of Military Emperors, between 230 and 250; 4) second half of the 3rd – beginning of the 4th century. From Viminacium come 10 cameos of this type, but the specimens from Intercisa, Ratiaria, Novae and Durostorum are also known. The stylistic analysis of cameos with the representation of the female bust in profile, observed together with the place where they were found, shows that they were produced in the workshops located in the civilian settlements next to the military camps on Danube Limes which, mostly, originate from the late Antoninian and Severan Period. The answer to the question why this happened at this time could be found in the fact that at first Marcus Aurelius and after him Septimius Severus have transgressed the earlier established rule that the emperors through the principle of adoption do not appoint their successor from the group of their descendants. These two emperors by proclaiming their sons their successors tried to establish their dynasties based on consanguinity. Because of that the wives, the mothers of the future emperors, had a special role. The representations on the cameos are probably the models of these empresses, whose characteristic feature was the specific hairstyle. As the features of the face of the represented women mainly lack any individual characteristics, we believe that they were made on the basis of the models-cardboards with the representations of the empresses, which were in circulation in the workshops along the Danube-Rhine Limes. In the time of Marcus Aurelius the provinces on Danube became very important for the defence of the Empire, and because of their strategic position they came into the focus of the imperial propaganda politics. The military troops from the Danube regions proclaimed Septimius Severus the emperor. He had, as also did his son and heir Caracalla, visited the cities on Danube, appropriating large sums of money for their reconstruction. The number and quality of cameos of this type is declining rapidly at the end and after the rule of the emperors from the dynasty of Severi.

Roman engraved gems from Burgenae in the Archaeological Museum in Zagreb

Iva Kaić

Within the Roman-period glyptic collection in the Archaeological Museum in Zagreb, which contains more than 400 pieces, there is a small group of mainly unpublished engraved gems from Novi Banovci (Burgenae). It consists of 4 intaglios and 3 glass gems, all of which were stray finds acquired for the Museum collection at the end of the 19th and at the beginning of the 20th century. At the site of Novi Banovci, situated on the Danube river in Vojvodina, Serbia, in 1st century AD a Roman military fort Burgenae was built, with many auxiliary units garrisoned there during the four centuries of its existence. The site is well-known for numerous archaeological finds. Engraved gems from Burgenae in the Archaeological museum in Zagreb, although stray finds, can be connected with the presence of military units on the site. They

CIP - Каталогизација у публикацији
Народна библиотека Србије, Београд

94(37)(048)
904"652"(37)(048)

LIMES Congress (24 ; 2018)

Book of abstracts / 24. Limes Congress Serbia, 02-09 September 2018 ;
[editors Snežana Golubović, Nemanja Mrđić]. - Belgrade : Institute of
Archaeology, 2018 (Beograd : DigitalArt). - 197 str. ; 30 cm

Apstrakti na engl., franc. i nem. jeziku. - Tiraž 500.

ISBN 978-86-6439-039-2

a) Археолошка налазишта, римска - Апстракти b) Римска држава - Лимес -
Апстракти
COBISS.SR-ID 267299084

