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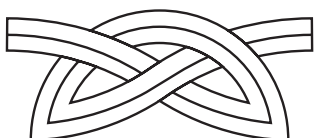
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Prethodna priopćenja Preliminary reports

6–27

Alenka Tomaž
Alenka Jovanović

Dolenji Leskovec – Za Savo (south-east slovenia):
Preliminary report on archaeological research in 2011

Dolenji Leskovec – Za Savo (jugoistočna Slovenija):
preliminarni izvještaj o arheološkim iskapanjima 2011.
godine

28–47

Domagoj Perkić
Marijo Dizdar
Hrvoje Potrebica
Ivan Pamić

Rezultati istraživanja gomilā iz željeznoga doba na
nekropoli Nakovana – Zmijna 2021. – 2022. godine

Research results from the Iron Age burial mounds
at the Nakovana – Zmijna necropolis (2021–2022)

48–66

Marina Ugarković
Niko Romac

(Pred-)Epetij, prapovijesno, helenističko i antičko
naselje: preliminarnе spoznaje iz istraživanja
2024. godine

(Pre-)Epetion, a Prehistoric, Hellenistic and
Roman settlement: preliminary results from the
2024 excavations

67–77

Asja Tonc

Crtica o stanovništvu Poljane Križevačke u mreži
naselja i identiteta na prijelazu era

A brief note on the population of Poljana Križevačka
in the network of settlements and identities at the
turn of the eras

78–90

Ivana Ožanić Roguljić
Renata Šoštarić

Mahunarke u rimskim pogrebnim običajima:
simbolika i arheološki tragovi

Legumes in Roman funerary customs: symbolism
and archaeological traces

91–105

Mihajlo N. Džamtoovski
Stefan D. Novaković

Fragment of a soldier's sepulchral monument
depicting a *convivium* scene from Kupinovo, Serbia
(southern *Pannonia Inferior*)

Ulomak rimskodobnog spomenika vojnika s
prikazom *conviviuma* iz Kupinova u Srbiji (južna
Donja Panonija)

106–121

Pio Domines Peter

Arheologija otoka Ista: prvi rezultati probnih
iskopavanja prapovijesnih, rimskih i srednjo-
vjekovnih nalazišta

Archaeology of the island of Ist: the first results
from test excavations on Prehistoric, Roman, and
medieval sites

122–168

Tajana Sekelj Ivančan

Ranosrednjovjekovna keramika s nalazišta
Kalinovac – Hrastova greda 1

Early Medieval pottery from the Kalinovac –
Hrastova Greda 1 site

159–187

Siniša Krznar

Rezultati istraživanja ranosrednjovjekovnog
grobља Vaćani – Grlo 2024. godine

Results of the 2024 excavations at the Early
Medieval cemetery of Vaćani – Grlo

188–201

Tino Tomas
Samra Terzić
Ante Vujnović

Grobље sa stećcima u Gornjem Pologu (Grad
Mostar) – rezultati probnih arheoloških
istraživanja

Cemetery with *stećci* in Gornji Polog (Mostar
Municipality): results of trial archaeological
excavations

202–221

Tatjana Tkalčec
Bartul Šiljeg

Od prapovijesnih gradina do
kasnosrednjovjekovnih gradišta: studije slučaja iz
Kalničkog prigorja i Bilogore

From Prehistoric hillforts to late medieval
strongholds: case studies from the Kalnik foothills
and Bilogora

222–228

Sebatijan Stingl

Putni blagoslov (*Reisesegen*) – novovjekovni nabožni predmet pronađen u Žumberku
Traveller blessing (*Reisesegen*) – an early modern devotional object discovered in Žumberak

Pregledni rad Review article

229–241

Monika Zorko Andrej Preložnik

An Olynthus mill from Kaštelir above Korte, near Izola (southwestern Slovenia)
Olinski žrvanj s Kaštelira iznad Korta kod Izole (jugozapadna Slovenija)

Kratko priopćenje Short communication

242–255

Mihajlo N. Džamtovski

A Prayer in Clay: a note on brickmaking in late 6th-century *Sirmium*
Molitva u glini: bilješka o ciglarstvu u Sirmiju u kasnom 6. stoljeću

256–267

Anamarija Viduka Krešimir Filipec

Dva novovjekovna preklopna sunčana sata iz Hrvatskog zagorja
Two post-medieval diptych dials from Hrvatsko Zagorje

Stručni radovi Professional papers

268–282

Alexandra Vieira Patrick D. Nunn Loredana Lancini Tõnno Jonuks

Situating Memory in Place and Time: The ArchaeoLore Group
Smještanje sjećanja u prostor i vrijeme: grupa ArchaeoLore

283–292

Kristina Jelinčić Vučković Ivana Ožanić Roguljić Kristina Turkalj

BAZA antičkih lokaliteta Republike Hrvatske: mogućnosti primjene u digitalnoj arheologiji – primjer rustičnih vila otoka Korčule
DATABASE of Ancient sites of the Republic of Croatia: application possibilities in Digital Archaeology – the example of villae rusticae on the Island of Korčula

Prikaz knjige Book review

293–301

Anita Dugonjić

Anita Rapan Papeša, VITICE, LAVOVI I GRIFONI, Avarodobni ratnici iz nuštra / Gradski muzej Vinkovci, Avaria Musei Cibalensis 1, Vinkovci, 2024.
548 str., 109 slikovnih priloga, 263 table, 10 grafičkih i 12 tabličnih priloga. ISBN 978-953-7008-57-4. Cijena: 100 €
Anita Rapan Papeša, TENDRILS, LIONS AND GRIFFINS, Avar period warriors from Nuštar Vinkovci Municipal Museum, Avaria Musei Cibalensis 1, Vinkovci, 2024
548 pp., 109 figures, 263 plates, 10 charts, and 12 tables. ISBN 978-953-7008-57-4. Price: €100

302–305

Upute autorima
Guidelines for Contributors

A Prayer in Clay: a note on brickmaking in late 6th-century *Sirmium*

Molitva u glini: bilješka o ciglarstvu u Sirmiju u kasnom 6. stoljeću

Kratko priopćenje >
Antička i ranosrednjovjekovna arheologija
Short report >
Roman and early medieval archaeology

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Ključne riječi: Avari, ciglarstvo, ranobizantsko razdoblje, kasna antika, Panonija, Sirmij, topografija

Ancient *Sirmium* (Sremska Mitrovica, Serbia) was an important Roman city, especially during Late Antiquity. During the Tetrarchic period and the first half of the fourth century, the city underwent enormous expansion, and economic activities – including brickmaking – reached their peak. However, following the Battle of Hadrianople (Edirne, Turkey) in 378, the central and eastern Danubian provinces suffered the disintegration of their socioeconomic systems and the ruralisation of urban culture. Consequently, the local brick industry declined and, following the Hunnic conquest in the 440s, ceased entirely. Inhabitants of this period relied on perishable materials and/or recycled bricks for construction. The Romans reconquered *Sirmium* in 567, reintroducing limited brick production. The city was assaulted by the Avars in 567 and eventually besieged in 579–582. A testimony to these events is a surviving brick inscribed with a prayer against the Avar peril. The manufacture of this brick during an assault or siege suggests that brickmaking – traditionally an extramural activity – may have been practised *intra muros* in during the late sixth century. Through an analysis of the socioeconomic and urban context of fifth- and sixth-century *Sirmium*, and by comparing the location of contemporary kilns in the wider region, this paper explores the hypothesis that brickmaking shifted to an intramural activity in late sixth-century *Sirmium*.

Antički Sirmij (*Sirmium*, Sremska Mitrovica, Srbija) bio je važan rimski grad, osobito tijekom kasne antike. U razdoblju tetrahrije i prve polovice 4. stoljeća grad se jako povećao, a gospodarske aktivnosti, pa i ciglarstvo, dosegule su vrhunac. Međutim, nakon bitke kod Hadrijanopola (Edirne, Turska) 378. godine, središnje i istočne podunavske provincije pretrpjele su raspad socioekonomskih sustava i ruralizaciju urbane kulture. Stoga je lokalna ciglarska proizvodnja opadala, a nakon hnskog osvajanja 440-ih posve je prekinuta. Stanovnici tog razdoblja pri gradnji su se oslanjali na organske materijale i/ili recikliranu opeku. Rimljani su ponovno osvojili Sirmij 567. godine i opet uveli ograničenu proizvodnju opeke. Avari su napali grad 567. i na kraju ga opsjedali od 579. do 582. godine. O tim događajima svjedoči sačuvana opeka s urezanom molitvom protiv avarske opasnosti. Izrada te opeke tijekom napada ili opsade upućuje da se ciglarstvo, za razliku od ustaljene prakse da bude izvan zidina, možda prakticiralo *intra muros* tijekom kasnog 6. stoljeća. Kroz analizu socioekonomskog i urbanističkog konteksta Sirmija 5. i 6. stoljeća te usporedbu lokacija onodobnih peći u široj regiji, ovaj rad istražuje hipotezu da se ciglarstvo u Sirmiju u kasnom 6. stoljeću premjestilo unutar gradskih zidina.



INTRODUCTION

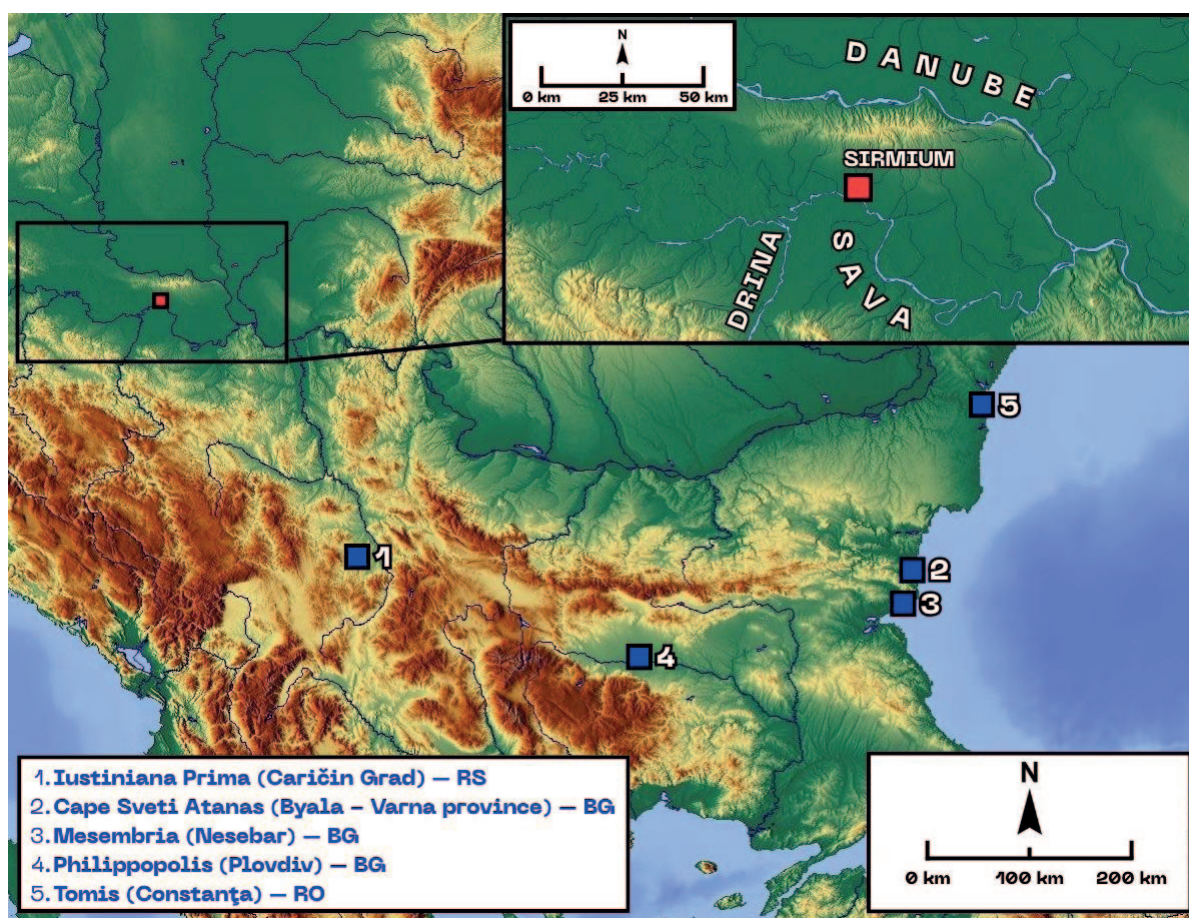
Ancient *Sirmium* (Sremska Mitrovica, Serbia) was an important Roman centre with a rich and dynamic history. During Late Antiquity, it was one of the capitals of the Empire, and several emperors used the city as their residence. In the following centuries (the 5th and 6th), the city was often contested between the Empire and its external enemies – the Huns, Gepids, Ostrogoths, Heruli, and Avars (Map 1) (Gračanin 2011: 95–125; Mirković 2017: 105–115; Bugarski 2024: 9–27).

The last of these groups, the Avars, is of central importance to this paper. Their conquest of *Sirmium* in 582 AD, following a three-year siege, marked the end of the briefly restored Roman rule in the region, which had begun in AD 567 (Mirković 2017: 107–108). While historical sources document the Avar-led assault on *Sirmium* in 567 AD and the siege of 579–AD 582, a dramatic testimony to one of these events is the well-known brick inscribed with a Greek prayer. It is housed at the Archaeological Museum in Zagreb, Croatia (*Arheološki muzej u Zagrebu*), under inventory number S-3403 (Figs. 1–2) (Men. Prot. 12.4–5, 25.1–2, 27.1–3; Blockley (trans.) 1985: 133, 135, 137, 217, 219, 221, 223, 225, 227, 239, 241, 243; Theophylact Simocatta, *Hist.* I, 3; Whitby, Whitby (trans.) 1986: 23; Theophanes the Confessor, *Chron.*

AM 6075, 252; Mango, Scott (trans.) 1997: 374–375; Evagrius Scholasticus, *HE* V, 12; Carcione (trans.) 1998: 278–279; John of Ephesus, *HE* VI, 30, 32; Пигулевская (trans.) 2011: 565–566; Милинковић 2015: 113; Бугарски, Иванишевић 2023: 669–693).

The brick was discovered by chance in Sremska Mitrovica in 1873 by the chaplain Ante Bogetić, who donated it to the National Museum in Zagreb (*Zemaljski muzej Trojedine Kraljevine pod upravom Akademije*). A drawing of the brick was first published by Šime Ljubić, the museum's director at the time, while the first commentary on the inscription was provided by Josip Brunšmid (Ljubić 1876: 76; Brunšmid 1893: 331–333).

The brick is light brown in colour (Munsell 7.5YR 5/4) and measures 35 x 35 x 5.50 cm. Running across the centre is a decoration consisting of two parallel horizontal wavy lines that span the entire width of the brick. In the lower section, positioned toward the left, is a “signature” in the form of a semicircle opening toward the brick's edge (Broadribb 1979: 215–216). These markings were executed with a fingertip prior to firing, before the clay had hardened (Noll 1989: 145). J. Brunšmid also noted that the brick originally bore traces of mortar, which were subsequently removed (Brunšmid 1893: 332). The Greek reads as follows (Mirković 2017: 217, no. 243):



Map 1 *Sirmium's* position in Southeastern Europe and Srijem, with mapped 5th–early 7th-century brick kilns in Southeastern Europe (base: Maps-for-Free, CC BY0; adapted by: M. N. Džamtoovski)

Karta 1 Položaj Sirmija u jugoistočnoj Europi i Srijemu, s prikazanim pećima za opcku iz razdoblja od 5. do početka 7. stoljeća u jugoistočnoj Europi (podloga: Maps-for-Free, CC BY0; prilagodio: M. N. Džamtoovski)



Fig. 1 Photograph of the brick (AMZ, inv. no. S-3403; © Archaeological Museum in Zagreb, all rights reserved; published with permission. reproduction of the image is prohibited without explicit permission from the Archaeological Museum in Zagreb; photo by: I. Krajcar, courtesy of M. Bunčić)

Sl. 1. Fotografija opeke (AMZ, inv. br. S-3403; © Arheološki muzej u Zagrebu, sva prava pridržana; objava uz dozvolu; reprodukcija slike nije dozvoljena bez izričite dozvole Arheološkog muzeja u Zagrebu; snimio: I. Krajcar, ljubaznošću M. Bunčić).

Χρ(ίστε) Κ(ύριε) Β(ο)ήτι τῆς πόλεος
κὲ ρύζον τὸν Ἄβα|ριν κὲ πύλαζον τὴν
Ρω|μανίαν⁵ κὲ τὸν γρ|άσαν(τα). Ἀμή(ν).

The translation reads (Pohl 2018: 87):

“Oh Lord, help the town and halt the Avar and protect the Romanía and the scribe. Amen.”

The inscription has been studied repeatedly,¹ but the economic context and significance of the brick itself have rarely been considered in depth. The only exceptions – and therefore the starting points for this article – are the works of Miroslav Jeremić and Mihailo Milinković.

Jeremić noted that this artifact represents a typical sixth-century brick form. He argued that this specimen – along with several others of similar format and dimensions, but without inscriptions, discovered in *Sirmium* – provides proof of limited local brick production during that period (Jeremić 1997: 12).

Equally relevant to this paper is the discussion of this brick by M. Milinković in his significant study on Palaeobyzantine settlements in the territory of present-day Serbia, in which he debates the possibility of brickmaking in sixth-century *Sirmium*. Milinković remains skeptical of this possibility – though he does not dismiss it entirely – primarily because he believes that the besieged settlement would have lacked the necessary



Fig. 2 Drawing of the brick (Ковачевић 1977: 53, Fig. 29)
Sl. 2 Crtež opeke (Ковачевић 1977: 53, Fig. 29)

conditions and logistical capacity to obtain the raw materials required for brickmaking (clay, sand, timber, and water) (Милинковић 2015: 113–114).

Therefore, the objective of this paper is to determine whether this brick can be considered an indicator of sixth-century brickmaking in *Sirmium*, and if so, where such production could have been practised. This will be accomplished by taking the following questions into consideration:

1. Was the inscription executed before or after the firing of the brick?
2. What were the urban characteristics of *Sirmium* during this period?
3. In terms of urban layout, where were production facilities for ceramic building material located at contemporary sites in the wider region?

WAS THE INSCRIPTION EXECUTED BEFORE OR AFTER THE FIRING OF THE BRICK?

J. Brunšmid was the first scholar to observe that the inscription was executed before the brick was fired (Brunšmid 1893: 332). Rudolf Noll, who later studied the object, divided its production process into four stages (Noll 1989: 145):

1. Spreading the clay inside the mould;
2. Executing the decoration in the wet clay;
3. Incising the inscription into the still-soft clay with a sharp object, while carefully avoiding smearing;²
4. Firing.

1 For an extensive bibliography on the brick, see Noll 1989: 142–144; Kovács 2007: 52, no. 138.

2 R. Noll did not include the drying of the wet bricks prior to firing as a fundamental step in the brickmaking process (Jevtović 2022: 143).

Closer examination of the inscription confirms that the clay was indeed soft during the writing process. In several letters, one can observe how the writing instrument displaced the plastic clay. For example, in the downstroke of the second τ in line 1, a slight ridge is visible to the right, with a more pronounced ridge at the bottom where the 'pen' turned abruptly to the left. A further example is found in the letter ε in line 6, where the second stroke intersects the first quite cleanly (Figs. 3–4).

Therefore, if the brick was still wet during the execution of the inscription – which documents an event that occurred in either 567 or 579–582 – it follows that brickmaking was indeed practised in *Sirmium* during this period, as suggested by M. Jeremić (Jeremić 1997: 12).

A BRIEF OVERVIEW OF SIRMIIUM'S URBANISM IN THE FIFTH AND SIXTH CENTURIES

Now that the relationship between the execution of the inscription and the firing of the brick has been clarified, the next question arises: where in late sixth-century *Sirmium* could this activity have been practised? The fact that the brick was produced during a siege raises the possibility that brickmaking being practised *intra muros*. This is a particularly significant question, as brickmaking was traditionally an activity conducted *extra muros*. This was not only because it was logistically simpler to organize production outside the walls, but primarily because it posed a serious fire hazard,

while the smoke produced by the kilns would have been detrimental to the urban environment (Шарановић-Светек 1990: 42; Radivojević 2018: 93).

Before discussing that subject further, a brief description of *Sirmium's* urban landscape and an overview of brickmaking and brick usage is necessary. Sometime after the Battle of Adrianople (Edirne, Turkey) in 378 AD, due to instability caused by external and internal conflicts, Roman cities in *Illyricum* began to experience the phenomenon of *disintegration and ruralisation*. The characteristics of this process included the abandonment of rural settlements surrounding the cities, the breakdown of the established urban grid, the appearance of intramural burials, a decreased circulation of currency, a decline in agricultural practices, and cessation or reduction – in both intensity and quality – of existing economic activities (Поповић 2003 [1982]: 239–258). During this period, the inhabited area of *Sirmium* was drastically reduced and ruralised, becoming concentrated solely in the southern half of the settlement. Archaeological excavations at Site 54 in Sremska Mitrovica revealed a massive wall that may represent the new northern boundary of this reduced city area. However, further excavation is required to confirm whether this structure indeed served as a rampart and to establish the precise date of its construction (Поповић 2003 [1977]: 154–156; Gračanin 2011: 122–123; Милинковић 2015: 111–120; Popović 2017: 20).

These socioeconomic transformations also significantly impacted brick production and usage in *Sirmium*. The city possessed all the necessary resources in its vicinity for brickmaking: clay, water,



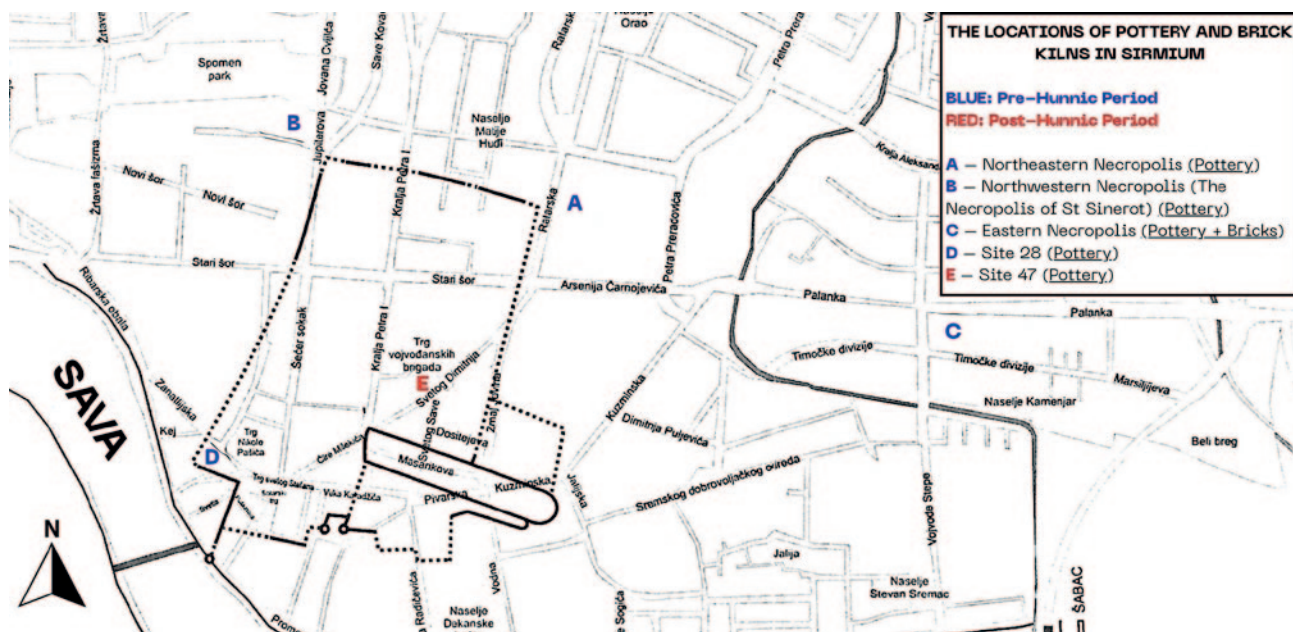
Fig. 3 Detail of the second τ in line 1 of the inscription (AMZ, inv. no. S-3403; © Archaeological Museum in Zagreb, all rights reserved; published with permission. reproduction of the image is prohibited without explicit permission from the Archaeological Museum in Zagreb; photo by: I. Krajcar, courtesy of M. Bunčić).

Sl. 3. Detalj drugog τ u prvom redu natpisa (AMZ, inv. br. S-3403; © Arheološki muzej u Zagrebu, sva prava pridržana; objava uz dozvolu; reprodukcija slike nije dozvoljena bez izričite dozvole Arheološkog muzeja u Zagrebu; snimio: I. Krajcar, ljubaznošću M. Bunčić).



Fig. 4 Detail of ε in line 6 of the inscription (AMZ, inv. no. S-3403; © Archaeological Museum in Zagreb, all rights reserved; published with permission; reproduction of the image is without explicit permission from the Archaeological Museum in Zagreb; photo by: I. Krajcar, courtesy of M. Bunčić).

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Map 2 The locations of *Sirmium's* brick and pottery kilns (Miladinović-Radmilović 2011: Map 6; adapted by: M. N. Džamtovski)
 Karta 2 Lokacije ciglarskih i lončarskih peći u Sirmiju (Miladinović-Radmilović 2011: karta 6; prilagodio: M. N. Džamtovski)



Map 3 The location of workshops with a brick kiln in Caričin Grad (*Justiniana Prima*), Serbia (marked in red) (base: Google Earth, Image © 2025 Maxar Technologies; adapted by: M. N. Džamtovski)
 Karta 3 Lokacija radionice s peći za proizvodnju opeke na Caričinu gradu (*Justiniana Prima*) (označeno crvenom) (podloga: Google Earth, Image © 2025 Maxar Technologies; prilagodio: M. N. Džamtovski)

sand, and biomass fuel (Црнобрња 2020: 100; Jevtović 2022: 143–144). Brickmaking was introduced to the region by the Romans at the turn of the second century. It reached its zenith during the late third and fourth centuries – coinciding with *Sirmium's* dramatic expansion and major construction projects – before slowly declining during the late fourth and the first half of the fifth century (Милошевић 2001: 89–91; Jeremić 2016: 201–203; Prica, Guyon 2022: 109; Džamtovski 2023, 66–67.).

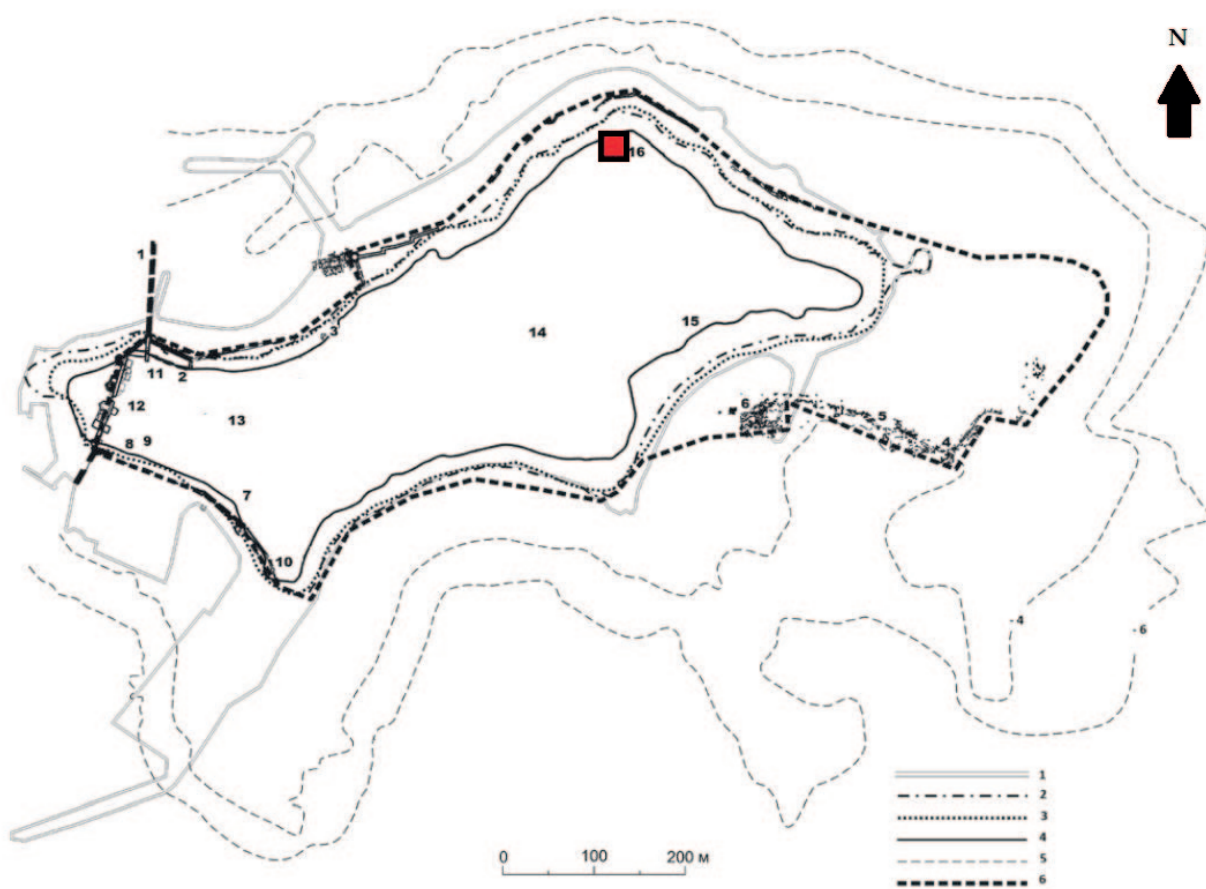
Bricks were produced in workshops operating under various forms of ownership: imperial, military, municipal, and private (Шарановић-Светек 1990: 44–45, 55, 63).

Archaeological evidence confirms the existence of kilns for brick and pottery production. Dating to the third and fourth centuries, these were located in the area of *Sirmium's* Eastern Necropolis, situated *extra muros* (Map 4) (Jeremić 2000: 131–154). However, in the period between the second quarter of the fifth century and the Roman reoccupation in 567 AD, brick production ceased entirely (Jeremić 2002: 49, 57). Notably, the church at Site 59 – dated to the early 5th century, but preceding the Hunnic conquest in the 440s – was constructed exclusively using reused bricks (Поповић 2003 [1998]: 279–290; Jeremić 2002:

48–49, n. 13). The turmoil caused by the Huns ushered in a chaotic era for the settlement, during which it was controlled by various non-Roman groups until 567 AD (Gračanin 2011: 95–125; Mirković 2017: 105–115).

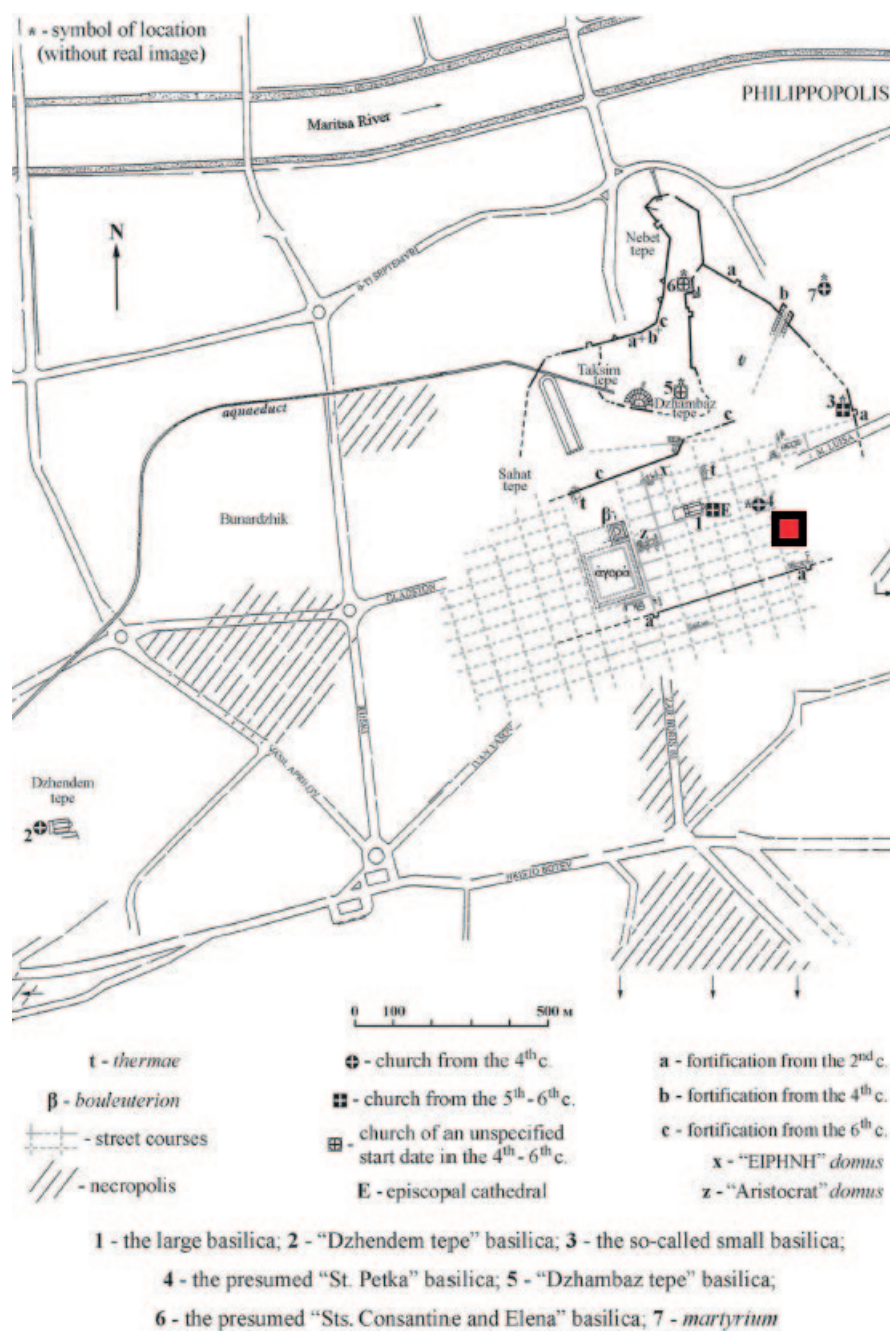
During that period, most structures were huts constructed from perishable materials (for example, those at Sites 37, 47, and 85), or buildings composed of reused brick fragments bonded with clay – such as the fifth- and sixth-century structures at Site 4, the so-called *villa urbana* (Parović-Pešikan 1971: 30–33; Popović 2017: 20; Pop-Lazić 2017: 25–38).

It is important to note that, in earlier periods, pottery kilns in *Sirmium* were traditionally located *extra muros* (e.g., the Northeastern Necropolis, the Northwestern Necropolis or “Necropolis of St Sinerot,” and the Eastern Necropolis) (Милошевић 2001: 91). The reason for choosing such locations was similar to that for brick kilns: the danger of smoke and fire (Peacock 1982: 38, 99–100). The only exception is the kiln at Site 28, dated to the Flavian period, which is located *intra muros*; however, it was situated on the periphery of *Sirmium*, immediately adjacent to the city walls (Brukner 1992: 15–16). Finally, two pottery kilns from the period following the Hunnic conquest are located *intra muros* at Site 47 (Map 2) (Popović 2017: 17).



Map 4 The approximate location of a brick kiln (marked in red) in Krajbrezhna Street – Nesebar (*Mesembria*), Bulgaria (Preshlenov 2018: 397, Fig. 4; adapted by M. N. Džamtovski).

Карта 4 Оквирна позиција пећи за производњу опеке (označeno crvenom) u Krajbrežnoj ulici u Nesebaru (*Mesembria*), Bugarska (Preshlenov 2018: 397, sl. 4; prilagodio: M. N. Džamtovski)



Map 5 The locations of brick kilns in Plovdiv (*Philippopolis*), Bulgaria (marked in red), at the corner of Han Asparuh and Mali Bogdan streets (Dintchev 2021: 243, Fig. 9; adapted by M. N. Džamtovski)
 Karta 5 Lokacije peći za proizvodnju opeke u Plovdivu (*Philippopolis*), Bugarska (označeno crvenom), na križanju ulica Han Asparuh i Mali Bogdan (Dintchev 2021: 243, sl. 9; prilagodilo: M. N. Džamtovski)

LOCATIONS OF BRICK KILNS IN THE WIDER REGION (MID-FIFTH TO EARLY SEVENTH CENTURIES)

Having analysed the position of brick and pottery kilns in *Sirmium* prior to the late sixth century, we now turn to the locations of brick kilns in the wider region dated to the mid-fifth to early seventh centuries (Map 6):³

1. Bank of the Svinjarička River – Caričin Grad, Serbia (ancient *Iustiniana Prima*). The kiln was located *extramuros* (Map 3) (Кондић, Поповић 1977: 145–146).

2. Cape Sveti Atanas – Byala (Varna Province), Bulgaria. The kiln was located *extra muros* (Fig. 5) (Йотов, Харизанов 2017: 487–496; Харизанов 2019: 393–394, no. 16).

3. Krajbrezhna Street – Nesebar, Bulgaria (ancient *Mesembria*). The kiln was located *intramuros*

³ Although brick kilns dating from the second half of the 5th to the early 7th century have been discovered at seven ancient sites in the Balkans, only six are included here. The seventh site, located in Oltina, Romania (Irimia 1968: 379–408), has been omitted due to insufficient excavation data from several Roman and Late Antique sites in the area. The kilns' exact association remains uncertain, as the presence of a *quadriburgium* at the site is only presumed, and it is unclear which settlement(s) they served. Given the lack of clear urban and topographic context, the Oltina kilns are not relevant to the specific research questions of this article. Information regarding the state of research at Roman and Late Antique sites in Oltina was provided to the author by Ana-Cristina Hamat, an archaeologist from the Museum of National History and Archaeology, Constanța. The latest bibliography on Late Roman bricks in the area of Dobrogea can be found in the recent publication of Radu Petcu (Petcu 2025: 175–193).

(Map 4) (Божкова et al. 2007: 249–250; Божкова et al. 2008: 306–307; Харизанов 2019: 514–515, no. 76).

4. Corner of Han Asparuh and Mali Bogdan Streets – Plovdiv, Bulgaria (ancient *Philippopolis*) (Map 5) (Топалилов 2012: 68–69; Харизанов 2019: 618–619, no. 142; Dintchev 2021: 242–244).⁴

5. Zone between Bulevardul Republicii (modern Bulevardul Ferdinand) and Traian Street – Constanța, Romania (ancient *Tomis*). The kilns were located *intra muros* (Rădulescu 1966: 5–12),

6. Former Train Station – Constanța, Romania. The kilns were located *extra muros* (Maps 6–7) (Rădulescu 1966: 12–23).

CONCLUDING REMARKS

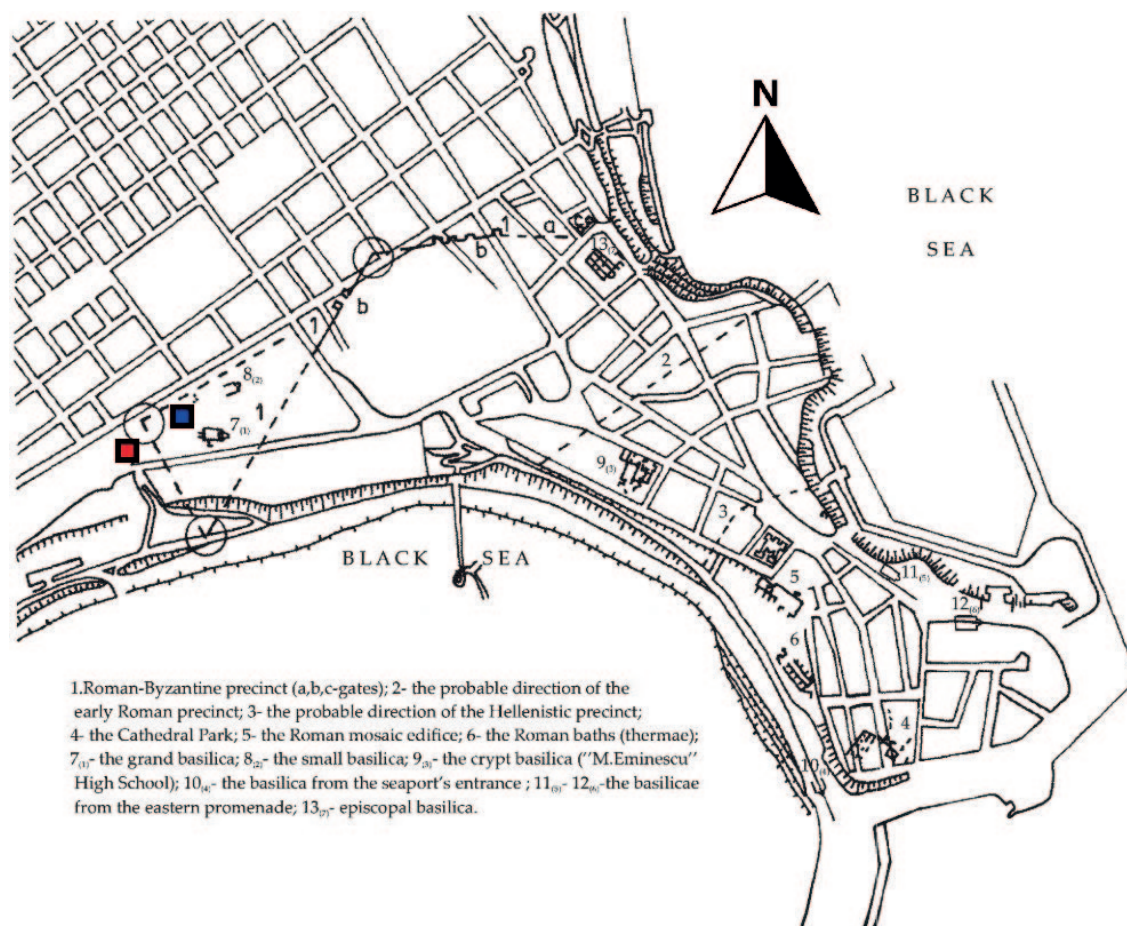
A review of the locations of regional brick kilns from the mid-fifth to early seventh centuries suggests that brickmaking in late sixth-century *Sirmium* could indeed have been practiced *intra muros*.

⁴ It should be noted that this kiln is dated generally to the 5th–6th centuries. Alexander Harizanov attributes its construction to the mid-5th century; if this is accurate, the kiln was constructed within an *intra muros* context in ancient *Philippopolis*. However, if the kiln remained in use during the mid-6th century, its location would have effectively become *extra muros*, as the city's walled area was reduced by more than 50% during that period. Another group of kilns in Plovdiv, located at the "Tsar Simeon Garden" site in Gladstone Street, was previously thought to date to this period (Харизанов 2019: 614–615, no. 141). However, new research (forthcoming) has revised the chronology of these kilns to the period spanning the 2nd/3rd century to the mid-4th century (Топалилов, Божинова 2024 [forthcoming]).

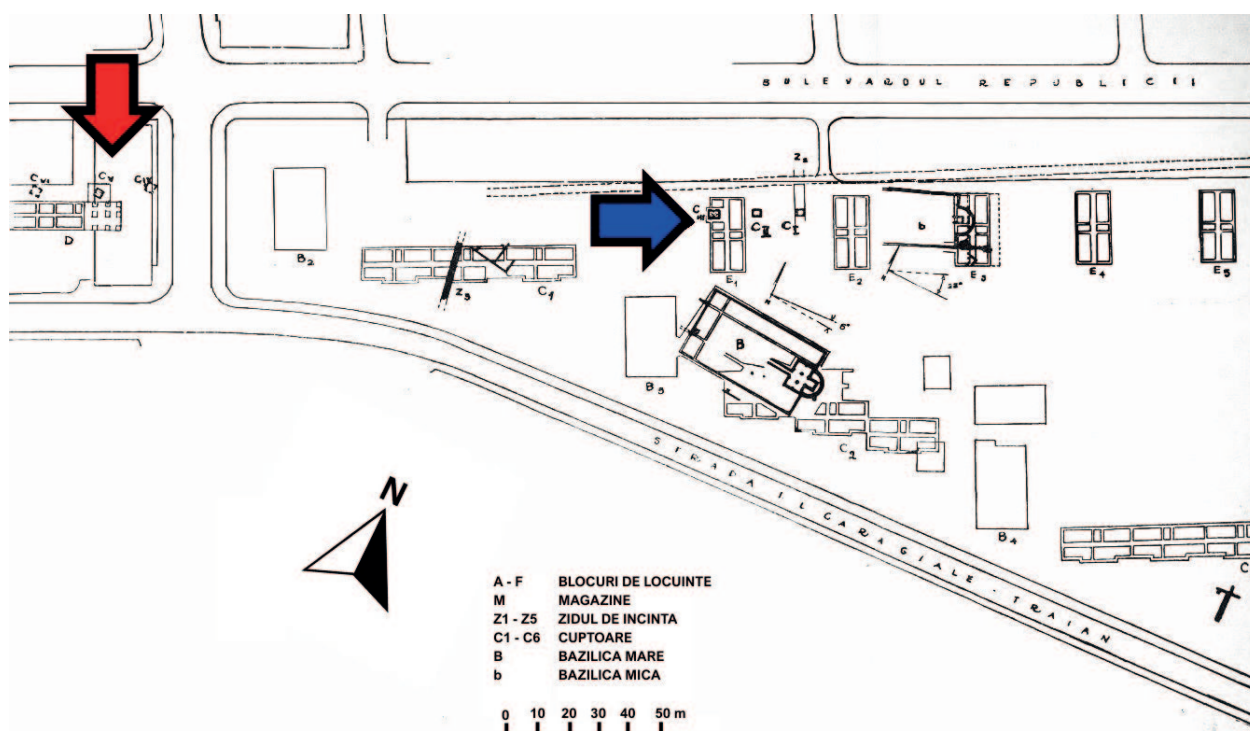


Fig. 5 The location of a brick kiln on Cape Sveti Atanas – Byala (Varna Province), Bulgaria (Yotov, Harizanov 2018: 282; Fig. 1; adapted by: M. N. Džamtoovski).

Sl. 5 Lokacija peći za proizvodnju opeke na Rtu Sveti Atanas – Bjala (Okrug Varna), Bugarska (Yotov, Harizanov 2018: 282, sl. 1; prilagodio: M. N. Džamtoovski)



Map 6 The locations of brick kilns within Constanța (Tomis), Romania. Red: *extra muros*; Blue: *intra muros* (Buzoianu, Bărbulescu 2012: 274, Map I; adapted by: M. N. Džamtovski)
 Karta 6 Lokacije peći za proizvodnju opeke u Konstanci (Tomis), Rumunjska. Crveno – *extra muros*, plavo – *intra muros* (Buzoianu, Bărbulescu 2012: 274, karta I; prilagodio: M. N. Džamtovski)



Map 7 The locations of brick kilns within the western area of Constanța. Red: *extra muros*; Blue: *intra muros* (Rădulescu 1966: Fig. 1; adapted by: M. N. Džamtovski)
 Karta 7 Lokacije peći za proizvodnju opeke u zapadnom dijelu Konstanca. Crveno – *extra muros*, plavo – *intra muros* (Rădulescu 1966: sl. 1; prilagodio: M. N. Džamtovski)

Three main arguments support this hypothesis:

1. The fact that the brick was manufactured during a siege strongly supports the hypothesis that sixth-century brickmaking in *Sirmium* took place inside the walled area. In fact, it is doubtful that bricks could be made outside the walled area while besieged.

2. The *intra muros* position of the pottery kiln at *Sirmium*'s Site 47 provides a precedent for similarly located brick kilns. Although pottery kilns, like brick kilns, were traditionally located *extra muros*, the Site 47 kilns dating to a comparable period of *Sirmium*'s history are located *intra muros*.

3. Evidence from brick kilns in the wider region dating from the mid-fifth to the early seventh century demonstrates that this activity could be practised both *intra* and *extra muros*. The kilns at *Mesembria*, *Philippopolis*, and *Tomis* were located *intra muros*, albeit on the peripheries of these settlements. These examples suggest a similar situation is possible for late sixth-century *Sirmium*. However, as this paper focuses on the second half of the sixth century AD, the location need not have been strictly peripheral; during this period, artisans and craftsmen increasingly moved into the interior of urban areas (Zanini 2006: 401–403).

Admittedly, the conclusions presented in this paper do not constitute definitive proof of *intra muros* brickmaking facilities in the late sixth-century *Sirmium*. Final verification can only be provided when such structures are archaeologically confirmed.

A critical question, aptly raised by M. Milinković, currently remains unanswered: how did the besieged settlement maintain the necessary logistics for brick production? Is it possible that the brick was produced during the early days of the siege, before *Sirmium* exhausted its supplies?

This raises another equally important question: why were bricks being produced during a siege? Was the intent solely to invoke divine protection, or possibly to facilitate urgent repairs to the fortifications? Given that *Sirmium* endured an assault in 567 and was under siege from 579 to 582, it is plausible that the brick was produced during either event. If manufactured during the assault, it suggests that *Sirmium* still retained sufficient supplies to sustain such production. Alternatively, if dating to the second siege, it is conceivable that the brick was manufactured in the early stages, before resources were entirely depleted.

Hopefully, future research will bring to light additional information regarding this period of *Sirmium*'s rich history.

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Sažetak

Rad se bavi pitanjem ciglarske proizvodnje u kasnoantičkom Sirmiju (*Sirmium*, Sremska Mitrovica, Srbija) tijekom druge polovice 6. stoljeća, s posebnim naglaskom na mogućnosti da je ta djelatnost bila prakticirana unutar gradskih zidina (*intra muros*), što bi predstavljalo iznimku u odnosu na ustaljenu rimsku praksu da se peći za opeku i keramiku nalaze izvan urbanog prostora (*extra muros*) zbog opasnosti od požara i dima (Šarapanović-Svetek 1990: 42; Radivojević 2018: 93).

Poticaj za ovo istraživanje potječe od poznate opeke s grčkim natpisom molitve protiv Avara, pronađene 1873. godine u Sremskoj Mitrovici i danas pohranjene u Arheološkom muzeju u Zagrebu pod inventarnim brojem S-3403 (Ljubić 1876: 76; Brunšmid 1893: 331–333).

Na opeci se nalazi natpis upućen Kristu kao molitva za spas grada:

Χρ(ίστε) Κ(ύριε) Β(ο)ήθι τῆς πόλεως κὲ ρύζον τὸν Ἄβαριν κὲ πλάζον τὴν Ῥωμανίαν κὲ τὸν γράψαντα. Ἀμήν.

U prijevodu (Pohl 2018: 87):

„O, Gospode, pomози gradu, zaustavi Avare, zaštiti Romaniju i onoga koji je ovo napisao. Amen.”

Tekst je ispisan u još mekoj glini (Brunšmid 1893: 332; Noll 1989: 145), što dokazuje da je natpis urezan prije pečenja opeke. Tragovi pisanja pokazuju kako je vrh alata potiskivao plastiku gline, stvarajući blage rubove i prijelome u npr. slovima τ i ε, što znači da je opeka bila svježa u trenutku upisa molitve. Iz toga proizlazi da je opeka izrađena lokalno u vrijeme opsade grada – bilo tijekom napada 567. godine, bilo za opsade između 579. i 582. godine – što implicira postojanje barem ograničene ciglarske djelatnosti *in situ* na koju je ukazao već i Miroslav Jeremić (Jeremić 1997: 12).

Uloga Avara u ovom kontekstu od ključne je važnosti. Njihov napad i višegodišnja opsada Sirmija označili su konačan kraj bizantske vlasti u Panoniji. Opeka s molitvom tako postaje materijalni odraz kolektivnog straha i vjere stanovništva opsjednutog grada, ali i praktičan dokaz o postojanju gradskih radionica u to vrijeme.

Kontekst urbanizma kasnoantičkog Sirmija važan je za razumijevanje gdje se takva radionica mogla nalaziti. Nakon bitke kod Hadrijanopola (378) grad je, kao i drugi centri u Iliriku, doživio dezintegraciju i ruralizaciju: napuštanje predgrađa, pojavu grobova unutar zidina, slabljenje poljoprivrede i monetarne cirkulacije te korištenje recikliranog građevinskog materijala. Naseljeni prostor sveo se na južni dio utvrđenog područja (Popović 2003 [1982]: 239–258; Gračanin 2011: 122–123; Милинковић 2015: 111–120).

Sirmium je posjedovao sve resurse potrebne za proizvodnju opeke – glinu, vodu, pijesak i drvenu građu – a ciglarstvo je bilo utemeljeno još u 1. – 2. stoljeću, dostigavši vrhunac u 3.–4. stoljeću (Милошевић 2001: 89–91; Jeremić 2016: 201–203; Prica, Guyon 2022:

109). Ranije poznate radionice bile su smještene izvan zidina, na području istočne nekropole (Jeremić 2000: 131–154). Nakon hunske destrukcije 440-ih, proizvodnja je prekinuta, a građevine su se gradile od recikliranog materijala ili drveta (Jeremić 2002: 48–49; Поповић 2003 [1998]: 279–290).

Zanimljivo je da se u 5. – 6. stoljeću pojavljuju lončarske peći na lokalitetu 47 unutar gradskih zidina, što je također iznimka u odnosu na ranije razdoblje (Popović 2017: 17). To otvara mogućnost da je ciglarska radionica, barem privremeno, djelovala *intra muros*. U usporedbi s drugim kasnoantičkim središtima regije – Caričanim Gradom (*Justiniana Prima* – Prekopčelica, Srbija) (Кондић, Поповић 1977: 145–146), Вyalom u Bugarskoj, Mesembrijom (*Mesembria*, Nesebar u Bugarskoj) (Йотов, Харизанов 2017: 487–496), Филипopolom (*Philippopolis*, Plovdiv u Bugarskoj) (Топалилов 2012: 68–69) i Tomisom (*Tomis*, Konstanca u Rumunjskoj; Rădulescu 1966: 5–12) – vidljivo je da su se peći od sredine 5. do početka 7. st. mogle nalaziti i unutar i izvan gradskih zidina, često uz periferne dijelove utvrda.

Tri su glavna argumenta za postojanje intramuralne ciglarske djelatnosti u kasnom 6. stoljeću:

1. Opeka s molitvom nastala je za vrijeme juriša ili opsade, kada proizvodnja izvan zidina nije bila moguća.
2. Postojanje peći za keramiku na lokalitetu 47 u Sirmiju, također u zoni *intra muros*, pokazuje da se takve djelatnosti premještaju s tradicionalno izvangradskih zona u unutarnje.
3. Primjeri iz Mesembrije, Philippopolisa i Tomisa pokazuju da se u 6. stoljeću proizvodnja opeka može očekivati i unutar zidina.

Iako rezultati ne pružaju konačan dokaz, indikacije o intramuralnoj proizvodnji u Sirmiju u drugoj polovici 6. stoljeća čine se uvjerljivima. Pitanje koje ostaje otvoreno jest logističko: kako je opsjednuti grad mogao osigurati potrebne resurse – glinu, vodu, drvo i gorivo – za ciglarsku aktivnost (Милинковић 2015: 113–114)? Moguće je da je opeka proizvedena u ranoj fazi opsade, kada su zalihe još bile dostupne, ili neposredno prije početka neprijateljskih djelovanja. Jednako je vjerojatno da je opeka izrađena iz religioznih motiva, kao izraz kolektivne pobožnosti stanovništva koje se suočavalo s nadolazećom katastrofom.

Zaključno, opeka s grčkim natpisom „O, Gospode, pomози gradu, zaustavi Avare, zaštiti Romaniju i onoga koji je ovo napisao“ (Pohl 2018: 87) nije samo arheološki artefakt već i izvanredno svjedočanstvo spoja duhovnog i materijalnog aspekta kasnoantičkog života. Ona ukazuje na prisutnost lokalne radionice unutar opsjednutog grada te doprinosi razumijevanju promjena urbanizma i zanatske proizvodnje u kasnoj antici na prostoru jugoistočne Panonije. Konačan odgovor o postojanju i lokaciji kasnoantičke peći u Sirmiju moći će dati tek buduća arheološka istraživanja.

ZAHVALE

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