

Prapovijesno i ranosrednjovjekovno naselje Bentež kod Beketinaca

Minichreiter, Kornelija; Marković, Zorko

Source / Izvornik: **Prilozi Instituta za arheologiju u Zagrebu, 2009, 26, 21 - 44**

Journal article, Published version

Rad u časopisu, Objavljena verzija rada (izdavačev PDF)

Permanent link / Trajna poveznica: <https://um.nsk.hr/um:nbn:hr:291:323816>

Rights / Prava: [Attribution 3.0 Unported](#)/[Imenovanje 3.0](#)

Download date / Datum preuzimanja: **2025-03-14**



INSTITUT ZA
ARHEOLOGIJU

Repository / Repozitorij:

[RIARH - Repository of the Institute of archaeology](#)



Prapovijesno i ranosrednjovjekovno naselje Bentež kod Beketinaca

The Prehistoric and Early Mediaeval Settlement of Bentež near Beketinci

Izvorni znanstveni rad
Prapovijesna arheologija/Srednjovjekovna arheologija

Original scientific paper
Prehistoric archaeology/Mediaeval archaeology

UDK/UDC 903.4(497.5 Beketinci)"636"
904(497.5 Beketinci):72"653"

Primljeno/Received: 31. 3. 2009.

Prihvaćeno/Accepted: 15. 9. 2009.

KORNELIJA MINICHREITER
ZORKO MARKOVIĆ
Institut za arheologiju
Ul. grada Vukovara 68
HR-10000 Zagreb
kornelija.minichreiter@iarh.hr
zorko.markovic@iarh.hr

Tijekom 2007. i 2008. god. Institut za arheologiju iz Zagreba proveo je zaštitna arheološka istraživanja na trasi međunarodne Autoceste Budimpešta – Ploče. Istražen je lokalitet AN 18, na zemljištu Bentež kod Beketinaca, na dionici Osijek – Đakovo. U istočnom dijelu lokaliteta istraženi su ostaci prapovijesnog naselja lasinjske kulture (oko 4000 g. prije Krista) i ranosrednjovjekovnog naselja (10. – 11. st.). Istraženi dio naselja lasinjske kulture sastojao se u svojem zapadnom, radnom, dijelu od brojnih jama za vađenje gline, radnih jama i dvije veće lončarske peći. U istočnom, stambenom, dijelu naselja otkrivene su tri velike zemunice (20 x 30 m) s bunarima na svojem rubnom dijelu, kao i temelji pet nadzemnih kuća. Najveća nadzemna kuća bila je dugačka 30 m i široka 12 m, s tri prostorije i manjom kućom (9 x 5 m, s dvije prostorije) na svojoj južnoj strani. Pronađena je prilična količina keramičkog posuđa i žlica: bikonične i zaobljene zdjele i terine, zdjele na šupljoj nozi sa zadebljanjem u gornjem dijelu te vrčevi s ručkom do oboda, koja je također ponekad ukrašena. Ukrasi su pretežno urezani, udubljeni i žigosani. Osim keramike pronađeno je i nešto litike – ulomci kamenih alatki i sjekire s rupom za nasad drške. U sjeveroistočnom dijelu prapovijesnog naselja otkrivene su tri jame s ranosrednjovjekovnim ulomcima posuda jednostavnih oboda, ukrašenih češljastom valovnicom te ulomcima bikonične duboke posude – kotlića, koji se datiraju od 10. - 11. stoljeća.

Ključne riječi: Autocesta Budimpešta – Ploče, zaštitna istraživanja, Bentež, Beketinci, naselje, lasinjska kultura, eneolitik, rani srednji vijek, Slavonija, Hrvatska

In 2007 and 2008 the Institute of Archaeology in Zagreb carried out salvage archaeological investigations on the route of the international highway Budapest – Ploče. The investigation took place at the site marked as AN 18, at the plot known as Bentež near Beketinci, on the Osijek – Đakovo section. The remains of a prehistoric settlement of the Lasinja culture (around 4000 B.C.) and an early mediaeval settlement (10th-11th cent.) were investigated in the eastern part of the site. The investigated part of the settlement of the Lasinja culture consisted in its western, working part, of a number of pits for extraction of clay, working pits and two larger pottery kilns. Three large pit-houses (20 x 30 m) were discovered in the eastern, residential part of the settlement, with wells at their edges, as well as foundations of five above-ground houses. The largest above-ground house was 30 m long and 12 m wide, with three rooms and a smaller house (9 x 5 m, with two rooms) at its southern side. A considerable quantity of ceramic vessels and spoons was found: biconical and round bowls and tureens, bowls on a hollow foot with a thickening in the upper part, and beakers with a handle – sometimes decorated – that reaches the rim. The ornaments were mostly incised, impressed and stamped. In addition to the ceramics, there were also few lithic finds – fragments of stone tools and shaft-hole axes. Three pits with fragments of early mediaeval vessels with simple rims, decorated with a comb-like wave-line and fragments of a deep biconical vessel – ceramic kettle, dated to the 10th-11th cent., were found in the northeastern part of the prehistoric settlement.

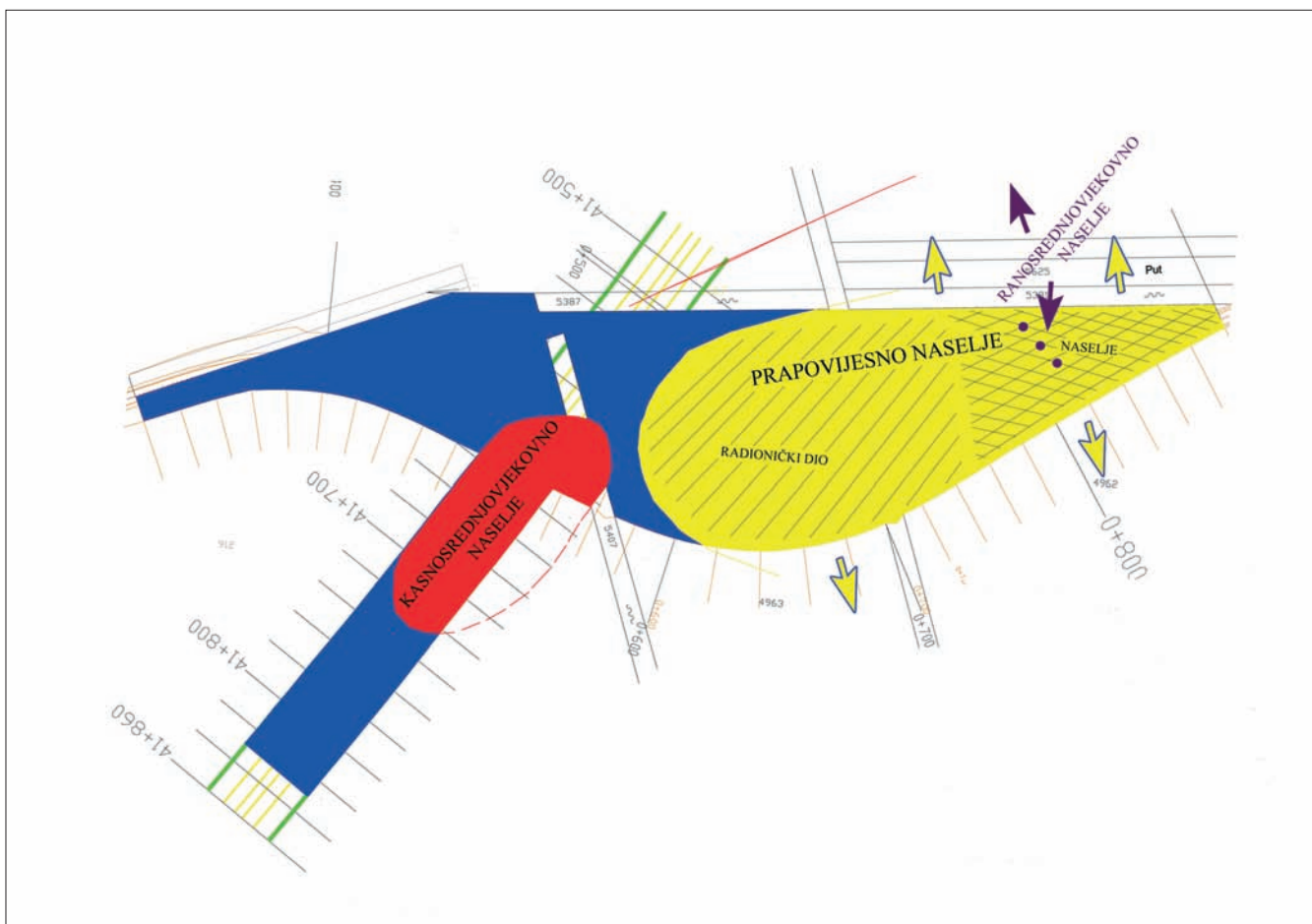
Key words: Budapest – Ploče highway, salvage investigations, Bentež, Beketinci, settlement, Lasinja culture, Eneolithic, Early Middle Ages, Slavonia, Croatia

Institut za arheologiju iz Zagreba proveo je od jeseni 2007. do ljeta 2008. g. zaštitna arheološka istraživanja na trasi međunarodne Autoceste Budimpešta – Ploče. Istražen je lokalitet AN 18, na zemljištu Bentež kod Beketinaca, koji se nalazi na dionici između Osijeka i Đakova.¹ U istočnom

¹ Arheološka istraživanja provedena su na lokalitetu AN 18, stacionaža 41+700 do 42+100 na trasi međunarodne Autoceste Budimpešta – Ploče, dionica Osijek – Đakovo (dio hrvatske autoceste Slavonica). Stručna voditeljica radova bila je dr. sc. Kornelija Minichreiter, a zamjenici dr. sc. Zorko Marković iz Instituta za arheologiju iz Zagreba te diplomirane arheologinje Maja Bunčić i Mirela Pavličić iz Zagreba (dokumentacija radova). Arheološku fotodokumentaciju vodio je Želimir Brnić, dipl. arheolog iz Zagreba. Geodetsko snimanje terena i izradu nacrtne doku-

Between autumn 2007 and summer 2008 the Institute of Archaeology in Zagreb carried out salvage archaeological investigations on the route of the Budapest – Ploče International Highway. The investigation took place at the site marked as AN 18, at the plot known as Bentež near Beketinci, on the Osijek – Đakovo section.¹ The remains of a prehistoric settlement of

¹ Archaeological investigations were carried out at the site AN 18, stations 41+700 to 42+100 on the route of the Budapest – Ploče International Highway, the Osijek – Đakovo section (part of the Croatian highway named Slavonica). The excavation was managed by Dr. Kornelija Minichreiter, whose deputies were Dr. Zorko Marković from the Institute of Archaeology in Zagreb and graduate archaeologists Maja Bunčić and Mirela



Plan 1 Situacijski plan arheoloških istraživanja na zemljištu Bentež kod Beketinaca
 Plan 1 Situation plan of the archaeological investigations at the site of Bentež near Beketinci

dijelu lokaliteta na površini od 30.900 m² istraženi su ostaci prapovijesnog naselja lasinjske kulture (oko 4000 g. prije Krista) i ranosrednjovjekovnog naselja (10.-11. st.) (Plan 1).

Ovim radovima prethodila su probna arheološka istraživanja radi utvrđivanja rasprostiranja i vrste nalazišta koje je tijekom 2006. g. proveo Hrvoje Kalafatić iz Instituta za arheologiju iz Zagreba (Wiewegh, Revald-Radolić 2007, 7-9).

Zemljište Bentež dio je aluvijalne ravni južno od Osijeka što zemljopisno pripada nizinskom dijelu prostora istočne Hrvatske. Ovaj dio zaleđa rijeke Drave najniži je prostor s aluvijalnim ravnima koje presijecaju vodeni tokovi Vuke, Karašice i Vučice. Na malo povišenim suhim zemljištima između ovih rječica, a osobito uz rijeku Vuku, koja je najduži pritok rijeke Dunava (112 km), otkriveni su ostaci brojnih naselja iz prapovijesnih i srednjovjekovnih razdoblja. Topografsku sliku ovog prostora upotpunila su otkrića prapovijesnog i srednjovjekovnih naselja na zemljištu Bentež koje se

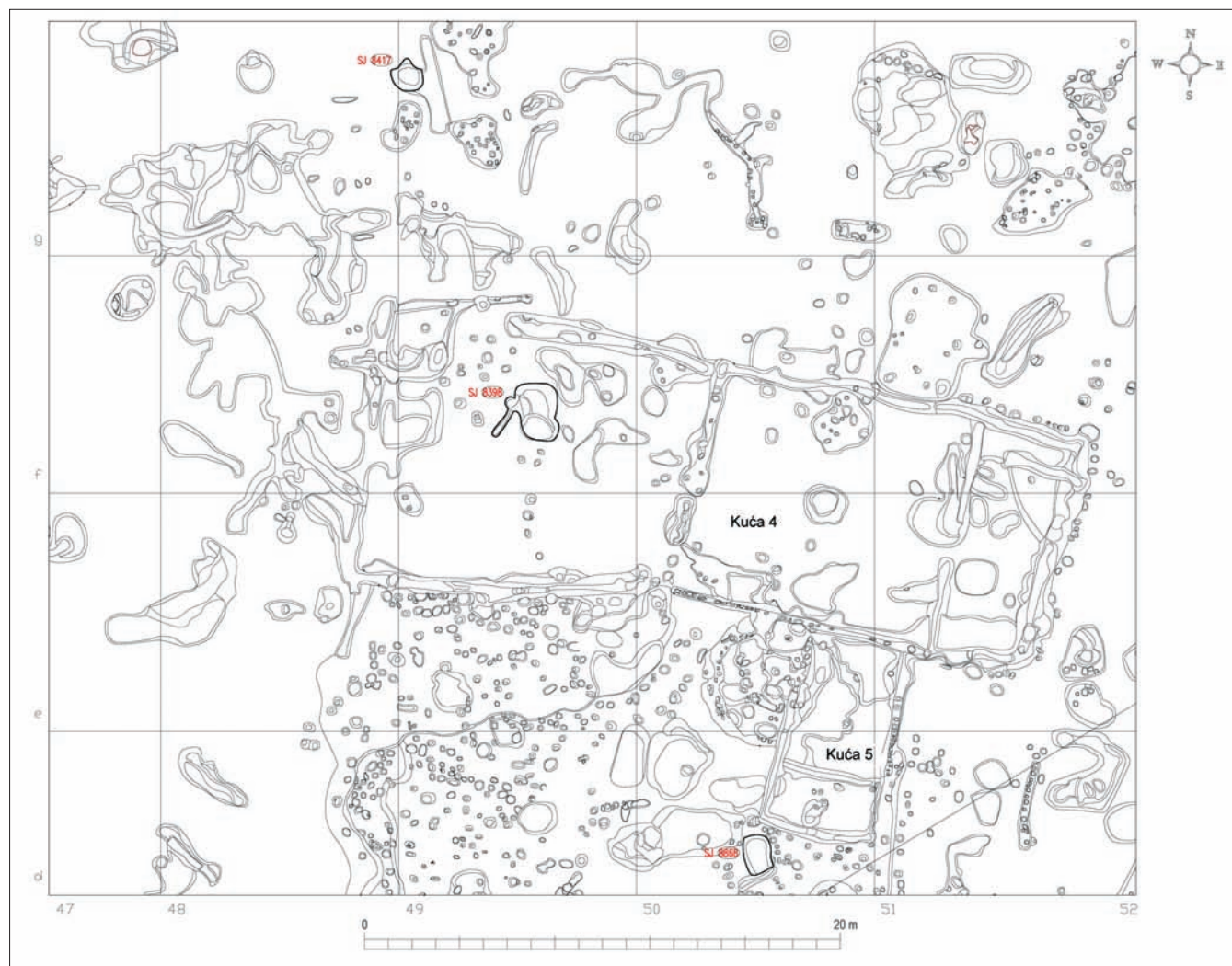
the Lasinja culture (around 4000 B.C.) and an early mediaeval settlement (10th-11th cent.) were investigated in the eastern part of the site, at a surface covering 30900 square metres (Plan 1).

These works were preceded by test archaeological investigations aimed at determining the extent and type of site, carried out in 2006 by Hrvoje Kalafatić from the Institute of Archaeology in Zagreb (Wiewegh, Revald-Radolić 2007, 7-9).

The plot of land known as Bentež is a part of the alluvial plain south of Osijek that belongs geographically to a lowland part of eastern Croatia. This part of the hinterland of the Drava river is the lowest-lying terrain with alluvial plains intersected by the Vuka, Karašica and Vučica watercourses. Remains of numerous prehistoric and mediaeval settlements were discovered on the slightly raised dry areas between

mentacije objekata provela je Nela Kovačević sa suradnicima iz tvrtke Arheo plan d.o.o. iz Dubravka. Povremeno su u radovima sudjelovale arheologinje mr. sc. Daria Ložnjak Dizdar i Katarina Botić iz Instituta za arheologiju iz Zagreba i studenti arheologije zagrebačkog Filozofskog fakulteta. Stručni suradnici u ekipi bili su Mato Batorović i Andrija Vranka iz Iloka i Stanko Jačimović iz Slavonskog Broda. Fizičke poslove na iskopu obavljali su radnici iz Beketinaca, Vuke, Širokog Polja, Osijeka, Iloka, Bapske i Slavonskog Broda.

Pavičić from Zagreb (in charge of the documentation). Archaeological photo-documentation was the responsibility of Želimir Brnić, a graduate archaeologist from Zagreb. Geodetic image of the site and design documentation of the structures were carried out by Nela Kovačević with associates from the Arheo plan Ltd. from Dubravka. Colleague archaeologists from the Institute of Archaeology in Zagreb, Daria Ložnjak Dizdar, MSc, and Katarina Botić, occasionally participated in the investigation, as well as several students of archaeology from the Faculty of Philosophy in Zagreb. Mato Batorović and Andrija Vranka from Ilok and Stanko Jačimović from Slavonski Brod were professional associates in the team. The physical tasks in the excavation were carried out by workers from Beketinci, Vuka, Široko Polje, Osijek, Ilok, Bapska and Slavonski Brod.



Plan 2 Tlocrt lasinjskih nadzemnih kuća 4 i 5 i ranosrednjovjekovnih jama 8417, 8398 i 8868 (izradila: N. Kovačević, Arheo plan d.o.o.)
 Plan 2 The Lasinja culture settlement – foundations of above-ground houses 4 and 5 and the early mediaeval pit-house 8417, 8398 i 8868 (drawing: N. Kovačević, Arheo plan Ltd.)

nalazi oko 3 km sjeverno od današnjeg toka rijeke Vuke i 2,5 km sjeverno od današnjeg naselja Beketinci.

NASELJE POPULACIJE LASINJSKE KULTURE

Najstariji dio istraženog lokaliteta Bentež kod Beketinaca pripada eneolitičkoj lasinjskoj kulturi iz vremena oko 6 000 godina prije sadašnjosti, tj. s kraja 5. i početka 4. tisućljeća prije Krista, odnosno iz razdoblja srednjeg eneolitika (Dimitrijević 1979, 137-181). Istražena površina obuhvatila je oko 30.900 m² velikoga prapovijesnog lokaliteta, od toga oko 24.700 m² zapadnoga – radnog dijela i blizu 6.200 m² istočnoga – stambenog dijela naselja. Zbog ograničenosti zadanog prostora istraživanja utvrđen je samo zapadni rubni dio prapovijesnog naselja koje se prostiralo prema arheološkim nalazima dalje prema sjeveru, istoku i jugu izvan granica trase autoceste (Plan 1).

RADNI DIO NASELJA

U zapadnom dijelu naselja populacije lasinjske kulture bili su izgrađeni raznovrsni objekti isključivo radnog karaktera. U ovome radnom dijelu naselja otkriveno je oko devedeset jama za vađenje gline, više od stotinu plitkih

these small rivers, particularly the river Vuka, the longest tributary of the Danube river (112 km). A topographic picture of this area was complemented with the discovery of the prehistoric and mediaeval settlements at the site of Bentež, situated around 3 km north of the present course of the Vuka river and 2,5 km north of the present-day village of Beketinci.

THE SETTLEMENT OF THE BEARERS OF THE LASINJA CULTURE

The earliest part of the investigated site of Bentež near Beketinci belongs to the Eneolithic Lasinja culture from around 6000 before present, i.e. from the end of the 5th and the beginning of the 4th millennium B.C., that is, the Middle Eneolithic (Dimitrijević 1979, 137-181). The investigated surface covered around 30900 m² of a large prehistoric site. The western, working part covered around 24700 m², while the eastern, residential part of the settlement occupied close to 6200 m². Due to the limits set to the investigation by the route of the highway, only the western peripheral part of the prehistoric settlement was determined. The archaeological finds make it clear that the settlement extended to the north, east and south outside the bounds of the highway route (Plan 1).

radnih jama, devetnaest samostojećih drvenih pregrada, osam drvenih pregrada dublje ukopanih u radne jame, dva vatrišta, dvije veće keramičarske peći i dva manja bunara ili spremišta. Jame za vađenje gline bile su u radnom prostoru raspoređene u određenim razmacima u skupinama od dvije do pet. U tlocrtu raznolikih nepravilnih oblika, dužine 3 – 6 m, širine do 1,5 m i dubine do 1 m, kosih stranica, neravnog dna s tragovima iskopa gline nedvojbeno su ukazivale na svoju namjenu. Među ovim jamama su, uz nekoliko skupina, bile još i manje kružne jame za iskop gline koje su s jedne strane na udaljenosti od pola metra, paralelno s njezinim rubom, imale izgrađene polukružne ograde od razmaknutih kolaca, vjerojatno isprepletenih granjem. Analogije ovim objektima nalaze se u jednako oblikovanim jamama, koje su otkrivene uz keramičke peći u radnom dijelu naselja starčevačke kulture u Zadubravlju (Minichreiter 1992, 35, sl. 11; 2001, fig. 4). Između jama za vađenje gline ukopane su skupine plitkih radnih jama kružnoga ili elipsastog tlocrta, promjera do 5 m, ravnog dna ukopanog do pola metra dubine, tako da se moglo sjediti na njezinim rubovima. Ove radne jame su bile natkrivene, vjerojatno vodoravnom nadstrešnicom na određenoj visini, na što ukazuju rupe od drvenih stupova uz njezine rubove. Slične radne jame bile su uz veliku zemunicu u starčevačkom naselju u Pepelani (Minichreiter 1992, 19, sl. 5 i 6), a ovu vrstu jama kao radne, prvi je objavio S. Dimitrijević u naselju sopotske kulture u Brezovljanima (Dimitrijević 1978, 81-87, sl. 5-8). Posebna vrsta objekata su samostojeće drvene pregrade za koje još uvijek nije utvrđena namjena. Prvi put su otkrivene u radnom dijelu starčevačkog naselja u Zadubravlju (Minichreiter 1992, 35, sl. 11 objekt 13, 17, 30), a nađene su i u sopotskom naselju Brezovljani (Dimitrijević 1978, sl. 7-9), zatim u sopotskom naselju Dubovo-Košno kod Županje (Marijan 2006, 46, sl. 2, 4, 5, 7) i eneolitičkom naselju Hardek kod Ormoža u Sloveniji (Žižek 2006, sl. 1).² Samostojeće pregrade u dužini od 3,40 m, bile su načinjene od gusto poredanih okomitih drvenih oblika, ukopanih do 30 cm u zdravicu. Pregrada je na oba kraja završavala s jednim većim stupom promjera 20 cm, ukopanim do 50 cm u zdravicu od razine zemljišta. U istraženom prostoru bilo ih je devetnaest, dok je još njih osam bilo sastavni dio radnih jama, tako da su s obje strane pregrade ukopane male plitke radne jame ravnog dna. Slično je oblikovana i jedna jama s drvenom pregradom u Brezovljanima (Dimitrijević 1978, sl. 6-9). Između radnih jama nađeni su i ostaci dva vatrišta ili podnica od malih peći (promjera 1 i 1,5 m) koje su bile izgrađene na razini prapovijesnog naselja³. U istočnom dijelu radnog prostora, gdje

2 Samostojeće pregrade najvjerojatnije su otkrivene i u mnogim drugim istraženim neolitičkim i eneolitičkim naseljima jer su bile sastavni dio radnih prostora svakog naselja. Istraživači koji ih nađu u istraživanjima obično ih izostave u opisu jer im nije jasna njihova namjena ili ih opisuju kao kanale što nije ispravno. Na dosadašnjim nalazištima detaljnim istraživanjima sa sigurnošću smo prepoznali drvene oblice ukopane u zdravicu, poredane jedne uz druge u nizu i na krajevima niza ojačane većim okomitim stupom. S obzirom da se rijetko objavljuju tlocrti istraženih naselja, u ovom radu navodi se samo objavljena literatura, gdje se vidi da se radi o samostojećim pregradama.

3 S obzirom da su dijelovi zapečene zemlje oštećeni oračim slojem i skidanjem humusa bagerom, nije se moglo utvrditi jesu li ovdje bile peći ili samo otvorena vatrišta. Ostala vatrišta i peći u naselju bili su dublje ukopani i stoga mnogo bolje očuvani.

WORKING PART OF THE SETTLEMENT

Various structures of exclusively working character were built in the western part of the settlement of the bearers of the Lasinja culture. Around ninety pits for the extraction of clay were discovered in this working area, as well as more than a hundred shallow working pits, nineteen self-standing wooden partitions, eight wooden partitions more deeply dug into the working pits, two fireplaces, two larger ceramic kilns and two smaller wells or storages. Clay-extraction pits were arranged within the working area at a certain distance in clusters between two and five. Their layout was varied and irregular, they were between 3-6 m long, up to 1,5 m wide and 1 m deep, with sloping sides, uneven bottom and traces of clay extraction. Taken together, this provides an unambiguous evidence of their function. Among clay extraction pits, besides these several clusters there were also smaller circular pits with semicircular fences made of stakes and probably with interwoven branches running parallel with the edge of the pit at a half metre distance. Analogies for these features are found in pits of identical shape, discovered next to pottery kilns in the working area of the Starčevo culture settlement at Zadubravlje (Minichreiter 1992, 35, sl. 11; 2001, fig. 4). Clusters of shallow working pits of a circular or elliptical layout were dug between the clay extraction pits. These pits were up to 5 m in diameter, and had a flat bottom dug to the depth of half a metre, so that one could seat on the edge. These working pits were covered, probably with a horizontal covering at a certain height, as indicated by holes of wooden posts along the edge. Similar working pits were found next to the large pit-house in the Starčevo settlement at Pepelana (Minichreiter 1992, 19, sl. 5 and 6), and S. Dimitrijević was the first to publish this type of pits as working pits in the case of the Sopot culture settlement in Brezovljani (Dimitrijević 1978, 81-87, sl. 5-8). Features of specific type are self-standing wooden partitions, whose function has not yet been ascertained. They were discovered for the first time in the working area of the Starčevo settlement in Zadubravlje (Minichreiter 1992, 35, sl. 11 structure 13, 17, 30), and they were also found in the settlement of the Sopot culture in Brezovljani (Dimitrijević 1978, sl. 7-9), in the Sopot settlement of Dubovo-Košno near Županja (Marijan 2006, 46, sl. 2, 4, 5, 7) and the Eneolithic settlement of Hardek near Ormož in Slovenia (Žižek 2006, sl. 1).² Self-standing partitions 3,40 m long were made of densely spaced vertical wooden stakes, dug up to 30 cm into the virgin soil. The partition ended on both ends with a larger post 20 cm in diameter, dug up to 50 cm from the ground level into the virgin soil. A total of nineteen such partitions were found in the investigated area, while another eight formed part of working pits, in the way that small and shallow

2 Self-standing partitions were most probably discovered at many other investigated Neolithic and Eneolithic settlements, because they were an integral part of working areas of each settlement. Investigators who encounter them in their investigations usually omit them in the description because they do not understand their function or describe them as channels, which is not correct. In our previous excavations we have been able to recognize beyond doubt wooden stakes dug into the virgin soil, positioned in a sequence next to each other and reinforced with larger vertical posts at either end. In view of the fact that layouts of investigated settlements are seldom published, we cite in this work only the published literature, from which it can be seen that the features are self-standing partitions.

započinje stambeni dio naselja, bile su izgrađene dvije keramičarske peći. Sjeverna peć, oko 20 m JZ od kuće 1, bila je izgrađena između jama za vađenje gline. Osnovica peći u obliku pravokutnika dužine 2 m i širine 1,5 m imala je očuvane stranice do visine od 20 cm. Ispred peći bio je 10 cm plitko ukopan radni prostor dužine 4 m i širine 3 m, oko kojega su nađene brojne rupe od okomitih drvenih stupova, što upućuje da je ovaj prostor bio natkriven. Druga peć nađena je 10 m JZ od kuće 2, u blizini jame za vađenje gline.⁴ Gotovo kružne osnovice, promjera 1,20 x 1 m, dvoetažna, imala je polukružno dno i vodoravnu pregradu natkrivenu kalotom. Donji dio peći bio je ispunjen ugljenom i pepelom. Kao i kod sjeverne peći i ispred ove peći bio je plitki radni natkriveni prostor dužine 4 m i širine 1,5 m, okružen nizom rupa od okomitih drvenih stupova koji su držali nadstrešnicu. U ovom radnom dijelu naselja, 17 i 49 m SZ od sjeverne peći, bila su ukopana dva bunara. Istočni bunar, gotovo kružnog tlocrta, dimenzija 1,70 x 2,40 m, okomitih stranica, istražen je do 2 m dubine na kojoj se pojavila podzemna voda. Drugi, zapadni bunar, okružen jamama za vađenje gline, bio je izgrađen na isti način kao istočni bunar. Kružnog tlocrta, bio je manjih dimenzija, 1,20 x 1,00 m, isto istražen do dubine od 2 m radi nadiranja podzemnih voda.

STAMBENI DIO NASELJA

Na istočnoj strani radnog dijela naselja jame za vađenje gline bile su sve rjeđe i u prostoru gdje ih više nije bilo započela je skupina nadzemnih pravokutnih kuća i stambenih zemunica s radnim jamama neophodnim za obavljanje određenih obrtničkih djelatnosti. Zadana površina istraživanja obuhvatila je, u usporedbi s istraženim radnim dijelom naselja, četiri puta manju površinu na kojoj se prostirao stambeni dio naselja. Na ovom relativno malom prostoru od 6.200 m² otkrivena je velika gustoća objekata: u središnjem dijelu naselja bile su tri nadzemne pravokutne kuće (kuća 1,2,3); jedna velika pravokutna nadzemna kuća (kuća 4) s manjom uz nju (kuća 5), a uz njih veliko ograđeno dvorište - radni prostor u obliku plitke zemunice s bunarom (zemunica 3). U istočnom dijelu naselja bile su dvije velike stambene zemunice s bunarima od kojih je krušna peć bila unutar zemunice 2, a dvije krušne peći na otvorenom izvan zemunice 1. U međuprostoru bile su četiri manje radne zemunice, velik broj manjih jama različite namjene i 12 samostojećih pregrada.

NADZEMNA KUĆA 1 (sl. 1)

Na zapadnoj strani stambenog dijela naselja bila je nadzemna kuća pravokutnog tlocrta, čiji su temelji građeni od vodoravno položenih drvenih greda u koje su na određenim razmacima bili zabodeni okomiti drveni stupovi. Sjeverni, istočni i južni zid imao je temelje od drvenih greda, dok su na zapadnoj strani kuće u jednakim razmacima bila posta-

4 Peć se nalazila uz južni rubni dio istraženog terena s jedne strane i kanala s druge strane, pa se nije moglo u potpunosti istražiti njezino okruženje. Vjerojatno je u njezinoj blizini bilo još jama za vađenje gline jer se naselje nastavljalo dalje prema jugu u neotkopani dio terena.

flat-bottomed working pits were dug on either side of the partition. A pit with a wooden partition from Brezovljani has a similar shape (Dimitrijević 1978, sl. 6 - 9). The remains of two fireplaces or floors of small-sized ovens (with a diameter of 1 and 1,5 m respectively), constructed at the level of the prehistoric settlement, were found between working pits.³ Two pottery kilns were built in the eastern part of the working area, at the place where the residential part of the settlement begins. The northern kiln, around 20 m SW of house 1, was built between clay extraction pits. The rectangular base of the kiln (2 m long by 1,5 m wide) had the sides preserved up to 20 cm height. A working space 4 m long and 3 m wide was dug 10 cm deep in front of the kiln. It was surrounded by a number of holes from vertical wooden posts, suggesting that this space was roofed. The second kiln was found 10 m SW of house 2, near a clay extraction pit.⁴ Its layout was almost circular, with a diameter of 1,20 x 1 m. It was two-storeyed, had a semicircular bottom and a horizontal partition topped by a dome. The lower part of the kiln was filled with charcoal and ash. Same as in the case of the northern kiln, here also there was a shallow working covered area in front of the kiln, 4 m long and 1,5 wide, surrounded by a row of holes from vertical wooden posts that supported the covering. Two wells were dug in this working area of the settlement, 17 and 49 m NW of the northern kiln. The eastern well had an almost circular layout and measured 1,70 x 2,40 m. It had vertical sides and was examined down to the depth of 2 m, upon which groundwater appeared. The second, western well, surrounded by clay extraction pits, was constructed in the same way as the eastern well. It was smaller (1,20 x 1,00 m) and had a circular layout. It was also examined down to the depth of two metres due to the appearance of groundwater.

THE RESIDENTIAL PART OF THE SETTLEMENT

Clay extraction pits are less densely distributed in the eastern part of the working area of the settlement. At the zone where they disappear completely starts a group of rectangular above-ground houses and residential pit-houses with working pits necessary for performing certain activities connected with crafts. When compared with the investigated working area within the settlement, the excavated surface occupied by the residential part of the settlement was four times smaller. The structures discovered at this relatively small surface of 6200 m² were quite densely arranged: the central part of the settlement contained three above-ground houses (houses 1,2,3); a large rectangular above-ground house (house 4) and another smaller one next to it (house 5). In the eastern part of the settlement there were two large residential pit-houses with wells. A bread oven was found within pit-house 2, while two open-air bread ovens were found outside pit-house 1. Four smaller working pit-houses were found in the area between them, as

3 In view of the fact that parts of burnt clay were damaged by ploughing and removal of humus by an excavating machine, it was impossible to ascertain whether kilns stood there or open fireplaces only. The remaining fireplaces and kilns in the settlement were dug deeper and are consequently much better preserved.

4 The kiln lay next to the southern peripheral part of the investigated area on the one side and the channel on the other, which rendered it impossible to fully investigate its environs. There were probably other clay extraction pits in the vicinity, because the settlement continued further south into the unexcavated part of the terrain.



Sl. 1 Naselje lasinjske kulture – temelji nadzemne kuće 1 (snimio: J. Sudić)
 Fig. 1 The Lasinja culture settlement – foundations of above-ground house 1 (photo: J. Sudić)

vljena samo četiri okomita drvena stupa. Dužina kuće bila je 8,5 m pravcem zapad - istok, a širina 5,80 m pravcem sjever - jug. Raspored stupova unutar kuće ukazuje da je bila pregrađena u dvije prostorije: zapadnu - veću prostoriju dimenzija 6 x 5,5 m i istočnu - manju 2 x 5,5 m. Ulaz u kuću, širine 1 m, bio je na sredini južnog zida, zaštićen malom nadstrešnicom koju su držali stupovi ukopani u kratku drvenu gredu, položenu pod pravim kutom prema van na temelje kuće. Na sva četiri ugla kuće bili su dublje ukopani deblji drveni stupovi promjera oko 30-40 cm. Stupovi istih dimenzija bili su postavljeni po dva u jednakim razmacima uza sjeverni i južni zid, tako da su s ugaonim stupovima s vanjske strane drvenih temelja bili po četiri u nizu. Osim nekoliko malih stupova, unutar veće prostorije u njezinom središnjem dijelu nađena je rupa od velikog stupa jednoga od glavnih nosača krovne konstrukcije. Unutar ove kuće, kao i u ostalim nadzemnim kućama, nije nađena niti jedna keramička posuda. Pokretni kućni inventar - ulomci grubih zaobljenih i bikoničnih zdjela i lonaca, te ulomci finih zdjelica i vrčeva nađeni su u velikoj kružnoj jami (dimenzija 3,5 x 3 m, dubine 80 cm), s južne strane kuće, koja je vjerojatno služila kao ostava.

well as a large number of smaller pits of various function and 12 self-standing partitions.

ABOVE-GROUND HOUSE 1 (Fig. 1)

An above-ground house of a rectangular layout stood in the west of the residential area of the settlement. Its foundations consisted of horizontally laid timber sill-beams into which vertical timber posts were inserted at a regular distance. The northern, eastern and southern walls had timber sill-beams as foundations, while at the western side of the house only four evenly spaced vertical timber posts were set into the ground. The house was 8,5 m long in the west-east direction, and 5,80 m wide in the north-south direction. The position of the posts within the house indicates that it was partitioned into two rooms: the western, larger room, measuring 6 x 5,5 m, and the eastern, smaller one, 2 x 5,5 m. The entrance into the house, 1 m wide, stood in the middle of the southern wall, protected with a small porch supported by posts dug into a short wooden beam, laid at the right angle outwards towards the house foundations. Thick wooden posts around 30-40 cm in diameter were dug deeply at all four corners of the house. Posts of equal size were set in pairs of two at equal distance along the northern and southern walls, so that together with the corner posts at the outside of the timber foundations there were four posts in a row. Besides several smaller posts, a hole belonging



Sl. 2 Naselje lasinjske kulture – temelji nadzemne kuće 2 (snimila: K. Minichreiter)

Fig. 2 *The Lasinja culture settlement – foundations of above-ground house 2 (photo: K. Minichreiter)*

NADZEMNA KUĆA 2 (sl. 2)

Oko 35 m jugoistočno od kuće 1 bila je izgrađena nadzemna kuća 2, iste orijentacije i tlocrtnog oblika kao kuća 1 i 3. U usporedbi s ove druge dvije, kuća 2 bila je najduža. Pravokutni tlocrt činili su sjeverni i južni zid dužine 11,5 m te istočni 5,4 i zapadni 5 m. Temelji kuće bili su na sve četiri strane izgrađeni od vodoravno položenih većih drvenih greda (promjera do 40 cm). Na sva četiri ugla kuće bili su stupovi promjera 50 cm, a s vanjskih strana, uza svaki zid, još po dva u jednakim razmacima od 4 m, koji su držali krovnu konstrukciju, vjerojatno na dvije vode. Na istočnoj strani kuće temeljne grede bile su većih dimenzija i dublje ukopane pa je možda kuća na istočnoj strani imala kat. Za razliku od kuće 1 koja je imala dvije prostorije, kuća 2 bila je podijeljena u tri prostorije. Najveća (zapadna) prostorija, bila je veličine 6,7 x 4,8 m, srednja prostorija bila je uska samo 1,20 x 4,8 m (možda hodnik sa stubištem na kat), a istočna nešto šira 2 x 5 m (možda ostava). Unutar kuće bilo je još nizova stupova, a ulaz u kuću odnosno u veliku prostoriju bio je na zapadnoj strani kuće na mjestu gdje se prekidaju drveni temelji i gdje je ukopan veliki stup za vrata. U središnjem dijelu zapadne prostorije bila je u podu ukopana plitka jama nepravilnog oblika, 2 x 1,5 m. Kuća je nađena uz južni granični dio zadanog terena pa se nisu mogli istražiti prateći objekti s južne strane kuće⁵. Naznake da je s južne strane kuće bila jama – ostava kao uz kuću 1 i kuću 3, bili su ulomci keramike u tamnoj zemlji, vjerojatno rubni dio neistražene jame u prostoru južno uz kuću.

NADZEMNA KUĆA 3 (sl. 3, 5)

Treća nadzemna pravokutna kuća bila je izgrađena 50 m istočno od kuće 1, iste orijentacije i oblika kao druge dvije, samo nešto manjih dimenzija: 8 x 4,5 m. Temelji sva četiri vanjska zida bili su izgrađeni od drvenih greda. Unutrašnji

⁵ Sjeverozapadni ugao kuće 2 otkriven je na južnom rubnom dijelu dopuštenog prostora za istraživanje, odnosno južnom rubnom pojasu trase prilazne ceste. S obzirom na vrlo dobru očuvanost objekta i njegov značaj odlučeno je da se iskop proširi prema jugu i objekt u cijelosti istraži, što se pokazalo ispravnom odlukom.

to a large post that served as one of the main props of the roof was found in the central zone of the larger room. Within this house, same as in other above-ground houses, not one ceramic vessel was found. Movable house inventory – fragments of coarse rounded and biconical bowls and pots, as well as fragments of fine small bowls and beakers were found in a large circular pit (measuring 3,5 x 3 m, 80 cm deep), south of the house, which probably served for storage.

ABOVE-GROUND HOUSE 2 (Fig. 2)

Above-ground house 2 was erected around 35 m southeast of house 1. Its orientation and layout were the same as those of houses 1 and 3. In comparison with these two houses, house 2 was the longest. The rectangular layout was formed by the northern and southern walls, 11,5 m long, and the eastern and western walls, 5,4 m and 5 m long respectively. The house foundations on all four sides consisted large sill-beams (with a diameter up to 40 cm). Posts 50 cm in diameter stood at all four corners of the house, while pairs of two posts stood along each wall on the outside 4 m apart from each other. These posts served as props for the roof, which was probably gabled. The foundation beams on the eastern side of the house were larger and more deeply dug, suggesting that the house may have had an upper storey at the eastern side. In contrast to house 1, which had two rooms, house 2 was divided into three rooms. The largest (western) room measured 6,7 x 4,8 m, the central room was narrow and measured merely 1,20 x 4,8 (perhaps serving as a corridor with a staircase leading to the first floor), while the eastern room was somewhat wider and measured 2 x 5 m (possibly a larder). There were other rows of posts within the house, and the entrance into the house, that is, into the large room, lay at the western side of the house, at the place where the timber foundations end and where the large post for a door was dug into the ground. A shallow pit of irregular shape, 2 x 1,5 m, was dug in the floor in the centre of the western room. The house was discovered next to the southern boundary of the excavation area, so we were not able to investigate the accessory features to the south of the house.⁵ Indications that a pit stood south of the house – a storage like in the case of houses 1 and 3, consisted in ceramic fragments in dark soil, probably an edge of an uninvestigated pit next to the house at the south.

ABOVE-GROUND HOUSE 3 (Fig. 3, 5)

The third above-ground rectangular house was built 50 m east of house 1. It was of the same orientation and layout as the remaining two, only it was somewhat smaller: 8 x 4,5 m. The foundations of all four outer walls were made of timber beams. The interior space of this house was not partitioned by walls like in the other two houses, but by a solid foundation – a timber beam like those of the outer walls. The house contained two rooms: the larger one at the west, 5 x 4 m, and the smaller one at the east, 2 x 4 m. One entered house 3 from the east, through

⁵ The northwestern corner of house 2 was discovered at the southern periphery of the excavation area, that is, the southern edge strip of the route of the access road. In view of the very good preservation of the structure as well as its importance, we decided to extend the dig southwards in order to investigate the structure completely, which proved to be a right decision.



Sl. 3 Naselje lasinjske kulture – temelji nadzemne kuće 3 (snimila: K. Minichreiter)

Fig. 3 The Lasinja culture settlement – foundations of above-ground house 3 (photo: K. Minichreiter)

prostor ove kuće nije bio pregrađen stupovima kao u ostale dvije kuće nego čvrstim temeljem – drvenom gredom kao i vanjski zidovi. U kući su bile dvije prostorije: veća na zapadnoj strani, 5 x 4 m, i manja na istočnoj strani, 2 x 4 m. U kuću 3 ulazilo se s južne strane i to preko istočne male prostorije. Krovnu konstrukciju držali su drveni stupovi s vanjske strane postavljeni na sva četiri ugla i po jedan na sredini sjevernoga i južnog zida. Njezina unutrašnjost bila je ojačana s nekoliko nizova stupova u unutrašnjosti velike prostorije. Uz kuću s njezine istočne strane bila je ukopana 50 cm u zdravicu velika jama, nepravilnoga kružnog tlocrta, promjera 2 m. Vjerojatno je služila kao ostava jer po svojem položaju, obliku i inventaru podsjeća na jamu uz kuću 1. U jami su nađeni brojni ulomci raznovrsne grube i fine keramike: zdjele, vjedra, vrčevi, lončići i lonci s kljunastim ručkama i drškama i ručkama s roščićem. Među finom keramikom nađeni su ulomci vrčeva, zdjela, kupa na nozi i vrčeva s ručkom ukrašenom linearnim motivima s ubodima. Među posuđem bile su i četiri tavice i nekoliko žlica. Nadzemna kuća iste osnovice i sličnih dimenzija s dvije prostorije nađena je u susjednom naselju lasinjske kulture Palača kod Tomašanaca (Balen 2008, katalog izložbe).

NADZEMNE KUĆE 4 I 5, ZEMUNICA 3 (Plan 2, sl. 4, 5)

Sjeveroistočno od kuća 1, 2 i sjeverno do kuće 3 bio je izgrađen kompleks velike kuće 4 s manjom kućom 5 i njihovim dvorištem, velikom zemunicom 3. S obzirom na veličinu i karakter objekata pretpostavlja se da je ovdje bilo središte ovoga lasinjskog naselja. Namjena i svrha ovako velikog objekta ostala je za sada nerazjašnjena.⁶ Nadzemna kuća 4, orijentacije zapad - istok po svojoj veličini, 30 x 12 m, za sada je najveća poznata neolitička kuća u ovim prostorima. Temelje ukopane do dubine od 1 m u zdravicu činile su drvene grede, ukopane dublje na istočnoj strani nego na zapadnoj (kao i temelji u kući 2). S vanjske strane zidovi su bili učvršćeni u nejednakim razmacima, gusto poreda-

⁶ Možda je služila za okupljanje stanovnika naselja pri obavljanju određenih obreda, na što bi ukazivalo vatrište u sredini velike prostorije.

gh the small eastern room. The roof was supported by timber posts positioned on the outside at all four corners, as well as at the middle of the northern and southern walls. Its interior was reinforced by several rows of posts in the interior of the large room. A large pit of irregular circular layout, 2 m in diameter, was dug 50 cm deep into the virgin soil adjacent to the house at the east. It probably served as a storage pit, because its position, form and inventory are reminiscent of the pit adjacent to house 1. A number of fragments of diverse coarse and fine ceramics were found in the pit: bowls, buckets, beakers, small pots and pots with beak-shaped handles as well as handles with small horns. Fine pottery consisted of fragments of beakers, bowls, cups on foot and beakers with a handle decorated with linear motifs with stabblings. The kitchenware included four pans and several spoons. An above-ground house of the same layout and similar size with two rooms was discovered in the neighbouring settlement of the Lasinja culture, Palača near Tomašanci (Balen 2008, Exhibition Catalogue).

ABOVE-GROUND HOUSES 4 and 5, PIT-HOUSE 3 (Plan 2, Fig. 4, 5).

A complex consisting of large house 4 and a smaller house 5, as well as their courtyard, large pit-house 3, was built northeast of houses 1, 2 and north of house 3. Considering the size and character of the structures, it is assumed that this was the centre of this Lasinja settlement. The function and purpose of a structure this large has so far remained unexplained.⁶ Above-ground house 4, oriented west-east, measuring 30 x 12 m, is at present the largest known Neolithic house in this area. The foundations, dug up to 1 m deep into the virgin soil, consisted of wooden beams, dug more deeply at the eastern side than at the western (same as the foundations of house 2). The walls on the outside were reinforced at an unequal distance with densely spaced vertical posts. The interior of house 4 was partitioned by timber sill-beams into three rooms of the same layout as houses 1, 2 and 3. The largest room 14 x 12 m stood at the west, same as the entrance into the house. A smaller room 10,5 x 12 m stood in the centre, while the smallest one 4,40 x 12 m was situated at the eastern side. A particular feature of this large house was a fireplace in a pit 1,80 in diameter, at the centre of the central room. It appears that fire was not lit directly on the fireplace, but that glowing embers were introduced and maintained, because even though the soil exhibits traces of burning, the discovered amount of char and ash was rather small. A layer of clay and gravel was found below this burned layer, which may have served to better sustain the temperature and prevent further burning. A central dug-in feature of this kind is considered in certain structures a base of the post that supported the roof. However, in this case the size of the feature is considerable, and no traces of a burned or decayed post were visible. A shallow pit measuring 5 x 3,5 m was situated on the outside of the central room of the house towards the north. Its function has not been ascertained, and fronting it at the south stood rectangular above-ground house 5. It extended in the north-south direction, perpendicular

⁶ A fireplace situated in the centre of the large room is perhaps an indication that the house may have served for gatherings of the inhabitants of the settlement when performing certain rituals.



Sl. 4 Naselje lasinjske kulture – temelji nadzemnih kuća 4 i 5 i zemunica 3 (snimio: J. Sudić)

Fig. 4 The Lasinja culture settlement – foundations of above-ground houses 4 and 5 and pit-house 3 (photo: J. Sudić)

nim okomitim stupovima. Unutrašnji prostor kuće 4 bio je pregrađen temeljima drvenih greda na tri prostorije s istim rasporedom kao i u kućama 1, 2 i 3. Na zapadnoj strani, gdje je bio i ulaz u kuću, bila je najveća prostorija 14 x 12 m, zatim u sredini manja prostorija 10,5 x 12 m i na istočnoj strani najmanja 4,40 x 12 m. Posebnost ove velike kuće bilo je vatrište u jami promjera 1,80 m, na sredini srednje. Izgleda da se na vatrištu nije direktno palila vatra, nego se žar unosio i održavao, jer nema velikih količina gara i pepela, a zemlja ipak pokazuje tragove gorenja. Ispod ovoga nagorenog sloja nalazi se glinasto-šljunčasti sloj koji je mogao služiti za bolje očuvanje temperature i sprječavanje daljnjeg gorenja. U nekim se objektima ovaj središnji ukop smatra bazom stupa koji je držao krovnu konstrukciju, no ovdje su dimenzije samog ukopa velike, a nema tragova nagorenoga ili istrunulog stupa. Na srednju prostoriju s vanjske strane kuće prema sjeveru nadovezala se plitko ukopana jama 5 x 3,5 m nepoznate namjene, a nasuprot njoj s južne strane pravokutna nadzemna kuća 5 pravcem sjever – jug, okomito na kuću 4 s kojom je tvorila jednu cjelinu. Kuća 5, dimenzija 9 x 5 m, bila je građena na isti način kao i ostale kuće u naselju na temeljima od drvenih greda, podijeljena na dvije prostorije: veću sjevernu 6 x 5 m i manju južnu 3 x 5 m. S

to house 4, with which it formed a whole. House 5, measuring 9 x 5, was constructed in the same way as the other houses in the settlement, at the foundations consisting of wooden beams, divided into two rooms: the larger northern room 6 x 5 m, and a smaller southern one 3 x 5 m. It did not have an entrance on the outside, so in all likelihood it was entered into only from large house 4. A large storage pit measuring 4 x 5 at the horizontal plane, was dug 1,5 m at the position where house 5 was annexed to house 4 at the right angle. Interiors of houses 4 and 5 did not yield any pottery, which is a recurrent feature in all houses. Two smaller pits south and west next to house 5 in the courtyard (pit-house 3) of this complex contained numerous fragments of coarse and fine pottery: rounded and biconical bowls with a tongue-shaped handle, bowls on foot, pots with handles, miniature bowls on foot, decorated bowls, amphorae with two handles and spoons. A small amount of pottery fragments was found also in shallow pits not far from the entrance into large house 4, west and north of it. A large fenced working zone in the form of a shallow pit-house, which had a well at the southwest, stretched along the southern side of large house 4 and house 5 with a storage pit. This working space – pit-house 3, dug 40 cm deep, 25 m long and 20 m wide, was fenced along its entire length by a double row of



Sl. 5 Naselje lasinjske kulture – zemunice 1, 2, 3 i nadzemne kuće 3, 4 i 5 (snimio: J. Sudić)

Fig. 5 The Lasinja culture settlement – pit-houses 1, 2, 3 and above-ground houses 3, 4 and 5 (photo: J. Sudić)

vanjske strane nije imala ulaz pa se najvjerojatnije moglo u nju ulaziti samo iz velike kuće 4. U prostoru gdje je kuća 5 pod pravim kutom prigradena na kuću 4, bila je ukopana do dubine od 1,5 m velika jama – ostava u vodoravnoj projekciji 4 x 5 m. U unutrašnjim prostorima kuća 4 i 5, kao i u ostalim kućama, keramika nije nađena. Dvije manje jame južno i zapadno uz kuću 5 u dvorišnom dijelu (zemunica 3) ovoga kompleksa sadržavale su ulomke brojne grube i fine keramike: zaobljene i bikonične zdjele s jezičastom drškom, zdjele na nozi, lonce s ručkama, minijaturne zdjele na nozi, ukrašene zdjele, amfore s dvije ručke i žlice. Manja količina ulomaka keramike nađena je i u plitkim jamama nedaleko ulaza u veliku kuću 4, s njezine zapadne i sjeverne strane. Uzduž južne strane velike kuće 4 i kuće 5 s ostavom nadovezao se veliki ograđeni radni prostor u obliku plitke zemunice, koja je u svojem sklopu imala bunar na jugozapadnoj strani. Ovaj radni prostor - zemunica 3, ukopana do 40 cm, dužine 25 m i širine 20 m, bio je ograđen u cijeloj svojoj dužini dvostrukim redom naizmjeničnih drvenih stupova. Ova ograda nastavljala se i s vanjske strane bunara, s tim da je na jednome mjestu prekinuta radi mogućnosti prilaza bunaru ne samo iz radnog prostora nego i s ove zapadne (vanjske) strane. Bunar promjera 2,5 m bio je istražen do du-

alternating timber posts. This fence continued on the outside of the well, only it was interrupted at one spot to allow access to the well not only from the working area but also from the western (outer) side. The well, 2,5 m in diameter, was examined to the depth of 2 m, when groundwater started to appear.

The construction of above-ground houses of rectangular layout in Croatia started in the Sopot culture, where such houses were discovered in the settlements at Otok and Sopot near Vinkovci, Hermanov Vinograd in Osijek (Dimitrijević 1979, 270; Dimitrijević, Težak-Gregl, Majnarić-Pandžić 1998, 88, sl. 16; Krznarić Škrivanko 2006, 11-15, sl. 1 and 2) and Kruševica near Slavonski Šamac (Miklik Lozuk 2005, 37-38, IBID 2006, 51-53). The tradition of constructing above-ground timber houses of rectangular layout continues during the Neolithic and Eneolithic. This is corroborated by the recent discovery of five settlements of the Lasinja culture⁷: Bentež in Beketinci; Dubrava in Čepinski Martinci,⁸ situated 3 km to the north (Kalafatić 2009, in

7 Archaeological sites on the route of the Budapest – Ploče International Highway, section Osijek – Đakovo, were investigated between 2006 and 2009.

8 A paper delivered by H. Kalafatić from the Institute of Archaeology in Zagreb on the scientific convention of the Croatian Archaeological Society in Osijek in 2008. Kalafatić managed the archaeological investigations at the site in Čepinski Martinci in 2007 and 2008. The report on the investigations is in press.

bine od 2 m, jer se na toj dubini pojavila podzemna voda.

Izgradnja nadzemnih kuća pravokutne osnove započinje u hrvatskim prostorima u sopotskoj kulturi, gdje su otkriveni u naseljima Otok i Sopot kod Vinkovaca, Hermanov vinograd u Osijeku (Dimitrijević 1979, 270; Dimitrijević, Težak-Gregl, Majnarić-Pandžić 1998, 88, sl. 16; Krznarić Škrivanko 2006, 11-15, sl. 1 i 2) i Kruševici kod Slavenskog Šamca (Miklić Ložuk 2005, 37-38, ISTA 2006, 51-53). Tradicija izgradnje nadzemnih kuća od drveta pravokutne osnove nastavlja se tijekom neolitika i eneolitika. To su potvrdila najnovija otkrića pet naselja lasinjske kulture⁷; Bentež u Beketincima, zatim 3 km sjevernije lokalitet Dubrava u Čepinskim Martincima⁸ (Kalafatić 2009, u tisku) i 12 km južnije Palača kod Tomašanaca (Balen 2008, katalog izložbe). Na lokalitetima Stara Vodenica kod Jurjevca Punitovačkog 4 km južnije i Pajtenici kod Đakovačkih Selaca 23 km južnije od Beketinaca otkriveni su nizovi stupova, vjerojatno dio nadzemnih objekata⁹. Nadalje, istovrsne nadzemne pravokutne kuće nađene su u eneolitičkim naseljima u Mađarskoj: Győr-Szabadrétdomb iz faze Balaton-Lasinja/Ludanice (Virág, Figler 2007, 352, fig. 2, 5-11), Veszprém iz faze IIb-III lendeške kulture (Regénye 2007, fig. 2, 3, 4), Zalavár-Basasziget naselje Balaton-lasinjske kulture (Virág 2005, sl. 1), Szombathely naselje kasne lendeške kulture (Ilon, Farkas 2001, 55-60, fig. 3a,b, 4) i Zalaegerszeg-Andráshida, Gébárti tó (II) iz Balaton-lasinjske faze (P. Barna, Kreiter 2006, 48-50, 61: fig. 1, fig.14, fig 15: 1, fig. 16: 1, fig. 17:1). Na području Austrije u naseljima Bisamberg-Oberpullendorf grupe analogne lasinjskoj kulturi nađene su nadzemne kuće u Unterradlbergu i Pottenbrunn (Ruttikay 1995, 125, Abb. 7), a u Sloveniji u lasinjskom naselju Sodolek (Kavur, Tomaž, Mileusnić 2006, 122-123, sl. 3). Kao daljnja analogija kući 4 s ograđenim dvorišnim prostorom iz Beketinaca može se navesti jedini za sada poznati nalaz nadzemne kuće s ograđenim dvorištem iz lokaliteta Wetzleinsdorf u Austriji (Neugebauer-Maresch 1995, Abb. 42).

Istočno od nadzemnih kuća 4 i 5 i velikog dvorišta - zemunice 3, prostor mogućeg istraživanja naselja bio je malen pa su na ovom dijelu nađeni samo zemunični objekti i to dvije velike zemunice 1 i 2, a između njih dvije veće radne zemunice.

ZEMUNICA 1 (sl. 5 i 6)

Oko 10 m jugoistočno od nadzemnih kuća 4 i 5 i njihova dvorišta - zemunice 3, bila je velika zemunica 1. U tlocrtu nepravilnog četverokuta, dimenzija 10 x 15 m, zemunica je u svojem sjevernom dijelu (oko 1/3 površine) imala ravno plitko dno, ukopano oko 30 cm u zdravicu, dok je dno u središnjem i južnom dijelu bilo nešto dublje ukopano, oko 50-60 cm. Uz južni rubni dio bio je ukopan bunar okomitih

7 Arheološki lokaliteti na trasi međunarodne Autoceste Budimpešta – Ploče, dionica Osijek – Đakovo, istraženi su u vremenu od 2006. do 2009. g.

8 Izlaganje na znanstvenom skupu HAD-a u Osijeku 2008. g. H. Kalafatića iz Instituta za arheologiju u Zagrebu, koji je vodio arheološka istraživanja na lokalitetu u Čepinskim Martincima 2007. i 2008. g. Izvještaj o istraživanjima u tisku.

9 Na ovim nalazištima trasa ceste obuhvatila je relativno malu površinu naselja lasinjske kulture pa postoji realna mogućnost da su u neistraženom dijelu naselja postojali drveni nadzemni objekti pravokutne osnove.

press) and Palača near Tomašanci, situated 12 km to the south (Balen 2008, Exhibition Catalogue). The site of Stara Vodenica near Jurjevac Punitovački 4 km to the south and Pajtenica near Đakovački Selci 23 km south of Beketinci yielded rows of posts, probably from above-ground structures.⁹ Further, identical above-ground rectangular houses were found in Eneolithic settlements in Hungary: Győr-Szabadrétdomb from the Balaton-Lasinja/Ludanice phase (Virág, Figler 2007, 352, fig. 2, 5-11), Veszprém from phase IIb-III of the Lengyel culture (Regénye 2007, fig. 2, 3, 4), Zalavár-Basasziget, a settlement of the Balaton-Lasinja culture (Virág 2005, fig. 1), Szombathely, a settlement of the late Lengyel culture (Ilon, Farkas 2001, 55-60, fig. 3a,b, 4) and Zalaegerszeg-Andráshida, Gébárti tó (II) from the Balaton-Lasinja phase (P. Barna, Kreiter 2006, 48-50, 61: fig. 1, fig.14, fig 15: 1, fig. 16: 1, fig. 17:1). In Austria, the above-ground houses were discovered in the settlements of Unterradlberg and Pottenbrunn, belonging to the Bisamberg-Oberpullendorf culture, analogous with the Lasinja culture (Ruttikay 1995, 125, Abb. 7), while in Slovenia above-ground houses were found in the Lasinja settlement of Sodolek (Kavur, Tomaž, Mileusnić 2006, 122-123, sl. 3). A remote analogy for house 4 with a fenced courtyard from Beketinci is found in the only so far known find of an above-ground house with a fenced courtyard from the site of Wetzleinsdorf in Austria (Neugebauer-Maresch 1995, Abb. 42).

The space east of above-ground houses 4 and 5 and the large courtyard – pit-house 3 was small, so only structures of a pit-house type were found there: two large pit-houses 1 and 2, with two larger working pits between them.

PIT-HOUSE 1 (Fig. 5 and 6)

Large pit-house 1 was situated around 10 m southeast of the above-ground houses 4 and 5 and their courtyard – pit-house 3. Its layout was in the shape of an irregular rectangle measuring 10 x 15 m. The base of the pit-house in the north (around 1/3 of the surface) was shallow and flat, dug around 30 cm into the virgin soil, while in the central and southern part it was dug somewhat deeper, around 50-60 cm. A well 1,80 m in diameter, with vertical sides, was dug next to the southern edge. It was examined to the depth of 2 m, to the groundwater level. Only in the flat northwestern part of the pit-house did we find a large quantity of coarse and fine ceramics: pots, bowls, bowls on a hollow foot, beakers with two handles. Ornaments include a garland motif. Small pans and a spoon were found among the earthenware. Rows of holes from vertical posts running along the edge of the pit-house and in its interior space suggest that it was probably covered with a tent-shaped roof, as it had neither a fireplace nor a kiln inside. Two bread ovens were built outside at the distance of three and five metres respectively north of pit-house 1. Remains of oven bases measuring 70 x 50 cm and 120 x 80 cm were found, while the domes were collapsed. The size and layout of the pit-house suggest that it may have served as a working zone and for dwelling of a family of several members. Pit-houses of similar shape and size were discovered in the neighbouring settlements of the Lasinja culture, at the site of Palača in Tomašanci¹⁰ (Balen 2008, Exhibition Catalogue) and

9 The route of the highway at these sites covered a relatively small surface of the settlements of the Lasinja culture, and there is a realistic possibility that the unexcavated portions of the sites contained timber above-ground structures of rectangular layout.

10 Our thanks are due to colleague Jacqueline Balen, professional manager of the archaeological investigations in Tomašanci, for the permission to



Sl. 6 Naselje lasinjske kulture – zemunica 1 (snimila: K. Minichreiter)
 Fig. 6 The Lasinja culture settlement – pit-house 1 (photo: K. Minichreiter)

stranica, promjera 1,80 m, koji je istražen do 2 m dubine, do razine podzemne vode. Samo u sjeverozapadnome ravnom dijelu zemunice nađena je veća količina grube i fine keramike: lonci, zdjele, zdjele na šupljoj nozi, vrčevi s dvije ručke, a među ukrasima pojavljuje se i motiv girlande. Među posuđem bile su i tavice i jedna žlica. Nizovi rupa od okomitih stupova, po rubnom dijelu zemunice kao i u njezinom unutrašnjem prostoru, ukazuju da je bila natkrivena vjerojatno šatorastim pokrovom, jer u unutrašnjem prostoru nije imala vatrišta ni peći. Dvije krušne peći bile su izgrađene na otvorenom prostoru na udaljenosti od tri i pet metara sjeverno od zemunice 1. Ostali su očuvani ostaci osnovica peći veličine 70 x 50 cm i 120 x 80 cm, dok su obje kalote bile urušene. Zemunica je zbog svoje veličine i rasporeda prostora mogla služiti kao radni prostor i za stanovanje više članova obitelji. Zemunice sličnih oblika i veličine nađene su u susjednim naseljima lasinjske kulture na lokalitetu Palača u Tomašancima¹⁰ (Balen 2008, katalog izložbe) i lokalitetu Dubrava u Čepinskim Martincima¹¹ (Kalafatić 2009).

ZEMUNICA 2 (sl. 5)

Druga zemunica nešto većih dimenzija od prve, nalazila se 30 m sjeveroistočno od zemunice 1. Nepravilnog tlocrta, širine 15 m i dužine 15 m, odnosno 20 m s bunarom, bila je izdužena prema sjeveru. Prostor u zemunici bio je slično raspoređen kao u zemunici 1 i obje zemunice su imale

¹⁰ Zahvaljujemo kolegici Jacqueline Balen, stručnoj voditeljici arheoloških istraživanja u Tomašancima na odobrenju pregleda terenskih nalaza tijekom istraživanja.

¹¹ Uvid u terenske nalaze lasinjskog naselja u Čepinskim Martincima, na čemu zahvaljujemo kolegi Hrvoju Kalafatiću, voditelju arheoloških istraživanja.

Dubrava in Čepinski Martinci¹¹ (Kalafatić 2009).

PIT-HOUSE 2 (Fig. 5)

The second pit-house, somewhat bigger than the first one, lay 30 m northeast of pit-house 1. It had an irregular layout, 15 m wide and 15 long, that is, 20 m with the well. It was elongated in the north direction. The space inside the pit-house was arranged similar to pit-house 1. Both pit-houses had bread ovens and wells. Pit-house 2 also had around 1/3 of its surface at the eastern and southern sides with a flat shallow base, while two larger pits stood in the central and northern parts, serving as storage space. A well 2 m in diameter in the northern end of the pit-house was examined down to the depth of 1,80 m, to the groundwater level. A bread oven with a collapsed dome stood next to the western edge of this pit-house. The base of the bread oven was 1,30 m wide and 0,98 m long. Fragments of earthenware and a spoon were found in the western zone of the pit-house, near the oven. This pit-house also certainly had a roof, as corroborated not only by rows of holes from vertical posts, but also a cluster of 5 collapsed timber beams 3 and 5 m long respectively, discovered in the upper layer of the northeastern part of the pit-house.

A number of smaller pits were found in the area between pit-house 1, pit-house 2 and houses 4 and 5, including six shallow working pits of irregular layout. Four of those were of approximately equal size, measuring 5 x 5 m and 5 x 8 m, while the other two measured 6 x 3 m and 4 x 2 m (Fig. 5). All had a shallow base 30 cm deep and a number of post-holes along

inspect fieldwork finds during the investigation.

¹¹ Insight into the fieldwork finds of the Lasinja settlement in Čepinski Martinci, for which we thank colleague Hrvoje Kalafatić, the manager of the archaeological investigations.

krušne peći i bunare. I zemunica 2 je imala oko 1/3 površine na istočnoj i južnoj strani s plitko ukopanim ravnim dnom, dok su u središnjem i sjevernom dijelu bile dvije veće jame kao ostave. Na sjevernom kraju zemunice bio je bunar 2 m promjera, istražen do dubine 1,80 m, do razine podzemne vode. U ovoj zemunici bila je, uza zapadni rubni dio, krušna peć s urušenom kalotom. Širina osnovice krušne peći bila je 1,30 m i dužina 0,98 m. U zapadnom prostoru zemunice u blizini peći nađeni su ulomci keramike i žlica. I ova zemunica je sigurno imala pokrov, o čemu svjedoče ne samo nizovi rupa od okomitih stupova, nego i skupina od 5 urušenih drvenih greda dužine 3 i 5 m, koje su nađene u gornjem sloju sjeveroistočnog dijela zemunice.

U prostoru između zemunice 1, zemunice 2 i kuće 4 i 5 bile su brojne manje jame i među njima šest plitkih radnih jama nepravilnog tlocrta, od kojih četiri približno podjednake veličine 5 x 5 m i 5 x 8 m, a ostale dvije 6 x 3 m i 4 x 2 m (sl. 5). Sve su imale ravno ukopano plitko dno na dubini od 30 cm i brojne rupe od stupova po rubnim dijelovima i u unutarnjem prostoru. U svakoj od njih nađeni su ulomci nekoliko zdjela i lonaca.

Premda je istražen samo dio lasinjskog naselja Bentež, istraženi objekti njihov raspored i namjena, kao i inventar u njima¹², pružili mnogo novih podataka o naseljima lasinjske kulture u ovom dijelu Slavonije. Arheološka iskopavanja do sada nepoznatih eneolitičkih lokaliteta na trasi međunarodne Autoceste Budimpešta - Ploče donijela su potpuno nove spoznaje o načinu organizacije naselja lasinjske kulture, što omogućavaju samo istraživanja velikih površina arheoloških zona nalazišta.

POKRETNİ ARHEOLOŠKI NALAZI¹³

Gruba keramika je sive do najčešće oker boje te sve do blijedocrvene, ponekad mrljasta. U fakturi su zamjetne primjese usitnjenoga kamena i pijeska, a oblikovanje je ponekad nemarno (neravna površina posuđa). Daleko pretežu zaobljeni oblici (vjedra, lonci i lončići, dio vrčeva) (T. 1:1,2,6, T. 2,4), ali se nalaze i bikonični lončići s ručkom iznad oboda

(T. 2,5), dok se za veći dio posuđa, zbog nedostatka trbušnog dijela, ne može odrediti kojoj od ovih dviju vrsta pripada. Oblici i ukrasi grube keramike: vjedra s izljevom (T. 1,1) (približne analogije Marković 1982, T. 1,6), lonci s dugmetastom aplikacijom (T. 1,2) (Homen 1990, sl. 5:7,8; Straub 2006, Fig. 8:11-13), vrčevi (T. 1,3), lonci s gredastim aplikacijama koje ponekad imaju otiske prsta (T. 1:4,5) (Marković 1977, T. 7,4), lonci s ručkama koje imaju roščić na gornjoj strani (T. 1,6) (Straub 2006, Fig. 9,7), lonci s narezanim obodom (T. 2,1), lonci s roščićima uz obod (T. 2,2), lonci s kljunastim ručkama i drškama (T. 2,3) (Marković 1977, T. 4,5; Straub 2006, Fig. 9:11-13), obični zaobljeni lonci (T. 2,4), lončići s ručkom od bikoničnog trbuha do iznad oboda (T. 2,5) (Homen 1990, T. 6,7).

Fina keramika sva je u znaku tamnijih boja, od različitih nijansi sive do potpuno crne. Faktura je puno pročišćenija

the edges and in the interior. Each pit yielded fragments of several bowls and pots.

Even though only a part of the Lasinja settlement of Bentež was investigated, the examined structures and their layout and function, as well as their inventory¹², offered a wealth of new information on the settlements of the Lasinja culture in this part of Slavonia. The archaeological excavations of formerly unknown Eneolithic sites on the route of the Budapest – Ploče International Highway resulted in an entirely new understanding of the way the Lasinja culture settlements were organized, which is possible only by large-surface investigations of archaeological zones.

MOVABLE ARCHAEOLOGICAL FINDS¹³

Coarse pottery is grey to mostly ochre in colour and even pale red, sometimes with patches. Its fabric contains additions of ground stone and sand, and the shaping is sometimes careless (uneven surface on vessels). Rounded shapes are by far the most numerous (buckets, pots and small pots, some beakers) (Pl. 1:1,2,6, Pl. 2,4), but there are also small biconical pots with a handle raised above the rim (Pl. 2,5), while the largest part of the earthenware, due to the missing belly portion, cannot be attributed to either of these two types. Shapes and decoration of the coarse pottery: spouted buckets (Pl. 1,1) (approximate analogies Marković 1982, Pl. 1,6), pots with a button-like application (Pl. 1,2) (Homen 1990, sl. 5:7,8; Straub 2006, Fig. 8:11-13), beakers (Pl. 1,3), pots with rib-like applications that sometimes carry fingertip impressions (Pl. 1:4,5) (Marković 1977, T. 7,4), pots with handles with a small horn on the upper part (Pl. 1,6) (Straub 2006, Fig. 9,7), pots with a serrated rim (Pl. 2,1), pots with small horns next to the rim (Pl. 2,2), pots with beak-shaped handles (Pl. 2,3) (Marković 1977, T. 4,5; Straub 2006, Fig. 9:11-13), standard rounded pots (Pl. 2,4), small pots with a handle from the biconical belly to above the rim (Pl. 2,5) (Homen 1990, T. 6,7).

Fine pottery is by and large of dark colours, from various hues of grey to completely black. The fabric is much more refined than that of the coarse pottery, with only little sand as addition. The shaping is very careful, including the smoothed surface. The most typical shape is a biconical bowl with a large tongue-shaped handle of varying size at the break, often decorated with incisions and stabblings (Pl. 3:1-4) (Marković 1977, T. 1,5, T. 2,1, T. 7,1; Homen 1990, sl. 2,6, sl.5,1; Dimitrijević 1979a, T. 21,1; Straub 2006, Fig. 5:1,4). Rounded or slightly biconical bowls decorated with small dots along the rim are also relatively frequent (Pl. 4:1,2) (Dimitrijević 1979a, sl. 5,15; Homen 1990, sl. 9). There are also amphorae with small loops on a richly decorated belly (Pl. 3,6) and foot parts of bowls on a hollow foot, with stabbed decoration (Pl. 4,9) (Dimitrijević 1979a, T. 20,6; Homen 1990, sl. 7, 9). Handles of beakers and small pots, with or without decoration, are also frequent (Pl. 4:4,6, Pl. 5:9,11,12) (Dimitrijević 1979a, T. 20,9). Numerous pots and small pots, often decorated, deserve a special mention (Pl. 3:5,7-9, Pl. 4:3,7, Pl. 5:1,2,5) (Dimitrijević 1979a, sl. 5, 10, T. 18:4,8; Straub

12U prapovijesnom naselju nađen je relativno mali broj pokretnih nalaza, što je posljedica uništavanja nalazišta poljoprivrednom obradom zemljišta.

13Crteže keramičkih predmeta izradila je Miljenka Galić iz Zagreba

12A relatively small number of movable finds were discovered in the prehistoric settlement, which is a consequence of the destruction of the site by land ploughing.

13The ceramic objects were drawn by Miljenka Galić from Zagreb.

nego kod grube keramike, tek s malo pijeska kao primjesom. Oblikovanje je vrlo pažljivo, sve do glačane površine. Najtipičniji oblik je bikonična zdjela s različito velikom jezičastom drškom na prijelomu, koja je često ukrašena urezima i ubodima (T. 3:1-4) (Marković 1977, T. 1,5, T. 2,1, T. 7,1; Homen 1990, sl. 2,6, sl.5,1; Dimitrijević 1979a, T. 21,1; Straub 2006, Fig. 5:1,4), no relativno česte su i zaobljene ili blago bikonične zdjele s ukrasima od točkica uz obod (T. 4:1,2) (Dimitrijević 1979a, sl. 5,15, Homen 1990, sl. 9). Javljaju se i amfore s malim ušicama na bogato ukrašenom trbuhu (T. 3,6) te noge od zdjela na šupljoj nozi, ukrašene ubodima (T. 4,9) (Dimitrijević 1979a, T. 20,6; Homen 1990, sl. 7, 9). Česte su ukrašene i neukrašene ručke vrčeva i lončića (T. 4:4,6, T. 5:9,11,12) (Dimitrijević 1979a, T. 20,9). Svakako valja spomenuti brojne lonce i lončiće, koji su često ukrašeni (T. 3:5,7-9, T. 4:3,7, T. 5:1,2,5) (Dimitrijević 1979a, sl. 5, 10, T. 18:4,8; Straub 2006, Fig. 10:3,4, Fig. 11,9, Fig. 12:4,9). Među ukrasima zamjetni su ljestvičasti motivi (T. 5:1,4,5) (Marković 1983, T. 3:7,10; Dimitrijević 1961, T. 9:56,57; Straub 2006, Fig. 12:4,5,9), a javlja se i motiv bodljikave žice (T. 5:7) (Dimitrijević 1961, T. 11,71, T. 13,88; Marković 1983, T. 3,13), no javljaju se i različite girlande (T. 4:5,6,7) (Dimitrijević 1979a, sl. 5:17,18, T. 20:10,11), kao i mrežasti ukras (T. 5:8) (Straub 2006, Fig. 12,6). To su sve inače značajke najkasnijega, tj. trećega razvojnog stupnja lasinjske kulture (Dimitrijević 1979a, 159; Marković 1994, 94), a sada treba dodati i prvu odnosno najraniju pojavu brazdagostog urezivanja (T. 5,11), što je vjerojatno odraz djelomične egzistencije 3. stupnja lasinjske i rane Retz-Gajary kulture (Dimitrijević 1979a, 177). No ovdje se nalazi i uobičajeni V-motiv (T. 3,5, T. 5,1) (Marković 1977, T. 4,1, T. 6,5), zakrivljene i ispunjene šiljaste trake (T. 5,5) (Marković 1994, T. 21,3), X-motiv obrubljen točkicama (T. 3,4), jedna vrsta vertikalnog cik-caka obrubljenog točkama (T. 3,7), prepleti iscrtkanih linija (T. 3,8, T. 5,1,2) (Dimitrijević 1979a, sl. 5,16), A-motiv s točkicama (T. 3,9) (Marković 1977, T. 8:5,6), a javljaju se i mali jamičasti motivi u grupici (T. 4,8, T. 5,11).

Od ostalih pronađenih predmeta izdvajaju se prvenstveno karakteristične keramičke žlice s rupom za nasad drvene drške (Marković 1977, T. 5,8; Homen 1990, sl. 4: 1,2; Balen 2008), kojih je ukupno pronađeno čak 16 komada, čiji su brojni primjerci nađeni u lendeškim naseljima u Mađarskoj (Marton 2006, fig. 13:5-13; Regenye 2006, 73, predmet 32,33). Velik je i broj četvrtastih i elipsoidnih tavnica, kakvih je pronađeno 10 komada, također česti inventar eneolitičkih nalazišta u zapadnoj Srbiji (Blagojević 2005, kat. br. 19) i Mađarskoj (Kaczanowska, Kozłowski 2001, Abb. 2,9; Regenye 2006, 73, predmet 25). Posebno je zanimljiv velik kruškasti kalem bez rupe, sužen pri vrhu za nizanje niti. Mali model sjekire s rupom ima analogije na prijelazu eneolitika u rano brončano doba, u materijalu najkasnije vučedolske kulture u sjeverozapadnoj Hrvatskoj (Marković 1981, 238, Apatovac-Hum). Četiri su keramička pršljena bikonične profilacije. Jedan mali keramički predmet ljevka oblika predstavlja vjerojatno dječju igračku. Nađena je i mala keramička perla, a pronađeni su i komadi 7 diskoidnih i jedan stožasti uteg s rupom. Poseban je nalaz stožastog utega sa životinjskom glavom, većih dimenzija, za tkalački stan koji je također oblikovan kao uteg iz sopotskog naselja Balaca u Mađarskoj

2006, Fig. 10:3,4, Fig. 11,9, Fig. 12:4,9). Ladder-shaped motifs are prominent among decorative motifs (Pl. 5:1,4,5) (Marković 1983, T. 3:7,10; Dimitrijević 1961, T. 9:56,57; Straub 2006, Fig. 12:4,5,9). There is also a barbed-wire motif (Pl. 5:7) (Dimitrijević 1961, T. 11,71, T. 13,88; Marković 1983, T. 3,13), as well as various garlands (T. 4:5,6,7) (Dimitrijević 1979a, sl. 5:17,18, T. 20:10,11), and a grid ornament (T. 5:8) (Straub 2006, Fig. 12,6). These are all features of the latest, i.e. third developmental phase of the Lasinja culture (Dimitrijević 1979a, 159; Marković 1994, 94), and to this we also have to add the first, that is, the earliest appearance of furrow-incision (Pl. 5,11), which is probably a reflection of the partial coexistence of the 3rd phase of the Lasinja culture and the early Retz-Gajary culture (Dimitrijević 1979a, 177). However, we also have here the usual V-motif (Pl. 3,5, Pl. 5,1) (Marković 1977, T. 4,1, T. 6,5), curved and filled pointed stripes (Pl. 5,5) (Marković 1994, T. 21,3), an X-motif bordered by small dots (Pl. 3,4), a type of a vertical zigzag bordered by small dots (Pl. 3,7), interlaced broken lines (Pl. 3,8, Pl. 5,1,2) (Dimitrijević 1979a, sl. 5,16), an A-motif with small dots (Pl. 3,9) (Marković 1977, T. 8:5,6), as well as clusters of small depressed motifs (Pl. 4,8, Pl. 5,11).

Standing out among the other discovered objects are characteristic ceramic spoons with a hole for a wooden handle (Marković 1977, T. 5,8; Homen 1990, sl. 4:1,2; Balen 2008), of which as much as 16 pieces were found. Many such pieces were found in the Lengyel settlements in Hungary (Marton 2006, fig. 13:5-13; Regenye 2006, 73, object 32,33). There were also many rectangular and elliptical small pans, of which 10 pieces were found. These objects were frequently found at Eneolithic sites in western Serbia (Blagojević 2005, kat. br. 19) and Hungary (Kaczanowska, Kozłowski 2001, abb. 2,9; Regenye 2006, 73, object 25). A large pear-shaped spool without a hole, narrowed at the top for winding threads, is a particularly interesting find. A small model of a shaft-hole axe has counterparts from the turn of the Eneolithic to the Early Bronze Age, in the material of the latest Vučedol culture in northwestern Croatia (Marković 1981, 238, Apatovac-Hum). Four ceramic spindle whorls have a biconical profile. A small ceramic funnel-shaped object probably served as a child's toy. A small ceramic bead was also found, as well as 7 pieces of discoid weights and a perforated conical weight. A large conical loom weight with an animal head is a unique find. It is shaped similarly to a weight from the Balaca settlement of the Sopot culture in Hungary (Marton 2001, 132, fig. 3).

Stone material is not numerous, consisting of a small amount of small lithics¹⁴ and a fragment of a polished stone shaft-hole axe, of the type known from the eponymous site of Lasinja (Dimitrijević 1961, T. 13,93). Small stone material is known from a number of sites (Marković 1977, T. 5:4-6, T. 8,4; Marković 1983, T. 2:9-10), but it is nowhere very numerous. An elongated bone decorated with notches forming a kind of a diffuse grid was also found.

Among the Croatian authors Stojan Dimitrijević was the one who dedicated most attention to the issue of the Lasinja culture (Dimitrijević 1961; Dimitrijević 1979a). He was also the one who named and mapped it and drew attention to its distribution and origin from the Late Neolithic cultures, primarily

14 Rajna Šošić from the Faculty of Philosophy in Zagreb is currently working on the scientific analysis of the lithic material.

(Marton 2001, 132, fig. 3).

Kameni materijal nije brojan. Radi se o nešto sitne litike¹⁴, te o jednom ulomku uglačane kamene sjekire s rupom, kakve su još poznate na eponimnom lokalitetu Lasinja (Dimitrijević 1961, T. 13,93). Sitni kameni materijal poznat je s više nalazišta (Marković 1977, T. 5:4-6, T. 8:4; Marković 1983, T. 2:9-10), ali nigdje nije naročito brojan. Pronađena je i jedna izdužena kost, ukrašena nasjeckanim linijama koje tvore neku vrstu rijetke mreže.

O problematici lasinjske kulture kod nas najviše je pisao Stojan Dimitrijević (Dimitrijević 1961; Dimitrijević 1979a), koji joj je i dao ime te je kartirao i naglasio njezinu rasprostranjenost kao i porijeklo iz kultura kasnog neolitika, prvenstveno sopotske i lenđelske. Kako je izgledalo do prije petnaestak godina, krajnji istočni lokalitet ove kulture bio je Vučedol (Marković 1994, 16). No danas je nazočnost ove kulture registrirana i u rudarskim bazenima Kolubare u zapadnoj Srbiji (Blagojević 2005), što je vjerojatno odraz lasinjske potrage za rudom potrebnom za izradu bakrenih predmeta. I u Čepinskim Martincima, blizu Beketinaca, pronađena je u najnovijim istraživanjima bakrena igla¹⁵, a spominju se i nalazi bakrenih šila s više lasinjskih lokaliteta istraženih na trasi međunarodne ceste između Osijeka i Đakova (Balen 2008, katalog izložbe). K tomu valja dodati primjedbu o brojnim bakrenim križastim sjekirama u sjevernoj Hrvatskoj (Marković 1994, 111-114), a valja naglasiti mogućnost da su one proizvod lasinjske kulture, tim prije što to i vremenski odgovara pojavi ovog tipa oružja u Karpatskoj kotlini (kulture Tiszapolgar i Bodrogkeresztur).

Uz ove podatke o rasprostranjenosti lasinjske kulture navodimo i korekciju atribucije slojeva s tela Pepelana blizu Virovitice (Minichreiter 1990, 29-37): tri stambena horizonta, koja su pri prvoj atribuciji pripisana Retz-Gajary kulturi, pripadaju ipak kasnoj lasinjskoj kulturi, koja ima i elemente slične recgajarskima, zbog čega je i došlo do pogrešne atribucije. Tako se u Pepelani nalaze jezičaste ukrašene drške (Minichreiter 1990, sl. 18:1,2), ljestvičasti motivi (Minichreiter 1990, sl. 17,3, sl. 18,2, sl. 19,2), mrežasti motivi (Minichreiter 1990, sl. 17:14,15, sl. 19:1,3-5), girlande (Minichreiter 1990, sl. 19,6), točkasto ukrašavanje ručke (Minichreiter 1990, sl. 20,7), što ovaj tel djelomice veže uz isti razvojni stupanj kao i Beketince.

Dimitrijević je kartirao lasinjska nalazišta u Hrvatskoj, sjevernoj Bosni, Sloveniji, zapadnoj Mađarskoj te Austriji (Dimitrijević 1979a, 139-142). Valja naglasiti da se nalazi iz Slovenije danas razdvajaju na one koji pripadaju lenđelskoj kulturi i one koji pripadaju čistoj lasinjskoj kulturi (Guštin 2005), a u mađarskoj literaturi se također stalno dopunjavaju podaci o lasinjskoj i recgajarskoj kulturi (Kalicz 1974; Kalicz 1991; Somogyi 2000; Straub 2006 itd.), koje su u početku tretirane kao jedna cjelina od tri razvojna stupnja. Treba napomenuti da je danas prihvaćeno datiranje lasinjske kulture u srednji eneolitik, tj. nakon stupnjeva Lengyel 3 i Sopot 4, koji se datiraju u rani eneolitik (Marković 1994, 28-29). U apsolut-

the Sopot and Lengyel cultures. Fifteen years ago it appeared that Vučedol was the easternmost site of this culture (Marković 1994, 16). However, today the presence of this culture was registered also in the mining basins of the Kolubara river in western Serbia (Blagojević 2005), which is probably a reflection of the search of the bearers of the Lasinja culture for the ore needed for production of copper objects. Čepinski Martinci near Beketinci was another site that recently yielded a copper pin¹⁵, and there is also a mention of the finds of copper awls from several sites of the Lasinja culture investigated on the route of the international highway between Osijek and Đakovo (Balen 2008, Exhibition Catalogue). To this one should also add the comment about a number of copper axe-adzes in northern Croatia (Marković 1994, 111-114), while laying emphasis on the possibility that they may have been a product of the Lasinja culture, all the more so as this corresponds chronologically to the appearance of this type of weapons in the Carpathian Basin (the Tiszapolgar and Bodrogkeresztur cultures).

In addition to these data on the distribution of the Lasinja culture, we mention also a correction of the attribution of the layers from the Pepelana tell near Virovitica (Minichreiter 1990, 29-37): three residential horizons at first attributed to the Retz-Gajary culture belong after all to the late Lasinja culture, which is characterized by certain elements resembling the Retz-Gajary ones, which caused the incorrect attribution in the first place. Thus in Pepelana one finds decorated tongue-shaped handles (Minichreiter 1990, sl. 18:1,2), ladder-shaped motifs (Minichreiter 1990, sl. 17,3, sl. 18,2, sl. 19,2), grid motifs (Minichreiter 1990, sl. 17:14,15, sl. 19:1,3-5), garlands (Minichreiter 1990, sl. 19,6), handles with dotted decoration (Minichreiter 1990, sl. 20,7), which links this tell partly with the same developmental phase as Beketinci.

Dimitrijević mapped the sites of the Lasinja culture in Croatia, northern Bosnia, Slovenia, western Hungary and Austria (Dimitrijević 1979a, 139-142). It is necessary to stress that the finds from Slovenia are presently separated into those belonging to the Lengyel culture and those that belong to the pure Lasinja culture (Guštin 2005), while in the Hungarian literature the data on the Lasinja and Retz-Gajary cultures, at first treated as a single entity with three developmental phases, are constantly complemented (Kalicz 1974; Kalicz 1991; Somogyi 2000; Straub 2006 etc.). It is necessary to mention that it is presently accepted that the Lasinja culture belongs to the Middle Eneolithic, i.e. that it comes after phases Lengyel 3 and Sopot 4, which are dated to the Early Neolithic (Marković 1994, 28-29). In absolute dates, this is the period around 4000 B.C., but for a more precise dating one should wait for the results of radiocarbon analyses of samples of charred wood from this site. The site of Blizna near Jakopovec near Varaždin yielded for the II phase of the Lasinja culture a calibrated date of 4 208±91 B.C. (Bekić 2006, 95, 98).

THE EARLY MEDIAEVAL SETTLEMENT

Three smaller pits with fragments of early mediaeval pottery were found in the northeastern part of the investigated area with a flyover and access roads. The pits pene-

¹⁴Znanstvena analiza litičkog materijala je u tijeku kod Rajne Šošić na Filozofskom fakultetu u Zagrebu.

¹⁵Zahvaljujemo na podacima voditelju tih istraživanja Hrvoju Kalafatiću iz Instituta za arheologiju u Zagrebu.

¹⁵ Thanks for this piece of information are due to the investigation manager, Hrvoje Kalafatić from the Institute of Archaeology in Zagreb.

nim datumima, to je vrijeme oko 4000 godina prije Krista, no za precizniju dataciju valja pričekati rezultate radiokarbonskih analiza uzoraka pougljenjenog drveta s ovoga lokaliteta. Lokalitet Blizna kod Jakopovca blizu Varaždina dao je za II. stupanj lasinjske kulture kalibrirani datum 4208±91 godine prije Krista (Bekić 2006, 95, 98).

RANOSREDNJOVJEKOVNO NASELJE (Plan 2)

U sjeveroistočnom dijelu istraženog prostora autoceste s nadvožnjakom i pristupnim cestama otkrivene su tri manje jame s ulomcima ranosrednjovjekovne keramike, koje su bile ukopane u objekte prapovijesnoga lasinjskog naselja.¹⁶ Sjeverna, zapadna i južna jama bile su ukopane u međusobnom razmaku od 15 i 20 m od sjevera prema jugu. Sjeverna jama, kružnog tlocrta promjera 1,40 m, bila je ukopana do dubine od 50 cm uza sjeverni rubni dio terena blizu kanala koji je odvajao današnju poljsku cestu od istraženog terena. Zapadna jama bila je ukopana gotovo u središtu zapadne prostorije velike kuće 4. Jama tlocrtnog oblika kao izduženi pravokutnik sa zaobljenim stranicama, dužine 2,5 m i širine 1 m, bila je ukopana 60 cm ispod razine poda lasinjske kuće. Južna jama, sličnog tlocrta kao zapadna, samo manjih dimenzija 1,80 x 1,0 m, dubine 30 cm, bila je ukopana unutar dvorišta (zemunice 3) južno od kuće 5.¹⁷ U jamama su otkriveni ulomci 44 posude. Premda bi se moglo razdvojiti grublje posude s usitnjenim kamenčićima u fakturi, čini se da se ovo posuđe ne može razlikovati od većine ostalih posuda koje u fakturi imaju samo primjese pijeska: naime, podjednake su kvalitete, izvana dosta dobro oblikovane, a iznutra neravne. Preteže crvenosmeđa boja te nijanse sive i crvene boje.

U sjevernoj jami nalaze se lonci sa žlijebljenim i urezanim linijama, jednostavni nerazvijeni obodi, jednostavna valovnica te žigosanje horizontalnim nizovima kvadratića.

Iz zapadne jame također se izdvaja nekoliko posuda. Prije svega, tu je dio bikoničnoga kotlića srednje grube fakture, s kamenčićima kao primjesom (sl. 7,4). U gornjemu dijelu nalazi se jednostruka valovnica, na prijelomu horizontalni niz kratkih kosih zarezova, a dolje su dva horizontalna niza s kapljičastim ubodima. Prema analogijama iz staromađarskih nalazišta datira se u 10.-11. st. i pripada tipu 1 ili 2a (Takacs 1996, Abb. 15), kako je kotlić datiran i na lokalitetu Vukovar-Lijeva bara (Demo 1996, kat. br. 61/15). Iz iste jame nalaze se primjerci lonca s dvorednom valovnicom, kao i onom jednoređnom žlijebljenom dublje, no tu se nalaze i češljaste valovnice naizmjenice s nizovima jednostrukih, a na dnu takve posude nalazi se i reljefni znak u obliku mreže. Moramo spomenuti kako se nalaze i lonci s horizontalnim užlijebljenim linijama (Vendtová 1969, Obr. 29,6) te s kosim urezima (sl. 7,2) ispod kojih se ponekad nalaze nizovi kvadratičnih žigova (kvadratični žigovi kod Vendtová 1969, Obr. 15,19). Valja spomenuti i slične nalaze češljastih valovnica i ravnih linija s kraja 9. i početka 10. st. na lokalitetu Virovitica-Kiškorija jug (Sekelj

16 Vjerojatno se preostali dio ranosrednjovjekovnog naselja prostirao dalje prema sjeveru ispod današnje poljske ceste i na oranicama sjeverno od zadanog terena za istraživanje.

17 Zanimljiv je podatak da su sve tri jame bile ukopane uz drvene pregrade pa nije posve jasno jesu li drvene pregrade izgrađene istodobno kao sastavni dio ovih jama u svrhu njihove zaštite ili su jame izgrađene uz ostatke prapovijesnih pregrada.

trated the structures of the prehistoric Lasinja settlement.¹⁶ The northern, western and southern pits were dug at a distance of 15 and 20 m from each other from the north towards the south. The northern pit had a circular layout 1,40 m in diameter. It was dug to the depth of 50 cm along the northern edge of the excavation area near the channel that separated the present field road from the investigated zone. The western pit was dug almost in the centre of the western room of large house 4. The layout of the pit resembled an elongated rectangle with rounded sides, 2,5 m long and 1 m wide, dug 60 cm below the floor level of the Lasinja house. The layout of the southern pit was similar to the western pit, only it was smaller, 1,80 x 1,0 m, and 30 cm deep. The pit was dug within the courtyard (pit-house 3) south of house 5.¹⁷ Fragments belonging to 44 vessels were discovered in the pits. Although it is possible to separate coarser vessels with ground small stones in its fabric, it seems that these vessels cannot be distinguished from most other vessels with only sand as addition in their fabric: their quality is approximately the same, they are quite well shaped on the outside and uneven on the inside. The dominant colour is red-brown, as well as hues of grey and red.

The northern pit yielded pots with grooved and incised lines, simple undeveloped rims, a simple wave-line and stamping with horizontal rows of small squares.

The western pit also produced several vessels. First of all, there is a part of a small biconical ceramic kettle of moderately coarse fabric, with small stones as an addition (Fig. 7,4). A single wave-line decorates the upper part, a horizontal row of short slanting notches is at the break, while two horizontal rows with teardrop-shaped stabblings are on the lower part. The analogies from the Early Hungarian sites date it to the 10th-11th cent. and it belongs to type 1 or 2a (Takacs 1996, Abb. 15). This is also the date attributed to the small ceramic kettle from the site of Vukovar-Lijeva Bara (Demo 1996, kat. br. 61/15). The same pit yielded examples of pots with a double wave-line, as well as a single wave-line grooved somewhat deeper. There are also comb-shaped wave-lines alternating with rows of single ones, and there is also a grid-shaped relief mark at the bottom of one such vessel. We have to mention the finds of pots with horizontal grooved lines (Vendtová 1969, Obr. 29,6) and those with oblique incisions (Fig. 7,2), sometimes with rows of square-shaped stamps below (square-shaped stamps in Vendtová 1969, Obr. 15,19). Similar finds of comb-shaped wave-lines and straight lines from the end of the 9th and the beginning of the 10th cent. at the site of Virovitica-Kiškorija South are also worthy of mention (Sekelj Ivančan, Tkalčec 2008, 121, Cat. 33).

The southern pit yielded pots with simple rims and comb-shaped wave-lines on the shoulder and belly (Fig. 7,1), and there is also a comb-shaped wave-line in a row on the inside of the rim. One pot has a bottom with a ray-shaped

16 The remaining part of the early mediaeval settlement probably extended further north beneath the present-day field road and on the plough-fields north of the area planned for the investigation.

17 It is interesting that all three pits were dug next to wooden partitions, and it is not entirely clear whether the latter were built at the same time as integral parts of these pits to protect them, or the pits were dug next to the remains of prehistoric partitions.



Sl. 7 Ranosrednjovjekovno naselje – keramičke posude (snimila: K. Minichreiter)
 Fig. 7 The early mediaeval settlement – ceramic vessels (photo: K. Minichreiter)

Ivančan, Tkalčec 2008, 121, Cat. 33).

Iz južne jame potječu lonci s jednostavnim obodima i češljastim valovnicama na ramenu i trбуhu (sl. 7,1), a nalazi se i češljasta valovnica u nizu na obodu iznutra. Jedan lonac ima dno s reljefnim zrakastim motivom (sl. 7,1) (Chropovsky 1971, Obr. 17,2 - Nitra, 9. st.). Analogije češljastim valovnicama s unutarnje strane oboda (sl. 7,3) nalaze se i na lokalitetu Delovi-Grede I u Podravini (Marković 1984, T. 10,1 - objekt 15, datacija 10.-11. st.), gdje se nalaze i češljaste valovnice (Marković 1984, T. 9:2-4,6 - datacija 9.-10. st.) kao i na lokalitetu Koprivnički Bregi-Seče (Marković 1982, T. 3,6-12, datacija 9.-10. st.) te lokalitetu Koprivnica - Cerine III (Marković 1986, T. 1,2, datacija 9.-10. st.). Dobre analogije nalaze se npr. u Pobedimu u Slovačkoj (Vendtová 1969, Obr. 15:14,18 - 9. st.). No češljaste valovnice i slične obode nalazimo i na lokalitetu Ledine kod Torčeca, gdje se radiokarbonske datacije kreću od 9. do 11. st. (Sekelj Ivančan et al. 2005, 169, T. 4:23,24,27, T. 5,29). U većoj blizini Beketincina nalaze se dobre analogije češljastim valovnicama i sličnom posuđu u Čepinu (Sekelj Ivančan 1998, 15-16,

motif in relief (Fig. 7,1) (Chropovsky 1971, Obr. 17,2 - Nitra, 9th cent.). Analogies for comb-shaped wave-lines on the inside of the rim (Fig. 7,3) are found also at the site of Delovi-Grede I in the Podravina region (Marković 1984, T. 10,1 - structure 15, dating from the 10th-11th cent.), which yielded also comb-shaped wave-lines (Marković 1984, T. 9:2-4,6 - dating from the 9th-10th cent.) as well as at the site of Koprivnički Bregi-Seče (Marković 1982, T. 3,6-12, dating from the 9th-10th cent.) and the site of Koprivnica - Cerine III (Marković 1986, T. 1,2, dating from the 9th-10th cent.). Good analogies are found also, for instance, in Pobedim in Slovakia (Vendtová 1969, Obr. 15:14,18 - the 9th cent.). However, comb-shaped wave-lines and similar rims are found also at the site of Ledine near Torčec, where radiocarbon dates range from the 9th to the 11th cent. (Sekelj Ivančan et al. 2005, 169, T. 4:23,24,27, T. 5,29). Closer to Beketinci, good analogies for comb-shaped wave-lines and similar vessels are found in Čepin (Sekelj Ivančan 1998, 15-16, T. 3:16-20), Josipovac (Sekelj Ivančan 1998, 28, T. 17,115), Osijek (Sekelj Ivančan 1998, 44, T. 32,210,

T. 3:16-20), Josipovcu (Sekelj Ivančan 1998, 28, T. 17,115), Osijeku (Sekelj Ivančan 1998, 44, T. 32,210, T. 33:212-218), Bijelom Brdu (Sekelj Ivančan 1998, sl.35), Koški (Sekelj Ivančan 1998, 34, T. 23,149) i Gornjoj Vrbi (Sekelj Ivančan 1998, 18, T.6:40, 42, 46, T. 7: 48-55; Miškiv 2004, T. 1:2,3, T. 2:1-3, T. 3:1,2, T. 4:1-4).

Prema analogijama sudeći, ranosrednjovjekovni dio ovoga naselja morao bi se datirati, prije svega, zbog nalaza bikoničnoga keramičkoga kotlića, u 10. na 11. stoljeće. Tomu ne proturječe ni nalazi češljastih, kao i ostalih, valovnica te obodi lonaca.

Velika zaštitna istraživanja lokaliteta Bentež kod Bekećinaca omogućila su nove spoznaje o izgledu jednog u nizu naselja nositelja lasinjske kulture srednjeg eneolitika, kao i o značajkama keramičkoga materijala završne faze ove kulture. U ranosrednjovjekovnom dijelu naselja ističe se rijedak nalaz bikoničnoga keramičkoga kotlića, kakav je češći u mađarskim nalazištima istoga razdoblja. Međutim, to ne znači automatski i nazočnost staromađarskog etnikuma na ovim prostorima, koji su u to vrijeme naseljeni slavenskom populacijom. Nalaz kotlića upotpunjuje dosadašnja saznanja o međusobnim vezama ova dva etnikuma u ranosrednjovjekovnom razdoblju.

T. 33:212-218), Bijelo Brdo (Sekelj Ivančan 1998, sl. 35), Koška (Sekelj Ivančan 1998, 34, T. 23,149) and Gornja Vrba (Sekelj Ivančan 1998, 18, T.6:40, 42, 46, T. 7: 48-55; Miškiv 2004, T. 1:2,3, T. 2:1-3, T. 3:1,2, T. 4:1-4).

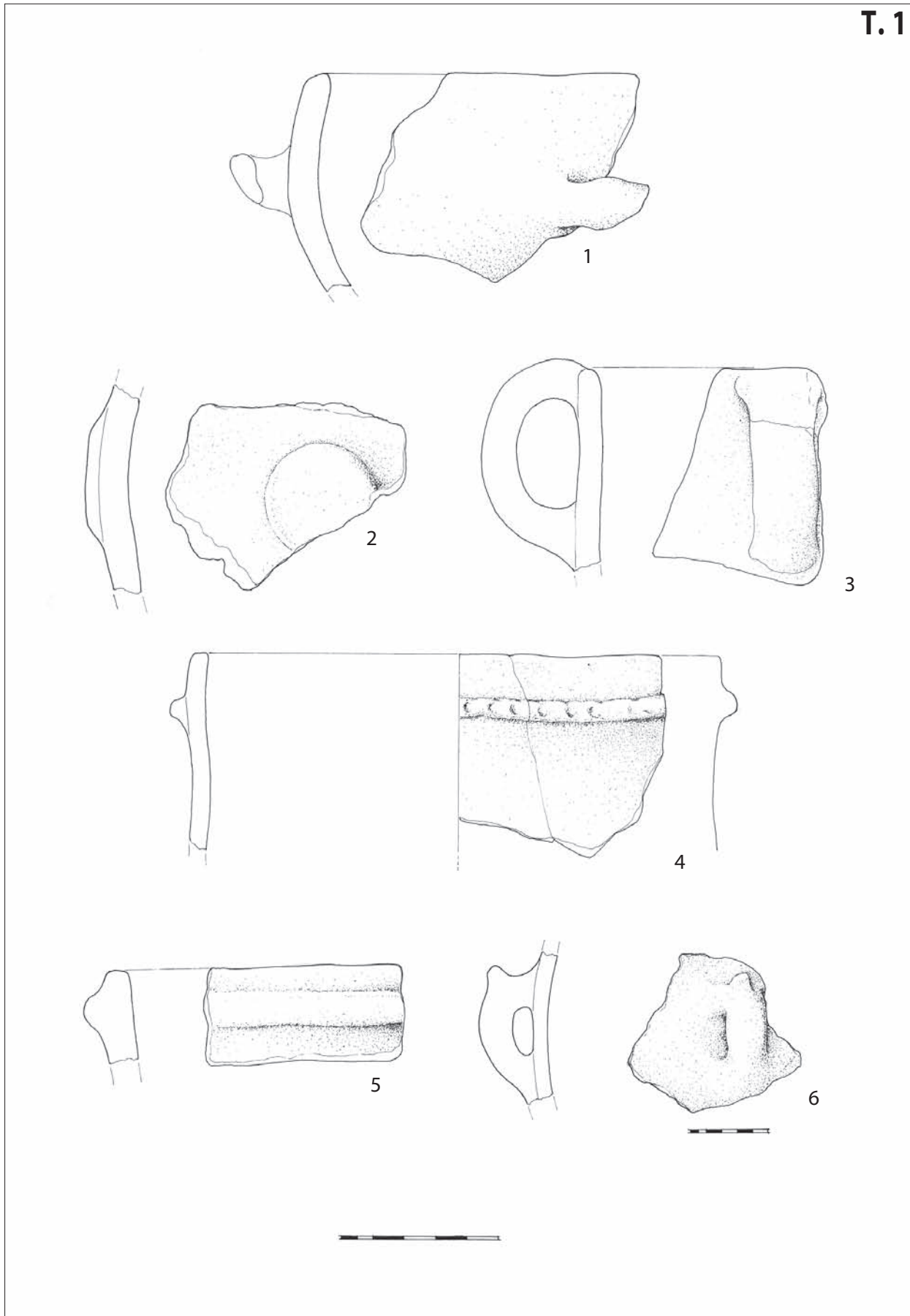
The early mediaeval part of this settlement, based on the analogies, particularly the find of the small biconical ceramic kettle, should be dated to the transition from the 10th to the 11th century. This is not contradicted by the finds of comb-shaped and other wave-lines or the pot rims.

Large-scale salvage investigations of the site of Bentež near Bekećinci led to new understanding regarding the appearance of one among many settlements of the bearers of the Middle Eneolithic Lasinja culture, as well as the features of ceramic material of the final phase of this culture. Prominent within the early mediaeval part of the settlement is the rare find of a small biconical ceramic kettle, which appears more often in the Hungarian sites of the same period. However, this does not automatically imply the presence of the Early Hungarian ethnos in these areas, settled at the time by a Slavonic population. The find of the small kettle complements our previous knowledge on the mutual relationship of these two ethnic groups in the early mediaeval period.

LITERATURA / BIBLIOGRAPHY

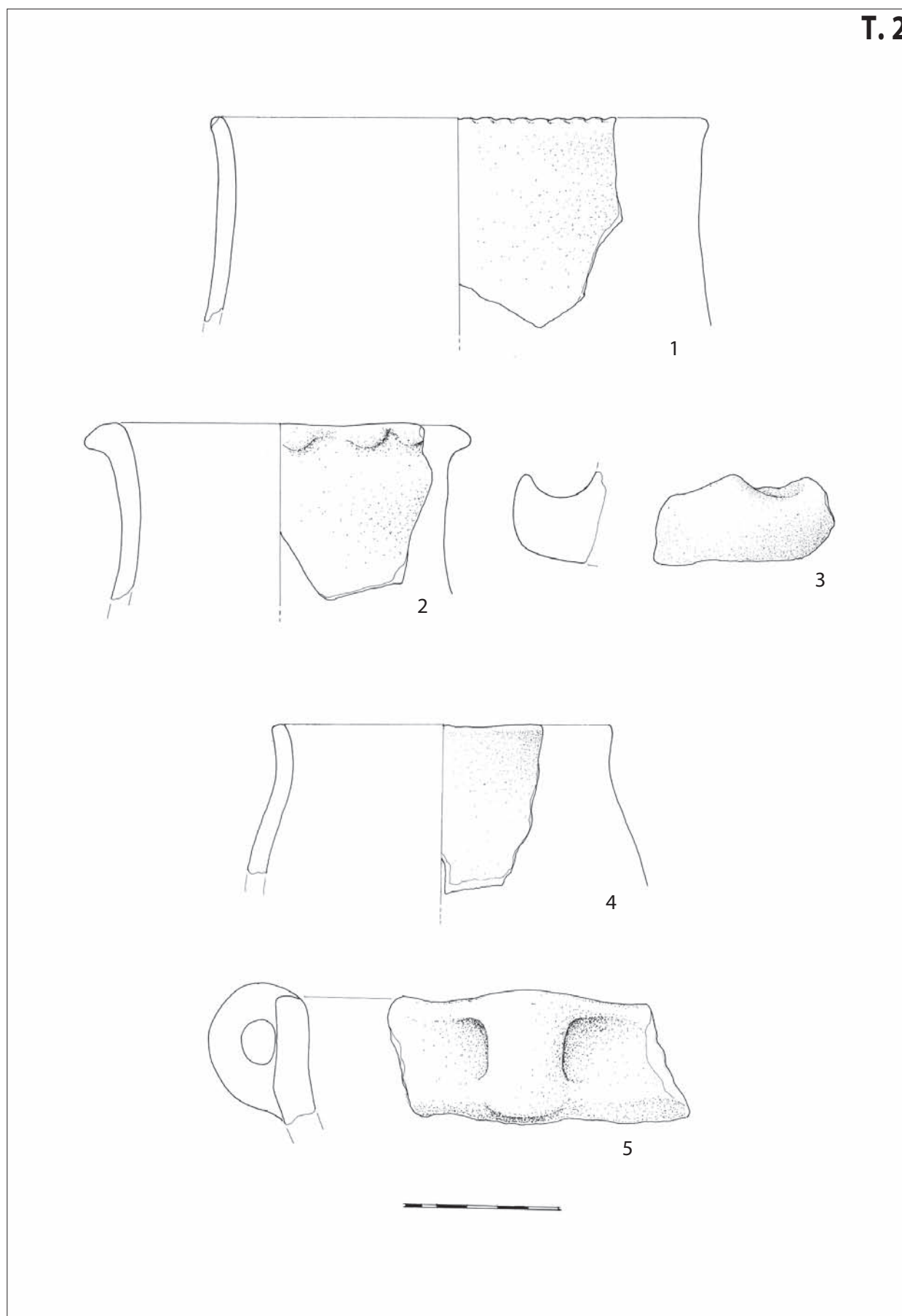
- Balen, J., 2008, *Rezultati zaštitnih arheoloških istraživanja na trasi autoceste Beli Manastir – Osijek – Svilaj*, Zagreb, katalog izložbe
- P. Barna, J., Kreiter, E., 2006, Middle Copper Age settlements at Zalaegerszeg-Andráshida, Gébárti tó (II): preliminary results, *ZalaiM* 15, Zalaegerszeg, 47 – 77.
- Bekić, L., 2006, *Zaštitna arheologija u okolici Varaždina, Arheološka istraživanja na autocesti Zagreb – Goričan i njezinim prilaznim cestama*, Zagreb
- Blagojević, M., 2005, Keramičke posude iz ranoeneolitske kuće s lokaliteta Livade, Kalenić, *Kolubara* 4, Beograd, 31-77.
- Chropovsky, B., 1971, Vyvoj a stav archeologického výskumu doby Velkomoravskej, *SlovArch* XIX-2, Bratislava, 581-681.
- Demo, Ž., 1996, Vukovar - Lijeva bara, Katalog izložbe, AMZ.
- Dimitrijević, S., 1961, Problem eneolita u sjeverozapadnoj Jugoslaviji, *Opusca* V, Zagreb
- Dimitrijević, S., 1978, Neolit u sjeverozapadnoj Hrvatskoj, *Arheološka istraživanja u sjeverozapadnoj Hrvatskoj*, IzdanjaHAD sv. 2, Zagreb, 71 – 128.
- Dimitrijević, S., 1979, Sjeverna zona, Sopotska kultura, *PJZ* II (neolit), Sarajevo, 263-303.
- Dimitrijević, S., 1979a, Lasinjska kultura, *PJZ* III (eneolitsko doba), Sarajevo, 137-181.
- Dimitrijević, S., Težak-Gregl, T., Majnarić-Pandžić, N., 1998, Sopotska kultura, *Prapovijest*, Zagreb, 82 – 88.
- Guštin, M., 2005 (ur.), Prvi poljedelci-savska skupina lengyelske kulture, *Založba Annales*, Koper
- Homen, Z., 1990, Lokaliteti lasinjske kulture na križevačkom području, *Arheološka istraživanja u Podravini i kalničko – bilogorskoj regiji*, IzdanjaHAD 14, Zagreb, 51-68.
- Ilon, G., Farkas, C., 2001, Houses of the Late-Lengyel Settlement at the Boundary of Szombathely; *Lengyel Culture in Western Hungary and Beyond*, *Wesprém*, 55-60.
- Kaczanovska, M., Kozłowski, J., 2001, Umvadlungen in der Stilistik der Keramik und die Silex-Industrien der Lengyel-Kultur, Sites and Stones: Lengyel Culture in Western Hungary and Beyond, *Wesprém*, 13 – 25.
- Kalafatić, H., 2009, Zaštitna istraživanja lokaliteta Čepinski Martinci – Dubrava na trasi Autoceste Beli Manastir – Osijek – Svilaj 2007. i 2008., *Ala* sv. 5, Zagreb, 20-26.
- Kalicz, N., 1974, A balatoni csoport emlékei a Del-Dunántúlon (Funde der Balaton-Gruppe in Suedtransdanubien), *JPME* XIV-XV/1969-70, Pecs, 75-96, T.I-XII.
- Kalicz, N., 1991, Beitrage zur Kenntnis der Kupferzeit im ungarischen Transdanubien; *Die Kupferzeit als historische Epoche* (Ed.J.Lichardus), Bonn, 347-387.
- Kavur, B., Tomaž A., Mileusić Z., 2006, Sodolek – naselje bakrene dobe; *Od Sopota do Lendela, Prispjevki o kamenodobnih in bakrenodobnih kulturah med Savo in Donavo*, Koper, 121 -128.
- Krznarić Škrivanko, M., 2006, Istraživanja na Sopotu, *Od Sopota do Lendela, Prispjevki o kamenodobnih in bakrenodobnih kulturah med Savo in Donavo*, Koper, 11 – 19.
- Marijan, B., 2006, Neolitičko naselje Dubovo-Košno kod Županje; *Od Sopota do Lendela, Prispjevki o kamenodobnih in bakrenodobnih kulturah med Savo in Donavo*, Koper, 43 – 51.
- Marković, Z., 1977, Problem eneolita u našičkoj regiji, *AVes* 27/1976, Ljubljana, 44-46.
- Marković, Z., 1981, Vučedolska kultura u sjeverozapadnoj Hrvatskoj, *AVes* 32, Ljubljana, 219-290.
- Marković, Z., 1982, Rezultati istraživanja prethistorijskih lokaliteta oko Koprivnice 1981. godine, *PodrZbor* 82, Koprivnica, 239-264.
- Marković, Z., 1983, Prilog poznavanju razvijene i kasne lasinjske kulture u sjeverozapadnoj Hrvatskoj, *PodrZbor* 83, 251-262.
- Marković, Z., 1984, Prilog poznavanju kontinuiteta naseljavanja terena oko Delova, *PodrZbor* 84, Koprivnica, 295- 319.
- Marković, Z., 1986, Početna istraživanja lokaliteta Cerne III, *PodrZbor* 86, Koprivnica, 152-160.
- Marković, Z., 1994, *Sjeverna Hrvatska od neolita do brončanog doba*, Koprivnica
- Marton, E., 2001, New Approaches to the Spinning and Weaving of the Neolithic-Aeneolithic People in the Carpathian basin (The „Shrewd Princess“ and Looms), Sites and Stones: *Lengyel Culture in Western Hungary and Beyond*, *Wesprém*, 131 – 142.
- Marton, E., 2006, Stone tools at the Sormás, Mántai-dúló site, *ArchIn-vHung* 2005, Budapest 2006, 40 – 60.
- Miklik Lozuk, L., 2005, Kruševica, Njivice, Slavonski Šamac, zaštitno iskopavanje, *HAG* 1/2004, Zagreb, 37-38.
- Miklik Lozuk, L., 2006, Kruševica, Njivice, Slavonski Šamac, zaštitno iskopavanje, *HAG* 2/2005, Zagreb: 51-53.
- Minichreiter, K., 1990, Prvi rezultati arheoloških istraživanja u Pepelana godine 1985., *Arheološka istraživanja u Podravini i kalničko – bilogorskoj regiji*, IzdanjaHAD 14, Zagreb, 19-38.
- Minichreiter, K., 1992, Starčevačka kultura u sjevernoj Hrvatskoj, Zagreb
- Minichreiter, K., 2001, The architecture of Early and Middle Neolithic settlements of the Starčevo culture in Northern Croatia, *DocPraeh* XXVIII, Ljubljana, 199 – 214.
- Miškić, J., 2004, Srednjovjekovno naselje „Vrbsko polje-Bukovlje“ Gornja Vrba, *VMBP* 9, Slavonski Brod, 65 – 75.
- Neugebauer-Maresch, Ch., 1995, Mittelneolithikum: *Die Bemaltekeramik, Jungsteinzeit im Osten Österreichs*, St. Pölten-Wien, 57-109.
- Regenye, J., 2006, Kaposvár-Gyertyános, die Siedlung der Lengyel-Kultur, *Od Sopota do Lengyela, Annales Mediterranea*, Koper, 67-74.
- Regenye, J., 2007, The late Lengyel Culture in Hungary as reflected by the excavation at Veszprém: *The Lengyel, Polgár and related cultures in the Middle/Late neolithic in Central Europe* (edit. J. Kozłowski i P. Raczky), Kraków, 381-396.
- Ruttkay, E., 1995, Bisamberg-Oberpullendorf-Gruppe, *Jungsteinzeit im Osten Österreichs*, St. Pölten-Wien, 118-128.
- Sekelj Ivančan, T., 1998, *Arheološka slika naselja savsko-dravskog međurječja Hrvatske od 10. do 13. stoljeća*, doktorska disertacija, Zagreb (rukopis)
- Sekelj Ivančan, T., Tkalčec, T., Slovenec, D., Lugović, B., 2005, Analiza keramike s ranosrednjovjekovnog naselja na položaju Ledine kod Torčeca, *PrilInstArheolZagreb* sv. 22/2005, Zagreb, 141-186.
- Sekelj Ivančan, T., Tkalčec, T., 2008, Medieval settlements in the Virovitica Region of Drava River Basin in the period from the 7th to the 11th centuries: *Srednji vek, Arheološke raziskave med Jadranskim morjem in Panonske nižino* (ur. M. Guštin), Ljubljana, 113-128.
- Somogyi, K., 2000, A Balaton-Lasinja kultúra leletanyaga Somogy megyében (Die Funde der Balaton-Lasinja Kultur im Komitat Somogy), *CommArchHung*, Budapest, 5-48.
- Straub, P., 2006, Middle Copper Age Settlement at Sormás, *ArchIn-vHung* 2005, Budapest, 33-60.
- Takacs, M., 1996, Formschatz und Chronologie der Tongefässe des 10.-14. Jahrhunderts der Kleinen Tiefebene, *ActaArchHung* XLVIII, fasc. 1-3, Budapest, 135-195.
- Vendtová, V., 1969, Slovanske osídlenie Pobedima a okolia, *SlovArch* XVII-1, Bratislava, 119 – 232.
- Virag, Z. M., 2005, Middle Copper Age Ceramic Finds from Zalavár-Basasziget (Some Considerations about the typology and chronology of the Balaton-Lasinja Culture), *ZalaiM* 14, Zalaegerszeg, 37-52.
- Virag, Z. M., Figler A., 2007, Data on the settlement history of the Late Lengyel Period of the Transdanubia on the basis of two sites from the Kisalföld (Small Hungarian Plain): *The Lengyel, Polgár and related cultures in the Middle/Late neolithic in Central Europe* (edit. J. Kozłowski i P. Raczky), Kraków, 345-364.
- Wiewegh, Z., Revald-Radolić, V., 2007, Autocesta V-c, dionica Osijek-Đakovo, AN 18 Beketinci-Bentež, *HAG* 3/2006, Zagreb 2007, 7-9.
- Žižek, I., 2006, Eneolitska naselbina Hardek: *Od Sopota do Lendela, Prispjevki o kamenodobnih in bakrenodobnih kulturah med Savo in Donavo*, Koper, 129 – 140.

T. 1



T. 1 Gruba keramika lasinjske kulture (crtala: M. Galić)
Pl. 1 Coarse pottery of the Lasinja culture (drawing: M. Galić)

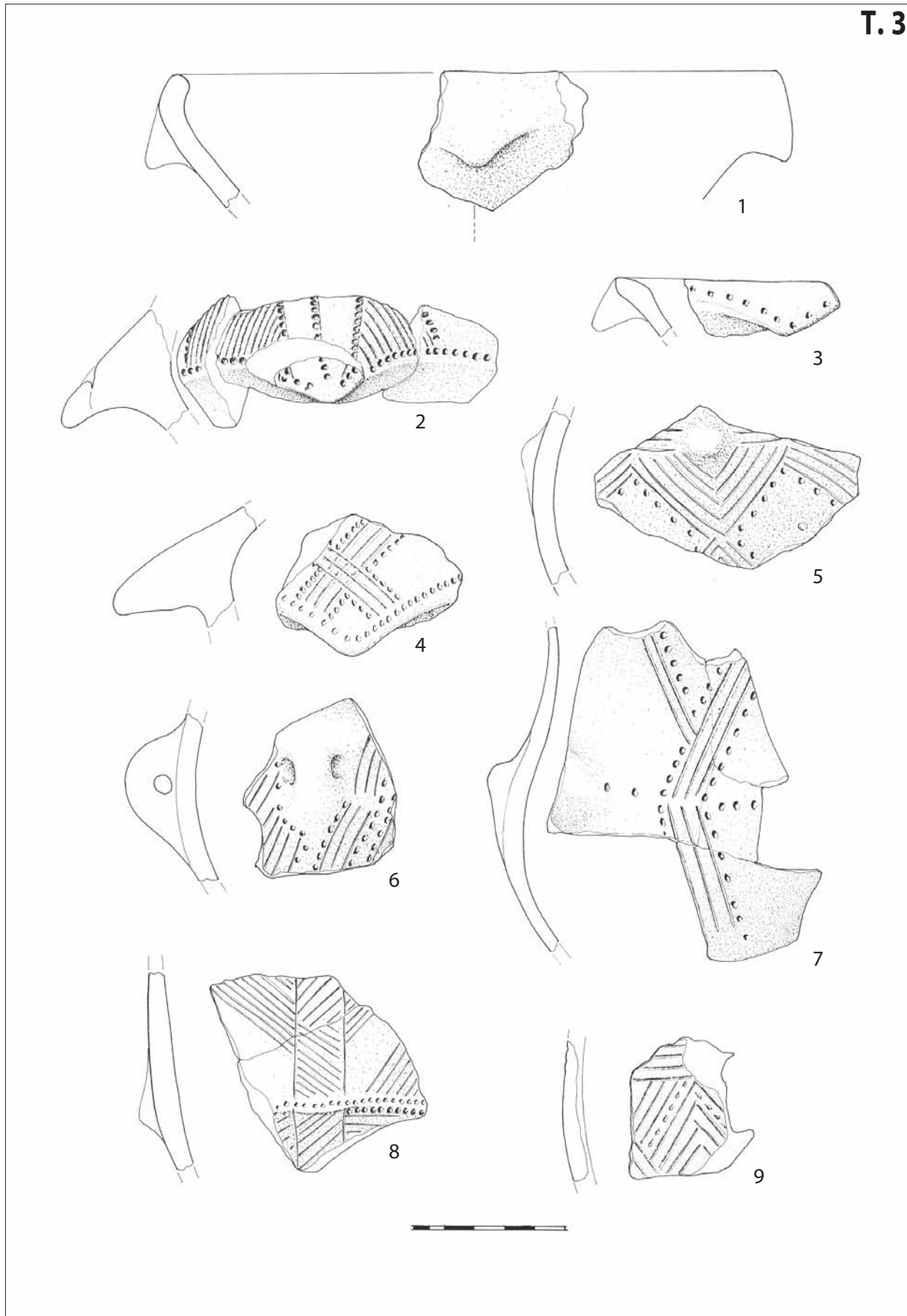
T. 2



T. 2 Gruba keramika lasinjske kulture (crtala: M. Galić)

Pl. 2 Coarse pottery of the Lasinja culture (drawing: M. Galić)

T.3



T. 3 Fina ukrašena keramika lasinjske kulture (crtala: M. Galić)

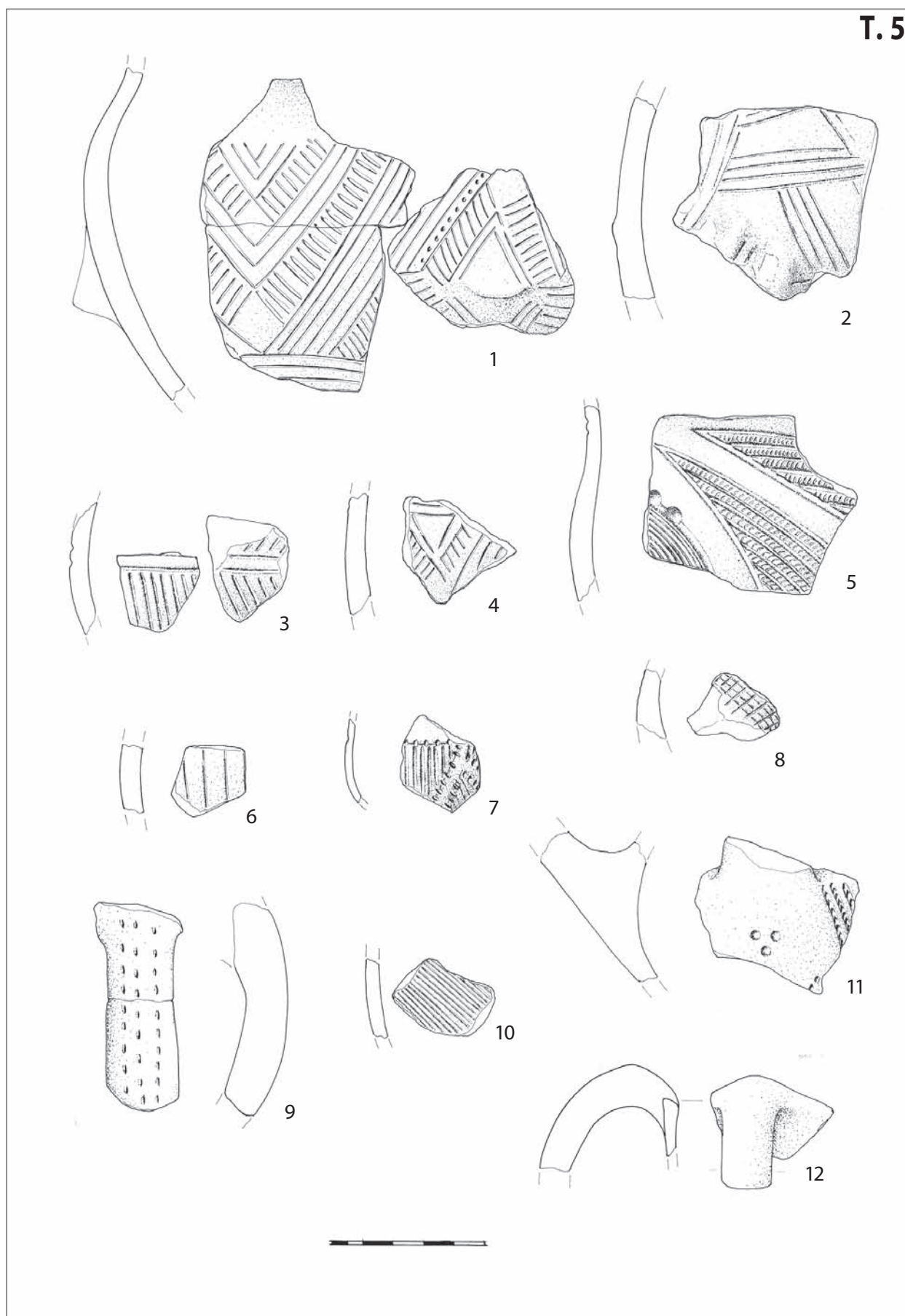
Pl. 3 Fine decorated pottery of the Lasinja culture (drawing: M. Galić)

T. 4



T. 4 Fina ukrašena keramika lasinjske kulture (crtala: M. Galić)

Pl. 4 Fine decorated pottery of the Lasinja culture (drawing: M. Galić)



T. 5 Fina ukrašena keramika lasinjske kulture (crtala: M. Galić)
Pl. 5 Fine decorated pottery of the Lasinja culture (drawing: M. Galić)