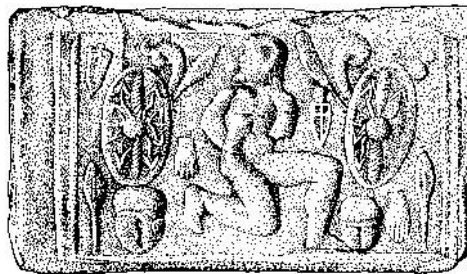


WAFFEN IM RITUELLEN KONTEXT WEAPONS IN RITUAL CONTEXT

**Herausgegeben von
Eckhard Deschler-Erb, Peter Henrich und Stefanie Hoss**



Akten der 20. Internationalen Konferenz für Römische Militärausrüstung,
Köln, 11.–15. Juni 2019
Proceedings of the 20th Roman Military Equipment Conference,
Cologne, June 11th–15th 2019



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Umschlagfoto: Pompejanisches Wandgemälde mit der Göttin Victoria und einem Feldherrn (Museo Archaeologico Nazionale di Napoli; Foto von B. Burandt)

Cover photo: Pompeian wall painting with the goddess Victory and a military commander (Museo Archaeologico Nazionale di Napoli; photo by B. Burandt)

Titelseite: Mundblech eines Gladius aus Windisch-Vindonissa (Amira Smadi, Archäologisches Institut, Universität zu Köln). – Kongresslogo: Stefanie Deschler

Title page: Locket plate of a gladius from Windisch-Vindonissa (Amira Smadi, Archaeological Institute, University of Cologne). – Congress logo: Stefanie Deschler

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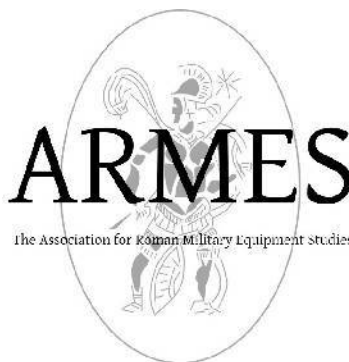
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Contents

Vorwort / Preface <i>Eckhard Deschler-Erb, Peter Henrich & Stefanie Hoss</i>	vi
Geschichte der Internationalen Konferenz für Römische Militärausrüstung / History of the Roman Military Equipment Conference <i>Mike Bishop</i>	xiii
Liste der bisherigen ROMEC-Konferenzen / List of previous ROMEC conferences	xv
SEKTION I: WAFFEN IN TEMPELN / WEAPONS IN TEMPLES	
Military equipment in cultic and ritual contexts <i>Jon Coulston</i>	3
Besondere Schaftspitzen aus dem Stabsgebäude des flavischen Legionslagers in Nimwegen <i>Stephan Weiß-König</i>	19
SEKTION II: WAFFEN IM WASSER / WEAPONS IN WATER	
Roman weapons in watery contexts <i>Janka Istenič</i>	31
Plucked from the river: militaria from the Waal at Nijmegen <i>Stefanie Hoss</i>	43
Von schwimmenden Löwen und versunkenen Helmen – Römische Waffenweihungen in Flüssen <i>Hans-Hoyer von Prittwitz und Gaffron</i>	63
SEKTION III: WAFFEN IM MOOR / WEAPONS IN BOGS	
Weapons in bogs and wetlands: weapon cult and warfare <i>Xenia Pauli Jensen</i>	69
Newly found sacrificial weapon deposits from the territory of Poland <i>Bartosz Kontny</i>	87
A Roman Iron Age assemblage of mail armour from the weapon deposit of Vimose <i>Martijn A. Wijnhoven</i>	107
SEKTION IV: WAFFEN IN GRUBEN / WEAPONS IN PITS	
Militärausrüstung der römischen Kaiserzeit aus Gruben: kultische und profane Interpretationen <i>Eckhard Deschler-Erb</i>	123
Deposition as defence: did Romans ritually weaponise defensive walls and ramparts? <i>Bill Griffiths</i>	137
SEKTION V: TROPAIA	
Bedeutung, Funktion und Kontexte antiker Tropaia <i>Kai Töpfer</i>	147
Debellare superbos! The depiction of military equipment on tropaia in Roman art <i>Boris Burandt & Fraser Hunter</i>	159
Tropaea in Gelduba – Rituelle Deponierungen von Helmen auf dem Schlachtfeld von 69 n. Chr. und ihre Bedeutung für eine regionale Differenzierung römischer Militärausrüstung <i>Hans-Peter Schletter</i>	177
Autoren*innenliste / List of contributors	217
Index	219

Vorwort / Introduction

Eckhard Deschler-Erb, Peter Henrich und Stefanie Hoss

Die Roman Military Equipment Conference (ROMECC) hat sich seit der ersten Konferenz im Jahre 1983 zu der wichtigsten internationalen Fachtagung für die militärische Ausrüstung in der römischen Welt entwickelt. Dies umfasst den Zeitraum vom 8. Jahrhundert vor Christus bis in justinianische Zeit und neben dem römischen Herrschaftsgebiet auch alle Nachbarkulturen des Römischen Reiches. Die Konferenzen der ROMECC wenden sich bewusst an ein breites Spektrum von Interessierten, seien sie professionell oder autodidaktisch, aus der universitären Forschung oder Re-enactors, Archäolog*innen oder Historiker*innen.

Mittlerweile kann die ROMECC auf eine beeindruckende Zahl von Treffen in ganz Europa zurückblicken (vgl. unten Beitrag Mike Bishop) und so war es für uns eine ganz besondere Ehre, Gastgeber*in der 20. Konferenz in Köln und dem Rheinland zu sein. Die Tagung wurde von Boris Burandt, Eckhard Deschler-Erb, Peter Henrich und Stefanie Hoss organisiert.

Das Schwerpunktthema der XX. ROMECC 2019 lautete:

WAFFEN IM RITUELLEN KONTEXT

Aus römischen Garnisonen und Zivilstädten, Heiligtümern und Flüssen sind zahlreiche militärische Ausrüstungsgegenstände als Deponierungen bekannt. Bislang wurden jedoch die Motivation hinter der Niederlegung der Waffen sowie der weitere Kontext nur in Einzelfällen untersucht, wohingegen dabei vor allem die typochronologischen und einsatzspezifischen Aspekte der einzelnen Militaria im Fokus der Forschung standen. Im Verlauf der Tagung war es möglich, im Rahmen von thematischen Sektionen nicht nur neue militärische Funde aus Hortfunden und rituellen Kontexten vorzustellen, sondern auch innovative Interpretationsansätze zu den Umständen der Verbergung oder der ursprünglichen kultischen Inszenierung zu diskutieren. In Ergänzung zu der viel verwendeten Interpretation als „kultische Niederlegung“ erörterten die Anwesenden Forscher*innen mögliche profane Alternativen, wie etwa den zufälligen Verlust, die Müllentsorgung, die Anlage von Material-Horten zur späteren Weiterverarbeitung der Rohstoffe oder die Möglichkeit, dass die Waffen verborgen wurden, um sie einer Nutzung durch den Feind zu entziehen.

Das Hauptthema der Tagung war entsprechend der jeweiligen Fundsituation in fünf Sektionen unterteilt:

Since its first meeting in 1983, the Roman Military Equipment Conference (ROMECC) has developed into the most important international specialist conference on military equipment in the Roman world, covering the period from the 8th century B.C. to the reign of Justinian and, in addition to the Roman Empire itself, all neighbouring cultures interacting with it. The ROMECC conferences are deliberately aimed at a broad spectrum of interested participants, be they professional or self-taught, from university researchers to re-enactors, and from archaeologists to historians.

By now, ROMECC can look back on an impressive number of meetings all over Europe (see contribution by Mike Bishop below) and so it was a very special honour for us to host the 20th edition in Cologne and the Rhineland. The conference has been organised by Boris Burandt, Eckhard Deschler-Erb, Peter Henrich and Stefanie Hoss.

The main theme of the XX ROMECC 2019 was:

WEAPONS IN A RITUAL CONTEXT

Numerous items of military equipment are known to have been deposited in Roman garrisons and civilian towns, sanctuaries and rivers. So far, however, the motivation behind the deposition of the weapons as well as their broader context have only been investigated in individual cases, while the typo-chronological and use-specific aspects of the individual militaria had been the main focus of research. During this conference, it was possible to not only present new military finds from hoards and other ritual contexts within the framework of various thematic sessions, but also to discuss innovative interpretative approaches to the circumstances of the deposition or the original cultic enactment. In addition to the common interpretation as cultic deposition, mundane alternative explanations for the depositions such as accidental loss, waste disposal, the creation of material hoards for later processing of raw materials, or the possibility that the weapons were concealed to prevent them from being used by the enemy were also discussed.

The main theme of the conference was divided into five sessions according to the respective find situation: Weapons in Temples, Weapons in Water, Weapons in Moors, Weapons in Pits, and Tropaia. Each section included a keynote and a series of papers. In addition, there was a

Waffen in Tempeln, Waffen im Wasser, Waffen im Moor, Waffen in Gruben und Tropaia. Jede Sektion umfasste jeweils ein Grundsatzreferat und eine Reihe von Einzelvorträgen. Darüber hinaus gab es eine allgemeine Sektion zu aktuellen Funden und Forschungen sowie ein Postercafé, in dessen Verlauf weitere Forschungen auf den ausgestellten Postern diskutiert werden konnten. Insgesamt fanden 36 Vorträge, zwei Festvorträge und 15 Posterpräsentationen statt.

Es ist uns eine große Freude, dass in den hier vorgelegten Kongressakten zu jeder thematischen Sektion mindestens ein Vortrag vorliegt und wir danken allen Autoren*innen für ihre Beiträge! Die redaktionelle Betreuung der Beiträge erfolgte durch die Herausgeber*innen der Kongressakten; ihr layout gestaltete Miguel Ximénez-Carillo.

DIE TAGUNG

Insgesamt waren mehr als 150 angemeldete Teilnehmer*innen aus 20 Nationen (Europa, USA, Neuseeland, Israel) zu Gast, die wir an vier Veranstaltungsorten willkommen heißen durften: In der Universität zu Köln (Archäologisches Institut und Hörsaalgebäude A2), in der Universität Bonn (Akademisches Kunstmuseum), im LVR-LandesMuseum Bonn, in den Räumlichkeiten der Fritz-Thyssen-Stiftung (Köln) und zuletzt in Trier (Rheinisches Landesmuseum).

Die XX. Jubiläumsausgabe der Roman Military Equipment Conference wurde am Abend des 10. Juni vor dem offiziellen Beginn mit einem Umtrunk im Archäologischen Institut eingeläutet, der regen Zuspruch fand.

Am nächsten Morgen (Dienstag, 11. Juni) begann die Konferenz offiziell mit der Begrüßung durch den Prodekan für Lehre, Studium und Studienreform der Universität zu Köln, Prof. Dr. Andreas Michel (Abb. 1). Es folgte ein kurzweiliger Überblick zur Geschichte der Konferenz durch Dr. Mike Bishop, einen der beiden Gründungsväter, der im Anschluss seinen Auftaktvortrag zum Thema der Konferenz „Waffen im rituellen Kontext“ hielt. Zwischen den beiden Vorträgen wurde die große Jubiläumstorte mit der Aufschrift ROMEC XX durch einen Legionär in voller Ausrüstung (Dr. Boris Burandt) hereingetragen und in der anschließenden Pause durch die Teilnehmer*innen verzehrt (Abb. 2).

Nach diesem gelungenen Auftakt ging es mit der ersten Sektion zu Waffen in Tempeln (Grundsatzreferat: Dr. Jon Coulston) in das Kernthema der Konferenz. Der Nachmittag war dem Postercafé gewidmet. Die Kolleg*innen stellten ihre auf den Postern präsentierten Forschungen den Kongressteilnehmer*innen live in 5 Minuten vor. Diese Methode erwies sich als sehr erfolgreich, da so Diskussionen und weiterführende Fragen zu den präsentierten Themen initiiert wurden.

Die Abendveranstaltung des Tages führte die Teilnehmer*innen wiederum ins Archäologische Institut,

general session on current finds and research as well as a poster café, during which the research displayed on the posters could be discussed. In total, the conference included 36 papers, two additional keynote lectures and 15 poster presentations.

It is a great pleasure for us that there is at least one paper from each thematic section in the congress proceedings presented here and we thank all authors for their contributions! The editorial supervision of the contributions was carried out by the editors of the congress proceedings; their layout was designed by Miguel Ximénez-Carillo.

THE CONFERENCE

In total, more than 150 registered participants from 20 nations (Europe, USA, New Zealand, Israel) were welcomed at four venues, at the University of Cologne (Institute of Archaeology and Lecture Hall Building A2), at the University of Bonn (in the Academic Museum of Art) as well as in the premises of the Fritz Thyssen Foundation (Cologne), and last but certainly not least in the Rheinisches Landesmuseum in Trier.

The XXth anniversary edition of the Roman Military Equipment Conference was inaugurated before the official start on the evening of 10 June with drinks at the Institute of Archaeology, which was very well received.

The next morning (Tuesday June 11th), the conference officially began with a welcome address by the Vice-Dean for Teaching, Studies and Academic Reform at the University of Cologne, Prof. Dr. Andreas Michel (fig. 1). This was followed by an entertaining overview of the history of the conference by Dr. Mike Bishop, one of the two founding fathers, who then gave his opening lecture on the theme of the conference ‘Weapons in Ritual Context’. Between the two lectures, a large anniversary cake (with the inscription ROMEC XX) was carried in by a legionary in full equipment (Dr. Boris Burandt) and eaten by the participants during the subsequent break (fig. 2).

After this successful start, the first session on weapons in temples (keynote: Dr. Jon Coulston) dived straight into one of the core themes of the conference. The afternoon was dedicated to the poster café. Colleagues displaying a poster presented a live 5-minute introduction into their research to the conference participants. This method proved to be very successful, as it initiated discussions and further questions on the topics presented.

The evening event of the day again took the participants to the Institute of Archaeology, where a Kölsch-beer tasting with the products of five different breweries and a slide show with the pictures of past conferences were the highlights of the evening (fig. 3). On Wednesday June 12th, we were warmly welcomed by the Custodian (Dr. Kornelia Kressirer) at the Academic Art Museum in Bonn. The day began with the sessions on weapons in water (keynote: Prof. Dr. Janka Istenič), in bogs (keynote: Dr. Xenia Pauli Jansen) and in pits (keynote: Prof. Dr. Eckhard Deschler-

wo eine Kölsch-Probe mit den Produkten fünf verschiedener Brauereien und eine Diavorstellung mit den Bildern vergangener Konferenzen die Höhepunkte des Abends waren (Abb. 3). Am Mittwoch, dem 12. Juni wurden wir im Akademischen Kunstmuseum in Bonn von der Kustodin Dr. Kornelia Kressirer herzlich begrüßt. Begonnen wurde die Tagung mit den Sektionen zu Waffen im Wasser (Grundsatzreferat: Prof. Dr. Janka Istenič), im Moor (Grundsatzreferat: Dr. Xenia Pauli Jansen) und in Gruben (Grundsatzreferat: Prof. Dr. Eckhard Deschler-Erb). Bei dem durch großartige Gastfreundschaft geprägten Abendempfang, organisiert durch das LVR-LandesMuseum Bonn (Begrüßung durch Dr. Gabriele Uelsberg) bestand für die Teilnehmer*innen exklusiv die Möglichkeit, auch das Museum mit spannenden Funden, darunter auch zahlreiche Militaria, zu besichtigen.

Am Donnerstag, den 13. Juni wurde – wiederum in Köln – die Sektion zu den Waffen in Gruben fortgesetzt, gefolgt von der Sektion zu Tropaia (Grundsatzreferat: Dr. Kai Töpfer) und dem Beginn der allgemeinen Sektion mit den Vorträgen, die nicht zum Hauptthema der Konferenz gehörten. An diesem Abend waren wir bei der Fritz-Thyssen-Stiftung am Apostelnkloster zu Gast. Nach dem Festvortrag von Prof. Thomas Fischer zur Forschungsgeschichte der römischen Bewaffnung (Abb. 4) klang ein angenehmer Sommertag mit kulinarischen Spezialitäten und kühlen Getränken entspannt auf der Terrasse aus.

Am Freitag, den 14. Juni fand eine Exkursion nach Trier statt, bei der trotz des frühen Aufbruchs keine/r (!) der angemeldeten Tagungsteilnehmer*innen fehlte. Im Rheinischen Landesmuseum Trier wurden wir durch Dr. Joachim Hupe, als Vertreter von Dr. Marcus Reuter sehr freundlich begrüßt und durften sowohl die ständige Ausstellung als auch eine extra zusammengestellte Sonderausstellung zu römischen Militaria aus dem Trierer Raum bewundern (Organisator: Dr. Peter Henrich). Zudem bestand für die Teilnehmer*innen die Möglichkeit an zwei Führungen zu den wichtigsten römischen Denkmälern in Trier (Konstantinsbasilika & Kaiserthermen, Porta Nigra & Dom) teilzunehmen. Der Abend wurde auch hier genussreich mit einem Dinner aus lokalen Spezialitäten im Weinkeller „Kesselstatt“ abgerundet.

Am letzten Tag (Samstag, 15. Juni) stand der Vormittag im Zeichen der VEX. LEG. VIII AUG und ihren Katapulten, die auf der Universitätswiese hinter dem Hauptgebäude Testschüsse abgaben und viel Aufmerksamkeit beim Publikum sowie bei der Presse erregten (Abb. 5). Im zweiten Teil des Tages wurde die allgemeine Sektion fortgesetzt und mit ihrem Ende die Konferenz abgeschlossen.

Nach der ROMEC VI (1988 in Bonn) und der ROMEC XVI (2007 in Xanten) ist 2019 die ROMEC in ihrer 20. Ausgabe nun zum dritten Mal im Rheinland zu Gast gewesen (Abb. 6). Es war uns eine große Freude, gemeinsam mit unseren Kolleginnen und Kollegen ein paar wunderschöne gemeinsame Tage in Köln, der einzigen Millionenstadt

(Erb). During the evening reception, organised by the LVR-LandesMuseum Bonn (welcome address by Dr. Gabriele Uelsberg) and characterised by generous hospitality, the participants had the exclusive opportunity to view exciting finds, among them many interesting militaria, in a very modern museum.

On Thursday June 13th, the section on weapons in pits continued back in Cologne, followed by the section on Tropaia (keynote: Dr. Kai Töpfer) and the beginning of the general section with the presentations that were not part of the main theme of the conference. That evening we were guests of the Fritz Thyssen Foundation at Apostelnkloster in the old city. After the keynote lecture on the history of research into Roman armament by Prof. Thomas Fischer (fig. 4), we were able to feast on the delicacies on offer on the terrace of the Foundation.

On Friday, June 14th, there was an excursion to Trier, and despite the early start none of the registered conference participants were missing! We were again greeted very kindly by Dr. Joachim Hupe, representing Dr. Marcus Reuter, at the Rheinisches Landesmuseum and were able to admire both the permanent exhibition and a specially compiled exhibition on Roman militaria from the Trier area (organised by Dr. Peter Henrich). The participants also had the opportunity to take part in two different guided tours of the most important Roman monuments of Trier (Constantine's Basilica & Imperial Baths, Porta Nigra & Cathedral). The evening was rounded off with a dinner of local specialities in the Kesselstatt wine cellar.

On the last day (Saturday, June 15th), the morning was dedicated to VEX. LEG. VIII AUG and its catapults, which fired test shots on the university lawn behind the main building and attracted a lot of attention from both the public and the press (fig. 5). The second part of the day was dedicated to the continuation of the general session and with its end the conference was concluded.

After ROMEC VI (1988 in Bonn) and ROMEC XVI (2007 in Xanten), the 20th edition of ROMEC in 2019 was the third time that the ROMEC had been in the Rhineland (fig. 6). It was a great pleasure for us to spend a few wonderful days together with our colleagues in Cologne, the only large city in Germany with a Roman heritage.

Our special thanks go to Diana Wozniok M.A. and Dajana Ehlers (fig. 7) as well as the entire team of students and staff in Cologne and Bonn, without whose endless and cheerful support our conference could not have taken place: Julia Becker, Florian Birkner, Stephanie Braun, Manuela Broisch, Samuel Deneffe, Justine Diemke, Stella Hammesfahr, Tom Hoffmann, Maruschka Jansen, Timo Eichhorn, Maria Kammerzel, Simon Kleinschmidt, Lennart Niehues, Peter Meurer, Peter Ney, Lisa Schadow, Christian Schöne, Robert Wolf Spitzbarth and Franziska Weber.

Deutschlands mit römischem Erbe, verbracht zu haben.

Hierbei gilt unser spezieller Dank Diana Wozniok M.A. und Dajana Ehlers (Abb. 7) sowie dem gesamten Team der Studierenden und Mitarbeiter*innen in Köln und Bonn, ohne deren unermüdlichen und fröhlichen Einsatz unsere Tagung gar nicht hätte stattfinden können: Julia Becker, Florian Birkner, Stephanie Braun, Manuela Broisch, Samuel Deneffe, Justine Diemke, Stella Hammesfahr, Tom Hoffmann, Maruschka Jansen, Timo Eichhorn, Maria Kammerzel, Simon Kleinschmidt, Lennart Niehues, Peter Meurer, Peter Ney, Lisa Schadow, Christian Schöne, Robert Wolf Spitzbarth und Franziska Weber.



Abb. 1. Offizieller Beginn der ROMEc XX im Hörsaalgebäude der Universität zu Köln mit den Organisatoren*innen, von links nach rechts Peter Henrich, Stefanie Hoss, Boris Burandt und Eckhard Deschler-Erb (Philipp Groß, Archäologisches Institut).

Fig. 1. Official start of ROMEc XX in the lecture hall building of the University of Cologne with the organisers, from left to right Peter Henrich, Stefanie Hoss, Boris Burandt and Eckhard Deschler-Erb (Philipp Groß, Institute of Archaeology, University of Cologne).



Abb. 2. Präsentation der Geburtstagstorte ROMEK XX mit Boris Burandt (Legionär) und Eckhard Deschler-Erb. Happy Birthday! (Philipp Groß, Archäologisches Institut).
Fig. 2. Presentation of the ROMEK XX birthday cake with Boris Burandt (legionary) and Eckhard Deschler-Erb. Happy Birthday! (Philipp Groß, Institute of Archaeology, University of Cologne).



Abb. 3. Universität zu Köln, Archäologisches Institut. Kölsch-Probe der anwesenden Teilnehmer*innen der Tagung (Philipp Groß, Archäologisches Institut).
Fig. 3. University of Cologne, Institute of Archaeology. Kölsch beer tasting with some of the participants of the conference (Philipp Groß, Institute of Archaeology, University of Cologne).

Abb. 4. Fritz-Thyssen-Stiftung, Apostelnkloster, Köln. Prof. Dr. Thomas Fischer präsentiert den Festvortrag zur Tagung (Philipp Groß, Archäologisches Institut)

Fig. 4. Fritz Thyssen Foundation, Apostelnkloster, Cologne. Prof. Dr. Thomas Fischer presenting the keynote lecture (Philipp Groß, Institute of Archaeology, University of Cologne).



Abb. 5. Universität zu Köln, Wiese hinter dem Hauptgebäude. Mitglieder der VEX. LEG. VIII AUG unter Leitung von Alexander Zimmermann testen ihr neues Katapult (Philipp Groß, Archäologisches Institut)

Fig. 5. University of Cologne, lawn behind the Main Building. Members of the VEX. LEG. VIII AUG led by Alexander Zimmermann test their new catapult (Philipp Groß, Institute of Archaeology, University of Cologne).



Abb. 6. Universität zu Köln, Hauptplatz mit Eingang zum Vorlesungsgebäude, dem Kongressplakat und dem Institutsbus des Archäologischen Instituts (Philipp Groß, Archäologisches Institut Uni Köln).

Fig. 6. University of Cologne, Main square with the entrance to the lecture building, the congress poster and the Institute bus of the Archaeological Institute (Philipp Groß, Institute of Archaeology, University of Cologne).



Abb. 7. Die Veranstalter danken Diana Wozniok M.A. und Dajana Ehlers für die erfolgreiche Organisation der Tagung (Philipp Groß, Archäologisches Institut Uni Köln).

Fig. 7. The organisers would like to thank Diana Wozniok M.A. and Dajana Ehlers for the successful organisation of the conference! (Philipp Groß, Institute of Archaeology, University of Cologne).

Geschichte der Konferenz für Römische Militärausrüstung

History of the Roman Military Equipment Conference

*Mike Bishop**

Das erste Forschungsseminar für römische Militärausrüstung fand im Frühjahr 1983 am Department of Ancient History der University of Sheffield in Großbritannien statt. Ein kurzer Band mit Beiträgen wurde vom Autor privat veröffentlicht, um das Treffen zu dokumentieren. Dieses wurde so gut angenommen, dass man beschloss, 1984 ein zweites Treffen abzuhalten, wiederum in Sheffield: Dabei sollte ein bestimmtes Thema behandelt und Wissenschaftler vom Kontinent eingeladen werden. Mit der Publikation der Ergebnisse dieses Seminars 1985 durch British Archaeological Reports (BAR) war klar, dass dies der Beginn einer Reihe war. Das nächste Seminar, organisiert 1985 in der Abteilung für Archäologie in Nottingham (UK) liegt als 1987 erschienener BAR-Band vor. 1986 wurde dann ein viertes Treffen in Newcastle upon Tyne beschlossen, aber jetzt war es an der Zeit, den Namen so zu ändern, dass dieser der Art der Konferenz besser entspricht. Die Roman Military Equipment Conference (ROMECC) war geboren.

Warum ROMECC und nicht RoMECC? Unglücklicherweise begann Ende der 80er Jahre eine Filiale der britischen Staatspost, Royal Mail Engineering and Construction, das Akronym RoMECC zu verwenden, das daraufhin in Romecc und erst kürzlich in Royal Mail Property & Facilities Solutions umbenannt wurde, so dass wir das Akronym RoMECC nicht mehr verwenden konnten.

Die Teilnahme kontinentaler Wissenschaftler am zweiten Forschungsseminar bedeutete, dass es sich nicht mehr nur um eine britische Angelegenheit handelte. Es schien daher ein natürlicher Schritt, das fünfte Treffen in die Niederlande zu verlegen, wo es 1987 im Museum G M Kam in Nijmegen stattfand. Auch dieses wurde als BAR veröffentlicht, aber das zunehmende Interesse an dem Thema führte zu der Erkenntnis, dass ein eindeutiger Bedarf an einer wissenschaftlichen Zeitschrift zu diesem Thema und zur Publikation der Kongressakten bestand.

The first Roman Military Equipment Research Seminar was held at the Department of Ancient History in the University of Sheffield in the UK in the spring of 1983. A short volume of proceedings was privately published by the present writer as a record of the occasion. The gathering was so well-received that it was decided to hold a second one in 1984, again at Sheffield, and this time to have a specific theme and to invite continental scholars to participate. The proceedings of that seminar was published by British Archaeological Reports (BAR) in 1985 and it was clear that a series had begun. The next seminar was organised for 1985 in the Department of Archaeology in Nottingham (UK) and that too was published as a BAR volume in 1987. A fourth was then decided upon for Newcastle upon Tyne in 1986, but now it was felt that it was time for a name change that better reflected its nature, and the Roman Military Equipment Conference (ROMECC) was born.

Why ROMECC and not RoMECC? Inconveniently, in the late 1980s, a branch of the UK state postal service, Royal Mail Engineering and Construction, began using the acronym RoMECC; this subsequently rebranded first to Romecc and more recently to Royal Mail Property & Facilities Solutions, so happily no longer uses the acronym RoMECC.

The participation of continental scholars at the second research seminar meant it was no longer just a British phenomenon and it seemed a natural step to move the fifth meeting to the Netherlands, where it was hosted at the Museum G M Kam at Nijmegen in 1987. That too was published as a BAR, but the increasing level of interest in the subject led to the perception that there was a definite need for an academic journal on the subject to accompany the series.

Next came a conference in Germany at Bonn (1988) and many of the papers from that were duly published in the first volume of the *Journal of Roman Military Equipment*

* Übersetzung von Stefanie Hoss.

Als nächstes folgte eine Konferenz in Deutschland in Bonn (1988), und viele der Beiträge wurden ordnungsgemäß im ersten Band des *Journal of Roman Military Equipment Studies (JRMES)* veröffentlicht. Das nächste Treffen fand zwei Jahre später auf dem Magdalensberg in Österreich statt (1990), bevor die Konferenz 1992 nach Newcastle zurückkehrte. Konferenzen in Leiden (1994), Montpellier (1996) und Mainz (1998) fanden in dem gewohnten Zweijahresrhythmus statt, der durch die Konferenz in South Shields (1999) unterbrochen, dann aber mit Brugg (2001), Wien (2003), Budapest (2005) und Xanten (2007) fortgesetzt wurde.

Da der Limes-Kongress (oder Roman Frontiers Congress) immer im Dreijahresrhythmus stattfand und die ROMECS alle zwei Jahre, gab es Jahre, in denen beide gleichzeitig abgehalten wurden, was einigen unangenehm (und unvermeidlich teuer) erschien. Aus diesem Grund fanden die folgenden ROMECS in Zagreb (2010), Kopenhagen (2013), St. Andrews (2016) und jetzt Köln (2019) alle drei Jahre statt, wodurch zeitliche Überschneidungen mit dem Limes-Kongress vermieden werden konnten. Heute, 36 Jahre nach dem ersten Treffen, bei dem die Erforschung der römischen Militärausrüstung diskutiert wurde, ist die Konferenz größer und erfolgreicher denn je und bezieht Wissenschaftler und re-enactors aus der ganzen Welt mit ein.

Studies (JRMES). The next meeting was two years later at the Magdalensberg in Austria (1990), before the conference returned to Newcastle in 1992. Conferences at Leiden (1994), Montpellier (1996), and Mainz (1998) continued the biennial pattern, broken by South Shields (1999), but then re-established with Brugg (2001), Wien (2003), Budapest (2005), and Xanten (2007).

Since the Roman Frontiers Congress (or Limes Congress) has always operated on a three-yearly cycle and the military equipment conference was held every two years, there were years when both occurred at the same time, which some found inconvenient (and, inevitably, expensive). For this reason, subsequent ROMECS were held every three years, at Zagreb (2010), Copenhagen (2013), St Andrews (2016), and now Köln (2019), successfully avoiding clashing with the Limes Congress. Now, 36 years after that first meeting in Sheffield to discuss research into Roman military equipment, the series goes from strength to strength, involving scholars and re-enactors from all over the world.

Liste der bisherigen ROMEK-Konferenzen

List of previous ROMEK conferences

ROMEK I Sheffield (GB) 1983: Roman Military Equipment | M.C. Bishop

Publ.: M.C. Bishop (ed.), *Roman Military Equipment. Proceedings of a Seminar held in the Department of Ancient History and Classical Archaeology at the University of Sheffield, 21st March 1983*, Sheffield 1983.

ROMEK II Sheffield (GB) 1984: The Production and Distribution of Roman Military Equipment | M.C. Bishop

Publ.: M.C. Bishop (ed.), *The Production and Distribution of Roman Military Equipment. Proceedings of the Second Roman Military Equipment Research Seminar*, BAR International Series **275**, Oxford 1985.

ROMEK III Nottingham (GB) 1985: Roman Military Equipment: the Accoutrements of War | M. Dawson

Publ. M. Dawson (ed.), *Roman Military Equipment: the Accoutrements of War. Proceedings of the Third Roman Military Equipment Research Seminar*, BAR International Series **336**, Oxford 1987.

ROMEK IV Newcastle upon Tyne (GB) 1986: Military Equipment and the Identity of Roman Soldiers | J.C. Coulston

Publ.: J.C. Coulston (ed.), *Military Equipment and the Identity of Roman Soldiers. Proceedings of the Fourth Roman Military Equipment Conference*, BAR International Series **394**, Oxford 1988.

ROMEK V Nijmegen (NL) 1987: Roman Military Equipment: the Sources of Evidence | C. van Driel-Murray

Publ.: C. van Driel-Murray (ed.), *Roman Military Equipment: the Sources of Evidence. Proceedings of the Fifth Roman Military Equipment Conference*, BAR International Series **476**, Oxford 1989.

ROMEK VI Bonn (D) 1988 | M. Gechter

Publ.: *JRMES* **1**, 1989.

ROMEK VII Magdalensberg (A) 1990 | H.-J. Ubl

Publ.: Keine Publikation

ROMEK VIII Newcastle upon Tyne (GB) 1992 | L. Allason-Jones

Publ.: *JRMES* **3**, 1992.

ROMEK IX Leiden (NL) 1994: Military Equipment in Context - Roman Military Equipment: Experiment and Reality | C. van Driel-Murray

Publ.: *JRMES* **4**, 1993 (Teile); *JRMES* **5**, 1994; *JRMES* **6**, 1995.

ROMEK X Montpellier (F) 1996: L'équipement militaire et l'armement de la république (IVe-Ier s. avant J.-C.) | M. Feugère

Publ.: *JRMES* **7**, 1997 (Teile); *JRMES* **8**, 1997.

ROMEK XI Mainz (D) 1998: Spätrömische Militärausrüstung | J. Oldenstein

Publ.: *JRMES* **9**, 1998 (Teile); *JRMES* **10**, 1999.

ROMEK XII South Shields (GB) 1999: Re-enactment as Research | W. B. Griffiths

Publ.: *JRMES* **11**, 2000.

ROMEK XIII Brugg (CH) 2001: Römisches Militär und Militaria im zivilen Bereich | E. & S. Deschler-Erb

Publ.: *Jahresbericht Gesellschaft Pro Vindonissa* **2001**, **2002**; *JRMES* **12/13**, 2001/2002.

ROMEK XIV Wien (A) 2003: Archäologie der Schlachtfelder | S. Jilek

Publ.: *Carnuntum Jahrbuch* **2005**.

ROME C XV Budapest (HU) 2005: The Enemies of Rome | L. Kocsis
Publ.: *JRMES* **16**, 2005.

ROME C XVI Xanten (D) 2007: Waffen in Aktion | M. Müller & H.-J. Schalles
Publ.: H.-J. Schalles & A.W. Busch (eds), *Waffen in Aktion. Akten der 16. Internationalen Roman Military Equipment Conference (ROME C), Xanten, 13.–16. Juni 2007*, Xantener Berichte **16**, Mainz 2009.

ROME C XVII Zagreb (HR) 2010: Weapons and Military Equipment in Funerary Context | M. Sanader & M.A. Rendic-Miočević
Publ.: M. Sanader, M.A. Rendić-Miočević, D. Tončinić & I. Radman-Livaja (eds), *Weapons and Military Equipment in a Funerary Context: Proceedings of the XVIIth Roman Military Equipment Conference*, Dissertationes et monographiae **7**, Zagreb 2013.

ROME C XVIII Copenhagen (DK) 2013: Imitation and Inspiration | Th. Grane & X. Pauli Jensen
Publ.: *JRMES* **17**, 2016.

ROME C XIX St Andrews (UK) 2016: Cavalry in the Roman World | J.C. Coulston
Publ.: *JRMES* **18**, 2017 (Teile); *JRMES* **19**, 2018; *JRMES* **20**, i.Vorb. (Teile).

ROME C XX Köln (D) 2019: Waffen im rituellen Kontext | E. Deschler-Erb, P. Henrich & S. Hoss
Publ.: *JRMES* **20**, 2019; (Teile); *JRMES* **21**, 2020 (Teile).

Roman weapons in watery contexts

Janka Istenič

Roman weapons and other military equipment from the rivers Rhine, Saône, Rhône, Danube, Kupa, Sava, Ljubljaniča and many others¹ represent an important segment of the known corpus of such finds and, indeed, a large proportion of complete and well-preserved military items from the Roman period.² Apart from rivers, weapons also occur in other aquatic environments such as seas,³ ponds⁴ and wells,⁵ but they are beyond the scope of this paper.

Archaeological finds from rivers have been discussed in several publications over the last three and especially the last two decades; many of them are exhibition catalogues.⁶ Particularly important in terms of methods and results is the publication of the systematic and long-lasting research carried out by Louis Bonnamour and Annie Dumont on the Saône.⁷

Various hypotheses have been put forward to explain the high numbers of weapons in rivers. An overview of hypotheses has been given relatively recently,⁸ hence only some of them are mentioned here.

Broadly speaking, weapons may have ended up in water as a result of either unintentional or intentional deposition. Unintentional deposition includes loss during military conflicts. Strategically important sites such as bridges, piers and fords were often attacked or defended and military combats that ended in massacres near or in waters are not rare in military history. The losing army or group would be pressed near the water where it could only choose between being slaughtered on land and going/jumping in the water, thereby risking losing the weapons or drowning together with their armament.⁹

The archaeological research conducted since 2009 in the 3.5 km long section of the small river Tollense and its valley, in NE Germany, has provided convincing evidence of warfare directly along and in the river from the Bronze Age.¹⁰ Recently, the conflict related nature of part of the find complex dredged from the Meuse at Kessel/Lith in the Netherlands has been related to Caesar's campaign against the Tencteri and Usipetes in 55 BC.¹¹

Rivers and the sea were very important transport routes and the Roman army made full use of them for transporting provisions and troops.¹² Weapons may thus have been accidentally lost en route.¹³ Several examples of weapons from shipwrecks suggest they were the equipment of shipboard soldiers: the weapons (a gladius, remains of associated scabbard and a buckle, probably from a military belt)¹⁴ from the Early/Middle Augustan shipwreck in the Po delta,¹⁵ as well as the relatively numerous militaria from the late Republican and early Principate shipwrecks in the sea.¹⁶ Weapons may also be part of a sunken ship cargo¹⁷ or the equipment of soldiers lost during harbour activities and so forth.

Military items may have been accidentally lost while fording a river or crossing it by boat.¹⁸

Several military and other objects entered the water when the river undercut graves¹⁹ or other structures on the bank.

We also know of an instance in the Rhine, at the small Roman fort of Albaniana (Alphen aan den Rijn in the Netherlands), where daggers and other Roman military objects, some of them almost complete, were used together with pottery and other waste material to reinforce the bank and came into the Rhine when the river undercut the reinforcement.²⁰

Another reason may be natural catastrophes, as suggested by the La Tène D1 context from Cornaux at the river Thielle (Switzerland). It seems that a bridge collapsed there and buried the people on it together with the objects they carried, weapons included.²¹

Apart from accidental, Roman weapons in rivers may be the result of deliberate, cult related depositions.²² Ancient sources indicate the practice of offering weapons (and other objects) to gods associated with rivers/sea, especially related to crossing them. Herodotus (History, VII, 54) describes such an offering by the Persian king Xerxes, who threw a sword and two gold vessels into the sea as part of the religious ceremony before bridging the Hellespont and invading the Greek mainland.²³ Archaeological research at one of the fords in the Saône provided evidence suggesting a ritual deposition of a Pompeii type sword and other items in the riverbed prior to paving the ford.²⁴

There is also the practice of destroying the weapons of the defeated enemy by throwing them into the river. On that subject, Florus (*Epitome* IV.12) reports that the Romans in the time of Augustus, after having defeated the Pannonians who lived between the Sava and the Danube, did not burn the weapons of the Pannonians, but broke and threw them into a river, probably in order to warn and humiliate those who still resisted.²⁵ Another example is in Orosius (*Historiae Adversus Paganos* V, 16,5), who wrote that the Cimbri and Teutones, victorious over the Romans in the 105 BC battle at Orange/Arausio, threw silver and gold objects in the river and drowned the horses in whirlpools.²⁶

A passage in Tacitus indicates the practice of removing objects originally offered at temples into marshes,²⁷ which allows for the supposition of other cases when rubbish was thrown into rivers.

As shown above, there is a myriad of possible interpretations of Roman, as well as prehistoric and mediaeval military finds in rivers, but it is very difficult to reliably relate them to particular archaeological contexts. In my opinion, the state of research allows little progress if the discussion remains on a general level. As a specific case study, I shall outline the evidence from the river Ljubljanica (Slovenia).²⁸

The 23 km long silty riverbed of the Ljubljanica in its stretch across the marshy plain of the Ljubljansko barje, from Vrhnika to Ljubljana, is a rich archaeological site that has yielded a multitude of artefacts ranging in date from the Early Stone Age to the modern period.

The assemblage of the Roman *militaria* from the river up to the 3rd century comprises 79 items. For 54 of them, it has been possible to establish a relatively narrow dating, mostly to the Middle and Late Augustan periods. Very few items postdate the end of the Augustan or the Early Tiberian period.²⁹ The assemblage consists of different groups of military equipment that occur in different numbers: swords largely predominate over daggers and all other groups of objects, while cuirass pieces are absent altogether.³⁰

Most of the *militaria* can reasonably safely be assumed to have entered the Ljubljanica more or less complete and without intentional damage.³¹

More than two thirds of the military finds originate from the riverbed between the town of Vrhnika and the bend at Bevke (Sections I–IV), less than a third from the considerably longer stretch between the said bend and Ljubljana (Sections V–X; Figs. 1, 2).³²

A comparison of *militaria* with other finds from the river reveals a similar chronological distribution, only the decrease in the number of military items postdating the Augustan period is more substantial. The spatial distribution of the military finds roughly corresponds with that of most other groups of contemporary finds; they all share a marked concentration west of the bend at Bevke (in Sections I–IV; Fig. 3).³³

A very different distribution is that of axes dating up to the end of the 3rd century (Fig. 4). Their presence in the river may be related to factors different from those for the Roman

militaria, amphorae, pottery, bronze vessels and likely also coins; axes were probably accidentally lost in the Ljubljanica while clearing the vegetation on its banks.³⁴

Also clearly different is the distribution of military items from the Late Roman (Fig. 5) and early medieval periods (Fig. 6), on the one hand, and that of the Late Iron Age artefacts, on the other.³⁵

To conclude, the findspot distribution of the military equipment and most other finds from the Late Republican and the Augustan period is specific to this particular time-frame. What appears of crucial importance is that the great majority of artefacts were found in the stretch of the riverbed from Vrhnika to the bend near Bevke (Figs. 1–3).

In geopolitical terms, the navigable route along the Ljubljanica was by far the most important in the time when the Romans needed to supply the army engaged in conquering new territories and imposing the Roman rule in the south-eastern Alps, the northern Balkans and the central Danube Basin, that is from the mid-1st century BC to the end of the Augustan period (Fig. 7).³⁶ The chronological distribution of the army-related artefacts indicates that this supply line was used during Octavian's Illyrian War between 35 and 33 BC and even more intensively during the Pannonian Wars between 11 and 9 BC and the Pannonian-Dalmatian rebellion between AD 6 and 9. The size of the ships found in or near the river, and indirectly also the extensive warehouses unearthed at Vrhnika, that is Roman *Nauportus*, show that large quantities of military and other supplies were transported along the Ljubljanica.³⁷

How to explain this great number of Roman military finds in the Ljubljanica?

The relatively high number of *militaria* from the section at Vrhnika/*Nauportus* is not surprising, as *Nauportus* lies at the beginning of the navigable route along the river. It is here that the eastbound goods were reloaded from wagons onto boats and vice versa when travelling west (Fig. 7). They can largely be seen as accidental losses by soldiers present at *Nauportus*.³⁸

One would expect similarly high numbers of military and other finds at Emona, the Roman town in modern Ljubljana, but this is not the case. The position of Emona (Fig. 7) was of great strategic importance, as the roads from the Apennine Peninsula, the Balkans and the central Danube Basin converged here. One possible reason for the scarcity of Roman military finds from Ljubljana may be the manner in which the river engineering works in the city centre were conducted in the 19th and 20th centuries, but also the fact that the banks were later built up.³⁹

It is not clear when Emona became a colony, but it is certain that the walled town constructed at the end of Augustus' reign on the left bank of the Ljubljanica enjoyed the status of a colony.⁴⁰

The Roman army controlled navigation along the Ljubljanica. The marshy terrain prevented control by cavalry. Traffic along the Ljubljanica could thus have been controlled

from ships or boats and from checkpoints on the bank.⁴¹ One such checkpoint might have existed at Section IX, as suggested by the relatively numerous pieces of Roman military equipment found there.⁴²

Another section that yielded high numbers of army-related finds is the 300-metre-long stretch west of the bend at Bevke, in Sections III and IV (Figs. 1, 2). This one requires a lengthier discussion.

A boundary stone (Fig. 8) was found in the river just before the bend (Fig. 1). It marked the border between the territories of Aquileia and Emona. The stone probably dates from the Augustan period and originally stood on the bank. It differs from other boundary stones separating administrative territories of autonomous towns in that it makes no mention of a territorial dispute. Its inscription reveals that, when it was erected, Aquileia and Emona with respective territories belonged to the same larger administrative unit, that is Italy as we are talking of the Augustan period.⁴³

Is there a connection between the boundary separating the territories of Aquileia and Emona, and the concentration of the Late Republican and Augustan militaria, finewares and brooches recovered from the Ljubljana west of this boundary?

A hypothesis proposed below is related to Roman administrative boundaries.

The Romans distinguished between *ager limitatus* and *ager arcifinius*. The former was the organised, cadastrated land with defined boundaries under civil administration. The latter, *ager arcifinius*, was the land outside it that was under military administration. *Ager arcifinius* was thus an area under Roman control separating Roman territory *stricto sensu* (*ager limitatus*) and enemy territory.⁴⁴

Roman boundaries were associated with rituals that include *suovetaurilia*, a ritual dedicated to Mars to purify and bless the land. It involved the sacrifice of three animals sacred to Mars, which are pig, sheep and bull. Tacitus (Ann. 6.37) reports that in AD 35 the Roman general Vitellius celebrated the *suovetaurilia* on the banks of the Euphrates as a preliminary to an attack into Mesopotamia. The same ritual may be illustrated on a slab from the Antonine Wall in Scotland; it shows soldiers engaged in the ceremony of lustration, perhaps before embarking on a campaign north of the wall. It would appear that, for the Roman army, crossing the boundary of the *ager limitatus* may have been an act associated with religious rituals, perhaps related to purification.⁴⁵

It seems likely that the Aquileian *ager* terminated at the bend of the Ljubljana at Bevke (Figs. 1, 7) already before the colony of Emona was founded, at a time when the Aquileian eastern border presumably coincided with the eastern border of Cisalpine Gaul (or Italy after 42 BC) and with the boundary of the cadastrated Roman land under civil administration, that is *ager limitatus*. The Romans did exert control or *imperium* over the area east of it, but it was not under Roman civil administration and not part of a Roman province; it was *ager arcifinius*. Such a position of what was to

become the *ager* of Emona corresponds with what can be surmised from the archaeological and literary evidence, as well as from the geopolitical location of the area. I presume that the situation changed when the colony of Emona was established and its territory included into Italy. It seems that boundary stones were mainly set up at the boundaries that had recently changed or were objects of dispute or uncertainty, so the most likely time for setting up the boundary stone found in the Ljubljana is at or soon after the foundation of the colony of Emona. In this case, the border would not change in location, but in nature: the boundary of the Roman state would become an internal boundary between the administrative territories of two *coloniae*.⁴⁶

The archaeological and other evidence given above shows that the assemblage of the Late Republican to Late Augustan or Early Tiberian militaria from the c. 300-metre-long stretch of the Ljubljana immediately west of the bend at Bevke is not a random one. This leads to the hypothesis that part of the assemblage is linked to religious acts related to crossing the eastern boundary of Cisalpine Gaul or, after 42 BC, Italy, hence crossing the boundary of the *ager limitatus* presumably situated at the bend of the Ljubljana at Bevke.⁴⁷

It seems rational to presume that the Romans set up a small military post just before the border. This post would control the movement of people, goods and information in the border zone, particularly along the Ljubljana. The most suitable spot for such a post is the slightly elevated terrain less than a kilometre upstream of the bend.⁴⁸

After the end of the Augustan or in the Early Tiberian period, the number of artefacts recovered from the discussed section decreases drastically. If the density of finds from this section is indeed related to the eastern border of Cisalpine Gaul or Italy, this decrease must be connected with the shift of the border when the boundary at Bevke became an internal one, separating the territories of two *coloniae*: Aquileia and newly founded Emona. However, we should note that a decrease of military finds pertains to the entire riverbed of the Ljubljana and is probably caused by the substantial reduction in the movement of military supplies in this region after the end of the Roman conquests and the pacification of areas that became incorporated in the province of Illyricum.⁴⁹

To sum up, the available evidence suggests that the chronological and spatial distribution of Roman military equipment in the riverbed of the Ljubljana between Vrhnika and Ljubljana was mainly determined by two factors:

- firstly, the great importance of traffic along the Ljubljana for provisioning the Roman army in the Late Republican and particularly in the Augustan period, and
- secondly, the location of the eastern border of Cisalpine Gaul or Italy, that is of *ager limitatus* just upstream from the bend of the Ljubljana at Bevke.

Both factors changed significantly roughly at the same time, at the end of the Augustan or beginning of the Tiberian period.

The high numbers of militaria and several other groups of finds from the Ljubljana area, in my opinion, mainly related to the activities at the harbours (Section I: Nauportus/Vrhnik) and control points along the river (Sections IV Bevke and IX), as well as to religious rituals performed before crossing the boundary of *ager limitatus* (Sections III and IV).

In-depth studies of select riverine assemblages would further advance our knowledge of the reasons behind the occurrence of weapons in rivers, as would the participation of specialists in fields such as religion, law, ancient landscape and others.

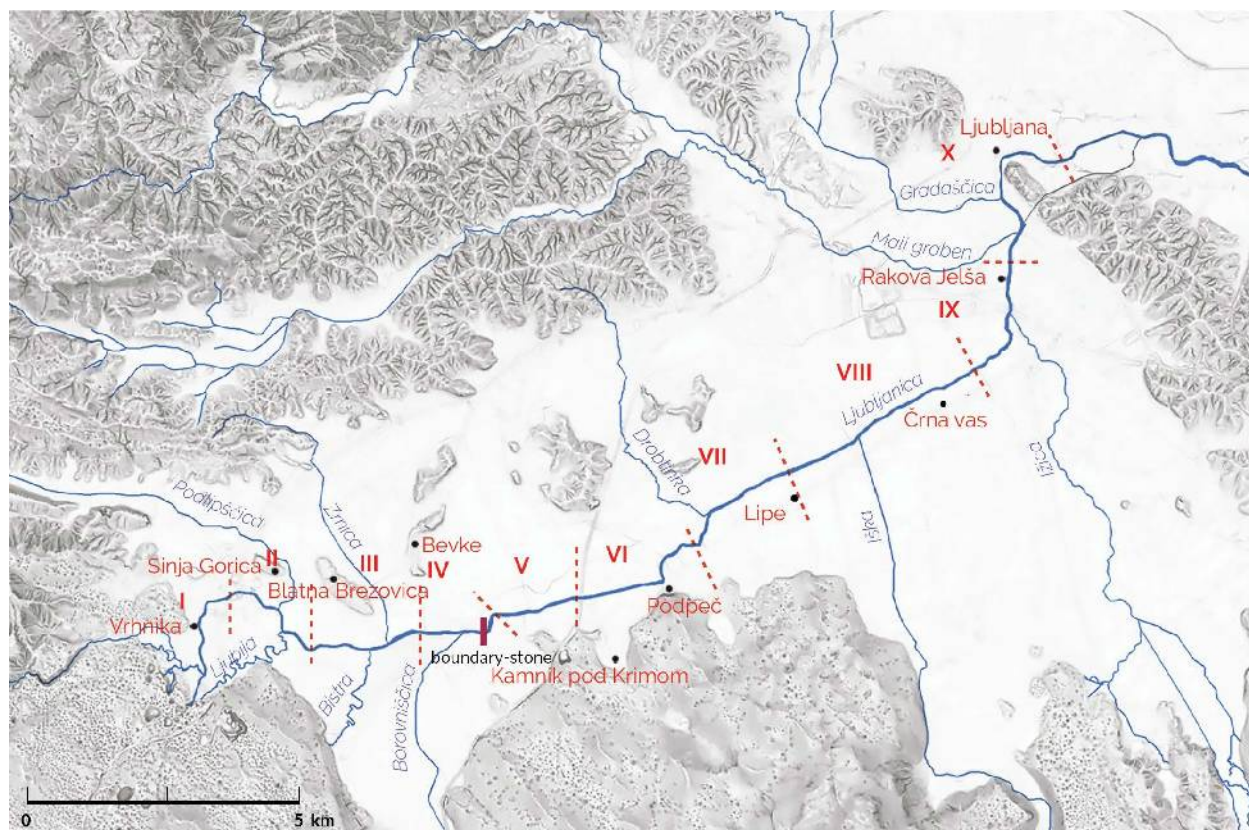


Fig. 1. Sections along the Ljubljana at Barje, referred to in the text. The basemap digital terrain model at 5 m resolution (DTM5) is derived from the airborne LiDAR data. The find-spot of the Early Roman boundary-stone is also indicated (source: www.evode.gov.si)



Fig. 2. Spatial distribution of the Roman military equipment from the Ljubljana up to the end of the 3rd century AD (only one object from Sections I and III respectively are later than 1st century AD)

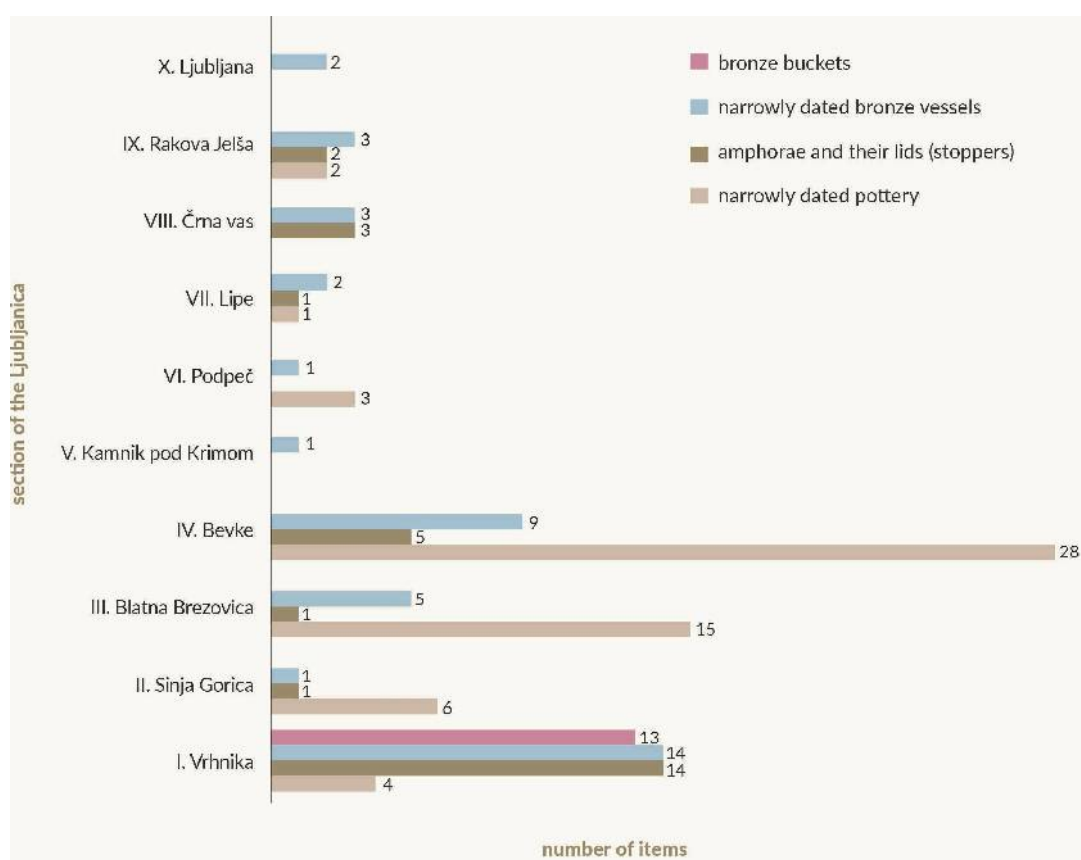


Fig. 3. Spatial distribution of Roman finds other than militaria up to the end of the 3rd century in the Ljubljana

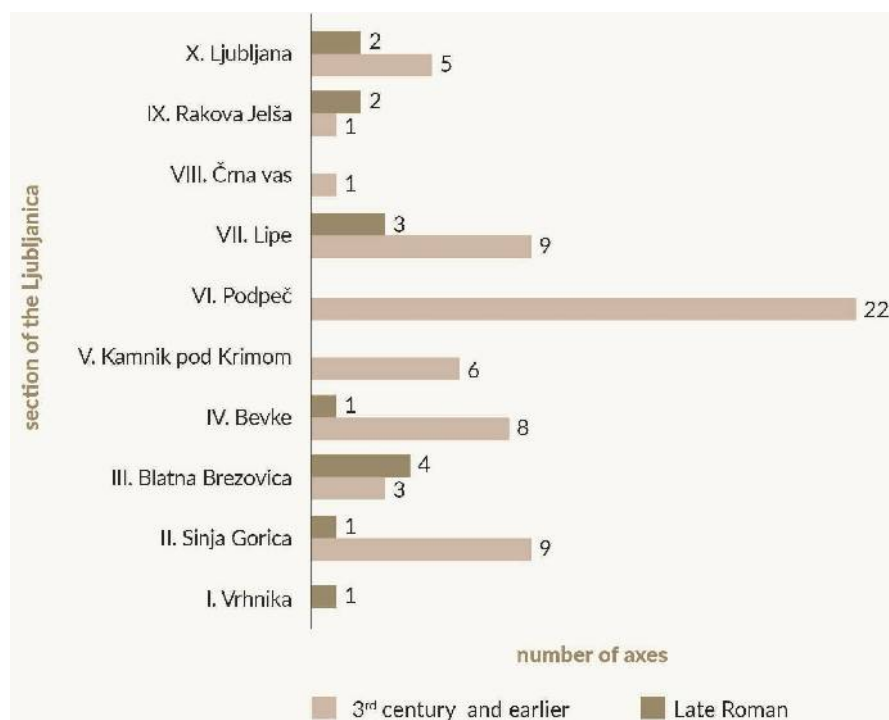


Fig. 4. Spatial distribution of Roman axes in the Ljubljana

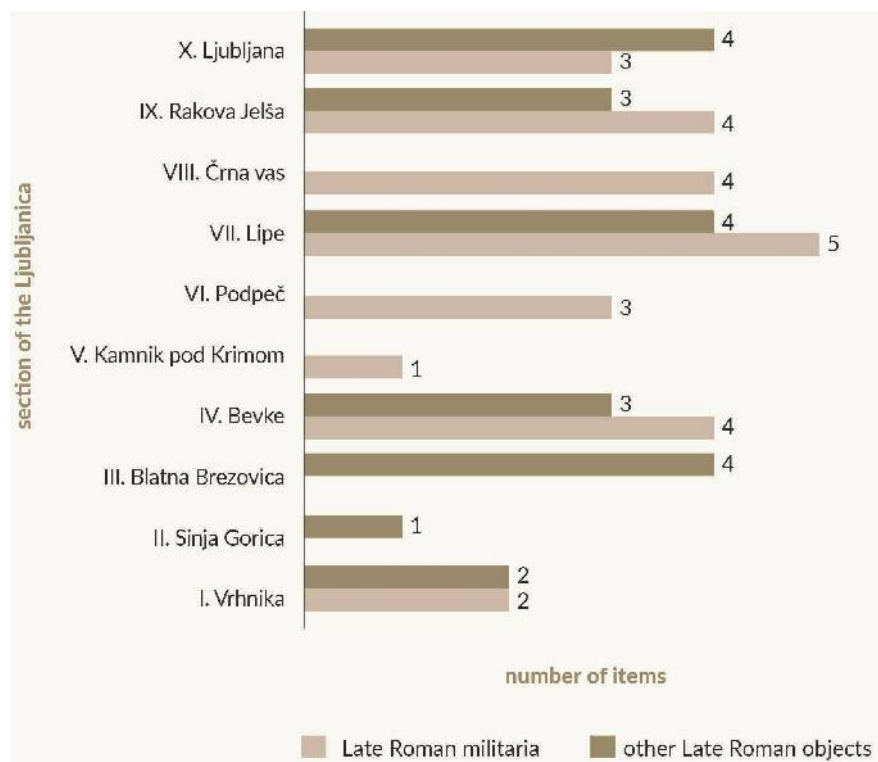


Fig. 5. Number of Late Roman finds from individual sections of the Ljubljana

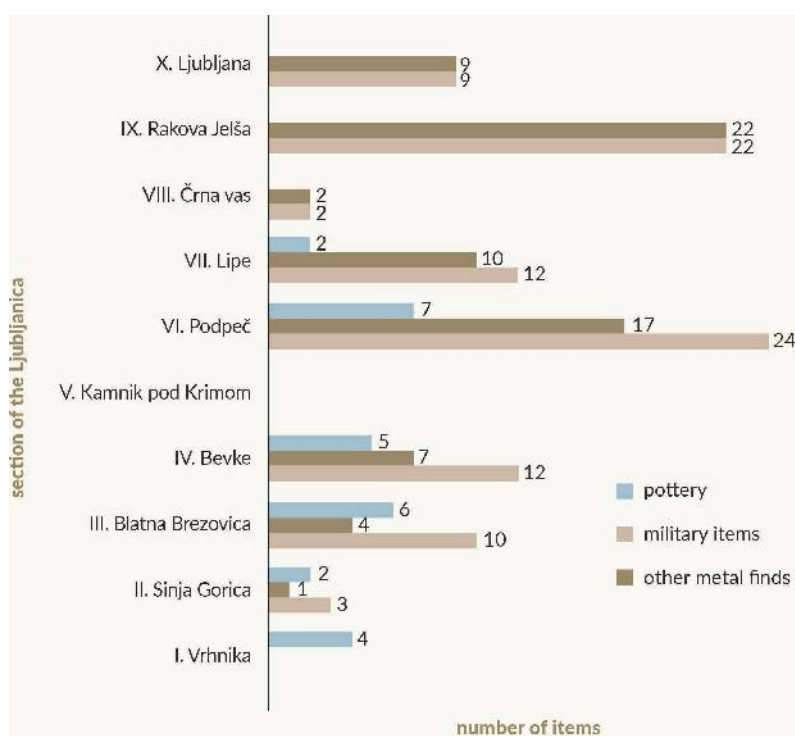


Fig. 6. Number of early medieval finds from individual sections of the Ljubljana

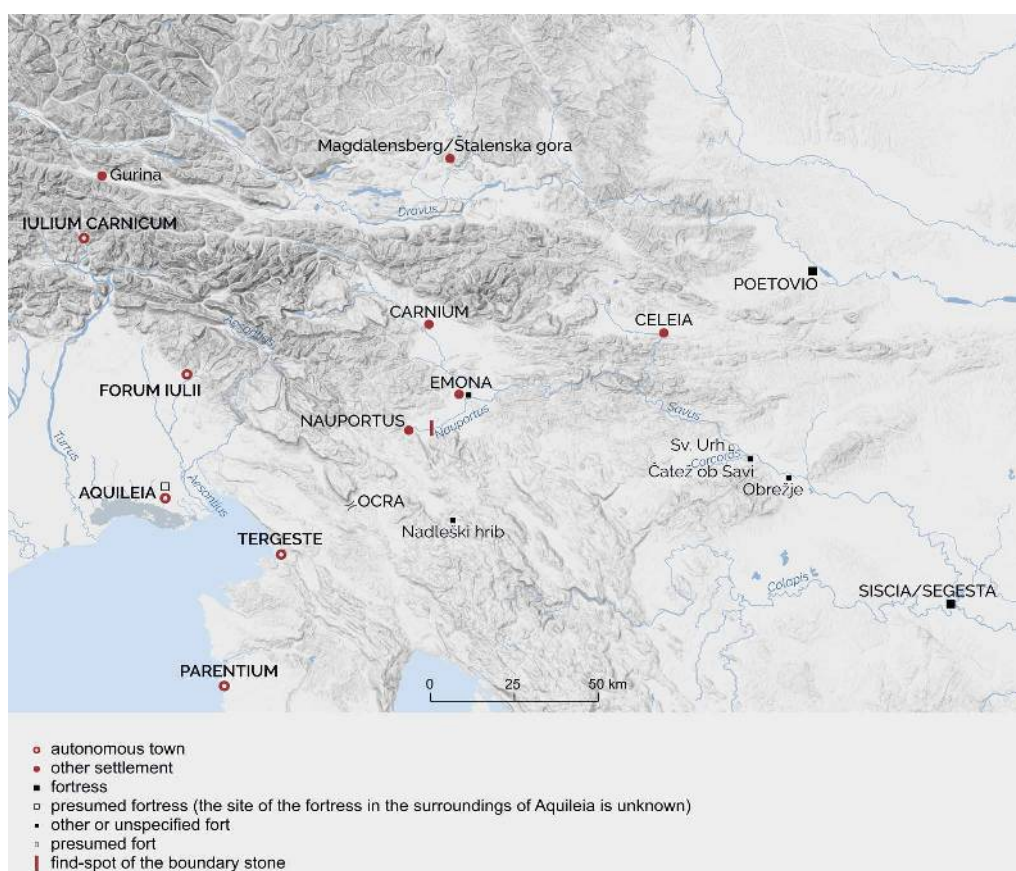


Fig. 7. Area between Aquileia and Siscia in the first decade AD

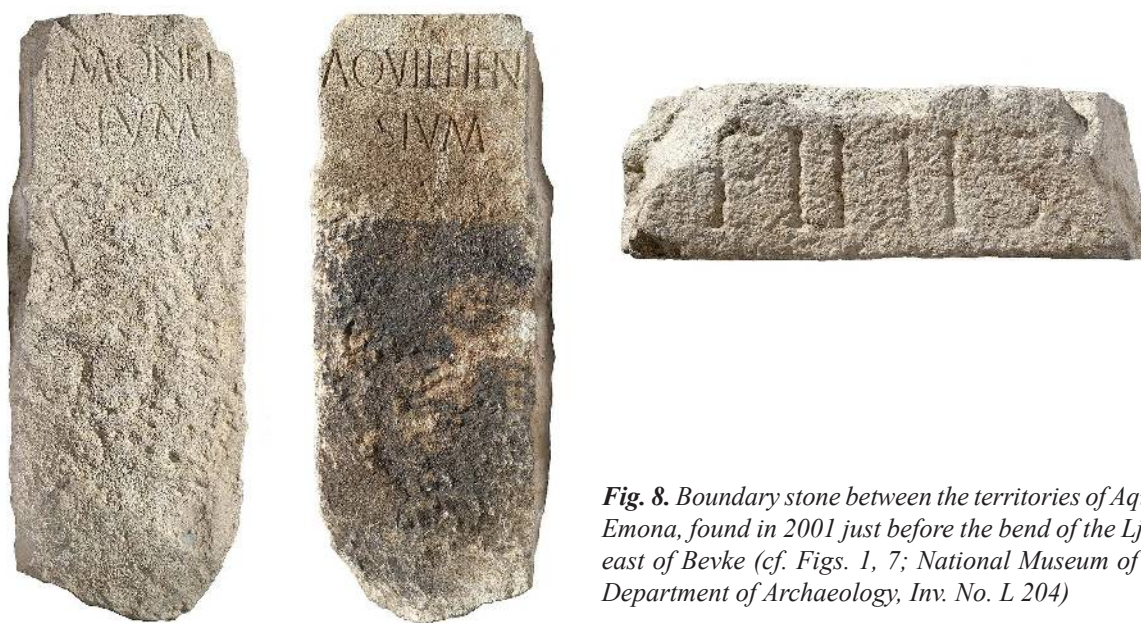


Fig. 8. Boundary stone between the territories of Aquileia and Emona, found in 2001 just before the bend of the Ljubljanka east of Bevke (cf. Figs. 1, 7; National Museum of Slovenia, Department of Archaeology, Inv. No. L 204)

NOTES

1. BERNHARD & al., 1990; BONNAMOUR, 2000a; BONNAMOUR, 2000b; DETTEN & SCHALLES, 1993; DUMONT, 2002; DUMONT, 2006; FISCHER, 2004; HOFFILLER, 1910–1911; HOFFILLER, 1912; ISTENIČ, 2019; KLEIN, 2000; KUHNEN, 2001; LONG & PICARD, 2009; MILOŠEVIĆ, 1987, 13–24, 67–69, 117–118, Pls. 1, 3: 1, I, II: 3, 7, 8, 10, V: 6, 8, 9; MILOŠEVIĆ, 2003; MIŠKIV, 1993; PAULY, 1987; SCHALLES, SCHREITER, 1993; STAADLER, 2006; TEYSSIER, 2009; THIEL, 2000; THIEL & ZANIER, 1994; VUJOVIĆ, 2001; WIRTH, 2000, 89–90, Fig. 9: 1; ZEE, 2007.
2. Cf. THIEL, 2000.
3. Cf. Fns. 13–15.
4. THIEL, 2000, 71.
5. E. g. MOREL & BOSMAN, 1989.
6. Cf. Fn 1.
7. BONNAMOUR, 2000b; DUMONT, 2002.
8. TESTART, 2012.
9. CAMPBELL, 2012, 164–177; TESTART, 2012, 341–348.
10. GROTHE & al., 2015; LIDKE & al., 2018.
11. ROYMANS 2018.
12. CAMPBELL, 2012, 177–186.
13. On the relative frequency of shipwrecks in rivers cf. TESTART, 2012, 289.
14. INVERNIZZI, 1990, 100, 101, 103–104, 258–261, Fn. 39, Figs. 3–4, Pl. 48: 227–229. INVERNIZZI, 1990 also mentions a scabbard of a dagger, allegedly lost, but what she describes as its metal decoration corresponds to sword scabbard fittings (cf. BERTI, 1990, Pl. 68: 229).
15. BERTI, 1990; GARCÍA-BELLIDO, 1998, 2; DOMERGUE & al., 2012.
16. In addition to the publications quoted by FEUGÈRE (1993, 266), also see: for the helmets from the Albenga shipwrecks – PADDOCK, 1993, 23, 25, 504–505, 540, 552, 556, Nos. 72, 106, 127–130, Figs. 149, 161, 168, 169; for the helmet from the Madrague de Giens shipwreck – FEUGÈRE, 1994, 43–44; for the helmet from the Dramont A shipwreck – PADDOCK, 1993, 661, Fig. 182: 12; for the three copper alloy helmets of the Weisenau type from the shipwreck off the island of Cabrera (Cabo Moro Boti, Balearic Islands, Spain) – VEGA AVELAIRA, 2006, 469–472; at the Chrétienne H shipwreck, a pick-axe, a double axe and an imprint of a dagger were found in addition to a short sword – SANTAMARIA, 1984; the amphorae from the Terrasini shipwreck, where two short swords were found, suggests its dating to the second quarter of the 1st century AD (cf. PURPURA, 1974); two bronze helmets were found at the Gruissan shipwreck (France) – PADDOCK, 1993, 620, Fig. 169: 131–132; for the helmet from the Ses Salines shipwreck of Mallorca (Spain) – VEGA AVELAIRA, 2006, 482; for the sword in a sheath – an early example of the Pompeii type and a cingulum belt-buckle hinged to a fitting from the Porto Novo shipwreck off Corsica (France), late Tiberian–Claudian, – BERNARD & al., 1998, 77–81, Figs. 19–20.
17. Such an interpretation has been suggested, though not generally accepted (DUMONT, 2002, 189), for the finds from the Rhine at Neupotz and Hagenbach (KÜNZL, 1993, 75–81, Pls. 10–17; BERNARD, 1990, 40–41, Pl. V, Fig. 23).
18. CAMPBELL, 2012, 164–177; TESTART, 2012, 289.
19. For example DUMONT, 2002, 179–180.
20. ZEE, 2007.
21. KAESER, 2012, 70, 71; RAMSEYER, 2009; TESTART, 2012, 285–286.

22. TESTART, 2012, 293–302.
 23. BOULESTIN & LEJARS & TESTART, 2012, 409–411 (also on offering objects other than weapons: Pliny the Younger (Letters 8, 8) describes the sacred area of the source of the river Clitumnus; Horace (Odes III, 13) mentions offerings of flowers and an animal that he made to the source of the river Bandusia; according to Plutarch (Lucullus 24) the Roman commander Lucullus, in the time of Sula, sacrificed a bull to the Euphrates, in acknowledgment of the safe passage of his army); CAMPBELL, 2012, 198.
 24. DUMONT, 2002, 177, 185, Fig. 70: 2, 8, 13; DUMONT & NIELOUD-MULLER, 2012, 153–154, Fig. 3.
 25. BOULESTIN & LEJARS & TESTART, 2012, 429–430.
 26. BOULESTIN & LEJARS & TESTART, 2012, 430–431.
 27. Tacitus (Hist. IV 53, 3) reports that, in the time of Vespasian, the soothsayers directed that the remains of the old shrine (at the Capitol) should be ‘removed to the marshes, and the new temple raised on the original site’ (BOULESTIN & LEJARS & TESTART, 2012, 422); cf. CAZANOVE, 2012.
 28. ISTENIČ, 2019.
 29. ISTENIČ, 2019, 208, 210, Fig. 123.
 30. ISTENIČ, 2019, 210–212, Fig. 124.
 31. ISTENIČ, 2019, 216–218, Figs. 125–127.
 32. ISTENIČ, 2019, 218–220, 222, Figs. 128, 129.
 33. ISTENIČ, 2019, 222–228, Figs. 130–131, 133.
 34. ISTENIČ, 2019, 226–228, Fig. 132.
 35. ISTENIČ, 2019, 228–230, Figs. 134–135.
 36. ISTENIČ, 2019, 254, 256; cf. GRAAFSTAHL, 2017; DINTER, 2013.
 37. ISTENIČ, 2019, 236–238, 240, 256, Figs. 138–139.
 38. ISTENIČ, 2019, 238–240, 244.
 39. ISTENIČ, 2019, 240, 242–244.
 40. GASPARI, 2014, 134–141; ISTENIČ, 2019, 242; ŠAŠEL KOS, 2012; ŠAŠEL KOS, 2014.
 41. Cf. GRAAFSTAHL, 2017.
 42. ISTENIČ, 2019, 244.
 43. ISTENIČ, 2019, 246–248; ŠAŠEL KOS, 2012; ŠAŠEL KOS, 2016.
 44. ISTENIČ, 2019, 248; WHITTACKER, 1994, 12–20, 25; RICHARDSON, 2011.
 45. ISTENIČ, 2019, 248–250; WHITTACKER, 1994, 23.
 46. ISTENIČ, 2019, 250.
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 48. ISTENIČ, 2019, 250.
 49. ISTENIČ, 2019, 250–254.
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