

Poznoantični depo s Puštala nad Trnjem

Jože ŠTUKL

Izvleček

Članek obravnava poznoantično depojsko najdbo, ki je datirana v čas od druge polovice 4. do začetka oz. sredine 5. stoletja. Najdena je bila z detektorjem kovin na Puštalu nad Trnjem. Kot kažejo številne drobne najdbe, je bila naselbina prvič poseljena v starejši železni dobi in ponovno v antičnem in poznoantičnem obdobju. Depojsko najdbo sestavlja 13 predmetov, med katerimi so zastopani orodje, uporabni predmeti in orožje. Odtisi tkanine, ki so se na večini predmetov v manjših ali večjih zaplatah ohranili v korozijski plasti, kažejo, da je lastnik predmete najprej zavlil v platno in jih šele nato zakopal oziroma založil s kamenjem ob obrambnem zidu naselbine.

Prispevku je dodano poročilo analize železnega zvonca iz depojske najdbe, ki jo je z metodo EDS XRF opravil Zoran Milič v laboratoriju Narodnega muzeja Slovenije v Ljubljani. Izsledki analize kažejo, da je zvonec izdelan iz železa in prevlečen s tankim nanosom bronca s primesjo svinca in srebra.

Ključne besede: Puštal nad Trnjem, Stara Loka, Slovenija, prazgodovina, rimska doba, pozna antika, druga polovica 4., začetek 5. stol., depojska najdba, analiza kovine zvonca

UVOD

Puštal¹ je 559 m visok hrib nad vasjo Trnje v neposredni bližini Podlubnika in Stare Loke. Hrib se v ljudskem izročilu že dolgo omenja kot najdišče raznih starin. Njegova ugodna strateška lega ob vstopu v Selško dolino, dobra naravna zavarovanost in bližina vode² so privlačili ljudi v različnih časovnih obdobjih, ki so v varnem zavetju hriba postavili svoja bivališča. Kot kaže današnje stanje

Abstract

The article discusses a hoard from late Antiquity, dated to the period from the second half of the 4th to the beginning or middle of the 5th century. It was found with a metal detector at Puštal above Trnje. As is indicated by the numerous small finds, the settlement was first inhabited in the early Iron Age, and was resettled in the Roman period and late Antiquity. The hoard consist of 13 objects, including tools, objects of everyday use, and weapons. The impressions of fabrics that were preserved on the majority of objects in large or small patches in the corrosion layer indicate that the owner of the objects first wrapped them in linen and then buried them, or rather concealed them with stones along the defensive wall of the settlement.

The article is supplemented by a report on the analysis of the small iron bell from the hoard, which was performed by Zoran Milič in the laboratories of the National Museum of Slovenia in Ljubljana using the EDS XRF method. The results of analysis show that the bell was made from iron and coated with a thin layer of bronze with an admixture of lead and silver.

Keywords: Puštal above Trnje, Stara Loka, Slovenia, pre-history, Roman period, late Antiquity, second half of the 4th century, beginning of the 5th century, hoard, analysis of the metal of the belly

raziskav, je bil hrib poseljen v več časovnih obdobjih. Prvič v starejši železni dobi in kasneje v antičnem in poznoantičnem obdobju.

PRAZGODOVINA

Leta 1954 so pod strokovnim vodstvom prof. Staneta Gabrovca, kustosa iz Narodnega muzeja v Ljubljani, na Puštalu izkopali šest poizkusnih

¹ Poleg imena Puštal nad Trnjem se pojavlja tudi drugo ime Gradišče na Rovneh.

² V severovzhodnem predelu Puštala izvira močan studenec, ki ne presahne niti v najbolj sušnih poletjih. Danes je vključen v vodovodno omrežje in napaja vodovod v vasi Trnje.

sond, s katerimi so potrdili obstoj halštatskega gradišča z ostanki zidane arhitekture in številnimi keramičnimi najdbami. Kot je pokazalo sondiranje, je bila naselbina obdana s suhim zidom in obrambnim nasipom.³

RIMSKA DOBA

Na začasno poselitev ali samo krajše obiske Puštala v času 1. in 3. stoletja nas opominjata novi, še neobjavljeni naključni najdbi močno profilirane fibule in novca cesarja Septimija Severa. Fibulo z dvema nakazanima okroglima predrtinama na nogi, ki ustreza varianti 2 močno profiliranih fibul z oporno ploščico peresovine po Bojoviću,⁴ časovno uvrščamo v 1. stoletje. V nekoliko kasnejši čas sodi denarius cesarja Septimija Severa (193-211), kovan v Rimu med leti 202-210.⁵

POZNA ANTIKA

Puštal je bil zanesljivo spet trajno poseljen v poznoantičnem obdobju, na kar nas poleg arhitekturnih ostankov, katerih obrise lahko zaslutimo na terenu, opozarjajo številne drobne najdbe, pridobljene predvsem z detektorji kovin s strani nearheologov.

V poizkusnih sondah, ki so jih izkopal leta 1954, so poleg prazgodovinskega gradiva odkrili tudi odlomke poznoantičnih glinenih posod s porozno površino in dele posod, prevlečene s steklastim loščem rumenkastozelene ali zelene barve, ki sodijo v čas 4. in prve polovice 5. stoletja.⁶ Od drobnih kovinskih najdb lahko romaniziranim staroselecem pripišemo bronasto fibulo v obliki goloba,⁷ ki sodi v čas 5. ali 6. stoletja. Ptica ima peruti nakazane s po dvema vrezoma, rep pa krasijo štirje krožci s piko v sredini.

Zelo zanimiva najdba je okroglo nomadsko ogledalo z ušescem tipa Čmi-Brigetio. Tovrstna ogledala so v Evropo prišla s Huni, prevzeli pa so

jih tudi Germani. Na slovenskem prostoru so redka, doslej poznamo le tri primerke. V celoti ohranjeno ogledalo izvira iz poznoantične naselbine Sv. Jakob nad Potočami pri Preddvoru,⁸ delno ohranjeno ogledalo pa z Zidanega gabra nad Mihovim.⁹ Ogledala s Puštala¹⁰ manjka skoraj polovica. Ulito je iz belega brona, na sprednji strani ravno, na zadnji pa ima okras, sestavljen iz koncentričnih in radialnih plastičnih reber. V sredini vsakega prekata je okrogla izboklinca. Datiramo ga lahko na konec 4. in v 5. stoletje.

Na čas vzhodnogotske vladavine nas opozarjata srebrn novc, četrtsilivka vzhodnogotskega vladarja Teoderika (471-526), ki je bil kovan med leti 518 in 526,¹¹ ter odlomek pozlačene srebrne ločne fibule.¹² Ohranjen je del vzdolžno narebrenega loka in del noge trapezaste oblike z ležiščem za iglo na spodnji strani. Na najširšem delu noge sta na vogalih vstavljena v okrogli ležiščici polkroglasto brušena granata. Fibula sodi v čas konca 5. in prvo polovico 6. stoletja.

Med keramičnim gradivom, izkopanim leta 1954, je tudi odlomek sivočrno žganega glajenega lončka z mrežastim okrasom, ki je značilen izdelek langobardskega lončarstva iz druge polovice 6. stoletja.¹³

DEPOJSKA NAJDBA

Aprila leta 2002 je inž. geologije Tomaž Budkovič podaril arheološkemu oddelku Loškega muzeja depojsko najdbo, ki jo je leta 1983 našel z detektorjem kovin na Puštalu. Po podatkih najditelja je najdba ležala za vzhodnim zidom kompleksa (*sl. 1*), 20 cm globoko, založena s kamenjem. Založno najdbo sestavlja skupno 13 predmetov, med katerimi je 5 železnih dlet, 2 puščični osti, del verige za obešanje kotla, zvit ročaj kotla z atašama, železen zvonec, trakast okov ter dva nedoločljiva železna fragmenta. Na večini predmetov so se v korozijski plasti v večjih ali manjših zaplatah ohranili odtisi tkanine (*sl. 2*), v katero so bili predmeti zaviti, preden jih je lastnik za-

³ Gabrovec 1984, 1-2.

⁴ Bojović 1983, 33.

⁵ Za določitev novca se najlepše zahvaljujem Alenki Miškec iz numiznatičnega kabineta Narodnega muzeja Slovenije v Ljubljani.

⁶ Šubic 1998, 27.

⁷ Knific, Sagadin 1991, 75, kat. št. 72; Šubic 1998, 27.

⁸ Valič 1990, 435, sl. 5.

⁹ Pflaum 2000, 130.

¹⁰ Bitenc, Knific 2001, 31, kat. št. 83.

¹¹ Šubic 1998, 27, op. 34.

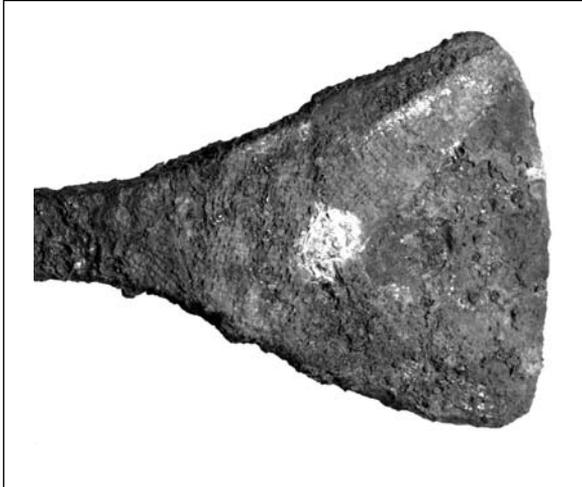
¹² Bitenc, Knific 2001, 68, kat. št. 212.

¹³ Šubic 1998, 27.



Sl. 1: Puštala nad Trnjem, načrt naselbine z mestom najdbe, označenim s piko (hrani Loški muzej).

Fig. 1: Puštala above Trnje, plan of the settlement with the site of the hoard find, marked with a dot (in the Museum of Škofja Loka).



Sl. 2: Odtis platna na železnem dletu, ki se je ohranil v korozijski plasti (foto: Zoran Milič).

Fig. 2: Cloth impression on an iron chisel, preserved in the corrosion layer (photo: Zoran Milič).

kopal. Iz ohranjenih odtisov tkanine se lepo vidi, da gre za platno.¹⁴

V depojski najdbi so glede na funkcijo zastopani trije tipi predmetov: orodje, uporabni predmeti in orožje.

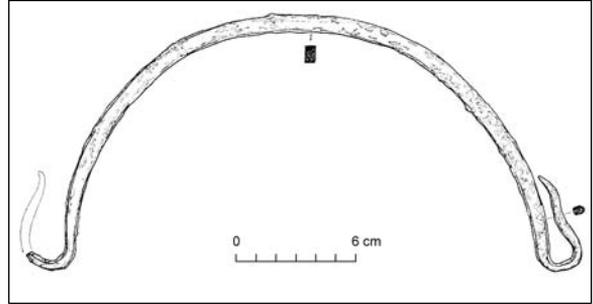
Orodje

K orodju prištevamo pet železnih dlet (*t. 1*: 1-5), ki so se uporabljala za oblikovanje in dolbljenje lesa. Vsako dleto se je s pomočjo dolgega železnega trna nasadilo na lesen ročaj. Širine rezil se gibljejo od 3,3 do 4,6 cm. Glede na obliko in funkcijo jih lahko opredelimo kot rezbarsko orodje.

Uporabni predmeti

Med uporabne predmete prištevamo del železne verige za obešanje kotla (*t. 3*: 13), ročaj kotla (*t. 2*: 12) in železen zvonec (*t. 2*: 11).

Železna veriga za obešanje kotla nad ognjišče ni ohranjena v celoti. Ohranjen je le en železen



Sl. 3: Železen ročaj kotla z Vipote nad Pečovnikom (Ciglencečki, Pirkmajer 1987, t. 1: 5).

Fig. 3: The iron handle of a kettle from Vipota above Pečovnik (Ciglencečki, Pirkmajer 1987, Pl. 1: 5).

obroč in spodnji zaključni tordirani člen s kavljem za obešanje. Verige za kotel so v Sloveniji zelo maloštevilne. Izven naših meja poznamo številne primerke iz latenskega in rimskega cesarskega obdobja,¹⁵ medtem ko se v poznoantičnih inventarjih od 4. do 6. stoletja skoraj ne pojavljajo.

Preprost železen ročaj kotla z ohranjenima atashama za pritrnitev je prepognjen. Lastnik ga je očitno z namenom, da bi ročaj zavzel čim manj prostora, upognil, preden ga je zavil v platno in zakopal. Podobni železni ročaji so bili pri nas najdeni na poznoantičnih naselbinah Vipota nad Pečovnikom pri Celju (*sl. 3*), Korinskem hribu¹⁶ in Velikem vrhu nad Osredkom pri Podsredi (*sl. 4*).¹⁷ Vsi trije ročaji so opredeljeni kot ročaji veder.¹⁸

Zelo zanimivo analogijo izven slovenskega prostora predstavlja zakladna najdba s Stupa pri Sarajevu. Založno najdbo iz rimske dobe,¹⁹ ki poleg meča ter najrazličnejšega obrtniškega in poljedelskega železnega orodja vsebuje tudi kuhinjsko opremo (*sl. 5*), je lastnik pred bližajočo se nevarnostjo v naglici zakopal.²⁰

Za nas sta najzanimivejša dva v celoti ohranjena bakrena kotla z železnima ročajema. Večji ima povsem identičen ročaj, kot ga srečamo na Vipoti nad Pečovnikom. Ročaj manjšega kotla pa je predvsem po obliki nazaj zapognjenih koncev zelo blizu ročaju s Puštala, vendar pa se zdi, da so atase drugačne, čeprav njihova oblika s slike žal ni povsem razvidna. Na podlagi zakladne najdbe s Stupa lahko

¹⁴ Da gre pri odtisu tkanine dejansko za platno, je potrdila mag. Gojka Pajagič Bregar iz Narodnega muzeja Slovenije v Ljubljani, za kar se ji na tem mestu najlepše zahvaljujem.

¹⁵ Jacobi 1974, 111-115, Abb. 28, Taf. 34: 592; Weinrich-Kemkes 1993, 259-265, Abb. 6-8; Künzl 1993, T. 1, 238, Abb. 5-6; T. 2, 51-54, E 64-96, Typentaf. 13-15; T. 3, Taf. 274-286.

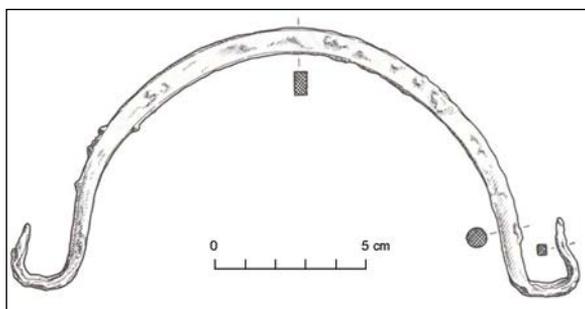
¹⁶ Neobjavljeno.

¹⁷ Ciglencečki, Pirkmajer 1987, 223-224, t. 1: 5; Ciglencečki 1990, 149, št. 17, t. 2: 2, 152, op. 25, 26.

¹⁸ Ciglencečki, Pirkmajer 1987, 224; Ciglencečki 1990, 152.

¹⁹ Depojska najdba je bila zakopana ob zahodnem temelju rimske hiše, ki jo Čremošnik na podlagi novčnih najdb in grobov v neposredni bližini datira v čas okrog leta 300. Hiša je bila kmalu po tem času opuščena.

²⁰ Čremošnik 1930, 214-215, 223.



Sl. 4: Železen ročaj kotla z Velikega Vrha nad Osredkom pri Podsredi (Ciglencečki 1990, t. 2: 2).

Fig. 4: The iron handle of a kettle from Veliki Vrh above Osredok near Podsreda (Ciglencečki 1990, Pl. 2: 2).

z veliko verjetnostjo trdimo, da so železni ročaji z Vipote, Velikega vrha in s Puštala pripadali kotlu in ne vedru. Ker ima ročaj kotla z Vipote neposredno analogijo v večjem kotlu s Stupa, lahko rekonstruiramo njegovo obliko. Pri ostalih dveh pa zgolj na podlagi ohranjenih ročajev njune oblike ne moremo točno določiti.

Oglat železen zvonec, škatlaste oblike, z bronasto prevleko²¹ in s pravokotno odprtino je narejen iz enega kosa precej debele železne pločevine s simetričnima polovicama, ki sta ob straneh spojeni z zakovnim šivom in po eno zakovico. Na vrhu je skozi plašč vdet trakast obroček. Zgornja polovica obročka, ki se ni ohranila v celoti, je služila za ročaj, spodnja pa za obešanje kemblja. Tudi kembelj v našem primeru manjka. Na podlagi navedenih lastnosti zvonec uvrščamo v tretji tip železnih zvoncev po T. Knificu in I. Murgelj.²²

Zvonec se kot "zveneča posoda" pojavi in uporablja v civilizacijah Bližnjega vzhoda, v Egiptu in Izraelu. V klasičnem svetu Grčije in Rima je eden od mnogoterih idiofonskih instrumentov. V različnih oblikah in z različnimi imeni ga prevzame tudi krščanstvo. V rimskem času so zvonci narejeni iz različnih kovin, tudi iz železa. Uporabljali so jih kot glasbila, za nakit, v magiji, pri različnih kultih, ob verskih obredih. Pripisovali so jim tudi apotropijske moči. Ljudje so verovali, da jih zvonec lahko obvaruje nesreče, da mrtveca brani pred demoni. Obešen na vratu domače živali naj bi odvrčal vražje poglede, zato so zvonce obešali na konje, ovce, svinje, mule in celo na pse.²³

Kakšnemu namenu je služil zvonec s Puštala, je težko reči. Najverjetneje ga lahko povežemo z živinorejo, ki je bila v poznorimskem obdobju, kamor lahko naš zvonec s pomočjo spremnih najdb zanesljivo časovno umestimo, v velikem porastu, o čemer priča predvsem arheološko gradivo (živinski zvonci, glavniki za volno, škarje za striženje ovac, žigi). Predvsem povečano število živinskih zvoncev govori o številnih čredah. Na najdiščih prevladujejo kosti goveda. V južni Evropi govedoreja na manjših gospodarstvih ni izraziteje upadla vse do 6. stoletja.²⁴

Orožje

K orožju spadata dve deltoidni pušični osti (*t. 2: 6,7*), najbolj zanimivi najdbi, s pomočjo katerih lahko datiramo celotno založno najdbo. Daljša pušična ost (*t. 2: 6*) ima nazaj zavihano konico, po čemer lahko sklepamo, da je bila izstreljena z loka oblegalcev na naselbino in je verjetno zadela v obrambni zid.

Železne deltoidne pušične osti so v gradivu poznoantičnih postojank redke. Na slovenskem prostoru je bilo več tovrstnih pušičnih osti odkritih na poznoantični in zgodnjerednjeveški naselbini Tinje nad Loko pri Žusmu, Ančnikovem gradišču pri Jurišni vasi in Rodiku, posamezne pa na Brinjevi gori, Rifniku in v Ljubljani. Izven slovenskih meja jih srečamo na Frauenbergu pri Lipnici na avstrijskem Štajerskem in na sosednjem Hrvaškem, kjer so bile najdene na Kuzelinu pri Donji Glavnici, v Varaždinskih Toplicah in Ludbregu.²⁵ Pomembno analogijo predstavljajo deltoidne pušične osti s poznorimske utrdbe Kuzelin pri Donji Glavnici, ki so glede na sistematično raziskano naselbino zelo dobro datirane v drugo polovico 4. in začetek 5. stoletja.²⁶ Zanesljivost datacije deltoidnih pušičnih osti s Kuzelina potrjuje grob 229, ki je bil odkrit v južnem predelu poznoantičnega grobišča Frauenberg pri Lipnici. Med pridatki pokojnika, starega od 25-35 let, je bilo 37 deltoidnih pušičnih osti, sulična ost, železen nož z ostanki koščenega držaja in usnjene nožnice, pasna sporna, dva okova in kresilo. Sulična ost in pušične osti so ležale in situ ob desnem humerusu.²⁷

²¹ Analizo zvonca z metodo EDS XRF je opravil Zoran Milič v laboratoriju Narodnega muzeja Slovenije v Ljubljani. Pri tem je bilo ugotovljeno, da je jedro železno, površina pa prekrita s tankim nanosom bronca s primesjo svinca in srebra.

²² Knific, Murgelj 1996, 49.

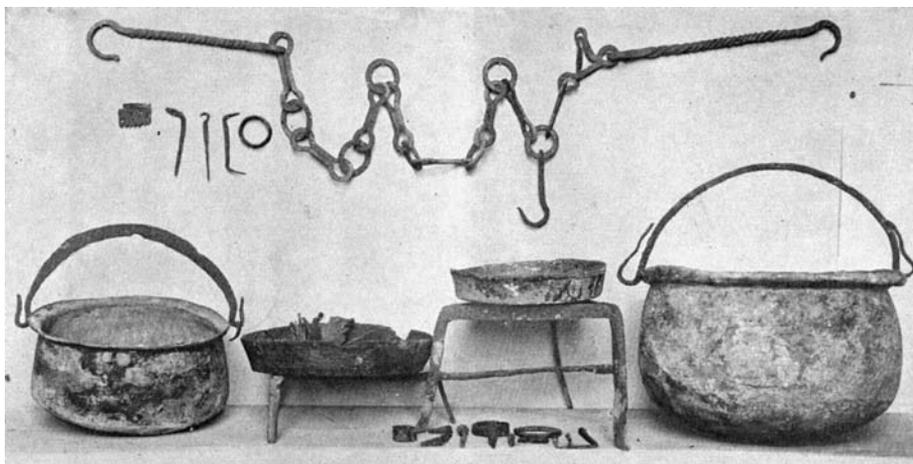
²³ Knific, Murgelj 1996, 49-50.

²⁴ Knific, Murgelj 1996, 50.

²⁵ Ciglencečki 2000, 55-56.

²⁶ Sokol 1998, 13, 24-25.

²⁷ Steinklauber 2002a, 492.



Sl. 5: Bakrena kotla z železnima ročajema, skupaj z ostalo kuhinjsko opremo iz zakladne najdbe Stup pri Sarajevu (Čremošnik 1930, t. 14).
 Fig. 5: Copper kettles with iron handles, together with the rest of the kitchen equipment from the hoard found at Stup near Sarajevo (Čremošnik 1930, Pl. 14).

Pasna spona z locnom v obliki črke D in srčasto oblikovanim okovom je okrašena s punciranimi krožci s piko v sredini. Najverjetneje jo lahko opredelimo kot imitacijo vojaških pasnih spon, okrašenih s klinastim vrezom, ki se pojavljajo ob donavsko - renskem limesu od zadnje tretjine 4. do prvega desetletja 5. stoletja.²⁸

Železni sulični osti s trikotnim listom rombičnega in nasadnim tulom osemkotnega preseka najdemo lepo analogijo na poznoantični naselbini Limberk nad Veliko Račno, kjer je datirana v čas okrog leta 400.²⁹

Med pridatki je bilo poleg noža tudi kresilo, ki ga uvrščamo v germanski oblikovni krog in datiramo v 4./5. stoletje.³⁰

Grobno celoto lahko glede na pridatke umestimo v čas od sredine 4. do sredine 5. stoletja, kar predstavlja hkrati tudi časovni razpon grobišča.³¹

Prav na podlagi obeh deltooidnih puščičnih osti, ki ju lahko s pomočjo omenjenih analogij natančno časovno umestimo, našo založno najdbo s Puštala datiramo v čas od druge polovice 4. do začetka oz. sredine 5. stoletja.

KATALOG

Vse spodaj opisane predmete hrani Loški muzej Škofja Loka.

1. Dleto, železo, dl. 14,7 cm, šir. rezila 3,3 cm, inv. št. AR 244.

2. Dleto, železo, dl. 14,3 cm, šir. rezila 4 cm, inv. št. AR 245.
3. Dleto, železo, dl. 12,4 cm, šir. rezila 3,9 cm, inv. št. AR 246.
4. Dleto, železo, dl. 13 cm, šir. rezila 4,6 cm, inv. št. AR 247.
5. Dleto, železo, dl. 10,3 cm, šir. rezila 4,2 cm, inv. št. AR 248.
6. Deltooidna puščična ost, železo, dl. 8,3 cm, inv. št. AR 249.
7. Deltooidna puščična ost, železo, dl. 6,7 cm, inv. št. AR 250.
8. Okov, železo, dl. 6,7 cm, inv. št. AR 251.
9. Odlomek železnega predmeta, dl. 6,8 cm, inv. št. AR 252.
10. Odlomek železnega predmeta, dl. 3,6 cm, inv. št. AR 253.
11. Zvonec, železo z bronasto prevleko, v. 10 cm, šir. spodaj 9,2 cm, šir. zgoraj 7,4 cm, inv. št. AR 254.
12. Ročaj kotla z atašama, železo, dl. 55 cm, inv. št. AR 255.
13. Del verige za obešanje kotla, železo, dl. 39,5 cm, inv. št. AR 256.

ANALIZA ZVONCA

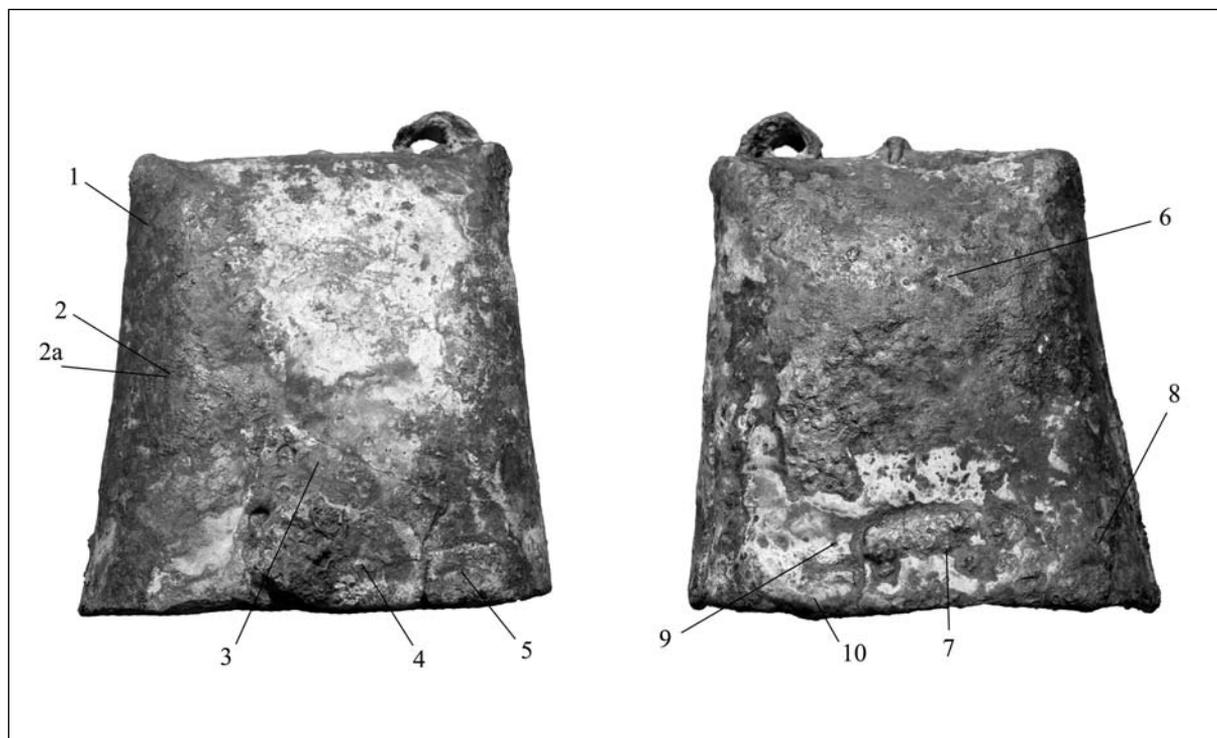
Da bi ugotovili sestavo kovine, iz katere je izdelan zvonec iz poznoantične depojske najdbe s Puštala nad Trnjem, smo ga odnesli v laboratorij Narodnega muzeja Slovenije, kjer ga je Zoran Milič analiziral z metodo EDS XRF. Pri analizi je bila uporabljena naprava X-Ray Analyzer Model PE-DUZO 01/Am/Sip-250, ki so jo izdelali na inštitutu Jožef Štefan v Ljubljani.

²⁸ Steinklauber 2002a, 491.

²⁹ Bitenc, Knific 2001, 32, kat. št. 87.

³⁰ Steinklauber 2002a, 492.

³¹ Steinklauber 2002a, 489.



Sl. 6: Slika prikazuje mesta, označena s številkami od 1 do 10, na katerih je bila opravljena analiza kovine zvonca.
Fig. 6: The points, with numbers from 1 to 10, mark where analysis of the metal of the bell was performed.

Ker je površina zvonca videti nehomogena in ker so na njem vidna mesta z dodanim materialom, je bila analiza opravljena na različnih mestih, ki so oštevilčena s številkami od 1 do 10 (sl. 6; tab. 1).

Prisotni elementi v analizi in videz zvonca nakazujejo, da je zvonec izdelan iz železa ter prevlečen z bakrovo zlitino, ki vsebuje Pb in Sn. Razmerje med Fe in Cu se spreminja v odvisnosti od stopnje korodiranosti na merilnem mestu. Zanimivo je, da je razmerje Pb in Sn pri vseh analizah skoraj enako in da se količina Pb in Sn spreminja neodvisno od količine Cu.

Pločevina na mestu 4, s katero so zakrpali rob zvonca, je izdelana iz železa. Na nasprotni strani je popravilo (mesto 7) izdelano iz pločevine, ki ima enako sestavo kot zvonec v celoti. Iz tega lahko sklepamo, da je bil zvonec na mestu 7 popravljan že pri izdelavi, na mestu 4 pa pozneje.

Na mestu 2 se je po čiščenju Fe korozije (mesto 2a) povečala vsebnost Cu, pri čemer sta se Pb in Sn malenkostno spremenila, in sicer v nasprotno smer - svinec se je zmanjšal, kositer pa povečal.

Zahvala

Ob koncu bi se rad zahvalil vsem imenovanim in neimenovanim, ki so kakorkoli sodelovali pri nastajanju tega prispevka. Posebna zahvala gre Primožu Pavlinu in dr. Draganu Božiču za številne koristne napotke pri pisanju in pomoč z literaturo. Risbe arheoloških predmetov je izdelala Andreja Maver.

mesto analize	Fe %	Cu %	Pb %	Ag %	Sn %	opombe
1	34,3	61,2	1,4	0,2	2,9	
2	59,8	36,4	1,6	0,1	2,1	
2a	33,5	62,8	1,0	0,1	2,6	po čiščenju
3	41,4	52,0	3,8	0,2	2,8	
4	100					železo
5	67,4	27,6	2,9	0,1	2,0	
6	44,6	45,6	4,9	0,2	4,7	
7	40,7	53,7	2,6	0,2	2,8	
8	21,5	69,8	4,1	0,2	4,4	
9	30,3	62,6	3,5	0,2	3,4	
10	6,1	80,1	7,0	0,2	6,6	

Tab. 1: Tabela prikazuje procentualno vrednost železa, bakra, svineca, srebra in kositra na mestih od 1 do 10, na katerih je bila opravljena analiza kovine zvonca.

Table 1: The table shows the percentage of iron, copper, lead, silver, and tin at the points from 1 to 10 where analysis of the metal of the bell was performed.

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A hoard dating to late Antiquity from Puštal above Trnje

Summary

INTRODUCTION

Puštal¹ is a 559 m high hill above the village of Trnje in the immediate vicinity of Podlubnik and Stara Loka. This hill has long been mentioned as a find-spot for various antiquities. Its favorable strategic position at the entrance to the Selška valley, and its excellent natural protective features, including nearby water sources,² attracted various people at various times, who established their settlements in the safe shelter of the hill. The present state of research indicates that the hill was settled in several chronological periods; first in the early Iron Age, then during the Roman Empire, and later in the period of late Antiquity.

PREHISTORY

Six test trenches were excavated at Puštal in 1954, in a campaign directed by Prof. Stane Gabrovec, curator of the National Museum in Ljubljana, which confirmed the existence of a Hallstatt (early Iron Age) hillfort with remains of walled architecture and numerous finds of pottery. The excavations showed that the settlement was surrounded by a dry-stone wall and defensive rampart.³

THE ROMAN PERIOD

A temporary settlement or merely short-term visits to Puštal in the period of the 1st and 3rd centuries are indicated by new, as yet unpublished, chance finds of a highly profiled fibula and a coin of the emperor Septimius Severus. The fibula with two emphasized circular perforations on the foot, which corresponds to variant 2 of high relief fibulae with a supportive surface for the axis according to Bojović,⁴ can be

assigned chronologically to the 1st century. The denarius of the emperor Septimius Severus (193-211), minted in Rome in 202-210, (most probably) came from a somewhat later context.⁵

LATE ANTIQUITY

Evidence exists that Puštal was again permanently settled in the period of late antiquity. In addition to architectural remains, the outlines of which can be noted in the field, this is indicated by the numerous small finds acquired primarily by non-professional archaeologists with metal detectors.

In the test trenches opened in 1954, in addition to the prehistoric material, fragments were discovered of late Roman pottery vessels with a porous surface, and parts of vessels coated with a yellowish-green or green glaze, which can be assigned to the period of the 4th century and the first half of the 5th century.⁶ Of the small metal finds, a bronze fibula in the shape of a dove⁷, which belongs to the period of the 5th or 6th centuries, can be attributed to the Romanized indigenous population. The bird has wings indicated by two incisions, and the tail is decorated by four circles with a dot in the center.

One very interesting find was a circular nomadic mirror of the Čmi-Brigetio type. Such mirrors arrived in Europe with the Huns, and were also brought by Germanic peoples. They are rarely found in Slovenia, only three examples been known to the present. One entirely preserved mirror comes from the late Antiquity settlement of Sv. Jakob above Potoče near Preddvor,⁸ while a partly preserved mirror comes from Zidani Gaber above Mihovo.⁹ The mirror from Puštal¹⁰ is missing almost a half. It was cast in white bronze, flat on the front side, and on the reverse it was decorated with concentric and radial relief ribs. The center of each section contained a small circular protrusion. It can be dated to the end of the 4th and into the 5th century.

The period of the Ostrogothic reign is indicated by a silver coin, a quarter-siliqua of the Ostrogothic ruler Theoderic (471-526), which was minted between 518 and 526,¹¹ and a fragment of a gilded silver bow fibula.¹² Part of the elongated ribbed bow was preserved, along with part of the trapezoidal foot with the catch-plate for the pin on the back side. Semicircular garnets in circular settings were placed in the corners of the broadest part of the foot. The fibula can be dated to the end of the 5th and first half of the 6th century.

The pottery material excavated in 1954 also included a fragment of a gray-black fired burnished pot with a webbed decoration, which is a characteristic Lombard product from the second half of the 6th century.¹³

THE HOARD

In April of 2002, the geological engineer Tomaž Budkovič donated a hoard to the archaeological department of the museum in Škofja Loka. He had found the hoard at Puštal in 1983 with a metal detector. According to him, the find lay behind the eastern wall of the complex (*fig. 1*), at a depth of 20 cm, covered with rocks. The hoard consisted of 13 objects, 5 iron chisels, 2 arrow heads, part of a chain for hanging a kettle, a curved kettle handle with attachment elements, a small iron bell, a bounded mount, and two undistinguishable iron fragments. Impressions of fabric were preserved in large or small patches in the corrosion layers on the majority of objects (*fig. 2*). The objects were wrapped up in the fabric before the owner buried them. It is evident from the preserved fabric impressions that it was linen.¹⁴

Three types of objects were represented in the hoard in terms of function: tools, objects of everyday use, and weapons.

Tools

The tools consist of five iron chisels (*Pl. 1: 1-5*), which were used for shaping and incising wood. Each chisel was inserted into a wooden handle with the help of a long iron tang. The width of the blades varies from 3.3 to 4.6 cm. They can be classified in terms of form and function as carving tools.

Objects of everyday use

The objects of everyday use consisted of part of an iron chain for hanging a kettle (*Pl. 3: 13*), the handle of a kettle (*Pl. 2: 12*), and a small iron bell (*Pl. 2: 11*).

The iron chain for hanging a kettle over a hearth was not entirely preserved. Only one iron loop and the lower spirally twisted final section with a hook for hanging were preserved. Very few kettle chains have been found in Slovenia. Beyond the Slovenian borders, numerous examples are known from the La Tène and Roman imperial periods,¹⁵ while they almost do not appear in the inventory of material from late antiquity or the 4th to 6th centuries.

The simple iron kettle handle with preserved attachment elements was bent. The owner had evidently folded the handle so that it would take up less space before wrapping it in cloth and burying it. Similar iron handles have been discovered in Slovenia at the settlements from late antiquity of Vipota above Pečovnik near Celje (*fig. 3*), Korinjski hrib,¹⁶ and Veliki vrh above Osredok near Podsreda (*fig. 4*).¹⁷ All three handles were classified as bucket handles.¹⁸

A highly interesting analogy beyond Slovenian territory is the hoard from Stup near Sarajevo. This hoard from the Roman period,¹⁹ which in addition to a sword and highly varied craft and agricultural tools also contained kitchen equipment

(*fig. 5*), was hurriedly buried by the owner because of approaching danger.²⁰ The most interesting elements for us are two completely preserved copper kettles with iron handles. The larger one had a handle entirely identical to the one from Vipota above Pečovnik. The handle of the smaller kettle was very close to that from Puštal, primarily in terms of the shape of the bent back ends, while it seems that the attaching elements were different, although their shape is not entirely clear from the illustrations. On the basis of the hoard from Stup, it can be stated with great probability that the iron handles from Vipota, Veliki vrh, and Puštal belonged to kettles and not buckets. Because the handle of the kettle from Vipota has a direct analogy to the larger kettle from Stup, its shape can be reconstructed. The exact shape of the other two cannot be determined on the basis of the preserved handles.

A small angular iron bell, of boxy form, with a bronze coating²¹ and with a rectangular opening was made from one piece of fairly thick iron sheet-metal with symmetrical halves, joined on the sides by a welded seam with a single rivet. A banded cirlet was threaded through the surface on the top. The upper half of the cirlet, which was not entirely preserved, served as a handle, and the lower for hanging the clapper. The clapper is also missing on our example. The cited characteristics of the bell means that it can be classified to the third type of small iron bells according to T. Knific and I. Murgelj.²²

The bell, as a "ringing vessel", appeared and was used in the civilizations of the Near East, Egypt, and Israel. In the classical world of Greece and Rome, it was one of many forms of idiophonic instruments. The bell was taken over in various forms and under various names by Christianity. In the Roman period, bells were made from various metals, and also from iron. They were used as musical instruments or as jewellery, in the services of magic and various cults, and in religious ceremonies. Apotropeic powers were also attributed to them. People believed that small bells could protect them from accidents, and that they could protect the dead from demons. Hung around the neck of domestic animals, they could avert the evil eye, and hence bells were hung on horses, sheep, pigs, mules, and even on dogs.²³

It is difficult to determine the purpose of the bell from Puštal. It was most probably related to stock-raising, which in the late Roman period, to which this bell can reliably be dated with the help of accompanying finds, was rapidly increasing, as is indicated primarily by archaeological finds (animal bells, wool combs, sheep shears, brands). The increased number of animal bells indicates the presence of numerous flocks. Cattle bones predominate at sites. Cattle breeding at small farms in southern Europe did not decline significantly up to the 6th century.²⁴

Weapons

Two deltoid arrowheads can be classified as weapons (*Pl. 2: 6,7*), and also represent the most interesting finds, as they can help in dating the entire hoard. The longer arrowhead has a point bent backwards (*Pl. 2: 6*), from which it can be concluded that it had been fired from the bow of a besieger at the settlement and that it had probably hit the defensive rampart.

Iron deltoid arrowheads are rare in the material recovered from stations dated to the period of late antiquity. Several such arrowheads have been discovered at settlements of the period of late antiquity and the early medieval period in Slovenia: Tinje above Loka pri Žusmu, Ančnikovo gradišče near Jurišna vas, and Rodik, and individually at Brinjeva gora, Rifnik and in Ljubljana. Outside of Slovenia, they can be found at Frauenberg near Lipnica in Austrian Styria, and in neighboring Croatia, where they were found at Kuzelin near Donja Glavnica, at Varaždinske Toplice, and Ludbreg.²⁵ The deltoid arrowheads

from the late Roman fortification of Kuzelin near Donja Glavnica represent an important analogy, as in terms of the systematic investigation of the settlement they were very securely dated to the second half of the 4th and the beginning of the 5th century.²⁶ The reliability of the dating of the deltoid arrowheads from Kuzelin is confirmed by grave 229 discovered in the southern section of the late Roman cemetery of Frauenberg near Lipnica. The grave goods of the deceased, aged 25-35 included 37 deltoid arrowheads, a spearhead, an iron knife with the remains of a bone handle and leather sheath, a belt buckle, two belt mounts, and a steel for striking flints. The spearhead and arrowheads lay in situ next to the right humerus.²⁷

The D-shaped belt buckle with a heart-shaped mount was decorated with punched circles with a dot in the center. It can most probably be classified as an imitation of military belt buckles decorated with wedged incisions, which appear along the Danube-Rhine limes from the last third of the 4th to the first decade of the 5th century.²⁸

The iron spearhead with a trilobate blade of rhomboid section and a socket with an octagonal section has a close analogy at the settlement from the period of late Antiquity at Limberk above Velika Račna, where it was dated to ca. 400 AD.²⁹

The grave goods included a tinder, or steel for striking flints, which can be classified among Germanic forms and dated to the 4th/5th centuries.³⁰

The grave unit can be classified on the basis of the grave goods to the period from the mid 4th century to the mid 5th century, which simultaneously represents the chronological span of the cemetery.³¹

On the basis of both deltoid arrowheads, which can be precisely assigned chronologically with the help of the mentioned analogies, the hoard from Puštal can be dated to the period from the second half of the 4th century to the beginning or middle of the 5th century.

CATALOGUE

All of the objects below are kept in the Museum of Škofja Loka.

1. Chisel, iron, l. 14.7 cm, blade w. 3.3 cm, inv. no. AR 244.
2. Chisel, iron, l. 14.3 cm, blade w. 4 cm, inv. no. AR 245.
3. Chisel, iron, l. 12.4 cm, blade w. 3.9 cm, inv. no. AR 246.
4. Chisel, iron, l. 13 cm, blade w. 4.6 cm, inv. no. AR 247.
5. Chisel, iron, l. 10.3 cm, blade w. 4.2 cm, inv. no. AR 248.
6. Deltoid arrowhead, iron, l. 8.3 cm, inv. no. AR 249.
7. Deltoid arrowhead, iron, l. 6.7 cm, inv. no. AR 250.

8. Mount, iron, l. 6.7 cm, inv. no. AR 251.
9. Fragment of an iron object, l. 6.8 cm, inv. no. AR 252.
10. Fragment of an iron object, l. 3.6 cm, inv. no. AR 253.
11. Small bell, iron with a bronze coating, ht. 10 cm, w. below 9.2 cm, w. above 7.4 cm, inv. no. AR 254.
12. Handle of a kettle with attachment elements, iron, l. 55 cm, inv. no. AR 255.
13. Part of a chain for hanging a kettle, iron, l. 39.5 cm, inv. no. AR 256.

ANALYSIS OF THE BELL

So as to ascertain the composition of the metal from which the bell from the hoard from late Antiquity at Puštal above Trnje had been made, it was sent to the laboratories of the National Museum of Slovenia, where Zoran Milič analyzed it using the EDS XRF method. The analysis was performed using an X-Ray Analyzer Model PEDUZO 01/Am/Sip-250 which was made at the Jožef Štefan Institute in Ljubljana.

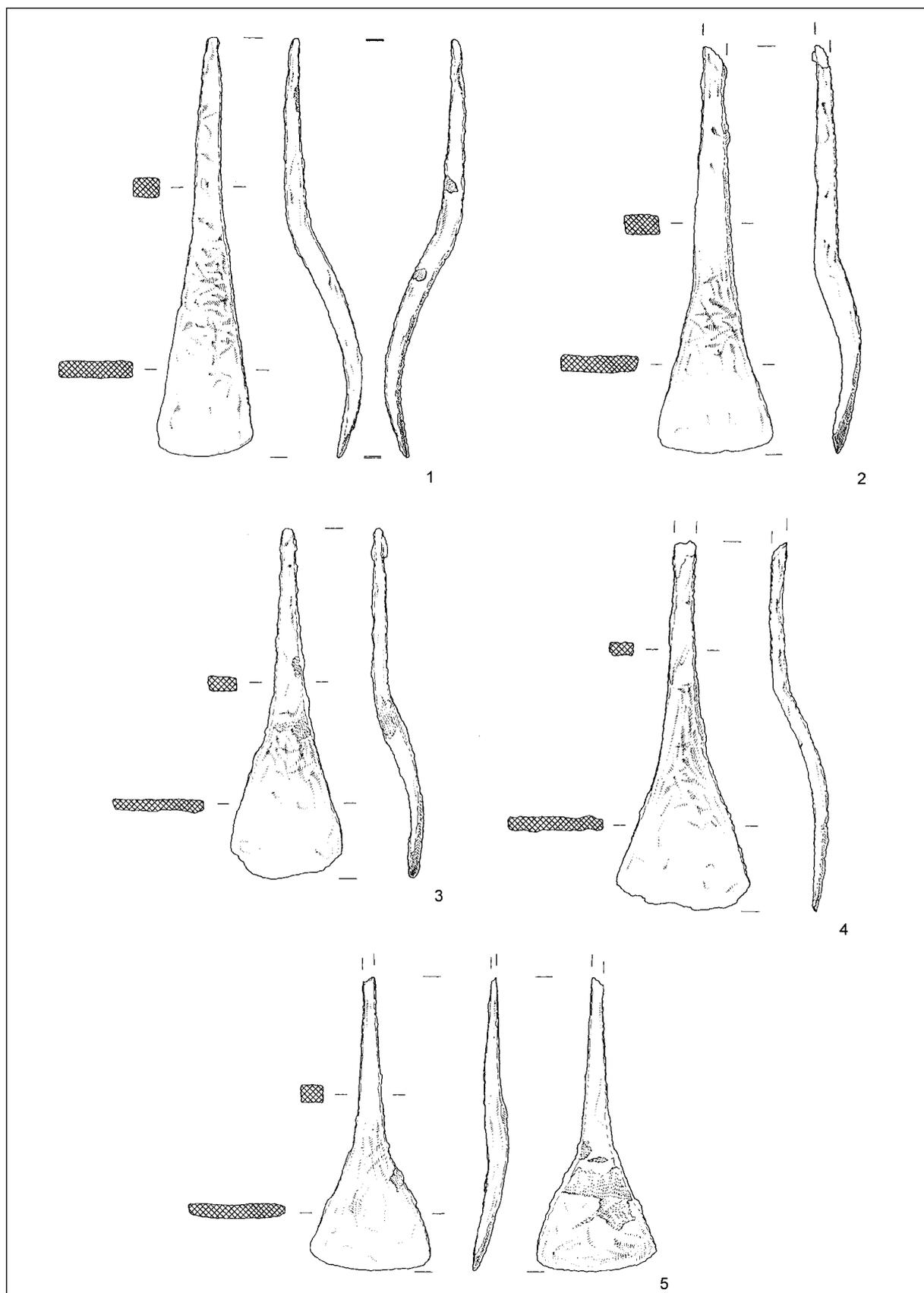
As the surface of the bell was unhomogenous in appearance and spots were visible with added material, the analysis was carried out on several places, labeled as point 1 to 10 (*fig. 6; Tab. 1*).

The elements present in the analysis and the appearance of the bell indicate that the bell had been made of iron and had been coated with a copper alloy containing Pb and Sn. The proportions between Fe and Cu change depending on the degree of corrosion at the measurement spot. It is interesting that the proportions of Pb and Sn were almost identical in all analyses and that the quantity of Pb and Sn changed independently of the quantity of Cu.

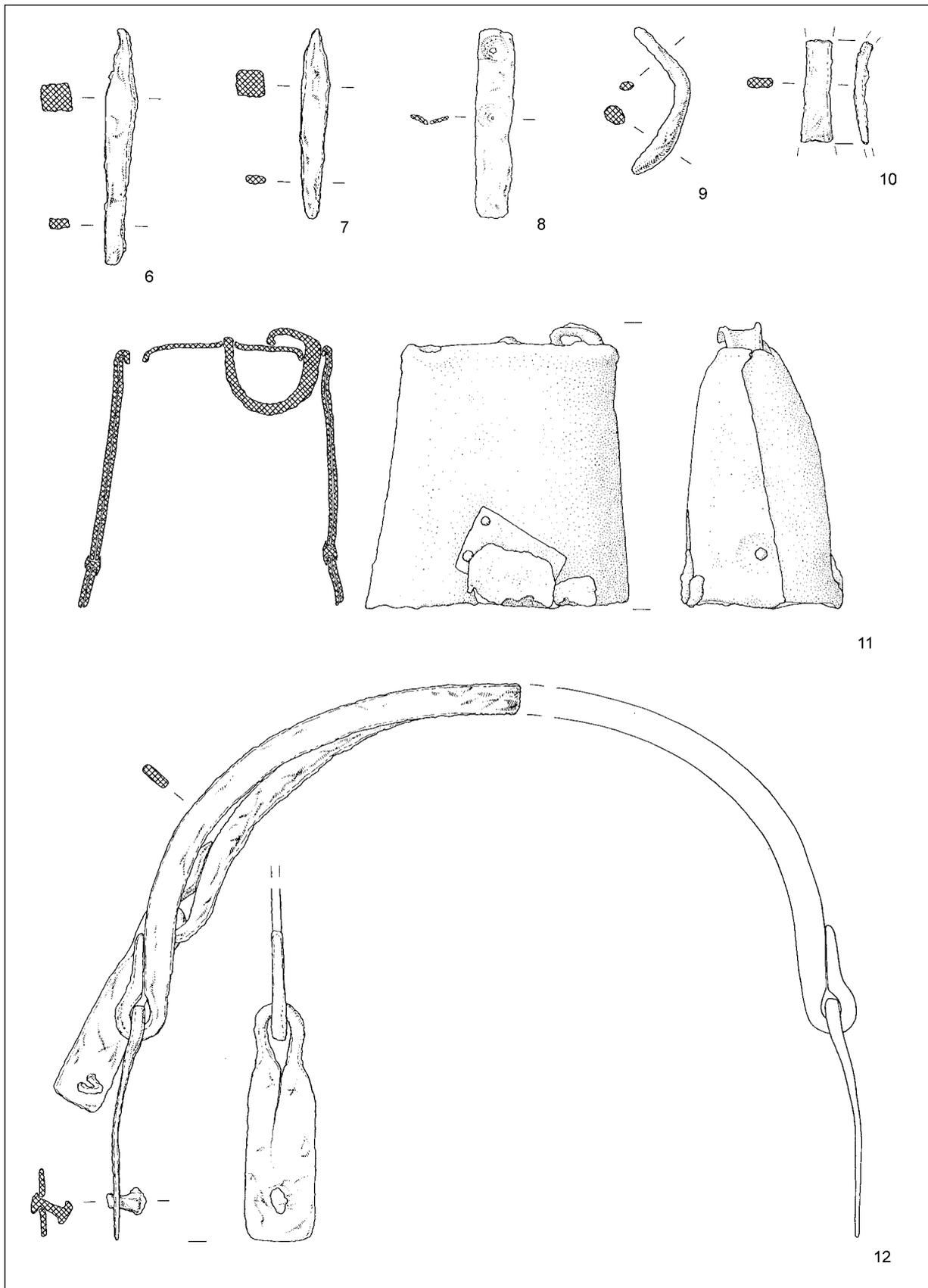
The sheet metal at point 4, where the edge of the bell had been patched, was made of iron. On the opposite side a repair (point 7) was made from a sheet metal that had the same composition as the bell as a whole. It can be concluded from this that the bell had been repaired at point 7 while it was still being made, but it was repaired later at point 4.

At point 2, after cleaning of the Fe corrosion (point 2a), the content of Cu was increased, during which the Pb and Sn contents changed minimally and even in the opposite direction - lead was reduced and tin was increased.

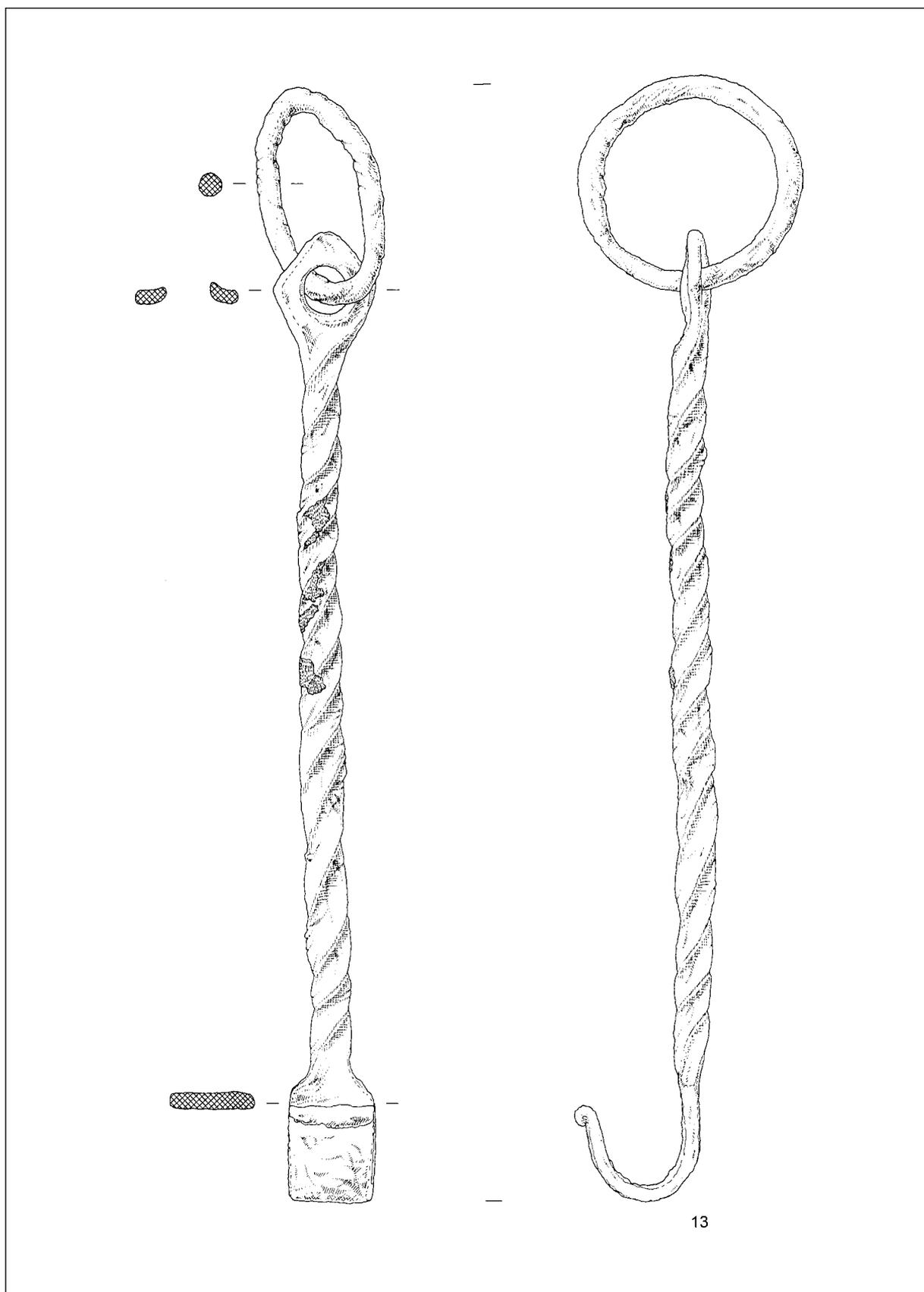
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T. I: Puštal nad Trnjem. Depojska najdba. 1-5 železo. M. = 1:2.
 Pl. I: Puštal above Trnje. A hoard. 1-5 iron. Scale = 1:2.



T. 2: Puštal nad Trnjem. Depojska najdba. 6-10,12 železo; 11 železo in bron. M. = 1:2.
 Pl. 2: Puštal above Trnje. A hoard. 6-10,12 iron; 11 iron and bronze. Scale = 1:2.



T. 3: Puštal nad Trnjem. Depojska najdba. 13 železo. M. = 1:2.
Pl. 3: Puštal above Trnje. A hoard. 13 iron. Scale = 1:2.