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Domagoj PERKIĆ & Daria LOŽNJAK DIZDAR

KASNOBRONČANODOBNA OSTAVA SIČA/LUČICA

THE SIČA/LUČICA LATE BRONZE AGE HOARD

Izvorni znanstveni članak / Original scientific paper

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U radu se objavljuje kasnobrončanodobna ostava Siča/Lučica pronađena na Kordunu, nedaleko od Karlovca. Veći dio ostave pronađen je na sekundarnome mjestu, kamo je dospio iskopavanjem zemlje. S obzirom na to da je nalaz ostave zabilježen izvan konteksta naselja ili groblja, otvaraju se pitanja o svrsi takva načina deponiranja predmeta te uopće o fenomenu ostava i njihovim mogućim značenjima. Prema količinskom sastavu (287 predmeta) i tipološkim karakteristikama predmeta ostava se može pripisati velikim ostavama mješovitoga sastava iz II. faze ostava sjeverne Hrvatske, odnosno pripada vremenu Br D/Ha A.

Ključne riječi: ostava, Kordun, kultura polja sa žarama, Br D, Ha A

This article is a publication of the Siča/Lučica hoard found in the Kordun region, close to the city of Karlovac. Most of the hoard was discovered at a secondary site – the result of its movement during excavation of soil. Since the hoard's discovery was recorded outside of the context of a settlement or cemetery, there is some question as to the purpose for this manner of deposition of items and the phenomenon of hoards in general and their possible significance. Based on the quantity of its contents (287 items) and their typological characteristics, the hoard can be classified among the mixed-content hoards dated to the second phase of the northern Croatian hoards, i.e. the Br D/Ha A periods.

Key words: hoard, Kordun, Urnfield culture, Br D, Ha A

Prostor Banije i Korduna nalazi se u graničnome prostoru središnje i gorske Hrvatske, na području kojim vodi najkraći prirodni put od Panonije prema Jadranu. Okrenutost Pokuplju s jedne strane te povezanost s gorskim područjem na drugoj daju Kordunu stratešku važnost prostora gdje se sijeku važni tisućljetni putovi koji povezuju Panonsku ravninu i prostor *Caput Adriae* te komunikacije koje

The Banija and Kordun regions are in central and highland Croatia, in a territory that constitutes the shortest natural route from Pannonia to the Adriatic Sea. The orientation toward the Kupa River Valley on one side and the ties to highland zones on the other accord Kordun with great strategic importance as an intersection of millennial routes that link the Pannonian plains and the *Caput Adriae*

iz jugoistočnoalpskoga prostora teku prema Lici i balkanskome prostoru. Stoga ne iznenađuju arheološki nalazi kojima obiluje ovaj još nedovoljno istražen prostor. Iz vremena kasnoga brončanog doba, kad se datira i ostava koja je predmet ovoga rada, na ovome prostoru poznato je nekoliko naselja. Manja zaštitna istraživanja obavljena su na gradini Belaj južno od Karlovca, prilikom kojih su pronađeni ostaci nadzemne kuće (Majnarić-Pandžić 1986: 30, sl. 2). Prema pronađenoj keramici život u ovome naselju datiran je u mlađu fazu kulture polja sa žarama, odnosno u vrijeme Ha B (Majnarić-Pandžić 1986: 33, sl. 3–9). Nalazi s gradine Kiringrad dospjeli su u Arheološki muzej u Zagrebu kao slučajni nalazi. Naseljenost te gradine tekla je, uz prekide, od eneolitika do mlađega željeznog doba. Prema keramičkim nalazima i ulomku kamenoga kalupa za lijevanje šupljih sjekira život na gradini u Kiringradu u vrijeme kulture polja sa žarama svakako je postojao, vjerojatno od vremena Br D/Ha A (Balen-Letunić 1987: 11–12, T. 1, T. 10: 13).

Naselje Turska kosa smješteno je uz desnu obalu rijeke Gline na južnom ulazu u Topličku kotlinu. Na toj gradini obavljena su probna iskopavanja, pri čemu je pronađena keramika vremena Ha B (Čučković 1989: 438). Na gradini Turska kosa od metalnih nalaza pronađena je šuplja sjekira koja se također može datirati u Ha B (Čučković 1983: 6, sl. 5). Površinski nalazi s položaja Samograd u selu Pecka također upućuju na naseljenost oko 1000. g. pr. Kr. (Čučković 1984: 14). U vrijeme kasnoga brončanog doba datirano je prema površinskim nalazima i naselje na Nikolinu brdu u Topuskom (Čučković 1986: 9).

Prema sadašnjem stanju istraživanja uz navedena naselja Korduna i Banije nisu poznata groblja iz kasnoga brončanog doba, no objavljeno je nekoliko ostava. Najstarija od njih jest ostava Malička, koja sadrži 124 predmeta i datirana je u vrijeme Ha A1 (Balen-Letunić 1985: 42). O kontekstu nalaza ostave nema detaljnijih podataka (*ibid.*: 35). U III. fazu ostava sjeverne Hrvatske datirana je i ostava Lisine kod Karlovca. Ostava ima obilježja radioničkoga kruga međuriječja Save i Drave i njezin se sadržaj tipološki uklapa u stupanj Ha A (Vinski-Gasparini 1973: 140, T. 97). U isto vrijeme datirana je i ostava Javornik blizu Dvora na Uni, koju također karakterizira radionički krug kulture polja sa žarama u sjevernoj Hrvatskoj (*ibid.*: 140, T. 98–99). Nešto je mlađa ostava Krnjak, koja se sastoji od koplja, šuplje sjekire, pet nanogvica i lučne fibule s tordiranim lukom. Nalaz je vjerojatno pripadao većoj ostavi koja je raznesena (Čučković 1986: 9, sl. 2). Ostava Krnjak datirana je oko 1000. g. pr. Kr. (Čučković 1984: 12).¹

¹ U dosadašnjoj literaturi nalazi iz Krnjaka pripisivani su ostavi nađenoj negdje na području Krnjaka, međutim prilikom terenskog pregleda na slunjskom i krnjačkom području utvrđeno je da pripadaju kosturnome groblju s položaja Dvorište, u blizini prapovijesnoga lokaliteta Umak kod Točka.

and communications from the southeastern alpine zone toward Lika and the Balkans. Therefore it is no surprise that this still inadequately researched area abounds in archaeological treasures. Several settlements are known to have existed in this region in the Late Bronze Age, to which the hoard covered in this work has been dated. The remains of above-ground abodes were found during minor rescue excavations that were conducted at the Belaj hillfort south of Karlovac (Majnarić-Pandžić 1986: 30, Fig. 2). Based on the pottery found there, life in this settlement was dated to the later phase of the Urnfield culture, i.e. the Ha B period (Majnarić-Pandžić 1986: 33, Fig. 3–9). Finds from the Kiringrad hillfort made their way to the Archaeological Museum in Zagreb entirely by chance. Habitation of this hillfort continued, with interruptions, from the Eneolithic to the later Iron Age. Based on pottery finds and a fragment of a stone mould to forge socketed axes, the Kiringrad hillfort certainly was inhabited during the period of the Urnfield culture, probably since the Br D/Ha A (Balen-Letunić 1987: 11–12, T. 1, T. 10: 13).

The settlement of Turska Kosa stands on the right bank of the Gline River on the southern entrance to the Toplička Valley. Test excavations were conducted at this hillfort, during which Ha B pottery was found (Čučković 1989: 438). The metal items found at the Turska kosa hillfort include a socketed axe that can also be dated to the Ha B (Čučković 1983: 6, Fig. 5). Surface finds from the Samograd site in the village of Pecka also indicate habitation at around 1000 BC (Čučković 1984: 14). Based on surface finds the settlement on Nikolino brdo (hill) in Topusko has been dated to the Late Bronze Age (Čučković 1986: 9).

At the current state of research, no Late Bronze Age cemeteries have been found next to these settlements in Kordun and Banija, although several hoards have been published. The oldest of them is the Malička hoard, which contains 124 items and dates to the Ha A1 period (Balen-Letunić 1985: 42). There are no detailed data on the hoard's context (*ibid.*: 35). The hoard from Lisine, near Karlovac, was dated to phase III of the northern Croatia hoards. This hoard bears the features of the workshop circle of the Sava and Drava interfluvium, and its content typologically complies with the Ha A phase (Vinski-Gasparini 1973: 140, T. 97). The hoard from Javornik, near Dvor na Uni, was dated to the same time; it also bears the features of the workshop circle of the Urnfield culture in northern Croatia (*ibid.*: 140, T. 98–99). The Krnjak hoard is slightly more recent; it consists of a spearhead, a socketed axe, five ankle bracelets and an arched fibula with a



Karta 1. Položaj nalaza ostave Siča u Karpatskoj kotlini (Daria Ložnjak Dizdar, 2005).
Map 1. Location of the Siča hoard in Carpathian Basin (Daria Ložnjak Dizdar, 2005).

Vremenu V. faze ostava pripada nekoliko ostava s ovoga područja: ostave Gajina pećina i Vranjkova pećina te ostava Matijevići. Ostave Gajina pećina i Matijevići pripadaju balkanske radioničkom krugu, što je karakteristika i ostava mlađe faze kulture polja sa žarama ovoga prostora; za razliku od starije faze, kad inventar u ostavama na ovome području mahom ima karakteristike radioničkoga kruga sjeverne Hrvatske (Vinski-Gasparini 1973: 168, T. 128–129).

Pojedinačni nalaz fibule u obliku violinskoga gudala potječe iz okolice Karlovca, bez bližih podataka o mjestu nalaza, i također se može datirati u vrijeme Ha A1 (*ibid.*: 76–77, T. 26: 19).

Dakle, sudeći prema opisanom stanju istraživanja, na kordunskom i banijskom prostoru postoje jasni tragovi života u kasnome brončanom dobu, o čemu svjedoče nalazi s naselja te objavljene ostave. Stoga posebno i ne iznenađuje novi nalaz bogate ostave Siča. Ondje u budućim istraživanjima treba očekivati i nalaze grobova u kojima su se bili sahranjivali stanovnici dominantnih gradina, koji su u svakodnevnome životu i upotrebljavali predmete pohranjene u ostavama, fenomenu kasnoga brončanog doba čije se profano ili sakralno značenje pokušava dokučiti u brojnim znanstvenim raspravama.

twisted bow. The find probably constituted part of a larger hoard that was plundered (Čučković 1986: 9, Fig. 2). The Krnjak hoard has been dated to roughly 1000 BC (Čučković 1984: 12).¹

Several hoards from this region belong to hoard phase V: the Gajina pećina and Vranjkova pećina hoards and the Matijevići hoard. The Gajina pećina and Matijevići hoards are part of the Balkan workshop circle, which is a feature of the hoards from the later phase of the Urnfield culture in this region, as opposed to the older phase, when the inventories in such hoards from this region largely bear the characteristics of the northern Croatia workshop circle (Vinski-Gasparini 1973: 168, T. 128–129).

Individual fibulae shaped like violin bows come from the Karlovac environs, without detailed data on the find site, and they can also be dated to the Ha A1 period (*Ibid.*: 76–77, T. 26: 19).

So based on the status of research described above, there are clear traces of habitation of Kordun and

¹ In previous literature, the finds from Krnjak were ascribed to a hoard found somewhere near Krnjak. However, after a field examination in the Slunj and Krnjak areas, it was ascertained that they belonged to a skeletal grave from Dvorište, near the prehistoric Umak site near Točak.

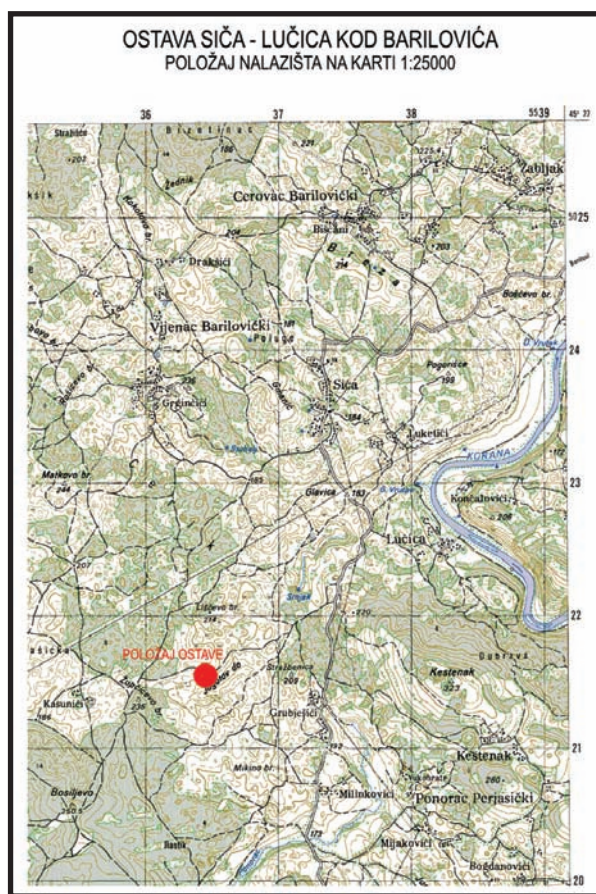
Ostava Siča/Lučica pronađena je na području općine Barilović, oko 2 km južno od naselja Siča, odnosno 2 km jugozapadno od naselja Lučica, na području zvanom "Jugotov do". Koordinate položaja prema Gauss-Kriegeru, a u odnosu na Greenwich, jesu: X = 55 36 508 E, Y = 50 21 567 N, Z = 227 m. Riječ je o blago uzvišenu području na kojem je danas livada, a nekad se koristilo i kao oranica. Prvi nalazi otkriveni su još 50-ih godina 20. st., kad se na ovome području tražio i vadio šljunak. Tada je navodno sakupljeno nekoliko vreća brončanih sjekira, srpova i drugih predmeta koji su prodani kao bakar na otpadu. Informaciju o takvu nalazu Tomislav Adlešić prenio je Jurici Štefančiću iz Barilovića, koji je dugogodišnji suradnik Konzervatorskog odjela u Karlovcu, a on ju je prosljedio autoru ovih redaka. U svibnju 2000. godine Konzervatorski odjel u Karlovcu vršio je zaštitna iskopavanja na arheološkom lokalitetu Pavlinski samostan u Kamenskom, pa je jedan dio arheološke ekipe,² zajedno s Juricom Štefančićem i Tomislavom Adlešićem, krenuo u potragu za preostalim dijelom ostave. Iskopom probnih sondi na platou gdje je T. Adlešić prema sjećanju pretpostavljao da se ostava nalazila ubrzo su pronađeni i prvi nalazi. Sam položaj ostave danas se nalazi u manjem nasipu koji je na tom dijelu platoa nastao probijanjem lokalne ceste. Nažalost, utvrđeno je da se ne može govoriti o intaktnim nalazima ni o eventualnim kulturnim slojevima, nego tek o preostacima na prekopanu zemljištu, zajedno s recentnim ulomcima čepova i plastike. Na mjestu gotovo površinskih nalaza postavljena je sonda veličine 2 x 2 m, koja je zatim proširena na 2 x 3 m, ali više zbog provjere nego potrebe za praćenjem nalaza ili kulturnih slojeva. Dubina sondi u najdubljem dijelu (do razine zdravice) iznosila je 52 cm. Također, istodobno je na cijelome platou postavljen i niz manjih sondi, no sve su bile u potpunosti sterilne, odnosno nisu sadržavale nalaze istodobne ostavi kao ni nalaze iz drugih razdoblja. Ostava je sveukupno sadržavala 287 predmeta, od kojih je 261 kataloški obrađen. Jedan primjerak ulomka srpa koji se nalazio u ostavi (kataloški broj 43) nije nađen u okviru predmetnih iskopavanja, nego ga je još prije T. Adlešić poklonio gospođi Ružici Papić iz Zadra te se on i danas nalazi kod nje, a ustupljen je na uvid i dokumentiranje prilikom obrade materijala, na čemu joj i ovim putem zahvaljujemo. Predmeti pronađeni u okviru predmetnih iskopavanja pohranjeni su u Gradsko-muzej Karlovac. Inventar ostave čine oruđe (sjekire, srpovi, noževi, pile, dlijeta), oružje (koplja, strelice, bodeži, mačevi), nakit (ulomci igala, fibula, narukvica, ogrlica, dijelovi pojasa i puceta), konjska

Banija during the Late Bronze Age, to which the finds from settlements and published hoards testify. The recent find of the rich Siča hoard therefore comes as no surprise. Discovery of graves can be expected in the course of future research.

These graves should contain the remains of the inhabitants of the dominant hillforts, who used the items stored in the hoard in their everyday lives, reflecting a phenomenon of the Late Bronze Age that has been subject to attempts at interpretation as to their sacred or profane significance in numerous scholarly debates. The Siča/Lučica hoard was discovered in the territory of the Barilović Municipality, approximately 2 km south of a village called Siča, i.e. 2 km south-west of a village called Lučica, in an area known as "Jugotov do" ('Jugo's Hollow'). The site's co-ordinates, according to Gauss-Krieger, and in relation to Greenwich, are: X = 55 36 508 E, Y = 50 21 567 N, Z = 227 m. This is a slightly elevated area that is today a meadow, although it was once used as a plowfield. The first finds were discovered in the 1950s, when gravel was prospected and extracted from the area. At the time, several sacks full of bronze axes, sickles and other tools were found that were then sold as scrap copper. Information on such finds was conveyed by Tomislav Adlešić to Jurica Štefančić from Barilović, who is a long-time associate of the Conservation Department in Karlovac, and he forwarded the information to this author. In May 2000, the Conservation Department in Karlovac conducted rescue excavations at the archaeological site of the Pauline monastery in Kamensko, and one part of the archaeological team,² accompanied by Jurica Štefančić and Tomislav Adlešić, set off in search of the remainder of the hoard. After opening a test pit at a plateau which T. Adlešić recalled as the hoard's site, the first items were quickly discovered. The actual site of the find is a small embankment that emerged on this plateau during the construction of a local road. Unfortunately, it was ascertained that these finds are not intact, nor are there any cultural strata; there are only remains on a thoroughly dug-out tract of land, together with more recent pieces of plastic and bottle-caps. A 2 x 2 m test pit was excavated at the site of the near-surface find, which was then expanded to 2 x 3 m – more so for the sake of verification than due to the need to extrapolate the find or cultural strata. The depth of the test pit at its deepest point (to the black earth level) is 52 cm. A series of smaller test pits were simultaneously dug over the entire plateau, but all of them were entirely sterile,

² Hrvoje Cvitanović, Daniel Capan, Marta Bezić i Domagoj Perkić.

² Hrvoje Cvitanović, Daniel Capan, Marta Bezić and Domagoj Perkić.



Karta 2. Položaj nalazišta ostave Siča (Domagoj Perkić, 2005).
Map 2. Location of the Siča hoard site (Domagoj Perkić, 2005).

oprema (razvodnik), ulomci brončanih posuda i amorfni brončani limovi (26 ulomaka).³ Osim navedenih predmeta sastav ostave uključuje i veći broj ulomaka tzv. brončanih pogača, odnosno brončane polusirovine pripremljene za daljnje lijevanje. Zajednička je karakteristika svih predmeta u ostavi ta da su pronađeni slomljeni, necjeloviti.

ORUĐE

SJEKIRE

1. Šuplja sjekira sa zadebljanjem ispod otvora. Iz zadebljanja izlazi viseći V-ornament unutar kojega se nalaze dva girlandoidna rebra. Bočne strane ojačane su plastičnim vertikalnim rebrima. Na objema bočnim stranama nalazi se po jedna kružna rupica koja

³ Preostalih 26 ulomaka nije detaljnije obrađivano jer je riječ o sitnim, gotovo amorfnim ulomcima brončanoga lima.

i.e. they contained no finds contemporary with the hoard nor from any other period. The hoard contained a total of 287 items, of which 261 have been catalogued. One sickle fragment that was part of the hoard (catalogue number 43) was not found during these excavations. Rather it was found earlier by T. Adlešić, who gave it to Mrs. Ružica Papić from Zadar, and it is still in her possession, although she allowed it to be examined and documented during analysis of the materials, for which we are grateful. The items found during these excavations are held in the Karlovac City Museum. The hoard's inventory encompasses tools (axes, sickles, knives, saws, chisels), weapons (spearheads, arrowheads, daggers, swords), jewellery (pieces of needles, fibulae, bracelets, necklaces, belt components and buttons), a horse harness (bridle strap), fragments of bronze vessels and amorphous pieces flattened bronze (26 fragments).³ Besides these items, the hoard's contents also include a large number of fragments of bronze plano-convex ingots, meaning partially unfinished bronze prepared for further forging. A common characteristic of all items in the hoard is that they were found broken, not intact.

TOOLS

AXES

1. Socketed axe that thickens under opening. Hanging V-ornament emerges from thickened mouth, within which there are two garland-like ribs. The sides are reinforced with ribs. Both sides have a single circular hole used to fasten it to a wooden handle. The cutting edge is slightly rounded. The transition from the socket to the surface of the blade is not prominent, while the cross-section of the socket opening is an extended circular form. Weight: 477.7 g. (T. 1: 1)

Such axes were found in the hoards from Bizovac and Brodski Varoš (Vinski-Gasparini 1973: 84, 93, T. 36: 15, T. 61: 6, T. 62: 9). An example from the Bizovac hoard and one from the Brodski Varoš hoard have a small loop to one side, while other examples from Brodski Varoš have two holes (Vinski-Gasparini 1973: T. 62: 9), like the one from the Siča hoard. A fragment of the upper portion of such an axe decorated in the same manner was found in the Poljanci II hoard (Bulat 1975: 7, T. IV: 10). The

³ The remaining 26 fragments were not thoroughly processed because these are tiny, almost amorphous pieces of bronze sheet.

je služila za pričvršćivanje drvenoga drška. Oštrica sječiva blago je zaobljena. Prijelaz iz tuljca u plohu sječiva nije naglašen, a presjek otvora tuljca izdužena je kružnog oblika. Težina: 477,7 g. (T. 1: 1)

Ovakve sjekire pronađene su u ostavama Bizovac i Brodski Varoš (Vinski-Gasparini 1973: 84, 93, T. 36: 15, T. 61: 6, T. 62: 9). Primjerak iz ostave Bizovac te jedan od primjeraka iz ostave Brodski Varoš imaju ušicu sa strane, dok drugi primjerak iz Brodskog Varoša ima dvije rupice (Vinski-Gasparini 1973: T. 62: 9), kao i primjerak iz ostave Siča. Ulomak gornjega dijela ovakve sjekire ukrašen na isti način pronađen je u ostavi Poljanci II (Bulat 1975: 7, T. IV: 10). Šuplja sjekira s visećim V-ukrasom i girlandoidnim rebrom smatra se oblikom karakterističnim za stupanj Ha A (Vinski-Gasparini 1973: 84). Sjekira ovoga tipa pronađena je u Donjoj Dolini i svrstana je u skupinu nalaza karakterističnih za I. fazu nalazišta (Marić 1964: 24, T. I: 19). Ulomak gornjega dijela sjekire slična ukrasa s visećim trokutima i girlandom pronađen je u ostavi iz Futoga u Bačkoj, koja je datirana u vrijeme Ha A1 (Borić 1997: 46, 71, T. V: 49). Ovaj tip sjekire paralele ima u slučajnome nalazu iz Maribora (Šinkovec 1995: 59–60, T. 14: 80) te u ulomku sjekire iz djelomično očuvane ostave iz Hercegovščaka kod Gornje Radgone (Čerče & Šinkovec 1995: 175, T. 73: 2). Ostava Hercegovščak datirana je u horizont II prema P. Turku, što odgovara vremenu Ha A (Turk 1996: 110). U ostavi Csabapuszta⁴ (Somogy) pronađena je još jedna sjekira ovakva tipa s rupicama sa strane (Holste 1951: 19, T. 36: 11). Ostava je datirana u horizont Kurd (Mozsolics 1985: 119, T. 116: 7). U Mađarskoj je u ostavi Márok (Baranja) pronađena sjekira navedenoga tipa s ušicama sa strane i ispod girlandi. Ostava je također datirana u horizont Kurd, koji odgovara II. fazi ostava u sjevernoj Hrvatskoj i vremenu Ha A1 (*ibid.*: 83, 146, T. 90: 15).

2. Šuplja sjekira sa zadebljanjem ispod otvora i ušicom te trima plastičnim rebrima na vratu. Na objema bočnim stranama nalazi se po jedna kružna rupica koja je služila za pričvršćivanje drvenoga drška. Oštrica sječiva blago je zaobljena, na jednoj strani više potrošena. Presjek otvora tuljca izdužena je kružnog oblika. Težina: 139,8 g. (T. 1: 2)

Ovakva sjekira paralele ima u ostavi Bošnjaci, u kojoj su također zabilježene šuplje sjekire sa zadebljanjima ispod otvora za nasad (Vinski-Gasparini 1973: 82, T. 30A: 2–3). Takve sjekire K. Vinski-Gasparini datira u vrijeme Br D, kada datira i sličnu sjekiru iz ostave Peklenica na kojoj se ukras vodoravnih rebara nalazi samo na srednjem polju ispod

socketed axe with hanging V-ornament and garland-like rib is deemed a form characteristic of the Ha A phase (Vinski-Gasparini 1973: 84). An axe of this type was found in Donja Dolina and classified in the group of finds characteristic of phase I sites (Marić 1964: 24, T. I: 19). The fragment of the upper portion of a similarly-decorated axe with hanging triangles and garland was found in the hoard from Futog in Bačka, dated to the Ha A1 period (Borić 1997: 46, 71, T. V: 49). This type of axe has its parallel in a chance find from Maribor (Šinkovec 1995: 59–60, T. 14: 80) and in an axe fragment from the partially preserved hoard from Hercegovščak, near Gornja Radgona (Čerče & Šinkovec 1995: 175, T. 73: 2). The Hercegovščak hoard has been dated to horizon II according to P. Turk, which corresponds to the Ha A period (Turk 1996: 110). Another example of this type of axe with holes from the side (Holste 1951: 19, T. 36: 11) was found in the Csabapuszta hoard⁴ (Somogy). The hoard has been dated to the Kurd horizon (Mozsolics 1985: 119, T. 116: 7). An axe of this type with hooks to the side and under the garland was found in Hungary, in the Márok hoard (Baranja). This hoard has also been dated to the Kurd horizon, which corresponds to hoard phase II in northern Croatia and the Ha A1 period (Mozsolics 1985: 83, 146, T. 90: 15).

2. Socketed axe with thickened mouth and loop and three ribs on the neck. Both sides have one circular hole used to fasten it to a wooden handle. The cutting edge is slightly rounded, and more worn on one side. The cross-section of socket opening is circular. Weight: 139.8 g. (T. 1: 2)

There are parallels to this type of axe in the Bošnjaci hoard, in which socketed axes that broaden under the opening for the handle were also recorded (Vinski-Gasparini 1973: 82, T. 30A: 2–3). Such axes were dated by K. Vinski-Gasparini to the Br D period, the same as a similar axe from the Peklenica hoard on which the horizontal rib ornaments can only be found on the central field under the opening (*ibid.*: 54, T. 20: 10). The axe from the Siča/Lučica hoard has gently triangular faceted body, but the facets are not clearly separated from the entire body of the axe as is the case with the axe from Peklenica, and three horizontal ribs that run uninterrupted below the opening for the handle. The axe so described from the Siča hoard can be dated to the Ha A1 period. Besides the already mentioned axe from Bošnjaci, which like the axe from Peklenica also features triangular facets, this conclusion is also backed by a very similar axe from the Veliko Nabrđe hoard

⁴ Ova se ostava u literaturi naziva još i Tab (Mozsolics 1985: 199, T. 116–118).

⁴ This is also called the Tab hoard in the literature (Mozsolics 1985: 199, T. 116–118).

otvora (*ibid.*: 54, T. 20: 10). Sjekira iz ostave Siča/Lučica ima blago trokutasto fazetirano tijelo, ali fazete nisu jasno odvojene čitavim tijelom sjekire kao što je to slučaj sa sjekirama iz Peklenice, te tri vodoravna rebra koja teku neprekinuto ispod otvora za nasad. Dakle, opisana sjekira iz ostave Siča može se datirati u vrijeme Ha A1. Tome u prilog svjedoče, osim već navedenih sjekira iz Bošnjaka, koje su kao i sjekira iz Peklenice također trokutasto fazetirane, i vrlo slična sjekira iz ostave Veliko Nabrđe (*ibid.*: T. 46: 10) te primjerak iz ostave Brodski Varoš (*ibid.*: 93, T. 60: 2). Općenito, sjekire s trokutastim fazetiranim sjekirama tipične su za raniji stupanj Ha A (*ibid.*: 93). Slične sjekire pronađene su u ostavi Boljanić u istočnoj Bosni (Žeravica 1993: 84, T. 25, 338–339), koja je datirana u II. stupanj prema Königu (König 2004: 22). Sjekire s profiliranim završetkom nalaze se u Bosni i Hercegovini u ostavama II. stupnja prema Königu: u ostavi Kućišta (*ibid.*: 204, T. 2: 17) i ostavi Vidovice (*ibid.*: 227, T. 5: 5) u Bosanskoj Posavini. Dva primjerka takve sjekire, koje D. Garašanin naziva dljetima,⁵ pronađena su u ostavama Brestovik u Srbiji, datiranim u vrijeme Ha A (D. Garašanin 1954: 18–19, T. VII: 8, T. VIII: 4). Ostava Brestovik I, kao i ostava Siče, uz ovakvu sjekiru sadrži i ulomak tordirane narukvice; nalaz Brestovik I datiran je u vrijeme Ha A1 (Vukmanović & Radojčić 1995: 120, kat. br. 212, 219). Ovakve dvije sjekire pronađene su i u ostavi Jakovo u Srijemu (Todorović 1971: 18, T. VII: 4–5) u kojoj je, kao i u ostavi Siče, pronađena igla s glavom u obliku čavla (*ibid.*: 25, T. IX: 17). Slična sjekira s manje rebara i bez ušice, ali i s oštećenim otvorom za nasad, pronađena je u ostavi Debeli Vrh kod Predgrada u Kočevju (Čerče & Šinkovec 1995: 160, T. 60, 3). Ostava je datirana u II. fazu prema Turku, što odgovara vremenu Ha A (Turk 1996: 108). Vrlo slična sjekira pronađena je u ostavi iz okoline Bonyháda (Tolna), koja je datirana u horizont Kurd (Mozsolics 1985: 104, T. 41: 10). Još jedna sjekira potječe iz istodobne ostave Öreglak (Somogy) (Mozsolics 1985: 163, T. 76: 11). Sličan primjerak pronađen je u ostavi Szentgáloskér (Somogy), koja je također datirana u horizont ostava Kurd (Mozsolics 1985: 194, T. 111: 10). Ulomak otvora za nasad slične sjekire pronađen je u ostavi Tállya (Borsod-Abaúj-Zemplén) (*ibid.*: 200, T. 159: 11). Dvije sjekire pronađene su u ostavi u keramičkoj posudi u Kemece III (Szabolcs-Szatmár) (*ibid.*: 133, T. 183: 11–12). Sve tri ostave datirane su u horizont Kurd (*ibid.*). Malo mlađi, ali vrlo sličan tip sjekire pronađen je u ostavi Jászkarajenő (Pest), koja je datirana u

(*ibid.*: T. 46: 10) and an example from the Brodski Varoš hoard (*ibid.*: 93, T. 60: 2). In general, axes with triangularly faceted blades are typical of earlier Ha A phases (*ibid.*: 93). Similar axes were found in the Boljanić hoard in eastern Bosnia (Žeravica 1993: 84, T. 25, 338–339), which has been dated to phase II according to König (König 2004: 22). Axes with fully-formed ends can be found in Bosnia-Herzegovina in the hoards of phase II according to König: in the Kućišta hoard (*ibid.*: 204, T. 2: 17) and Vidovice hoard (*ibid.*: 227, T. 5: 5) in Bosanska Posavina. Two examples of such axes, which D. Garašanin refers to as chisels,⁵ were found in the Brestovik hoards in Serbia, dated to the Ha A period (D. Garašanin 1954: 18–19, T. VII: 8, T. VIII: 4). In addition to such an axe, the Brestovik I hoard, like the Siča hoard, also contains a fragment of a twisted bracelet; the Brestovik I find has been dated to the Ha A1 period (Vukmanović & Radojčić 1995: 120, cat. no. 212, 219). Two such axes were also found in the Jakovo hoard in Syrmia (Todorović 1971: 18, T. VII: 4–5) in which, as in the Siča hoard, a needle with a nail-shaped head was found (*ibid.*: 25, T. IX: 17). A similar axe with smaller ribs and without hooks, but with a damaged opening for the handle, was found in the hoard from Debeli Vrh, near Predgrad in Kočevje (Čerče & Šinkovec 1995: 160, T. 60, 3). This hoard was dated to phase II according to Turk, which corresponds to the Ha A period (Turk 1996: 108). A very similar axe was found in the hoard from the Bonyháda area (Tolna), also dated to the Kurd horizon (Mozsolics 1985: 104, T. 41: 10). Another axe dates to the contemporary Öreglak hoard (Somogy) (Mozsolics 1985: 163, T. 76: 11). A similar example was found in the Szentgáloskér hoard (Somogy), which has also been dated to the Kurd hoard horizon (Mozsolics 1985: 194, T. 111: 10). A fragment of the opening for the handle from a similar axe was found in the Tállya hoard (Borsod-Abaúj-Zemplén) (*ibid.*: 200, T. 159: 11). Two axes were found in a hoard in a ceramic vessel at Kemece III (Szabolcs-Szatmár) (*ibid.*: 133, T. 183: 11–12). All three hoards have been dated to the Kurd horizon (*ibid.*). A slightly younger, but very similar type of axe was found in the Jászkarajenő hoard (Pest), dated to the Gyermely horizon (*ibid.*: 129, T. 250: 15). The axe from Jászkarajenő no longer has a triangularly faceted blade, rather there is a prominent transition from the blade to the axe's body. An axe with a triangularly faceted body and a smaller number of ribs below the handle opening was found in the

⁵ P. König razlikuje ovakav tip šupljih sjekira od dljeteta po presjeku koji je kod dljeteta obično okrugao, dok je kod sjekira ovalan (2004: 46, n. 71).

⁵ P. König distinguishes this type of socketed axe from chisels based on the cross-section, which is normally round on the latter, and oval on axes (2004: 46, n. 71).

horizont Gyermely (*ibid.*: 129, T. 250: 15). Sjekira iz Jászkarajenőa nema više trokutasto fazetirano sjekivo, već posjeduje naglašen prijelaz oštrice u tijelo sjekire. Sjekira koja ima trokutasto fazetirano tijelo i manji broj rebara ispod otvora za nasad pronađena je u ostavi Szendrőlád (Borsod-Abaúj-Zemplén), koja je također datirana u horizont Gyermely (*ibid.*: 192, T. 263: 6). U ostavi Debrecen III pronađene su dvije slične sjekire, a ostava je također datirana u horizont Gyermely (*ibid.*: 111, T. 264: 7–8). Ovakav primjerak sjekire pronađen je u ostavi Uioara de Sus (Holste 1951: 24, T. 45: 15), koja je datirana u vrijeme Ha A1 (Petrescu-Dîmbovița 1977: 114). U ostavi Aluniș iz Transilvanije, koja je također datirana u vrijeme Ha A1 (horizont Cineu-Suseni), pronađena je ista sjekira (*ibid.*: 82, T. 114: 2). Gotovo identična sjekira pronađena je na nalazištu Obreja, gdje je datirana u vrijeme Ha B (Soroceanu & Lakó 1995: 188–189, Abb. 2, 3).

Šuplje sjekire u upotrebi su na karpatskome prostoru i u srednjem Podunavlju u starijoj fazi kasnoga brončanog doba (Br D/Ha A1), dok se na prostoru sjeverno od alpsko-karpatskoga luka pojavljuju kao iznimke (Brunn 1968: 79).

Eksperimentalnom arheologijom na primjeru šupljih sjekira B. Roberts i B. Ottaway zaključili su da je ovaj tip sjekira bio višenamjenski, a upotrebljavao se za razne poslove – od sječe drva do obrade metala (Roberts & Ottaway 2003: 129). Isto su tako eksperimentom došli do zaključka da je drveni nasad za šuplju sjekiru vjerojatno bio načinjen od hrastovine, koja je osobito čvrsto i trajno drvo (*ibid.*: 124). Odnos između šupljih sjekira i konteksta njihove depozicije upućuje na to da su one bile vezane uz zemlju, a manje uz dnevne aktivnosti u naselju ili uz odnos prema smrti (*ibid.*: 136). Prema brojnim navedenim usporedbama obje šuplje sjekire pronađene u ostavi Siče mogu se datirati u vrijeme Ha A1.

3. Sjekira sa zaliscima postavljenima na sredini, široka i masivna; nedostaje joj gornji dio ramena i vrat. Težina: 307,5 g. (T. 1: 3)

Ovoj sjekiri usporedbe su pronađene samo u ostavama iz sjeverne Hrvatske i to npr. u ostavi Gornja Vrba (Vinski-Gasparini 1973: 89, T. 50: 19), gdje se sjekira pripisuje podunavskom tipu, koji traje u stupnju Br D i Ha A (*ibid.*: 84). Jedan od sličnih primjeraka pronađen je u ostavi Podcrkavlje-Slavonski Brod, gdje je pripisan kasnijem stupnju Br D (*ibid.*: 96, T. 67: 6). Slična sjekira nalazi se u ostavi Topličica I, koja je datirana u stupanj Ha A1 (*ibid.*: 102, T. 76: 2). Također, jedna slična sjekira potječe iz ostave Hočko Pohorje (Čerče & Šinkovec 1995: 177, T. 74: 1), koja se datira u II. fazu ostava prema Turku (Turk 1996: 108). Vrlo sličan primjerak sjekire otkriven je u ostavi Piricse II, koja je datirana u horizont Kurd

Szendrőlád hoard (Borsod-Abaúj-Zemplén), which has also been dated to the Gyermely horizon (*Ibid.*: 192, T. 263: 6). Two similar axes were found in the Debrecen III hoard, and this hoard has also been dated to the Gyermely horizon (*Ibid.*: 111, T. 264: 7–8). An example of this type of axe was found in the Uioara de Sus hoard (Holste 1951: 24, T. 45: 15), which has been dated to the Ha A1 period (Petrescu-Dîmbovița 1977: 114). The same type of axe was found in the Aluniș hoard from Transylvania, also dated to the Ha A1 period (Cineu-Suseni horizon) (*Ibid.*: 82, T. 114: 2). An almost identical axe was found at the Obreja site, where it was dated to the Ha B period (Soroceanu & Lakó 1995: 188–189, Abb. 2, 3).

Socketed axes were used in the Carpathian zone and the central Danube Valley in the earlier phase of the Late Bronze Age (Br D/Ha A1), while they appear as exceptions in the territory north of the Alpine-Carpathian arc (Brunn 1968: 79).

By means of experimental archaeology using the example of socketed axes, B. Roberts and B. Ottaway concluded that this type of axe was multi-purpose, used for various tasks: from chopping wood to working metal (Roberts & Ottaway 2003: 129). Employing the same experimental method, they came to the conclusion that the wooden handle for the socketed axe was probably made of oak, which is a particularly firm and long-lasting wood (*Ibid.*: 124). The relationship between the socketed axes and the context of their deposition indicates that they were associated with the earth, and less with daily activities or attitudes toward death (*Ibid.*: 136). Based on numerous comparisons, both socketed axes found in the Siča hoard can be dated to the Ha A1 hoard.

3. Axe winged in the middle, broad and massive, missing upper portion of shoulder and neck. Weight: 307.5 g. (T. 1: 3)

Examples comparable to this axe were only found in hoards from northern Croatia, in, for example, the Gornja Vrba hoard (Vinski-Gasparini 1973: 89, T. 50: 19), where the axe is ascribed to the Danubian type that existed in the Br D and Ha A phases (*Ibid.*: 84). One of the similar examples was found in the Podcrkavlje-Slavonski Brod hoard, where it was ascribed to the late Br D phase (*Ibid.*: 96, T. 67: 6). A similar axe was found in the Topličica I hoard, and it was dated to the Ha A1 phase (*Ibid.*: 102, T. 76: 2). A similar axe was additionally found in the Hočko Pohorje hoard (Čerče & Šinkovec 1995: 177, T. 74: 1), dated to phase II of hoards according to Turk (Turk 1996: 108). A very similar example of axe was found in the Piricse II hoard, dated to the Kurd horizon (Mozsolics 1985: 176, T. 200: 2). A similar axe was found in the Mašková site in Slovakia. M. Novotná

(Mozsolics 1985: 176, T. 200: 2). Također, slična sjekira pronađena je u mjestu Mašková u Slovačkoj. M. Novotná označuje ih kao sjekire sa zaliscima na sredini tijela sjekire podunavskoga tipa, koje datira u stariju fazu kulture polja sa žarama na prostoru srednjopodunavske kulture polja sa žarama (kultura Čaka i Velatice) (Novotná 1970: 48–49, T. 16: 295). M. Novotná pripisala im je prema kontekstu nalaza takvih sjekira u grobovima s ostalim priložima naružanja značenje oružja (Čaka, grob 2; Dolný Peter, Hövej) (*ibid.*: 47). Ovaj tip sjekira s masivnom oštricom na prostoru Bavarske označen je kao tip Grigny; ondje mu je pripisana funkcija alata korištenoga za metaluršku doradu nakon lijevanja. Sjekire su datirane u vrijeme rane i starije faze kulture polja sa žarama (Pászthory & Mayer 1998: 113, T. 42: 616).

4. Ulomak sjekire sa zaliscima; sačuvana je samo blago zaobljena oštrica. Težina: 253,5 g. (T. 1: 4)

5. Ulomak oštrice sjekire; oštrica je blago zaobljena. Težina: 28,1 g. (T. 1: 5)

6. Ulomak sjekire sa zaliscima; sačuvana je samo blago zaobljena oštrica. Težina: 195,2 g. (T. 1: 6)

Ulomci oštrica 4 i 6 vjerojatno se mogu pripisati sjekirama sa zaliscima, iako je doista teško odrediti o kojem je tipu točno riječ. Oštrice su blago zaobljene kao na primjercima iz ostava Bizovac i Brodski Varoš, datiranim u vrijeme Br D i Ha A (Vinski-Gasparini 1973: 93, T. 38: 4, T. 60: 8). Za ulomak oštrice 5 teško se može pobliže odrediti kojemu tipu sjekire pripada.

SRPOVI

7. Ulomak srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalaze još dva plastična rebra; drška je raščlanjena četirima vertikalnim rebrima od kojih se vanjsko nastavlja na sječivo, dva središnja završavaju u V-ukrasu, a unutarnje završava okomito prije sječiva. Srp nije u ostavi. (T. 3: 43)

Ovakav srp pronađen je u ostavi Bizovac; taj srp ima dršku u obliku jezička i pripada vremenu Ha A (Vinski-Gasparini 1973: 84, T. 39: 7). Srpovi ovoga tipa pronađeni su i u ostavi Poljanci II (Bulat 1975: 9, T. VI: 6, 8). Ovakav oblik srpa pripada tipu Uioara 5 prema podjeli M. Petrescu-Dîmbovița, koji je rasprostranjen od transkarpatske Ukrajine preko Rumunjske, Mađarske, Slovačke, Češke i Austrije do Slovenije i sjeverne Hrvatske, a pojavljuje se u manjem broju u Br D te, češće, u vrijeme Ha A1 (Petrescu-Dîmbovița 1978: 35–36, 53, T. 6: B–7). Ovaj tip srpa dosta je čest u Slavoniji, Srijemu i Bosni, a rjeđe se pojavljuje u Banatu (Vasić 1994: 41). Zanimljivo je da je u naselju Križevci-Ciglena pronađen ulomak kamenoga kalupa za lijevanje brončanoga srpa u kojem se vide naglašeno rebro i tri

specified them as winged axes at mid-body of Danubian type, which she dated to the earlier phase of the Urnfield culture in the territory of the central Danubian Urnfield culture (Čaka and Velatice culture) (Novotná 1970: 48–49, T. 16: 295). M. Novotná ascribed the character of weapons to them based on the context of such axe finds in graves with other weapon articles (Čaka, grave 2; Dolný Peter, Hövej) (*ibid.*: 47). This type of axe with a massive blade has been designated as Grigny type in the territory of Bavaria; the function of a tool used for metallurgical finishing after forging was ascribed to it there. The axes were dated to the earlier and older phases of the Urnfield culture (Pászthory & Mayer 1998: 113, T. 42: 616).

4. Fragment of winged axe; only gently rounded blade preserved. Weight: 253.5 g. (T. 1: 4)

5. Fragment of axe blade; gently rounded cutting edge. Weight: 28.1 g. (T. 1: 5)

6. Fragment of winged axe; only gently rounded cutting edge preserved. Weight: 195.2 g. (T. 1: 6)

Blade fragments 4 and 6 can probably be classified as winged axes, although it is rather difficult to determine which type they are precisely. The cutting edges are gently rounded as in the examples from the Bizovac and Brodski Varoš hoards, dated to the Br D and Ha A periods (Vinski-Gasparini 1973: 93, T. 38: 4, T. 60: 8). In the case of blade fragment 5 it is difficult to more precisely determine the axe type.

SICKLES

7. Sickle fragment; external edge reinforced with prominent rib with two more ribs beneath it; handle is divided into four vertical ribs, of which external rib merges into blade, two middle ribs end in V-ornament, and the internal rib ends vertically at blade. Sickle is not in hoard. (T. 3: 43)

This type of sickle was found in the Bizovac hoard; this sickle has a handle in the form of a tang and dates to the Ha A period (Vinski-Gasparini 1973: 84, T. 39: 7). Sickles of this type were also found in the Poljanci II hoard (Bulat 1975: 9, T. VI: 6, 8). This type of sickle has been classified as the Uioara 5 type according to the categorisation of M. Petrescu-Dîmbovița, which is widespread from territory of trans-Carpathian Ukraine, through Romania, Hungary, Slovakia, the Bohemia and Austria, to Slovenia and northern Croatia. It appeared in smaller numbers during the Br D and more frequently during the Ha A1 (Petrescu-Dîmbovița 1978: 35–36, 53, T. 6: B–7). This type of sickle is quite frequent in Slavonia, Sarmia and Bosnia, and more rare in Banat (Vasić 1994: 41). It is interesting that a fragment of

manja rebra na sječivu srpa (Homen 1982: 22, T. II: 11).

8. Ulomak srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno plastično rebro; između rebra na sječivu nalaze se poprečna plastična rebra koja tvore "kasete"; drška je raščlanjena trima vertikalnim rebrima koja se nastavlja u rebra na sječivu, a središnje završava u kaseti na sječivu. Težina: 65,1 g. (T. 3: 44)

Srpovi ukrašeni kasetama pri gornjem dijelu oštrice poznati su iz ostave Javornik. Na svim pronađenim primjercima ista je kompozicija ukrasa kao i kod ulomka srpa iz ostave Siča, samo što su rebra srpova iz Javornika dodatno ukrašena kosim urezima (Vinski-Gasparini 1973: T. 98: 10, T. 99: 2, 4, 6, 7, 8). K. Vinski-Gasparini drži da je ovaj tip srpa s drškom u obliku jezička s nizom kaseti duž hrpta sječiva karakterističan za III. fazu ostava u sjevernoj Hrvatskoj, iako ističe da se neki primjerci pojavljuju i ranije (Bizovac, Brodska Varoš), ali i kasnije (Ivanec) (*ibid.*: 140–141, T. 39: 4, T. 65: 13, T. 113: 13). Kako je ovaj srp kompozicijski najbliži primjercima iz Javornika, vjerojatno je riječ o lokalnoj varijanti, malo starijoj od primjeraka iz Javornika koji su dodatno ukrašeni kosim urezima.

9. Ulomak srpa; vanjski rub sječiva ojačan je plastičnim rebrom; drška je raščlanjena trima plastičnim rebrima od kojih se vanjsko nastavlja u ojačanje sječiva, unutarnje pod oštrim kutom završava u istom ojačanju, a središnje (najkraće) završava u poprečnome rebro na prijelazu drške u sječivo. Težina: 83,7 g. (T. 3: 45)

Srpovi s ovakvim motivom na oštrici, ali sa završetkom u obliku lastina repa, pronađeni su u ostavama Tenja (Vinski-Gasparini 1973: T. 33: 5), Veliko Nabrđe (*ibid.*: T. 47: 14), Brodski Varoš (*ibid.*: T. 65: 4) i Budinščina (*ibid.*: T. 81: 5), te u ostavi Poljanci II (Bulat 1975: 10, T. VI: 5).

10. Ulomak srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno plastično rebro, a koje se nastavlja iz bočnoga rebra drške; drška je raščlanjena trima vertikalnim rebrima od kojih srednje završava u Y. Težina: 65,0 g. (T. 3: 46)

11. Ulomak drške srpa raščlanjene trima vertikalnim rebrima od kojih se srednje račva u Y. Težina: 35,2 g. (T. 3: 53)

12. Ulomak srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno plastično rebro, a koje se nastavlja iz bočnoga rebra drške; drška je raščlanjena trima vertikalnim rebrima od kojih srednje završava u Y. Težina: 48,2 g. (T. 3: 54)

13. Ulomak drške srpa raščlanjene trima vertikalnim rebrima od kojih srednje završava u Y. Težina: 8,2 g. (T. 5: 101)

a stone mould was found in the Križevci-Ciglana settlement in which one can see a prominent rib and three smaller ribs on the sickle's blade (Homen 1982: 22, T. II: 11).

8. Sickle fragment; outer edge of blade reinforced with rib under which there is another rib; the ribs are connected in many places by short transverse ribs; the handle is divided into three vertical ribs that continue into the ribs on the blade, while the central rib ends at a short transverse rib on the blade. Weight: 65.1 g. (T. 3: 44)

Sickles with ribs connected at places by short transverse ribs in the upper portion of the blade are known from the Javornik hoard. In all examples found, the composition of ornaments is the same as the sickle fragment from the Siča hoard, only the ribs on the sickles from the Javornik hoard are additionally decorated with slanted incisions (Vinski-Gasparini 1973: T. 98: 10, T. 99: 2, 4, 6, 7, 8). K. Vinski-Gasparini asserts that this type of sickle with a tang-shaped handle and a series of cassettes along the ridge of the blade is characteristic of phase III of the northern Croatia hoards, even though some examples appeared even earlier (Bizovac, Brodska Varoš), but also later (Ivanec) (*ibid.*: 140–141, T. 39: 4, T. 65: 13, T. 113: 13). Since this sickle is most similar to the examples from Javornik in terms of composition, it is probably a local variant, slightly older than the Javornik examples which are additionally decorated with slanted incisions.

9. Sickle fragment; outer edge of blade reinforced with rib; handle divides into three ribs, of which the outer rib continues as reinforcement of blade, the inside rib ends in the same reinforcement at a sharp angle, while the middle rib (the shortest) ends at a perpendicular rib at the transition from the handle to the blade. Weight: 83.7 g. (T. 3: 45)

Sickles with such motifs on the blade, but with a swallowtail end, were found in the hoard from Tenja (Vinski-Gasparini 1973: T. 33: 5), Veliko Nabrđe (*ibid.*: T. 47: 14), Brodski Varoš (*ibid.*: T. 65: 4) and Budinščina (*ibid.*: T. 81: 5), as well as the Poljanci II hoard (Bulat 1975: 10, T. VI: 5).

10. Sickle fragment; outer edge of blade reinforced with rib under which there is another rib that continues from the lateral rib of the handle; handle divides into three vertical ribs, of which the middle rib ends in a 'Y'. Weight: 65 g. (T. 3: 46)

11. Fragment of sickle handle divided into three vertical ribs, of which the middle rib ends in a 'Y'. Weight: 35.2 g. (T. 3: 53)

12. Sickle fragment; outer edge of blade reinforced with rib under which there is another rib that continues from the lateral rib of the handle; handle divides into three vertical ribs, of which the middle rib ends in a 'Y'. Weight: 48.2 g. (T. 3: 54)

Ovi ulomci srpova pripadaju varijanti "a" srpova s jezičcem ukrašenih Y-ukrasom prema Pavlinu (1997: 28, sl. 1a). Ovakva vrsta srpova poznatija je pod imenom tip Uioara 2a prema podjeli M. Petrescu-Dîmbovița i M. Primas (Petrescu-Dîmbovița 1978: 3; Primas 1986: 91, T. 30: 520–529). Ti tipovi rasprostranjeni su u široj srednjoj Europi, od Austrije do karpatske Ukrajine, i moguće ih je većinom datirati u vrijeme Ha A (Pavlin 1997: 28, 36). Unutar tipa Uioara 2 osobiti su srpovi s Y-rebrom, vrlo česti u Srijemu, Slavoniji i Transdanubiji, gdje im je prema R. Vasiću i središte produkcije. U susjednim područjima (Slovenija, Austrija, Rumunjska) oni su vjerojatno utjecaj iz jugozapadne Panonije (Vasić 1994: 41). Ovakav srp pronađen je u ostavi Kličevac II-Pomrlovo (Jacanović & Radojčić 2001: 70, T. IV: 1), kao što je više primjeraka poznato i iz ostave Futog u Bačkoj (Borić 1997: 49–51, 65–66, T. VIII: 155, 158, T. IX: 161).

14. Ulomak srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno plastično rebro; drška je raščlanjena trima vertikalnim rebrima koja su ukrašena zarezima, vanjsko se nastavlja u ojačanje sječiva, a unutarnje i središnje pod ostrim kutom završavaju u istom ojačanju. Težina: 68,2 g. (T. 3: 47)

Slični primjerci srpova pronađeni su u ostavama Tenja (Vinski-Gasparini 1973: T. 33: 10), Bizovac (*ibid.*: T. 38: 12, T. 39: 8, T. 40: 8), Gornja Vrba (*ibid.*: T. 51: 1), Brodski Varoš (*ibid.*: T. 64: 10), Topličica II (*ibid.*: T. 75B: 4), Budinščina (*ibid.*: T. 80: 4). Opisani srpovi mogu se datirati u vrijeme Ha A, ali ne i uže unutar toga razdoblja (*ibid.*: 94). Također, srpovi ovakva tipa ukrašeni zarezima pronađeni su u ostavi Futog datiranoj u Ha A1 (Borić 1997: 50, 71, T. IX: 160, 165). Ovaj tip srpova M. Petrescu-Dîmbovița označio je kao tip Uioara I (1978: 26–27).

15. Ulomak srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno plastično rebro; drška je raščlanjena trima vertikalnim rebrima koja se nastavljaju u rebra na sječivu. Težina: 69,0 g. (T. 3: 48)

Ovakav primjerak pronađen je i u ostavi Podcrkavlje-Slavonski Brod (Vinski-Gasparini 1973: T. 68: 20), a prema M. Petrescu-Dîmbovița označen je kao tip Uioara I (1978: 26–27, T. 2).

16. Ulomak srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno plastično rebro; drška je raščlanjena trima vertikalnim rebrima koja se nastavljaju u rebra na sječivu. Težina: 53,4 g. (T. 3: 51)

17. Ulomak srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno plastično rebro. Težina: 29,6 g. (T. 3: 52)

13. Fragment of sickle handle divided into three vertical ribs, of which the middle rib ends in a 'Y'. Weight: 8.2 g. (T. 5: 101)

These sickle fragments belong to the 'a' variant of sickles with tangs decorated with Y-ornaments, according to Pavlin (1997: 28, Fig. 1a). These types of sickles are better known under the term Uioara 2a based on the classifications of M. Petrescu-Dîmbovița and M. Primas (Petrescu-Dîmbovița 1978: 3; Primas 1986: 91, T. 30: 520–529). These types are widespread in most of Central Europe, from Austria to Carpathian Ukraine, and most of them can be dated to the Ha A period (Pavlin 1997: 28, 36). Within the Uioara 2 type, the sickles with Y-ribs are distinct, and very frequent in Sylvania, Slavonia and Transdanubia, which was, according to R. Vasić, the centre of their production. In neighbouring regions (Slovenia, Austria, Romania) they were probably influenced by south-western Pannonia (Vasić 1994: 41). This type of sickle was found in the Kličevac II-Pomrlovo hoard (Jacanović & Radojčić 2001: 70, T. IV: 1), and several examples are known from the Futog hoard in Bačka (Borić 1997: 49–51, 65–66, T. VIII: 155, 158, T. IX: 161).

14. Sickle fragment; outer edge of blade reinforced with rib under which there is another rib; handle is divided into three vertical ribs decorated with notches, the external rib extends into blade reinforcement, while the middle and inside rib end in same reinforcement at a sharp angle. Weight: 68.2 g. (T. 3: 47)

Similar examples of sickles were found in the hoards from Tenja (Vinski-Gasparini 1973: T. 33: 10), Bizovac (*Ibid.*: T. 38: 12, T. 39: 8, T. 40: 8), Gornja Vrba (*Ibid.*: T. 51: 1), Brodski Varoš (*Ibid.*: T. 64: 10), Topličica II (*Ibid.*: T. 75B: 4), and Budinščina (*Ibid.*: T. 80: 4). These sickles can be dated to the Ha A period, albeit not more precisely within this period (*Ibid.*: 94). This type of sickle decorated with notches was also found in the Futog hoard, dated to the Ha A1 period (Borić 1997: 50, 71, T. IX: 160, 165). M. Petrescu-Dîmbovița designated this type of sickle as Uioara I (1978: 26–27).

15. Sickle fragment; outer edge of blade reinforced with rib under which there is another rib; handle is divided into three vertical ribs that continue into the rib on the blade. Weight: 69.0 g. (T. 3: 48)

An example of this type was found in the Podcrkavlje-Slavonski Brod hoard (Vinski-Gasparini 1973: T. 68: 20), and based on M. Petrescu-Dîmbovița's classification it was designated as Uioara I type (1978: 26–27, T. 2).

16. Sickle fragment; outer edge of blade reinforced with rib under which there is another rib; handle is divided into three vertical ribs that continue into the rib on the blade. Weight: 53.4 g. (T. 3: 51)

18. Ulomak drške srpa raščlanjene trima vertikalnim rebrima. Težina: 9,9 g. (T. 4: 58)

19. Ulomak drške srpa raščlanjene trima vertikalnim rebrima. Težina: 14,3 g. (T. 4: 59)

Ovi su primjerci srpova vrlo slični ulomku srpa br. 8 (T. 3: 44). Ovakav tip srpa poznat je iz ostave Brodski Varoš (Vinski-Gasparini 1973: T. 64: 4). Sličan ulomak srpa, kod kojega se unutarne rebro ne nastavlja na oštricu, i po tome je različito od našega primjerka, pronađen je u ostavi Mačkovac kod Nove Gradiške. Ostava je datirana u II. fazu ostava kulture polja sa žarama u sjevernoj Hrvatskoj (Karavanić & Mihaljević 2001: 9, 20, T. 3: 3). Primjerak slična srpa pronađen je i u ostavi Poljanci IV-Donje Polje (Miklik-Lozuk 2004: 30, T. IV: 2). Navedeni ulomci srpova iz ostave Siča pripadaju tipu Uioara 2a, koji je datiran u stupanj Suseni (Ha A1) (Petrescu-Dîmbovița 1978: 53, T. 4B). Osim za žetvu ovi su srpovi mogli poslužiti i za košnju trave ili trske (Primas 1986: 100).

20. Ulomak srpa; vanjski rub sječiva ojačan je plastičnim rebrom; drška je raščlanjena dvama plastičnim rebrima od kojih se vanjsko nastavlja u ojačanje sječiva, a unutarne pod ostrim kutom završava u istom ojačanju; kod prijelaza drške u sječivo vidljiva su i dva manja poprečna rebra. Težina: 61,5 g. (T. 3: 49)

Ovakav srp pronađen je u ostavi Tenja (Vinski-Gasparini 1973: T. 32: 6), a usporedba za ovako ukrašeni donji dio nalazi se kod primjerka iz ostave Bingula-Divoš (Vinski-Gasparini 1973: T. 87: 13). Sličan srp pronađen je i u ostavi Šumatac 1 datiranoj u II. fazu ostava prema König (König 2004: 22, T. 3, T. 11A: 34).

21. Ulomak srpa; vanjski rub sječiva ojačan je plastičnim rebrom; drška je raščlanjena dvama plastičnim rebrima od kojih se vanjsko nastavlja u ojačanje sječiva, a unutarne pod ostrim kutom završava u istom ojačanju. Težina: 51,9 g. (T. 3: 50)

Ovakvi su srpovi pronađeni u ostavi Podcrkavlje-Slavonski Brod (Vinski-Gasparini 1973: T. 68: 16–17). Još jedan primjerak ovakva srpa pronađen je u ostavi Bingula-Divoš (*ibid.*: T. 85: 23). Ulomci srpova (T. 3: 45, 47–48, 50) pripadaju tip Uioara I prema podjeli M. Petrescu-Dîmbovițe i nalazimo ih na prostorima Rumunjske, Mađarske, Hrvatske, Srbije, Ukrajine, na prostorima Češke, Slovačke, Austrije te u Saskoj i Donjoj Bavarskoj u Njemačkoj. Ti se srpovi datiraju u vrijeme od Br D do u Ha B1, odnosno od stupnja Uriu do stupnja Moigrad, no najbrojniji su u stupnju Suseni, što odgovara vremenu Ha A1 (Petrescu-Dîmbovița 1978: 26–27, 53, T. 2).

22. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno plastično rebro. Težina: 48,2 g. (T. 4: 55)

17. Sickle fragment; outer edge of blade reinforced with rib under which there is another rib. Weight: 29.6 g. (T. 3: 52)

18. Fragment of sickle handle divided into three vertical ribs. Weight: 9.9 g. (T. 4: 58)

19. Fragment of sickle handle divided into three vertical ribs. Weight: 14.3 g. (T. 4: 59)

These sickles fragments are very similar to sickle fragment no. 8 (T. 3: 44). This type of sickle is known from the Brodski Varoš hoard (Vinski-Gasparini 1973: T. 64: 4). A similar sickle fragment, on which the inside rib does not continue into the blade, distinguishing it from this example, was found in the Mačkovac hoard near Nova Gradiška. The hoard was dated to phase II of the Urnfield culture hoard in northern Croatia (Karavanić & Mihaljević 2001: 9, 20, T. 3: 3). A similar sickle was found in the Poljanci IV-Donje Polje hoard (Miklik-Lozuk 2004: 30, T. IV: 2). These sickle fragments from the Siča hoard are Uioara 2a type, dated to the Suseni phase (Ha A1) (Petrescu-Dîmbovița 1978: 53, T. 4B). Besides harvesting, these sickles may have been used to cut grass or vines (Primas 1986: 100).

20. Sickle fragment; external rib of blade reinforced with rib; handle is divided into two ribs, of which the external rib continues into blade reinforcement, while the inside rib ends in the same reinforcement at a sharp angle; two smaller perpendicular ribs are visible at the transition from handle to blade. Weight: 61.5 g. (T. 3: 49)

This type of sickle was found in the Tenja hoard (Vinski-Gasparini 1973: T. 32: 6), while an exponent from the Bingula-Divoš hoard has the lower portion decorated in this manner (Vinski-Gasparini 1973: T. 87: 13). A similar sickle was also found in the Šumatac 1 hoard, dated to phase II of the hoard according to König (König 2004: 22, T. 3, T. 11A: 34).

21. Sickle fragment; external rib of blade reinforced with rib; handle is divided into two ribs, of which the external rib continues into blade reinforcement, while the inside rib ends in the same reinforcement at a sharp angle. Weight: 51.9 g. (T. 3: 50)

These types of sickles were found in the Podcrkavlje-Slavonski Brod hoard (Vinski-Gasparini 1973: T. 68: 16–17). Another example of this type was found in the Bingula-Divoš hoard (*ibid.*: T. 85: 23). The sickle fragments (T. 3: 45, 47–48, 50) are Uioara I type based on M. Petrescu-Dîmbovița's classification, and they are widespread in Romania, Hungary, Croatia, Serbia, Ukraine, and in the Bohemia, Slovakia, Austria and in Saxony and Lower Bavaria in Germany. These type of sickles have been dated from Br D to the Ha B1, i.e. from the Uriu to Moigrad phases, but they are most numerous in the Suseni phase, which corresponds to the Ha A1 period (Petrescu-Dîmbovița 1978: 26–27, 53, T. 2).

23. Ulomak drške srpa raščlanjene dvama vertikalnim rebrima. Težina: 42,6 g. (T. 4: 56)
24. Ulomak sječiva srpa prema spoju s drškom; vanjski rub sječiva ojačan je plastičnim rebrom, a vidljivo je i središnje rebro koje se nastavlja iz drške. Težina: 54,7 g. (T. 4: 57)
25. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 32,0 g. (T. 4: 60)
26. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 47,7 g. (T. 4: 61)
27. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 33,8 g. (T. 4: 62)
28. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 30,9 g. (T. 4: 63)
29. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno manje plastično rebro. Težina: 25,6 g. (T. 4: 64)
30. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 41,6 g. (T. 4: 65)
31. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno manje plastično rebro. Težina: 28,8 g. (T. 4: 66)
32. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 38,3 g. (T. 4: 67)
33. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno manje plastično rebro. Težina: 59,2 g. (T. 4: 68)
34. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno manje plastično rebro. Težina: 25,9 g. (T. 4: 69)
35. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 43,0 g. (T. 5: 70)
36. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno manje plastično rebro. Težina: 30,5 g. (T. 5: 71)
37. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 15,4 g. (T. 5: 72)
38. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno manje rebro. Težina: 7,5 g. (T. 5: 73)
39. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno manje rebro. Težina: 20,0 g. (T. 5: 74)
40. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 9,5 g. (T. 5: 75)
41. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 10,7 g. (T. 5: 76)
42. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 16,0 g. (T. 5: 77)
43. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 21,2 g. (T. 5: 78)
44. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 18,9 g. (T. 5: 79)
45. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno manje rebro. Težina: 19,9 g. (T. 5: 80)
22. Fragment of sickle blade; external rib of blade reinforced with rib with another rib below it. Weight: 48.2 g. (T. 4: 55)
23. Fragment of sickle handle that divides into two vertical ribs. Weight: 42.6 g. (T. 4: 56)
24. Fragment of sickle blade at connection with handle; external rib of blade reinforced with rib, while a middle rib that continues from handle is also visible. Weight: 54.7 g. (T. 4: 57)
25. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 32 g. (T. 4: 60)
26. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 47.7 g. (T. 4: 61)
27. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 33.8 g. (T. 4: 62)
28. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 30.9 g. (T. 4: 63)
29. Fragment of sickle blade; external rib of blade reinforced with rib with another smaller rib below it. Weight: 25.6 g. (T. 4: 64)
30. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 41.6 g. (T. 4: 65)
31. Fragment of sickle blade; external rib of blade reinforced with rib with another smaller rib below it. Weight: 28.8 g. (T. 4: 66)
32. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 38.3 g. (T. 4: 67)
33. Fragment of sickle blade; external rib of blade reinforced with rib with another smaller rib below it. Weight: 59.2 g. (T. 4: 68)
34. Fragment of sickle blade; external rib of blade reinforced with rib with another smaller rib below it. Weight: 25.9 g. (T. 4: 69)
35. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 43.0 g. (T. 5: 70)
36. Fragment of sickle blade; external rib of blade reinforced with rib with another smaller rib below it. Weight: 30.5 g. (T. 5: 71)
37. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 15.4 g. (T. 5: 72)
38. Fragment of sickle blade; external rib of blade reinforced with rib with another smaller rib below it. Weight: 7.5 g. (T. 5: 73)
39. Fragment of sickle blade; external rib of blade reinforced with rib with another smaller rib below it. Weight: 20 g. (T. 5: 74)
40. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 9.5 g. (T. 5: 75)
41. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 10.7 g. (T. 5: 76)
42. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 16.0 g. (T. 5: 77)
43. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 21.2 g. (T. 5: 78)

46. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 17,0 g. (T. 5: 81)
47. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 20,3 g. (T. 5: 82)
48. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 12,7 g. (T. 5: 83)
49. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 16,8 g. (T. 5: 84)
50. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 8,5 g. (T. 5: 85)
51. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 11,8 g. (T. 5: 86)
52. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 13,9 g. (T. 5: 87)
53. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 8,7 g. (T. 5: 88)
54. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 9,8 g. (T. 5: 89)
55. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno manje rebro. Težina: 8,8 g. (T. 5: 90)
56. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 12,8 g. (T. 5: 91)
57. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 9,7 g. (T. 5: 92)
58. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom ispod kojega se nalazi još jedno manje rebro. Težina: 7,3 g. (T. 5: 93)
59. Ulomak drške srpa raščlanjene trima vertikalnim rebrima. Težina: 6,8 g. (T. 5: 94)
60. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 4,9 g. (T. 5: 95)
61. Ulomak drške srpa. Težina: 6,1 g. (T. 5: 96)
62. Ulomak drške srpa raščlanjene trima vertikalnim rebrima. Težina: 7,6 g. (T. 5: 97)
63. Ulomak sječiva srpa; vanjski rub sječiva ojačan je plastičnim rebrom. Težina: 7,8 g. (T. 5: 98)
64. Ulomak drške srpa raščlanjene trima vertikalnim rebrima. Težina: /. (T. 5: 99)
65. Ulomak drške srpa raščlanjene trima vertikalnim rebrima. Težina: 10,0 g. (T. 5: 100)
66. Ulomak drške srpa raščlanjene trima vertikalnim rebrima. Težina: 11,4 g. (T. 5: 102)
67. Ulomak drške srpa raščlanjene trima vertikalnim rebrima. Težina: 12,5 g. (T. 5: 103)
68. Ulomak drške srpa raščlanjene trima vertikalnim rebrima. Težina: 5,6 g. (T. 5: 104)
- Srpovi pod brojem 7–12, 14–19, 22–24, 58–59, 62, 64–68 pripadaju tipu srpova Uioara (Petrescu-Dimbovița 1978: 26–27). Za ostale ulomke srpova nije moguće odrediti točan tip. Ipak može se zaključiti da se u ostavi Siča, u kojoj su srpovi najzastupljeniji predmeti, radi o velikoj količini slomljenih srpova. Ako se takvoj zastupljenosti traži objašnjenje, važno
44. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 18.9 g. (T. 5: 79)
45. Fragment of sickle blade; external rib of blade reinforced with rib with another smaller rib below it. Weight: 19.9 g. (T. 5: 80)
46. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 17 g. (T. 5: 81)
47. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 20.3 g. (T. 5: 82)
48. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 12.7 g. (T. 5: 83)
49. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 16.8 g. (T. 5: 84)
50. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 8.5 g. (T. 5: 85)
51. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 11.8 g. (T. 5: 86)
52. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 13.9 g. (T. 5: 87)
53. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 8.7 g. (T. 5: 88)
54. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 9.8 g. (T. 5: 89)
55. Fragment of sickle blade; external rib of blade reinforced with rib with another smaller rib below it. Weight: 8.8 g. (T. 5: 90)
56. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 12.8 g. (T. 5: 91)
57. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 9.7 g. (T. 5: 92)
58. Fragment of sickle blade; external rib of blade reinforced with rib with another smaller rib below it. Weight: 7.3 g. (T. 5: 93)
59. Fragment of sickle handle that divides into three vertical ribs. Weight: 6.8 g. (T. 5: 94)
60. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 4.9 g. (T. 5: 95)
61. Fragment of sickle handle. Weight: 6.1 g. (T. 5: 96)
62. Fragment of sickle handle that divides into three vertical ribs. Weight: 7.6 g. (T. 5: 97)
63. Fragment of sickle blade; external rib of blade reinforced with rib. Weight: 7.8 g. (T. 5: 98)
64. Fragment of sickle handle that divides into three vertical ribs. Weight: /. (T. 5: 99)
65. Fragment of sickle handle that divides into three vertical ribs. Weight: 10 g. (T. 5: 100)
66. Fragment of sickle handle that divides into three vertical ribs. Weight: 11.4 g. (T. 5: 102)
67. Fragment of sickle handle that divides into three vertical ribs. Weight: 12.5 g. (T. 5: 103)
68. Fragment of sickle handle that divides into three vertical ribs. Weight: 5.6 g. (T. 5: 104)
- The sickles under numbers 7–12, 14–19, 22–24, 58–59, 62, 64–68 are Uioara type sickles (Petrescu-Dimbovița 1978: 26–27). The exact type for the re-

je istaknuti da je S. Hansen u svome proučavanju ostava na prostoru između Karpatske kotline i doline rijeke Rhône zaključio da je središnje područje rasprostiranja srpova s jezičastom drškom upravo međuriječje Save i Drave te u Transdanubiji (Hansen 1994: 205). Kronološki je važno istaknuti da se pri deponiranju srpova u starijoj fazi kulture polja sa žarama može zamijetiti kvantitativna eksplozija. Velik broj i fragmentiranost srpova naveli su na razmišljanje o predmonetarnoj funkciji srpova (Primas 1986: 38). No analiza težine ulomaka srpova u ostavi Lažany i usporedba sa širim područjem i prijašnjim analizama dokazale su da se u kasnobrončanodobnoj srednjoj Europi ne može govoriti o ustaljenome težinskom sustavu (Hansen 1994: 208). U ostavama Pécs-Jakabhagy, Marok i Spálnaca II uočeno je lomljenje srpova do ulomaka težine između 7 i 11 g (Pare 1999: 506). Najveća zajednička jedinica od oko 27 g, dokazana ingotima u srednjoeuropskim ostavama, svjedoči u prilog uvođenja ciparskoga, odnosno istočnomediteranskoga, težinskog sustava na prostor srednje Europe u 12. st. pr. Kr. (*ibid.*: 508). Logično je da s kolanjem sirovina i roba postoji i potreba za "novcem" zajedničkim svim područjima, kao i za zajedničkim mjernim sustavom, odnosno metričkim "jezikom" koji bi bio razumljiv trgovačkim partnerima u kasnobrončanodobnome svijetu (*ibid.*: 513). Pojava srpova i lomljene bronce karakteristika je karpatsko-podunavskih ostava koja se može zamijetiti i u nekim srednjonjemačkim ostavama (von Brunn 1968: 234). Ulomci brončanih predmeta od vremena srednjega brončanog doba cirkuliraju kao sitni novac, a kao takvi se pojavljuju i u grobovima te kao žrtveni darovi u ostavama (Lernerz-de Wilde 1995: 317). Masovna pojava srpova u ostavama otvara pitanje o isključivu neprilaganju srpova u grobove. Postoje neki izuzeci, kao što je to nekoliko grobova kulture Piliny na groblju Radzovce te na groblju Litke (Hansen 1994: 211). Zanimljivo je da su u dvama grobovima u pećini Bezdanjača kod Vrhovina u Lici pronađeni srpovi s jezičastom drškom (dva u skupnome grobu 3, jedan u skupnom grobu 9) (Drechsler-Bižić 1980: 37, T. XXIII: 5, T. XXIV: 3, T. XXVI: 4).

NOŽEVI

69. Ulomak jezičasta drška noža; vanjski su rubovi plastično ojačani; na jezičku su četiri ovalne rupe koje su služile za pričvršćivanje. Težina: 8,5 g. (T. 2: 33)
70. Ulomak jezičasta drška noža; vanjski su rubovi plastično ojačani; na jezičku su dvije rupe koje su služile za pričvršćivanje. Težina: 4,9 g. (T. 2: 34)
71. Ulomak jezičasta drška noža; vanjski su rubovi plastično ojačani; na jezičku su dvije ovalne rupe koje su služile za pričvršćivanje. Težina: 5,1 g. (T. 2: 35)

maining sickles cannot be ascertained. Nonetheless, one can conclude that there is a large quantity of broken sickles in the Siča hoard, in which sickles are the most common item. In contemplating an explanation for this quantity, it is important to stress that S. Hansen, in his study of hoards from the territory between the Carpathian Basin and the Rhône River Valley, concluded that the main area of distribution of sickles with tang-shaped handles is precisely the Sava and Drava interfluvium and in Transdanubia (Hansen 1994: 205). Chronologically it is important to point out that in deposition of sickles in the older phase of the Urnfield culture a quantitative explosion can be observed. The large number and fragmentariness of sickles have prompted consideration of the pre-monetary function of sickles (Primas 1986: 38). But an analysis of the weights of sickle fragments in the Lažany hoard and a comparison with the wider surrounding area, as well as previous analyses, have demonstrated that one cannot assert the existence of an established weight system in Late Bronze Age Central Europe (Hansen 1994: 208). In the Pécs-Jakabhagy, Marok and Spálnaca II hoards, the breaking of sickles into fragments weighing between 7 and 11 g has been noted (Pare 1999: 506). The highest customary unit of approximately 27 g, evidenced by ingots from Central European hoards, supports a possibility of the introduction of Cypriot or Eastern Mediterranean weight system to Central Europe in the twelfth century BC (*ibid.*: 508). It is logical that with the circulation of raw materials and goods there was a need for "money" common to all territories, as well as a common system of measures, i.e. a metric "language" comprehensible to all trade partners in the Late Bronze Age world (*ibid.*: 513). The appearance of sickles and fragmented bronze is a feature of Danubian hoards, which can be observed in some Central German hoards as well (von Brunn 1968: 234). Fragments of bronze items in the Middle Bronze Age circulated as petty money, and as such it appeared in graves and as sacrificial offerings in hoards (Lernerz-de Wilde 1995: 317). The mass appearance of sickles in hoards opens the question of the exclusive lack of sickle deposits in graves. There are some exceptions, such as several Piliny culture graves at the Radzovce cemetery and the Litke cemetery (Hansen 1994: 211). It is interesting that in two graves in Bezdanjača cave near Vrhovine in Lika, sickles with tang-like handles were found (two in collective grave 3 and one in collective grave 9) (Drechsler-Bižić 1980: 37, T. XXIII: 5, T. XXIV: 3, T. XXVI: 4).

KNIVES

69. Fragment of tang-shaped knife handle; external edges reinforced sculpturally; four oval holes for fastening on tang. Weight: 8.5 g. (T. 2: 33)

Ove ulomke držaka noževa, s obzirom na sačuvanost ulomaka, prilično je teško atribuirati nekom određenom tipu noža.

72. Ulomak jezičasta drška noža; vanjski su rubovi plastično ojačani; na jezičku je rupa sa zakovicom koja je služila za pričvršćivanje. Težina: 7,1 g. (T. 2: 36)

Ovakav držak noža pronađen je u ostavi Brodski Varoš (Vinski-Gasparini 1973: 92, T. 56: 14) te kao pojedinačni nalaz na Belskoj planini u Koruškoj, gdje je datiran u vrijeme Br D/Ha A (Šinkovec 1995: 97, T. 27: 188). Sličan primjerak noža pronađen je u Moldu bez poznatih poblizih okolnosti nalaza i pripisan je tipu Riegsee iz razdoblja rane i starije faze kulture polja sa žarama (Lochner 1991: 115, 204).

73. Ulomak sječiva noža (?) sa zadebljanjem na gornjoj strani. Težina: 3,2 g. (T. 12: 245)

74. Ulomak predmeta polukružna presjeka s trakastim drškom s kružnom rupicom za pričvršćivanje (za zakovicu). Težina: 6,7 g. (T. 2: 37)

Sličan primjerak pronađen je u transilvanskoj ostavi Deva III datiranoj u vrijeme Ha A1 (Petrescu-Dîmbovița 1977: 91, T. 136: 15). Konjskoj opremi pripisan je sličan primjerak iz ostave Uioara de Sus (Petrescu-Dîmbovița 1977: 115, T. 247: 13). Sličan predmet, samo bez rupice za pričvršćivanje drška, pronađen je u ostavi iz mlađe faze kulture grobnih humaka Hradisko 1, gdje također nije definirana njegova namjena.⁶ Dakle, prilično je teško odrediti pravu funkciju ovoga predmeta.

PILE

75. Ulomak pile. Težina: 3,6 g. (T. 2: 31)

76. Ulomak pile nazubljene s objiju strana. Težina: 7,8 g. (T. 2: 32)

Ulomci pila iz ostave Siča svjedoče o uobičajenu inventaru ostava međuriječja Drave i Save. Nalazi pila zabilježeni su u ostavama Bizovac (Vinski-Gasparini 1973: T. 35: 7–8), Veliko Nabrđe (*ibid.*: T. 46: 23–24), Gornja Vrba (*ibid.*: T. 50: 23), Brodski Varoš (*ibid.*: T. 54, 22–30, T. 63: 20), Pričac (*ibid.*: T. 72: 8, 13), Budinščina (*ibid.*: T. 78: 18–19), Jarak I (*ibid.*: T. 83: 12), Bingula-Divoš (*ibid.*: T. 84: 15, 19). Pila su vrlo česti nalazi i u ostavama II. faze u Srijemu. Tako ih uz već pobrojene ostave ima i u ostavama Sremska Mitrovica i Jarak II (Balen-Letunić 1988: 6, T. I: 7–9, T. IV: 2–4). Ulomci brojnih pila pronađeni su i u ostavi Futog u Bačkoj iz vremena Ha A1 (Borić 1997: 48–49, T. VII: 91–144) te u ostavi iz Pećinaca u Srijemu (Milošević 1960: 157, T. IV: 2–10). Pila je

70. Fragment of tang-shaped knife handle; external edges reinforced sculpturally; two oval holes for fastening on tang. Weight: 4.9 g. (T. 2: 34)

71. Fragment of tang-shaped knife handle; external edges reinforced sculpturally; two oval holes for fastening on tang. Weight: 5,1 g. (T. 2: 35)

These knife handle fragments, given their state of preservation, are rather difficult to attribute to a specific knife type.

72. Fragment of tang-shaped knife handle; external edges reinforced sculpturally; hole with rivet on handle used for fastening. Weight: 7.1 g. (T. 2: 36)

This type of knife handle was found in the Brodski Varoš hoard (Vinski-Gasparini 1973: 92, T. 56: 14) and as an individual find at Belska planina in Carinthia, where it was dated to the Br D/Ha A period (Šinkovec 1995: 97, T. 27: 188). A similar example of a knife was found in Mold without any known circumstances surrounding the find, and it was ascribed to the Riegsee type and the earlier phase of the Urnfield culture (Lochner 1991: 115, 204).

73. Knife blade fragment (?) that broadens on the upper side. Weight: 3.2 g. (T. 12: 245)

74. Fragment of item with semi-circular cross-section and with banded handle that has a circular hole (for a rivet). Weight: 6.7 g. (T. 2: 37)

A similar example was found in the Transylvanian hoard Deva III, dated to the Ha A1 period (Petrescu-Dîmbovița 1977: 91, T. 136: 15). A similar example from the Uioara de Sus hoard was ascribed as a component of horse harness (Petrescu-Dîmbovița 1977: 115, T. 247: 13). A similar item, only without holes to fasten the handle, was found in a hoard dated to the more recent phase of the Hradisko 1 Tumulus culture, where its purpose was similarly not ascertained.⁶ Thus it is relatively difficult to determine the actual function of this item.

SAWS

75. Saw fragment. Weight: 3.6 g. (T. 2: 31)

76. Saw fragment denticulated on both sides. Weight: 7.8 g. (T. 2: 32)

Saw fragments from the Siča hoard testify to its customary inventory for hoards from the Drava and Sava interfluve. Saw finds were recorded in the hoards from Bizovac (Vinski-Gasparini 1973: T. 35: 7–8), Veliko Nabrđe (*Ibid.*: T. 46: 23–24), Gornja Vrba (*Ibid.*: T. 50: 23), Brodski Varoš (*Ibid.*: T. 54, 22–30, T. 63: 20), Pričac (*Ibid.*: T. 72: 8, 13),

⁶ Na ovu paralelu uputio nas je Milan Salaš iz Brna, na čemu mu najljepše zahvaljujemo.

⁶ This parallel was pointed out to us by Milan Salaš from Brno, for which we are very grateful.

pronađena i u naselju Belegiš II kulture na Vučedolu (Forenbaher 1989: 60, T. 1B: 5).

Ovakve pile nalazimo na prostoru Karpatske kotline, južne Panonije i sjevernoga Balkana, u I. i II. fazi ostava prema K. Vinski-Gasparini (Teržan 2003: 187). Mnoštvo pila ove vrste pronađeno je u ostavi Moldova Veche I u Transilvaniji (Petrescu-Dîmbovița 1977: 99, T. 164: 15–34). S obzirom na veličinu ove vrste pila, koje su izvorno bile dugačke do 20 cm, može se pretpostaviti da su služile za rezanje sirovine ili kao toreutički alat, ili su pak služile za obradu kostiju ili rogova (Teržan 2003: 188).

77. Ulomak pile nazubljene s jedne strane. Težina: 3,4 g. (T. 10: 166)

Dva ulomka pila kojima je nazubljena samo jedna strana pronađena su u ostavi Băleni u Moldaviji, koja isto pripada horizontu Rișești-Băleni, odnosno 13. st. pr. Kr. (Petrescu-Dîmbovița 1977: 73, T. 73: 18–19). Takve pile služile su za obradu drva, možda kosti i roga, vjerojatno kao oruđe tesara ili možda rezbara, a rasprostranjene su na alpskom, italjskom i grčkom području i datirane u Ha A2/Ha B1 (Teržan 2003: 188–191, sl. 4).

DLIJETA

78. Šuplji ulomak drška dlijeta s rebrastim ojačanjem na prijelazu u oštricu; držak je romboidna presjeka; unutar drška ostao je vrh oštrice. Težina: 71,3 g. (T. 2: 38)

79. Ulomak tuljasta predmeta, vjerojatno dlijeta; punoljevani držak koji iz zadebljanja na kraju prelazi u tanji dio. Težina: 22,7 g. (T. 2: 41)

80. Ulomak drška tuljasta predmeta s rupom za pričvršćivanje; vjerojatno se radi o dlijetu. Težina: 14,0 g. (T. 2: 42)

Predmeti pod brojem 78–80 vrlo su fragmentirani, no kako je riječ o punoljevanim neukrašenim ulomcima s bridom na vrhu, skloni smo ih pripisati ulomcima vrha dlijeta ili neukrašenih šupljih sjekira. Zbog fragmentiranosti teško ih je pripisati nekom određenom tipu, a i sama dlijeta nisu osobito kronološki osjetljiva (Vinski-Gasparini 1973: 139, T. 96: 10).

ORUŽJE

KOPLJA

81. Ulomak koplja s tuljcem za nasad, plamenaste oštrice s profiliranim središnjim rebrom i zaliscima na tuljcu. Težina: 37,8 g. (T. 2: 7)

Budinščina (*Ibid.*: T. 78: 18–19), Jarak I (*Ibid.*: T. 83: 12), and Bingula-Divoš (*Ibid.*: T. 84: 15, 19). Saws are frequent items in phase II hoards in Sarmia. Thus, besides the aforementioned hoards, they also appear in the Sremska Mitrovica and Jarak II hoards (Balen-Letunić 1988: 6, T. I: 7–9, T. IV: 2–4). Fragments of numerous saws were also found in the Futog hoard in Bačka dated to the Ha A1 time (Borić 1997: 48–49, T. VII: 91–144) and in the hoard from Pećinci in Sarmia (Milošević 1960: 157, T. IV: 2–10). A saw was also found in the Belegiš II culture settlement at Vučedol (Forenbaher 1989: 60, T. 1B: 5).

These saws are widespread in the Carpathian Basin, southern Pannonia and the northern Balkans, in hoard phase I and II according to K. Vinski-Gasparini (Teržan 2003: 187). Many saws of this type were found in the Moldova Veche I hoard in Transylvania (Petrescu-Dîmbovița 1977: 99, T. 164: 15–34). Given the size of this type of saw, which were originally 20 cm long, one can assume that they were used to cut raw materials or as toreutic tools, or to work bones or horns (Teržan 2003: 188).

77. Fragment of small saw denticulated on one side. Weight: 3.4 g. (T. 10: 166)

Two saw fragments with only one denticulated side were found in the Băleni hoard in Moldova which dates to the Rișești-Băleni horizon, i.e. the thirteenth century BC (Petrescu-Dîmbovița 1977: 73, T. 73: 18–19). These saws were used to work wood, and perhaps bone and horns, probably as tools used in stoneworking or perhaps carving, and they were widespread in the Alpine, Italic and Greek zones, dated to the Ha A2/Ha B1 period (Teržan 2003: 188–191, Fig. 4).

CHISELS

78. Hollow fragment of chisel handle with ribbed reinforcement at transition to blade; handle with rhomboid cross-section; tip of blade remained within handle. Weight: 71.3 g. (T. 2: 38)

79. Fragment of conical item, probably chisel; fully forged handle which turns to thinner portion from broadened end. Weight: 22.7 g. (T. 2: 41)

80. Fragment of handle of conical item with hole for fastening; probably chisel. Weight: 14 g. (T. 2: 42)

The items under numbers 78–80 are very fragmentary, but since these are fully forged undecorated fragments with wedge at the top, we favour classifying them as chisel tips or undecorated socketed axes. Their fragmentary condition makes it difficult to classify them to any specific type, while chisels themselves are not particularly chronologically sensitive (Vinski-Gasparini 1973: 139, T. 96: 10).

Koplje sa zaliscima na tuljcu za nasad, ali bez profilacije središnjega rebra, pronađeno je u ostavi Otok-Privlaka datiranoj u rani Ha A (Vinski-Gasparini 1973: 81, T. 27: 25). Usporedba za koplje ovoga tipa nalazi se u ostavi Budinščina, što upućuje na tipove starije od ranijega Ha A, iako takva koplja na području sjeverne Hrvatske starija od II. faze ostava zasad nisu pronađena (*ibid.*: 104, T. 77: 24). Ulomak koplja s profiliranim središnjim rebrom i zaliscima na tuljcu pronađen je u ostavi iz Livadićeve ulice u Slavonskom Brodu (Miškov 1982: 175, T. III: 7), kao i u ostavi Kućišta u Bosanskoj Posavini (König 2004: 203, T. 1: 6). Ovakav tip koplja pronađen je i u Mostarskome Blatu i može se datirati u Ha A (Nadbath 2004: 48, T. 3: 11). Slično koplje zamijećeno je u ostavi Ometala kod Gmića (Batović 1983: T. XLVII: 2). Kalup koji svjedoči o izradi takvih kopalja na bosansko-hercegovačkome području pronađen je u naselju Velika Gradina na Varvari (Nadbath 2004: 48, T. 3: 11). Taj tip kopalja raširen je po zapadnome Balkanu, pa i na prostoru srednje Italije, gdje je mlađi (9. st. pr. Kr.) i gdje je vjerojatno proširen s istočne strane Jadrana (Batović 1983: 344). Isto koplje pronađeno je u ostavi Mali Žam kod Vršca (Rašajski 1975: 61, T. LVIII: 1). Koplje (T. 2: 7) pod brojem 81 posjeduje zaliske na tuljcu, što se ne može sa sigurnošću reći za koplje pod brojem 82 (T. 2: 8). Koplja sa zaliscima na tuljcu i s profiliranim srednjim rebrom zabilježena su u ostavi Čermožiše kod Maribora (Čerče & Šinkovec 1995: 140, T. 44: 18–20). Slično koplje sa zaliscima na tuljcu, profiliranim listom i rebrom nalazilo se u ostavi Hercegovščak kod Gornje Radgone (*ibid.*: 175, T. 73: 3). Ulomci vršaka sličnih kopalja pronađeni su u ostavi Hočko Pohorje (*ibid.*: 179, T. 75: 16, 20). Sve tri ostave (Čermožiše, Hercegovščak, Hočko Pohorje) datiraju se u II. fazu ostava prema Turku (Turk 1996: 108). Brojne paralele za ovakva koplja s profiliranim srednjim rebrom nalaze se na prostoru Mađarske, kako to za horizont Aranyos, koji se datira u vrijeme Br D, pokazuje eponimna ostava Bükkaranyos I (Borsod-Abaúj-Zemplén) (Mozsolics 1985: 105, T. 1: 7). Mnoštvo vrlo sličnih kopalja pronađeno je u istodobnoj ostavi Bükkaranyos II (*ibid.*: 105–106, T. 4: 4–7, 14–15, T. 5: 7–9, 11–14). Koplje s fazetiranim tuljcem i profiliranim srednjim rebrom nalazi se u ostavi Tállya (Borsod-Abaúj-Zemplén), koja se datira u horizont Kurd (*ibid.*: 200, T. 161: 11, 16). Brojna koplja s profiliranim rebrom pronađena su u ostavama horizonta Kurd: u ostavi Berkesz (Szabolcs-Szatmár) (*ibid.*: 97, T. 177: 7), u ostavi Kemece III (Szabolcs-Szatmár) (*ibid.*: 133, T. 186: 1), u ostavi Kék (Szabolcs-Szatmár) (*ibid.*: 131, T. 192: 2–4), u ostavi Tiszanagyfalu (Szabolcs-Szatmár) (*ibid.*: 204, T. 196: 2), i u ostavi Piricse (Szabolcs-Szatmár) (*ibid.*: 176, T. 200: 17). Takav tip ko-

WEAPONS

SPEARHEADS

81. Spearhead fragment with socket for the pole, flame-like sharp edges with prominent central rib and winged socket. Weight: 37.8 g. (T. 2: 7)

A spearhead with winged sockets for poles, but without a prominent central rib, was found in the Otok-Privlaka hoard dated to the early Ha A period (Vinski-Gasparini 1973: 81, T. 27: 25). A comparable spearhead of this type can be found in the Budinščina hoard, which indicates types older than the early Ha A period, although such spearheads older than hoard phase II have so far not been found in northern Croatia (*Ibid.*: 104, T. 77: 24). A fragment of a spearhead with a prominent central rib and winged socket was found in the Livadićeve Ulica hoard in Slavonski Brod (Miškov 1982: 175, T. III: 7), and in the Kućišta hoard in Bosanska Posavina (König 2004: 203, T. 1: 6). This type of spearhead was also found in Mostarsko Blato and it can be dated to the Ha A period (Nadbath 2004: 48, T. 3: 11). A similar spearhead was observed in the Ometala hoard near Gmić (Batović 1983: T. XLVII: 2). A mould that testifies to the production of such spearheads in the territory of Bosnia-Herzegovina was found in the settlement of Velika Gradina at Varvara (Nadbath 2004: 48, T. 3: 11). This type of spearhead is widespread throughout the western Balkans, and in central Italy, where they are more recent (ninth century BC) and where they were probably disseminated from the eastern Adriatic coast (Batović 1983: 344). The same type of spearhead was found in the Mali Žam hoard near Vršac (Rašajski 1975: 61, T. LVIII: 1). The spearhead (T. 2: 7) under number 81 has a winged socket, which cannot be stated with certainty in the case of the spearhead under number 82 (T. 2: 8). Spearheads with winged sockets and prominent central ribs were recorded in the Čermožiše hoard from Maribor (Čerče & Šinkovec 1995: 140, T. 44: 18–20). A similar spearhead with winged socket, prominent leaf and rib was found in the Hercegovščak hoard from Gornja Radgona (*Ibid.*: 175, T. 73: 3). Fragments of the tips of similar spearheads were found in the Hočko Pohorje hoard (*Ibid.*: 179, T. 75: 16, 20). All three hoards (Čermožiše, Hercegovščak, Hočko Pohorje) date to hoard phase II according to Turk (Turk 1996: 108). Numerous parallels with this type of spearhead with a prominent central rib were found in Hungary, as shown for the Aranyos horizon, dated to the Br D period, by the eponymous Bükkaranyos I hoard (Borsod-Abaúj-

plja na području Mađarske traje kroz čitavu stariju fazu kulture polja sa žarama, s pojavljivanjem već u horizontu ostava Ópályi iz srednjega brončanog doba (*ibid.*: 21). Koplja sa zaliscima na tuljcu pronađena su na tlu Rumunjske u ostavama Galošpretreu i Uioara de Sus u Transilvaniji, datiranim u vrijeme Ha A1 (Petrescu-Dimbovița 1977: 94, T. 146: 4, T. 251: 1–3). Slično koplje iz starije faze kulture polja sa žarama pronađeno je u žarnome grobu u Pleissingu u Donjoj Austriji (Lochner 1991: 126, T. 86: 1). Koplja sa zaliscima na tuljcu označena su kao tip A s ravnom oštricom i profiliranim tuljcem, a rasprostranjena su od sjeveroistočne Mađarske, koja je označena kao njihovo ishodište, preko zapadne Mađarske, Hrvatske do Slovačke, dok se u manjem broju pojavljuju u Poljskoj i Češkoj. Takva su koplja datirana u vrijeme starije faze kulture polja sa žarama (Říhový 1996: 62–62, T. 10: 96), a poznata su i iz vremena mlađe kulture polja sa žarama, npr. iz Mušje jame kod Škocjana na Krasu (Gabrovec 1983: sl. 9, 5) i iz ostave Románd u Transdanubiji (Mozsolics 2000: 70, T. 84: 5).

82. Ulomak koplja s tuljcem za nasad, listolike oštrice s profiliranim središnjim rebrom. Težina: 35,0 g. (T. 2: 8)

Koplje s profiliranim listom i profiliranim tuljcem, koje upućuje na stariji tip koplja, zamijećeno je u sjevernoj Hrvatskoj tek u II. fazi, u ostavi Budinščina u Hrvatskome zagorju (Vinski-Gasparini 1973: 104, T. 77: 18). Ulomci takvih kopalja pronađeni su i u ostavi Poljanci II (Bulat 1975: 6, T. III: 8–9). Koplja s oštro profiliranim listom nalaze se u ostavi iz okolice Bonyháda (Tolna) (Mozsolics 1985: 105, 103–104, T. 36: 10–11), zatim u ostavi Füzesabony (Heves) (*ibid.*: 120, T. 146: 5) te u ostavi Berkesz (*ibid.*: 97, T. 177: 8), gdje su datirana u horizont Kurd. Koplje s profiliranim listom i oštricom pronađeno je u ostavi Drslavice u Moravskoj, iz starije faze kulture polja sa žarama (Říhový 1996: 86–87, T. 19: 188).

83. Ulomak koplja oštećenih rubova. Težina: 23,8 g. (T. 2: 9)

84. Ulomak koplja s naglašenim srednjim rebrom. Težina: 6,3 g. (T. 2: 10)

85. Vrh koplja. Težina: 5,5 g. (T. 2: 12)

86. Vrh koplja s profiliranim srednjim rebrom. Težina: 6,1 g. (T. 2: 13)

Ulomke kopalja br. 83–85 zbog oštećenosti prilično je teško svrstati u neki jasno definirani tip. Jedino je koplje br. 86, s obzirom na sačuvano profilirano središnje rebro, vrlo vjerojatno istoga tipa kao i koplje br. 82.

Dakle, koplja pronađena u ostavi Siče karakterizira oblik tipičan za ranu fazu kulture polja sa žarama. Iako se u Mađarskoj pojavljuju od srednjega brončanog doba (Mozsolics 1985: 21), primjerci poznati

Zemplén) (Mozsolics 1985: 105, T. 1: 7). Many very similar spearheads were found in the eponymous Bükkaranyos II hoard (*Ibid.*: 105–106, T. 4: 4–7, 14–15, T. 5: 7–9, 11–14). Spearheads with a faceted socket and prominent central rib were found in the Tállya hoard (Borsod-Abaúj-Zemplén), dated to the Kurd horizon (*Ibid.*: 200, T. 161: 11, 16). Numerous spearheads with prominent central ribs were found in Kurd horizon hoards: the Berkesz hoard (Szabolcs-Szatmár) (*Ibid.*: 97, T. 177: 7), the Kemece III hoard (Szabolcs-Szatmár) (*Ibid.*: 133, T. 186: 1), the Kék hoard (Szabolcs-Szatmár) (*Ibid.*: 131, T. 192: 2–4), the Tiszanagyfalu hoard (Szabolcs-Szatmár) (*Ibid.*: 204, T. 196: 2), and the Piricse hoard (Szabolcs-Szatmár) (*Ibid.*: 176, T. 200: 17). This spearhead type persisted in Hungary for the entire older phase of the Urnfield culture, already appearing in the Ópályi hoard horizon during the Middle Bronze Age (*Ibid.*: 21). A spearhead with winged socket was found in Romania's territory in the Galošpretreu and Uioara de Sus hoards in Transylvania, dated to the Ha A1 period (Petrescu-Dimbovița 1977: 94, T. 146: 4, T. 251: 1–3). A similar spearhead from the earlier phase of the Urnfield culture was found in Urnfield grave in Pleissing in Lower Austria (Lochner 1991: 126, T. 86: 1). Spearheads with winged sockets have been designated as type A with a straight blade and prominent socket, and they are widespread from north-east Hungary—which has been determined as their point of origin—through western Hungary to Croatia and Slovakia, while a smaller number appear in Poland and the Bohemia. Such spearheads have been dated to the earlier phase of the Urnfield culture (Říhový 1996: 62–62, T. 10: 96), and they are also known from the later Urnfield culture, e.g. from Mušja jama at Škocjane at Kras (Gabrovec 1983: Fig. 9, 5) and from the Románd hoard in Transdanubia (Mozsolics 2000: 70, T. 84: 5).

82. Fragment of spearhead with socket for shaft, leaf-like blade and prominent central rib. Weight: 35 g. (T. 2: 8)

Spearheads with prominent leaves and sockets, which indicate an older type of spearhead, were noticed in northern Croatia only in phase II, in the Budinščina hoard in Hrvatsko zagorje (Vinski-Gasparini 1973: 104, T. 77: 18). Fragments of such spearheads were also found in the Poljanci II hoard (Bulat 1975: 6, T. III: 8–9). Spearheads with sharply defined leaves can be found in the hoard from the Bonyháda vicinity (Tolna) (Mozsolics 1985: 105, 103–104, T. 36: 10–11), and in the Füzesabony hoard (Heves) (*Ibid.*: 120, T. 146: 5) and in the Berkesz hoard (*Ibid.*: 97, T. 177: 8), where they have been dated to the Kurd horizon. A spearhead with defined leaf and blade was found in the Drslavice

s prostora sjeverne Hrvatske mogu se datirati u vrijeme Ha A. Također, treba istaknuti da su koplja s prostora sjeverne Hrvatske zasad poznata isključivo kao nalazi iz ostava, rjeđe iz naselja ili kao slučajni nalazi, dok prema sadašnjem stanju istraživanja nedostaju nalazi iz grobova starije faze kulture polja sa žarama.

STRELICA

87. Strelica s tuljcem za nasad; vrh je odlomljen. Težina: 2,8 g (T. 2: 14)

Strelice su prilično rijedak nalaz u kasnobrončanodobnim ostavama. U ostavi Brodski Varoš pronađene su dvije (Vinski-Gasparini 1973: T. 60: 15, 19). U ostavi Futog, datiranoj u vrijeme Ha A1, pronađena je strelica s tuljcem i dvama trnovima za nabadanje te se uz upotrebu u lovu i/ili borbi u obzir uzima i upotreba u ribolovu (Borić 1997: 48, 65, T. VI: 90). Dvije strelice – jedna s trnom, druga s tuljcem za nasad – pronađene su u ostavi Tállya (Borsod-Abaúj-Zemplén) iz horizonta Kurd (Mozsolics 1985: 200, T. 162: 14–15). Strelica s odlomljenim trnom i krilcima poput lastavičjega repa pronađena je prilikom sondiranja na naselju Igrišće na Kalniku (Majnarić-Pandžić 1992: 63, T. Iib: 11). Ulomak strelice sa središnjim rebrom pronađen je i u ostavi II na utvrđenom naselju Cezavy kod Blučine u Moravskoj. Budući da su u keramici, pa i u brončanim predmetima, još vidljivi ostaci tradicije kulture grobnih humaka, a istodobno se naziru i novi oblici nadolazeće kulture polja sa žarama, to je naselje datirano u početak kulture polja sa žarama (Říhovský 1961: 153, Obr. 8, 7). Strelica s tuljcem za nasad pronađena je u tumulu Čachtice u Slovačkoj, koji pripada krugu Baierdorf-Velatice, što odgovara vremenu Br D i Ha A (Paulík 1962: 33, Abb. 32, 5). Strelice se na predalpskome prostoru (prostor južne Bavarske i Austrije) dosta često nalaze kao prilog u muškim grobovima s oružjem iz vremena Br D do u Ha A2. P. Schauer razmatrao je namjenu tih strelica koje su mogle služiti za lov ili u boju, što je na osnovi grobnih nalaza dosta teško zaključiti (Schauer 1984: 217, 228, Abb. 4, 5–10, Abb. 5, 17–19, Abb. 10, 9–12, Abb. 11, 18–20). Slične strelice pronađene su i u naselju u Limbergu, koje je bilo nastanjeno kroz čitavo vrijeme kulture polja sa žarama do u starije željezno doba (Lochner 1991: 96). Kao što se i može očekivati, strelice često mogu biti slučajan nalaz. To pokazuju primjeri iz Vinče, Batajničkih vinograda, Zemuna i Oparića, gdje su pronađene strelice datirane uglavnom u vrijeme Br B-Br C (Vukmanović & Radojčić 1995: 99–100, kat. 175–178). Mnoštvo strelica kao slučajnih nalaza potječe s obale Dunava u Zemunu, gdje je veći broj datiran u srednje brončano doba (Todorović 1971: 45–46, T. XXIV: 5–8, T. XXV: 1–2), dok su svi

hoard in Moravia, from the earlier phase of the Urnfield culture (Říhovský 1996: 86–87, T. 19: 188).

83. Spearhead fragment with damaged edges. Weight: 23.8 g. (T. 2: 9)

84. Spearhead fragment with central rib. Weight: 6.3 g. (T. 2: 10)

85. Tip of spearhead. Weight: 5.5 g. (T. 2: 12)

86. Tip of spearhead with fully-formed central rib. Weight: 6.1 g. (T. 2: 13)

The spearhead fragments under numbers 83–85 are difficult to classify unambiguously due to their damaged condition. Only spearhead no. 86, given the preserved prominent central rib, is very likely the same type as spearhead no. 82.

So the spearheads found in the Siča hoard are characterised by a form typical of the early phase of the Urnfield culture. Even though they appeared in Hungary since the Middle Bronze Age (Mozsolics 1985: 21), the known examples from northern Croatia can be dated to the Ha A period. It should also be stressed that the spearheads from northern Croatia are exclusively components of hoard finds, and more rarely are they from settlements or chance finds. At the current state of research, finds from graves of the earlier phase of the Urnfield culture are lacking.

ARROWHEAD

87. Arrowhead with socket for shaft, broken tip. Weight: 2.8 g (T. 2: 14)

Arrowheads are relatively rare finds in Late Bronze Age hoards. Two were found in the Brodski Varoš hoard (Vinski-Gasparini 1973: T. 60: 15, 19). The Futog hoard, dated to the Ha A1 period, contained an arrowhead with a socket and two spikes for poking, and in addition to use for hunting and/or combat, use in fishing has also been conjectured (Borić 1997: 48, 65, T. VI: 90). Two arrowheads with spikes and another with a socket for the shaft were found in the Tállya hoard (Borsod-Abaúj-Zemplén) from the Kurd horizon (Mozsolics 1985: 200, T. 162: 14–15). An arrowhead with a broken-off spike and swallowtail leaves was found during a test excavation at the Igrišće settlement at Kalnik (Majnarić-Pandžić 1992: 63, T. Iib: 11). An arrowhead fragment with a central rib was also found in hoard II in the fortified settlement of Cezavy near Blučina in Moravia. Since the pottery and even bronze items still retain visible traces of the Tumulus cultural tradition, while new forms of the subsequent Urnfield culture can be discerned, this settlement was dated to the beginnings of the Urnfield culture (Říhovský 1961: 153, Obr. 8, 7). An arrowhead with a socket for the shaft was

primjerci manjih dimenzija datirani u vrijeme Br C-Br D, odnosno u kraj srednjega brončanog doba (*ibid.*: 46, T. XXV: 3–4). U ostavi Moldova Veche, datiranoj u vrijeme Ha A1, pronađena su tri primjerka strelica (Petrescu-Dîmbovița 1977: 99, T. 165: 3–5). Takve strelice pronađene su i u istodobnoj ostavi Špálnaca II (*ibid.*: 109, T. 202: 8–9, 12–13).

Takav tip strelica kao što su ove iz ostave Siča J. Říhovský označio je kao osnovni tip E. Većina ih je pronađena na utvrđenim visinskim naseljima u Moravskoj, zatim manji dio u grobovima, dok su samo dva primjerka poznata iz ostava. Taj tip razvija se još od vremena srednjega brončanog doba i traje do u starije željezno doba, a rasprostranjen je u južnoj i srednjoj Njemačkoj, Češkoj, Austriji, Slovačkoj te po pojedinačnim nalazima u Rumunjskoj, Mađarskoj i Šleskoj (Říhovský 1996: 114–127, T. 24: 335, T. 33: A). Takav zaključak podupire nalaz kamenoga kalupa za lijevanje strelica s tuljcem za nasad s naselja Uherský Brod u Moravskoj (*ibid.*: 119, T. 25: 375A).

Strelica iz ostave Siča pripada rijetkim nalazima strelica u ostavama u sjevernoj Hrvatskoj gdje su, prema sadašnjem stanju istraživanja, zabilježene još samo u jednoj ostavi te na naseljima. Na prostoru sjeverno od Alpa, osobito u dolini rijeke Main, te u Češkoj, vrlo su česti nalazi strelica u grobovima, dok se u manjem broju pojavljuju u Slovačkoj i Moravskoj, a u Panonskoj nizini sporadični su nalazi iz ostava (Hansen 1994: 88, Abb. 52). Njihova namjena iz grobnih konteksta u kojima su pronađene nije jasna, pa su mogle služiti u borbi ili u lovu, no jasno je da su bile sastavni dio opreme pokopanoga muškarca⁷ (*ibid.*: 88). Namjenu strelice u ostavi još je teže iščitati jer je repertoar ostalih nalaza vrlo širok, od mačeva koji su služili u borbi do sjekira i srpova koji su bili privredna pomagala. Dakle, strelice nisu kronološki osjetljiv nalaz i stoga se ne mogu uže datirati – u upotrebi su od srednjega brončanog doba, a u gotovo istu obliku pojavljuju se i u kasnome brončanom dobu (Hansen 1994: 85).

MAČEVI

88. Ulomak sječiva mača lećasta presjeka s četirima urezanim linijama koje prate rubove; dio donje oštrice na jednom je mjestu nazubljen. Težina: 51,6 g. (T. 2: 20)

Budući da je sačuvan samo ulomak sječiva, mač se sa sigurnošću ne može pripisati nijednom tipu.

⁷ U nekim slučajevima nalaz strelice bio je pronađen i u kombinaciji sa ženskim nakitom (Linz, Großmugl & Wels). Pojava strelica u ženskome grobu tumači se kao simbolična žrtva muža za umrlu ženu (Hansen 1994: 88).

found in the Čachtice tumulus in Slovakia, which belongs to the Baierdorf-Velatice circle, which correspond to the Br D and Ha A periods (Paulík 1962: 33, Abb. 32, 5). In the pre-alpine zone (southern Bavaria and Austria), arrowheads are often found as accessories in male graves with weapons from the Br D to Ha A2 periods. P. Schauer considered the purpose of these arrowheads, which may have been used in hunting or in combat, but this is difficult to assert on the basis of grave finds (Schauer 1984: 217, 228, Abb. 4, 5–10, Abb. 5, 17–19, Abb. 10, 9–12, Abb. 11, 18–20). Similar arrowheads were found in the Limberg settlement, which was inhabited for the duration of the Urnfield culture until the earlier Iron Age (Lochner 1991: 96). As can be expected, arrowheads may often be chance finds. This is demonstrated by the examples from Vinča, Batajnički vinogradi, Zemun and Oparić, where the arrowheads found generally date to the Br B-Br C period (Vukmanović & Radojić 1995: 99–100, cat. no. 175–178). A multitude of arrowheads as chance finds come from the banks of the Danube in Zemun, where a larger number has been dated to Middle Bronze Age (Todorović 1971: 45–46, T. XXIV: 5–8, T. XXV: 1–2), while all examples with smaller dimensions have been dated to the Br C-Br D period, i.e. the end of the Middle Bronze Age (*ibid.*: 46, T. XXV: 3–4). Three examples of arrowheads were found in the Moldova Veche hoard, dated to the Ha A1 period (Petrescu-Dîmbovița 1977: 99, T. 165: 3–5). Such arrowheads were also found in the contemporary Špálnaca II hoard (*ibid.*: 109, T. 202: 8–9, 12–13).

Arrowheads like these from the Siča hoard were designated by J. Říhovský as basic type E. Most of them were found in fortified highland settlements in Moravia, while a smaller amount were found in graves, and only two examples come from hoards. This type has developed since the Middle Bronze Age and it persisted into the earlier Iron Age, and it was widespread in central Germany, the Bohemia, Austria, Slovakia and in individual finds in Romania, Hungary and Silesia (Říhovský 1996: 114–127, T. 24: 335, T. 33: A). Such a conclusion is backed by the find of a stone mould to forge arrowheads with shaft sockets from the settlement of Uherský Brod in Moravia (*ibid.*: 119, T. 25: 375A).

The arrowhead from the Siča is among those rare arrowhead finds in hoards in northern Croatia, as they have, according to the present state of research, only been recorded in one other hoard and in settlements. North of the Alps, and particularly in the Main River Valley and in the Bohemia, arrowhead finds in graves are very common, and they appear in smaller numbers in Slovakia and Moravia, while in

Ulomci slični po presjeku poznati su iz ostava Poljanci I, Podcrkavlje-Slavonski Brod, Budinščina, Bingula-Divoš, pa se, prema raščlanjenoj oštrici, može zaključiti da je riječ o maču "slavonskoga" tipa (Vinski-Gasparini 1973: 103, T. 35: 3; T. 48: 2; T. 67: 9; T. 77: 2; T. 84: 5).

89. Ulomak mača sa širokim središnjim i naglašenim rebrom. Težina: 12,5 g. (T. 2: 11)

BODEŽI

90. Držak bodeža s dijelom oštrice; držak ima plastična ojačanja na vanjskim rubovima; na jezičku drška dvije su ovalne rupe koje su služile za pričvršćivanje, a u jednoj je još uvijek ostala sačuvana zakovica; sječivo ima rombičan presjek. Težina: 48,8 g. (T. 2: 16)

91. Ulomak jezičasta drška bodeža; vanjski su rubovi plastično ojačani; na jezičku su dvije nepravilne rupe koje su služile za pričvršćivanje zakovicama. Težina: 13,2 g. (T. 2: 17)

92. Zakovica s drška bodeža sekstagonalna presjeka. Težina: 2,1 g. (T. 2: 18)

93. Zakovica s drška bodeža sekstagonalna presjeka. Težina: 2,7 g. (T. 2: 19)

Bodeži s plastičnim ojačanjima na vanjskim rubovima i s dvjema ovalnim rupicama za pričvršćivanje drške od organskoga materijala na jezičku pronađeni su u ostavi Brodski Varoš iz stupnja Ha A1 (Vinski-Gasparini 1973: 92, T. 55: 6–7). Ulomci sličnih drški bodeža iz ostave Podcrkavlje-Slavonski Brod datiraju se u rano vrijeme Ha A (*ibid.*: 97, T. 66: 7, 9–13). Slični bodeži s rombičnim presjekom nalaze se u ostavi Bingula-Divoš (*ibid.*: 108, T. 84: 6–7). Bodež sličan bodežu pod brojem 91 (T. 2: 17) pronađen je u trećoj ostavi (prve dvije ostave: *ibid.*: 184, T. 106C; Miškiv 1982) iz Slavonskoga Broda i također je ubrojen u bodeže koji su karakteristični za inventar II. faze ostava u sjevernoj Hrvatskoj (Clausing 2004: 67, Abb. 5, 15). Ulomak bodeža s rombičnim presjekom i ojačanim rubovima jezička za nasad te s jednom rupom za pričvršćivanje u donjem dijelu pronađen je u naselju Belegiš II kulture na Vučedolu (Forenbaher 1989: 59, 61, T. 6A: 1).

Ulomci bodeža pronađenih u ostavi Siče mogu se datirati u vrijeme Ha A1. Bodeži različitih tipova iz starije faze kasnoga brončanog doba sjeverne Hrvatske poznati su najvećim dijelom iz inventara ostava. Poznato je i nekoliko bodeža iz grobova⁸ – Virovitica (Vinski-Gasparini 1973: T. 10: 13), Vukovar-Desna Bara (*ibid.*: T. 17: 4), Satnica (*ibid.*: T. 18: 2), iz naselja – Novigrad na Savi (*ibid.*: T. 21: 1), Kalnik-Igrišće (Majnarić-Pandžić 1992: 63, T. IIa: 1)

⁸ Posrijedi su nalazi iz razorenih grobova.

the Pannonian Basin finds from hoards are sporadic (Hansen 1994: 88, Abb. 52). Their purpose is ambiguous given the context in which they were buried in graves, so they may have been used in combat or for hunting, but they were clearly a component of gear of the interred man⁷ (*Ibid.*: 88). The purpose of the arrowheads in the hoard is even more difficult to discern, because the range of the remaining finds is very broad, from swords used in combat to axes and sickles used as tools. Arrowheads are thus not a chronologically sensitive find and they cannot be dated precisely – they were in use since the Middle Bronze Age, and they appear in almost the same form in the Late Bronze Age as well (Hansen 1994: 85).

SWORDS

88. Fragment of sword blade with lentil-shaped cross-section and four engraved lines that follow the edges; lower portion of blade denticulated at one point. Weight: 51.6 g. (T. 2: 20)

Since only a fragment of the blade was preserved, the sword cannot be unambiguously classified. Fragments with similar cross-sections are known from the Poljanci I, Podcrkavlje-Slavonski Brod, Budinščina and Bingula-Divoš hoards, so based on the articulated blade edge, one can conclude that this is a "Slavonian" type sword (Vinski-Gasparini 1973: 103, T. 35: 3; T. 48: 2; T. 67: 9; T. 77: 2; T. 84: 5).

89. Sword fragment with broad central and defined rib. Weight: 12.5 g. (T. 2: 11)

DAGGERS

90. Dagger handle with portion of blade; handle has prominent reinforcement on the outer edge; the handle tang has two oval holes used for fastening, and a rivet has been preserved in one hold; blade cross-section is rhomboid. Weight: 48.8 g. (T. 2: 16)

91. Fragment of tongue-like dagger handle; outer edges have prominent reinforcements; two irregular holes on tang used for fastening with rivets. Weight: 13.2 g. (T. 2: 17)

92. Rivets from dagger handle with hexagonal cross-section. Weight: 2.1 g. (T. 2: 18)

93. Rivets from dagger handle with hexagonal cross-section. Weight: 2.7 g. (T. 2: 19)

⁷ In some cases arrowheads have been found in combination with women's jewellery (Linz, Großmugl & Wels). The appearance of arrowheads in women's graves is interpreted as a symbolic sacrifice of a husband for a deceased wife (Hansen 1994: 88).

te slučajnih nalaza. Dakle, riječ je o jednom od učestalijih kasnobrončanodobnih oblika naoružanja.

94. Ulomak sječiva bodeža lećasta presjeka. Težina: 28,6 g. (T. 2: 21)
95. Ulomak sječiva bodeža s vrhom, lećasta presjeka; uz rubove sječiva primjetna je po jedna tanko urezana linija. Težina: 30,4 g. (T. 2: 22)
96. Ulomak sječiva bodeža s vrhom. Težina: 13,4 g. (T. 2: 23)
97. Ulomak sječiva bodeža s vrhom. Težina: 9,1 g. (T. 2: 24)
98. Ulomak sječiva bodeža s vrhom. Težina: 7,7 g. (T. 2: 25)
99. Ulomak sječiva bodeža s vrhom. Težina: 13,0 g. (T. 2: 26)
100. Ulomak sječiva bodeža s vrhom; sječivo pri vrhu nije simetrično. Težina: 7,8 g. (T. 2: 27)
101. Ulomak sječiva bodeža rombična presjeka. Težina: 4,2 g. (T. 2: 28)
102. Ulomak jezičca od lima. Težina: 9,7 g. (T. 2: 29)
103. Ulomak jezičca od lima. Težina: 2,9 g. (T. 2: 30)

Ulomke sječiva bodeža teško je zbog fragmentiranosti pripisati određenomu tipu.

TOALETNI PRIBOR

BRITVA

104. Ulomak sječiva britve s plastičnim ojačanjem na gornjem rubu. Težina: 4,3 g. (T. 2: 39)

Ovakve britve kakav je i ulomak iz ostave Siča pronađene su u ostavi Brodski Varoš (Vinski-Gasparini 1973: T. 55: 13, T. 56: 8). Britve ovalnoga izdužena, lovorika oblika s izduženim trnom mogu se datirati u vrijeme stupnja Br D i predstavljaju najstarije britve u sjevernoj Hrvatskoj, dok ostali tipovi pripadaju vremenu Ha A (*ibid.*: 93). Slična britva pronađena je u grobu IV na groblju Salzburg-Morzg i označena je kao tip Morzg, datiran u ranu kulturu polja sa žarama (Höglinger 2003: 20, Abb. 8, 6).

Kako je sačuvan samo mali ulomak, teško je sa sigurnošću odrediti kojemu tipu britve pripada. Na prostoru sjeverne Hrvatske britve su u najvećem broju pronađene u ostavama, dok zasad imamo samo jedan nalaz iz jedne od rijetkih poznatih grobnih cjelina starije faze kulture polja sa žarama: Zagreb-Vrapče grob 1 (Vinski-Gasparini 1973: T. 23: 2). Pri proučavanju deponiranja ostava na širem srednjoeuropskom prostoru Hansen je zaključio

Daggers with prominent reinforcements on the outer edges and with two oval holes for fastening the handle of organic material on the tang were found in the Brodski Varoš hoard dated to the Ha A1 period (Vinski-Gasparini 1973: 92, T. 55: 6–7). Fragments of similar dagger handles from the Podcrkavlje-Slavonski Brod hoard have been dated to the early Ha A period (*Ibid.*: 97, T. 66: 7, 9–13). Similar daggers with rhomboid cross-section were found in the Bingula-Divoš hoard (*Ibid.*: 108, T. 84: 6–7). A dagger similar to the dagger listed under no. 91 (T. 2: 17) was found in the third hoard (first two hoards: *Ibid.*: 184, T. 106C; Miškiv 1982) from Slavonski Brod and also counted among the daggers characteristic of the inventory of phase II of the northern Croatia hoards (Clausing 2004: 67, Abb. 5, 15). The dagger fragment with rhomboid cross-section and reinforced tongue edges for the handle and one hole for fastening in the lower portion was found in the Belegiš II culture settlement at Vučedol (Forenbauer 1989: 59, 61, T. 6A: 1).

Dagger fragments found in the Siča hoard can be dated to the Ha A1 period. Daggers of various types from the earlier phase of the Late Bronze Age in northern Croatia are largely known from hoard inventories. Several daggers from graves are also known to exist⁸ – Virovitica (Vinski-Gasparini 1973: T. 10: 13), Vukovar-Desna Bara (*Ibid.*: T. 17: 4), Saticnica (*Ibid.*: T. 18: 2), from settlements – Novigrad na Savi (*Ibid.*: T. 21: 1), Kalnik-Igrišće (Majnarić-Pandžić 1992: 63, T. Ila: 1) and chance finds. Thus, these are frequent Late Bronze Age weapons.

94. Fragment of dagger blade with lentil-shaped cross-section. Weight: 28.6 g. (T. 2: 21)
95. Fragment of dagger blade with tip, lentil-shaped cross-section; a thin engraved line is noticeable at the edges of the blade. Weight: 30.4 g. (T. 2: 22)
96. Fragment of dagger blade with tip. Weight: 13.4 g. (T. 2: 23)
97. Fragment of dagger blade with tip. Weight: 9.1 g. (T. 2: 24)
98. Fragment of dagger blade with tip. Weight: 7.7 g. (T. 2: 25)
99. Fragment of dagger blade with tip. Weight: 13 g. (T. 2: 26)
100. Fragment of dagger blade with tip; blade not symmetric at tip. Weight: 7.8 g. (T. 2: 27)
101. Fragment of dagger blade with rhomboid cross-section. Weight: 4.2 g. (T. 2: 28)
102. Fragment of tang made of sheet metal. Weight: 9.7 g. (T. 2: 29)

⁸ These are finds from destroyed graves.

da je posebnost prostora Slavonije i Srijema upravo čest nalaz britvi u ostavama (Hansen 1994: 357).

105. Ulomak predmeta s drškom koji se zadebljava na kraju. Težina: 10,1 g. (T. 2: 40)

Namjenu ovoga predmeta dosta je teško odgotnetnuti. Riječ je možda o ulomku britve ili kakva privjeska, no njegova izvorna namjena ostaje ipak nejasna. Sličan predmet nepoznate namjene otkriven je u ostavi Přejstavlky u Moravskoj, datiranoj u vrijeme Ha A1 (Mačala 1985: 186, Tab. VII: 15, Tab. XIII: 14).

SIMBOLIČNI PREDMETI

106. Plastični prikaz patke obrađen s obiju strana. Težina: 7,9 g. (T. 6: 105)

Izravne paralele ovom neuobičajenom i nedovršenom predmetu gotovo je nemoguće pronaći. Prepoznatljiv je oblik ptice, za koju se prema kljunu može zaključiti da je riječ o nekom obliku patke ili neke druge vodene ptice. Poznato je da je u vrijeme kulture polja sa žarama vrlo omiljen prikaz motiva ptice (Kossack 1954). O funkciji predmeta iz ostave Siča može se zasad samo nagađati. Je li riječ o nedovršenoj figurici kakva je – slična, ali puno manja – pronađena u ostavi Brodska Varoš (Vinski-Gasparini 1973: 95, T. 56: 33) ili je riječ o aplici kakva je pronađena u ostavi Beravci (*ibid.*: T. 109: 10) te ostavi Sárzasadány horizonta Kurd (Mozsolics 1985: 184, T. 169: 12)? Figurica patke s naglašenim okom, koja je vjerojatno nošena kao privjesak, sudeći prema ostacima ušice na tijelu patke pronađena je u istodobnoj ostavi Boljanić u dolini rijeke Bosne (König 2004: 193–194, T. 19: 90). Privjesak u obliku patke pronađen je i u paljevinskome grobu u Batini, otkuda potječe i jedna vrlo oštećena brončana pločica u obliku ptičje glavice s naglašenim okom (Metzner-Nebelsick 2002: 612, T. 19: 8–10). Vrlo sličan privjesak u obliku ptice pronađen je u ženskome grobu 86 u Innsbrucku-Wiltenu među priložima s lomače (Sperber 1992: 67, Abb. 5, 10). Sličan prikaz ptice s naglašenim okom i jasnom funkcijom privjeska pronađen je u ostavi Futog u Bačkoj, datiranoj u vrijeme Ha A1 (Borić 1997: 67, T. XI: 211).

Ovaj predmet mogao bi biti i dio kola, kao što pokazuje nalaz okova za rudo iz ostave Zsujta, datirane u horizont Kurd (Mozsolics 1985: 217, T. 115). Moguće je da je ova patka trebala biti sastavni dio zatika osovine kotača kakvi su poznati s prostora Njemačke, Slovačke i Rumunjske, a datiraju se u kulturu polja sa žarama (Clausing 2001). Treba napomenuti da se najveća širina ovakvih nalaza kreće od 8 do 13 cm, u što bi se mogao uklopiti i ovaj ulomak. Nala-

103. Fragment of tang made of sheet metal. Weight: 2.9 g. (T. 2: 30)

The fragments of dagger blades are difficult to ascribe to any type due to their fragmentary nature.

TOILETRIES

RAZOR

104. Fragment of razor blade with prominent reinforcement at upper edge. Weight: 4.3 g. (T. 2: 39)

Razors like this fragment from the Siča hoard were found in the Brodski Varoš hoard (Vinski-Gasparini 1973: T. 55: 13, T. 56: 8). Elongated laurel-shaped razors with an extended tang can be dated to the Br D phase and they are the oldest razors in northern Croatia, while the remaining types belong to the Ha A period (*Ibid.*: 93). A similar razor was found in grave IV at the Salzburg-Morzg cemetery and it has been designated the Morzg type, dated to the early Urnfield culture (Höglinger 2003: 20, Abb. 8, 6).

Since only a small fragment has been preserved, it is difficult to discern the type of razor with any certainty. In northern Croatia, razors were mostly found in hoards, while for now we have only one find from one of the rare known grave units of the older phase of the Urnfield culture: Zagreb-Vrapče grave 1 (Vinski-Gasparini 1973: T. 23: 2). When studying deposition of hoards in the wider Central European region, Hansen concluded that a specific aspect of Slavonia and Sarmia is precisely the frequency of razors in hoards (Hansen 1994: 357).

105. Fragment of item with handle that broadens at end. Weight: 10.1 g. (T. 2: 40)

The purpose of this item is truly difficult to decipher. It may be a fragment of a razor or some kind of pendant, but its original purpose remains unclear. A similar item of unknown use was discovered in the Přejstavlky hoard in Moravia, dated to the Ha A1 period (Mačala 1985: 186, Tab. VII: 15, Tab. XIII: 14).

SYMBOLIC ITEMS

106. Prominent depiction of duck worked on both sides. Weight: 7.9 g. (T. 6: 105)

Direct analogies to this unusual and unfinished item are almost impossible to find. The shape of the bird is recognisable, and the beak indicates that it is some type of duck or other water bird. What is

zi iz sigurnih zatvorenih cjelina grobova s kolima iz Poinga i Hart a. d. Alza mogu se datirati u vrijeme Br D, dok se primjerak iz ostave Bobrovec može datirati u vrijeme Ha A1 (*ibid.*: 546), što je istodobno ostavi Siča. Zatik kotača s figurom ptice pronađen je u ostavi Novi Bečej datiranoj u Ha A1 (Nađ 1955: 45, sl. 1). Primjerak iz ostave Siča vrlo je sličan okovu koji je vjerojatno također služio za rudo, a pronađen je u Radujevcu na Dunavu u Srbiji i datiran u vrijeme prve polovice 8. st. pr. Kr. (Vinski 1955: 39, sl. 29).

Kako je riječ o specifičnome predmetu, datacija se ovdje ostavlja postrani; sudeći po nalazu iz ostave Zsujta, ovakvi su oblici s obzirom na očito simbolično značenje duže u upotrebi. Kod nalaza iz Radujevca na velikoj ptici koja čini glavni okov nalaze se još dvije manje ptice, a na svim ptičjim glavama istaknuto je oko. Ulomak iz ostave Siča također ima istaknuto oko i krilo. Proučavanjem prikaza ptica u brončanome i željeznome dobu na prostoru središnjega Balkana R. i V. Vasić zaključili su za primjer Radujevca da se vjerojatno radi o vrsti plivajuće patke (Vasić & Vasić 2003: 173). Ovaj primjerak ptice obrađen je s objiju strana, što svjedoči u prilog mogućnosti neke funkcije okova kola. Primjeri minijaturnih kola izrađivanih u glini s prikazima ptica na okovima poznati su još od vremena srednjega brončanog doba u Banatu (Dupljaja), ali ima i brončanih izvedbi u starijoj fazi kasnoga brončanog doba (Kossack 1954: 53, T. 1, T. 4, 7, 9). Tako ulomak patke iz ostave Siče ima paralelu u modelu kola iz Oraštie (Szászvárosszek) u Transilvaniji (Pare 1987: 48, fig. 6). Model predstavlja kola na četiri kotača čije osovine završavaju u obliku figura ptice. Na kolima je smješten kotao ukrašen pticama i pripadajućim poklopac. Ta kola imaju željezne kotače i osovinu, pa neki autori taj model pripisuju vremenu kulture Basarabi, odnosno datiraju ga u 8. i 7. st. pr. Kr. (Moscalu & Beda 1991: 216). A. Mozsolics kola iz Oraštie datira u horizont Kurd, upravo prema ptičjim protomama koje su omiljene u to vrijeme (Mozsolics 1977: 169, T. 7). U 7. st. pr. Kr. datirana su kola iz tumula Basarabi kulture Bujoru u Rumunjskoj načinjena nešto baroknije od kola iz Oraštie (Moscalu & Beda 1991: 217, Abb. 11). Minijaturni modeli kola izrađenih u bronci poznati su i iz sjevernog europskog kruga. Jedan primjerak pronađen je u Burgu (Brandenburg) u Njemačkoj. Riječ je o kolima s tri kotača na kojima krajevi ruda završavaju bikovskim glavama, dok su na osovini kotača i na dijelu gdje je rupa za nasad ruda ukrasi figura ptica (A. Hänsel 1997: 117–118). Na području srednje Odre pronađeno je nekoliko kola s tri kotača ukrašenih figurama ptica iz vremena starije faze kulture polja sa žarama. Uz sakralno objašnjenje prema kojemu je prikaz ptice vrlo vjerojatno personifikacija određenoga

known is that depictions of bird motifs were very popular during the Urnfield culture (Kossack 1954). For now we can only speculate as to the function of this item from the Siča hoard. Is it an unfinished figurine similar to, albeit much smaller than, the item found in the Brodska Varoš hoard (Vinski-Gasparini 1973: 95, T. 56: 33) or is it an appliqué like the one found in the Beravci hoard (*Ibid.*: T. 109: 10) and the Sárzasadány hoard of the Kurd horizon (Mozsolics 1985: 184, T. 169: 12)? A figurine of a duck with a prominent eye, which was probably worn as a pendant judging by the remains of a tiny hole on the duck's body, was found in the contemporary Boljanić hoard in the Bosna River Valley (König 2004: 193–194, T. 19: 90). A duck-shaped pendant was also found in an incineration grave in Batina, where a very damaged bronze plate shaped like a bird's head with a prominent eye was also found (Metzner-Nebelsick 2002: 612, T. 19: 8–10). A very similar bird-shaped pendant was found in woman's grave 86 in Innsbruck-Wilten among items from a pyre (Sperber 1992: 67, Abb. 5, 10). A similar depiction of a bird with a prominent eye that was clearly a pendant was found in the Futog hoard in Bačka, dated to the Ha A1 period (Borić 1997: 67, T. XI: 211).

This item may even be part of a cart, as shown by the find of thimbles for a cart shaft from the Zsujta hoard, dated to the Kurd horizon (Mozsolics 1985: 217, T. 115). It is possible that this duck was supposed to be part of the pin for a wheel-axle, something known from Germany, Slovakia and Romania, and these have been dated to the Urnfield culture (Clausing 2001). It should be noted that the greatest width of such finds runs from 8 to 13 cm, to which this fragment may correspond. Finds from undisturbed closed grave units containing wheels from Poing and Hart a. d. Alza can be dated to the Br D period, while the example from the Bobrovec hoard can be dated to the Ha A1 period (*Ibid.*: 546), which is contemporary with the Siča hoard. A wheel pin bearing a duck figure was found in the Novi Bečej hoard dated to the Ha A1 period (Nađ 1955: 45, Fig. 1). The example from the Siča hoard is very similar to the thimble which was probably used for a cart-shaft, found in Radujevac on the Danube River in Serbia and dated to the first half of the eighth century BC (Vinski 1955: 39, Fig. 29).

Since this is a specific item, the dating is set aside here; judging by the find from the Zsujta hoard, such items, given their obviously symbolic meaning, were in use for a considerable time. In the case of the find from Radujevac on a big bird as the main fitting, there are finds of two smaller birds, and the eye is prominent on all bird heads. The fragment from the Siča hoard also has a prominent eye and wing. After studying depictions of birds in the Bronze and Iron Ages in the central Balkans, R. and V. Vasić concluded that the

božanstava, postoje i profana objašnjenja prema kojima je riječ o kuhinjskome pomagalu, odnosno dijelu skupocjena stolnog servisa (Maraszek 1997: 74, Abb. 3).

Najsličniji primjerak brončanoj figuri patke iz ostave Siče jest primjerak koji se pripisuje dijelu konjske opreme iz ostave Uioara de Sus u Transilvaniji, datirane u vrijeme Ha A1 (Petrescu-Dîmbovița 1977: 115, T. 247: 1).

J. Todorović zanimljivo je objasnio funkciju predmeta koji završava s dvjema ptičjim protomama, a pronađen je na položaju Radiopostaje u Zemunu. Predmet dužine 7 cm s rupicama na vodoravnome dijelu označen je kao graničnik mača i datiran u vrijeme Ha C (Todorović 1971: 80, T. XXXIX: 1). Ovaj komad podsjeća na dio zatika kotača kakvi su pronađeni u grobovima s kolima u Poingu i Hart a. d. Alzu u Njemačkoj te ostavama Bullenheimer i Berg u Njemačkoj i Bobrovec u Slovačkoj, datiranim u vrijeme kulture polja sa žarama (Clausing 2001: 555, Abb. 6). Pronađen je još jedan primjer slična prikaza patke iz Zemuna. Funkcija mu nije jasna, a pripisano mu je značenje privjeska; datiran je u vrijeme Ha C (Todorović 1971: 94, T. XLV: 5). Sličan primjerak, koji se i kronološki slaže s ostavom Siče, pronađen je u transilvanskoj ostavi Răscruți datiranoj u vrijeme Ha A1 (Petrescu-Dîmbovița 1977: 104, T. 181: 6). Vjerojatno se radi o gornjem okovu korica mača ukrašenom s četirima ptičjim protomama. Prikaz pačjih glava pronađen je i u ostavi Satu Mare u Transilvaniji (*ibid.*: 105, T. 182: 17). Plastični prikazi vodenih ptica upućuju često na polaritet u doživljaju snage prirode, koje je simbolično predstavljena pri proslavama ili kroz žrtvu i magiju (Kossack 1995: 53).

Kako se o funkciji ovoga nedovršenog prikaza patke može samo nagađati, ovo su tek neke od naznaka u kojem bi se smjeru moglo promišljati.⁹ Neosporno je da ju je majstor izrađivao za neki nesvakidašnji predmet koji, nažalost, nikada nije bio dovršen.

DIJELOVI NOŠNJE

IGLE

107. Ulomak igle s klobučastom glavicom i zadebljanjem na vratu; tijelo igle je šuplje. Težina: 21,6 g. (T. 6: 106)

⁹ Ovom prilikom zahvaljujemo Christofu Clausingu iz Römisch-Germanisches Zentralmuseuma u Mainzu na brojnim konstruktivnim raspravama oko namjene pojedinih predmeta iz ove ostave.

example from Radujevac is probably a swimming duck (Vasić & Vasić 2003: 173). This example of a bird is worked on both sides, which testifies to the possibility that it functioned as a wheel nave. Examples of miniature carts made in clay and bearing bird depictions on the naves are known from the Middle Bronze Age in Banat (Dupljaja), although there are bronze renderings from the earlier phase of the Late Bronze Age (Kossack 1954: 53, T. 1, T. 4, 7, 9). Thus the duck fragment from the Siča hoard has it parallels in the wheel model from Orăștie (Szászvárosszek) in Transylvania (Pare 1987: 48, Fig. 6). The model constitutes a cart on four wheels with axles ending in the shape of bird figures. There is a pot on the cart decorated with birds, and the accompanying lid. This cart has iron wheels and axles, so some scholars have ascribed this model to the Basarabi culture, thus dating it to the eighth and seventh centuries BC (Moscalu & Beda 1991: 216). A. Mozsolics dates the cart from Orăștie to the Kurd horizon, based precisely on the avian protomes so favoured at that time (Mozsolics 1977: 169, T. 7). The cart from Basarabi culture tumulus in Bujoru in Romania, rendered in somewhat more baroque fashion than the cart from Orăștie, has been dated to the seventh century BC (Moscalu & Beda 1991: 217, Abb. 11). Miniature cart models made of bronze are also known from the northern European sphere. One example was found in Burg (Brandenburg) in Germany. This is a cart with three wheels on which the shafts end in bull heads, while the hole at the wheel axle where the shaft goes is decorated with a bird figure (A. Hänsel 1997: 117–118). Several carts with three wheels decorated with bird figures, dated to the earlier phase of the Urnfield culture, were found in the territory of the central Oder. Besides the sacred explanation whereby the bird depiction is probably the personification of some deity, there is also a profane explanation whereby it is probably a kitchen aid, i.e. part of a highly valuable set of tableware (Maraszek 1997: 74, Abb. 3).

The example most similar to the duck figure from the Siča hoard is one classified as a component of horse harness from the Uioara de Sus hoard in Transylvania, dated to the Ha A1 period (Petrescu-Dîmbovița 1977: 115, T. 247: 1).

J. Todorović has an interesting explanation for the function of items that end with two avian protomes that were found at the Radio Station site in Zemun. An 7 cm long item with holes on the horizontal portion was classified as a sword guard and dated to the Ha C period (Todorović 1971: 80, T. XXXIX: 1). This piece recalls the wheel-pin parts found in the graves with carts in Poing and Hart a. d. Alz in Germany and the Bullenheimer and Berg hoards in Germany and the Bobrovec hoard in Slovakia, dated to the Urnfield culture (Clausing 2001: 555, Abb. 6). Another example of a similar duck depiction was found in Zemun. Its



Karta 3. Nalazi brončane plastike ptica iz kasnoga brončanog doba na prostoru Karpatske kotline i jugoistočnih Alpa (Daria Ložnjak Dizdar, 2005).

Map 3. Finds of bronze prominent birds from the Late Bronze Age in the Carpathian Basin and the South-east Alps (Daria Ložnjak Dizdar, 2005).

Najbliža usporedba ovoj igli nalazi se u istodobnoj i nedalekoj ostavi Malička na Kordunu (Balen-Letunić 1985: T. 1: 3). Ovakve igle pronađene su još u ostavama Otok-Privlaka (Vinski-Gasparini 1973: T. 28: 27–28), Brodski Varoš (*ibid.*: T. 52: 42), Bingula-Divoš (*ibid.*: T. 85: 21) i Sviloš (*ibid.*: T. 88: 4). Također, blisku paralelu predstavlja i nalaz ovakve igle u istodobnoj ostavi Šumatac 1 u sjeverozapadnoj Bosni (König 2004: 221, T. 11A: 38), a zabilježene su još u ostavama Šimanovci i Šumetac (Popović 1996: 270, karta 3, T. I: 1, 9, 3) te Novi Bečej (Nađ 1955: T. III: 7; Marinković 1994: 32, T. I: 1). Ulomak ovakve igle kao slučajni nalaz pronađen je na obali Dunava u Zemunu (Todorović 1971: 61, T. XXXIII: 8). Iгла s klobučastom glavicom pripada tradiciji vremena Br D, s ishodištem koje valja tražiti u sjevernoj Europi (sjeverna Njemačka, Slovačka, sjeverna Mađarska). Ovakve igle pripadaju inventaru ostava najstarije faze kulture polja sa žarama u Karpatskoj kotlini (Vinski-Gasparini 1973: 81). Tako je u Mađarskoj ovakva igla pronađena u ostavi Öreglak (Mozsolics 1985: T. 84: 19), zatim u ostavama Pamuk (*ibid.*: T. 106: 10), Edelény (*ibid.*: T. 157: 2) te u Alsódobszi (*ibid.*: T. 167: 6–7), a smatraju se karakterističnim za horizont ostava Kurd u Mađarskoj (*ibid.*: 67). Ovakve igle M. Novotná označila je kao tip Pétervására prema istoimenoj ostavi u sjeveroistočnoj Mađarskoj (Novotná 1980: 99). One su često masivne i uglavnom pripadaju početku kulture polja sa žarama. Pronađene su uglavnom u ostavama, pa nije poznat način na koji su mogle biti nošene, što je i malo vjerojatno s obzirom na njihovu težinu (Vasić 2003: 50). Očita je diskrepancija u datiranju ovih igala.

function is not clear, although it has been described as a pendant; it has been dated to the Ha C period (Todorović 1971: 94, T. XLV: 5). A similar example, which corresponds chronologically to the Siča hoard, was found in the Transylvanian Răscruți hoard and dated to the Ha A1 period (Petrescu-Dîmbovița 1977: 104, T. 181: 6). This is probably the upper fitting of a sword sheath decorated with four avian protomes. The depiction of a duck's head was found in the Satu Mare hoard in Transylvania (*Ibid.*: 105, T. 182: 17). The prominent depiction of water birds often indicates polarity in experiencing the forces of nature, which is symbolically portrayed during rites or through sacrifices and magic (Kossack 1995: 53).

Since we can only speculate as to the function of this unfinished depiction of a duck, these are simply some indications of the directions in which we can contemplate it.⁹ It is indisputable that the craftsman made it for some out-of-the-ordinary item that was, unfortunately, never finished.

APPAREL COMPONENTS

NEEDLES

107. Fragment of needle with hat-shaped head that broadens at neck; the needle's body is hollow. Weight: 21.6 g. (T. 6: 106)

The closest analogy to this needle can be found in the contemporaneous and nearby Malička hoard in Kordun (Balen-Letunić 1985: T. 1: 3). Such needles were also found in the Otok-Privlaka (Vinski-Gasparini 1973: T. 28: 27–28), Brodski Varoš (*Ibid.*: T. 52: 42), Bingula-Divoš (*Ibid.*: T. 85: 21) and Sviloš hoards (*Ibid.*: T. 88: 4). Additionally, a needle find of this type in the contemporaneous Šumatac 1 hoard in north-western Bosnia constitutes a close parallel (König 2004: 221, T. 11A: 38), and they were also registered in the Šimanovci and Šumetac hoards (Popović 1996: 270, Map 3, T. I: 1, 9, 3) and the Novi Bečej hoard (Nađ 1955: T. III: 7; Marinković 1994: 32, T. I: 1). A fragment of this type of needle was found by chance on the banks of the Danube in Zemun (Todorović 1971: 61, T. XXXIII: 8). Needles with hat-shaped heads belong to the tradition

⁹ We would like to thank Christof Clausing from the Römisch-Germanisches Zentralmuseum in Mainz for numerous constructive conversations concerning the purpose of individual items in this hoard.

Novotná ih povezuje s početkom kulture polja sa žarama, dok ih A. Mozsolics i K. Vinski-Gasparini datiraju u II. horizont ostava na prostoru Mađarske i sjeverne Hrvatske, što je i neupitno s obzirom na njihovu prisutnost u velikim ostavama vremena Ha A1. Igle s klobučastom glavicom rasprostranjene su u Slavoniji, Srijemu, sjeverozapadnoj Bosni, južnoj Transdanubiji, sjeveroistočnoj Mađarskoj i jugozapadnoj Slovačkoj te sjeverozapadnoj Rumunjskoj (Vasić 2003: 50, T. 18: 260–263). P. König kao područje rasprostranjenosti ovoga tipa igala označio je područje od istočne Slavonije i Vojvodine do sjeveroistočne Mađarske, no ima ih i u Posavini te, suđeci prema novim nalazima, i na Kordunu (König 2004: 67, Liste 9, T. 87A). Na prostoru sjeverne Hrvatske ovakve su igle pronađene isključivo u ostavama, odnosno zasad nema poznatih nalaza iz naselja i grobalja, i datiraju se u vrijeme Ha A1.

108. Ulomak igle s pločastom (čavličastom) glavicom. Težina: 20,1 g. (T. 6: 107)

Ovakav tip igala vrlo se rijetko pojavljuje u ostavama na prostoru sjeverne Hrvatske. Tako su poznati nalazi iz ostava Veliko Nabrđe (Vinski-Gasparini 1973: 85, T. 44: 16), Brodski Varoš (*ibid.*: T. 52: 40) i Poljanci II (Bulat 1975: 12, T. XIII: 14–15). Iгла ovoga tipa zabilježena je i na gredi u Donjoj Dolini gdje se nalazilo groblje, a prvotno, u kasnome brončanom dobu, vjerojatno i naselje (Marić 1964: 19, T. I: 1). U ostavi Jakovo u Srijemu pronađena je igla s glavicom u obliku čavla (Todorović 1971: 25, T. IX: 17), kakva se nalazi i u ostavi Futog u Bačkoj (Borić 1997: 70–71, T. XV: 278) te u ostavi Novi Kostolac (D. Garašanin 1975: 1, T. I: 4). Varijanta igala s čavličastom glavicom i neukrašenim vratom pojavljuje se u naseljima i grobljima, rjeđe u ostavama, i može se datirati od kraja kulture grobnih humaka i početka kulture polja sa žarama. U neukrašenoj varijanti pojavljuju se širom Karpatske kotline, a osobito u Moravskoj, Mađarskoj i Slavoniji (Vasić 2003: 43–46). Igle s čavličastom glavicom predstavljaju jednostavan i široko rasprostranjen oblik širom srednje Europe poznat od vremena kulture grobnih humaka do u starije željezno doba (Říhový 1983: 14). Igle s pločastom glavom neukrašena vrata te s lagano udubljenom glavom pojavljuju se u stupnju Br D (npr. Peschiera) te u stupnju Ha A1 u grobovima u južnoj Njemačkoj. U ostavama su rijetke, a mogu se datirati u vrijeme Br D i Ha A1 (von Brunn 1968: 98).

U sjevernoj Hrvatskoj ovakve se igle češće pojavljuju na grobljima kulture polja sa žarama (Virovitica, Satnica), ali i na grobljima kulture Belegiš II u Srijemu (Surčin). Datirane su u vrijeme Br D (Vinski-Gasparini 1973: 85).

of the Br D time, and their origins should be sought in northern Europe (northern Germany, Slovakia, northern Hungary). Such needles belong to the inventories of hoards of the oldest phase of the Urnfield culture in the Carpathian Basin (Vinski-Gasparini 1973: 81). Thus in Hungary, this type of needle was found in the Öreglak hoard (Mozsolics 1985: T. 84: 19), and then in the Pamuk (*Ibid.*: T. 106: 10), Edelény (*Ibid.*: T. 157: 2) and Alsódotszi hoards (*Ibid.*: T. 167: 6–7), and they are considered characteristic of the Kurd period of hoards in Hungary (*Ibid.*: 67). Such needles were classified by M. Novotná as *Pétervására* type based on the eponymous hoard in north-eastern Hungary (Novotná 1980: 99). They are often massive and generally belong to the beginnings of the Urnfield culture. They are generally found in hoards, so how they were worn is not known, although given their weight it is unlikely that they were (Vasić 2003: 50). There is an obvious discrepancy in dating these needles. Novotná associates them with the beginnings of the Urnfield culture, while A. Mozsolics and K. Vinski-Gasparini dated them to horizon II of hoards in the territory of Hungary and northern Croatia, which is indisputable given their presence in the large hoards of the Ha A1 period. Needles with hat-shaped heads are widespread in Slavonia, Syrmia, north-western Bosnia, southern Transdanubia, north-eastern Hungary and south-western Slovakia and north-western Romania (Vasić 2003: 50, T. 18: 260–263). P. König designated the territory from eastern Slavonia and Vojvodina to north-eastern Hungary as the zone for this type of needle, although they also appear in the Posavina area and, judging by the most recent finds, in Kordun as well (König 2004: 67, Liste 9, T. 87A). In northern Croatia such needles were found only in hoards, as so far there are no known finds from settlements and graves, and they have been dated to the Ha A1 period.

108. Fragment of needle with flat (nail-like) head. Weight: 20.1 g. (T. 6: 107)

This type of needle very rarely appears in hoards in northern Croatia. Finds are known from the Veliko Nabrđe (Vinski-Gasparini 1973: 85, T. 44: 16), Brodski Varoš (*Ibid.*: T. 52: 40) and Poljanci II hoard (Bulat 1975: 12, T. XIII: 14–15). A needle of this type was also recorded on a post in Donja Dolina where a cemetery is located but which was probably, in the Late Bronze Age, a settlement as well (Marić 1964: 19, T. I: 1). A needle with a nail-like head was found in the Jakovo hoard in Syrmia (Todorović 1971: 25, T. IX: 17), and this same type was also found in Futog hoard in Bačka (Borić 1997: 70–71, T. XV: 278) and the Novi Kostolac hoard (D. Garašanin 1975: 1, T. I: 4). The variant of needles with nail-like heads

109. Ulomak igle s bikoničnom, pri vrhu spljoštenom i gusto kaneliranom glavicom. Težina: 14,1 g. (T. 6: 108)

110. Glavica igle s bikoničnom, pri vrhu spljoštenom i gusto kaneliranom glavicom. Težina: 8,1 g. (T. 6: 109)

Ovakav tip igle poznat je iz ostave Malička, datirane u II. fazu ostava na prostoru sjeverne Hrvatske (Balen-Letunić 1985: 38, T. 2: 4). Igle istoga tipa poznate su iz ostava Otok-Privlaka (Vinski-Gasparini 1973: T. 28: 25), Bošnjaci (*ibid.*: T. 30B: 13, 17), Veliko Nabrđe (*ibid.*: T. 44: 15), Poljanci I (*ibid.*: T. 48: 13), Gornja Vrba (*ibid.*: T. 51: 19), Brodski Varoš (*ibid.*: T. 52: 30–31, 33–34, T. 53: 1–2), Gornji Slatinik (*ibid.*: T. 69: 8), Pričac (Vinski-Gasparini 1973: T. 71: 18), Bingula-Divoš (Vinski-Gasparini 1973: T. 85: 22), Poljanci II (Bulat 1975: 12, T. XIII: 10–11). Također, ovakva igla poznata je iz ostave Poljanci IV-Donje Polje, datirane u II. fazu ostava prema K. Vinski-Gasparini (Miklik-Lozok 2004: 31, T. VI: 3). Igle s bikoničnom gusto kaneliranom glavicom pronađene su u istraživanjima naselja Kalnik-Igrišće i kod Vilhelmove kućice na Kalniku (Majnarić-Pandžić 1992: T. IIb: 13; Marković 1982: 63, T. 3: 1) te u naselju Križevci-Ciglana (Homen 1982: 21, T. II: 1), a kao slučajni nalazi poznate su s područja Siska (Vinski-Gasparini 1973: T. 26: 5–6). Ovakva igla zabilježena je i u uništenim grobovima u Virovitici (*ibid.*: T. 10: 15). Igla bikonična oblika s blago spljoštenom glavicom pronađena je u grobu u Brodskom Stupniku (*ibid.*: T. 17: 12), koji pripada grupi Barice-Gređani. Jedna takva igla potječe vjerojatno iz razorenoga groba u Slavanskom Brodu (Salajić-Jančevski 1983: 123, sl. 1). Iz razorenih grobova potječu i dvije ovakve igle iz Zapadne Kusare kod Županje (Plemić 1981: 99, T. III: 3–4). Prilikom zaštitnih istraživanja na trasi autoceste Županja-Bajakovo otkriveni su grobovi grupe Barice-Gređani datirani oko 1250. g. pr. Kr. u kojima su zabilježene ovakve igle (Marijan 2005: 39). Igle s bikoničnom spljoštenom, vodoravno kaneliranom glavicom pronađene su u grobovima 7 i 8 u Baricama (Čović 1958: 91, sl. 3c, sl. 2a) te u grobu 6 u Maloj Brusnici kod Bosanskog Broda (Belić 1964: 21, sl. 2). Takva igla pronađena je i u ostavi Kućišta u Bosanskoj Posavini iz II. faze ostava prema Königu (König 2004: 205, T. 3: 55). Više igala pronađeno je u ostavi Futog, datiranoj u vrijeme Ha A1 (Borić 1997: 69, T. XV: 281–283). Također, igla ovoga tipa nalazi se u ostavi Brestovik I u Srijemu, datiranoj u Br D-Ha A, te u ostavi Šimanovci (Popović 1975: 8–9, 46, T. VII: 9; T. XLIV: 4). Prema R. Vasiću igle s bikoničnom glavicom ovoga tipa pojavljuju se uglavnom u ostavama, poneki nalaz potječe iz naselja, dok su vrlo rijetko pronađene u grobovima. Prema nalazima u ostavama datirane su u II. fazu u sjevernoj Hrvatskoj te u horizont Kurd i Gyermely u Mađarskoj (Vasić 2003: 73). Važno je

and undecorated necks appears in settlements and graves, rarely in hoards, and they can be dated to the end of the Tumulus culture and the beginning of the Urnfield culture. The undecorated variant appears throughout the Carpathian Basin, especially in Moravia, Hungary and Slavonia (Vasić 2003: 43–46). Needles with nail-like heads were a simple and widespread form throughout Central Europe, spanning the period from Tumulus culture to the earlier Iron Age (Říhový 1983: 14). Needles with flat heads and undecorated necks and with a slightly indented head appear in the Br D phase (e.g. Peschiera) and in the Ha A1 phase in graves in southern Germany. They are rare in hoards, and they can be dated to the Br D and Ha A1 periods (von Brunn 1968: 98).

In northern Croatia this type of needle most often appears in Urnfield culture cemeteries (Virovitica, Satnica), and in Belegiš II culture cemeteries in Syrmia (Surčin). They have been dated to the Br D period (Vinski-Gasparini 1973: 85).

109. Fragment of needle with biconical and densely cannelured head that is flattened at the top. Weight: 14.1 g. (T. 6: 108)

110. Biconical and densely cannelured needle head that is flattened at the top. Weight: 8.1 g. (T. 6: 109)

This type of needle is known from the Malička hoard, dated to phase II of the hoards in northern Croatia (Balen-Letunić 1985: 38, T. 2: 4). The same type of needle is known from the hoards of Otok-Privlaka (Vinski-Gasparini 1973: T. 28: 25), Bošnjaci (*Ibid.*: T. 30B: 13, 17), Veliko Nabrđe (*Ibid.*: T. 44: 15), Poljanci I (*Ibid.*: T. 48: 13), Gornja Vrba (*Ibid.*: T. 51: 19), Brodski Varoš (*Ibid.*: T. 52: 30–31, 33–34, T. 53: 1–2), Gornji Slatinik (*Ibid.*: T. 69: 8), Pričac (Vinski-Gasparini 1973: T. 71: 18), Bingula-Divoš (Vinski-Gasparini 1973: T. 85: 22), and Poljanci II (Bulat 1975: 12, T. XIII: 10–11). Additionally, this type of needle is known from the Poljanci IV-Donje Polje hoard, dated to hoard phase II according to K. Vinski-Gasparini (Miklik-Lozok 2004: 31, T. VI: 3). Needles with biconical densely cannelured heads were found during research at the Kalnik-Igrišće settlement and at Vilhelmova kućica on Kalnik (Majnarić-Pandžić 1992: T. IIb: 13; Marković 1982: 63, T. 3: 1) and in the settlement of Križevci-Ciglana (Homen 1982: 21, T. II: 1), while as chance finds they are known from the territory of Sisak (Vinski-Gasparini 1973: T. 26: 5–6). Such needles were recorded in the destroyed graves in Virovitica (*Ibid.*: T. 10: 15). A biconical needle with a gently flattened head was found in a grave in Brodski Stupnik (*Ibid.*: T. 17: 12), which belongs to the Barice-Gređani group. One such needle probably comes from a destroyed grave in Slavonski Brod (Salajić-Jančevski 1983: 123, Fig. 1). Two such needles also come from

uočiti da se unutar varijanti igala s bikoničnom, vodoravno kaneliranom glavicom one većih dimenzija smatraju starijim oblikom (*ibid.*). Ovaj tip igala rasprostranjen je i u Njemačkoj, Austriji, Moravskoj i Slovačkoj. U Mađarskoj i na prostoru Rumunjske igle s bikoničnom i spljoštenom glavicom pojavljuju se nešto rjeđe, dok su znatno češće, kako to usporedbe pokazuju, na prostoru istočne Slavonije, Srijema, južnoga Banata i sjeverne Srbije (*ibid.*: 74, T. 26–27), odnosno češće su na nalazištima u sjevernoj Hrvatskoj i Srbiji negoli u Bosni i Hercegovini (König 2004: 69, Liste 11, T. 90A).

Neosporno je da su igle s bikoničnom i spljoštenom glavicom vrlo česte u naseljima, grobljima i ostavama II. faze kulture polja sa žarama u sjevernoj Hrvatskoj. Osobito se često nalaze kao prilog u grobovima grupe Barice-Gređani, a s obzirom na to da su metalni prilozi u grobovima starije faze kulture polja sa žarama vrlo rijetki i da se uglavnom svode na nošnju pokojnika, može se zaključiti da su igle s bikoničnom narebrenom glavicom vjerojatno bile ubičajeni dio nošnje.

111. Ulomak igle s malom bikoničnom glavicom. Težina: 1,6 g. (T. 6: 112)

Igle s bikoničnom glavicom pronađene su u ostavi Brodska Varoš (Vinski-Gasparini 1973: T. 52: 35, 37) kao i pri istraživanjima naselja Igrišće na Kalniku, gdje je igla datirana u ranu fazu kulture polja sa žarama (Majnarić-Pandžić 1992: 61, T. IIa: 6). Igla s bikoničnom glavicom i ukrašenim tijelom pronađena je u ostavi Futog (Borić 1997: 70, T. XV: 279). Ovakva igla s tijelom ukrašenim vodoravnim urezanim linijama nalazila se u grobu 9 u Perkovcima kod Slavenskog Broda. Ondje je istraživano groblje pripisano grupi Barice-Gređani i datirano u vrijeme Br D i Ha A1 (Minichreiter 1983: 61, T. 22: 9, 2). Igle s bikoničnom glavicom bez ukrasa široko su rasprostranjene u Europi od srednjega brončanog doba do u halštatsko vrijeme (Vasić 2003: 61). Takve igle potječu iz ostava, grobalja i naselja, a uže se mogu datirati od srednjega brončanog doba do kraja starije faze kulture polja sa žarama (*ibid.*: 62). J. Říhový ovakve igle naziva oblikom dugoga trajanja kroz čitavu kulturu polja sa žarama do u starije željezno doba (1979: 121, T. 34–36).

112. Ulomak tijela igle kružnoga presjeka. Težina: 6,8 g. (T. 6: 114)

113. Ulomak tijela igle kružnoga presjeka. Težina: 5,2 g. (T. 6: 115)

S obzirom na stupanj očuvanosti za ulomke br. 112 i 113 nije moguće odrediti kojem tipu igala pripadaju. Prikazane igle iz ostave Siče pripadaju repertoaru igala starije faze kulture polja sa žarama u sjevernoj Hrvatskoj. Igle s bikoničnom narebrenom glavicom, igle s čavličastom glavicom i igle s bikoničnom glavi-

destroyed graves in Zapadna Kusara near Županja (Plemić 1981: 99, T. III: 3–4). During rescue excavations at a section of the Županja-Bajakovo motorway, Barice-Gređani group graves were discovered, and dated to approximately 1250 BC; needles of this type were recorded there (Marijan 2005: 39). Needles with biconical flattened, horizontally cannellured heads were found in graves 7 and 8 in Barice (Čović 1958: 91, Fig. 3c, Fig. 2a) and in grave 6 in Mala Brusnica near Bosanski Brod (Belić 1964: 21, Fig. 2). Such a needle was also found in the Kućišta hoard in Bosnia's Posavina region from hoard phase II according to König (König 2004: 205, T. 3: 55). Several needles were found in the Futog hoard, dated to the Ha A1 period (Borić 1997: 69, T. XV: 281–283). This type of needle was also found in the Brestovik I hoard in Syrmia, dated to the Br D-Ha A period, and in the Šimanovci hoard (Popović 1975: 8–9, 46, T. VII: 9; T. XLIV: 4). According to R. Vasić, needles with biconical heads of this type generally appear in hoards, some finds come from settlements, while very rarely they are found in graves. According to finds from hoards they are dated to phase II in northern Croatia and in the Kurd and Gyermely horizon in Hungary (Vasić 2003: 73). It is important to note that within the variant of needles with biconical, horizontally cannellured heads, those with larger dimensions are deemed an older form (*Ibid.*). This type of needle is also widespread in Germany, Austria, Moravia and Slovakia. In Hungary and in Romania, needles with biconical and flattened heads are somewhat rarer, while comparisons show that they are more frequent in eastern Slavonia, Syrmia, southern Banat and northern Serbia (*Ibid.*: 74, T. 26–27), and more frequent in sites in northern Croatia and Serbia than in Bosnia-Herzegovina (König 2004: 69, Liste 11, T. 90A).

There is no disputing that needles with biconical and flattened heads are very frequent in settlements, cemeteries and in phase II hoards of the Urnfield culture in northern Croatia. They are particularly frequent finds as accessories in Barice-Gređani group graves, and given that metal accessories in graves of the earlier phase of the Urnfield culture are very rare and generally constitute apparel items of the deceased, one can conclude that needles with biconical ribbed heads were probably customary components of apparel.

111. Fragment of needle with small biconical head. Weight: 1.6 g. (T. 6: 112)

Needles with biconical heads were found in the Brodska Varoš hoard (Vinski-Gasparini 1973: T. 52: 35, 37) and during research in the Igrišće settlement at Kalnik, where the needle was dated to the early phase of the Urnfield culture (Majnarić-Pandžić

com pripadaju učestalijim oblicima igala, a zabilježene su u naseljima, grobljima i ostavama. Navedeni oblici bili su u svakodnevnoj upotrebi i vjerojatno su predstavljali dio nošnje, dok su igle s klobučastom glavicom poznate iz ostava i zbog svoje masivnosti teško da su bile u svakodnevnoj upotrebi. Svi tipovi igala prisutni u ostavi Siče mogu se uže datirati u Br D, odnosno u početak II. faze ostava kulture polja sa žarama.

FIBULE

114. Ulomak fibule(?) sa žljebastom nožicom. Težina: 1,3 g. (T. 6: 113)

115. Ulomak fibule. Težina: 2,7 g. (T. 12: 226)

116. Tordirana žica s plosnatim završetkom. Težina: 1,1 g. (T. 12: 229)

Ulomak fibule tordirana tijela rombična presjeka sa žljebastom nožicom pronađen je u ostavi Veliko Nabrđe (Vinski-Gasparini 1973: 114, T. 90: 6). Rombičan presjek također ima i fibula iz spilje Hrustovače (*ibid.*: 116, T. 90: 2), koja je datirana u stupanj Br D i jedan je od najstarijih primjeraka fibula u obliku violinskoga gudala (Vinski-Gasparini 1974: 11).

117. Ulomak luka fibule s ukrasom grupe kosih ureza. Težina: 3,1 g. (T. 8: 138)

118. Ulomak fibule. Težina: 3,1 g. (T. 12: 224)

119. Ulomak spiralno namotane žice trokutasta presjeka koja u jednom kraju pravilno izlazi iz spirale. Težina: 5,9 g. (T. 12: 225)

120. Ulomak spiralno namotane žice. Težina: 6,3 g. (T. 12: 227)

Ulomci spirala, vjerojatno s fibula u obliku violinskoga gudala, pronađeni su u ostavama Veliko Nabrđe (Vinski-Gasparini 1973: T. 44: 12–14) i Budinščina (*ibid.*: T. 79: 9), dok su ulomci spirala i ulomak tordirana luka poznati iz ostave Poljanci II (Bulat 1975: 14, T. XII: 6–16). Fibule u obliku violinskoga gudala čest su nalaz na prostoru međuriječja Save, Drave i Dunava u II. fazi kulture polja sa žarama, bez obzira na to je li riječ o onima sa žljebastom nožicom ili primjerima sa spiralnom nožicom (Vinski-Gasparini 1971: 6–7, T. III). Ulomak spirale iz ostave Siča mogao je također biti i završetak narukvice, kao u ostavi Bingula-Divoš (Vinski-Gasparini 1973: T. 85: 12).

Područje međuriječja Drave, Dunava i Save i pojas uz desnu obalu Save sa sljevovima rijeka Kupe i Krke jedno je od ishodišta fibula u obliku violinskoga gudala (Vinski-Gasparini 1974: 18). Fibule u obliku violinskoga gudala, koje se u veliku broju pojavljuju u ostavama II. faze, mogu se prema zatvorenim grobnim cjelinama datirati u vrijeme kasnoga Br D i ranoga stupnja Ha A (*ibid.*: 15, sl. 1).

1992: 61, T. IIa: 6). Needles with biconical heads and decorated bodies were found in the Futog hoard (Borić 1997: 70, T. XV: 279). Such a needle with its body decorated by horizontal engraved lines was found in grave 9 in Perkovci near Slavonski Brod. There research was conducted into a grave ascribed to the Barice-Gređani group and dated to the Br D and Ha A1 periods (Minichreiter 1983: 61, T. 22: 9, 2). Undecorated needles with biconical heads were very widespread in Europe from the Middle Bronze Age to the Hallstatt period (Vasić 2003: 61). Such needles come from hoards, cemeteries and settlements, and they can be approximately dated from the Middle Bronze Age to the end of the earlier phase of the Urnfield culture (*Ibid.*: 62). J. Říhový calls such needles a form of long duration through the entire Urnfield culture to the earlier Iron Age (1979: 121, T. 34–36).

112. Fragment of needle body with circular cross-section. Weight: 6.8 g. (T. 6: 114)

113. Fragment of needle body with circular cross-section. Weight: 5.2 g. (T. 6: 115)

Given the degree of preservation, the needle type of the fragments under no. 112 and 113 cannot be determined.

The needles shown from the Siča hoard belong to a repertoire of needles from the earlier phase of the Urnfield culture in northern Croatia. Needles with biconical ribbed heads, needles with nail-like heads and needles with biconical heads are the more frequent forms of needles, and they have been registered in settlements, cemeteries and hoards. These forms were items of everyday use and they were probably apparel components, while needles with hat-shaped heads known from hoards were probably not items of everyday use due to their massive size. All needles types present in the Siča hoard can be dated to the Br D period, i.e. the beginning of phase II of Urnfield culture hoards.

FIBULAE

114. Fragment of fibula(?) with grooved foot. Weight: 1.3 g. (T. 6: 113)

115. Fibula fragment. Weight: 2.7 g. (T. 12: 226)

116. Twisted wire with flattened end. Weight: 1.1 g. (T. 12: 229)

A fragment of a fibula with twisted body, rhomboid cross-section and grooved foot was found in the Veliko Nabrđe hoard (Vinski-Gasparini 1973: 114, T. 90: 6). A fibula from Hrustovača Cave also has a rhomboid cross section (*Ibid.*: 116, T. 90: 2), it has been dated to the Br D period and is one of the oldest examples of a fibula shaped like a violin bow (Vinski-Gasparini 1974: 11).

POJASI

121. Ulomak pojase kopče. Težina: 6,8 g. (T. 10: 163)

U ostavi Jarak I pronađena je slična kopča od brončanoga lima (Vinski-Gasparini 1973: T. 83: 17). Bogato ukrašeni pojas koji završava ovakvim tipom kopče pronađen je u ostavi Slavonski Brod-Livadićeva ulica, koja je datirana u II. fazu kulture polja sa žarama u sjevernoj Hrvatskoj (Miškiv 1982: 177, T. VIII). Pojas koji završava ovakvom kopčom pronađen je u ostavi Kék, koja je datirana u horizont Kurd (Mozsolics 1985: 131, T. 192: 29) te u ostavi Cehălut I stupnja Uriu-Domănești, što odgovara 13. st. pr. Kr. (Petrescu-Dîmbovița 1977: 54, T. 32: 1–2). Kopča ovoga tipa karakteristična je za pojase od brončanoga lima koji se pojavljuju u ostavama vremena Ha A1 u Transilvaniji, npr. ostave Șpălnaca II, Uioara de Sus (*ibid.*: 110, T. 203: 7–8, T. 257: 7–9). Za kopču iz ostave Siča može se reći da predstavlja dio pojasa od brončanoga lima. Ovakvi limeni pojasi poznati su kao bogato ukrašeni ili samo kao glatki bez ukrasa (za koje pak W. A. von Brunn smatra da su bili presvučeni tkaninom s bogatim ukrasima). I. Killian-Dirlmeier drži da se prije radi o poluproizvodima koji su poznati isključivo iz ostava (Killian-Dirlmeier 1975: 116). Ovaj ulomak mogao je biti dio poluproizvoda, odnosno neukrašena limenog pojasa ili pak gotovog ukrašena pojasa kojem je kopča slomljena. Neukrašeni pojasi ovoga tipa vremenski su istodobni ukrašenim pojasi istoga tipa i pojavljuju se na prostoru od Moravske, preko istočne Mađarske do Hrvatske (*ibid.*).

122. Ulomak limene trake s trima rupicama na kraju. Težina: 4,5 g. (T. 10: 180)

Ovakav ulomak pronađen je u ostavi Gyermely i pripisan je ulomku pojasa od brončanoga lima (Mozsolics 1985: 122, T. 241: 9), o čemu se vjerojatno i ovdje radi.

DUGMAD

123. Kalotasto dugme s bradavičastim ispupčenjem na sredini i s poprečnom prečkom s unutarnje strane. Težina: 5,0 g. (T. 9: 153)

Slično dugme iz vremena Ha A1 pronađeno je u ostavi Poljanci II (Bulat 1975: 15, T. XIII: 29, 35), zatim u skupnome nalazu iz Zelenika u Srbiji datiranome u vrijeme Ha A2/Ha B1 (Vukmanović & Radojčić 1995: 170, kat. 346) te u ostavi Cioclovina u Transilvaniji datiranoj u Ha A1 (Petrescu-Dîmbovița 1977: 89, T. 132: 5). Slično dugme ukrašeno žljebovima po tijelu pronađeno je u Baierdorfu u grobu 8, koji se može datirati u mlađu fazu rane kulture polja sa žarama (Lochner 1991: 25, T. 9: 4).

117. Fragment of fibula bow with group of slanted incisions as decoration. Weight: 3.1 g. (T. 8: 138)

118. Fragment of fibula. Weight: 3.1 g. (T. 12: 224)

119. Fragment of spirally wound wire with triangular cross-section that exits spiral straight at one end. Weight: 5.9 g. (T. 12: 225)

120. Fragment of spirally wound wire. Weight: 6.3 g. (T. 12: 227)

Fragments of a spiral, probably from a violin-bow shaped fibula, were found in the hoards from Veliko Nabrđe (Vinski-Gasparini 1973: T. 44: 12–14) and Budinščina (*Ibid.*: T. 79: 9), while spiral fragments and a twisted bow fragment were found in the Poljanci II hoard (Bulat 1975: 14, T. XII: 6–16). Fibulae shaped like violin bows are very frequent finds in the Sava, Drava and Danube interfluvium in phase II of the Urnfield culture, regardless of whether they have grooved foot or they are examples with spiral foot (Vinski-Gasparini 1971: 6–7, T. III). The spiral fragment from the Siča hoard may also be the end of a bracelet, as is the case in the Bingula-Divoš hoard (Vinski-Gasparini 1973: T. 85: 12).

The Drava, Danube and Sava interfluvium and the belt along the right bank of the Sava with the drainage basins of the Kupa and Krka Rivers are among the origin points of fibulae shaped like violin bows (Vinski-Gasparini 1974: 18). Fibulae shaped like violin bows, which appear in large numbers in phase II hoards, can be dated to the late Br D and the early Ha A period on the basis of closed grave units (*Ibid.*: 15, Fig. 1).

BELTS

121. Fragment of belt buckle. Weight: 6.8 g. (T. 10: 163)

A similar buckle made of a bronze sheet was found in the Jarak I hoard (Vinski-Gasparini 1973: T. 83: 17). A richly decorated belt that ends in this type of buckle was found in the Slavonski Brod-Livadićeva Ulica hoard, which has been dated to phase II of the Urnfield culture in northern Croatia (Miškiv 1982: 177, T. VIII). A belt that ends in this type of buckle was found in the Kék hoard, which has been dated to the Kurd horizon (Mozsolics 1985: 131, T. 192: 29) and in the Cehălut I hoard of the Uriu-Domănești phase, which correspond to the thirteenth century BC (Petrescu-Dîmbovița 1977: 54, T. 32: 1–2). A buckle of this type is characteristic of belts made of bronze sheet that appear in the hoards dated to the Ha A1 period in Transylvania, e.g. the Șpălnaca II hoard, Uioara de Sus (*Ibid.*: 110, T. 203: 7–8, T. 257: 7–9). The buckle from the Siča hoard can be classified as a component of belt made of a bronze sheet. Such metal belts are known to be richly decorated

124. Tutul – tanka limena traka preklopljenih krajeva. Težina: 2,6 g. (T. 11: 199)

125. Tutul – tanka limena traka preklopljenih krajeva. Težina: 1,6 g. (T. 11: 213)

Ovakvi predmeti pronađeni su u ostavi Kličevac II-Pomrlovo (Jacanović & Radojčić 2001: 75, T. XII: 9–10), dok one iz ostave Futog D. Borić naziva ljevkastim privjescima (1997: 67, T. XI: 212–214). Tutuli su pronađeni i u ostavi Szenkirályszabadja u Mađarskoj, gdje se prema nalazima u grobnim cjelinama i ostavama pojavljuju u vrijeme Br D-Ha A (Gábor 1998: 187–188, T. III).

126. Ulomak dugmeta s jednom rupicom uz rub. Težina: 2,4 g. (T. 9: 154)

127. Ulomak dugmeta s jednom rupicom po sredini. Težina: 1,6 g. (T. 9: 155)

128. Dugme s dvjema rupicama uz rubove. Težina: 1,5 g. (T. 9: 156)

129. Ulomak lima; vjerojatno je riječ o ulomku dugmeta od brončanoga lima. Težina: 0,4 g. (T. 9: 159)

Dugme s rupicama za pričvršćivanje pronađeno je u ostavi Poljanci IV-Donje Polje (Miklik-Lozuk 2004: 31, T. VII: 3), a takva dugmad uočena je i u ostavi Kućišta (König 2004: 205, T. 4: 61–69). Dugme s rupicama za pričvršćivanje, koje su kronološki neosjetljiv oblik, pronađeno je i u ostavi Jarak II u Srijemu (Balen-Letunić 1988: 9, T. IV: 19), dok se nekoliko dugmadi nalazilo u ostavi Kličevac II-Pomrlovo (Jacanović & Radojčić 2001: 74, T. XII: 2–6) te u ostavi Futog u Bačkoj, datiranoj u Ha A1 (Borić 1997: 70–71, T. XV: 298–306) i u ostavi iz Pećinaca u Srijemu (Milošević 1960: T. IX: 1–21). Brojna dugmad pronađena je u ostavi Szenkirályszabadja u Mađarskoj, datiranoj u Ha A1-Ha B (Gábor 1998: 189, T. III).

130. Kalotasto dugme od tanka lima, glatke neukrašene površine; na unutarnjoj strani je puknuta petlja polukružna presjeka. Težina: 1,5 g. (T. 9: 157)

U ostavi Otok-Privlaka pronađena je brončana neukrašena dugmad s ušicom ili rupicama (Vinski-Gasparini 1973: T. 28: 7–8, 20–21). Brončana jednostavna dugmad s ušicom zabilježena je i u ostavama Račinovci (Vinski-Gasparini 1973: T. 30B: 1–7), Veliko Nabrđe (*ibid.*: T. 45: 11–12, 14, 19–21), Poljanci I (*ibid.*: T. 49: 9–12), Gornja Vrba (*ibid.*: T. 51: 23), Brodski Varoš (*ibid.*: T. 53: 17, 33, T. 57: 18–21, T. 58: 21), Podcrkavlje-Slavonski Brod (*ibid.*: T. 66: 32–33), Pričac (*ibid.*: T. 71: 15–16, 23), Mačkovac (*ibid.*: T. 73: 13–15), Topličica I (*ibid.*: T. 76: 18), Bingula Divoš (*ibid.*: T. 86: 3–4, 9) i Poljanci II (Bulat 1975: 15, T. XII: 18–20, 30). U ostavi iz naselja Mačkovac također je pronađeno brončano dugme s ušicom (Karavanić & Mihaljević 2001: 10, T. 6: 5). Nekoliko polukalotastih dugmeta od brončanoga lima s ušicom pronađeno je prilikom istraživanja

or simply smooth, without decoration (which W. A. von Brunn believes were covered with richly decorated cloth). I. Killian-Dirlmeier maintains that these are more likely unfinished products that are known only from hoards (Killian-Dirlmeier 1975: 116). This fragment may have been part of an unfinished product, i.e. an undecorated metal belt or a finished decorated belt on which the buckle was broken. Undecorated belts of this type are contemporary with decorated belts of the same type and they appear in the territory from Moravia, across eastern Hungary, to Croatia (*Ibid.*).

122. Fragment of thin metal strip with three small holes on one end. Weight: 4.5 g. (T. 10: 180)

This type of fragment was found in the Gyermely hoard and it has been designated as a fragment of a belt made of bronze sheet (Mozsolics 1985: 122, T. 241: 9), which is probably the case here as well.

BUTTONS

123. Calotte-shaped button with wart-like protrusion in middle and crossbar inside. Weight: 5.0 g. (T. 9: 153)

A similar button from the Ha A1 period was found in the Poljanci II hoard (Bulat 1975: 15, T. XIII: 29, 35), and then in a group find from Zelenik in Serbia dated to the Ha A2/Ha B1 period (Vukmanović & Radojčić 1995: 170, cat. 346) and in the Cioclovina hoard in Transylvania dated to the Ha A1 period (Petrescu-Dîmbovița 1977: 89, T. 132: 5). A similar button with grooves on the body was found in Baierdorf in grave 8, which can be dated to the earlier phase of the Urnfield culture (Lochner 1991: 25, T. 9: 4).

124. Tutulus – thin metal strip with overlapping ends. Weight: 2.6 g. (T. 11: 199)

125. Tutulus – thin metal strip with overlapping ends. Weight: 1.6 g. (T. 11: 213)

These types of items were found in the Kličevac II-Pomrlovo hoard (Jacanović & Radojčić 2001: 75, T. XII: 9–10), while those from the Futog hoard have been called funnel-shaped pendants by D. Borić (1997: 67, T. XI: 212–214). Tutuli have also been found in the Szenkirályszabadja hoard in Hungary, where they appeared during the Br D-Ha A period based on finds in grave units and hoards (Gábor 1998: 187–188, T. III).

126. Button fragment with one hole along edge. Weight: 2.4 g. (T. 9: 154)

127. Button fragment with one hold in middle. Weight: 1.6 g. (T. 9: 155)

128. Button with two holes along edge. Weight: 1.5 g. (T. 9: 156)

naselja Kalnik-Igrišće (Majnarić-Pandžić 1992: 63, T. I: 21–22, 28). Ovakva dugmad zabilježena je i u ostavi Kućišta (König 2004: T. 4: 70–71) te u ostavi Jadrina (*ibid.*: T. 20B: 10). Polukalotasta dugmad s ušicom nalazila se u grobu II tumula u Čaki (Točik & Paulík 1960: 76, Obr. 20, 19) te u tumulu u Očkovu, a smatra se čestim prilogom u grobovima u zapadnome dijelu Karpatske kotline u vremenu Br D i Ha A. U nepromjenljivom obliku ostala su u upotrebi duže vrijeme (Paulík 1962: 63, Abb. 19, 12–16, 20–23, 25–28, 31–34). J. Paulík drži da su stariji oblik dugmad s dvjema rupicama, koji se pojavljuje u ranom i srednjem brončanome dobu te iščezava u vrijeme Br D i Ha A, a istodobno egzistira na prostoru Karpatske kotline i srednjega Podunavlja, gdje je prije i jače rasprostranjena nego u zapadnome dijelu (Donja Austrija, južna Moravska) (*ibid.*: 63). Tutul s ušicom koji se od našega primjera razlikuje samo vodoravnim kanelurama pronađen je u ostavi Polešovice u Moravskoj datiranoj u vrijeme Br D/Ha A1 (Salaš 1997: 71, T. 25: 622–623). Brojna dugmad s rupicama ili ušicama za pričvršćivanje pronađena je u ostavi Uioara de Sus. Ondje je pribrojena konjskoj opremi (Petrescu-Dîmbovița 1977: 115, T. 248).

Brončana dugmad iz ostave Siča također spada u kronološki neosjetljivije nalaze koji su imali širok spektar upotrebe – našivana je na odjeću, kožne pojase, ratničku opremu, a spominje se čak i kao dio konjske opreme.

NAKIT

NARUKVICE

131. Ulomak narukvice od lima ukrašene s po šest paralelnih, horizontalnih kanelura uz rubove. Težina: 17,3 g. (T. 7: 116)

132. Ulomak narukvice od lima ukrašene s po tri paralelne, horizontalne kanelure uz rubove. Težina: 3,8 g. (T. 7: 118)

Ovakav primjerak narukvice pronađen je u ostavi Brodski Varoš, a za takve narukvice na području sjeverne Hrvatske smatra se da pripadaju II. fazi kulture polja sa žarama (Vinski-Gasparini 1973: 91, T. 59: 43). Ista narukvica pronađena je i u ostavi Futog u Bačkoj (Borić 1997: 68, T. XIV: 264). No ulomak ukrašen vodoravnim kanelurama uz rubove može predstavljati i dio pojasa od brončanoga lima. Tako su primjerci slični ovom zabilježeni u ostavi Brodski Varoš, gdje su pripisani ostacima pojasa (Vinski-Gasparini 1973: T. 57: 4).

129. Fragment of metal sheet; probably button made of bronze. Weight: 0.4 g. (T. 9: 159)

A button with holes for fastening was found in the Poljanci IV-Donje Polje hoard (Miklik-Lozok 2004: 31, T. VII: 3), and such buttons were also found in the Kućišta hoard (König 2004: 205, T. 4: 61–69). A button with holes for fastening, which is a chronologically indeterminate form, was found in the Jarak II hoard in Sarmia (Balen-Letunić 1988: 9, T. IV: 19), while several buttons were found in the Kličevac II-Pomrlovo hoard (Jacanović & Radojčić 2001: 74, T. XII: 2–6) and in the Futog hoard in Bačka, dated to the Ha A1 period (Borić 1997: 70–71, T. XV: 298–306) and the hoard from Pećinci in Sarmia (Milošević 1960: T. IX: 1–21). Numerous buttons were found in the Szenkirályszabadja hoard in Hungary, dated to the Ha A1-Ha B period (Gábor 1998: 189, T. III).

130. Calotte-shaped button made of thin metal sheet; smooth undecorated surface; inside has broken knot with semi-circular cross section. Weight: 1.5 g. (T. 9: 157)

A bronze undecorated button with a loop or hole was found in the Otok-Privlaka hoard (Vinski-Gasparini 1973: T. 28: 7–8, 20–21). Simple bronze buttons with loops were recorded in the hoards from Račinovci (Vinski-Gasparini 1973: T. 30B: 1–7), Veliko Nabrđe (*Ibid.*: T. 45: 11–12, 14, 19–21), Poljanci I (*Ibid.*: T. 49: 9–12), Gornja Vrba (*Ibid.*: T. 51: 23), Brodski Varoš (*Ibid.*: T. 53: 17, 33, T. 57: 18–21, T. 58: 21), Podcrkavlje-Slavonski Brod (*Ibid.*: T. 66: 32–33), Pričac (*Ibid.*: T. 71: 15–16, 23), Mačkovac (*Ibid.*: T. 73: 13–15), Topličica I (*Ibid.*: T. 76: 18), Bingula Divoš (*Ibid.*: T. 86: 3–4, 9) and Poljanci II (Bulat 1975: 15, T. XII: 18–20, 30). A bronze button with a loop was also found in the Mačkovac settlement (Karavanić & Mihaljević 2001: 10, T. 6: 5). Several semi-calotte shaped buttons made of bronze sheet were found during research at the Igrišće settlement on Kalnik (Majnarić-Pandžić 1992: 63, T. I: 21–22, 28). These type of buttons were also recorded in the Kućišta hoard (König 2004: T. 4: 70–71) and in the Jadrina hoard (*ibid.*: T. 20B: 10). Semi-calotte shaped buttons with loop were found in grave II of the tumulus in Čaka (Točik & Paulík 1960: 76, Obr. 20, 19) and in the tumulus in Očkov, and it is deemed a frequent accessory in graves in the western part of the Carpathian Basin during the Br D and Ha A periods. They remained in use for a longer period without undergoing any changes in form (Paulík 1962: 63, Abb. 19, 12–16, 20–23, 25–28, 31–34). J. Paulík maintains that buttons with two holes are an older form, which appear in the Early and Middle Bronze Age and then disappear during the Br D and Ha A periods, simultaneously existing in the Carpathian

133. Ulomak lima. Težina: 1,1 g. (T. 11: 218)

Ovaj ulomak najbliže analogije ima u ulomku narukvice od brončanoga lima koji je ukrašen na isti način, a pronađen je u ostavi Kućišta u Bosanskoj Posavini datiranoj u II. fazu (König 2004: 22, T. 3: 205, T. 4: 77).

134. Ulomak narukvice od lima koji se prema krajevima sužava i presavija, bez ukrasa. Težina: 10,7 g. (T. 7: 117)

Slične neukrašene narukvice od brončanoga lima s najvećom širinom na sredini i suženim krajevima pronađene su u ostavama Brodski Varoš (Vinski-Gasparini 1973: T. 59: 34, 46) i Pričac (*ibid.*: T. 71: 27) te u ostavi Novi Bečej (Marinković 1994: 32, T. I: 2). Takve se narukvice smatraju općenitom pojavom vremena Ha A. Također se smatra da sigurna uporišta za njihovo uže datiranje nema (Vinski-Gasparini 1973: 94).

135. Ulomak narukvice od lima čunjolika presjeka sa širim vertikalnim narebnjenjima. Težina: 6,8 g. (T. 7: 119)

Okomito narebrenene narukvice od brončanoga lima pronađene su u ostavama Otok-Privlaka (Vinski-Gasparini 1973: T. 28: 32), Veliko Nabrđe (*ibid.*: T. 44: 35, 37), Poljanci I (*ibid.*: T. 48: 26), Gornja Vrba (*ibid.*: T. 51: 17), Brodski Varoš (*ibid.*: T. 59: 23–27, 29), Podcrkavlje-Slavonski Brod (*ibid.*: T. 66: 16–17), Topličica I (*ibid.*: T. 76: 25), Budinščina (*ibid.*: T. 79, 17), Slavonski Brod-Livadićeva ulica (Miškiv 1982: 176, T. VIII: 9), najbliža paralela uočena je u ostavi Malička s Korduna (Balen-Letunić 1985: 38, T. 2, 1). Iste su narukvice pronađene i u ostavama Jakovo u Srijemu (Todorović 1971: 22, T. XII: 31–32), Sremska Mitrovica (Balen-Letunić 1988: 6, T. I: 10) te Kličevac II-Pomrlovo (Jacanović & Radojčić 2001: 77, T. XIV: 14).

136. Ulomak narukvice od debljega brončanog lima, s dvama poprečnim rebrima. Težina: 8,9 g. (T. 7: 120)

137. Ulomak narukvice sekstagonalna presjeka koji prelazi u spljošteni završetak. Težina: 8,5 g. (T. 7: 121)

138. Ulomak narukvice kružnoga presjeka. Težina: 7,3 g. (T. 7: 122)

139. Ulomak narukvice kružnoga presjeka, bez ukrasa. Težina: 2,4 g. (T. 9: 152)

Ulomak poput ovih pronađen je u ostavi Topličica I bez pobliže atribucije (Vinski-Gasparini 1973: T. 76: 12).

140. Dva ulomka narukvice kružnoga presjeka, ukrašene s grupama poprečnih ureza. Težina: 17,4 g. + 9,2 g. (T. 7: 123)

141. Ulomak narukvice kružnoga presjeka, s ukrasom poprečnih ureza. Težina: 16,2 g. (T. 7: 124)

142. Ulomak narukvice kružnoga presjeka, s ukrasom poprečnih ureza. Težina: 9,0 g. (T. 7: 125)

Basin and the Central Danubian zone, where they appeared earlier and were more widespread than in the western areas (Lower Austria, southern Moravia) (*Ibid.*: 63). A tutulus with loop that differs from this example only by the horizontal cannelures was found in the Polešovice hoard in Moravia and dated to the Br D/Ha A1 period (Salaš 1997: 71, T. 25: 622–623). Numerous buttons with holes or loops for fastening were found in the Uioara de Sus hoard. In that case it was counted as a component of horse harness (Petrescu-Dîmbovița 1977: 115, T. 248).

Bronze buttons from the Siča hoard also belong among the chronologically indeterminate finds that had a broad spectrum of use: they were sewn onto clothing, leather belts, military gear, and they are even mentioned as components of horse harness.

JEWELLERY

BRACELETS

131. Fragment of bracelet made of metal sheet decorated with six parallel, horizontal cannelures along the edges. Weight: 17.3 g. (T. 7: 116)

132. Fragment of bracelet made of metal sheet decorated with three parallel, horizontal cannelures along the edges. Weight: 3.8 g. (T. 7: 118)

This type of bracelet was found in the Brodski Varoš hoard, and such bracelets in northern Croatia are believed to belong to phase II of the Urnfield culture (Vinski-Gasparini 1973: 91, T. 59: 43). The same bracelet was found in the Futog hoard in Bačka (Borić 1997: 68, T. XIV: 264). But the fragment decorated with horizontal cannelures along the edges may also be part of a belt made of bronze sheet. Thus examples similar to this one were recorded in the Brodski Varoš hoard, where they were classified as remains of a belt (Vinski-Gasparini 1973: T. 57: 4).

133. Fragment of metal sheet. Weight: 1.1 g. (T. 11: 218)

The closest analogy to this fragment is the fragment of a bronze bracelet decorated in the same fashion, found in the Kućišta hoard in Bosnia's Posavina region and dated to phase II (König 2004: 22, T. 3: 205, T. 4: 77).

134. Fragment of bracelet made of a metal sheet that narrows and bends toward ends, undecorated. Weight: 10.7 g. (T. 7: 117)

Similar undecorated bracelets made of a bronze sheet, widest in the middle and narrowed at the ends, were found in the hoards from Brodski

Narukvice okrugla presjeka ukrašene nizovima okomitih ureza pronađene su u ostavama Gornja Vrba (Vinski-Gasparini 1973: T. 51: 12–14), Brodski Varoš (*ibid.*: T. 55: 25, 29, 34, T. 59: 1, 3, 20), Pričac (*ibid.*: T. 71: 22, 29, 32), Mačkovac (*ibid.*: T. 73: 26), Topličica I (*ibid.*: T. 76: 30), Slavonski Brod-Livadićeva ulica (Miškiv 1982: 176, T. VIII: 10–11), a poznati su i slučajni nalazi iz Čajkovaca kod Vrpolja (Salajić-Jančevski 1983: 123–124, sl. 5–6). Ovakav primjerak narukvice pronađen je i u ostavi Kličevac II-Pomrlovo (Jacanović & Radojčić 2001: 75, T. XIII: 2), zatim u ostavi Futog (Borić 1997: 69, T. XIII: 249, T. XIV: 250–261), a M. Garašanin pripisuje ih tipu Žarkovo (Garašanin 1983: 691).

143. Ulomak narukvice kružnoga presjeka, bez vidljivih ukrasa. Težina: 14,4 g. (T. 7: 126)

Obična okrugla neukrašena narukvica pronađena je u ostavi u naselju Mačkovac-Crišnjevi (Karavanić & Mihaljević 2001: 9, T. 7: 3, T. 8: 2).

144. Ulomak narukvice romboidna presjeka. Težina: 8,5 g. (T. 8: 127)

145. Ulomak narukvice romboidna presjeka s ukrašom kosih ureza na jednoj strani. Težina: 7,9 g. (T. 8: 128)

146. Ulomak narukvice romboidna presjeka. Težina: 3,7 g. (T. 8: 129)

147. Ulomak narukvice romboidna presjeka. Težina: 0,9 g. (T. 8: 130)

148. Ulomak narukvice romboidna presjeka. Težina: 5,4 g. (T. 8: 131)

149. Ulomak narukvice romboidna presjeka. Težina: 2,6 g. (T. 8: 132)

150. Ulomak narukvice romboidna presjeka. Težina: 2,0 g. (T. 8: 133)

151. Ulomak narukvice nepravilna kružnog presjeka. Težina: 3,7 g. (T. 8: 134)

152. Ulomak narukvice trokutasta presjeka, razdvojenih krajeva koji se sužavaju prema završetku. Težina: 4,8 g. (T. 8: 135)

153. Ulomak narukvice trokutasta presjeka, razdvojenih krajeva koji se sužavaju prema završetku. Težina: 4,8 g. (T. 8: 136)

Narukvica ovakva tipa pronađena je kao slučajni nalaz u Zdenčini (Vinski-Gasparini 1973: T. 26: 2) te u ostavama Otok-Privlaka (T. 28: 43, 46), Podcrkavlje-Slavonski Brod (T. 66: 25), Struga (T. 74D: 2) i Medvedgrad (T. 75A: 1–6), a datiranima u II. fazu ostava, dok je iz III. faze ostava takva narukvica zabilježena u ostavi Kloštar Ivanić (*ibid.*: T. 96: 5–7). Ovaj tip narukvica poznat je iz vremena Br D na prostoru Moravske. U međuriječju Save i Drave pojavljuju se u II. fazi ostava, a K. Vinski-Gasparini smatra da njihovo podrijetlo treba tražiti još u velikim spiralnim narukvicama vremena Koszider (*ibid.*: 73).

Varoš (Vinski-Gasparini 1973: T. 59: 34, 46) and Pričac (*ibid.*: T. 71: 27) and the Novi Bečej hoard (Marinković 1994: 32, T. I: 2). Such bracelets are deemed a general phenomenon of the Ha A period. It is also believed that there is no firm basis to date them (Vinski-Gasparini 1973: 94).

135. Fragment of bracelet made of metal sheet with conical cross-section and wider vertical ribbing. Weight: 6.8 g. (T. 7: 119)

Vertically ribbed bracelets made of bronze sheet were found in the hoards from Otok-Privlaka (Vinski-Gasparini 1973: T. 28: 32), Veliko Nabrđe (*ibid.*: T. 44: 35, 37), Poljanci I (*ibid.*: T. 48: 26), Gornja Vrba (*ibid.*: T. 51: 17), Brodski Varoš (*ibid.*: T. 59: 23–27, 29), Podcrkavlje-Slavonski Brod (*ibid.*: T. 66: 16–17), Topličica I (*ibid.*: T. 76: 25), Budinščina (*ibid.*: T. 79, 17), and Slavonski Brod-Livadićeva Ulica (Miškiv 1982: 176, T. VIII: 9), and the closest analogy was observed in the Malička hoard from Kordun (Balen-Letunić 1985: 38, T. 2, 1). The same type of bracelets was found in the hoards from Jakovo in Sarmia (Todorović 1971: 22, T. XII: 31–32), Sremska Mitrovica (Balen-Letunić 1988: 6, T. I: 10) and Kličevac II-Pomrlovo (Jacanović & Radojčić 2001: 77, T. XIV: 14).

136. Fragment of bracelet made of thicker bronze sheet, with two perpendicular ribs. Weight: 8.9 g. (T. 7: 120)

137. Fragment of bracelet with hexagonal cross-section that has flattened end. Weight: 8.5 g. (T. 7: 121)

138. Fragment of bracelet with circular cross-section. Weight: 7.3 g. (T. 7: 122)

139. Fragment of bracelet with circular cross-section, undecorated. Weight: 2.4 g. (T. 9: 152)

A fragment like these was found in the Topličica I hoard without detailed attributions (Vinski-Gasparini 1973: T. 76: 12).

140. Two fragments of bracelets with circular cross-section, decorated with groups of perpendicular engravings. Weight: 17.4 g. + 9,2 g. (T. 7: 123)

141. Fragment of bracelet with circular cross-section, decorated with perpendicular engravings. Weight: 16.2 g. (T. 7: 124)

142. Fragment of bracelet with circular cross-section, decorated with perpendicular engravings. Weight: 9.0 g. (T. 7: 125)

Bracelets with circular cross-sections decorated with series of vertical engravings were found in the hoards from Gornja Vrba (Vinski-Gasparini 1973: T. 51: 12–14), Brodski Varoš (*ibid.*: T. 55: 25, 29, 34, T. 59: 1, 3, 20), Pričac (*ibid.*: T. 71: 22, 29, 32), Mačkovac (*ibid.*: T. 73: 26), Topličica I (*ibid.*: T. 76: 30), and Slavonski Brod-Livadićeva Ulica (Miškiv 1982: 176, T. VIII: 10–11), and they are known as

154. Ulomak narukvice trokutasta presjeka. Težina: 4,6 g. (T. 8: 137)

155. Narukvica trokutasta presjeka. Težina: 10,0 g. (T. 8: 139)

156. Ulomak narukvice trokutasta presjeka. Težina: 14,0 g. (T. 8: 141)

Ovi ulomci vrlo su vjerojatno pripadali većim narukvicama s nekoliko navoja, odnosno rukobranima u obliku spiralnih štitnika za nadlakticu i za šaku. Primjerke bolje sačuvanih rukobrana od spiralne žice trokutasta presjeka nalazimo u ostavi Futog u Bačkoj (Borić 1997: 64, T. III: 22–30). Narukvice s više navoja, odnosno rukobrani koji završavaju tordiranim dijelom, zabilježeni su u ostavi iz Mezökövesda, datiranoj u Ha B1 (Patay 1969: 208, T. XLV). Takve narukvice rasprostranjene su u Karpatskoj kotlini i obično dolaze u paru, a najviše ih je zabilježeno na prostoru sjevernomadžarsko-slovačkoga gorja te u gornjem Potisju (*ibid.*: 198).

157. Ulomak plosnate žice. Težina: 1,8 g. (T. 8: 140)

158. Ulomak narukvice, neukrašene, polukružna presjeka. Težina: 6,6 g. (T. 8: 142)

159. Ulomak narukvice kružnoga presjeka s ukrasom spiralnog ureza. Težina: 4,8 g. (T. 9: 146)

160. Ulomak narukvice kružnoga presjeka s ukrasom spiralnog ureza. Težina: 2,6 g. (T. 9: 148)

Sličan ulomak pronađen je u ostavi Pustakovec u Međimurju, gdje je naznačeno da bi se moglo raditi o ogrlici ili o narukvici (A. Hänsel 1999: 85, Abb. 5, 3). Ovakva narukvica pronađena je u Brestoviku (položaj Jalija) kao slučajni nalaz i datirana je u vrijeme Br D-Ha A1 (Vukmanović & Radojčić 1995: 35, kat. 43) te u ostavi Kličevac II-Pomrlovo datiranoj u vrijeme Br D-Ha A1 (Jacanović & Radojčić 2001: 75, T. XIII: 4).

161. Ulomak narukvice kružnoga presjeka s ukrasom spiralnog ureza, osim na krajevima gdje kružni presjek prelazi u nepravilan kvadratni. Težina: 4,8 g. (T. 9: 151)

Primjerci narukvica ovoga tipa pronađeni su u ostavama Gornja Vrba i Brodski Varoš te se smatraju karakterističnim oblikom za vrijeme Ha A (Vinski-Gasparini 1973: 95, T. 51: 18, T. 59: 17, 33). Istodobno se tordirane narukvice promatraju i kao kronološki neosjetljiv i vrlo raširen oblik koji se pojavljuje od Br C do u vrijeme Ha A, s najvećom rasprostranjenošću u južnoj Njemačkoj (Trnka 1992: 90, Abb. 41, 2–3).

162. Ulomak trakaste narukvice čiji se jedan kraj sužava i završava spiralno. Težina: 4,6 g. (T. 10: 164)

Paralele za ovakvu narukvicu nalaze se u ostavi Poljanci II (Bulat 1975: 14, T. XII: 21, 21a). Slična trakasta narukvica s po dvjema spiralama na krajevima pronađena je u grobu 1 u Gusenu u Gornjoj Austriji

chance finds from Čajkovci near Vrpolje (Salajić-Jančevski 1983: 123–124, Fig. 5–6). An example of this type of bracelet was also found in the Kličevac II-Pomrlovo hoard (Jacanović & Radojčić 2001: 75, T. XIII: 2), and in the Futog hoard (Borić 1997: 69, T. XIII: 249, T. XIV: 250–261), and M. Garašanin classified them as Žarkovo type (Garašanin 1983: 691).

143. Fragment of bracelet with circular cross-section, no visible decoration. Weight: 14.4 g. (T. 7: 126)

A standard round undecorated bracelet was found in the hoard in the settlement of Mačkovac-Crišnjevi (Karavanić & Mihaljević 2001: 9, T. 7: 3, T. 8: 2).

144. Fragment of bracelet with rhomboid cross section. Weight: 8.5 g. (T. 8: 127)

145. Fragment of bracelet with rhomboid cross section decorated with slanted engravings on one side. Weight: 7.9 g. (T. 8: 128)

146. Fragment of bracelet with rhomboid cross section. Weight: 3.7 g. (T. 8: 129)

147. Fragment of bracelet with rhomboid cross section. Weight: 0.9 g. (T. 8: 130)

148. Fragment of bracelet with rhomboid cross section. Weight: 5.4 g. (T. 8: 131)

149. Fragment of bracelet with rhomboid cross section. Weight: 2.6 g. (T. 8: 132)

150. Fragment of bracelet with rhomboid cross section. Weight: 2.0 g. (T. 8: 133)

151. Fragment of bracelet with irregular circular cross section. Weight: 3.7 g. (T. 8: 134)

152. Fragment of bracelet with triangular cross section and separated ends that narrowed toward the tips. Weight: 4.8 g. (T. 8: 135)

153. Fragment of bracelet with triangular cross section and separated ends that narrowed toward the tips. Weight: 4.8 g. (T. 8: 136)

Bracelets of this type were found as chance finds in Zdenčina (Vinski-Gasparini 1973: T. 26: 2), and in the hoards from Otok-Privlaka (T. 28: 43, 46), Podcrkavlje-Slavonski Brod (T. 66: 25), Struga (T. 74D: 2) and Medvedgrad (T. 75A: 1–6) and dated to hoard phase II, while in hoard phase III this type of bracelet was recorded in the Kloštar Ivanić hoard (*Ibid.*: T. 96: 5–7). This type of bracelet is known from the Br D period on the territory of Moravia. In the Sava and Drava interfluvium they appear in hoard phase II, while K. Vinski-Gasparini believes that their origin should be sought in the large spiral bracelets of the Koszider period (*Ibid.*: 73).

154. Fragment of bracelet with triangular cross-section. Weight: 4.6 g. (T. 8: 137)

155. Fragment of bracelet with triangular cross-section. Weight: 10.0 g. (T. 8: 139)

156. Fragment of bracelet with triangular cross-section. Weight: 14.0 g. (T. 8: 141)

i pripada srednjobrončanodobnom inventaru grobalja i ostava (Trnka 1992: 92, Abb. 41, 10).

163. Ulomak trakaste narukvice s četirima uzdužnim kanelurama; radi se o završetku narukvice otvorenih krajeva, trakasta presjeka s pet vodoravnih kanelura. Težina: 2,7 g. (T. 10: 165)

Narukvica ovakva tipa pronađena je u ostavi Novi Grad u Bosanskoj Posavini datiranoj u II. fazu prema Königu (2004: 22, 213, T. 7: 17). Također, ulomak ovakve narukvice pronađen je u ostavi Futog iz Ha A1 u Bačkoj (Borić 1997: T. XIV: 266). Ulomci ovakvih narukvica nalaze se u ostavi iz Pećinaca u Srijemu (Milošević 1960: 158, T. VII: 4–5) te u ostavi Hočko Pohorje (Čerče & Šinkovec 1995: 187, T. 80: 111) datiranoj u II. horizont prema P. Turku (1996: 108). Ulomci sličnih narukvica pronađeni su u ostavi Polešovice u Moravskoj (Salaš 1997: T. 22: 548–553).

Za ulomke narukvica br. 138, 139, 144–152 nije moguće pobliže odrediti tip kojem pripadaju.

Narukvice zabilježene u ostavi Siče pripadaju oblicima karakterističnima za stariju fazu kulture polja sa žarama u sjevernoj Hrvatskoj. Kako narukvice nisu kronološki osjetljiv nalaz, nije ih moguće uže datirati unutar II. faze ostava, odnosno Br D/Ha A1.

OGRVICE (TORKVESI)

164. Ulomak torkvesa s ukrašenom grupom cik-cak ureza s jedne i kosih ureza s druge strane. Težina: 14,7 g. (T. 9: 143)

Ulomci torkvesa koji su ukrašeni motivom jelove grančice i sa završecima u obliku spirala pronađeni su u ostavama Poljanci I (Vinski-Gasparini 1973: T. 49: 3), Brodski Varoš (*ibid.*: T. 52: 29), Topličica I (*ibid.*: T. 76: 32) i Bingula-Divoš (*ibid.*: T. 86: 27–28). Torkvesi ukrašeni motivom jelove grančice općenita su pojava vremena Ha A (*ibid.*: 95).

165. Ulomak torkvesa. Težina: 10,1 g. (T. 9: 144)

166. Ulomak torkvesa. Težina: 11,2 g. (T. 9: 145)

167. Ulomak torkvesa. Težina: /. (T. 9: 147)

168. Ulomak torkvesa kružnoga presjeka s ukrašenom spiralnom urezom. Težina: 13,4 g. (T. 9: 149)

169. Ulomak torkvesa kružnoga presjeka s ukrašenom spiralnom urezom. Težina: 3,6 g. (T. 9: 150)

Ulomak torkvesa s tordiranim tijelom i završetkom u obliku spirale zabilježen je u ostavi Otok-Privlaka (Vinski-Gasparini 1973: T. 28: 48), dok je nalaz iz ostave Poljanci I bez završetka u obliku spirale (*ibid.*: T. 49: 6). Usporedbe su poznate i iz ostava Gornja Vrba (*ibid.*: T. 51: 18), Brodski Varoš (*ibid.*: T. 52: 50, 54), Pričac (*ibid.*: T. 71: 24, 33, 37) i Slavonski Brod-Livadićeva ulica (Miškov 1982: 175, T.

These fragments very likely belonged to larger bracelets with several coils, or arm-guards in the form of spiral vambraces for the forearm and hand. Examples of better preserved arm-guards made of spiral wire with triangular cross section were found in the Futog hoard in Bačka (Borić 1997: 64, T. III: 22–30). Bracelets with several coils, or arm-guards that end in a twisted section were recorded in the hoard from Mezókövesd, dated to the Ha B1 period (Patay 1969: 208, T. XLV). Such bracelets were widespread in the Carpathian Basin and they usually came in pairs, and most of them were registered in the northern Hungarian/Slovak hills and in upper Potisje (*Ibid.*: 198).

157. Fragment of flattened wire. Weight: 1.8 g. (T. 8: 140)

158. Fragment of bracelet, undecorated, semi-circular cross section. Weight: 6.6 g. (T. 8:142)

159. Fragment of bracelet with circular cross section decorated with spiral engraving. Weight: 4.8 g. (T. 9: 146)

160. Fragment of bracelet with circular cross-section decorated with spiral engraving. Weight: 2.6 g. (T. 9: 148)

A similar fragment was found in the Pustakovec hoard in Međimurje, where it was determined that it may be either a necklace or a bracelet (A. Hänsel 1999: 85, Abb. 5, 3). This type of bracelet was found in Brestovik (Jalija location) as a chance find and it was dated to the Br D-Ha A1 period (Vukmanović & Radojčić 1995: 35, cat. no. 43) and in the Kličevac II-Pomrlovo hoard dated to the Br D-Ha A1 period (Jacanović & Radojčić 2001: 75, T. XIII: 4).

161. Fragment of bracelet with circular cross-section decorated with spiral engraving, except ends where circular cross-section turns to irregular quadrilateral. Weight: 4.8 g. (T. 9: 151)

Examples of bracelets of this type were found in the Gornja Vrba and Brodski Varoš hoards and they are deemed the characteristic form for the Ha A period (Vinski-Gasparini 1973: 95, T. 51: 18, T. 59: 17, 33). Twisted bracelets are simultaneously observed as chronologically indeterminate and a very widespread form that appears from the Br C to the Ha A period, with the widest distribution in southern Germany (Trnka 1992: 90, Abb. 41, 2–3).

162. Fragment of ribbon-like bracelet; one end narrows and finishes in spiral. Weight: 4.6 g. (T. 10: 164)

Analogies to this bracelet can be found in the Poljanci II hoard (Bulat 1975: 14, T. XII: 21, 21a). A similar ribbon-like bracelet with two spirals on each end was found in grave 1 in Gusen in Upper Austria and it belongs to the Middle Bronze Age inventory of graves and hoards (Trnka 1992: 92, Abb. 41, 10).

VII: 1). U ostavi Malička pronađen je ulomak tor-dirana torkvesa te ulomak tordirane narukvice sa spiralnim završetkom (Balen-Letunić 1985: 37, T. 2: 2, 6). Torkvesi tordirana tijela pojavljuju se u vremenu Ha A i nije ih moguće uže datirati u okviru tog razdoblja u kojem su često bili polagani u ostave (Vinski-Gasparini 1973: 95). Vjerojatno je riječ o nakitu za vrat, muškaraca i žena. Ulomci takvih torkvesa pronađeni su u grobovima u Chotínu. Na tim su ulomcima vidljivi tragovi gorenja, što znači da su polagani na lomaču zajedno s pokojnicama (Novotná 1984: 35). Tordirani torkvesi s ušicama na kraju datiraju se, dakle, kroz čitavo vrijeme starije faze kulture polja sa žarama do u vrijeme halštata (*ibid.*: 34–35, T. 39–44, T. 69 B).

PRIVJESCI

170. Privjesak u obliku vrbina lista sa središnjim blago naglašenim rebrom. Težina: 5,4 g (T. 2: 15)

Takvi privjesci, također slomljeni, pronađeni su u ostavi Brodski Varoš i označeni su – zajedno s privjescima u obliku pješčanoga sata, antropomorfnim privjescima i privjescima u obliku ptica – kao popratni materijal kulture polja sa žarama u sjevernoj Hrvatskoj (Vinski-Gasparini 1973: 95, T. 56: 52–53). Ovaj tip privjeska, ukrašen po središnjem bridu, pronađen je u ostavi Pričac, gdje se centar razvoja privjesaka smješta u jugoistočni dio srednjega Podunavlja (*ibid.*: 98, T. 71: 3, 5, 7). U ostavi Poljanci IV-Donje Polje pronađen je ovakav privjesak s jako naglašenim središnjim rebrom (Miklik-Lozok 2004: 32, T. VIII: 1). U ostavi Bingula-Divoš pronađen je još jedan primjerak takva privjeska, samo mu je ondje sačuvana i ušica, što kod ovog primjera nije slučaj (Vinski-Gasparini 1973: T. 86: 12). Jedina ostava u kojoj je pronađen listoliki privjesak na pozamenterijskoj fibuli na kakvima su privjesci prvotno stajali jest ostava Sviloš, datirana u stupanj Ha A1, odnosno u II. fazu ostava (Ercegović 1955: 17, T. I–II; Vinski-Gasparini 1973: 108–109, T. 88: 1). Ukrašen listoliki privjesak s krilcima pronađen je u ostavi Szentgáloskér (Somogy), iz horizonta Kurd (Mozsolics 1985: 195, T. 114: 7). U ostavi Velem (Vas) pronađena su četiri takva privjeska, a nalaz je datiran u mladi, horizont Gyermely (Mozsolics 1985: 212, T. 231A). Listoliki privjesci pronađeni su u ostavi Szentkirályszabadja, datiranoj u vrijeme Ha A1 do u Ha B (Gábor 1998: 189, T. II: 10–14).

Ovaj privjesak mogao je biti nošen samostalno ili je bio dio kakve pozamenterijske fibule, što se s obzirom na kontekst nalaza teško može odgonetnuti. Ovakvi privjesci karakteristični su za stariju fazu kulture polja sa žarama u Karpatskoj kotlini.

163. Fragment of ribbon-like bracelet with four lateral cannelures; end of bracelet with open ends, ribbon-like cross-section with five horizontal cannelures. Weight: 2.7 g. (T. 10: 165)

A bracelets of this type was found in the Novi Grad hoard in the Bosnian Posavina, dated to phase II according to König (2004: 22, 213, T. 7: 17). Additionally, a fragment of this type of bracelet was found in the Futog hoard from the Ha A1 period in Bačka (Borić 1997: T. XIV: 266). Fragments of this type of bracelet were found in the hoard from Pećinci in Syrmia (Milošević 1960: 158, T. VII: 4–5) and in the Hočko Pohorje hoard (Čerče & Šinkovec 1995: 187, T. 80: 111) dated to phase II of the horizon according to P. Turk (1996: 108). Fragments of similar bracelets were found in the Polešovice hoard Moravia (Salaš 1997: T. 22: 548–553).

The relevant type cannot be definitely determined for the bracelet fragments under no. 138, 139, 144–152.

The bracelets registered in the Siča hoard exhibit features characteristic of the earlier phase of the Urnfield culture in northern Croatia. Since bracelets are not a chronologically determinant find, they cannot be more precisely dated within the hoard phase II, i.e. Br D/Ha A1.

NECKLACES (TORQUES)

164. Torque fragment decorated by group of zigzag engravings on one side and slanted engravings on the other. Weight: 14.7 g. (T. 9: 143)

Torque fragments decorated with fir branches and end in spirals were found in the hoards from Poljanci I (Vinski-Gasparini 1973: T. 49: 3), Brodski Varoš (*Ibid.*: T. 52: 29), Topličica I (*Ibid.*: T. 76: 32) and Bingula-Divoš (*Ibid.*: T. 86: 27–28). Torques decorated with fir branches are a general phenomenon of the Ha A period (*Ibid.*: 95).

165. Torque fragment. Weight: 10.1 g. (T. 9: 144)

166. Torque fragment. Weight: 11.2 g. (T. 9: 145)

167. Torque fragment. Weight: /. (T. 9: 147)

168. Torque fragment with circular cross section decorated with spiral engraving. Weight: 13.4 g. (T. 9: 149)

169. Torque fragment with circular cross-section decorated with spiral engraving. Weight: 3.6 g. (T. 9: 150)

A torque fragment with twisted body that ends in a spiral was recorded in the Otok-Privlaka hoard (Vinski-Gasparini 1973: T. 28: 48), while the find from the Poljanci I hoard lacks the spiral ending (*Ibid.*: T. 49: 6). Analogies are also known from the hoards from Gornja Vrba (*Ibid.*: T. 51: 18), Brodski Varoš (*Ibid.*: T. 52: 50, 54), Pričac (*Ibid.*: T. 71:

KONJSKA OPREMA

171. Okrugli razvodnik remenja ukrašen urezanim rozetom. Težina: 7,7 g. (T. 9: 158)

Razvodnik za konjske uzde pronađen je u ostavama Otok-Privlaka (Vinski-Gasparini 1973: T. 28: 18–19), Brodski Varoš (*ibid.*: T. 57: 46), četiri primjerka u ostavi Poljanci II (Bulat 1975: 15, T. XIII: 31–34), dok je bez ukrasa razvodnik u obliku križa iz ostave Mačkovac (Vinski-Gasparini 1973: T. 73: 12). Primjerak istovjetan ovom iz ostave Siča pronađen je u ostavi Malička (Balen-Letunić 1985: 42, T. 2: 7). Sličan razvodnik, ali bez križnog ukrasa, nalazio se u Baierdorfu u grobu 8, koji je datiran u mlađu fazu rane kulture polja sa žarama (Lochner 1991: 25, T. 9: 5). Treba istaknuti da su se ovakvi razvodnici u upotrebi zadržali dugo, sve do u vrijeme Ha B, kad se pojavljuju slični primjerci koje C. Metzner-Nebelsick genetski ne povezuje s ovdje navedenima iz starije faze kulture polja sa žarama jer su na području istočno od Karpata istodobno postojali isti takvi razvodnici (Metzner-Nebelsick 2002: 313). N. Majnarić-Pandžić ostavlja otvorenom mogućnost da prapočetke kasnijoj “trakokimerijskoj” konjskoj opremi iz južne Panonije (Ilok) valja tražiti u gore pobrojanim primjercima iz starije faze kulture polja sa žarama (Majnarić-Pandžić 1968: 34). U prilog tomu svjedočila bi i psalija iz ostave Pričac (Vinski-Gasparini 1973: T. 72: 10).

Ovakva kombinacija nalaza okrugla razvodnika i dugmeta kao što je predmet pod br. 124 (T. 9: 153) pripisuje se dijelovima konjske opreme kakva se nalazi u ostavi Caransebeş u Transilvaniji (serija Cineu-Suseni), datiranoj u vrijeme Ha A1 (Petrescu-Dimbovița 1977: 87, T. 125: 20–21). Ista kombinacija pronađena je i u ostavi Novi Bečej u Banatu (Nađ 1955: 44, T. V: 25a–b, 27a–b). Neukrašen razvodnik pronađen je u ostavi Markovac-Urvina u Vršačkom gorju (Rašajski 1971: 28–29, T. III: 12).

Spomenuti primjerci konjske opreme u ostavama sjeverne Hrvatske, iako ne brojni, ipak svjedoče o sprezanju konja u kasnome brončanom dobu, što i ne iznenađuje ako je postojanje konjske opreme na nalazištima vatinske kulture u Podunavlju poznato još tijekom ranoga brončanog doba.

BRONČANO POSUĐE

172. Ulomak lima od brončane posude s rebrima na vratu i preklapljenim obodom. Težina: 11,8 g. (T. 10: 161)

Najbližu paralelu ovaj ulomak ima u vedru iz ostave Bizovac. Taj ulomak ima rub vrata savijen u svitak

24, 33, 37) and Slavonski Brod-Livadićeva Ulica (Miškiv 1982: 175, T. VII: 1). A fragment of a twisted torque and a fragment of a twisted bracelet with a spiral end was found in the Malička hoard (Balen-Letunić 1985: 37, T. 2: 2, 6). Torques with twisted bodies appeared in the Ha A period and they cannot be dated any more precisely within this period, during which they were often deposited in hoards (Vinski-Gasparini 1973: 95). These probably constitute jewellery for the neck on both men and women. Fragments of such torques were found in graves in Chotín. Traces of burning are visible on these fragments, which means that they were placed on a pyre together with the deceased (Novotná 1984: 35). Twisted torques with loops at the end have been dated to the entire span from the earlier phase of the Urnfield culture up to the Hallstatt period (*ibid.*: 34–35, T. 39–44, T. 69 B).

PENDANTS

170. Pendant shaped like willow leaf with a gently protruding rib in the middle. Weight: 5.4 g (T. 2: 15)

Pendants of this type, also broken, were found in the Brodski Varoš hoard and classified—together with the hour-glass pendants, anthropomorphic pendants and avian-shaped pendants—as miscellaneous accompanying material of the Urnfield culture in northern Croatia (Vinski-Gasparini 1973: 95, T. 56: 52–53). This type of pendant, decorated along its central ridge, was found in the Pričac hoard, where the centre of pendant development is placed in the south-eastern part of the central Danubian area (*ibid.*: 98, T. 71: 3, 5, 7). In the Poljanci IV-Donje Polje hoard, this type of pendant was found with a very prominent central rib (Miklik-Lozuk 2004: 32, T. VIII: 1). Another example of this type of pendant was found in the Bingula-Divoš hoard, only its loop was also preserved, which is not the case with the above example (Vinski-Gasparini 1973: T. 86: 12). The Sviloš hoard is the only one that had a leaf-shaped pendant on a *passementerie* fibula of the type to which pendants were originally attached, dated to the Ha A1 phase, i.e. hoard phase II (Ercegović 1955: 17, T. I–II; Vinski-Gasparini 1973: 108–109, T. 88: 1). A decorated leaf-shaped pendants with wings was found in the Szentgáloskér hoard (Somogy), from the Kurd horizon (Mozsolics 1985: 195, T. 114: 7). Four pendants of this type were found in the Velem hoard (Vas), and the find was dated to the earlier, Gyermely horizon (Mozsolics 1985: 212, T. 231A). Leaf-like pendants were found in the Szentkirályszabadja hoard, dated from the Ha A1 to Ha B period (Gábor 1998: 189, T. II: 10–14).

prema van i ispunjen je brončanom žicom, što je karakteristika vedara tipa Kurd (Vinski-Gasparini 1968: 4–5, T. I: 1). Ostava je datirana u Ha A1 (Vinski-Gasparini 1973: 84, T. 35–43). Ovakav ulomak brončane posude s brončanom žicom u preklopljenom obodu pronađen je u bajerdorfsko-velatičkom grobu pod tumulom u Očkovu (Paulík 1962: T. VIII: 31, 32). Budući da je riječ o vrlo sitnim fragmentima, moguće je da su to fragmenti posude s rebrima (Clausing 1996: 416–418, Abb. 4, 24).

OSTALO

173. Zakovica sa spljoštenom glavicom. Težina: 1,6 g. (T. 6: 110)

174. Zakovica sa spljoštenom glavicom. Težina: 0,9 g. (T. 6: 111)

Ovakve zakovice pronađenu su u žarnome grobu II tumula u Čaki, u kojem je pronađeno više primjeka od kojih je za neke utvrđeno da su pripadali pancirnom oklopu (Točik & Paulík 1960: 75–78, Obr. 20, 7–15). Zakovice su mogle biti pričvršćene na nekom tekstilnom, kožnom ili čak metalnom predmetu, pa je ovima iz ostave Siča teško definirati izvornu namjenu.

175. Preklopljeni ulomak lima s rupicom – vjerojatno aplika. Težina: 9,2 g. (T. 10: 162)

176. Ulomak aplikе. Težina: 2,6 g. (T. 11: 196)

177. Pravokutna pločica s uzdužnim kanelurama i dvama zupcima s unutarnje strane – aplika. Težina: 3,0 g. (T. 10: 167)

Aplike slične ovima pronađene su u Zemunu i imaju trakasti donji dio za pričvršćivanje (Todorović 1971: 108, T. XLIX: 12–13).

178. Ulomak limene trake s presavinutim uzdužnim rubovima. Težina: 5,2 g. (T. 10: 168)

179. Ulomak limene trake s presavinutim uzdužnim rubovima, a sužava se prema jednom kraju. Težina: 2,5 g. (T. 10: 169)

180. Ulomak limene trake s presavinutim uzdužnim rubovima. Težina: 0,8 g. (T. 10: 170)

181. Limena traka s presavinutim uzdužnim rubovima i poprečnim udubljenjima. Težina: 0,7 g. (T. 10: 171)

182. Ulomak smotane limene trake nepravilna ruba. Težina: 0,9 g. (T. 10: 172)

183. Ulomak smotane limene trake. Težina: 4,5 g. (T. 10: 173)

184. Ulomak lima s rupicom. Težina: 0,9 g. (T. 10: 174)

185. Ulomak limene trake čiji se jedan kraj zaobljeno sužava. Težina: 9,0 g. (T. 10: 175)

This pendant may have been worn independently or as part of an apparel fibula, which given the context of the find is difficult to decipher. These pendants are characteristic of the earlier phase of the Urnfield culture in the Carpathian Basin.

HORSE HARNESS

171. Round bridle strap decorated with engraved rosette. Weight: 7.7 g. (T. 9: 158)

A bridle strap for a horse harness was found in the hoard from Otok-Privlaka (Vinski-Gasparini 1973: T. 28: 18–19) and Brodski Varoš (*Ibid.*: T. 57: 46), while four were found in the Poljanci II hoard (Bulat 1975: 15, T. XIII: 31–34), and the cross-shaped bridle strap from Mačkovac hoard (Vinski-Gasparini 1973: T. 73: 12) is undecorated. An example identical to this one from the Siča hoard was found in the Malička hoard (Balen-Letunić 1985: 42, T. 2: 7). A similar bridle strap, but without a cross decoration, was found in Baierdorf in grave 8, dated to the later phase of the early Urnfield culture (Lochner 1991: 25, T. 9: 5). It is worthwhile noting that such bridle straps remained in use for a long time, until the Ha B period, when similar examples appeared that C. Metzner-Nebelsick does not connect with those cited from the earlier phase of the Urnfield culture, because the same type of bridle straps existed at the same time in the territory east of the Carpathians (Metzner-Nebelsick 2002: 313). N. Majnarić-Pandžić leaves open the possibility that the very beginnings of the “Thracian-Cimmerian” harnesses in



Karta 4. Rasprostranjenost razvodnika starije faze kulture polja sa žarama u Karpatskoj kotlini i jugoistočnim Alpama (puni krug – ukrašeni razvodnici; prazni krug – neukrašeni razvodnici) (Daria Ložnjak Dizdar, 2005).

Map 4. Distribution of bridle straps of the older phase of the Urnfield culture in the Carpathian Basin and South-east Alps (solid circle – decorated bridle straps; hollow circle – undecorated bridle straps) (Daria Ložnjak Dizdar, 2005).

186. Ulomak preklapljene limene trake s dvjema rupicama po sredini. Težina: 4,8 g. (T. 10: 176)
187. Ulomak limene trake s jednom rupicom po sredini. Težina: 1,2 g. (T. 10: 177)
188. Ulomak smotane limene trake čiji se jedan kraj zaobljeno sužava. Težina: 14,1 g. (T. 10: 178)
189. Smotana limena traka. Težina: 11,0 g. (T. 10: 160)
190. Ulomak smotane limene trake nepravilna ruba. Težina: 2,1 g. (T. 11: 193)
191. Ulomak limene trake koja se na završetku proširuje. Težina: 2,6 g. (T. 10: 179)
192. Jezičac od brončanoga lima. Težina: 3,7 g. (T. 10: 181)
193. Ulomak limene trake. Težina: 4,1 g. (T. 10: 182)
194. Ulomak limene trake koja se prema jednom kraju sužava. Težina: 6,1 g. (T. 10: 183)
195. Ulomak limene trake nepravilna ruba. Težina: 13,4 g. (T. 10: 184)
196. Ulomak limene trake. Težina: 9,3 g. (T. 10: 185)
197. Ulomak lima. Težina: 9,1 g. (T. 10: 186)
198. Ulomak deblje limene trake s trima uzdužnim kanelurama uz rub. Težina: 13,8 g. (T. 11: 187)
199. Ulomak amorfne bronce. Težina: 2,9 g. (T. 11: 188)
200. Ulomak limene trake. Težina: 5,5 g. (T. 11: 189)
201. Preklapljeni ulomak lima. Težina: 5,3 g. (T. 11: 190)
202. Ulomak lima. Težina: 2,9 g. (T. 11: 191)
203. Ulomak limene trake. Težina: 3,5 g. (T. 11: 192)
204. Preklapljeni ulomak lima. 2,3 g. (T. 11: 194)

Premda je zbog njihove fragmentiranosti teško pozdano reći o kakvim se predmetima radi, ovakvi ostaci lima mogu se, između ostalog, pripisati i ostacima zaštitnog oklopa od brončanoga lima kakav je pronađen u žarnome grobu II u tumulu Čaka u jugozapadnoj Slovačkoj, datiranom u vrijeme Br D/Ha A (Točík & Paulík 1960: 75, 93, Obr 16, 5, 7, 9). Sličan komad lima presavijen i pričvršćen zakovicama s vidljivim ostacima organskoga materijala pronađen je u ostavi Poljanci IV-Donje Polje, gdje mu je pretpostavljena moguća funkcija ulomka kacige (Miklik-Lozúk 2004: 32, T. VIII: 5). U ostavi Malička pronađen je ulomak ruba posude od brončanoga lima ukrašen punciranjem (Balen-Letunić 1985: 40, T. 2: 3).

Oklopu bi mogli pripadati i ulomci pod brojem 208 i 211 ukrašeni punciranjem.

205. Ulomak limene trake. Težina: 4,6 g. (T. 11: 195)
206. Limena traka. Težina: 0,7 g. (T. 11: 197)
207. Smotana limena traka. Težina: 4,8 g. (T. 11: 198)

southern Pannonia (Ilok) should be sought in the aforementioned examples from the earlier phase of the Urnfield culture (Majnarić-Pandžić 1968: 34). This would be backed by the psalia from Pričac hoard (Vinski-Gasparini 1973: T. 72: 10).

Such combinations of a circular bridle strap and buttons as the item under no. 124 (T. 9: 153) are classified as components of horse harnesses such as that found in the Caransebeş hoard in Transylvania (Cineu-Suseni series) dated to the Ha A1 period (Petrescu-Dîmbovița 1977: 87, T. 125: 20–21). The same combination was found in the Novi Bečej hoard in Banat (Nađ 1955: 44, T. V: 25a–b, 27a–b). An undecorated bridle strap was found in the Markovac-Urvina hoard in Vršačko gorje (Rašajski 1971: 28–29, T. III: 12).

These examples of horse harnesses in northern Croatia, although not numerous, nonetheless testify to the harnessing of horses in the Late Bronze Age, which is not surprising if one knows that harnesses existed even during the Early Bronze Age based on Vatin culture sites in the Danubian area.

BRONZE VESSELS

172. Fragment of bronze vessel with ribs on neck and slightly everted upper edge. Weight: 11.8 g. (T. 10: 161)

The closest analogy to this fragment is the bucket from the Bizovac hoard. That fragment has a rim neck bent into an outward coil and filled with bronze wire, which is characteristic of Kurd-type buckets (Vinski-Gasparini 1968: 4–5, T. I: 1). The hoard has been dated to the Ha A1 period (Vinski-Gasparini 1973: 84, T. 35–43). This fragment of a bronze bucket with a bronze wire in a folded rim was in a Baierdorf-Velaticce grave under a tumulus in Očkov (Paulík 1962: T. VIII: 31, 32). Since these are very tiny fragments it is possible that they are from a ribbed vessel (Clausing 1996: 416–418, Abb. 4, 24).

OTHER

173. Rivet with flattened head. Weight: 1.6 g. (T. 6: 110)
174. Rivet with flattened head. Weight: 0.9 g. (T. 6: 111)

Rivets of this type were found in Urn grave II of the tumulus in Čaka, at which several examples were

208. Ulomak brončanoga lima. Težina: 1,4 g. (T. 11: 200)
209. Ulomak lima. Težina: 1,5 g. (T. 11: 201)
210. Ulomak lima. Težina: 2,4 g. (T. 11: 202)
211. Ulomak limene trake. Težina: 2,4 g. (T. 11: 203)
212. Ulomak lima. Težina: 4,0 g. (T. 11: 204)
213. Ulomak smotana lima. Težina: 3,1 g. (T. 11: 205)
214. Ulomak smotane limene trake čiji se jedan završetak sužava. Težina: 3,6 g. (T. 11: 206)
215. Ulomak lima. Težina: 0,8 g. (T. 11: 207)
216. Ulomak lima. Težina: 2,0 g. (T. 11: 208)
217. Ulomak lima. Težina: 1,4 g. (T. 11: 209)
218. Ulomak limene trake. Težina: 2,2 g. (T. 11: 210)
219. Ulomak limene trake. Težina: 0,8 g. (T. 11: 211)
220. Brončana limena traka. Težina: 1,9 g. (T. 11: 212)
221. Ulomak smotane limene trake. Težina: 1,6 g. (T. 11: 214)
222. Ulomak smotana lima. Težina: 1,0 g. (T. 11: 215)
223. Ulomak smotane limene trake. Težina: 0,5 g. (T. 11: 216)
224. Limena traka. Težina: 1,1 g. (T. 11: 217)
225. Ulomak lima. Težina: 1,4 g. (T. 11: 219)
226. Ulomak lima. Težina: 2,6 g. (T. 11: 220)
227. Ulomak rebrasta pojačanja na rubu predmeta. Težina: 2,7 g. (T. 11: 221)
228. Ulomak lima. Težina: 2,5 g. (T. 11: 222)
229. Ulomak lima. Težina: 1,2 g. (T. 11: 223)
230. Plosnat obruč s jezičkom. Težina: 3,3 g. (T. 12: 228)
231. Ulomak žice kružnoga presjeka. Težina: 0,7 g. (T. 12: 230)
232. Ulomak amorfne bronce. Težina: 2,5 g. (T. 12: 231)
233. Ulomak obruča od žice kvadratna presjeka. Težina: 0,7 g. (T. 12: 232)
234. Ulomak lima. Težina: 4,6 g. (T. 12: 233)
235. Ulomak lima. Težina: 9,0 g. (T. 12: 234)
236. Ulomak šipke trapezoidna presjeka. Težina: 43,7 g. (T. 12: 235)
237. Ulomak šipke polukružna presjeka. Težina: 21,4 g. (T. 12: 236)
238. Ulomak amorfne bronce. Težina: 11,3 g. (T. 12: 237)
239. Ulomak lima. Težina: 6,2 g. (T. 12: 238)
240. Ulomak limene trake. Težina: 5,1 g. (T. 12: 239)
241. Ulomak amorfne bronce. Težina: 8,5 g. (T. 12: 240)
- found that were determined to be components of body armour (Točik & Paulík 1960: 75–78, Obr. 20, 7–15). Rivets could be fastened to fabric, leather or even metallic items, so it is difficult to ascertain the original purpose of these from the Siča hoard.
175. Folded fragment of metal sheet with small hole – probably appliqué. Weight: 9.2 g. (T. 10:162)
176. Appliqué fragment. Weight: 2.6 g. (T. 11: 196)
177. Rectangular plate with lateral cannellures and two prongs on inside – appliqué. Weight: 3.0 g. (T. 10: 167)
- Appliqués similar to these were found in Zemun, and they have banded lower sections for fastening (Todorović 1971: 108, T. XLIX: 12–13).
178. Fragment of thin metal strip with bent over lateral edges. Weight: 5.2 g. (T. 10: 168)
179. Fragment of thin metal strip with bent over lateral edges that narrows toward one end. Weight: 2.5 g. (T. 10: 169)
180. Fragment of thin metal strip with bent over lateral edges. Weight: 0.8 g. (T. 10: 170)
181. Thin metal strip with bent over lateral edges and perpendicular indentations. Weight: 0.7 g. (T. 10: 171)
182. Fragment of wound thin metal strip with irregular edges. Weight: 0.9 g. (T. 10: 172)
183. Fragment of wound thin metal strip. Weight: 4.5 g. (T. 10: 173)
184. Fragment of metal with small hole. Weight: 0.9 g. (T. 10: 174)
185. Fragment of thin metal strip; one end narrows in round form. Weight: 9.0 g. (T. 10: 175)
186. Fragment of folded thin metal strip with two small holes in middle. Weight: 4.8 g. (T. 10: 176)
187. Fragment of thin metal strip with one hole in middle. Weight: 1.2 g. (T. 10: 177)
188. Fragment of thin metal strip; one end narrows in round form. Weight: 14.1 g. (T. 10: 178)
189. Wound thin metal strip. Weight: 11.0 g. (T. 10: 160)
190. Fragment of wound thin metal strip with irregular edges. Weight: 2.1 g. (T. 11: 193)
191. Fragment of thin metal strip that expands at end. Weight: 2.6 g. (T. 10: 179)
192. Tang made of bronze sheet. Weight: 3.7 g. (T. 10: 181)
193. Fragment of thin metal strip. Weight: 4.1 g. (T. 10: 182)
194. Fragment of thin metal strip that narrows at one end. Weight: 6.1 g. (T. 10: 183)
195. Fragment of thin metal strip with irregular edges. Weight: 13.4 g. (T. 10: 184)
196. Fragment of thin metal strip. Weight: 9.3 g. (T. 10: 185)

242. Ulomak rebra na neidentificiranom predmetu. Težina: 46,5 g. (T. 12: 241)
243. Ulomak lima. Težina: 10,4 g. (T. 12: 242)
244. Ulomak lima. Težina: 4,4 g. (T. 12: 243)
245. Ulomak limene trake. Težina: 5,2 g. (T. 12: 244)
246. Ulomak lima, 2 komada. Težina: 8,3 g. (T. 12: 246)
247. Ulomak lima. Težina: 3,1 g. (T. 12: 247)
248. Ulomak amorfnе bronce. Težina: /. (T. 12: 248)
249. Ulomak šipke polukružna presjeka koja se u jednom kraju sužava. Težina: 12,6 g. (T. 12: 249)
250. Neidentificirani ulomak kvadratna presjeka koji se sužava prema jednom kraju. Težina: 8,8 g. (T. 12: 250)
251. Neidentificirani ulomak trokutasta presjeka koji se sužava prema jednom kraju. Težina: 5,0 g. (T. 12: 251)
252. Neidentificirani ulomak. Težina: 2,1 g. (T. 12: 252)
253. Ulomak amorfnе bronce. Težina: 5,4 g. (T. 12: 253)
254. Ulomak lima. Težina: /. (T. 12: 254)
255. Ulomak rebrasta pojačanja na rubu predmeta. Težina: 5,0 g. (T. 12: 255)
256. Ulomak rebra na neidentificiranom predmetu. Težina: 8,7 g. (T. 12: 256)
257. Ulomak lima. Težina: 5,5 g. (T. 12: 257)
258. Ulomak lima. Težina: 3,7 g. (T. 12: 258)
259. Ulomak s izbojkom. Težina: 10,2 g. (T. 12: 259)
260. Ulomak sječiva s vrhom noža ili britvice. Težina: 2,5 g. (T. 12: 260)
261. Ulomak amorfnе bronce zaobljen na jednom rubu. Težina: 6,3 g. (T. 12: 261)
262. Ulomci lima, 26 komada. Težina: /. (sl. 2)
263. Ulomci "pogača" – brončana polusirovina. Težina: /. (sl. 1)

Ulomci brončanih "pogača" pronađeni su u ostavi Poljanci IV-Donje Polje, u kojoj su primijećeni i ulomci ostataka brončanih limova iz kojih su bili izrezivani pojedini brončani predmeti (Miklik-Lozuc 2004: 33, 36, T. XII: 6, T. XIII: 3–5). Ulomci polusirovina pronađeni su i u ostavama Poljanci II (Bulat 1975: 17), Slavonski Brod (Clausing 2003: 139–140, Abb. 43–44), Kličevac II-Pomrlovo (Jacanović & Radojčić 2001: T. XIX: 17–19), Futog (Borić 1997: T. XVII: 382–384) i Pećinci (Milošević 1960: 173, T. XII: 12–23). Brončane pogače pronađene su u ostavama u Bosanskoj Posavini datiranim u II. fazu prema Königu: Novi Grad u Bosanskoj Posavini (König 2004: T. 7: 19–21) i Šumatac 1 u sjeverozapadnoj Bosni (König 2004: T. 11A: 41–47, 51).

Brončane polusirovine česte su u velikim ostavama mješovitoga sastava i, uz pojavu lomljenih predme-

197. Fragment of metal sheet. Weight: 9.1 g. (T. 10: 186)
198. Fragment of thick metal sheet with three extended cannelures along edge. Weight: 13.8 g. (T. 11: 187)
199. Amorphous bronze fragment. Weight: 2.9 g. (T. 11: 188)
200. Fragment of metal sheet. Weight: 5.5 g. (T. 11: 189)
201. Folded fragment of metal sheet. Weight: 5.3 g. (T. 11: 190)
202. Fragment of metal sheet. Weight: 2.9 g. (T. 11: 191)
203. Fragment of metal sheet. Weight: 3.5 g. (T. 11: 192)
204. Folded fragment of metal sheet. 2.3 g. (T. 11: 194)

Although the type of items here is difficult to ascertain, such metallic remains may, among other things, be classified as the remains of a protective armour made of bronze plating, such as that found in urn-grave II in the Čaka tumulus in south-western Slovakia, dated to the Br D/Ha A period (Točík & Paulík 1960: 75, 93, Obr 16, 5, 7, 9). A similar piece of metal sheet bent and reinforced with rivets bearing visible traces of organic material was found in the Poljanci IV-Donje Polje hoard; it is assumed to be piece of helmet (Miklik-Lozuc 2004: 32, T. VIII: 5). A fragment from the edge of a vessel made of bronze sheet decorated with punched dots was found in the Malička hoard (Balen-Letunić 1985: 40, T. 2: 3).

The fragments under no. 208 and 211 decorated with punched dots may also belong to an armour.

205. Fragment of metal strip. Weight: 4.6 g. (T. 11: 195)
206. Metal strip. Weight: 0.7 g. (T. 11: 197)
207. Wound metal strip. Weight: 4.8 g. (T. 11: 198)
208. Fragment of bronze sheet. Weight: 1.4 g. (T. 11: 200)
209. Fragment of metal sheet. Weight: 1.5 g. (T. 11: 201)
210. Fragment of metal sheet. Weight: 2.4 g. (T. 11: 202)
211. Fragment of metal strip. Weight: 2.4 g. (T. 11: 203)
212. Fragment of metal sheet. Weight: 4.0 g. (T. 11: 204)
213. Fragment of wound metal sheet. Weight: 3.1 g. (T. 11: 205)
214. Fragment of wound metal strip with one end that narrows. Weight: 3.6 g. (T. 11: 206)
215. Fragment of metal sheet. Weight: 0.8 g. (T. 11: 207)

ta, jedan su od razloga zašto se one smatraju metalurškim ostavama.

O KRONOLOGIJ I ZNAČENJU OSTAVA

Tipološko-kronološka analiza ostave Siča/Lučica pokazala je da su u njoj većinom deponirani fragmentirani predmeti oruđa (sjekire, srpovi, noževi, pile, dljeteta), oružja (koplja, strelica, ulomci mačeva, bodeži), zatim toaletni pribor (britva), nakit (ogrlice, narukvice), dijelovi nošnje (igle, fibule, ulomci pojasa, dugmad, aplikacije), konjska oprema (razvodnik), simbolični predmet (figura patke), ulomci brončanoga posuđa te brončane pogače kao poluproizvod. Po svome sastavu ostava Siča/Lučica pripada skupini velikih ostava mješovitoga sastava prema podjeli P. Čerče i P. Turka (Čerče & Turk 1996: 18–22). Zastupljeni su predmeti koje su nosili ili rabili muškarci i žene te predmeti vezani uz sprezanje konja. Velike ostave mješovitoga sastava najbrojnije su u 12. st. pr. Kr., kad se prema bogatu ansamblu predmeta može datirati i ostava Siče/Lučica. Oruđe deponirano u ostavi svojim tipološkim karakteristikama upućuje na vrijeme Ha A1, dok se među oružjem (koplja s profiliranim tuljcem), nakitom (igle s klobučastom glavicom i igle s bikoničnom narebrenom glavicom) i toaletnim priborom (ulomak britve) nalaze oblici koji se mogu datirati u ranije vrijeme Br D. Valja međutim treba naglasiti da je riječ o oblicima koji se pojavljuju u vremenu Br D, ali ostaju u upotrebi i u Ha A1. Prema količini i vrstama predmeta priloženih u ostavi i njihovoj dataciji, ova se ostava može datirati u II. fazu ostava u sjevernoj Hrvatskoj, a pripada malobrojnoj skupini ostava pronađenih južno od Save, između Une i Kupe, koje pripadaju radio-ničkome krugu međuriječja Drave, Dunava i Save, poput nešto mlađih ostava Lisine i Javornik (Vinski-Gasparini 1973: 140). Ostave starije faze kulture polja sa žarama u sjevernoj Hrvatskoj pripadaju širem karpatsko-podunavskom krugu, što je vidljivo iz tipoloških karakteristika materijala deponiranog u njima. Unutar tog kruga izdvojena su uža područja sa zasebnim kronološkim podjelama (von Brunn 1968; Vinski-Gasparini 1973; Petrescu-Dîmbovița 1977; Mozsolics 1985) na koje je velik utjecaj imalo djelo H. Müller-Karpea (1959).

Za prostor Karpatske kotline i srednjega Podunavlja W. A. von Brunn izdvojio je četiri stupnja prema izboru najznačajnijih nalaza: Uriu-Domanești (Br D), Kisapáti-Lengyeltóti (Ha A1), Jászkarajenő-Uzsavölgy (Ha A2) i Rohod-Szentes (Ha B1) (von Brunn 1968: 28–60). Takva se podjela na četiri kronološka stupnja može provesti na područjima Transilvanije i srednjega Podunavlja, dok se nalazi

- 216. Fragment of metal sheet. Weight: 2.0 g. (T. 11: 208)
- 217. Fragment of metal sheet. Weight: 1.4 g. (T. 11: 209)
- 218. Fragment of metal strip. Weight: 2.2 g. (T. 11: 210)
- 219. Fragment of metal strip. Weight: 0.8 g. (T. 11: 211)
- 220. Band of bronze sheet. Weight: 1.9 g. (T. 11: 212)
- 221. Fragment of wound metal strip. Weight: 1.6 g. (T. 11: 214)
- 222. Fragment of wound metal sheet. Weight: 1.0 g. (T. 11: 215)
- 223. Fragment of wound metal sheet. Weight: 0.5 g. (T. 11: 216)
- 224. Metal strip. Weight: 1.1 g. (T. 11: 217)
- 225. Fragment of metal sheet. Weight: 1.4 g. (T. 11: 219)
- 226. Fragment of metal sheet. Weight: 2.6 g. (T. 11: 220)
- 227. Fragment of ribbed reinforcement on edge of item. Weight: 2.7 g. (T. 11: 221)
- 228. Fragment of metal sheet. Weight: 2.5 g. (T. 11: 222)
- 229. Fragment of metal sheet. Weight: 1.2 g. (T. 11: 223)
- 230. Flat hoop with tang. Weight: 3.3 g. (T. 12: 228)
- 231. Fragment of wire with round cross-section. Weight: 0.7 g. (T. 12: 230)
- 232. Amorphous bronze fragment. Weight: 2.5 g. (T. 12: 231)
- 233. Fragment of hoop made of wire with quadrilateral cross-section. Weight: 0.7 g. (T. 12: 232)
- 234. Fragment of metal sheet. Weight: 4.6 g. (T. 12: 233)
- 235. Fragment of metal sheet. Weight: 9.0 g. (T. 12: 234)
- 236. Fragment of rod with trapezoidal cross-section. Weight: 43.7 g. (T. 12: 235)
- 237. Fragment of rod with semi-circular cross-section. Weight: 21.4 g. (T. 12: 236)
- 238. Amorphous bronze fragment. Weight: 11.3 g. (T. 12: 237)
- 239. Fragment of metal sheet. Weight: 6.2 g. (T. 12: 238)
- 240. Fragment of metal strip. Weight: 5.1 g. (T. 12: 239)
- 241. Amorphous bronze fragment. Weight: 8.5 g. (T. 12: 240)
- 242. Fragment of rib on unidentified item. Weight: 46.5 g. (T. 12: 241)
- 243. Fragment of metal sheet. Weight: 10.4 g. (T. 12: 242)

s istočnoalpskoga prostora više ne mogu rasporediti u uspostavljene stupnjeve, budući da na tom području nedostaju nalazi koji se mogu pribrojiti u karpatske stupnjeve (*ibid.*: 60). Između karpatskog i tzv. sjevernog kruga postoji nekoliko razlika. Jedna je od njih u upotrebi šupljih tuljastih sjekira, koje su u pravilu prisutne na karpatskome prostoru i srednjem Podunavlju u starijoj fazi kasnoga brončanog doba (Br D/Ha A1), dok se na prostoru sjeverno od alpsko-karpatskoga luka pojavljuju tek iznimno. Osim na istočnoalpskome području i na prostoru Moravske na drugim se područjima upotrebljavaju sjekire s produžetkom te sjekire sa zaliscima (*ibid.*: 79). Sličnost je podunavskih i srednjonjemačkih ostava pojava srpova i lomljene bronce u njihovu sastavu (*ibid.*: 234), odnosno u srednjonjemačkim ostavama vidljiv je podunavski utjecaj, što se može tumačiti darivanjem i razmjenom (*ibid.*: 243).

Ostave II. faze u sjevernoj Hrvatskoj kronološki, strukturalno i kvantitativno odgovaraju horizontu Kurd na području Mađarske (Mozsolics 1985: 78, T. 280). Upravo II. fazu ostava karakterizira povećanje broja ostava i velik broj deponiranih predmeta u njima. To je karakteristika čitavoga karpatsko-podunavskog prostora. Vidljive cezure pri pojedinim horizontima ostava zrcale promjenu u načinu borbe, pa tako u horizontu Aranyos iz ostava posve nestaju bojne sjekire s pločicom na nasadu, česte u Ópály horizontu. Sad ih zamjenjuju mačevi, a na prijelazu horizonta Aranyos u Kurd zamijećen i veći broj kopalja (Wanzek 1989: 83). Horizont Kurd u Mađarskoj također pokazuje jednu veliku cezuru. Stariji horizonti ostava (Forró, Ópály i Aranyos) pokazuju ograničenu rasprostranjenost, dok se ostave horizonta Kurd nalaze na čitavome prostoru Karpatske kotline. Ista je situacija i na prostoru sjeverne Hrvatske u II. fazi ostava. Uzroci takva masovnog deponiranja bronce na tako veliku prostoru vrlo su zagonetni (Mozsolics 1985: 81). Da je ipak riječ o velikim promjenama u širem kulturnom habitusu svjedoči datiranje horizonta Kurd istodobno s prijelazom *Bronzo recente* u *Bronzo finale* (Protovillanova) u Italiji ili u Egeji istodobno prijelazu kasnoheladskog IIIC/kasnominojskog IIIC u protogometrijsko/subminojski period (*ibid.*: 82).

K. Vinski-Gasparini II. fazu ostava relativnokronološki datira dijelom u Br D i čitav Ha A1 (Vinski-Gasparini 1973: 126), koji bi prema H. Müller-Karpeu odgovarao II. stupnju ostava u istočnim Alpama (Grossmugl), datiranom u Ha A, unutar kojega su pak naznačene starija i mlađa faza (Müller-Karpe 1959: 104–110). U podjeli S. Hansena na regije ostava izdvojen je prostor Slavonije i Srijema, gdje se u gotovo 80 % ostava nalazi oružje i nakit. Posebna karakteristika ovoga prostora jest i čest prilog bri-

- 244. Fragment of metal sheet. Weight: 4.4 g. (T. 12: 243)
- 245. Fragment of metal strip. Weight: 5.2 g. (T. 12: 244)
- 246. Fragment of metal sheet, 2 pieces. Weight: 8.3 g. (T. 12: 246)
- 247. Fragment of metal sheet. Weight: 3.1 g. (T. 12: 247)
- 248. Amorphous bronze fragment. Weight: /. (T. 12: 248)
- 249. Fragment of rod with semi-circular cross-section that narrows at one end. Weight: 12.6 g. (T. 12: 249)
- 250. Unidentified fragment with quadrilateral cross-section that narrows toward one end. Weight: 8.8 g. (T. 12: 250)
- 251. Unidentified fragment with triangular cross-section that narrows toward one end. Weight: 5.0 g. (T. 12: 251)
- 252. Unidentified fragment. Weight: 2.1 g. (T. 12: 252)
- 253. Amorphous bronze fragment. Weight: 5.4 g. (T. 12: 253)
- 254. Fragment of metal sheet. Weight: /. (T. 12: 254)
- 255. Fragment of ribbed reinforcement at edge of item. Weight: 5.0 g. (T. 12: 255)
- 256. Fragment of rib on unidentified item. Weight: 8.7 g. (T. 12: 256)
- 257. Fragment of metal sheet. Weight: 5.5 g. (T. 12: 257)
- 258. Fragment of metal sheet. Weight: 3.7 g. (T. 12: 258)
- 259. Fragment with flange. Weight: 10.2 g. (T. 12: 259)
- 260. Fragment of blade with tip of knife or razor. Weight: 2.5 g. (T. 12: 260)
- 261. Amorphous bronze fragment rounded at one end. Weight: 6.3 g. (T. 12: 261)
- 262. Fragments of metal sheet, 26 pieces. Weight: /. (Fig. 2)
- 263. Fragments of plano-convex ingot – semi-finished bronze. Weight: /. (Fig. 1)

Fragments of bronze plano-convex ingots were found in the Poljanci IV-Donje Polje hoard; also noticed there were fragments of left-over bronze sheet out of which individual bronze items were carved (Miklik-Lozok 2004: 33, 36, T. XII: 6, T. XIII: 3–5). Fragments of semi-finished bronze were found in the hoards from Poljanci II (Bulat 1975: 17), Slavonski Brod (Clausing 2003: 139–140, Abb. 43–44), Kličevac II-Pomrlovo (Jacanović & Radojčić 2001: T. XIX: 17–19), Futog (Borić 1997: T. XVII: 382–384) and Pećinci (Milošević 1960: 173, T. XII: 12–23). Bronze plano-convex ingot found in the hoards in Bosnian Posavina have been dated to phase II ac-



Slika 1. Ullomci brončanih «pogača» iz ostave Siča/Lučica (Domagoj Perkić, 2000).

Fig. 1. Fragments of bronze "plano-convex ingot" from the Siča/Lučica hoard (Domagoj Perkić, 2000).

tvi u ostavama te zaštitnih dijelova ratničke opreme (Hansen 1994: 357). Prostor zapadne Hrvatske pripisan je jugoistočnoalpskomu prostoru, gdje dominiraju ostave s oruđem i oružjem, dok je nakit rjeđe deponiran, što ovaj prostor povezuje s gornjoitaljskim područjem (*ibid.*).

P. Turk izdvaja horizont II ostava u Sloveniji i širem području *Caput Adriae*, koji je istodoban II. fazi ostava u sjevernoj Hrvatskoj (1996: 108–110). Horizontu II on pribraja ostave Peklenica te Kloštar Ivanić i Lisine, za razliku od K. Vinski-Gasparini, koja ostavu Peklenica pripisuje I. fazi, a Kloštar Ivanić i Lisine III. fazi (Vinski-Gasparini 1973). P. Turk ostave horizonta II određuje kao velike ostave mješovitoga sastava u kojima su predmeti pretežno fragmentirani (1996: 108), kakve karakteristike pokazuju i predmeti iz ostave Siča.

Ostave iz Bosne i Hercegovine P. König podijelio je na stupnjeve 2–5. Najbrojnije su ostave 2. stupnja, koji je istodoban s II. stupnjem ostava u sjevernoj Hrvatskoj (König 2004: 21, T. 2). Ostave II. faze u Srbiji R. Vasić također izjednačuje s II. fazom u sjevernoj Hrvatskoj te s horizontima Cincu-Suseni u Rumunjskoj i Kisapáti-Lengyeltóti u Mađarskoj, s mogućnošću izrade finije tipološke podjele pojedinih predmeta prema usporedbama s ostavama iz Hrvatske i Rumunjske (Vasić 1982: 282). Horizont

according to König: Novi Grad in Bosnian Posavina (König 2004: T. 7: 19–21) and Šumatac 1 in north-western Bosnia (König 2004: T. 11A: 41–47, 51).

Semi-finished bronze is often found in large hoards with mixed content and, together with shattered items, it is why they are deemed metallurgical hoards.

ON THE CHRONOLOGY AND SIGNIFICANCE OF HOARDS

A typological-chronological analysis of the Siča/Lučica hoard has shown that most of the items deposited therein are tools (axes, sickles, knives, saws, chisels), weapons (spearheads, arrowheads, sword fragments, daggers), toiletries (razors), jewellery (necklaces, bracelets), apparel items (needles, fibulae, fragments of belts, buttons, appliqués), horse harness components (bridle strap), a symbolic item (duck figurine), fragments of bronze vessels and bronze plano-convex ingot as semi-finished products. In terms of its content, the Siča/Lučica hoard belongs to that group of large hoards with mixed content according to the classification of P. Čerče and P. Turk (Čerče & Turk 1996: 18–22). Items found include those worn or used by men and women and items associated with harnessing horses. Large, mixed-content hoards were most numerous in the

ostava datiran u Ha A1 na prostoru Rumunjske također sadržava brojne ostave u kojima je moglo biti pohranjeno i do oko 10000 predmeta (Uioara, Gușterița, Spălnaca, Cincu, Band i Aiud). Ostave su osobito brojne na području Transilvanije, gdje je izdvojen horizont Cincu-Suseni, zatim u zoni srednjeg i donjeg Muresa te u Banatu (Petrescu-Dîmbovița 1977: 167).

Na osnovi tipološko-kronološke analize svih predmeta ostava Siča/Lučica pripada II. fazi ostava u sjevernoj Hrvatskoj i može se lako relativno kronološki datirati u vrijeme Br D/Ha A1, odnosno u 12. st. pr. Kr., što odgovara općoj kronološkoj slici o ostavama u Karpatskoj kotlini. U tom se dobu na svim užim područjima izdvaja horizont ostava koji karakterizira upravo brojnost predmeta. U sljedećoj fazi kasnobrončanodobnih ostava vidljiva je promjena koja se manifestira opadanjem broja predmeta kao i brojem samih ostava. K. Vinski-Gasparini tako prepoznaje skromniji broj ostava III. faze u odnosu na II. fazu ostava, što je i opća pojava u srednjoj Europi (1973: 8). A. Mozsolics drži da populaciju koja na prostor Hrvatskoga Podunavlja donosi elemente grupe Vâl u vremenu 1050–1000. g. pr. Kr. treba povezati s nositeljima kulture koja je skrivala ostave horizonta Kurd (Mozsolics 1985: 80). Te se ostave zbog brojnosti, sastava i mase te okolnosti istodobnih nalaza mogu tumačiti kao skrivalačke ostave jer se u isto vrijeme na visinskim naseljima u Transdanubiji pojavljuju najstariji tragovi kulture Vâl, dok se u istočnome dijelu Karpatske kotline napuštaju velika naselja kulture Gava (Mozsolics 1987: 98). Takvo mišljenje iznenađuje jer A. Mozsolics izdvaja III. horizont ostava Gyermely, istodoban s ostavama III. stupnja prema K. Vinski-Gasparini (Mozsolics 1985: 80; Vinski-Gasparini 1973: 206). Pritom A. Mozsolics naglašava samo tipološku razliku u metalnim nalazima između horizonata Kurd i Gyermely, bez očitijih razlika u keramici, naseljima te grobljima (1985: 83) koje u njihovu sastavu ipak postoje. U ostavama tipa Gyermely vidljiva je redukcija sjekira, srpova te narukvica i fibula. Mačevi i koplja također su prisutni u manjem broju, dok je veći broj noževa, čekića i ingota, a nedostaju ostaci brončanoga lima, dijelovi žice te pile. Ukupno je broj priloženih predmeta manji, kao što je i manja fragmentiranost predmeta negoli je u ostavama ranijega horizonta Kurd (Hansen 1994: 397). Zbog ovih različitosti ostave tipa Gyermely treba datirati već u Ha B. Razlike su vidljive ne samo u tipološkoj slici priloženih predmeta nego i u različitom obliku deponiranja (*ibid.*: 405). Osnovni sastav ostava tipa Gyermely čine šuplje sjekire, srpovi i narukvice, dok izostaju obrambena oprema i sjekire sa zaliscima (Hansen 1996: 433–435). Tu je potrebno spomenuti ostavu po kojoj je III. horizont i nazvan – ostavu

twelfth century BC, to which the Siča/Lučica hoard can be dated based on the rich array of items. The tools deposited in the hoard, based on their typological features, indicate the Ha A1 period, while among the weapons (spearhead with fully-formed socket), jewellery (needles with hat-shaped heads and needles with biconical ribbed heads) and toiletries (razor fragment) there are forms that can be dated to the earlier Br D period. It should, however, be stressed that these are forms that appeared in the Br D period, but remained in use in the Ha A1 period as well. Based on the quantity and types of items deposited in the hoard and their dating, this hoard can be placed in the phase II of northern Croatia hoards, and it belongs to a small group of hoards found south of the Sava River, between the Una and Kupa Rivers, that belong to the workshop circle of the Drava, Danube and Sava interfluvium, like the somewhat younger Lisine and Javornik hoards (Vinski-Gasparini 1973: 140). Hoards dated to the earlier phase of the Urnfield culture in northern Croatia belong to the wider Carpathian-Danubian sphere, which is apparent from the typological characteristics of the materials deposited in them. Narrower areas with separate chronological divisions have been categorised within this sphere (von Brunn 1968; Vinski-Gasparini 1973; Petrescu-Dîmbovița 1977; Mozsolics 1985), which was greatly influenced by the work of H. Müller-Karpe (1959).

W. A. von Brunn distinguished four phases for the Carpathian Basin and the central Danube River basin based on a selection of the most important finds: Uriu-Domănești (Br D), Kisapáti-Lengyeltóti (Ha A1), Jászkarajenő-Uzsavölgy (Ha A2) and Rohod-Szentes (Ha B1) (von Brunn 1968: 28–60). This division into four chronological phases can be made for the territories of Transylvania and the central Danube River basin, while finds from the eastern Alpine zone can no longer be categorised into these phases, since this territory lacks finds that can be counted among the Carpathian phases (*Ibid.*: 60). There are several differences between the Carpathian and so-called northern circle. One of them is the use of socketed, conical axes, which are generally present in the Carpathian region and the central Danube basin in the earlier phase of the Late Bronze Age (Br D/Ha A1), while they only appear exceptionally in the territory north of the Alpine-Carpathian arc. In addition to the eastern Alpine zone and Moravia, axes with extensions and winged axes were used in other territories (*Ibid.*: 79). Sickles and shattered bronze are common features of Danubian and central German hoards (*Ibid.*: 234), meaning that a Danubian influence on German hoards can be seen, which can be interpreted as gifts or exchanges (*Ibid.*: 243).

Kloštar Ivanić, koja sadrži knemide (Vinski-Gasparini 1983, 660–662, T. XCIV: 1–2), a koju P. Turk datira u horizont II ostava (Turk 1996: 108). Zanimljivo je da S. Hansen ostave tipa Gyermely prema istovrsnim šupljim sjekirama i srpovima povezuje s istodobnim ostavama iz sjeverne Hrvatske i Bosne (Hansen 1996: 438). Prema tipovima i načinu deponiranja ostave tipa Gyermely ne treba dovoditi u vezu sa stupnjem Ha A2 nego s početkom mlađe kulture polja sa žarama. Iako su ostave tipa Gyermely regionalnoga karaktera, osnovne karakteristike kao što su redukcija tipova i manja fragmentiranost brončanih predmeta ipak pokazuju međuregionalni karakter (*ibid.*: 439). Tako granica između starije i mlađe tipologije u smislu W. A. von Brunnala leži upravo između ostava tipa Kurd i ostava tipa Gyermely (*ibid.*).

Horizont III ostava u Sloveniji P. Turk također je definirao kao velike ostave mješovitoga sastava koje pored oružja i oruđa sadrže elemente nošnje i ingote. Mijenjaju se samo neki tipovi predmeta ili varijante tipova, dok su novost ingoti koničnog oblika. U ranijim razdobljima bile su uobičajene ovalne pogače brončane sirovine (Turk 1996: 112–114). Promjena iz starije u mlađu fazu kulture polja sa žarama na prijelazu iz 2. u 1. tis. pr. Kr. vidi se ne samo u opadanju broja ostava nego i u metalurgiji bronce. Na to upućuju rezultati metalurških analiza. U mlađim predmetima nalazi se veći udio olova, koje se pojavljuje u kombinaciji s bakrom ili s bakrom i kositrom. Ležišta tog razdoblja nalaze se u srednjoj i sjevernoj Italiji te u Švicarskoj (Trampuž Orel 1999: 428). U vremenu Ha A u metalurgiji bronce zamijećena je upotreba bakra s malom količinom nečistoća te dodavanje kositra u slitine bronce u različitim omjerima, sukladno namjeni predmeta (Trampuž Orel 1996: 210). Tako se manji udio kositra u srpovima povezuje prije svega s karpatskim obrtničkim krugom, dok su se u zapadnoeuropskome krugu dodavale veće količine kositra bez obzira na vrstu predmeta. Pritom je dokazano da su srpovi iz ostava upotrebljavani i kao oruđe za žetvu, što je u suprotnosti s uobičajenim mišljenjem da je njihova uloga u ostavama bila votivnog ili predmonetarnog karaktera (Trampuž Orel 1999: 427). S obzirom na tehnološke postupke i tipološke oblike nalaza pronađenih na prostoru Slovenije metalurgija bronce u vremenu Ha A toga prostora može se povezati s tzv. karpatskim obrtničkim krugom, što svjedoči o razgranatoj mreži proizvodnje, trgovine i razmjene (Trampuž Orel 1996: 210).

Iščezavanje ostava u stupnju Ha B1 ustanovljeno je i u Bavarskoj. U kasnoj kulturi polja sa žarama ostave više nisu brojne ni u Gornjoj Austriji i području Salzburga. U istočnoaustrijskome prostoru deponiranje ostava također je svoj procvat doživjelo

Hoardsof phase II in northern Croatia chronologically, structurally and quantitatively correspond to the Kurd horizon in Hungary (Mozsolics 1985: 78, T. 280). It is precisely hoard phase II that is characterised by an increase in the number of hoards and a large number of items deposited in them. This is a characteristic of the entire Carpathian-Danubian region. Visible caesura between individual hoard horizons reflect changes in combat methods, so that during the Aranyos horizon battle-axes with plates on the handle, frequent in the Ópály horizon, completely disappear. They are then replaced by swords, while a larger number of spearheads are noted at the transition from the Aranyos to Kurd horizon (Wanzek 1989: 83). The Kurd horizon in Hungary also indicates a major caesura. The older hoard horizons (Forró, Ópály and Aranyos) indicate limited distribution, while hoards of the Kurd horizon can be found throughout the Carpathian basin. This situation is reflected in northern Croatia in hoard phase II. The reasons for this mass deposition of bronze over such a broad territory are very obscure (Mozsolics 1985: 81). That it is a matter of great changes in the wider cultural atmosphere is demonstrated by the dating of the Kurd horizon at the same time as the transition from the *Bronzo recente* to the *Bronzo finale* (Protovillanova) in Italy, or the simultaneous transition of the Late Helladic IIIC/Late Minoan IIIC into the Protogeometric/Sub-Minoan period (*Ibid.*: 82).

K. Vinski-Gasparini, according to relative chronology, dates hoard phase II partially to the Br D and entire Ha A1 (Vinski-Gasparini 1973: 126), which according to H. Müller-Karpe corresponded to hoard phase II in the eastern Alps (Grossmugl), dated to the Ha A period, within which earlier and later phases have been designated (Müller-Karpe 1959: 104–110). S. Hansen, in his division into hoard regions, distinguished Slavonia and Sarmia, where almost 80% of the hoards contain weapons and jewellery. A particular characteristic of this area is also the frequency of razors and defensive armour in hoards (Hansen 1994: 357). Western Croatia is classified as part of the south-eastern Alpine zone, dominated by hoards containing tools and weapons, while jewellery was more rarely deposited, which associates this area with the upper Italic region (*Ibid.*).

P. Turk distinguishes hoard horizon II in Slovenia and the wider *Caput Adriae* zone, which is contemporary with hoard phase II in northern Croatia (1996: 108–110). He places the Peklenica, as well as Kloštar Ivanić and Lisine hoards, in horizon II, as opposed to K. Vinski-Gasparini, who classifies the Peklenica hoard in phase I, and Kloštar Ivanić and Lisine in phase III (Vinski-Gasparini 1973). P. Turk

u vremenu Br D/Ha A1, no ondje su one prilagane i u mlađoj i kasnoj kulturi polja sa žarama (Erbach-Schönberg 1985: 170). U halštatskoj kulturi ostave sasvim iščezavaju na prostoru južne Njemačke, čime se još jače naglašava njihovo kultno značenje u kasnome brončanom dobu (von Brunn 1981: 136). Najnovijim istraživanjima u Sloveniji otkrivene su još četiri stariježeljeznodobne ostave, što upućuje na deponiranje predmeta krajem kasnoga brončanog doba s kontinuitetom u starije željezno doba (Turk 2004: 578).

Očito je da do promjene dolazi na kraju II. faze ostava ne samo na području sjeverne Hrvatske nego i na širem karpatskome području. Mogu li se uzroci tomu tražiti u seobama, promjenama u vjerovanju ili su razlozi kulturološke prirode odgovorit će buduća istraživanja i analize ostava koje će se nadovezati na tipološko-kronološke podjele ostava koje su načinjene u drugoj polovici 20. st. (Müller-Karpe 1959; von Brunn 1968; Vinski-Gasparini 1973; Petrescu-Dimbovița 1977; Mozsolics 1985).

Nezaobilazno pitanje pri takvim analizama jest i značenje ostava. O njemu se nakon kapitalnoga djela K. Vinski-Gasparini (1973, 1983) malo pisalo, iako upravo prostor sjeverne Hrvatske obiluje ostavama kulture polja sa žarama. Zbog toga se ovom prilikom ukratko prikazuju neke nove ideje u tumačenju značenja fenomena ostava.

Istraživači ostava na karpatskome području uglavnom su ostave tumačili kao ostave trgovaca bronom ili lijevača koje su skrivene zbog neke opasnosti (Vinski-Gasparini 1973: 19; Petrescu-Dimbovița 1977: 168). Protiv takva značenja lijevačkih ostava svjedočio bi nedostatak kalupa i šljake u njima te spoznaja da u istoj ostavi nisu pronađena dva predmeta izrađena u istome kalupu (Jacanović 1994: 58). Pri takvu tumačenju ostava iščitani su i neki od odnosa u kasnobrončanodobnome društvu. Ostave u kojima su zajedno pronađene kombinacije poluproizvoda i lijevanih tipova te jezgre kalupa zajedno s lijevačkim i pomoćnim alatom za doradu lijevanih predmeta (dlijeta, čekići, nakovnji, rjeđe turpije i pile) svjedoče da metalurzi nisu bili specijalizirani za određeni predmet ili određenu fazu radova u procesu lijevanja i izrade brončanih predmeta (Salaš 1995: 580). Suprotno tome A. Jockenhövel drži da se može zaključiti da je u društvu postojala podjela i među obrtnicima, odnosno izdvajaju se oni koji su poznavali sirovinu i pripremali je za obradu od obrtnika samih (1982: 301). Tako su prepoznati i grobovi primarnih metalurga kojima je bila priložena sirovina bakra, nastavci za mjehove ili pak ingoti (*ibid.*). Metalurški pribor pronalažen je u grobovima osoba za koje se drži da su imale istaknut položaj obrtnika u ondašnjem društvu. Važno je istaknuti

specifies horizon II as having large hoards with mixed content in which the items are largely fragmented (1996: 108), characteristics exhibited by the items in the Siča hoard.

P. König divided hoards from Bosnia-Herzegovina into phases 2–5. The most numerous are hoards of phase 2, which is contemporary with phase II of the hoards in northern Croatia (König 2004: 21, T. 2). Phase II hoards in Serbia are also equated by R. Vasić with phase II in northern Croatia and the Cincu-Suseni horizon in Romania and the Kisapáti-Lengyeltóti in Hungary, with the possibility of working out a more refined typology to divide individual items based on comparisons with hoards from Croatia and Romania (Vasić 1982: 282). The hoard horizon dated to the Ha A1 period in the territory of Romania also contains numerous hoards in which as many as 10,000 items could have been stored (Uioara, Gușterița, Spálnaca, Cincu, Band and Aiud). Hoards are particularly numerous in Transylvania, where the Cincu-Suseni horizon has been distinguished, and then in the central and lower Mures and in Banat (Petrescu-Dimbovița 1977: 167).

Based on a typological/chronological analysis of all items, the Siča/Lučica hoard belongs to the phase II of the northern Croatia hoards and is, according to relative chronology, easily dated to the Br D/Ha A1 period, i.e. the twelfth century BC, which corresponds to the general chronological picture of hoards in the Carpathian basin. During this period, a hoard horizon has been isolated in all narrower regions that is characterised by a high number of items. In the subsequent phase of Late Bronze Age hoards, the change is notable: it is characterised by a decline in the number of items and the number of hoards themselves. K. Vinski-Gasparini thus recognises a more modest number of hoards in phase III as compared to phase II, which is a general phenomenon in Central Europe (1973: 8). A. Mozsolics maintains that the population in the Croatian Danubian region, which brought elements of the Vâl group during the 1050–1000 BC period, should be associated with the exponents of the culture that concealed Kurd horizon hoards (Mozsolics 1985: 80). These hoards, due to their high number, composition and mass and the circumstances of contemporary finds can be interpreted as concealed hoards, because the oldest traces of the Vâl culture appear at the same time in the highland settlements of Transdanubia, while large Gava culture settlements in the eastern section of the Carpathian Basin were abandoned (Mozsolics 1987: 98). This view is surprising, because A. Mozsolics distinguishes horizon III of the Gyermely hoard, contemporary with phase III hoards according to K. Vinski-Gasparini

da nije uočena nikakva pravilnost u prilaganju pribora jer su u dvama grobovima pronađeni nakovnji, u jednome čekić, a u jednome kalup (Sperber 2000: 395). Mjerilo prema kojem su neke ostave zadobile profani karakter jesu ostave ingota, zatim ostave različita sadržaja, ostave posuda i ulomaka brončanih predmeta. Profanim ostavama označene su ostave ljevača bronce, a možda i putujućih trgovaca, ili najčešće ostave koje su pohranjene kao materijalna vrijednost u smislu blaga, kojima se mogu pribrojiti i ostave ljevača bronce koje je, budući da imaju više-manje jednoličan izgled i u većem postotku sadrže lomljenu bronzu, teško razvrstati (Vinski-Gasparini 1983: 650). Time se dovode u pitanje teorije o ritualnom uništavanju brončanih predmeta u ostavama, koje donose H. Müller-Karpe i A. Kollings (Mandera 1985: 187). Produkcijski karakter ostava zastupa A. F. Harding. On iznosi nekoliko razloga deponiranja: neujednačena opskrba metalom, različiti načini deponiranja s obzirom na metalurške operacije (taljenje, kovanje), različita dostupnost sirovina koje bi pokrivala proizvodnju (Harding 2000: 358–360).

O značenju brončanodobnih ostava i povijesti tumačenja toga fenomena iscrpan pregled dao je W. A. von Brunn. Zbog nalaza ostava u močvarama koje su bile neka vrsta brončanodobnih svetišta nastala je ideja o njihovom votivnom značenju (J. J. Worsaae), koju su onda na primjeru srednjoeuropskih ostava, koje su tumačili kao skrivalačke ostave pred nadolazećom opasnošću, uvodeći i profano značenje proširili njemački istraživači (E. Sprockhoff, P. Reinecke, F. Holste) (von Brunn 1968: 230–239). Ovakvo tumačenje prihvatili su istraživači ostava u Karpatskoj kotlini (Vinski-Gasparini 1973; Petrescu-Dîmbovița 1977; Mozsolics 1985). Usporedimo li profanu interpretaciju karpatskih ostava sa sakralnom interpretacijom u sjevernome dijelu srednje Europe, možemo zaključiti da je riječ o jednakim izvorima koji su promatrani s različitih regionalnih stajališta. Sakralni karakter nalazima u južnoj Njemačkoj pripisan je, osim ostavama i močvarnim nalazima, nalazima u spiljama te nalazima ispod kamena i na klisurama (von Brunn 1968: 232–233). Nalazi brončanih predmeta u rijekama i močvarama u Gornjoj Austriji mogu se datirati paralelno s ostavama stupnja Br D-Ha B1 (Erbach-Schönberg 1985: 170), što bi upućivalo na njihov žrtveni karakter. Uzroci deponiranja u vode i močvare ili na druga mjesta (špilje, litice, ponore) traže se u religioznim predodžbama prapovijesnih ljudi. Takve teorije zastupaju H.-J. Hundt, W. Torbrügge, W. H. Zimmermann, J. Driehaus, G. Wegner, W. Kubach i P. Schauer. Deponiranje votivnih ostava zakopavanjem uzrokovano je prema G. Wegneru ratnim nemirima ili prijetnjama stranih pljačkaša. Zakopavanje ostava zapravo je zaštita od oskrvrnuća, što se naravno mora promatrati

(Mozsolics 1985: 80; Vinski-Gasparini 1973: 206). Here A. Mozsolics only stresses the typological difference in metallic finds between the Kurd and Gyermely horizons, without more specific differences in pottery, settlements and graves (1985: 83) which nonetheless exist in their composition. In Gyermely type hoards, there is a visible decline in axes, sickles and bracelets and fibulae. Swords and spearheads are also present in smaller numbers, while the number of knives, hammers and ingots is higher and remains of bronze sheet, parts of wire and saws are lacking. The total number of deposited items is smaller, just as the fragmentary nature of the items is lesser than in hoards of the earlier Kurd horizon (Hansen 1994: 397). Due to these differences, Gyermely type hoards must already be dated to the Ha B period. Differences are apparent not only in the typological picture of the deposited items but also in the differing forms of deposition (*Ibid.*: 405). The basic components of Gyermely type hoards are socketed axes, sickles and bracelets, while defensive gear and winged axes are not present (Hansen 1996: 433–435). Here it is necessary to mention to hoard which gives horizon III its name: the Kloštar Ivanić hoard, which contains greaves (Vinski-Gasparini 1983, 660–662, T. XCIV: 1–2), and which P. Turk dates to hoard horizon II (Turk 1996: 108). It is interesting that S. Hansen associates Gyermely type hoards, based on identical socketed axes and sickles, to contemporary hoards from northern Croatia and Bosnia (Hansen 1996: 438). Based on the types and methods of deposition, Gyermely type hoards need not be linked to the Ha A2 phase, but rather to the beginning of the later Urnfield culture. Even though Gyermely type hoards have a regional character, the basic characteristics and the decline in types and lesser fragmentation of bronze items nonetheless exhibit an interregional character (*Ibid.*: 439). Thus, the boundary between the earlier and later typologies in the sense established by W. A. von Brunn lies precisely between the Kurd and Gyermely type hoards (*Ibid.*).

Horizon III of hoards in Slovenia has also been defined by P. Turk as having large hoards with mixed content which beside weapons and tools contain apparel and ingots. Only some types of items or type variants change, while conical ingots are a novelty. In earlier periods, bronze plano-convex ingots were customary (Turk 1996: 112–114). Changes from the earlier to the later phase of the Urnfield culture at the transition from the second to the first century BC can be seen not only in the decline in the number of hoards but also in the bronze metallurgy. The results of metallurgical analyses bear this out. In younger items there is a larger share of lead, which

samo kao hipoteza (Mandera 1985: 187). Polaganje ostava u zemlju na neistaknutim mjestima može se tumačiti kao oblik rituala u životu brončanodobnoga čovjeka. Zapravo žrtveni darovi više negoli žrtveno mjesto pokazuju neku pravilnost. Iz grčkih izvora jasno je da su se od željeznoga doba u srednjoj Europi, odnosno od 8. st. pr. Kr. u Grčkoj, božanstva počela štovati na određenim posvećenim mjestima, svetištima, hramovima ili crkvama (Hänsel 1997: 17). Jedno od rijetkih svetišta u sjevernoj Europi otkriveno je u Spandauu gdje je na otočiću na ušću rijeka Havel i Spree postojao ograđeni sveti prostor gdje je u vremenu između 1400. i 1200. g. pr. Kr. žrtvovano oružje koje je imalo statusni simbol (Schwenzer 1997: 64). Kao o votivnom mjestu u kasnome brončanom dobu na području Hrvatske zasad se sa sigurnošću može govoriti samo o Gajinoj pećini (Vinski-Gasparini 1973: 19). Na susjednim prostorima to je još Mušja jama kod Škocjana u Sloveniji (Gabrovec 1983: 80–87, sl. 9, 1–24). Obje pećine datiraju se prema nalazima u mlađu fazu kasnoga brončanog doba. Iz vremena starije faze kasnoga brončanog doba zabilježena je pećina Mišarica kod Banje Luke, u kojoj su odlagani brončani predmeti s vjerojatno votivnom namjenom (Periša 2002: 97).

B. Teržan deponiranje ostava vidi kao odraz duhovnoga života populacije kasnoga brončanog doba. Ona je ostave podijelila kvantitativno te smatra da se prema broju i vrstama predmeta može raspoznati i simbolički karakter ostava. Ostave s manjim brojem predmeta obično sadrže nekoliko sjekira, poneko dlijeto ili srp te ih B. Teržan tumači kao osobnu svojinu pojedinca. Ostave s velikim brojem različitih predmeta interpretira kao kolektivnu svojinu, odnosno kao žrtvene darove skupine ljudi (Teržan 1987: 72). Takvi tipovi ostava pojavljuju se u vrijeme Br D i Ha A, odnosno prije 1100. g. pr. Kr. i pojave velikih grobalja kulture polja sa žarama (Dobova, Ruše, Ljubljana), kad su metalni predmeti u grobovima pokojnika mnogo češći. Stoga pojavu ostava Teržanova povezuje s pogrebnim običajima i vjerovanjima u zagrobni život (*ibid.*: 73). Prekretnica koju je B. Teržan zamijetila u duhovnome životu na početku mlađe faze kulture polja sa žarama ne oslikava se u strukturi, nego u kvantiteti ostava: one više nisu tako brojne. Pored oružja i oruđa ove ostave sadrže elemente nošnje i ingote. Mijenjaju se samo neki tipovi predmeta ili varijante tipova, a novost su ingoti konična oblika. U ranijim su naime razdobljima uobičajene bile ovalne pogače brončane sirovine (Turk 1996: 112–114). S obzirom na vrstu predmeta koje velike ostave mješovitoga tipa sadrže (Čerče & Turk 1996: 12) – a sastoje se od muških komponenti s oružjem i oruđem, ženskih elemenata od nakita i srpova te metalurških komponenti od sirovine preko ingota do poluproizvoda i neuspjelih i

appears in combination with copper or copper and tin. Deposits of this period can be found in central and northern Italy and in Switzerland (Trampuž Orel 1999: 428). In bronze metallurgy during the Ha A period, the use of copper with a small quantity of impurities and the addition of tin in bronze alloys in various ratios has been observed, based on the purpose of the item (Trampuž Orel 1996: 210). Thus a smaller quantity of tin in sickles is associated above all with the Carpathian artisan circles, while in the Western European sphere larger quantities of tin were added, regardless of the type of item. It was then shown that sickles from hoards were also used as harvest tools, which contradicts the customary view that their role in hoards had a votive or pre-monetary character (Trampuž Orel 1999: 427). Given the technological process and the typological forms found in Slovenia, bronze metallurgy in the Ha A period in this area can be linked with the so-called Carpathian artisan circle, which testifies to an extensive network of production, trade and exchange (Trampuž Orel 1996: 210).

The gradual disappearance of hoards in Ha B1 phase was also ascertained in Bavaria. During the late Urnfield culture, hoards were no longer numerous in Upper Austria and the Salzburg environs. In eastern Austria, the deposition of hoards also experienced its peak during the Br D/Ha A1 period, although there they were also deposited in the earlier and later phases of the Urnfield culture (Erbach-Schönberg 1985: 170). During the Hallstatt culture, hoards entirely disappeared in southern Germany, which emphasises even more their cult significance in the Late Bronze Age (von Brunn 1981: 136). Four more Early Iron Age hoards were found during the most recent research in Slovenia, which indicates the deposition of items at the end of the Late Bronze Age that continued into the Early Iron Age (Turk 2004: 578).

It is obvious that changes occurred at the end of hoard phase II, not only in northern Croatia but throughout the wider Carpathian Basin. Whether the reasons can be attributed to migrations, changes in belief or culture will be determined by future research and analysis of hoards that will link to the typological and chronological divisions of hoards made during the second half of the twentieth century (Müller-Karpe 1959; von Brunn 1968; Vinski-Gasparini 1973; Petrescu-Dimbovița 1977; Mozsolics 1985).

An unavoidable question when considering these analyses is the meaning of hoards. Little was written on this topic after the major work by K. Vinski-Gasparini (1973, 1983), even though northern Croatia actually abounds in Urnfield culture hoards. Thus, what follows is a brief overview of some more

slomljenih predmeta – B. Teržan postavlja hipotezu da takve ostave u religijskome smislu predstavljaju bipolarne i cikličke principe: život i stvaranje, prirodu i kozmos. Slično bi značenje imale i barske ptice omiljene u kasno brončano doba, koje su kao ptice selice predstavljale promjene u godišnjem vegetativnom ciklusu (Teržan 1999: 123). Lomljeni predmeti koji se pojavljuju u ostavama tumače se kao dio žrtvenog obreda nekom brončanodobnom bogu, no to je samo jedna od mogućnosti tumačenja slomljenih predmeta u ostavama (Nebelsick 1997: 41). Namjerno uništavanje predmeta dovodi se u vezu sa spaljivanjem pokojnika. Svakako postoje paralele između ritualnog uništavanja predmeta u grobu i u ostavi u kojoj su prilagani samo dijelovi predmeta. Što se zbivalo s preostalim dijelovima ostaje nerazjašnjeno (Hansen 1994: 389). Slomljeni brončani predmeti pojavljuju se u ostavi Bühl srednjega brončanog doba i gotovo su pravilo u deponiranju tijekom kasnoga brončanog doba (Nebelsick 2000: 164–165). Uništavanje metalnih predmeta iz ostava L. Nebelsick tumači kao dio ritualnoga procesa u društvima čiji je doživljaj prirodnog i natprirodnog svijeta uvjetovan strukturom ritmičkih ponavljanja poljoprivredne godine. Stoga su ritualne i mitološke strukture rezultat cikličnosti u prirodi, što se u slučaju cirkulacije metala vidi u dvama trenucima transformacije – nasilnom otimanju metala iz zemlje i rudonosne žile (iz prirodnog svijeta u kulturnu sferu), a zrcalni čin ritualnoga nasilja obilježava njegov prijelaz u nadnaravni svijet (Nebelsick 2000: 171). Najčešće su u ostavama prilagane sjekire i srpovi, koji su u simetrično metaforičnom odnosu: označavaju žetvu i snabdijevanje iz prirode s jedne strane te žrtvu i prinos nadnaravnoj sferi s druge (*ibid.*: 165).

Različiti načini žrtvovanja i posvećena mjesta razlikuju se od zajednice do zajednice (Hansen 1994: 394). Ako se votivno značenje pripiše ostavama sjevernog i podunavskog kruga, tada se regionalne razlike među njima mogu tumačiti različitim načinima žrtvovanja (von Brunn 1968: 237), a što se potom odražava u njihovu sastavu i može se povezati s opremljenošću šamana i predodžbama čarobnjaka. Sakralno značenje ostava razlikuje se u promatranome vremenu kroz regionalne i vremenske izričaje (von Brunn 1981: 122). Budući da ima i više predmeta od onih koliko ih je u svojoj nošnji ili opremi mogla nositi jedna osoba, pri prilaganju predmeta mora se računati s više osoba. Svakako treba biti oprezan s pojmom *pars pro toto* jer opet postoji mogućnost da je nositeljica nakita određenog ranga i položaja žrtvovala različit broj predmeta, što je opet imalo simbolično značenje pri prilaganju predmeta (*ibid.*: 111).

recent ideas in the interpretation of the hoard phenomenon.

Hoard researchers in the Carpathian Basin have generally interpreted hoards as belonging to bronze merchants or smelters, which were hidden due to some danger (Vinski-Gasparini 1973: 19; Petrescu-Dîmbovița 1977: 168). The lack of moulds and slag in such hoards, and the fact that no two items from the same mould were found in the same hoard speak against this interpretation (Jacanović 1994: 58). Certain relations in Late Bronze Age society have been gleaned from such interpretations. Hoards in which combinations of semi-finished goods and forged types and mould cores have been found together with smelting and related tools for finishing forged products (chisels, hammers, anvils, files and saws more rarely) demonstrate that metallurgists were not specialised for specific items or a specific phase of the forging process and production of bronze items (Salaš 1995: 580). By way of contrast, A. Jockenhövel maintains the conclusion that there were categories of artisans in society, meaning that there were those who knew the raw material and prepared it for working, as distinguished from the actual artisans (1982: 301). Thus even graves of primary metallurgists are known, in which raw copper, bellows pieces and even ingots were deposited (*Ibid.*). Metallurgical tools were found in the graves of persons who are believed to have been distinguished artisans in society of the time. It is important to point out that no regularity has been observed in the deposition of tools, because anvils were found in two graves, and a hammer in one and a mould in another (Sperber 2000: 395).

The measure whereby some hoards acquired a profane character is hoards of ingots, then hoards with diverse content, hoards of vessels and fragmentary bronze items. Profane hoards have been designated as the hoards of bronze smelters, and perhaps even of travelling merchants, but most often as hoards deposited as valuables in the sense of treasure, which may include the hoards of bronze smelters which, since they have a more or less uniform appearance and contain broken pieces of bronze for the most part, are difficult to classify (Vinski-Gasparini 1983: 650). This brings into question the theory of ritual destruction of bronze items in hoards put forward by H. Müller-Karpe and A. Kollings (Mandera 1985: 187). The production character of hoards is put forward by A. F. Harding. He specifies several reasons for deposition: fluctuating supply of metal, different depositing methods with regard to metallurgical operations (smelting, forging), differing accessibility of raw materials that could cover production (Harding 2000: 358–360).

Žrtva je bila najvažniji – i danas je važan – oblik komunikacije s božanstvima. Moguće je pretpostaviti da je brončanodobni čovjek za svoj prinos žrtve izabirao stvari koje su bile skupocjene i koje su za njega imale osobitu vrijednost. Polazio je od toga da njegovo božanstvo zna što je njemu najdragocjenije i važno, pa je tako dijalog i suodnos s božanstvom bio moguć (Hänsel 1997: 12–13). Pitanje je jesu li *brončanodopci* imali predodžbu o svojim božanstvima u ljudskome liku (*ibid.*: 17). Postoji pretpostavka da je uz božanstvo Sunca, o kojem u ostavama svjedoče mnogi simboli kruga, postojalo i božanstvo Mjeseca, odnosno Noći, kojem su žrtvovani mnogi srpovi u ostavama (*ibid.*: 20). Koliko je stvarna mogućnost povezivanja kasnijih božanstava i njihovih atributa i votivnih darova s brončanodobnim božanstvima, odnosno s predmetima priloženim u srednjoeuropskim ostavama, svjedoče zapravo neznatne razlike među njima (*ibid.*). Vidljiva selekcija predmeta priloženih u ostavama potvrđuje dobrovoljno otuđenje tih predmeta. Stoga ih valja definirati kao votivnu žrtvu (Hansen 1994: 369). S. Hansen postavio je hipotezu prema kojoj su brončani predmeti svjesno odabrani, s namjerom priloženi bez intencije o skrivanju predmeta pred nekom opasnosti. Pritom je riječ o bronci i predmetima koji su imali društvenu ekskluzivnost te su stoga bili prestižno dobro i odlagani su s određenim aspektom žrtve (*ibid.*: 371). Na izbor predmeta pri deponiranju utjecali su trgovina i razmjena – predmeti su vezani uz svečanost ili žrtvu ili imaju oblik plaćanja (*ibid.*: 373–375). Razlike u sastavu ostava mogu se tumačiti različitošću žrtvovanog i različitošću božanstva kome je žrtvano, no time nisu razjašnjene sve regionalne razlike među ostavama (*ibid.*: 391). Mogući su različiti razlozi prinošenja žrtava: žrtva za mrtve, žetvena žrtva, godišnji običaj, žrtva određenom božanstvu, lijevanje bronce (von Brunn 1981: 124).

Ideja o votivnome značenju ostava svjedoči i o komunikacijskoj mreži kulture polja sa žarama između elita koje su kontrolirale prestižna dobra. U vrijeme starije faze kulture polja sa žarama postojale su jake regionalne razlike u obliku deponiranja (grob ili ostava). Socijalna i politička elita na jednome prostoru ocrtava se opremom svojih grobova, dok na drugome prostoru to čini prilaganjem predmeta u ostave. Stoga se može zaključiti da su ostave djelo vodećih ljudi u društvu (Hansen 1994: 368; Hansen 1998: 23–24.). Pri proučavanju širega prostora između doline rijeke Rhône i Karpatske kotline na kojem su se tijekom starije faze kulture polja sa žarama deponirali metalni predmeti. S. Hansen zaključuje da su posrijedi tri fenomena: u prostoru gdje su poznati grobovi s priložima oružja, ostava nema; tamo gdje takvi grobovi nedostaju, mnogo-

W. A. von Brunn provided an exhaustive overview of the significance of Bronze Age hoards and the history of interpretation of this phenomenon. The discovery of hoards in swamps that were some sort of Bronze Age sacred sites gave rise to the idea of their votive meaning (J. J. Worsaae), which was then expanded by German researchers based on the example of Central European hoards, which were interpreted as hoards concealed before some looming threat, introducing the profane meaning (E. Sprockhoff, P. Reinecke, F. Holste) (von Brunn 1968: 230–239). Such interpretations were accepted by hoard researchers in the Carpathian Basin (Vinski-Gasparini 1973; Petrescu-Dimbovița 1977; Mozsolics 1985). If we compare the profane interpretations of Carpathian hoards with the sacral interpretations from the northern section of Central Europe, we can conclude that these are the same sources observed from different regional standpoints. A sacral character of finds in southern Germany has, besides hoards and swamp finds, been ascribed to finds in caves and those below stones and on cliffs (von Brunn 1968: 232–233). Finds of bronze items in rivers and swamps in Upper Austria can be dated parallel to the hoards of the Br D-Ha B1 phase (Erbach-Schönberg 1985: 170), which would indicate their sacrificial character. The reasons for deposition in water and swamps or at other sites (caves, cliffs, pits) have been sought in the religious notions of prehistoric people. Such theories are endorsed by H.-J. Hundt, W. Torbrügge, W. H. Zimmermann, J. Driehaus, G. Wegner, W. Kubach, and P. Schauer. Deposition of votive hoards by burying was prompted, according to G. Wegner, by wartime unrest or threats from foreign looters. Deposition of hoards actually constituted protection from defilement, which can naturally only be considered as a hypothesis (Mandera 1985: 187). Depositing of hoards in the ground at unmarked locations may be interpreted as a form of ritual in the lives of Bronze Age people. It is actually the sacrificial offerings rather than the sacrificial site that exhibit a certain regularity. Greek sources indicate that since the Iron Age in Central Europe, i.e. from the eighth century BC in Greece, people began to revere deities at specific dedicated sites, sanctuaries, temples or churches (Hänsel 1997: 17). One of the rare sanctuaries in northern Europe was discovered in Spandau, where a fenced-in sacred site existed on an islet at the confluence of the Havel and Spree Rivers, at which weapons were sacrificed as status symbols between 1400 and 1200 BC (Schwenzer 1997: 64). In Croatia's territory, for now only Gajina pećina cave can be described with certainty as a Late Bronze Age votive site (Vinski-Gasparini 1973: 19).

brojne su ostave koje sadrže oružje; malobrojne ostave na područjima gdje su zabilježeni grobovi s oružjem ne sadrže oružje (Hansen 1994: 317–318). U vrijeme starije faze kulture polja sa žarama na području sjeverno od Balatona u zapadnoj Mađarskoj i sjeverno od Dunava u Slovačkoj brojni su prilozi u grobovima istaknutih pojedinaca, dok ostave nisu tako brojne kao na prostoru međuriječja Drave i Save te u Transilvaniji (*ibid.*: 311). Suprotno tomu, na području sjeverno od Alpa zamijećeni su brojni grobovi s oružjem koji se mogu datirati od Br D do Ha A2, dok se u mlađoj fazi kasnoga brončanog doba, kada broj ostava i pojedinačnih nalaza s oružjem raste, oružje u grobovima još se jedva može naći (Clausing 2005: 136). Istodobno su na prostoru južno od Alpa rijetki grobovi s priložima oružja (*ibid.*: 134).

Brojnost ostava u starijoj fazi kasnoga brončanog doba i njihova široka rasprostranjenost tumači se kao jedan od argumenata o ostavama kao zrcalima duhovnoga svijeta kasnobrončanodobnoga čovjeka. Raščlamba kasnobrončanodobnih ostava (Br D-Ha B3) donosi nesklad između posvećenih ostava i pohranjenih ostava. Prve sadrže dijelove sjekira, srpova, oružja i nakita i one su kontinuirane, široko rasprostranjene, ali rjeđe. Druge imaju različit sadržaj, češće su i pojavljuju se u različitom vremenu i na različitim područjima (von Brunn 1981: 132). Primjer je ostava Enkenbach-Alsenborn, ostava Ha B3 vremena, koja sadržava, osim brončanih razlomljenih dijelova i ostataka od lijevanja, brojne ulomke predmeta od željeza zbog čega se tumači kao zamiranje kultnog mjesta sa snažnijim zamahom metalurgije željeza (*ibid.*: 133). Ovakvo tumačenje ostava potkrepljuje se i s praksom prilaganja votivnih darova u grčkim svetištima unutar i izvan posvećenog mjesta, aktivnost koja je cvala u kasnogeometrijskom i arhajskom vremenu (*ibid.*: 137–138).

Očita je diskrepancija u deponiranju predmeta kad se promatra vrijeme kasnoga brončanog doba i uspoređuje s vremenom starijega željeznog doba, mlađega željeznog doba ili s vremenom seobe naroda u ranome srednjem vijeku. Stoga je teško objasniti značenje ostava u kasnome brončanom dobu bez usporedbe sa spomenutim mlađim razdobljima (Pauli 1985: 197). Kroz vrijeme pojedine su se zajednice različito odnosile prema svetim stvarima. O tome svjedoče pisani izvori, antički i srednjovjekovni, koji su opisivali odnos prema svetinjama – odnos domaće zajednice koja je kroz štovanje određenih božanstava žrtvovala različite stvari, sklanjala ih u vrijeme opasnosti i vraćala ponovno na sveta mjesta; odnos osvajača prema pobijeđenima i njihovim svetinjama; bizaran odnos prema relikvijama u srednjem vijeku, kad su ih određene zajednice znale ukrasti jedna drugoj (*ibid.*: 198).

In neighbouring regions, there is also Mušja jama near Škocjan in Slovenia (Gabrovec 1983: 80–87, Fig. 9, 1–24). Both caves have been dated according to finds from the later phase of the Late Bronze Age. Mišarica cave near Banja Luka has been recorded as dating to the earlier phase of the Late Bronze Age; bronze items that probably had votive significance were deposited in it (Periša 2002: 97).

B. Teržan sees the depositing of hoards as a reflection of the spiritual life of the Late Bronze Age populace. She classified hoards by quantity and believes that the symbolic character of hoards can be ascertained based on the number and types of items. Hoards with a smaller number of items normally contain several axes, a few chisels or sickles, and B. Teržan interprets them as the personal property of individuals. Hoards with a large number of diverse items are interpreted as collective property, i.e. sacrificial gifts given by groups of people (Teržan 1987: 72). This type of hoard appears in the Br D and Ha A periods, before 1100 BC and the appearance of the large Urnfield culture cemeteries (Dobova, Ruše, Ljubljana), when metallic items in the graves of the deceased became more frequent. Teržan therefore associates the phenomenon of hoards with funeral customs and belief in an afterlife (*ibid.*: 73). The watershed that B. Teržan noticed in spiritual life at the beginning of the later phase of the Urnfield culture is not reflected in the structure but rather the quantity of the hoards: they are no longer as numerous. Besides weapons and tools, these hoards contain elements of apparel and ingots. Only some types of items or type variants change, while conical ingots are a novelty. In earlier periods, bronze plano-convex ingots were customary (Turk 1996: 112–114). Given the type of items that large mixed-content hoards contain (Čerče & Turk 1996: 12), consisting of men's components such as weapons and tools, women's elements such as jewellery and sickles and metallurgical components such as raw materials through ingots to semi-finished products and failed or broken items – B. Teržan hypothesises that such hoards represent bipolar and cyclical principles in the religious sense: life and creation, nature and the cosmos. The wading birds favoured in the Late Bronze Age, as migratory birds representing changes in yearly vegetation cycles, would have a similar meaning (Teržan 1999: 123). Broken items that appear in hoards are interpreted as components of sacrificial rites dedicated to some Bronze Age god, but this is only one of the possibilities of interpretation of broken items in hoards (Nebelsick 1997: 41). The intentional destruction of items is associated with the cremation of the deceased. There certainly are parallels between ritual destruction of items in

U prilog teoriji o votivnome značenju ostava idu i nalazi minijaturnih primjeraka dijelova zaštitne opreme i brončanih posuda kao supstitucija za votivni dar, kojih su brojni primjerci pronađeni u grčkim svetištima. Oni su dosta rijetki u srednjoeuropskim ostavama starije faze kulture polja sa žarama (Poljanci II, Moldova Veche IV) (Bulat 1975: 16, T. XIV: 1; Petrescu-Dîmbovița 1977: 100, T. 16: 10). Brojni minijaturni predmeti pronađeni su u grobovima kulture Piliny (Hansen 1994: 386). Jedan od važnijih dokaza sakralnoga značenja ostava jest i lomljena bronca koja se pojavljuje u ostavama od ranoga brončanog doba u sjevernoeuropskom krugu, a koje ima i u zoni južno od Alpa i Karpata (von Brunn 1981: 127).

Također, postoje i pomirljive teorije koje ostavama daju ambivalentni karakter. Prema njima ostave su zakopavane s votivnim značajem u slučajevima opasnosti. H. E. Madera iznosi mišljenje o ljudima kulture polja sa žarama koji svoje metalno blago nakon što su ga žrtvovali zbog opasnosti više ne smiju uzeti i upotrebljavati, što može objasniti tolik broj ostava u kratku vremenu (Mandera 1985: 187). R. Bradley zaključuje da nije lako razlikovati ostave profanog i one votivnog značenja. On ističe da brončanodobni sustav sakuplja i ujedinjava kapital te da se razmjena možda odvijala u standardnim jedinicama. S vremenom sakupljeni predmeti mogu biti posvećeni nadnaravnom ili sahranjeni s mrtvim, dok metalni predmeti koji ne pripadaju lokalnome sustavu mogu biti akumulirani i reciklirani (Bradley 1987: 360). Pritom ne treba zanemariti činjenicu da se votivne ostave mogu promatrati i kao oblik plaćanja (*ibid.*: 361). Značenje ostava R. Bradley pokušao je sagledati kroz duže vremensko razdoblje te je u tim različitostima dugog trajanja uočio tri razvojna stupnja. Prvi stupanj prati se od vremena ranoga neolitika, kad postoje ostave koje u većini slučajeva sadrže samo jednu vrstu predmeta (npr. ostave posuda ili kamenih sjekira). Kasnije su sve češće ostave gdje je ista vrsta predmeta deponirana s drugim oblicima ili ulomcima metala, što u kasnome brončanom dobu postaje sve uobičajenija pojava, a što je pak posljedica razvoja metalurških ostava (*ibid.*: 355). U razvijenom stupnju dolazi do izražaja i dvojni karakter metalnih predmeta, koji može biti i rezultat intenzivirane produkcije (*ibid.*). U finalnome stupnju ističe se teza o bronci kao plaćenom sredstvu u kasnom brončanom dobu, dok su se tijekom željeznoga doba vrijednosti promijenile u medije koje je teže arheološki prepoznati (sol, stoka i krzno) (*ibid.*: 357).

Svako društvo ima određene materijalne vrijednosti koje imaju karakter novca i kojih se onda pojedinci odriču u zamjenu za neku drugu važnu vrijednost

graves and in hoards in which only parts of items are deposited. What happened to the remaining parts is unexplained (Hansen 1994: 389). Broken bronze items appear in the Middle Bronze Age Bühl hoard, and they are almost the rule in deposition during the Late Bronze Age (Nebelsick 2000: 164–165). Destruction of metal items in hoards is interpreted by L. Nebelsick as part of a ritual process in societies whose notions of the natural and supernatural worlds are influenced by the structure of rhythmic repetitions during the agricultural year. Ritual and mythological structures are therefore the result of natural cycles, which in the case of metal circulation can be seen in two moments of transformation: violent seizure of metals from the earth and mineral ores (from the natural world to the cultural sphere), while the reflective act of ritual violence signifies its transfer to the supernatural world (Nebelsick 2000: 171). Axes and sickles were most often deposited in hoards, which are in a symmetrically metaphorical relationship: designation of harvests and stores from nature on the one hand and sacrifices and transference to the supernatural sphere on the other (*Ibid.*: 165).

Sacrificing methods and dedicated sites differ from community to community (Hansen 1994: 394). If votive significance is ascribed to hoards of the northern and Danubian spheres, then regional difference among them can be interpreted by different sacrificing methods (von Brunn 1968: 237), which is then reflected in their composition and can be associated with the accessories of shamans and the perceptions of magicians. The sacral meaning of hoards differs in the observed period through regional and chronological aspects (von Brunn 1981: 122). Since there are more items than those that could be worn by one person on his/her clothing or gear, the possibility of several persons depositing goods must be considered. One must certainly be cautious with the concept of *pars pro toto*, because there is the possibility that the wearer of jewellery of a given rank and position sacrificed a different number of items, which again has symbolic meaning in the deposition of goods (*Ibid.*: 111).

Sacrifices were—and still are today—an important form of communication with deities. It is possible to assume that the Bronze Age individual chose things to sacrifice that were expensive and that had particular value to him/her. Such an individual assumed that the deity knew what he/she found valuable and important, so then a dialogue and co-relationship with the deity was possible (Hänsel 1997: 12–13). There is some question as to whether the *Bronze Ages* had any notion of their deities in human form (*Ibid.*: 17). There are assumptions that besides the

ili za žrtvu za božansku milost. Već je Homer istaknuo da su platežna sredstva zlato, srebro i bronca, što pozadinu sigurno ima i u brončanom dobu te se može promatrati i kao izravna posljedica produkcije (Pauli 1985: 200). Bronci u ostavama pripisuje se predmonetarni ili monetarni karakter, što nakon provedenih statističkih obrada regionalnih uzoraka može biti dokazano postojanjem regionalnih težinskih sustava (Hansen 1994: 378–379). Zanimljivo je da u takvu poimanju vrijednosti u vrijeme željeznoga doba nema ostava željeznih predmeta, kada je nova metalurgija potaknula brojne civilizacijske promjene, a što je rezultiralo i promjenama vrijednosti. Vjerojatno su značenje novca dobile organske stvari: koža, krzno, vuna, dok su božanstvima prinošene žrtve u vidu naturalija (cvijeće, vijenci, mlijeko, kruh, životinje te votivni darovi od gline ili metala) (Pauli 1985: 201).

U svakom vremenu postojao je razlog za deponiranje vrijednih predmeta koje onda arheolozi definiraju kao ostave profanog ili votivnog značenja. Motivi za votivno odlaganje kao i za profano deponiranje raznoliki su, pri čemu je impuls za sakrivanje svakako došao sa strane. Pretjerano bi bilo sasvim negirati pojavu opasnosti kao motiva zakopavanja ostava, jer se pouzdano znade da su u antici i kasnije u srednjem vijeku razlozi njihovu zakopavanju bili nesigurna vremena ili ratovi (Vinski-Gasparini 1983: 650). Ostaje otvoreno pitanje zašto su ostave tako česte u prapovijesnoj Europi, ako se u obzir uzme to da prapovijesno doba sigurno nije bilo više nemirno negoli bilo koje drugo (Pauli 1985: 200). Najbolje o tome svjedoči prostor Korduna, na kojem je pronađena i ostava Siča/Lučica, a koji je u prošlosti često bio poprištem brojnih sukoba.

ZAKLJUČAK

S obzirom na različita tumačenja lomljenja bronce i razloge skrivanja ostava koji su uistinu znani samo *kasnobrončanodopcima*, prilično je teško sa sigurnošću ostavi Siča pripisati votivno ili profano značenje. Ostava Siča/Lučica, s obzirom na mjesto nalaza i veliku fragmentiranost raznolikih predmeta, može se okarakterizirati kao ostava ljevača bronce koji je sakupljao polomljene predmete i pripremao ih za daljnju proizvodnju. U prilog ovakvu tumačenju ide nalaz brončanih "pogača" u ostavi kao i ulomaka nedovršenih predmeta (patka). Ostava se uklapa u krug metalurških ostava II. faze kulture polja sa žarama u sjevernoj Hrvatskoj, koje su istodobno u najvećem broju deponirane na prostoru Posavine, a koji kulturološki pripada prostoru rasprostiranja grupe Barica-Gredani (Ložnjak Dizdar 2005: 36,

god of the Sun, demonstrated in hoards by many circular symbols, there was also a god of the Moon, or Night, to whom many sickles in hoards were sacrificed (*Ibid.*: 20). How much one can really link later deities and their attributes and votive offerings to Bronze Age deities, i.e. with the items deposited in Central European hoards, is actually shown by the insignificant differences between them (*Ibid.*). The visible selection of items deposited in hoards confirms the voluntary abandonment of these items. Thus they should be defined as votive sacrifices (Hansen 1994: 369). S. Hansen put forward the hypothesis that bronze items were consciously selected and wilfully deposited without the intention of hiding such items in the face of some manner of threat. These were bronze and items that reflected social exclusivity and there were thus prestige goods, and deposited with a certain aspect of sacrifice (*Ibid.*: 371). Trade and exchange influenced the selection of items for deposition – items were associated with a ceremony or sacrifice or they were a form of payment (*Ibid.*: 373–375). Differences in the composition of hoards can be interpreted by the differences in what is sacrificed and the differences in the deities to whom sacrifices are made, but this does not explain the regional differences between hoards (*Ibid.*: 391). Different reasons for making sacrifices are possible: sacrifices for the dead, harvest sacrifices, annual custom, sacrifice to a specific deity, forging of bronze (von Brunn 1981: 124).

The idea of votive significance of hoards also testifies to the communication network among the Urnfield culture elites who controlled prestige goods. During the earlier phase of the Urnfield culture there were intense regional variations in the form of deposition (grave or hoard). The social and political elite in a given area is designated by the wealth of their graves, while in other areas this was done by depositing goods in hoards. Therefore one can conclude that hoards are the work of the leading people in a society (Hansen 1994: 368; Hansen 1998: 23–24.). When studying the wider region in which metal items were deposited during the earlier phase of the Urnfield culture between the Rhône River Valley and the Carpathian Basin, S. Hansen concluded that three phenomena were in play: in those areas that had graves with weapons there were no hoards; where such graves are lacking, there are many hoards with weapons; the few hoards found in areas where there are graves with weapons do not themselves contain weapons (Hansen 1994: 317–318). During the earlier phase of the Urnfield culture in the territory north of Balaton in western Hungary and north of the Danube in Slovakia, items in the graves of distinguished individuals are numerous, while the hoards are not as numerous as

karta 2). Kod ostave Siča treba uzeti u obzir okolnosti njezina nalaza na sekundarnom položaju, zbog čega su nepovratno izgubljeni dragocjeni podaci koji bi olakšali njezino tumačenje. Na prostoru Korduna uz ovu ostavu poznata je i istodobna ostava Malička slična sastava (Balen-Letunić 1985). Obje ostave pripadaju radioničkome krugu međuriječja Save i Drave, gdje se u ostavama pronalaze brojne paralele za nalaze pohranjene u njima. S obzirom na to da su okolnosti primarnoga nalaza ostave nepoznate i da su istodobna naselja i groblja na ovome prostoru još uvijek nepoznanica, bilo bi preuranjeno iznositi zaključke o votivnoj namjeni ostave Siče. Na takvu bi namjenu upućivali fragmentiranost svih predmeta iz ostave, velik broj srpova, prisutnost nakita, te simbolični prikaz patke, što može upućivati i na svojinu zajednice koja je ostavu deponirala, odnosno zavjetovala se uz simboličan dar iz svojine pojedinaca.

Također, u tumačenju ostave Siča/Lučica ne treba zanemariti ni prostor na kojem je ostava pronađena. Prostor Korduna dio je najkraćega prirodnog puta iz Panonske nizine do *Caput Adriae*. Nalazi ostava južno od Save i Kupe dosta su rijetki, stoga ovaj nalaz bitno nadopunjava dosadašnju skromnu sliku njihova poznavanja. Najveći broj ostava II. faze pronađen je u Posavini, najvjerojatnije na naseljima grupe Barice-Gređani te uz prirodne putove preko Požeške kotline i Hrvatskog zagorja prema Podravini (Vinski-Gasparini 1973: T. 133), pa ne treba zanemariti ni nalaze ovih dviju ostava na komunikaciji koja je vodila prema Jadranu.

Ostava Siča/Lučica po sastavu pripada velikim ostavama mješovitoga sastava. U njoj su deponirani dijelovi oružja (koplja, strelica, mačevi, bodeži), oruđa (sjekire, srpovi, noževi, pile, dlijeta), zatim toaletni pribor (britva), nakit (ogrlice, narukvice), dijelovi nošnje (igle, fibule, ulomci pojasa, dugmad, aplikacije), konjska oprema (razvodnik), brončano posuđe, simbolični predmet (figura patke), ulomci sirovine bronce kao i brojni ulomci brončanih limova i vrlo sitni fragmenti neodredivih predmeta. Stoga se ostava vjerojatno može pripisati krugu ostava ljevača ili trgovca broncom koji je na svome putu blago odlučio skriti, iako u konačnici ne treba isključiti ni razloge votivne naravi. Kroz tipološko-kronološku analizu svih predmeta iz ostave moguće je vrijeme njezine pohrane smjestiti u 12. st. pr. Kr., kad je u međuriječju Save, Drave i Dunava, ali i na širem prostoru Karpatske kotline, posvjedočena intenzivna produkcija brončanih predmeta kojih je znatan dio svoj put okončao u ostavama poput ove.

in the Drava and Sava interfluvium and in Transylvania (*Ibid.*: 311). By contrast, in the territory north of the Alps numerous graves have been observed containing weapons that can be dated to the Br D to Ha A2 periods, while during the more recent phase of the Late Bronze Age, when the number of hoards and individual finds with weapons grew, weapons in graves almost cannot be found (Clausing 2005: 136). At the same time, graves with weapons deposited in them are rare in the territory south of the Alps (*Ibid.*: 134).

The high number of hoards in the earlier phase of the Late Bronze Age and their wide distribution has been interpreted as one of the arguments about hoards as reflections of the Late Bronze Age man's spiritual world. A breakdown of Late Bronze Age hoards (Br D-Ha B3) shows a discrepancy between dedicated hoards and stored hoards. The former contain parts of axes, sickles, weapons and jewellery, and they are continuous and widely dispersed, although rarer. The latter have more diverse contents, and they appear more often at various times and in various regions (von Brunn 1981: 132). An example is the Enkenbach-Alsenborn hoard, a hoard of the Ha B3 period, which contains, besides bronze broken pieces and the remains of forging, numerous fragments of items made of iron, which is why it has been interpreted as a case of deterioration of a cult site upon the more intense development of iron metallurgy (*Ibid.*: 133). This interpretation of the hoard is additionally confirmed by the practice of placing votive offerings in Greek sanctuaries within and outside of a dedicated site, an activity that blossomed in the Late Geometric and Archaic periods (*Ibid.*: 137–138).

There is an obvious discrepancy in deposition of items when observing the Late Bronze Age and comparing it to the Early Iron Age, the Late Iron Age or the migrations during the early Middle Ages. It is therefore difficult to explain the significance of hoards in the Late Bronze Age without comparing it with the aforementioned younger periods (Pauli 1985: 197). Over time, individual communities related to holy matters differently. Ancient and medieval written sources testify to this, as they described the relationship to the sacred – the relationship of a domestic community that revered a specific deity by sacrificing various things, concealing them at times of peril and returning them to sacred places; the relationship of conquerors to the conquered and their beliefs; the bizarre relationship to relics in the Middle Ages, when certain communities actually stole them from each other (*Ibid.*: 198).

The theory of the votive significance of hoards is backed by finds of miniature examples of components of defensive equipment and bronze vessels

as substitute votive offerings, of which numerous examples were found in Greek sanctuaries. They were truly rare in central European hoards of the earlier phase of the Urnfield culture (Poljanci II, Moldova Veche IV) (Bulat 1975: 16, T. XIV: 1; Petrescu-Dimbovița 1977: 100, T. 16: 10). Numerous miniature items were found in Piliny culture graves (Hansen 1994: 386). One of the more important proofs of the sacral significance of hoards is shattered bronze that appeared in Late Bronze Age hoards in the northern European sphere, which also exist in the zone south of the Alps and Carpathians (von Brunn 1981: 127).

Also, there are reconciliatory theories that accord an ambivalent character to hoards. According to such theories, hoards were buried with votive significance in cases of danger. H. E. Madera posits that Urnfield culture people could not take and use their metal goods after they were sacrificed due to some peril, which would explain the large number of hoards over such a short period (Mandera 1985: 187). R. Bradley concludes that it is not easy to distinguish between profane and sacred hoards. He stresses that the Bronze Age system collected and consolidated capital and that exchange may have proceeded according to standard units. With time, gathered items can be dedicated to supernatural or buried with the dead, while metal items that did not belong to the local system could be accumulated and recycled (Bradley 1987: 360). Here one should not neglect the fact that votive hoards can also be seen as a form of payment (*Ibid.*: 361). R. Bradley attempted to view the meaning of hoards over a long period, and he noted three development stages in these differences of long duration. The first stage runs from the Early Neolithic, when there are hoards which in most cases contain only a single type of item (e.g. vessels or stone axes). Later hoards in which the same type of item is deposited with different forms or fragments of metal become increasingly frequent, which becomes the customary phenomenon of the Late Bronze Age, and which is a consequence of the development of metallurgical hoards (*Ibid.*: 355). In the developed phase, the dual character of metal items comes to the fore, which may even be the result of more intense production (*Ibid.*). In the final phase, the view of bronze as a means of payment during the Late Bronze Age stands out, while during the Iron Age values transferred to media that are more difficult to recognise by archaeological research (salt, cattle and fur) (*Ibid.*: 357).

Every society has certain material valuables that have the character of currency and which individuals then forsake in exchange for some other important valuable or as sacrifice for divine mercy. Homer

already stressed that gold, silver and bronze were means of payment, which certainly has its basis in the Bronze Age, and which can be seen as a direct consequence of production (Pauli 1985: 200). A pre-monetary or monetary character is attributed to bronze in hoards, which after statistical analysis of regional samples can be proven through the existence of a regional system of weights (Hansen 1994: 378–379). It is interesting that in such a notion of value during the Iron Age there are no hoards of iron items, when new metallurgy prompted numerous civilisational changes, that in turn led to changes in values. Organic items probably acquired the significance of money: leather, fur and wool, while deities were offered sacrifices in the form of natural goods (flowers, wreaths, milk, bread, animals and votive offerings made of clay or metal) (Pauli 1985: 201).

In every period there was a reason for depositing items which archaeologists then define as hoards with profane or votive significance. The motives behind votive as well as profane depositing are diverse, although the impulse to conceal was certainly due to outside influence. It would be excessive to entirely discount danger as a motive for burying hoards, because we know for certain that in Classical Antiquity and later in the Middle Ages uncertain times or wars were reasons for their deposition (Vinski-Gasparini 1983: 650). The question remains as to why hoards were so frequent in prehistoric Europe, if one takes into account that during prehistory the situation was no more turbulent than at any other time (Pauli 1985: 200). The Kordun area, where the Siča/Lučica hoard was found, testifies to this best, as it was the scene of many conflicts in the preceding century.

CONCLUSION

Given the differing interpretations of the shattered bronze and the reasons for concealing hoards which is truly known only among the people of the Late Bronze Age, it is relatively difficult to ascribe a votive or profane significance to the Siča hoard with any certainty. The Siča/Lučica hoard, given the discovery site and the extremely fragmentary nature of the various items, can be characterised as the hoard of a bronze smelter who gathered broken items and prepared them for further production. This interpretation is backed by the find of a bronze plano-convex ingot in the hoard and fragments of unfinished items (a duck). The hoard fits into the circle of metallurgical hoards of phase II of the Urnfield culture in northern Croatia, which were simultaneously deposited in the Sava River Valley

in the largest number, and which can be culturally classified as part of the Barica-Gređani distribution group (Ložnjak Dizdar 2005: 36, Map 2). In the case of the Siča hoard, one must take into account the circumstances of its discovery at a secondary site, which is why valuable data that would have simplified its interpretation have been irretrievably lost. In the territory of Kordun, besides this hoard there is the contemporary Malička hoard with a similar composition (Balen-Letunić 1985). Both hoards are part of the workshop circle of the Sava and Drava interfluvium, where numerous parallels between the hoards have been observed based on the finds in them. Given that the circumstances of the primary site of the hoard are unknown and that contemporary settlements and cemeteries are as yet unknown in this area, it is too soon to make any conclusions about the votive purpose of the Siča hoard. The latter purpose may be indicated by the fragmentary nature of all items in the hoard, the large number of sickles, the presence of jewellery, and the symbolic depiction of a duck, which may also indicate the property of a community that deposited the hoard, or that made a symbolic offering from the property of individuals.

Additionally, the area in which it was found should not be neglected in the interpretation of the Siča/Lučica hoard. Kordun was the shortest natural route from the Pannonian plain to the *Caput Adriaticae*. Hoard finds south of the Sava and Kupa Rivers are truly rare, so this find greatly supplements the previously meagre knowledge on them. The largest number of hoards of phase II were found in the Sava River Valley, probably at settlements of the Barice-Gređani group and along natural routes through the Požega Valley and Hrvatsko Zagorje toward the Drava River Valley (Vinski-Gasparini 1973: T. 133), so the fact that these two hoards were found along a communication route to the Adriatic Sea should also not be overlooked.

The Siča/Lučica hoard, in terms of composition, is a large mixed-content hoard. It consists of parts of weapons (spearheads, arrowheads, swords, daggers), tools (axes, sickles, knives, saws, chisels), toiletries (razor), jewellery (necklaces, bracelets), apparel items (needles, fibulae, fragments of belts, buttons, appliqué), horse harness (bridle strap), bronze vessels, symbolic items (duck figurine), fragments of raw bronze and numerous fragments of bronze sheet and very tiny fragments of unclassifiable items. Thus the hoard can probably be designated as a hoard belonging to the bronze smelter or bronze merchant who decided to conceal it while on a journey, even though reasons of a votive nature cannot ultimately be discarded. A typological and

chronological analysis of all items from the hoard makes it possible to date the time of its deposition in the twelfth century BC, when the Sava, Drava and Danube interfluvium and the wider Carpathian Basin were marked by intense production of bronze items, of which a considerable portion ended up in hoards such as this.

Tablica 1–12 (M. Bezić, 2000).

Karta 3. Nalazi brončane plastike ptica iz kasnoga brončanog doba na prostoru Karpatske kotline i jugoistočnih Alpa (Daria Ložnjak Dizdar, 2005).

- 1 Poing (Njemačka), grob (Clausing 2001: Abb. 7, 1–2)
- 2 Donau bei Struden (Austrija), slučajni nalaz (Clausing 2001: Abb. 9, 2)
- 3 Siča/Lučica (Hrvatska), ostava (T. 6: 105)
- 4 Brodski Varoš (Hrvatska), ostava (Vinski-Gasparini 1973: 95, T. 56: 33)
- 5 Beravci (Hrvatska), ostava (Vinski-Gasparini 1973: T. 109: 10)
- 6 Boljanić (Bosna i Hercegovina), ostava (König 2004: 193–194, T. 19: 90)
- 7 Zemun (Srbija i Crna Gora), slučajni nalaz (Todorović 1971: 80, 94, T. XXXIX: 1, T. XLV: 5)
- 8 Futog (Srbija i Crna Gora), ostava (Borić 1997: 67, T. XI: 211)
- 9 Novi Bečej (Srbija i Crna Gora), ostava (Nađ 1955: 45, sl. 1)
- 10 Radujevci (Srbija i Crna Gora), slučajni nalaz (Vinski 1955: 39, sl. 29)
- 11 Satu Mare (Rumunjska), ostava (Petrescu-Dîmbovița 1977: 105, T. 182, 17)
- 12 Orăștie (Rumunjska), slučajni nalaz (Mozsolics 1977: 169, T. 7)
- 13 Lioara de Sus (Rumunjska) ostava (Petrescu-Dîmbovița 1977: 115, T. 247: 1)
- 14 Râșcruci (Rumunjska), ostava (Petrescu-Dîmbovița 1977: 104, T. 181: 6)
- 15 Sáradsadány (Mađarska), ostava (Mozsolics 1985: 184, T. 169: 12)
- 16 Zsujta (Mađarska), ostava (Mozsolics 1985: 217, T. 115)
- 17 Bobrovec/Komjatná (Slovačka), ostava (Novotná 1970a: 100, T. XXVIII)
- 18 Innsbruck-Wilten (Austrija), grob (Sperber 1992: 67, Abb. 5, 10)
- 19 Batina (Hrvatska), grobovi (Metzner-Nebelsick 2002: 612, T. 19: 8–10)

Karta 4. Rasprostranjenost razvodnika starije faze kulture polja sa žarama u Karpatskoj kotlini i jugoistočnim Alpama (puni krug – ukrašeni razvodnici; prazni krug – neukrašeni razvodnici) (Daria Ložnjak Dizdar, 2005).

- 1 Siča/Lučica (Hrvatska), ostava (T. 9: 158)
- 2 Malička (Hrvatska), ostava (Balen-Letunić 1985: 42, T. 2: 7)
- 3 Baierdorf (Austrija), grob (Lochner 1991: 25, T. 9: 5)
- 4 Mačkovac (Hrvatska), ostava (Vinski-Gasparini 1973: T. 73: 12)
- 5 Brodski Varoš (Hrvatska), ostava (Vinski-Gasparini 1973: T. 57: 46)
- 6 Poljanci II (Hrvatska), ostava (Bulat 1975: 15, T. XIII: 31–34)
- 7 Otok-Privlaka (Hrvatska), ostava (Vinski-Gasparini 1973: T. 28: 18–19)
- 8 Novi Bečej (Hrvatska), ostava (Nađ 1955: 44, T. V: 25a–b, 27a–b)
- 9 Markovac-Urvina (Srbija i Crna Gora), ostava (Rašajski 1971: 28–29, T. III: 12)
- 10 Caransebeș (Rumunjska), ostava (Petrescu-Dîmbovița 1977: 87, T. 125: 20–21)

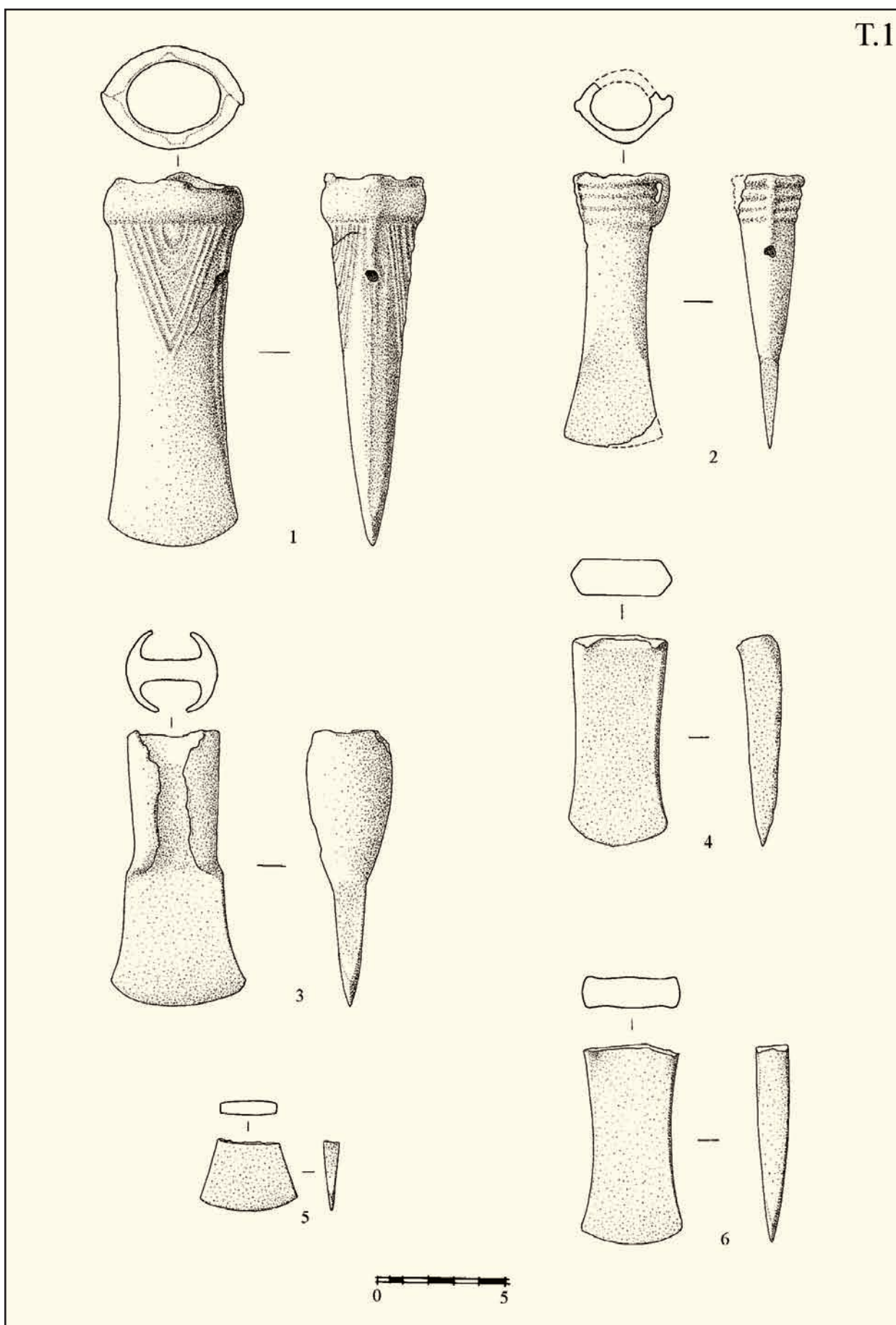
Plates 1–12 (M. Bezić, 2000).

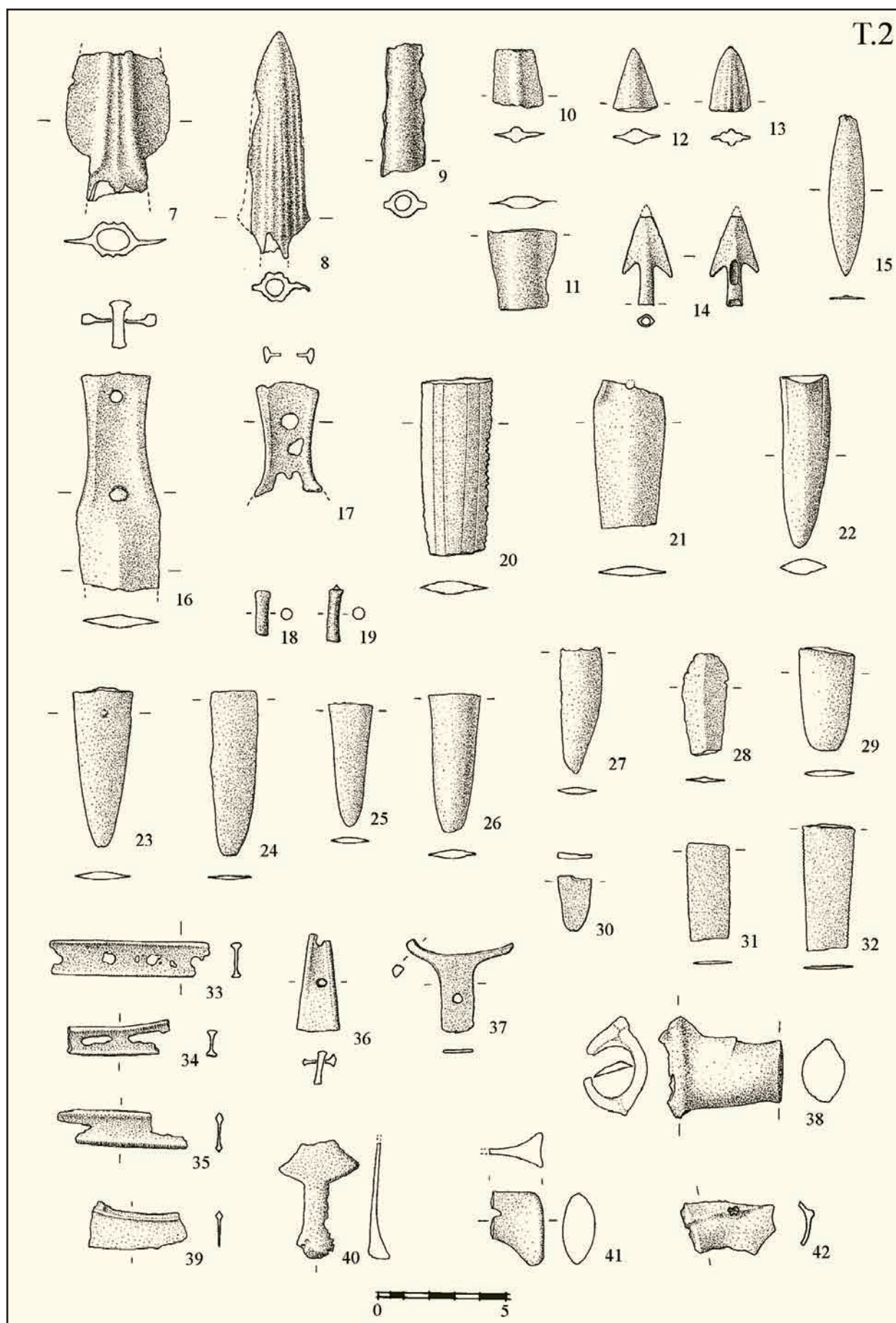
Map 3. Finds of bronze prominent birds from the Late Bronze Age in the Carpathian Basin and the South-east Alps (Daria Ložnjak Dizdar, 2005).

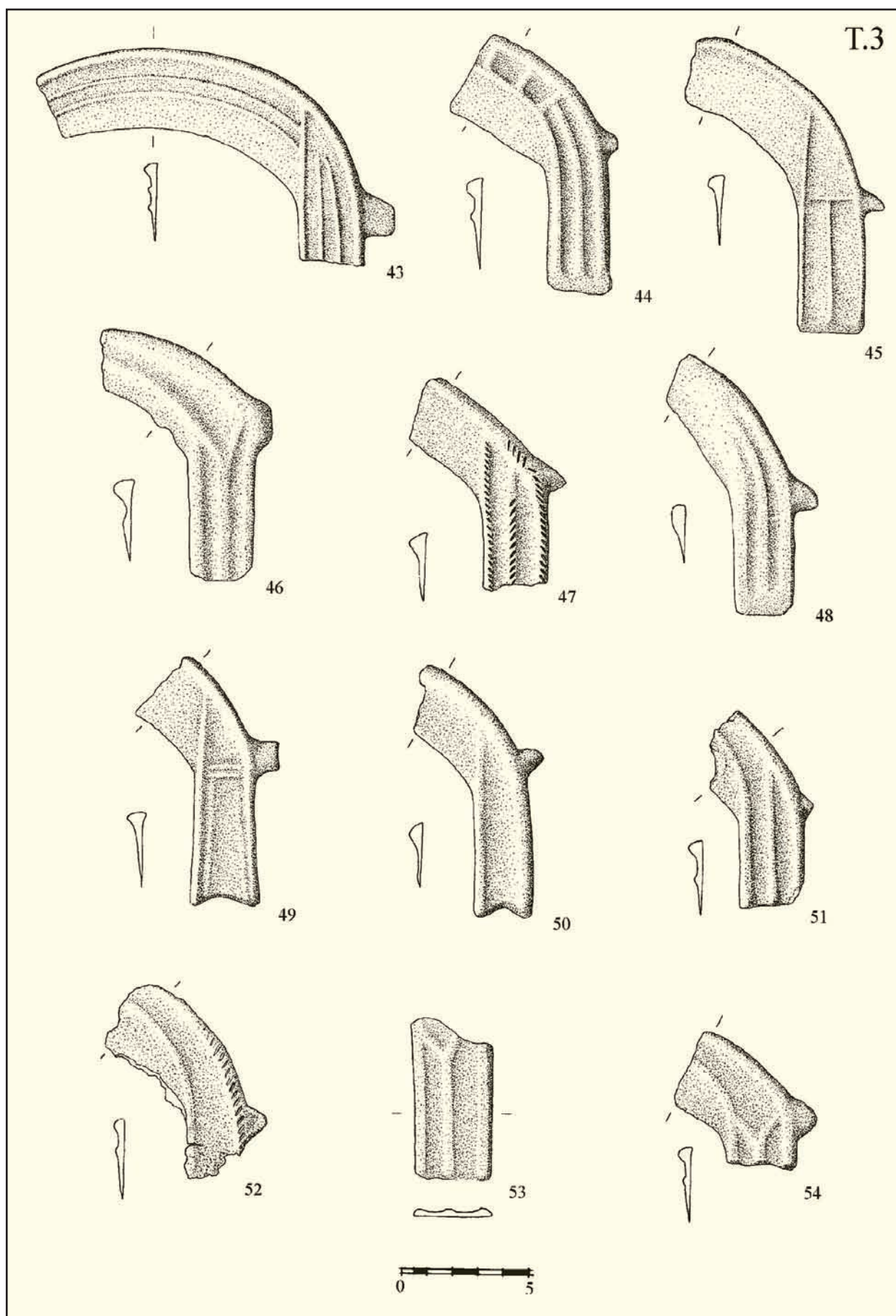
- 1 Poing (Germany), grave (Clausing 2001: Abb. 7, 1–2)
- 2 Donau bei Struden (Austria), chance find (Clausing 2001: Abb. 9, 2)
- 3 Siča/Lučica (Croatia), hoard (T. 6: 105)
- 4 Brodski Varoš (Croatia), hoard (Vinski-Gasparini 1973: 95, T. 56: 33)
- 5 Beravci (Croatia), hoard (Vinski-Gasparini 1973: T. 109: 10)
- 6 Boljanić (Bosnia-Herzegovina), hoard (König 2004: 193–194, T. 19: 90)
- 7 Zemun (Serbia-Montenegro), chance find (Todorović 1971: 80, 94, T. XXXIX: 1, T. XLV: 5)
- 8 Futog (Serbia-Montenegro), hoard (Borić 1997: 67, T. XI: 211)
- 9 Novi Bečej (Serbia-Montenegro), hoard (Nađ 1955: 45, Fig. 1)
- 10 Radujevci (Serbia-Montenegro), chance find (Vinski 1955: 39, Fig. 29)
- 11 Satu Mare (Romania), hoard (Petrescu-Dîmbovița 1977: 105, T. 182, 17)
- 12 Orăștie (Romania), chance find (Mozsolics 1977: 169, T. 7)
- 13 Lioara de Sus (Romania) hoard (Petrescu-Dîmbovița 1977: 115, T. 247: 1)
- 14 Râșcruci (Romania), hoard (Petrescu-Dîmbovița 1977: 104, T. 181: 6)
- 15 Sáradsadány (Hungary), hoard (Mozsolics 1985: 184, T. 169: 12)
- 16 Zsujta (Hungary), hoard (Mozsolics 1985: 217, T. 115)
- 17 Bobrovec/Komjatná (Slovakia), hoard (Novotná 1970a: 100, T. XXVIII)
- 18 Innsbruck-Wilten (Austria), grave (Sperber 1992: 67, Abb. 5, 10)
- 19 Batina (Croatia), graves (Metzner-Nebelsick 2002: 612, T. 19: 8–10)

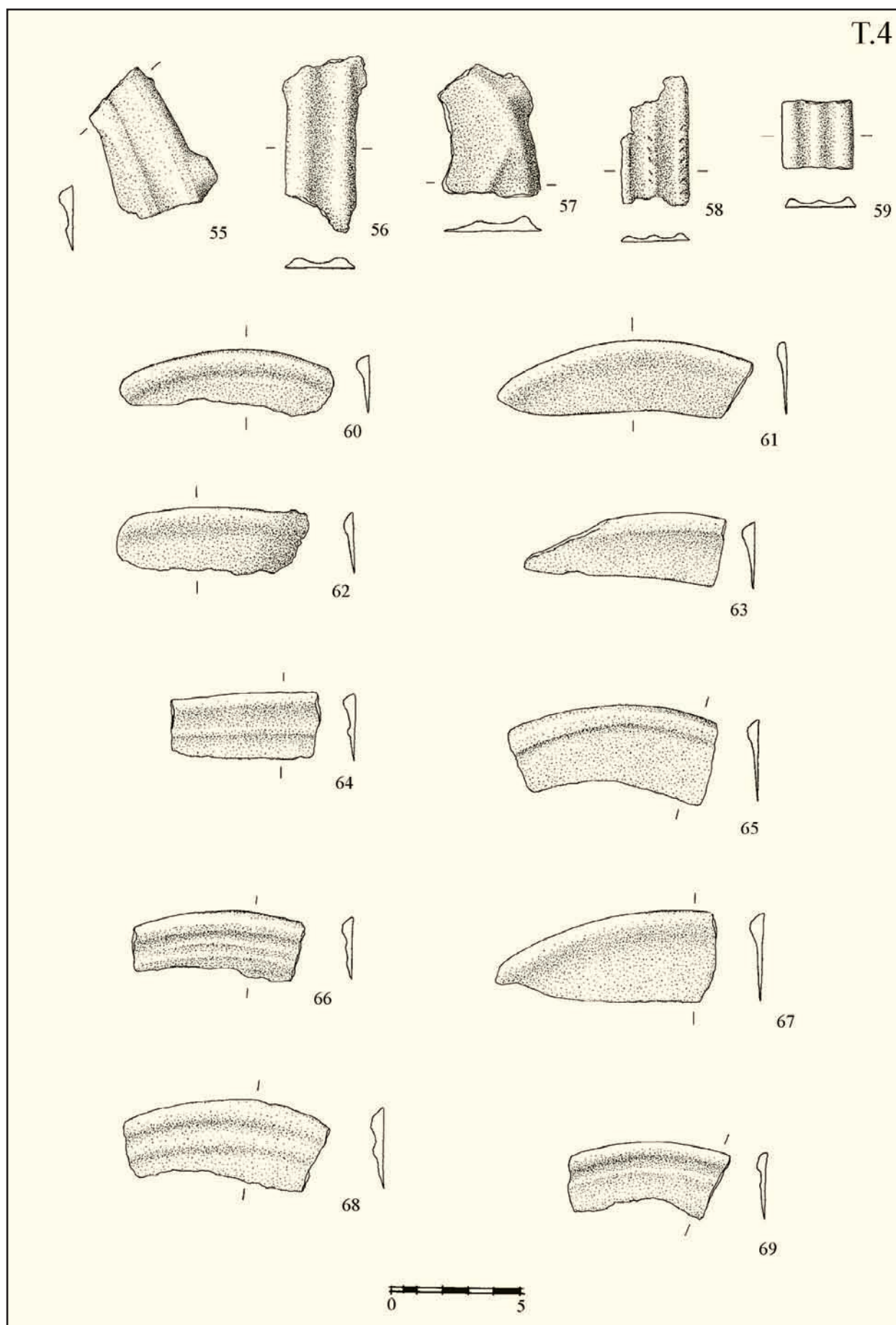
Map 4. Distribution of bridle straps of the older phase of the Urnfield culture in the Carpathian Basin and South-east Alps (solid circle – decorated bridle straps; hollow circle – undecorated bridle straps) (Daria Ložnjak Dizdar, 2005) 1 Siča/Lučica (Hrvatska), ostava (T. 9: 158).

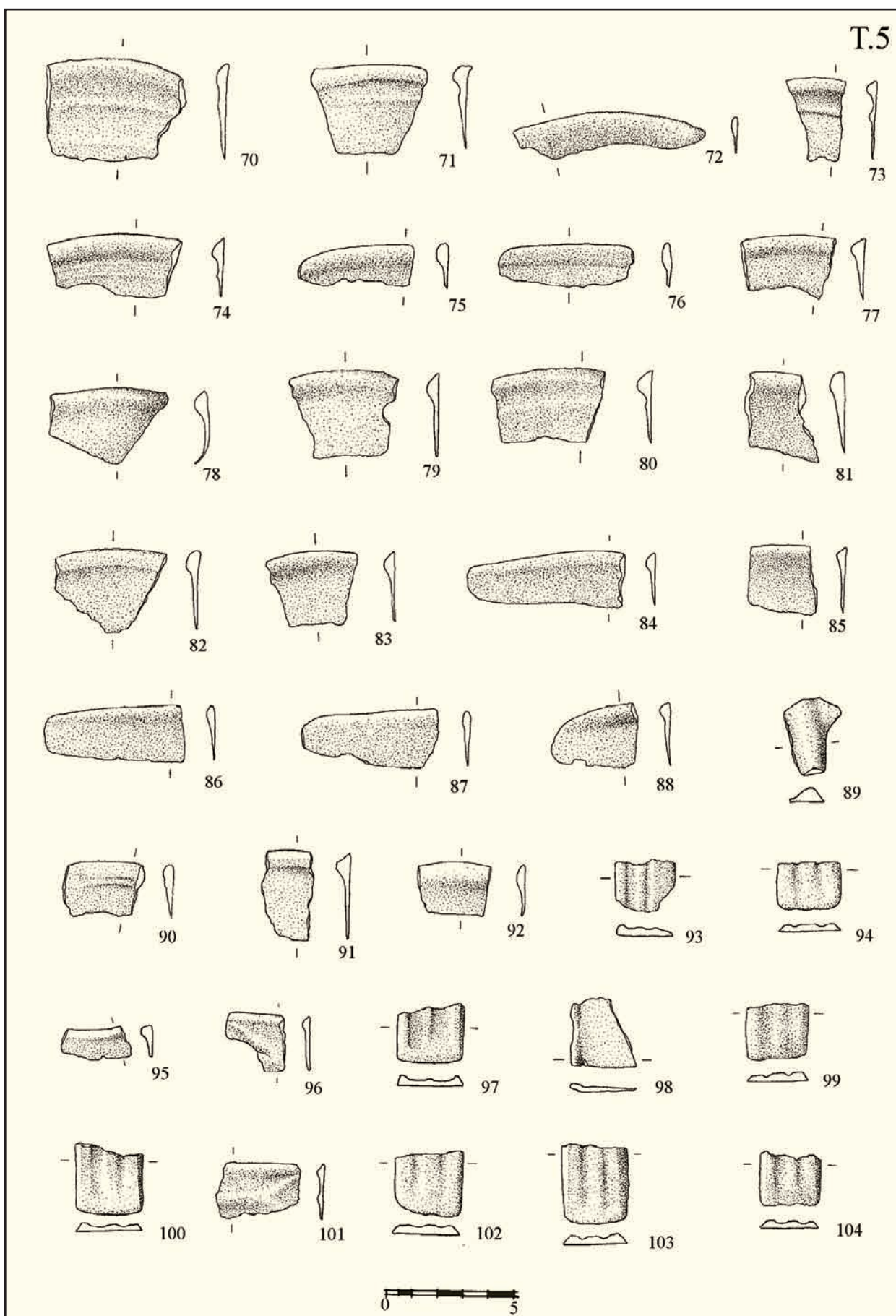
- 1 Siča/Lučica (Croatia), hoard (T. 9: 158)
- 2 Malička (Croatia), hoard (Balen-Letunić 1985: 42, T. 2: 7)
- 3 Baierdorf (Austria), grave (Lochner 1991: 25, T. 9: 5)
- 4 Mačkovac (Croatia), hoard (Vinski-Gasparini 1973: T. 73: 12)
- 5 Brodski Varoš (Croatia), hoard (Vinski-Gasparini 1973: T. 57: 46)
- 6 Poljanci II (Croatia), hoard (Bulat 1975: 15, T. XIII: 31–34)
- 7 Otok-Privlaka (Croatia), hoard (Vinski-Gasparini 1973: T. 28: 18–19)
- 8 Novi Bečej (Croatia), hoard (Nađ 1955: 44, T. V: 25a–b, 27a–b)
- 9 Markovac-Urvina (Serbia-Montenegro), hoard (Rašajski 1971: 28–29, T. III: 12)
- 10 Caransebeș (Romania), hoard (Petrescu-Dîmbovița 1977: 87, T. 125: 20–21)



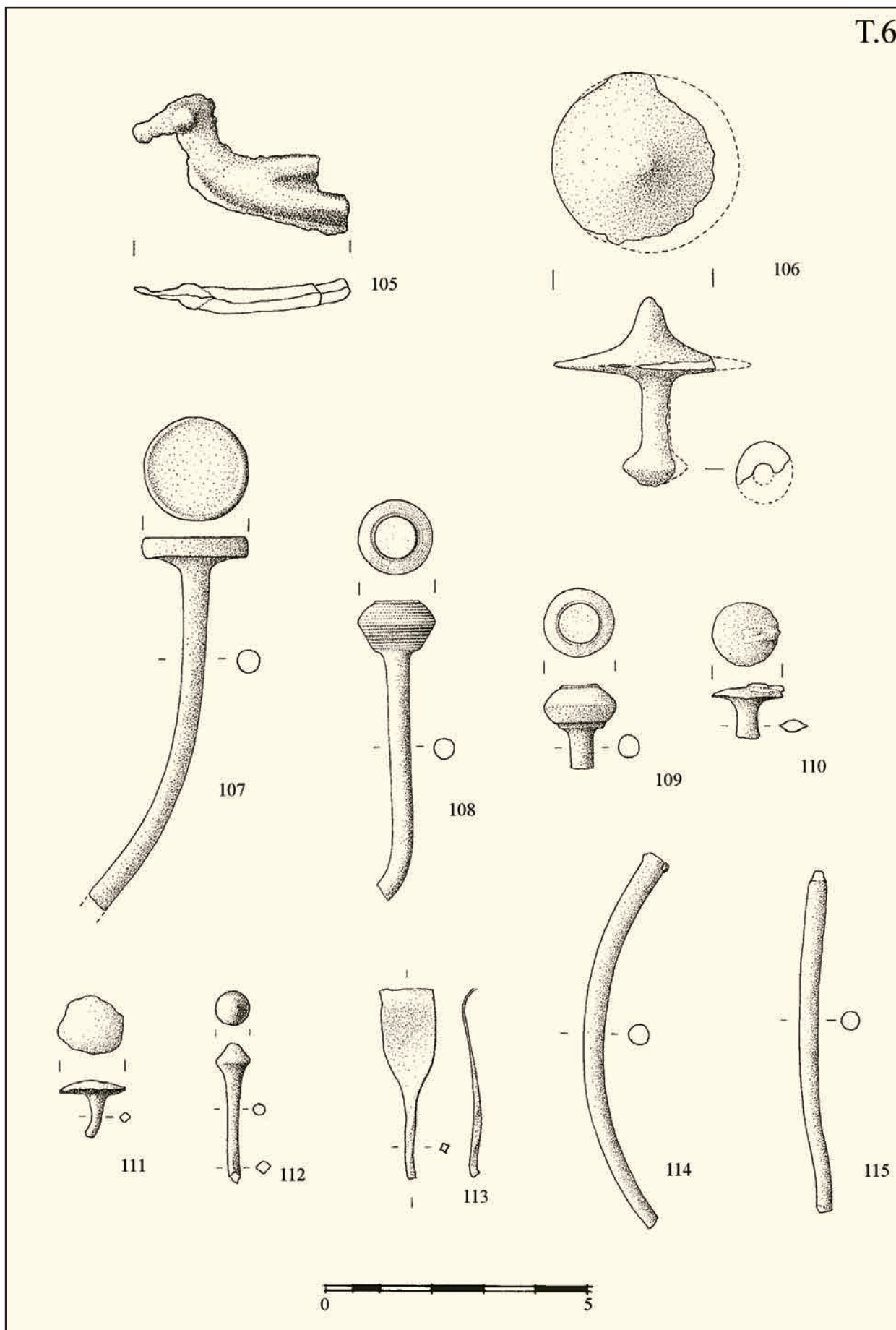


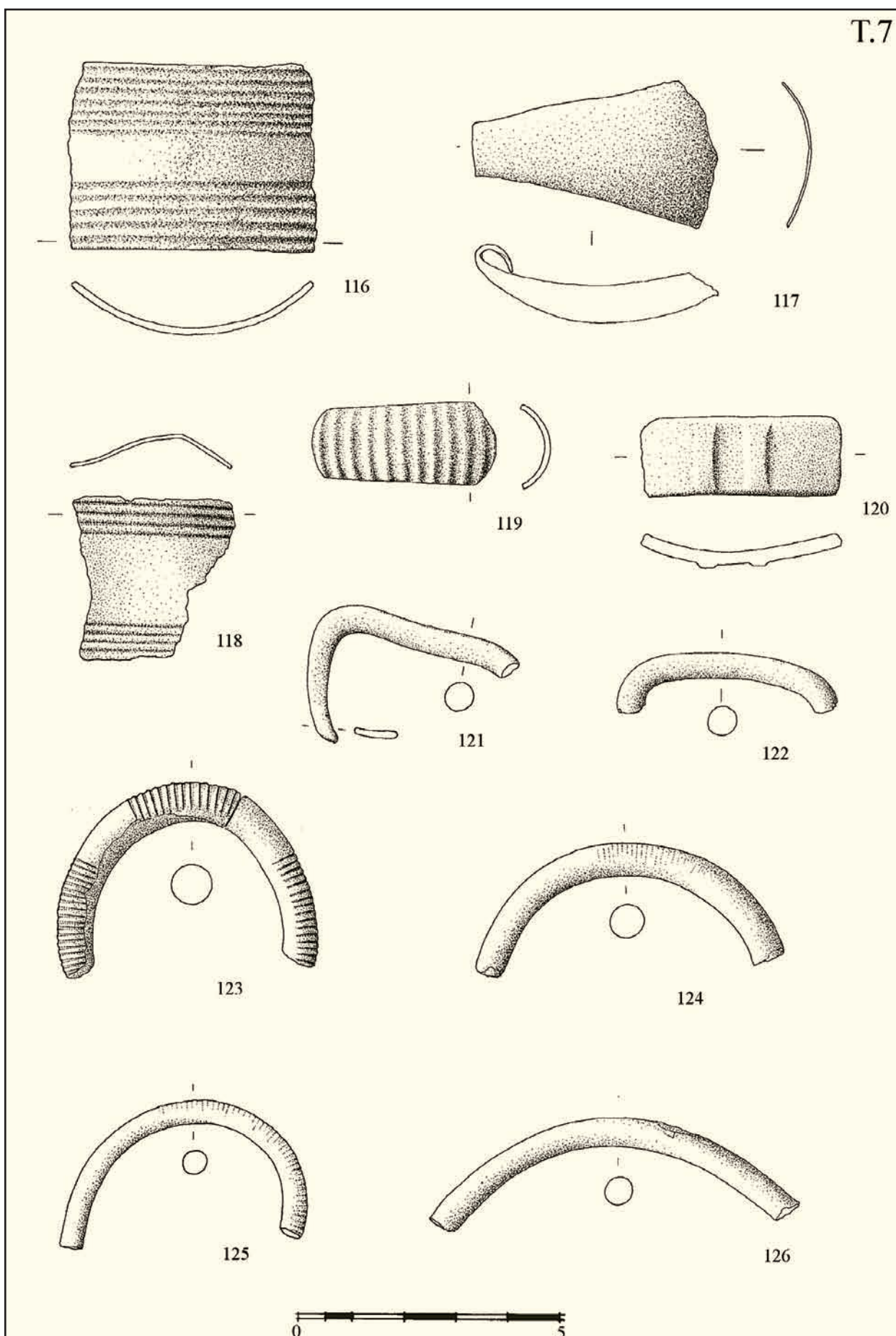


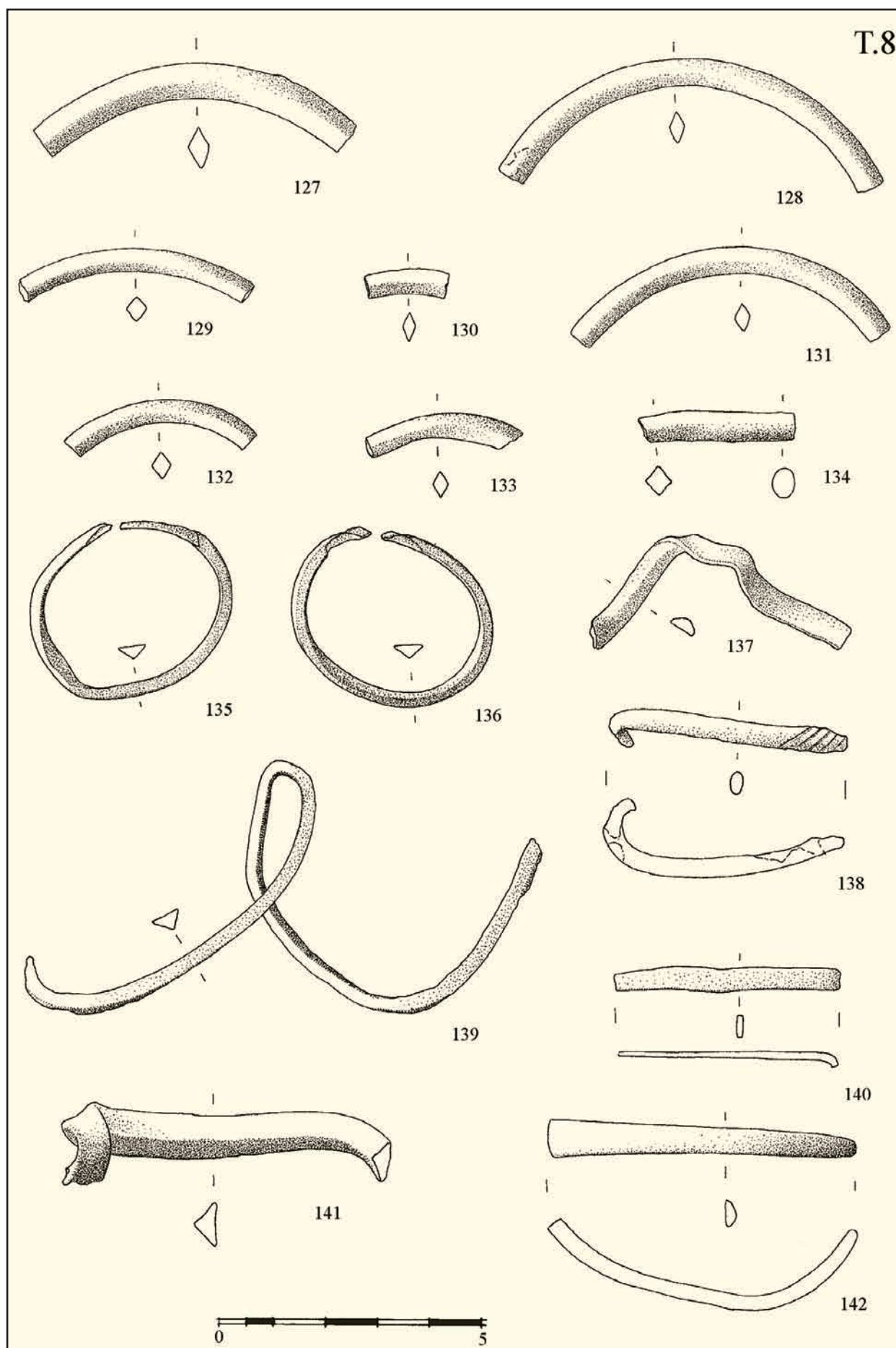


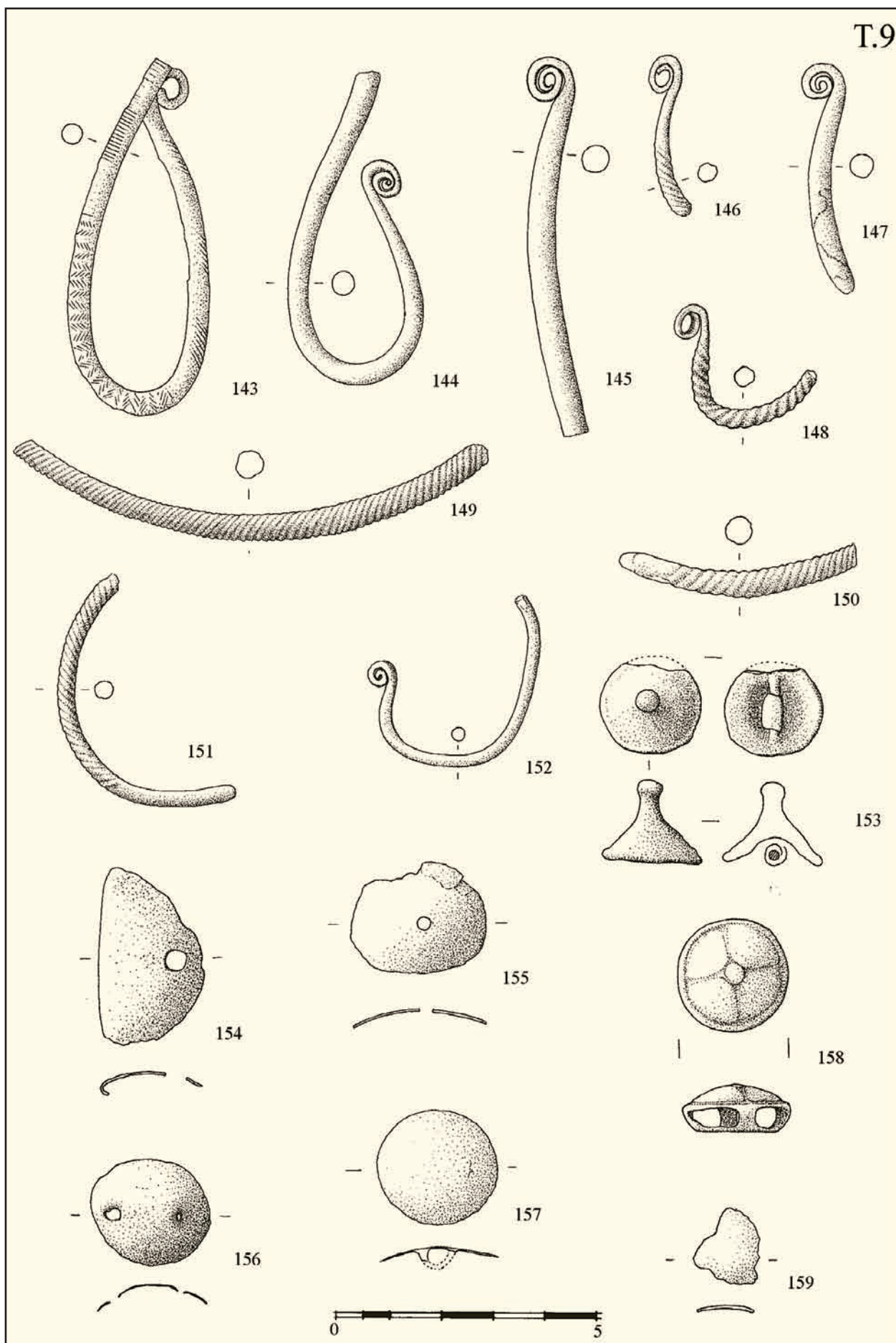


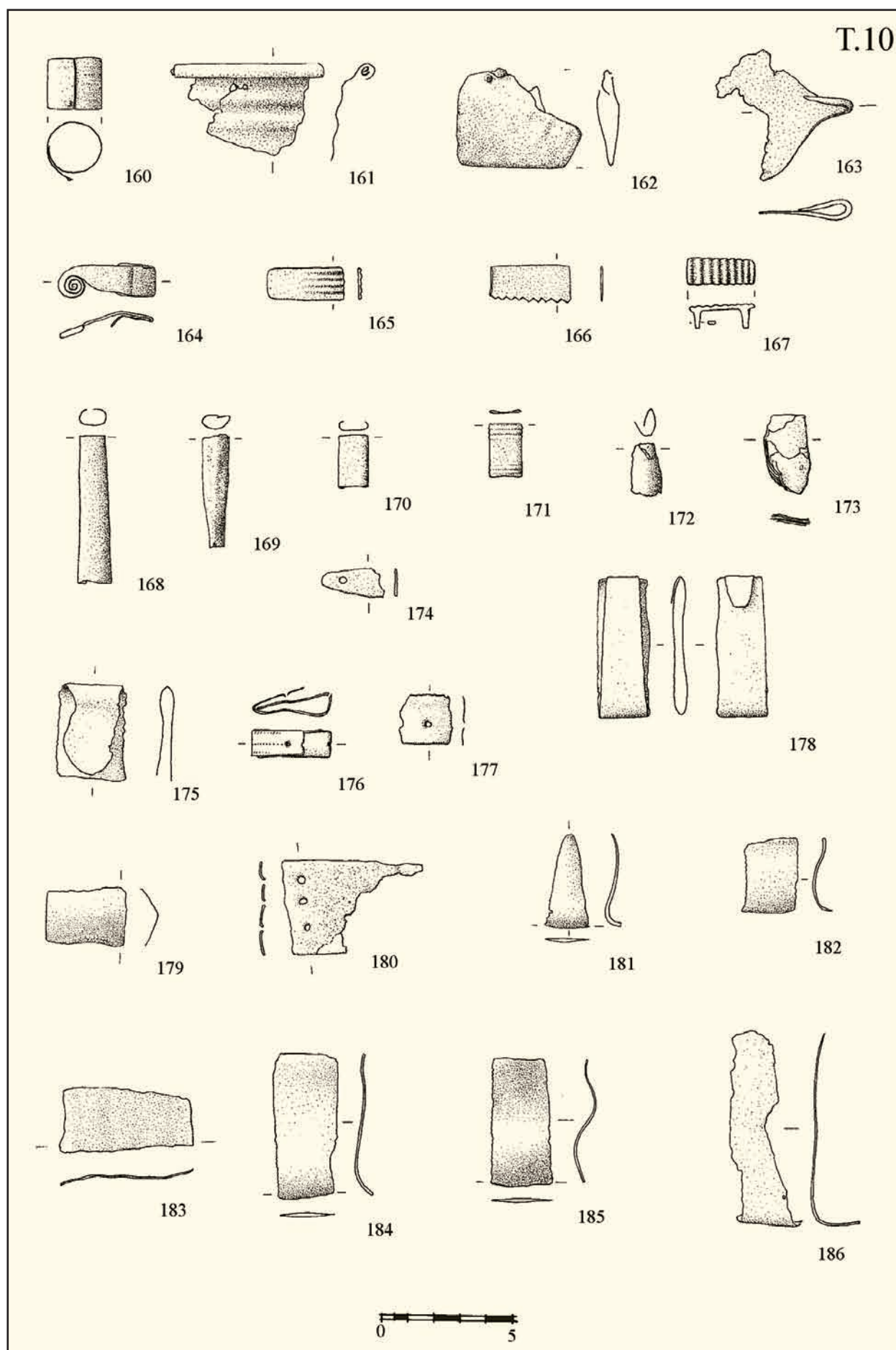
T.6

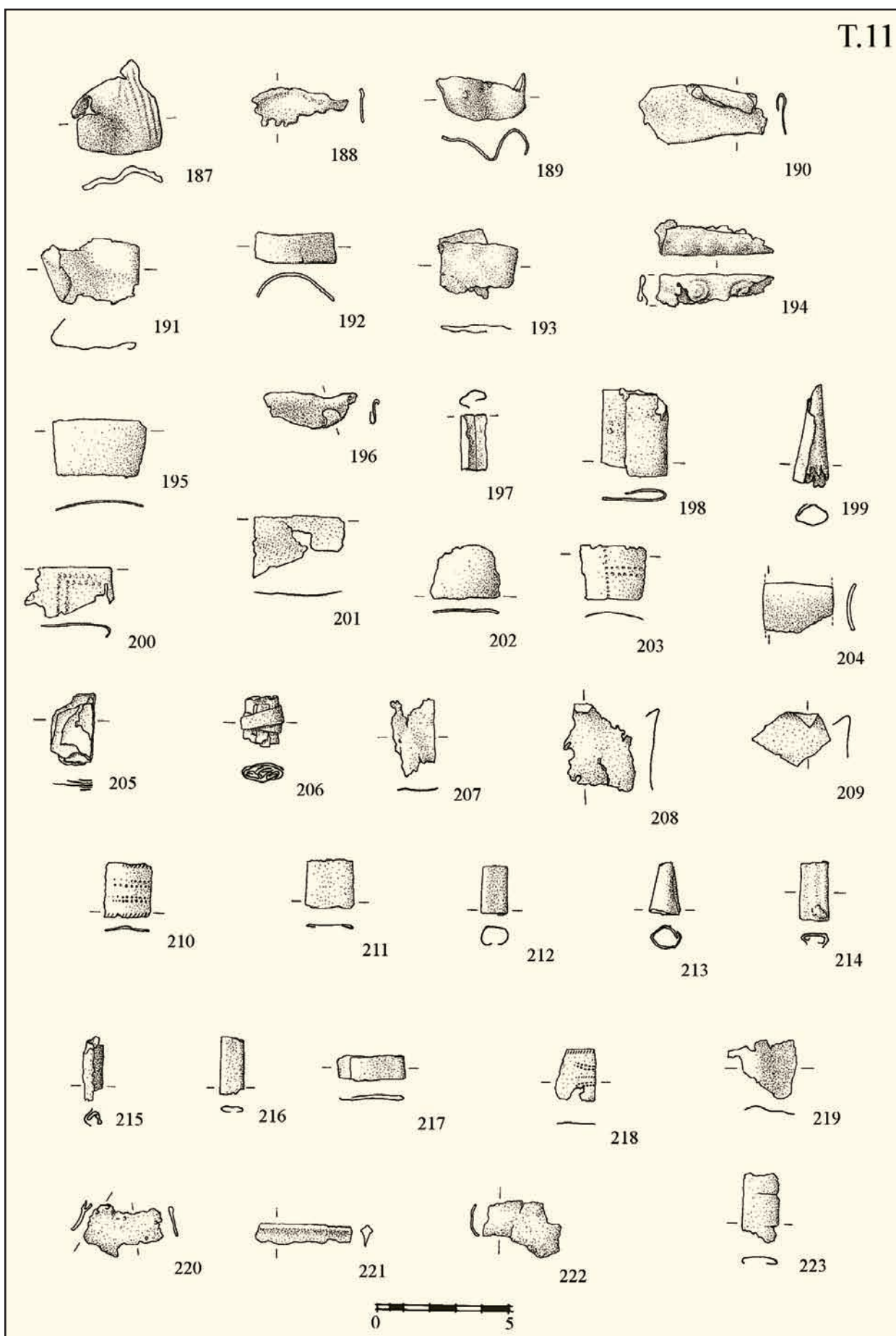


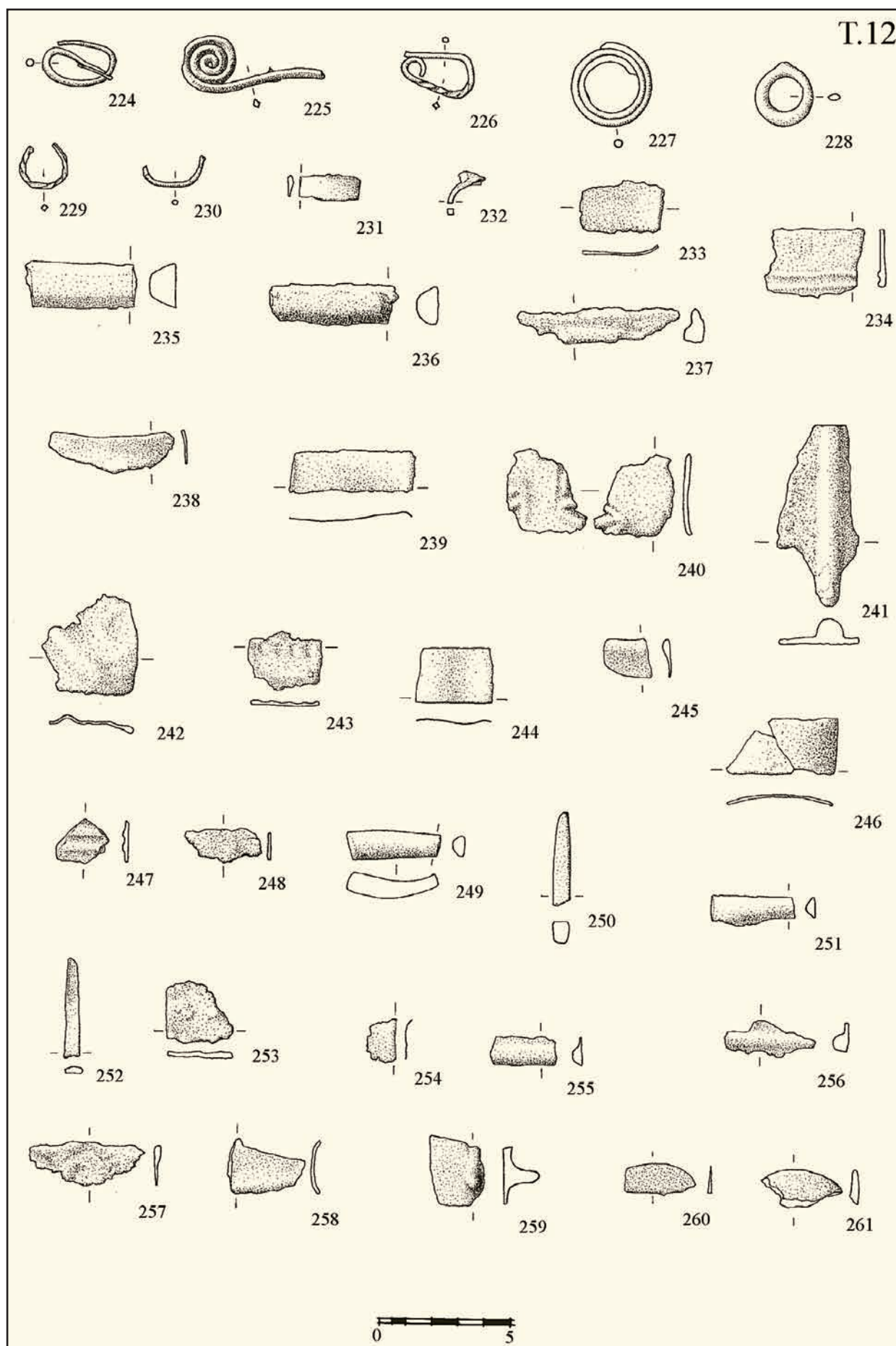












KRATICE / ABBREVIATIONS

AKorr	Archäologisches Korrespondenzblatt, Mainz
AV	Arheološki vestnik, Slovenska akademija znanosti in umetnosti, Ljubljana
PBF	Prähistorische Bronzefunde, München/Stuttgart
PJZ	Praistorija jugoslavenskih zemalja, Sarajevo
RVM	Rad vojvodanskih muzeja, Novi Sad
SlovA	Slovenská archeológia, Slovak Academic Press, Bratislava
VAMZ	Vjesnik Arheološkog muzeja u Zagrebu, 3. serija, Zagreb

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