HOTINJA VAS – NASELBINA STAREJŠE ŽELEZNE DOBE NA DRAVSKEM POLJU

Teja Gerbec

Hotinja vas se leži na severozahodnem robu Dravskega polja, pod obronki Pohorja. Pred raziskavami, ki so potekale v okviru izgradnje slovenske avtoceste, ni bila znana kot arheološko najdišče. V pisnih virih je vas omenjena leta 1096.[1] Glede na vojaške zemljevide iz 18. stol. in franciscejski kataster iz 19. stol. so bile na tem mestu njivske površine; potek njiv je bil pred izgradnjo avtoceste še enak.[2] Na novejši temeljni topografski karti je južno od ribnikov pomenljiv toponim Gomila, kjer se v izohipsah in na lidar posnetku kaže rahlo dvignjen del.[3] Stanko Pahič, ki je na tem območju opravljal topografske oglede in bil pri svojem delu temeljit, ni zabeležil arheoloških ostalin. Prav Pahič pa je že nakazal, da so lahko v železni dobi naselja stala tudi nižje ob vznožju Pohorja.[4]

Ostaline naselja iz starejše železne dobe so bile odkrite leta 2006 na ledini Spodnji Gojaji tik ob Hotinji vasi, na odseku trase avtoceste Slivnica–Draženci, kjer so bila leta 2007 izvedena zaščitna arheološka izkopavanja.[5] Predstavitev najdišča in rezultati radiokarbonskih datiranj so bili objavljeni leta 2014.[6] Terenski izvid s katalogom najdb in njihovo osnovno opredelitvijo ter rezultati naravoslovnih analiz so izšli v zbirki Arheologija na avtocestah Slovenije leta 2015.[7] Natančnejša obravnava je sledila v doktorski nalogi z naslovom *Nižinska poselitev severovzhodne Slovenije v starejši železni dobi: primer Hotinja vas*.[8]

1 Blaznik 1986, 286–287; prim. Mlinarič 1976, 69.

2 Franciscejski kataster, elektronski vir: http://arsq.gov.si/Query/detail.aspx?ID=209769 in http://arsq.gov.si/Query/detail.aspx?ID=209770; vojaški zemljevidi, elektronski vir: http://mapire.eu/en/.

3 V izohipsah in na lidar posnetku je rahlo dvignjen del (TTN 5000 (© Geodetska uprava RS; http://gis.arso.gov.si/evode/profile.aspx?id=atlas_voda_Lidar@Arso), na avstro-ogrskem vojaškem zemljevidu iz let 1806–1869 je na tistem mestu grafični znak, ki nam ga ni uspelo opredeliti, na zemljevidu iz let 1869–1887 pa je zabeleženo »Camilla« (http://mapire.eu/en/).

4 Pahič 1986, 20.

5 Djurić 2006; Djurić et al. 2006; Ravnik 2007; Strmčnik Gulič et al. 2008.

6 Gerbec 2014a, 275–286.

7 Gerbec 2015.

8 Gerbec 2014b; ista 2019.

HOTINJA VAS – A SETTLEMENT OF THE EARLY IRON AGE ON THE PLAIN OF DRAVSKO POLJE

Teja Gerbec

Hotinja vas is a village located on the southwest of the plain of Dravsko polje, at the foot of the Pohorje Hills. The first written record of the village dates to 1096.[1] The military maps from the 18th century and Franciscean cadastre from 19th century show fields on this spot; the field orientation remained unchanged until the construction of the motorway-cross in Slovenia.[2] It is this, or rather the investigations conducted in advance of the construction work in the recent decade that brought to light the first archaeological remains in the area. In addition, the recently drawn basic topographic map shows an interesting toponym of Gomila (translated as barrow) south of the fish ponds that appears as slightly raised ground on the lidar image.[3] Stanko Pahič, who was known for his keen eye, conducted topographic surveys here and recorded no archaeological remains or features in this area. We should also mention that it was he who first suggested that settlements in the Iron Age could also have stood on lower area below the Pohorje Hills.[4]

The remains of just such a settlement from the Early Iron Age were detected at Hotinja vas in 2006, on a site known as Spodnji Gojaji in close proximity to the village. This was the site of a later motorway section leading from Slivnica to Draženci, where rescue archaeological excavations ensued in 2007.[5] Preliminary results of the excavations together with the results of the radiocarbon analyses were published in 2014.[6] The field report and the catalogue of finds containing a rudimentary definition of the finds followed

1 Blaznik 1986, 286–287; cf. Mlinarič 1976, 69.

2 Franciscean cadastre, electronic source: http://arsq.gov.si/Query/detail.aspx?ID=209769 and http://arsq.gov.si/Query/detail.aspx?ID=209770; military maps, electronic source: http://mapire.eu/en/.

3 The contour lines and the lidar image show slightly raised ground (TTN 5000 (© Geodetska uprava RS; http://gis.arso.gov.si/evode/profile.aspx?id=atlas_voda_Lidar@Arso), the Austro-Hungarian military map from 1806–1869 shows a mark on that spot that we were unable to understand, while the 1869–1887 map bears an inscription 'Camilla' (http://mapire.eu/en/).

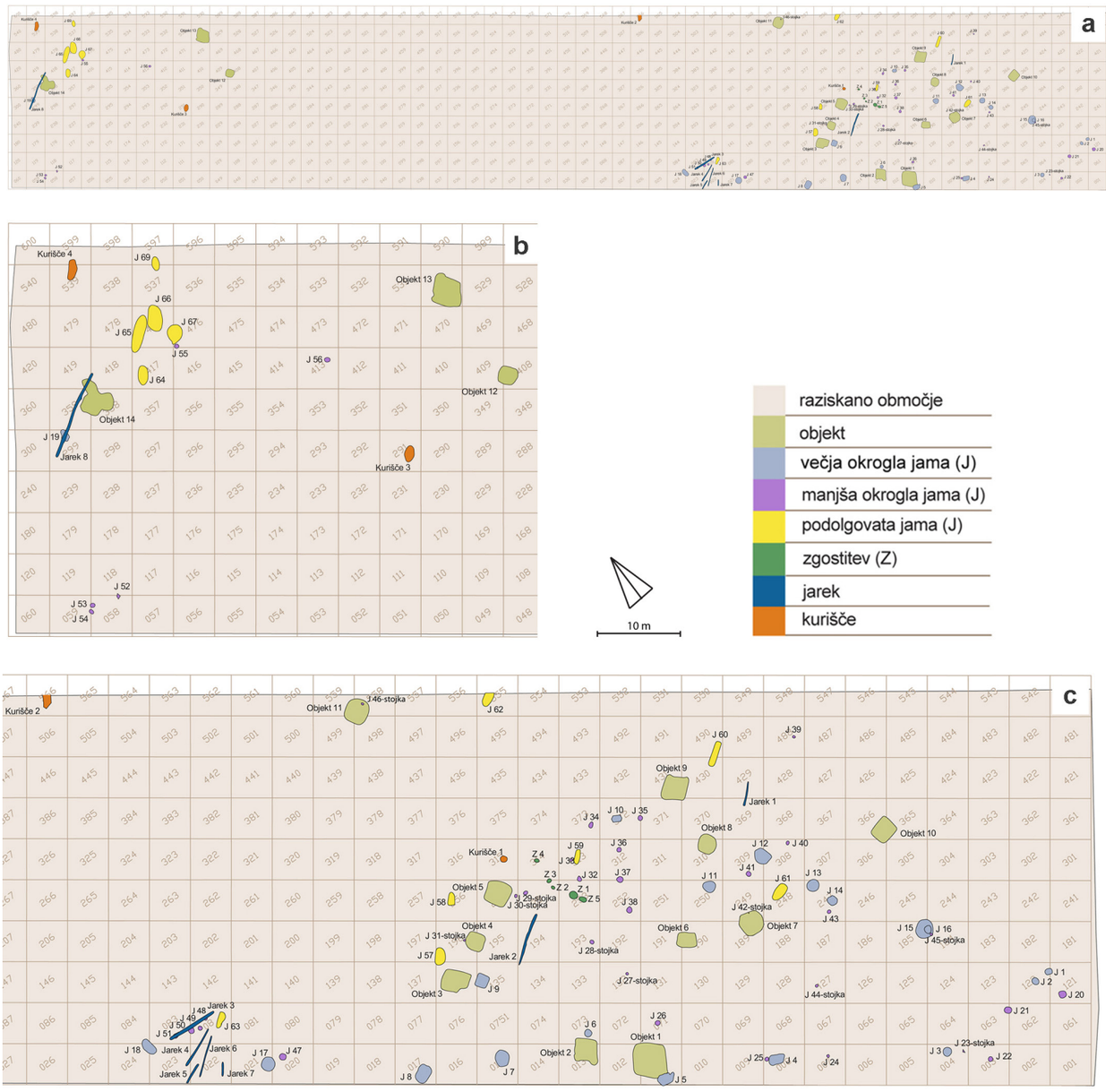
4 Pahič 1986, 20.

5 Djurić 2006; Djurić et al. 2006; Ravnik 2007; Strmčnik Gulič et al. 2008.

6 Gerbec 2014a, 275–286.

Slika 1. Tloris naselja Hotinja vas iz starejše železne dobe: a – celoten obseg (zgoraj), b – severozahodni del (v sredini) in c – jugovzhodni del (spodaj).

Figure 1. Ground plan of the Early Iron Age settlement at Hotinja vas: a – whole extend (top), b – north-western part (middle) and c – south-eastern part (bottom).



in 2015.[7] A more detailed analysis of the site was given in the unpublished doctoral thesis on the lowland settlement in north-east Slovenia in the Early Iron Age.[8]

OPIS NAJDIŠČA

Naselje je bilo raziskano na površini velikosti 50 × 300 m (*sl. 1*). Hodna površina je bila z modernim oranjem uničena, ohranili so se le najgloblje vkopani elementi t. i. (pol)zemljank in pripadajočih uporabnih jam. Ornica je bila izkopana strojno. Na globini 0,20–0,35 m sta bili plasti proda in peščenega melja.[9] Ob najdbah iz starejše železne dobe je bilo zanemarljivo malo najdb iz mlajše železne dobe in mlajših arheoloških obdobij,[10] ki so verjetno v starejše plasti prišle z oranjem. Obseg naselja z izkopavanji ni bil ugotovljen. Če se je naselje raztezalo na vzhodno oz. južno stran, kjer sta danes z vodo zaliti gramozni

DESCRIPTION OF THE SITE

Excavations unearthed a roughly 50 × 300 m large area of the settlement (*fig. 1*). Modern land use destroyed the Iron Age ground level and only the features dug deeper into the ground survived, belonging to (semi-)sunken-featured buildings and associated pits. The topsoil was removed by machine to reveal two respective layers of gravel and sandy silt at the depth of 0.20–0.35 m.[9] With the ancient ground surface destroyed, the small finds were unearthed in the fills of the various cut features. The great majority of

[9] Najdb iz teh plasti je zelo malo (Gerbec 2015, G433–436).
[10] Gerbec 2015, G67, G350.

[7] Gerbec 2015.
[8] Gerbec 2014b; ead. 2019.
[9] These layers yielded very few finds (Gerbec 2014b, G435–436).

jami, je na tem delu uničeno. Nekaj podatkov o obsegu najdišča nam dajo le arheološki pregledi, saj je bila severno po trasi avtoceste prazgodovinska keramika odkrita do 360 m oddaljena od roba izkopnega polja.[11] Le 750 m je bilo oddaljeno že naslednje arheološko najdišče, Orehova vas – Dolge njive.[12] V južni smeri trase je bilo 150 m proč, na lokaciji »Hotinja agrarna«, opravljeno izkopavanje na površini 48 × 50 m z najdbami iz pozne bronaste in starejše železne dobe ter rimskega obdobja.[13]

Naselje Hotinja vas se kaže z dvema raziskanima gručama objektov, eno na severnem, drugo na južnem delu, ki sta narazen približno 150 m (*sl. 1*). Nekoliko oddaljene zemljanke ter arheološke raziskave na predelu, poimenovanem »Hotinja agrarna«, nakazujejo, da je bilo morda takšnih gručastih zaselkov še več. Obrambni elementi ali ograde (npr. palisada) na najdišču Hotinja vas niso bili odkriti.

Naselbinske ostaline na najdišču Hotinja vas delimo na zemljanke (14), okrogle jame, ki so večje (19) in manjše (37), podolgovate ovalne jame (12), jarke (8), kurišča (4) ter območja zgostitve keramike in kamenja (4) (*sl. 1*).

Jame kvadratnega tlorisa / zemljanke

Jame kvadratnega tlorisa z zaobljenimi vogali in površino med dobrimi 4,5 in 18 m^2 ter ohranjeno globino 0,36–0,80 m predstavljajo podzemne dele zemljank (*sl. 2*). Tri zemljanke so bile v severni gruči, 10 jih je bilo v južni, ena je bila oddaljena približno 20 m. V preseku jih je bilo največ oglatih s strmimi ali delno položnimi stenami in z ostrim prehodom v ravno dno, pet jam je imelo nepravilen presek, dve sta bili na dnu poglobljeni. Večina je bila enako usmerjenih, z vzporednima robovoma v smeri SV–JZ oz. SZ–JV. Jame so bile zapolnjene z več plastmi. Največ najdb izvira iz zgornje plasti, prevladujejo odlomki keramike, kosi ometa so bili redki, posamezne najdbe pa predstavljajo bronasta fibula, 2 železna noža, žlindra, košček stekla, več je bilo kamnov s sledovi rabe.

[11] Djurić 2015, 9, sl. 8.
[12] Grahek 2015; glej tu Grahek.
[13] Kovač, Predan 2007, 6–8.

the recovered finds date to the Early Iron Age and only a negligible number to the Late Iron Age and later periods,[10] which presumably travelled down the stratigraphy to earlier layers through ploughing. The complete extent of the settlement could not be established. If it continued towards the east and south, it was probably destroyed by the excavation of two gravel pits now filled with water. Some information as to the extent can be glimpsed from the results of the archaeological surveys conducted in advance of the motorway construction, which revealed prehistoric pottery only up to 360 m from the northern edge of the excavation area.[11] Another archaeological site, of Orehova vas – Dolge njive, was discovered only 750 m away.[12] Excavations also took place at the site known as "Hotinja agrarna", some 150 m further south along the planed motorway. The 48 × 50 m large excavated area yielded finds from the Late Bronze and Early Iron Ages, as well as the Roman period.[13]

Excavations at Hotinja vas revealed two clusters of buildings lying some 150 m apart, one on the N and the other on the S part of the site (*fig. 1*). The distance between the clusters and the results of the archaeological excavation at location "Hotinjska agrarna" indicate that other such clusters of houses may have existed in this area. The site of Hotinja vas revealed no defensive or boundary elements (such as a palisade).

The habitation features at the site comprise sunken-houses or SHs (14), round pits that are either large (19) or small (37), elongated oval pits (12), ditches (8), fireplaces (4) and concentrations of pottery and stones (4) (*fig. 1*).

Square pits / sunken-houses

The pits of a square ground plan with rounded corners, each covering a 4.5–18 m^2 large surface measuring 0.36–0.80 m in depth, represent the surviving underground parts of sunken-houses (*fig. 2*). Three of them were excavated in the N cluster, ten in the S cluster and one some 20 m away from all of them. Most of the pits were angular in cross section, with vertical or very steep walls and with a sharp transition to the flat floor. Five pits were irregular in cross section and two had a depression in the floor. Most shared a NE–SW or NW–SE orientation. The fills of the pits consisted of several layers, with the upper layer yielding the greatest number of small finds. The predominant finds are pottery, while the remaining artefacts comprise rare pieces of daub, a

[10] Gerbec 2015, G67, G350.
[11] Djurić 2015, 9, fig. 8.
[12] Grahek 2015; see here Grahek.
[13] Kovač, Predan 2007, 6–8.

Slika 2. Hotinja vas. Tabela velikosti zemljank.
Figure 2. Hotinja vas. Size of the sunken-houses.

zemljanka / sunken house	mere / dimensions (m)	globina / depth (m)	površina / surface area (m^2)
1	4,3 × 4,2	0,57	18,06
2	3,12 × 2,64	0,51	8,24
3	3,33 × 3	0,74	9,99
4	2,2 × 2,15	0,8	4,73
5	3,05 × 2,77	0,54	8,45
6	2,47 × 1,9	0,51	4,69
7	2,92 × 2,34	0,44	6,83
8	2,24 × 2,17	0,62	4,86
9	3,06 × 2,8	0,71	8,57
10	2,77 × 2,43	0,48	6,73
11	2,95 × 2,84	0,59	8,38
12	2,35 × 2,16	0,36	5,08
13	4,14 × 3,5	0,77	14,49
14	4,51 × 4,01	0,75	18,09

Slika 3. Hotinja vas. Zemljanka 11 z jamo za stojko na dnu (A); zemljanka 2 ter večja jama 6, v ozadju zemljanka 1 z večjo jamo 5 (B).
Figure 3. Hotinja vas. SH 11 with a posthole on the bottom (A); SH 2 with large Pit 6, SH 1 with large Pit 5 (B) in the background.

Ohranjene ostaline le deloma nakazujejo urejenost notranjosti stavb in omogočajo predstavo o njihovi nadgradnji. V zemljanki 7 je bil tlak iz zbitega proda, lesen pod pa domnevamo v zemljankah 1, 4, 5 in 11, saj je bila na tleh jam plast iz večinsko temno rjavega melja z zelo malo najdbami.[14] Na dnu zemljanke 1 so bile še temnejše lise, morda sledovi desk, vzporedno z njimi sta bila ob SV steni na dnu drugačna plast meljastega peska, prekrita s plastjo prežgane gline, in odtis lesenega tramu. Lahko bi šlo za ostaline bronze fibula, two iron knives, slag, a piece of glass and several stones with usewear traces.

The surviving remains of buildings partially reveal the layout of the interior and offer an insight into the superstructure. The floor in SH 7 was made of beaten gravel, while the layer of predominantly dark brown silt with very few finds excavated at the bottom of SHs 1, 4, 5 and 11suggest that these buildings had a wooden floor.[14] SH 1 revealed patches of even darker earth on the bottom, possibly the remains of wooden boards, and parallel to these along the NE wall a layer of a different silty sand covered with a layer of burnt clay and an impression of a wooden beam. These may represent the remains of the entrance, of a stairway or some other feature of the building.[15] Visible on the bottom of the pit of SH 4 was a line that may indicate the edge of the floor boards. A layer of silt was also found in SH 11, in a strip running along the edge of the pit. The silt may represent the remains of a post that fell on the ground and decayed. Single postholes were documented in or at SHs 4, 7 and 11 (*fig. 3A*), possibly also in the S corner of SH 5, which revealed a 25 × 25 cm large patch of charcoal, as well as in the NW part of SH 12 that also revealed a charcoal patch. The postholes in the sunken-houses and in the large Pit 15 did not exceed 30 cm in diameter; only the two postholes found in SHs 7 and 11, respectively, are believed to have survived in their original depths, i.e. 24 and 34 cm, while all other postholes measured 9–21 cm in surviving depth. The difference between these depths may indicate the thickness of the destroyed layer and the altitude of the original ground surface.

Other pits and postholes were located just outside the sunken-houses. A rather large Pit 5 was subsequently dug near the corner of SH 1; the pit was irregular in plan and cross section and contained sherds of different ceramic vessels (pithoi, dishes with an inturned rim and others), burnt daub and a fragment of a modern-period pot. The soil in the pit was not uniform and differed from that in the interior of the building; the lower part contained more loam and burnt clay daub. A modern-period sherd was found in the pit that may, unless it came into the pit through ploughing, provide a date for the pit, though it is also possible that the pit actually represents an extension of the pit for SH 1, as

[14] Primer zemljanke s podom iz lesenih desk je znan npr. iz naselbine Göttlesbrunn na Spodnjeavstrijskem (Griebl 2004, 110: Objekt 4).

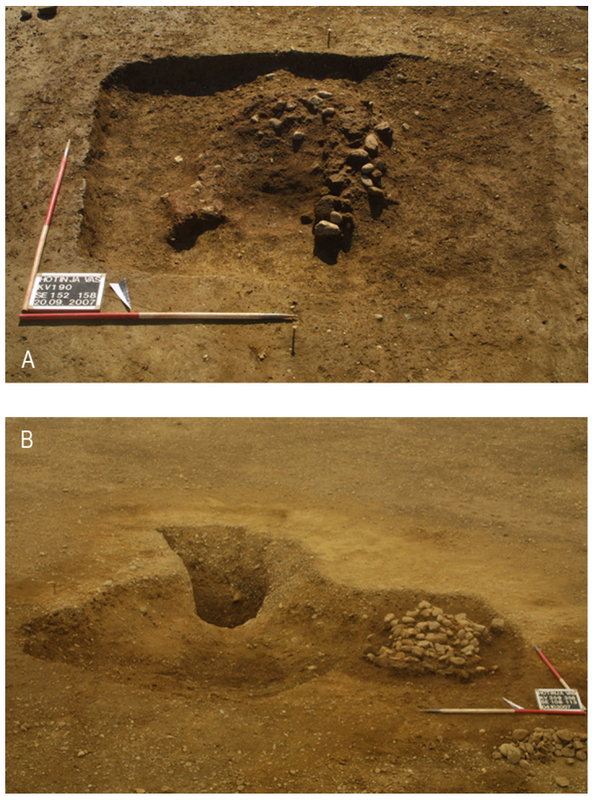
[14] An example of an SH with the floor of wooden boards has been found, for example, in the settlement at Göttlesbrunn in Lower Austria (Griebl 2004, 110: House 4).

[15] Cf. Lauermann1996a, figs. 2–6; Sabján 1999, 153, 170, 175, fig. 2; 27; 35 (reconstructions of medieval SHs); Felgenhauer 1956, fig. 13 (Asparn a. d. Zaya).

vhodnega dela, stopnic ali katerega drugega stavbnega elementa.[15] V zemljanki 4 je bil na dnu jame viden rob, do katerega so segale deske poda. V zemljanki 11 je bila nad jamo za stojko odkrita podobna plast melja v pasu ob robu jame. Lahko da so bile to ostaline podporne stojke, ki se je prevrnila in sprhnela. Po ena jama za stojko je bila v oz. ob zemljankah 4, 7 in 11 (*sl. 3A*), morda tudi v J vogalu zemljanke 5, kjer se je na površini velikosti 25 × 25 cm nahajalo oglje, ter v SZ delu zemljanke 12, kjer je bila oglena zaplata. Jame za stojke v zemljankah ter v večji jami 15 v premeru niso presegle 30 cm, globina večine jam za stojke ni bila ohranjena. Le za stojki, ki sta bili znotraj zemljank 7 in 11, domnevamo, da je ohranjena dejanska globina vkopa, ki je znašala 24 in 34 cm, pri ostalih je ohranjena globina 9–21 cm. Razlika med njimi morda nakazuje, koliko je znašala debelina uničene plasti ter koliko višje je bila nekdanja hodna površina.

Tik ob zemljankah so bile še druge jame. V vogal zemljanke 1 je bila naknadno vkopana večja jama (jama 5) nepravilnega tlorisa in preseka, v kateri so bili kosi različnih keramičnih posod (pitosov, latvic idr.), prežganega ometa in odlomek novoveške posode. Plast v tej jami je bila drugačna kot plasti v notranjosti zemljanke in ni bila enotna; v spodnjem, bolj ilovnatem delu, je bil prežgan glinen omet. Če ni v jamo zašel z oranjem, bi jo lahko datiral odlomek novoveške keramike, vendar je možno, da je šlo za razširitev zemljanke 1, saj so z drugih najdišč znani podobni tlorisi. Ob zemljanki 2 je bila večja jama 6, ki je bila verjetno del zemljanke (*sl. 3B*). V njej so bili kosi keramičnih posod, prežgane gline in ometa. Tudi ob zemljanki 5 sta bili ob J stranici še dve jami za stojki (jama 29 in 30), ki sta bili lahko del strešne konstrukcije.

V zemljankah 6 in 14 in morda tudi zemljankah 1 in 12 so bila ognjišča. V zemljanki 6 je bilo ognjišče v tlorisu polkrožne oz. podkvaste oblike iz sežgane gline, prodnikov in drugih kamnov, velikosti 1,39 × 1,20 m in debeline 46 cm. Obsegalo je skoraj celotno dno jame, na odprti strani je bila manjša poglobitev premera približno 50 cm (*sl. 4A*). Na in v ognjišču so bili odlomki posod iz drobno in grobozrnate keramike ter dva kamna iz gnajsa s sledovi obdelave. En kaže izpostavljenost visokim temperaturam. Zemljanka je bila zapolnjena s plastjo, v kateri so bili odlomki različnih posod (latvica, lonec, večja posoda s stožčastim vratom, pekva idr.) in več kosov prežganega ometa, na nekaterih je bel premaz. Ker je ognjišče zapolnjevalo večino prostora zemljanke, verjetno ni služila za bivanje. Ognjišče po obliki spominja na kovaško ognjišče ali



Slika 4. Hotinja vas. Pogled na ognjišče v zemljanki 6 (A); zemljanka 14 z dvema ognjiščema v razširitvah, eno je še vidno v vzhodni razširitvi (B).
Figure 4. Hotinja vas. The hearth in SH 6 (A); SH 14 with two hearths in respective extensions, one still visible in the E extension (B).

similar ground plans are known from other sites. Found alongside SH 2 was the rather large Pit 6, which probably formed part of the building (*fig. 3B*). It contained pieces of pottery, burnt clay and daub. Two postholes (29 and 30) were found along the S side of SH 5, which may have carried part of the roof construction.

SHs 6 and 14, possibly also 1 and 12, had hearths. The one in SH 6 was semicircular/horseshoe-shaped in plan. It was made of burnt clay, cobbles and other stones, and measured 1.39 m in length, 1.20 m in width and 46 cm in thickness. It covered almost the entire floor of the SH and included a small depression measuring roughly 50 cm across and positioned at the open side of the hearth (*fig. 4A*). Found in and on top of the hearth were sherds of vessels made of medium- to coarse-grained fabrics, as well as two worked pieces of gneiss. One of the latter shows traces of being exposed to high temperatures. The SH was filled with a layer that contained sherds of various vessels (dish with an inturned rim, jar, large vessel with a conical neck, baking lid and others) and several pieces of burnt daub with a white coat. Because the hearth covered almost the entire floor, the SH could probably not have served as living quarter. In its shape, the hearth is similar to a smithing hearth or even a poorly surviving kiln/stove/furnace, but this cannot be proven. SH 14 had two hearths, one in each of the extensions (*fig. 4B*). Under the hearth in the N extension was an 11 cm thick clay layer without finds, which

[15] Prim. Lauermann 1996a, Abb. 2–6; Sabján 1999, 153, 170, 175, fig. 2; 27; 35 (rekonstrukcije za srednjeveške zemljanke); Felgenhauer 1956, Abb. 13 (Asparn a. d. Zaya).

celo na slabo ohranjeno peč, vendar tega nismo mogli dokazati. V zemljanki 14 sta bili dve ognjišči, po eno v vsaki od razširitev stavbe (*sl. 4B*). Pod ognjiščem v S razširitvi je bila 11 cm debela glinena plast brez najdb, verjetno namerno pripravljena podlaga. V njegovem manipulativnem območju je bil kamen iz granodiorita (26 × 21 cm) s sledovi rabe. Nad ognjiščem so bile najdbe, predvsem keramika (odlomki dveh okrašenih skled ali skodel, okrašeno predilno vretence idr.) in kosi prežgane gline. Ognjišče v vzhodni razširitvi je bilo nepravilne oblike, ohranilo se je kot 47 cm debela plast prodnikov in lomljencev ter kosov prežgane gline z odtisi prodnikov in ometa. Vmes so bili večji kamen (21 × 19 cm) ter kosi keramičnih posod, kot so kanelirana skleda, lonci, pitos in pekva.

Zemljanka 6 se je nahajala sredi J gruče, zemljanka 7, ki odstopa od dokaj enotne usmeritve ostalih zemljank, je bila od nje oddaljena približno 6 m, druge pa 12–25 m. Razdalja med manjšimi skupinami bližnjih objektov je enotna, 3,5–6 m (zemljanki 1 in 2, zemljanke 3–5 ter 6–9). Od J skupine je približno 25 m proti SZ umaknjena zemljanka 11. Gručo na S tvorijo zemljanke 12, 13 in 14, ki so bolj oddaljene druga od druge.

Glede na tlorisno velikost stavb, posamezne stavbne elemente in najdbe v njih domnevamo, da je bila večina zemljank namenjena bivanju, le zemljanki 3 in 6 sta lahko imeli drugo namembnost, morda za obrtno oz. gospodarsko dejavnost. Zemljanka 6 z večjim ognjiščem[16] pa je morda predstavljala osrednji prostor v zaselku, možno je tudi, da je bila v skupni rabi in je imela poseben pomen za celotno naselje.

Večje okrogle jame

V tlorisu praviloma okroglih ter v premeru večjih kot 1 m oz. največ do 2,66 m je bilo 19 jam (jame 1–19; *sl. 1*), njihova ohranjena globina je znašala 0,07–0,66 m. V njih je bilo večje število najdb, največ keramike in kosi prežgane gline. Razen jame 19, ki se je od ostalih ločila po nepravilni obliki tlorisa in preseka ter odsotnosti najdb, so bile vse odkrite v J gruči. Največ jih je bilo ob zunanji strani zemljank ter ob J ter JV robu izkopnega polja. Dobrih 10 m od zemljank je bila oddaljena jama 15, ki je imela v dno vkopano plitvejšo jamo (jama 16), v steno pa jamo za stojko (jama 45). Ta jama je bila verjetno nadstrešena.[17] Na vrhu jame so bili kamni premera 10–20 cm, vmes keramične najdbe (kosi posod in

[16] Studeníková je obravnavala ognjišče tudi kot vir svetlobe in toplote, središče doma, življenja in kulta (bog sonca). V starejši železni dobi je bilo ognjišče mesto čaščenja – prostor mesečevih idolov (Studeníková 1979, 28).

[17] Prim. Golec 2003, 30 (Brno – Obřany); Kovačević 2012, 69–70 (Zbelava Sj. 237/238); Šimek 1982a, 267.

probably represents the bedding. The hearth's working area revealed a 26 × 21 cm large piece of grandiorite with traces of usewear. Finds came to light above the hearth, predominantly pottery (sherds of two decorated dishes or bowls, a decorated spindle whorl and others) and pieces of burnt clay. The hearth's E extension was irregular in shape and survived as a 47 cm thick layer of cobbles, rough pieces of stone and pieces of burnt clay with the impressions of cobbles and of daub. These included a 21 × 19 cm large stone and pottery sherds belonging to a grooved dish, a pithos, a baking lid and several jars.

SH6 is located at the centre of the S cluster, some 6 m from SH 7 (which has an orientation different from that of the other SHs) and 12–25 m from all other buildings. The distance between the smaller groups of buildings (SHs 1 and 2, SHs 3–5, SHs 6–9) in the S cluster is uniform and measures 3.5–6 m. SH 11 is located some 25 m NW of the buildings of the S cluster. The N cluster is composed of SHs 12, 13 and 14, which are separated from one another by greater distances.

The size of the SHs, individual constructional elements and finds suggest that most of the buildings represented living quarters, only SHs 3 and 6 may have served another purpose, possibly as the working area of an artisan or for some other economic activity. SH 6 with a large hearth[16] may have represented the central point of the settlement, it may have been in communal use and enjoyed a special place within the settlement.

Large round pits

Excavations revealed 19 large pits (Pits 1–19; *fig. 1*) that were predominantly round in plan and measured 1.00–2.66 m in diameter and 0.07–0.66 m in surviving depth. They revealed a multitude of finds, mostly pottery and burnt clay. With the exception of Pit 19 that differed from others in an irregular plan and cross section, as well as an absence of finds, all such pits came to light in the S cluster. Most of them were found along the exterior of the buildings and along the S and SE edges of the excavation area. Pit 15, found just over 10 m from the S cluster, had a shallow depression dug in its bottom (Pit 16) and a posthole (Pit 45) in its wall. This pit probably had a roof.[17] In the upper layers of the pit were stones, measuring 10–20 cm across,

[16] Studeníková treated the hearth as a source of light and warmth, the centre of the home, life and cult (of the sun god). In the Early Iron Age, the hearth was a place of worship – a place for moon idols (Studeníková 1979, 28).

[17] Cf. Golec 2003, 30 (Brno – Obřan); Kovačević 2012, 69–70 (Zbelava Sj. 237/238); Šimek 1982a, 267.

ognjiščne koze), žlindra, žrmlje, kamni s sledovi rabe ter kosi prežgane gline in ometa (G373–375). Tudi v jami 2 sta bila dva drobca žlindre, poleg pa odlomka močno prežgane keramike (G 332; *sl. 16*).

Nekaj jam je odstopalo po obliki tlorisa; jama 18 je bila ovalna, jame 4, 8 in 9 štirioglate. Slednje le zaradi velikosti in pomanjkanja najdb nismo uvrstili med zemljanke. Ob robu večje jame 4 je bila še manjša jama 25. Čeprav sta obe manjši, spominjata na zemljanko 2 z jamo 6. Glede na najdbe, ki spominjajo na hišni inventar (posodje, ognjiščne koze, tkalske uteži in predilna vretenca, kamni s sledovi rabe), so te jame lahko služile kot odpadne. Nekatere so lahko bile tudi za shrambo ali pa so ostaline kakšne druge dejavnost, ki se je v naselju odvijala.

Manjše okrogle jame

Velikosti manj kot 1 m v premeru, večina 0,30–0,60 m, je bilo 37 jam (jame 20–56; *sl. 1*). Njihova ohranjena globina ni presegala 0,39 m. Nahajale so se na osrednjem delu J gruče, ob in med zemljankami, pet jih je bilo na območju jarkov 3–7, štiri ob večjih jamah ob J robu izkopnega polja. V S gruči so bile ob SZ robu izkopnega polja tri manjše jame odmaknjene od objektov, ena je bila ob podolgovatih ovalnih jamah. V 21 jamah so bile najdbe, večinoma keramika, vendar le posamezni kosi, ter prežgana glina.

Služile so različnim namenom, kot jame za stojke, shrambne jame, ki smo jih opredelili na podlagi najdb večjih posod (loncev ali pitosa), ali ostaline katere od drugih dejavnosti. Domnevni shrambni jami 32 in 35 sta bili v bližini zemljank, shrambne jame 52–54 pa več kot 20 m proč od najbližje zemljanke (14) v S gruči. Morda so bile shrambi namenjene tudi jame na robu izkopnega polja, ki so bile od J gruče oddaljene več kot 25 m, in katera od jam na JZ robu najdišča. V jami 43 je bila nekoliko poškodovana ognjiščna koza, v jami 20 je bil ob odlomkih keramike tudi manjši kos železa. V nekaterih (manjših in večjih) jamah je bilo več kamnov brez vidnih sledov rabe, nekatere so jih bile skoraj polne, npr. jama 34. Njihove namembnosti ne poznamo.

Omenimo naj raziskavo jam z naselja Těšetice na Moravskem, kjer so bile odpadne jame v tlorisu običajno ovalne ali okrogle, globoke 0,5–2 m, zapolnjene s primarnim ali sekundarnim odpadom. Lahko so bile ograjene, pa tudi nadstrešene. V shrambnih jamah naj bi hranili žito in druge poljedelske pridelke; glede na njihovo raznolikost se predvideva

mixed with pottery sherds (of vessels and a firedog), slag, quernstone, stones with traces of usewear and pieces of burnt clay and daub (G373–375). Pit 2 also revealed two bits of slag found alongside two sherds of heavily burnt pottery; one of them was damaged when exposed to very high temperatures (G332; *fig. 16*).

Not all pits were round in plan: Pit 18 was oval, Pits 4, 8 and 9 were quadrangular. The last three pits were not interpreted as sunken-houses because of the lack of finds. Pit 4 had a smaller one, Pit 25 dug at its edge; although smaller in size, this combination resembles that of SH 2 and Pit 6.

The finds from these pits are such as we might associate with a household (pottery, firedogs, loom weights and spindle whorls, stones with traces of usewear), suggesting that they functioned as refuse pits, storage pits or are remains of other activities.

Small round pits

Excavations revealed 37 pits (jame 20–56; *fig. 1*) measuring less than a metre in diameter (most of them 0.30–0.60 m) and not exceeding 0.39 m in surviving depth. They were located in the centre of the S cluster, next to and between the sunken-featured buildings, five of them in the area of Ditches 3–7, four next to larger pits along the S edge of the excavation area. Three small pits were found in the N cluster along the NW edge of the excavation area and were slightly removed from the SHs, one of them was located near the elongated oval SH. Of the small pits, 21 contained small finds that mainly consisted of individual pieces of pottery and burnt clay.

These pits served different purposes: postholes, storage pits identified on the basis of sherds of large vessels (jars and one pithos) or other. The presumed storage Pits 32 and 35 were located in the vicinity of buildings, while the storage Pits 52–54 were over 20 m away from the nearest sunken-houses (SH 14) in the N cluster. The pits at the edge of the excavation area located over 25 m from the S cluster may also have been used for storage, as were some of the pits at the SW edge of the site. Pit 43 revealed a slightly damaged firedog, Pit 20 pottery sherds and a small piece of iron. Some pits (small and larger ones) yielded several stones without visible traces of usewear, other pits (e.g. Pit 34) were filled with such stones; their function is unclear.

On that subject, we should mention the research into such pits from the settlement at Těšetice in Moravia. The refuse pits from this settlement were usually oval or round in plan and 0.5–2 m deep, containing primary or secondary refuse. Some had a fence, others roofs over them. The storage pits were used to store cereals and other produce; their variety

skladiščenje različnih vrst hrane na različnih mestih znotraj naselja.[18]

Podolgovate ovalne jame

V tlorisu podolgovatih ovalnih je bilo 12 jam (jame 57–68; *sl. 1*). Bile so daljše od 1,5 m, največja je merila 4,62 m, široke so bile 0,66–1,87 m in v globino ohranjene 0,16–0,60 m. Tudi te so bile usmerjene enotno, SV–JZ. V J gruči so bile ob zunanjem robu zemljank, jama 62 je bila, podobno kot zemljanka 11, od te gruče oddaljena malo več kot 20 m. Dobrih 25 m je bila oddaljena tudi jama 63 na JZ robu najdišča, v bližini manjših jam in jarkov. V S gruči je bila skupina petih tovrstnih jam (jame 64–68).

Praviloma v njih ni bilo najdb, le v štirih je bilo nekaj kosov keramike, v dveh ožgan kamen, v nekaterih kosi prežgane gline in drobci oglja. So drugačne namembnosti od prej opisanih. Lahko so ostaline katere od dejavnosti, ki se je vršila v naselju (strojenje kože ipd.), ali namenjene hrambi hrane, ki je ni bilo treba hraniti v posodah. Omenimo naj podobnost s t. i. repnicami, ki so bile še do nedavnega pogoste na štajerskih poljih.[19] Jame takšne oblike in enake usmeritve so pogoste na nižinskih naseljih na območju JZ panonskega in V alpskega prostora.[20]

Kurišča

Odkrita so bila 4 zunanja kurišča velikosti 1,28–2,46 m × približno 1 m (*sl. 1*). Kurišča 2–4 so bila na zaplatah ilovice na prodnati podlagi. Glede na debelino prežgane plasti sklepamo, da so na večini kurili dlje časa. V kurišču 5, ki je bilo na zunanjem robu J gruče in približno 5 m od zemljanke 5, so bili posamezni odlomki keramike; odlomka keramike sta bila tudi na kurišču 4.

Jarki

Odkritih je bilo 8 jarkov, za katere ni gotovo, da so pripadali železnodobnemu naselju (*sl. 1*). Jarka 3 in 8, ki sekata nekatere ostaline, sta zagotovo od njih mlajša. Bili so različne dolžine, 1,9–11,02 m, širine

[18] Golec 2003, 23–25, 29–30; prim. Adámek 1961, 109–130; gl. jama 15 iz Hotinje vasi.

[19] Gre za enostavne jame, v katere so kmetje shranjevali poljščine in ostale pridelke. Največ je bilo verjetno prav repe.

[20] Podolgovate ovalne jame različnih dimenzij in deloma enotno usmerjene so znane npr. iz naselij Kotare – Baza pri Murski Soboti (Kerman 2011, 29, sl. 23), Zbelava pri Varaždinu (Kovačević 2012, 86, plan 1), Kuřim SZ od Brna (http://www.archaiabrno.org/home_cs/?acc=preview&image=002537).

suggests the storage of different foodstuffs in different areas within the settlement.[18]

Elongated oval pits

Excavations revealed twelve such pits (Pits 57–68; *fig. 1*) that exceeded 1.5 m in length, with the longest measuring 4.62 m. These pits were 0.66–1.87 m wide and survived to the depth of 0.16–0.60 m. They shared a common, NE–SW orientation. Such pits in the S cluster were dug along the exterior of the SHs, with Pit 62 located just over 20 m from the cluster, similarly as SH 11. Pit 63 was also away from the cluster, over 25 m, located at the SW edge of the site and in the vicinity of smaller pits and ditches. The N cluster revealed a group of five such pits (64–68).

These pits contained few or no finds: four pits revealed several pieces of pottery, two a burnt stone and some contained pieces of burnt clay and bits of charcoal. They differed in function to those described above. They may represent the remains of one of the activities taking place within the settlement (for example hide tanning) or storage of foodstuffs not kept in containers. We should mention that they were similar to the pits used for storing turnips in common use until very recently across the fields in the Styria/ Štajerska region.[19] Pits of this form and possibly even common orientation are frequent features in the lowland settlements across SW Pannonia and the eastern Alpine area.[20]

Fireplaces

The site revealed four open-air fireplaces measuring 1.28–2.46 m × ca. 1 m (*fig. 1*). Fireplaces 2–4 were set on a patch of loam over gravel. The thickness of the layer of burnt remains suggests that they were in use over a long period of time. Fireplace 5, located at the edge of the S cluster and roughly 5 m from SH 5, contained individual pottery fragments; two sherds were also found in Fireplace 4.

Ditches

Eight ditches were excavated at the site, but cannot positively be connected with the settlement (*fig. 1*). At least Ditches 3 and 8, which cut through other remains, were certainly later. They differed in size and

[18] Golec 2003, 23–25, 29–30; cf. Adámek 1961, 109–130; see Pit 15 from Hotinja vas.

[19] They are simple pits where farmers kept produce, mostly turnips (hence the name *repnica* in Slovenian).

[20] Elongated oval pits of different sizes and partially uniform orientations are known e.g. from the settlement at Kotare – Baza near Murska Sobota (Kerman 2011, 29, fig. 23), Zbelava near Varaždin (Kovačević 2012, 86, plan 1), and Kuřim NW of Brno (http://www.archaiabrno.org/home_cs/?acc=preview&image=002537).

0,21–0,47 m in globine 0,08–0,17 m oz. en 0,3 m. V preseku so bili »u« oblike, ožje stranice so bile polkrožne. Potekali so v približni smeri SV–JZ. V njih so bili predvsem posamezni kosi keramike, v jarku 8 pa tudi žrmlje. Podobni jarki se sicer pojavljajo tudi v nekaterih drugih nižinskih naseljih.

Območja zgostitve keramike in kamenja

V J gruči je bilo 5 območij zgostitev keramike, prežgane gline in kamenja (lomljenci in prodniki), s površino med 0,50 × 0,40–1,12 × 0,96 m ter debelino 0,20–0,53 m (*sl. 1*). Nahajale so se v vrsti, JV od objekta 5, na vmesnem praznem prostoru, v približni smeri oranja. V nekaterih so bile vidne brazde oranja, v zgostitvi 5 je bil poleg prazgodovinskih najdb tudi ročaj novejše žlice. Odlomki keramike so bili sestavljivi, pripadali so več različnim posodam. Gre za ostaline nekega naselbinskega elementa, morda plitveje vkopane zemljanke ali celo nadzemnega objekta,[21] ki je bil uničen z modernimi posegi.

Da gre za urejeno naselje, kažeta razvrstitev in usmeritev stavbnih ter drugih vkopanih elementov (*sl. 1*). V J gruči je bil jasen predvsem njen S rob, kjer so bile zadnje jame razporejene skoraj v vrsti. Podobno je bilo na V, pri čemer je odstopal le objekt 10. Raziskan sklop meri približno 60 × 40 m oz. 60 × 60 m, če štejemo še dobrih 10 m oddaljene večje in manjše okrogle jame v J vogalu izkopnega polja. Zemljanke in drugi vkopani elementi so bili razporejeni okrog razmeroma praznega prostora, velikega približno 25 × 25 m. Na sredi je bila zemljanka 6 z ognjiščem, ki je domnevno osrednji prostor v naselju. Ob verjetno večinoma bivalnih zemljankah so bili pomožni objekti, shrambne, odpadne in druge jame; na J je bila oddaljena skupina domnevnih shrambnih jam. Podolgovate ovalne jame so bile ob zunanjem robu objektov. Na vmesnem prostoru so bile posamezne stojke ter zgostitve keramike in kamenja, kar nakazuje možen obstoj nadzemnih stavb.

Približno 150 m proti S je bila druga gruča, ki ne kaže enake zgoščenosti in tudi ni bila v celoti raziskana. Tvorijo jo tri zemljanke, skupina 5 podolgovatih ovalnih jam, 5 manjših okroglih jam in kurišče. Zemljanki 12 in 13 sta bili narazen skoraj 10 m, objekt 14 je bil oddaljen še 40 m. Več kot 20 m J od objekta 14 so bile domnevne oddaljene jame za shrambo.

[21] V Zbelavi pri Varaždinu so bila odkrita tla nadzemnih objektov, ki so se ohranila kot zaplate različno velikih prodnikov, vrh katerih je bila zbita in zglajena (prežgana) glina (Kovačević 2012, 64, s primerjavami z lokacij Zagreb – Gornji grad, Lobor idr.).

measured 1.9–11.02 m in length, 0.21–0.47 m in width and 0.08–0.17 m (one even 0.3 m) in depth. They were U-shaped in cross section with semicircular shorter sides. They ran roughly NE–SW. The ditches revealed rare pottery sherds, Ditch 8 also a quernstone. Similar ditches have also been noticed at several other lowland sites.

Concentrations of pottery and stones

The S cluster of buildings included five areas of concentrated pottery, burnt clay and stones (rough stones and cobbles). These concentrations were 0.20–0.53 m thick and covered surfaces measuring between 0.50 × 0.40 and 1.12 × 0.96 m (*fig. 1*). They formed a line SE of SH 5, roughly parallel with plough furrows; there were traces of furrows visible on the surface of some of the concentrations. Apart from prehistoric finds, Concentration 5 included the handle of a modern-period spoon. Pottery sherds could be assembled to form several different vessels. They represent the remains of a settlement feature, possibly a shallow sunken-houses or an above-ground building,[21]destroyed through modern land use.

The disposition and orientation of the buildings and other features reveal a rather well-organised settlement (*fig. 1*). The northern edge of the S cluster is particularly clearly discernible, with the northernmost SHs arranged in a straight line. SHs 7, 8 and 9 form a similar line in the east, only SH10 stands apart and is located further to the east. The investigated part of the S cluster covers a surface of 60 × 40 m (60 × 60 m if including the large and small round pits in the S corner of the excavation area located some 10 m away). The sunken-houses and other features are arranged around a more or less empty space measuring roughly 25 × 25 m. SH 6 with a hearth was located at the centre and presumably represented the focal point of the settlement. The SHs predominantly served as living quarters surrounded by outbuildings, storage, refuse and other pits; an additional group, of presumably distant storage pits, was located further to the south. Elongated oval pits were located along the outer sides of the SHs. The areas between the SHs revealed individual postholes and concentrations of stones and pottery that may represent the remains of above-ground buildings.

The N cluster, located some 150 m away of the first one, does not show the same sort of disposition

[21] The site at Zbelava near Varaždin, Croatia, revealed the floors of above-ground buildings that survived as patches of variously sized cobbles overlain by compacted and smoothed (burnt) clay (Kovačević 2012, 64, with comparisons at Zagreb – Gornji grad, Lobor and elsewhere).

Slika 5. Zadnji prebivalec zemljanke iz kraja Novo Miloševo v Vojvodini, zgrajeni leta 1947. Vkopana je bila 1,5 m globoko, streho je nosila soha in nanjo naslonjeni tanjši tramovi, ki so bili na drugi strani oprti na zemljo. Pokrita je bila s slojem trsa in slame, preko katerega je bilo nanešeno blato. Prvotno je imela en prostor, kasneje so mu z zunanje strani dodali še enega. V hišo se je vstopilo skozi kuhinjo in nato naprej v sobo. V kuhinji je bil majhen dimnik za odprto ognjišče, v sobi pa majhna peč, ki se je kurila iz kuhinje (vir 17. 3. 2016. http://novomilosevo.devbin.org/nm20080209.html).

Figure 5. The last inhabitant of a sunken-house built in 1947 at Novo Miloševo in the region of Vojvodina, Serbia. The building was dug 1.5 m deep. The roof was made of a layer of reeds and straw covered with mud, and rested on a post and rafters set into the ground. It initially had a single room, another one was added later. The entrance was through the kitchen that had a small chimney for the open hearth, while the second room had a small stove fuelled from the kitchen (source http://novomilosevo.devbin.org/nm20080209.html, accessed 17. 3. 2016).

NAČIN GRADNJE NA NASELJU HOTINJA VAS

V starejši železni dobi so bili v Podravju v rabi različni načini gradnje, ki so le izjemoma znani že iz naselbin kulture žarnih grobišč (npr. na Brinjevi gori in Rifniku). Gre za stavbe s stojkami, brunarice oz. stavbe s kamnitimi temelji ali pa lesenimi, kjer so bila bruna položena neposredno na nekdanjo površino ali pa položena v jarek, kot npr. v naselju Hajndl pri Ormožu. Tam je bilo odkritih tudi nekaj jam, ki so morebiti pripadale zemljankam.[22] Le-te so bile v SV Sloveniji odkrite še na najdiščih Kotare – Baza in Nova tabla pri Murski Soboti ter domnevno Pri Muri pri Lendavi in v Lancovi vasi pri Ptuju.[23]

Zemljanke[24] se v starejši železni dobi pojavljajo na širokem ravninskem in gričevnatem prostoru Srednje Evrope. Kot kažejo primeri s prostora od Moravske do južnega Podonavja, niso bile vezane le na nižinska naselja, temveč zaradi načina gradnje predvsem na tip oz. teksturo tal (npr. melj). Gradili so jih od prazgodovine do srednjega veka oz. do 20. stoletja (*sl. 5*).[25]

[22] Kovač 2004, objekt 5; Magdič 2006, objekt 7; Mele 2009, SE 593 in morda tudi jami SE 1209 ter SE 1327.

[23] Kerman 2011, 28–31 (Kotare – Baza); Guštin, Tiefengraber 2001, 112; Guštin et al. 2017 (Nova tabla); tu so bile tudi zemljanke iz žarnogrobiščnega obdobja (Tiefengraber 2001, 81, Abb. 2); Sankovič 2011, 43 (Pri Muri pri Lendavi); Predan et al. 2006 (Lancova vas).

[24] Termin zemljanka (*Grubenhaus*, *Grubenhütten*, *Wohngrube*, *Erdhaus*, *pit-house*, *sunken house*, *zemunica*, *zemljanky*, *zemnice* idr.) navadno uporabljamo za (bivalno) stavbo, katere večji del je vkopan v tla, polzemljanka pa za plitvo vkopano stavbo z nadzemno konstrukcijo. Glede ustreznosti slednjega so potekale razprave pri raziskovalcih srednjeveških zemljank (npr. Šalkovský 2001, 16), obširno se je razpravljalo tudi o obliki in namembnosti polzemljank iz starejše železne dobe (npr. Dreslerová 1995a, 63, s tam navedeno literaturo).

[25] Opravljene so bile predvsem obsežne študije zemljank iz mlajše železne dobe in zgodnjega srednjega veka. Ker gre za primerljiv način gradnje, smo se oprli tudi na izsledke teh del, v katerih so bili upoštevani tako arheološki, etnološki, zgodovinski, slikovni in pisni viri kot tudi izsledki, ki jih je dala eksperimentalna arheologija. Gl. predvsem: Zimmermann (1992, 1998), Šalkovský (2001, 2002, 2007), Chapelot in Fossier (1985) ter Donat (1980);

and concentration of remains. It is composed of three SHs, a group of five elongated oval pit, five small round pits and a fireplace. SHs 12 and 13 were located almost 10 m apart, SH 14 even 40 m from the pair. The distant storage pits in this cluster were located over 20 m south of SH 14.

CONSTRUCTION MANNER AT THE SETTLEMENT

Different construction methods were in use in the Early Iron Age in Podravje area, but rarely in continuation from the Urnfield culture group (e.g. at Brinjeva gora and Rifnik). The way of construction include using wooden posts and log structures of wooden balks with stone foundations or sleeper beams laid either directly onto the ground or into slots dug into the ground; an example of the latter has been documented at Hajndl near Ormož. This settlement also revealed features possibly attributable to SHs.[22] In NE Slovenia, other such buildings were excavated at Kotare – Baza and Nova tabla near Murska Sobota, presumably also at site of Pri Muri near Lendava and at in Lancova vasi near Ptuj.[23]

SHs[24] from the Early Iron Age have been found across the lowland and hilly regions of central Europe. Examples stretch from Moravia to the southern Danube Basin and reveal that they are not limited to the lowland, but rather to the type or texture of the ground (e.g. silt) suitable for such constructions. In the stated area, sunken-houses were being constructed from prehistory to the Middle Ages, at places all up to the 20th century (*fig. 5*).[25]

[22] Kovač 2004, Building 5; Magdič 2006, Building 7; Mele 2009, SU 593 and possibly the pits of SU 1209 and SU 1327.

[23] Kerman 2011, 28–31 (Kotare – Baza); Guštin, Tiefengraber 2001, 112 (Nova tabla); these sites also revealed SHs dating to the Urnfield culture period (Tiefengraber 2001, 81, fig. 2); Sankovič 2011, 43 (Pri Muri near Lendava); Predan et al. 2006 (Lancova vas).

[24] The term sunken-house or SH (*Grubenhaus*, *Grubenhütten*, *Wohngrube*, *Erdhaus*, *pit-house*, *sunken-house*, *zemunica*, *zemljanky*, *zemnice* and so forth) usually refers to (residential) buildings partly dug into the ground, while a semi-SH describes a building dug to a shallow depth into the ground and with a superstructure above-ground. The suitability of the latter term has been discussed by a number of researchers of later (medieval) SHs (e.g. Šalkovský 2001, 16), while the form and function of the semi-SHs from the Early Iron Age has also been extensively discussed (e.g. Dreslerová 1995a, 63 with cited references).

[25] Major studies were mainly written on the subject of the SHs from the Late Iron and the Early Middle Ages. Because of a comparable construction, the archaeological,

Zemljanke so bile večinoma manjše, predvsem enoprostorne stavbe. Običajno imajo kvadraten oz. pravokoten tloris, lahko so okrogle, ovalne, v obliki trapeza ali nepravilnega tlorisa. Dolžina stranic je v povprečju merila 2–5 m, pri večprostornih tudi 5–10 m oz. do 25 m. Redko so bile še večje. Vkopane so bile približno do 1,20 m globoko v tla. Pogosto so imele v naselju enotno usmeritev.[26] Nadgradnja je bila pretežno lesena. V naselju Brno – Obřany iz starejše železne dobe je bila ugotovljena raba lesa hrasta, bukve, jelke, macesna in javorja.[27] Stene so bile različno izdelane, iz prepleta in zamazane z ilovico, iz desk ali obdelanih brun, lahko tudi v kombinaciji. Omet je bil lahko pobarvan, navadno belo, lahko tudi rdeče. Z glino so bili lahko premazani tudi deli strehe; na najdišču Brno – Maloměřice je bil odkrit kos ometa, ki bi lahko nakazoval okenski obok. Tla so bila večinoma ravna, lahko iz ilovice; včasih so bile v tleh še kleti, niše, shrambne ali odpadne jame. Ponekod so bili ohranjeni posredni dokazi za notranjo opremo. Ob stenah so bile izravnave, klopi; morda je bil to prostor za spanje, odlaganje ali delovna površina. Strešne konstrukcije so bile lahko z notranjimi nosilci ali brez njih. Razni kamni iz zasipov zemljank bi lahko bili tudi deli konstrukcije.[28]

Prvotno namembnost zemljank je težko ugotoviti. Lahko so bile bivalne, delovne ali razne druge pomožne stavbe, prostori za shranjevanje živil, staje za živali. Bivalne so bile neogrevane ali pa so imele ognjišče, ki je služilo tudi pripravi hrane. Vhodni del je bil lahko s strani ali na zatrepni strani; nekatere imajo tudi sledove manjšega stopnišča.[29]

Študija recentnih bivalnih zemljank iz različnih delov Evrope in ZDA je pokazala, da je njihova ključna prednost notranja temperatura. Poleti so hladne, pozimi tople. Globlje kot so vkopane, bolj je temperatura v njih konstantna in tudi poljščine v njih zdržijo dlje.[30] So hitra in poceni gradnja, saj gre zanje manj materiala, predvsem lesa. Bile naj bi tudi

prim. še Andraschko 1995; Sabján 1999, 131–176; Sabján 2002, 320–332.

26 Golec 2003, 21–22; Donat 1980, 56–57; Chapelot, Fossier 1985, 111; Ruttkay 2002, 265; prim. Zimmermann 1992, 158.

27 Adámek 1961, 111.

28 Golec 2003, 20–26; Griebl 2004, 108–121; Ransedler 2006, 239–243; Lauermann 1996a, 221–222; Preinfalk 2012, 117; Chapelot, Fossier 1985, 247–274, 294, 313–317 idr., prim. tudi Šalkovský 2002, obr. 2: 1–5; prim. obr. 4: 1–9; Zimmermann 1992, 190.

29 Zimmermann 1992, 188–189, 192–199; Takács 2002, 190; Griebl 2004, 106; Ruttkay 2002, 266; Sabján 2002, 320.

30 Zimmermann 1992, 198–199; prim. še Pleinerová 1986, 104–176 (rezultati eksperimentalne gradnje in življenja v rekonstruirani zemljanki iz 9. stol. n. št.).

SHs were predominantly small and had a single room. Most were square or rectangular in plan, some also round, oval, trapezoid or irregular. Their sides mainly measured 2–5 m, even 5–10 m or up to 25 m in the larger buildings, rarely more. They were dug up to 1.20 m into the ground. They often shared a common orientation within a settlement.[26] Their superstructure was predominantly made of wood. Analyses of the wood used at the Early Iron Age settlement at Brno-Obřany, in the Czech Republic, revealed the use of oak, beech, fir, larch and maple wood.[27] The walls were constructed in different methods: either of wattle daubed with clay, of wooden boards, of worked beams or in combinations of these. The daub may have been painted, usually white and sometimes red. Clay was also used to coat parts of the roof; the site at Brno – Maloměřice revealed a piece of daub that may even indicate the existence of window arches. The floors were predominantly flat throughout, sometimes made of loam, but may also have had a cellar, niches, storage or refuse pits. Some SHs also revealed indirect evidence of interior furnishings: raised areas or benches along the walls that may have been places for sleeping, storing or serving as worktops. The roof was constructed with or without an internal framework. The various stones documented in the debris layers of the SHs may also have been used in their construction.[28]

It is not easy to identify the function of the SHs. They may have served as living quarters, working buildings or outbuildings, storage facilities, animal pens. The residential buildings were either without heating or had a hearth that was also used in food preparation. The entrance may have been located from the side or from the gable end; some even revealed the remains of a small staircase.[29]

The study of the more recent SHs from various parts of Europe and the USA has shown that the main advantage is in their interior temperature: cool in summer and warm in winter; the deeper sunk they

historical, pictorial and written sources, as well as the results provided by experimental archaeology on these SHs have also been considered here. Primarily see the work of Zimmermann (1992, 1998), Šalkovský (2001, 2002, 2007), Chapelot and Fossier (1985), as well as Donat (1980); also cf. Andraschko 1995; Sabján 1999, 131–176; Sabján 2002, 320–332.

26 Golec 2003, 21–22; Donat 1980, 56–57; Chapelot, Fossier 1985, 111; Ruttkay 2002, 265; cf. Zimmermann 1992, 158.

27 Adámek 1961, 111.

28 Golec 2003, 20–26; Griebl 2004, 108–121; Ransedler 2006, 239–243; Lauermann 1996a, 221–222; Preinfalk 2012, 117; Chapelot, Fossier 1985, 247–274, 294, 313–317 etc., also cf. Šalkovský 2002, fig. 2: 1–5; cf. fig. 4: 1–9; Zimmermann 1992, 190.

29 Zimmermann 1992, 188–189, 192–199; Takács 2002, 190; Griebl 2004, 106; Ruttkay 2002, 266; Sabján 2002, 320.

bolj varne, saj so manj opazne v pokrajini. Služile so lahko kot začasna bivališča.[31] Pri raziskavah najdišča Wien – Oberlaa je bil za oceno, koliko oseb bi lahko živelo v tovrstnih zemljankah, izbran kriterij, da oseba za bivanje potrebuje 4–5 m^2.[32] V Hotinji vasi bi po teh kriterijih v stavbah lahko živelo 1–4 ljudje (*sl. 2*).

Zemljanke kot delavnice so bile primerne za izvajanje različnih domačih dejavnosti in obrti za potrebe ožjega kroga, tako npr. za metalurško dejavnost (taljenje in obdelava kovin), tkanje in predenje, izdelava usnjenih izdelkov in lončenine idr.[33]

Za tlorise zemljank z najdišča Hotinja vas najdemo primerjave znotraj naselij iz starejše železne dobe pa tudi iz mlajših obdobij.[34] Ostaline železnodobnih zemljank v obliki kvadratnih jam z zaobljenimi vogali in primerljive velikosti so bile odkrite tako v Prekmurju (Kotare – Baza), hrvaški Podravini (npr. Zbelava – Pod lipom pri Varaždinu) kot tudi na bolj oddaljenih najdiščih (Těšetice – Vinohrady, Sered' idr.).[35] Tloris stavbe z razširitvijo oz. nišo v enem od vogalov kot pri zemljanki 1 je bil odkrit npr. na najdišču Brno – Réčkovice na Moravskem;[36] tloris kot pri objektu 2 pa poznamo z moravskih najdišč Těšetice – Sutny in Vinohrady.[37] Omenimo še podobnost sklopa jam 4 in 25 z delno ohranjenim, plitvo vkopanim objektom 3 iz poznobronastodobne Dolnice v Mezgovcih ob Pesnici,[38] pa tudi z eno od stavb na najdišču Sered' na Slovaškem.[39] Primerjave za objekte s stojko v robu jame (zemljanke 4, 7, 11) so znane npr. iz naselij Zbelava,[40] Inzersdorf – Walpersdorf in Unterparschenbrunn v Spodnji Avstriji, vendar imajo nekateri objekti iz teh naselij še dodatne jame za stojke na robu ali na dnu jame.[41] Eno stojko na robu je imel verjetno tudi objekt 4 z najdišča Sered',

31 Zimmermann 1992, 200–204; prim. še Takács 2002, 274, 284; Medović 1978, 26.

32 Ransedler 2006, 237; prim. Müller 2012, 352–356; Lauermann 1996a, 221, Abb. 21 (bivalne naj bi merile vsaj 20 m^2).

33 Golec 2003, 21, 27 (starejša železna doba); Chapelot, Fossier 1985, 120–123; Zimmermann 1992, 200–211 idr.

34 Za srednjeveške zemljanke je tipološko razdelitev opravil Šalkovský (2001, 16–56).

35 Kerman 2011, npr. zemljanka 1 (Kotare–Baza); Kovačević 2008, npr. jama sj. 161 (Zbelava); Podborský 1965a, 4, Abb. 2. (Těšetice – Vinohrady); Müller 2012, 309, Abb. 138 (Sered').

36 Tichý 1969, 170, obr. 2: jama III; prim. še objekt (jama 22) z najdišča Brno – Králově poli (Nekvasil 1979, T. 10).

37 Golec 2003, 246 (objekt 45); Podborský 1965a, 10, Abb. 6 (objekt 10); 36, Abb. 18 (objekt 47); 47, Abb. 21.

38 Urek, Horjak 2012; Čuček 2014.

39 Müller 2012, 327–329, Abb. 158 (Befund 8).

40 Kovačević 2008, 48–49, plan 1 (Sj. 053, 054).

41 Ramsl 1998, T. 7: 2; 11: 792 (obe iz stopnje LT A); Lauermann 1994, 135, Abb. 11; 140 (V 4); Abb. 16 (V 10).

are, the more constant the interior temperature and the longer the shelf life for produce.[30] They are fast and very affordable to build, requiring less raw material, particularly wood; they are also presumably safer, being less conspicuous in the landscape. They may have served as temporary dwellings. Living in these buildings is believed to have been connected with the social standing rather than ethnic identities.[31] The research of the settlement at Wien – Oberlaa included an assessment of the number of individuals living in one such SH, which was based on the assumption that one individual required 4–5 m^2 of living space.[32]According to these criteria, 1–4 individuals could have lived in such a SH at Hotinja vas (*fig. 2*).

The SHs also functioned as workshops for a variety of activities and crafts meeting the needs of the local community: metallurgy (smelting and working of metals), weaving and spinning, making items of leather, making pottery and so forth.[33]

The SHs from Hotinja vas are comparable in ground plan with the buildings from across central Europe, excavated at sites attributed to the Early Iron Age or later.[34] The remains of Iron Age SHs of comparable size in the form of square pits with rounded corners have been unearthed in the Prekmurje region in Slovenia (Kotare – Baza by Murska Sobota), the Podravina region in Croatia (e.g. Zbelava – Pod lipom near Varaždin) and more distant sites (Těšetice – Vinohrady, Sered' and others).[35] The ground plan with an extension in one of the corners, similar to that of SH 1, has been found at Brno – Réčkovice in Moravia;[36] while the ground plan of SH 2 is comparable to several from the Moravian sites at Těšetice – Sutny and Vinohrady.[37] We should also mention the similarity with the Pits 4 and 25 with the shallow dug SH 3 in the Late Bronze Age settlement at Dolnica in Mezgovci ob Pesnici,[38] but

30 Zimmermann 1992, 198–199; also cf. Pleinerová 1986, 104–176 (results of experimental constructions and of the life in a reconstruction of a 9th-century-AD SH).

31 Zimmermann 1992, 200–204; also cf. Takács 2002, 274, 284; Medović 1978, 26.

32 Ransedler 2006, 237; cf. Müller 2012, 352–356; Lauermann 1996a, 221, Fig. 21 (the residential buildings are believed to have measured at least 20 m^2).

33 Golec 2003, 21, 27 (Early Iron Age); Chapelot, Fossier 1985, 120–123; Zimmermann 1992, 200–211 etc.

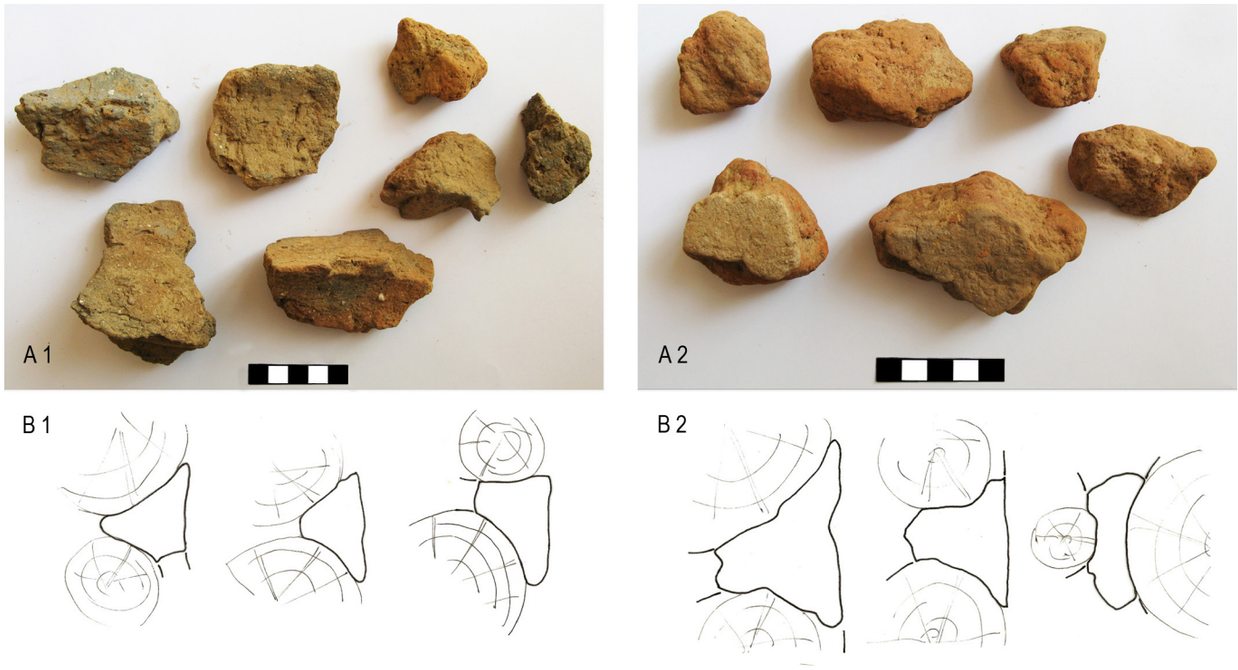
34 The medieval SHs have been typologically classified by Šalkovský (2001, 16–56).

35 Kerman 2011, e.g. SH 1 (Kotare–Baza); Kovačević 2008, e.g. Pit sj. 161 (Zbelava); Podborský 1965a, 4, fig. 2. (Těšetice – Vinohrady); Müller 2012, 309, fig. 138 (Sered').

36 Tichý 1969, 170, fig. 2: Pit III; also cf. Pit 22 from Brno – Králově poli (Nekvasil 1979, Pl. 10).

37 Golec 2003, 246 (SH 45); Podborský 1965a, 10, fig. 6 (SH 10); 36, fig. 18 (SH 47); 47, fig. 21.

38 Urek, Horjak 2012; Čuček 2014.



Slika 6. Hotinja vas. Omet iz zemljank 2 (A1) in 6 (A2), kjer je tudi kos z belim premazom; risbe presekov čez posamezne kose ometa iz zemljanke 2 (B1) in jame 6 ob njej (B2).
Figure 6. Hotinja vas. Daub from SHs 2 (A1) and 6 (A2) that includes a piece with a white coat, cross sections of several pieces of daub from SH2 (B1) and adjacent Pit 6 (B2).

ki pa je imel spredaj še tri stojke.[42] Jame podobnega tlorisa kot zemljanka 14 so bile odkrite na najdiščih Brno – Králově poli, Kuřim (objekt 28 z ognjiščem), Göttlesbrunn (objekt 36) in Unterparschenbrunn.[43] Na tem mestu bi opozorili še na objekt 24–25 z mladohalštatskega najdišča Jenštenj na Češkem, od katerega poteka 3 m dolg, 1 m širok in ravno toliko globok jarek ter na podoben objekt v Radovesicah, opredeljen kot morebitna strojarna.[44] S tema dvema primeroma je nakazana možna razlaga za zemljanko 14 (s predpostavko, da je jarek njen del) ali pa za katerega od drugih jarkov v Hotinji vasi.

Nadgradnjo oz. notranjost zemljank s Hotinje vasi smo skušali nakazati na podlagi ohranjenega ometa. Nekaj kosov ometa ima eno stranico ravno, zato je bilo to vidno lice stenskega ometa (zemljanke 6, 13 in morda 14, večja jama 15), nekaj kosov pa kaže odtise brun premera okrog 10 cm ali manj (zemljanka 2 in večja jama 6, zemljanki 7 in 14) (*sl. 6*). Na posameznih kosih ometa iz zemljanke 6 in iz nadstrešene jame 15 je bil ohranjen bel premaz (*sl. 6: A2*). Primerjave za premazovanje in tudi druge načine okraševanja ometa oz. sten so znane tudi iz bližnjih naselij. Na Brinjevi gori je bila odkrita 8 cm debela plast žgane gline, ki je imela eno stran zglajeno in prebarvano z belo apneno raztopino. V glinenih kosih ni bilo odtisov lesa, naneseni naj bi

also with one of the SH at the site of Sered' in Slovakia.[39] Comparisons for SHs with a posthole at the edge of the pit (SHs 4, 7, 11) are known from settlements such as Zbelava,[40] Inzersdorf – Walpersdorf and Unterparschenbrunn in Lower Austria, though some SHs from these settlements have additional postholes along the edge or on the bottom of the pit.[41] SH 4 from Sered' probably also had a single posthole at the edge and three postholes in front of the building.[42] Pits of a ground plan similar to that of SH 14 have been exavated at Brno – Králově poli, Kuřim (SH 28 with a hearth), Göttlesbrunn (SH 36) and Unterparschenbrunn.[43] We should also mention SHs 24–25 from the Early Hallstatt site at Jenštenj, in the Czech Republic, that had a 3 m long, 1 m wide and 1 m deep ditch running from it. A similar building is believed to have been unearthed at Radovesice, tentatively interpreted as a tannery.[44] These examples suggest a possible function of SH 14 (presuming that it forms a single unit with the ditch) or of some other ditches at Hotinja vas.

The superstructure and interior of the SHs at Hotinja vas can be inferred from the surviving pieces of daub. Several pieces have one flat surface, which

42 Paulik 1955, 168 (z rekonstrukcijo notranjosti); Müller 2012, 219–322, Abb. 150.
43 Nekvasil 1979, 6, T. 18 (Brno – Králově poli); Golec 2003, 17; tloris naselja Kuřim dostopen na: http://www.archaiabrno.org/home_cs/?acc=preview&image=002537; Griebl 2004, 74, Abb. 30 (Göttlesbrunn); Lauermann 1994, 140, Abb. 16 (V 9) (Unterparschenbrunn).
44 Dreslerová 1995a, 14, 66, fig. 7.

39 Müller 2012, 327–329, fig. 158 (Befund 8).
40 Kovačević 2008, 48–49, Plan 1 (Sj. 053, 054).
41 Ramsl 1998, Pls. 7: 2; 11: 792 (LT A); Lauermann 1994, 135, fig. 11; 140 (V 4); fig. 16 (V 10).
42 Paulik 1955, 168 (with the reconstruction of the interior); Müller 2012, 219–322, fig. 150.
43 Nekvasil 1979, 6, Pl. 18 (Brno – Králově poli); Golec 2003, 17; the ground plan of the settlement is available at: http://www.archaiabrno.org/home_cs/?acc=preview&image=002537; Griebl 2004, 74, fig. 30 (Göttlesbrunn); Lauermann 1994, 140, fig. 16 (V 9) (Unterparschenbrunn).
44 Dreslerová 1995a, 14, 66, fig. 7.

bili na posamezne dele lesene stene. Pahič je najdbo primerjal s pobeljenim in poslikanim ometom z najdišč Kalakača v Vojvodini in Schadeck v nemški deželi Hessen.[45] V Kalakači so bili na ravni ploskvi ometa en do trije sloji beleža, na dveh kosih pa premaz rdeče-oker barve.[46] Na podobno najdbo naj bi naletel Schmid na Pošteli, ki je zabeležil »z rdečkasto rjavo razmočeno čisto glino popleskane in z metlico ometane kose stenskega premaza«. Omet z belim premazom je bil odkrit na Rifniku, v Ormožu so bile z belo premazane okrašene glinene plošče.[47] Podobne so najdbe iz Horna, nižinskega naselja z zemljankami na Spodnjeavstrijskem.[48] Omet z belim premazom je bil odkrit v zemljankah iz naselja Těšetice, Bučovice in Chrlice v okolici Brna. V objektu 4 na najdišču Brno – Řečkovice pa so bili na ometu sledovi rdečega barvanja.[49]

Le skromni so v Hotinji vasi pokazatelji za obstoj nadzemnih stavb ali drugih nadzemnih elementov, kot so npr. razni plotovi, ograde idr. Jame za stojke izven zemljank so bile v premeru večje kot tiste v zemljankah, merile so 30 × 40–54 × 46 cm. Šlo je torej za močnejše nosilce. Predvsem za štiri jame za stojke v J gruči (jame 23, 27, 28, 44) domnevamo, da so ostaline nadzemnih gradenj, ki pa jih ne moremo natančneje opredeliti; podobno velja tudi za pet območij zgostitve kamenja in keramike.

Da so bile znotraj enega naselja stavbe grajene na različne načine, ni redkost. Nadzemni objekti so lahko večje stavbe ob manjših, pomožnih zemljankah; lahko pa je bilo tudi obratno, in sicer da objekti, grajeni s stojkami, predstavljajo pomožne prostore ob zemljankah. Tak primer poznamo npr. z najdišča Virovitica – Đurađ istok.[50] Oba tipa gradnje sta bila ugotovljena na bližnjih naseljih Kotare – Baza pri Murski Soboti[51] ter Zbelava.[52] Naselbine z nadzemnimi bivalnimi objekti ter morda bivalnimi zemljankami naj omenimo še iz naselij Sered'[53] in Inzersdorf – Walpersdorf.[54]

was probably the outer face (SHs 6, 13 and possibly 14, large Pit 15); a number of pieces show impressions of logs measuring 10 cm or less in diameter (SH 2 and large Pit 6, SHs 7 and 14) (*fig. 6*). Individual pieces of daub from SH 6 and from the roofed Pit 15 revealed a white coat (*fig. 6: A2*). Comparisons for such coats or other daub decorations are known from nearby settlements in Slovenia. At Brinjeva gora, for example, an 8 cm thick layer of burnt clay was found with one side smoothed and painted with a white lime-and-water solution. The clay pieces held no impressions of wood and were presumably applied to certain parts of wooden walls only. Stanko Pahič compared this find with the whitewashed and painted daub from Kalakača in Vojvodina and Schadeck in the German federal state of Hessen.[45] The finds from Kalakača include pieces of daub with one flat surface that bear one to three layers of whitewash, while two pieces have a red-ochre coat.[46] A similar discovery was reported at Poštela, where W. Schmid unearthed pieces of daub painted with wet reddish-brown raw clay applied with a brush. Daub with a white coat was also found at Rifnik, while the settlement at Ormož revealed whitewashed and decorated clay plaques.[47] Similar finds are known from Horn, a lowland settlement with SHs in Lower Austria.[48] Daub with a white coat was also unearthed in the SHs at Těšetice, Bučovice and Chrlice near Brno. Pieces of daub from Building 4 at Brno – Řečkovice even revealed traces of red paint.[49]

Only rare finds at Hotinja vas indicate the existence of above-ground buildings or other structures such as fences and enclosures. Post holes outside the SHs were larger than those within them in diameter, measuring 30 × 40 to 54 × 46 cm; these presumably held stronger support elements. The four post holes in the S cluster (Pits 23, 27, 28, 44) are presumed to have been the remains of above-ground constructions of unknown form and function; a similar interpretation can be supposed for the five concentrations of pottery and stones.

It is not rare for settlements to comprise buildings of different construction manners. Above-ground buildings may be larger in comparison with the SHs, which functioned as outbuildings, but also smaller, hence the post-in-ground constructions could have

45 Pahič 1981, 84–86, op. 38, 94, 98; Medović 1988, 32, sl. 16.
46 Medović 1978, 18.
47 Pahič 1981, 98, op. 50 (Poštela); Pirkmajer 1983, 2 (Rifnik); Lamut 1988–1989, 239, T. 19: 1; 21: 15 (Ormož).
48 Griebl 1996, 105, Abb. 6: s, t.
49 Podborský 1970, 31; Golec 2003, 25.
50 Kovačević 2010, 49.
51 Kerman 2011, 28–40.
52 Kovačević 2008, 47–80.
53 Müller 2012, 309, Abb. 138.
54 Ramsl 1998, 15–17, Abb. 57.

45 Pahič 1981, 84–86, Fn. 38, 94, 98; Medović 1988, 32, fig. 16.
46 Medović 1978, 18.
47 Pahič 1981, 98, Fn. 50 (Poštela); Pirkmajer 1983, 2 (Rifnik); Lamut 1988–1989, 239, Pls. 19: 1; 21: 15 (Ormož).
48 Griebl 1996, 105, fig. 6: s, t.
49 Podoborský 1970, 31; Golec 2003, 25.

NAJDBE[55]

Keramika

Najbolj številne najdbe na najdišču so keramične, odkritih je bilo več kot 2700 odlomkov. Največ kosov pripada posodam; drugim keramičnim predmetom pa manj kot 10 %. Prevladujejo izdelki iz drobnozrnate žgane gline (35 %), velik del je bil izdelanih tudi iz grobozrnate. Največ kosov je imelo gladko površino (55 %), najmanj spolirano (16 %), preostali grobo. Lončarska glina je dokaj enotna. V svežih prelomih so vidni predvsem delci kremena ali kalcita, glinena jedra, redke organske primesi (npr. oglje) ter sljuda, ki pa je že naravno prisotna v glini s tega območja. V ognju je bilo sekundarno poškodovanih 11 (3 %) keramičnih najdb. Na 22 odlomkih (5 %) je ohranjena zoglenela organska snov, največkrat na loncih ali tipološko neopredeljivih delih posod.

Posode so v večini primerov ohranjene le delno, zato je bila tipološka opredelitev opravljena predvsem glede na obliko zgornjega dela posod. Osnovne oblike posod (velika tiskana črka) so razdeljene na tipe (številka), ti na podtipe (mala tiskana črka) in variante (številka). Podtip pomeni, da imajo te posode enake ali podobne značilnosti. Razlika je lahko v obliki posameznega odseka posode, ki znotraj tipa rahlo variira, ali v velikosti posod. Okrašenih predmetov je malo, zato so obravnavani kot variante. Zaradi slabe ohranjenosti so sklede in skodele ter pekve in pokrovi obravnavani skupaj.

Posodje (*sl. 7, 8*)

Sklede (S) so raznolike plitve posode (*sl. 7: S*). Ločimo jih na 3 osnovne tipe, ki se razlikujejo po obliki. Tip S1 so konične sklede, ki se enakomerno zožijo proti dnu. So plitve (S1a; G225) in globoke (S1b; G226). Če so delno ohranjene, jih le težko ločimo od pokrovov. Tip S2 so sklede z izvihanim ustjem (G107), tip S3 sklede z uvihanim ustjem oz. t. i. latvice, različice S3a–e so plitve, S3f–h globoke. S3a imajo pokončno ustje (G80 in verjetno 149), pri S3b je rame zaobljeno in dno široko (G68, 333).

[55] Kataloško je že bilo obravnavanih 436 najdb, od tega 428 keramičnih. V tem prispevku se številke najdb nanašajo na objavljen katalog (Gerbec 2015; oznaka »G« pomeni »gradivo«).

been auxiliary to the SHs. An example of the latter is known from Virovitica – Đurađ istok.[50] Both types of buildings are known from the nearby settlements at Kotare – Baza by Murska Sobota[51] and Zbelava.[52] Settlements with above-ground residential buildings and possibly also residential SHs have been unearthed at Sered'[53] and Inzersdorf – Walpersdorf[54].

FINDS[55]

Ceramics

Ceramics are the most numerous group of finds at Hotinja vas, with over 2700 recovered sherds. Most belong to vessels and less than 10% to other artefacts. They are predominantly made of a medium-grained (35%), a large share also of a coarse-grained fabric. The surface on most pieces is smooth (55%), on 16% of the sherds it is polished, esewhere it is coarse. The fabric is fairly uniform. The fresh fractures mainly revealed quartz or calcite grains, clay pellets, rare organic inclusions (such as charcoal) and mica, the latter naturally present in the locally available clay. Eleven sherds (3%) show signs of secondary fire damage. Twenty-two sherds (5%), mostly of jars or typologically undeterminable vessel parts, bear the remains of a charred organic substance.

Most vessels are only partially preserved and their typological determination is mainly based on the form of the upper part. The basic forms (upper-case letter) are divided into types (numeral), subtypes (lower-case letter) and variants (numeral). Subtypes signify vessels of the same or of similar characteristics differing either in the shape of individual sections or in size. Very few sherds are decorated and are therefore treated as variants. Because of the poor state of preservation, certain dishes and bowls, as well as lids and baking lids are treated together.

Pottery (*figs. 7, 8*)

Dishes (S) are shallow vessels represented at Hotinja vas with three basic types that differ in form (*fig. 7: S*). Type S1 are conical dishes that taper evenly towards the base; they may be shallow (S1a; G225) or deeper (S1b; G226). If only partially surviving, it is difficult to distinguish them from lids. Type S2 are dishes with an everted rim (G107). Type S3 are dishes with

[50] Kovačević 2010, 49.
[51] Kerman 2011, 28–40.
[52] Kovačević 2008, 47–80.
[53] Müller 2012, 309, fig. 138.
[54] Ramsl 1998, 15–17, fig. 57.
[55] These include 436 artefacts (of which 428 are ceramic) that have already been published; the numbers of finds in this contribution refer to those in the already published catalogue (Gerbec 2015; G stands for finds).

S3c so globlje od latvic S3b ter z izraziteje uvihanim ustjem, zaobljeno rame pa prehaja v rahlo vbočeno dno (G232, 337, 422); varianta S3c1 ima na dnu okras plitvih kanelur (G148). Latvice S3d imajo izrazitejši prehod ramena v spodnji del posode (G1, 140, 173, 228, 304). Varianta S3d1 je okrašena z vzporednimi navpičnimi kanelurami (G4), varianta S3d2 z vtisnjenim okrasom (G423). Varianta S3e je v zgornjem delu vodoravno ali rahlo poševno kanelirana, dno je ravno (G315, 376). Globoke latvice S3f imajo na zaobljenem ramenu plastično bradavico(G130). S3g imajo rahlo zavihano ustje ter poudarjeno rame (G230). Pri latvicah S3h se rame bolj ostro zalomi kot pri tipu S3g, ohranjeno dno je vbočeno (G205, 233, 424).

Nekaj skled in skodel je zaradi slabe ohranjenosti obravnavanih skupaj (S-Sk); razdeljene so na 3 tipe (*sl. 7: S-Sk*). Tip S-Sk1 ima kratek pokončen vrat, na prehodu v rahlo zaobljeno rame je klek (G5). Pri tipu S-Sk2 je zaobljeno rame poševno kanelirano, na površini je grafitni premaz[56] (G175). Pri tipu S-Sk3 je vrat daljši kot pri tipu S-Sk1. Rame je izrazito, zaobljeno ali bikonično in okrašeno z vtisi ali kanelurami. S kanelurami je lahko okrašen tudi vrat, na površini je lahko grafitni premaz. Različica S-Sk3a ima stožčast vrat in zaobljeno rame (G176, 213, 305 ter odlomki 151, 152 in verjetno 74, 234); zaobljeno rame ima tudi S-Sk3b, ki ima še dodaten okras plastičnih bradavic (G6, 306). Pri S-Sk3c je rame izrazito bikonično (G150, morda tudi 73). Različica S-Sk3d, ki je bolje ohranjena, ima pokončen, rahlo navzven usločen vrat in zaobljeno rame; na prehodu vratu v rame so vtisnjene jamice (G69). S-Sk3e ima rahlo izvihan vrat ter bikonično rame (G7). Skledam ali skodelam pripada tudi nekaj drugih odlomkov (G45, 214, 231).

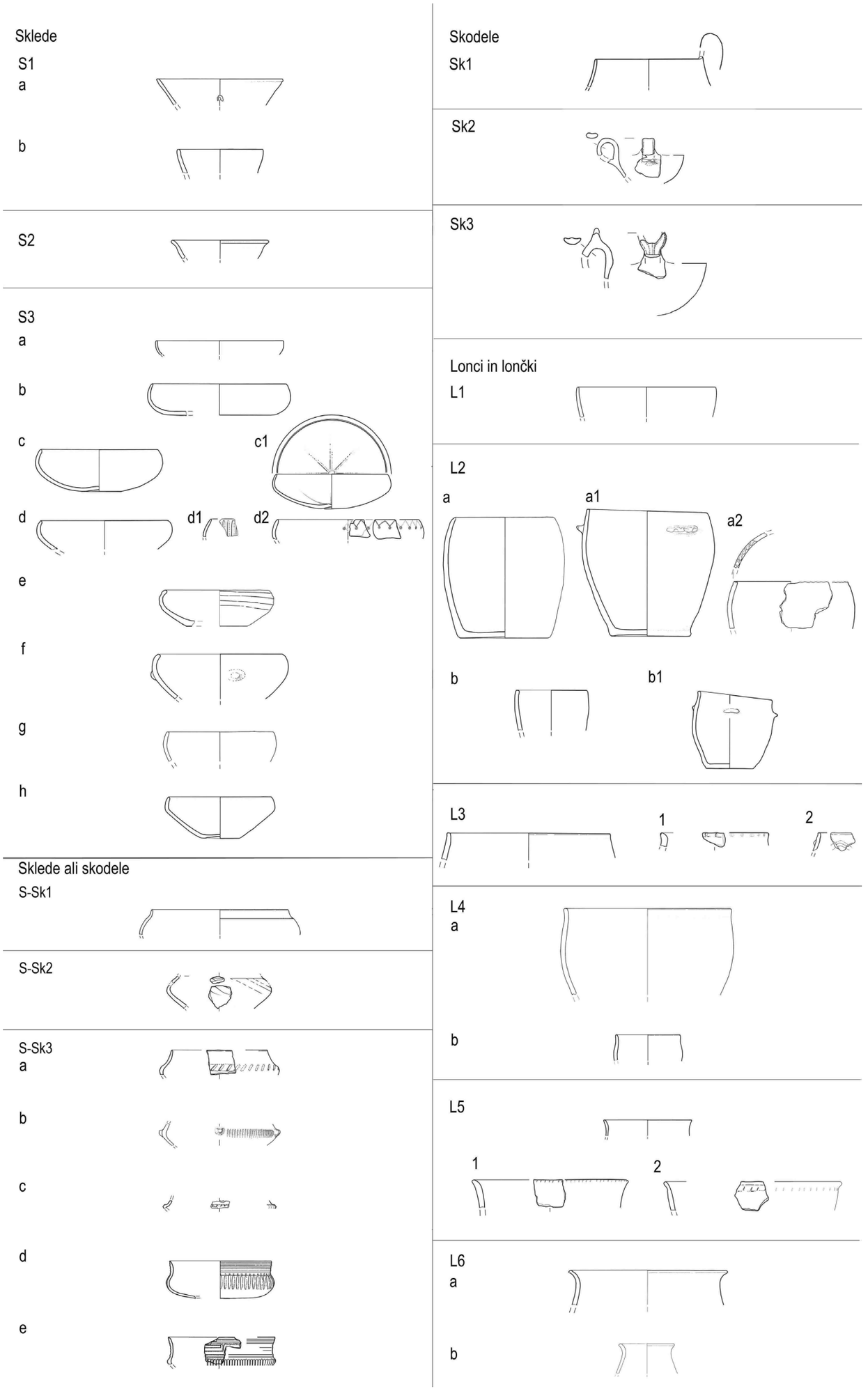
Skodele (Sk) so plitve posode z enim ročajem, ki je pri hotinjskih presegajoč (*sl. 7: Sk*). Ohranjenost je slaba. Tip Sk1 ima neokrašen stožčast vrat. Na

[56] S Hotinje vasi je grafitni premaz ohranjen na površinah 14 posod. Nahajališča grafita so sicer znana v Sloveniji, vendar verjetno ne v takšni obliki, da bi ga človek v starejši železni dobi že koristil (Jelenc 1953, 25; Mioč 1983, 18–19; Kolenko 1953, 276; Žorž, Moser 2002, 38–42). Pomembna nahajališča grafita v Srednji Evropi so v Nemčiji (Passau, v gorovju Fichtelgebirge, Wunsiedel), ter na avstrijskem Štajerskem (Javornik 1997, 1334). Omenimo še nahajališča v Spodnji Avstriji, na Moravskem in Slovaškem, kjer je grafit v starejši železni dobi pogosto uporabljan pri krašenju keramike (npr. Holzer 1964, 164, 165; Hložek, Kazdová 2002, 23–31; Golec 2003, 128 idr.). Verjetno je, da je grafit prispel v okviru komunikacije in trgovine s severom, vendar bi bile za preverjanje te teze potrebne mineraloške analize. Primerna za koriščenje v tem času naj bi bila tudi nahajališča v Kaptolu pri Slavonski Požegi, na Psunju in Krndiji na Hrvaškem (Jurković 2003, 1–13).

an inturned rim; Variants S3a–e are shallow, Variants S3f–h deep. The S3a dishes have a vertical rim(G80 and probably149).The S3b dishes have a rounded shoulder and a wide base (G68, 333).The S3c dishes are deeper than S3b and have a more strongly inturned rim, a rounded shoulder and a slightly concave base (G232, 337, 422);Variant S3c1 bears radiating shallow grooves on the base interior (G148).The S3d dishes have a more pronounced shoulder-lower body junction (G1, 140, 173, 228, 304). Variant S3d1is decorated with parallel vertical grooves (G4), Variant S3d2bears impressed decoration (G423).The S3e dishes bear vertical or slightly oblique grooves on the upper part, the base is flat (G315, 376).The deep dishes of S3f bear an applied knob on the rounded shoulder (G130). The dishes of S3g have a slightly inturned rim and a pronounced shoulder (G230); by comparison, the S3h dishes have a sharper shoulder-lower body junction, the base is concave (G205, 233, 424).

As mentioned above, some sherds are ascribable to either dishes or bowls and are treated jointly (S-Sk); I distinguish between three types. Type S-Sk1 has a short vertical rim, a rounded shoulder and a carinated shoulder-neck junction (G5). Type S-Sk2 has a rounded shoulder bearing oblique grooves and is graphite-coated[56] (G175). Type S-Sk3 has a longer neck in comparison with S-Sk1, the shoulder is pronounced, rounded or conical and decorated with impressions or grooves. The latter may also decorate the neck and the surface may bear a graphite coat. Subtype S-Sk3a has a conical neck and a rounded shoulder (G176, 213, 305, also 151, 152 and probably 74, 234); S-Sk3b also has a rounded shoulder, as well as applied knobs (G6, 306). S-Sk3c has a pronounced biconical shoulder-lower body junction (G150, possibly also73). The S-Sk3d vessels are better preserved and have a cylindrical or slightly outwardly flaring neck, a rounded shoulder and impressed dots at the neck-shoulder junction (G69). S-Sk3e has a slightly

[56] Hotinja vas revealed fourteen vessels with a preserved graphite coat. The presence of graphite has been established in Slovenia, but most probably not in the form and amount usable for the prehistoric people (Jelenc 1953, 25; Mioč 1983, 18–19; Kolenko 1953, 276; Žorž, Moser 2002, 38–42). In central Europe, important deposits of graphite are located in Germany (Passau and in the Fichtel Mountains, Wunsiedel) and in Austrian Styria (Javornik 1997, 1334). We should also mention deposits in Lower Austria, Moravia and Slovakia, where graphite was commonly applied onto Early Iron Age pottery (e.g. Holzer 1964, 164, 165; Hložek, Kazdová 2002, 23–31; Golec 2003, 128 etc.). It is possible that graphite came to Hotinja vas through trading with the regions to the north, but we would need to conduct mineralogical analyses to confirm this. Deposits suitable for exploitation in this period were also located at Kaptol near Požega in the Slavonija region, at Psunj and at Krndija, all in Croatia (Jurković 2003, 1–13).



Slika 7. Hotinja vas. Tipološka razdelitev posodja (M= 1:8).
Figure 7. Hotinja vas. Typology of the pottery (Scale = 1:8).

površini je grafitni premaz (G8). Skodele tipa Sk2 so enostavne zaobljene oblike in plitve (G236, 237). Pri tipu Sk3 ima ročaj zaključke v obliki živalskih rogov (G235). Skodelam pripada tudi odlomek G42.

Lonci in lončki (L) so različno oblikovane globoke posode, katerih višina ne presega 1,5-kratnika njihove največje širine, in so nižji od pitosov. Lahko so veliki in majhni, tj. lonci in lončki (*sl. 7: L*). Lonci tipa L1 so konični (G9, 10, 240), pod tip L2 so združeni cilindrični ter ovalni. Različica L2a so lonci (G28, 30, 137, 142, 158, 179, 216, 238, 239, 241, 243, 244, 247, 353, 354, 363, 403; en ima na površini grafitni premaz), L2b lončki (G207), oboji z okrašenimi variantami. Varianta L2a1 ima pod ustjem držaje ali plastične bradavice, ohranjena dna so ravna ali rahlo vbočena (G11, 12, 84, 138, 177, 178, 196, 242, 245, 339, 404, 405, 417), podobno je pri lončkih variante L2b1, kjer je dno ravno (G125, 215). Varianta L2a2 ima razčlenjen rob ustja (G340). Lonci tipa L3 so stožčaste oblike s kratkim pokončnim ali rahlo izvihanim robom ustja, ki je v večini primerov z notranje strani ali z vrha ravno odrezan ali stanjšan (G14, 110, 141, 154, 316, 317, 406). Varianta L3.1 ima izvihan rob ustja, ki je razčlenjen z odtisi prstov (G15, 111); L3.2 ima pod ustjem plastično rebro (G246). Tip L4 so kroglasti lonci s kratkim izvihanim ustjem, L4a so lonci (G197, 402), L4b lončki (G351). Tip L5 so lonci z lijakastim vratom. Ustje je pri večini kratko, rahlo izvihano ter z notranje strani stanjšano (G13, 109, 155, 248, 328, 329, 426); varianta L5.1 ima rob ustja razčlenjen s prečnimi vzporednimi vrezi (G131, 318), varianta L5.2 ima takšne vreze pod robom ustja (G121). Tip L6 so lonci s stožčastim vratom in daljšim izvihanim ustjem; različica L6a so lonci (G153, 250, 251), L6b pa lončki (G180, 249, 364).

Pitosi (Pi), gr. *pythos*, so velike posode s cilindričnim ali stožčastim vratom. Skoraj vedno so višji od 30 cm (*sl. 8: Pi*). V naselbinah so jih uporabljali za shranjevanje, na grobiščih za žare. Razdelili smo jih na dva tipa. Tip Pi1 so bikonični pitosi s cilindričnim vratom, izvihanim ustjem in poudarjenim ramenom (G401, 433), tip Pi2 so pitosi s stožčastim vratom. Različica Pi2a ima kratek stožčast vrat in izvihano ustje. Rob ustja je z notranje strani ravno odrezan. Prehod vratu v rame je tekoč, rame zaobljeno (G319). Verjetno sodita k temu tipu tudi okrašena odlomka G252 in 253. Pitos različice Pi2b je trebušast s stožčastim vratom, ki je daljši kot pri tipu Pi2a, in z izvihanim ustjem, ki ni ohranjeno. Na prehodu vratu v rame je klek, vrh ramena so posamezne plastične bradavice. Dno je bilo ravno ali rahlo vbočeno (G217, 377). Okrašena varianta Pi2b1 ima na everted rim and a biconical shoulder-lower body junction (G7). Several other sherds may also belong to either dishes or bowls (G45, 214, 231).

Bowls (Sk) are shallow vessels with a single handle that is high in the case of the pottery from Hotinja vas (*fig. 7: Sk*). Their state of preservation is poor. Type Sk1 has a plain conical neck and is graphite-coated (G8). Type Sk2 is of a simple rounded and shallow form (G236, 237).Type Sk3 has a handle with terminals in the shape of animal horns (G235). The sherd of G42 also belongs to a bowl.

Jars and beakers(L) are variously shaped deep vessels with the height equal or smaller than 1.5 times the value of maximum diameter and lower than pithoi. Jars are large, beakers are small (*fig. 7: L*). The jars of Type L1 are conical (G9, 10, 240). Type L2 comprises both cylindrical and ovaloid jars. Subtype L2a are jars (G28, 30, 137, 142, 158, 179, 216, 238, 239, 241, 243, 244, 247, 353, 354, 363, 403; one with a graphite coat), L2b are beakers (G207), both with decorative variants. Variant L2a1 has grips or applied knobs below the rim, the bases are either flat or slightly concave (G11, 12, 84, 138, 177, 178, 196, 242, 245, 339, 404, 405, 417); similarly can be said of the beakers of Variant L2b1 that have a flat base (G125, 215). Variant L2a2 has impressions on the rim (G340). Type L3 are conical jars with a short vertical or slightly everted rim that is predominantly cut flat or thinned from the interior side or from the top (G14, 110, 141, 154, 316, 317, 406). Variant L3.1 has an everted rim with finger impressions (G15, 111); L3.2 bears a cordon applied below the rim (G246). Type L4 is globular with a short everted rim; L4a are jars (G197, 402), L4b beakers (G351). Type L5 are jars with a funnel-shaped neck and a predominantly short, slightly everted rim that is thinned from the interior side (G13, 109, 155, 248, 328, 329, 426); Variant L5.1 bears parallel transverse incisions on the lip (G131, 318), Variant L5.2 has such incisions below the rim (G121). Type L6 has a conical neck and a longer everted rim; Variant L6a are jars (G153, 250, 251), L6b are beakers (G180, 249, 364).

Pithoi (Pi), *pythos* in Greek, are large vessels with a cylindrical or a conical neck that usually exceed 30 cm in height (*fig. 8: Pi*). They were used for storage in settlements and as urns in cemeteries. We distinguish between two types at Hotinja vas: Type Pi1 are biconical with a cylindrical neck, an everted rim and a pronounced shoulder (G401, 433), Type Pi2 pithoi have a conical neck. Subtype Pi2a has a short conical neck, an everted rim, a lip that is cut flat from the interior side, a smooth neck-shoulder junction and a rounded shoulder (G319). The decorated sherds of

zgornjem delu vratu vzporedne vodoravne kanelure; snopi vzporednih poševnih kanelur potekajo tudi od bradavice na ramenu pitosa proti spodnjemu delu posode (G412). K temu tipu sodijo verjetno tudi odlomki posod G81, 82, 99, 100, 114, 162, 224, 311, 427; en z grafitnim premazom na površini.

Pekve in pokrovi (P) so si po obliki podobni (*sl. 8: P*); ko so le delno ohranjeni, jih je težko ločiti. Njihova raba je različna. Pokrovi so za pokrivanje posodja, pekve za peko na žerjavici. Pokrovi imajo na vrhu navadno različno oblikovane držaje, pekve pa imajo na vrhu ročaj in/ali ob straneh držaje. Deli pekev so verjetno tudi nekateri posamezno ohranjeni jezičasti držaji (G58–62, 277). Pod P1a so pekve z ročaji (G57, 369), P1b pekve ali pokrovi z jezičastimi ročaji (G52, 53, 120, 136, 191, 279, 280, 345, 359, 414), P1c z bradavicami (G278). Tip P1d je pokrov s čašastim držajem (G368). Pekvam in pokrovom verjetno pripadajo odlomki G54, 56,103, 104, 119, 146, 190, 281–289, 313, 332, 346, 393, 394, 399, 420; nekaj je okrašenih (G88, 325, 370).

Cedila (C) so posode, ki imajo v dnu in steni luknjice (*sl. 8: C*). Dovolj dobro je ohranjeno le eno cedilo polkrogle oblike z izvihanim ustjem s stanjšanim robom ter poudarjenim prehodom v rame in ravnim dnom. Luknjice so v dnu in spodnjih dveh tretjinah posode (G395). Cedilom sta pripadala tudi odlomka G373 in 374.

Miniaturne posode (M) so v primerjavi s posodami enakih oblik zelo majhne (*sl. 8: M*). Tip M1 je posodica stožčaste oblike s stanjšanim robom ustja (G409); tip M2 je pekvica z jezičastimi držaji (G77).

Med drugimi posodami so morda še deli ciste (G218) in odlomki posode z nagubano površino (G327).

Drugi keramični predmeti (*sl. 8*)

Sem sodijo ognjiščni predmeti in drugi pripomočki. Ob pekvah, ki so obravnavane skupaj s pokrovi, sodijo med ognjiščne predmete še prenosne pečke[57], ognjiščne koze in svitki. Med druge pripomočke

[57] Prenosne pečke so v novejši literaturi poimenovane tudi piraunosi (Pavlovič 2008; Gerbec 2018).

G252 and 253 probably also belong to this subtype. The pithos of Subtype Pi2b has concave lower body and a conical neck that is longer than Pi2a, a presumably everted rim, individual knobs applied at the upper part of the shoulder and an either flat or slightly concave base (G217, 377). The decorated Variant Pi2b1 bears parallel vertical grooves on the upper neck, as well as stripes of parallel oblique grooves running from the knobs on the shoulder towards the lower body (G412). The sherds of G81, 82, 99, 100, 114, 162, 224, 311, 427 probably also belong to this subtype, one of them is graphite-coated.

Lids and baking lids (P) are very similar in form and poorly distinguishable when only partially preserved (*fig. 8: P*). The served different purposes: lids were used to cover pots, baking lids were used for baking over hot embers. Lids usually terminate at the top with variously shaped knobs, while baking lids have a handle at the top and/or grips at the sides. Some of the better preserved tongue-shaped grips probably also belonged to baking lids (G58–62, 277). P1a are baking lids with handles (G57, 369), P1b are either lids or baking lids with tongue-shaped grips (G52, 53, 120, 136, 191, 279, 280, 345, 359, 414), P1c are either lids or baking lids with knobs applied on the body (G278) and P1d is a lid with a cup-shaped knob (G368). Sherds of G54, 56,103, 104, 119, 146, 190, 281–289, 313, 332, 346, 393, 394, 399 and 420 probably also belonged to lids or baking lids; some of them are decorated (G88, 325, 370).

Colanders (C) are vessels with holes in the base and body (*fig. 8: C*). A single colander is preserved well enough to allow us to reconstruct its form: it is hemispherical with an everted rim and a thinned lip and a flat base. Holes are present in the base and the lower two thirds of the body (G395).The sherds of G373 and 374 also belonged to colanders.

Miniature vessels (M) are very small in comparison with the vessel of the same form (*fig. 8: M*). Type M1 is a small conical vessel with a thinned lip (G409) and Type M2 is a small baking lid with tongue-shaped grips (G77).

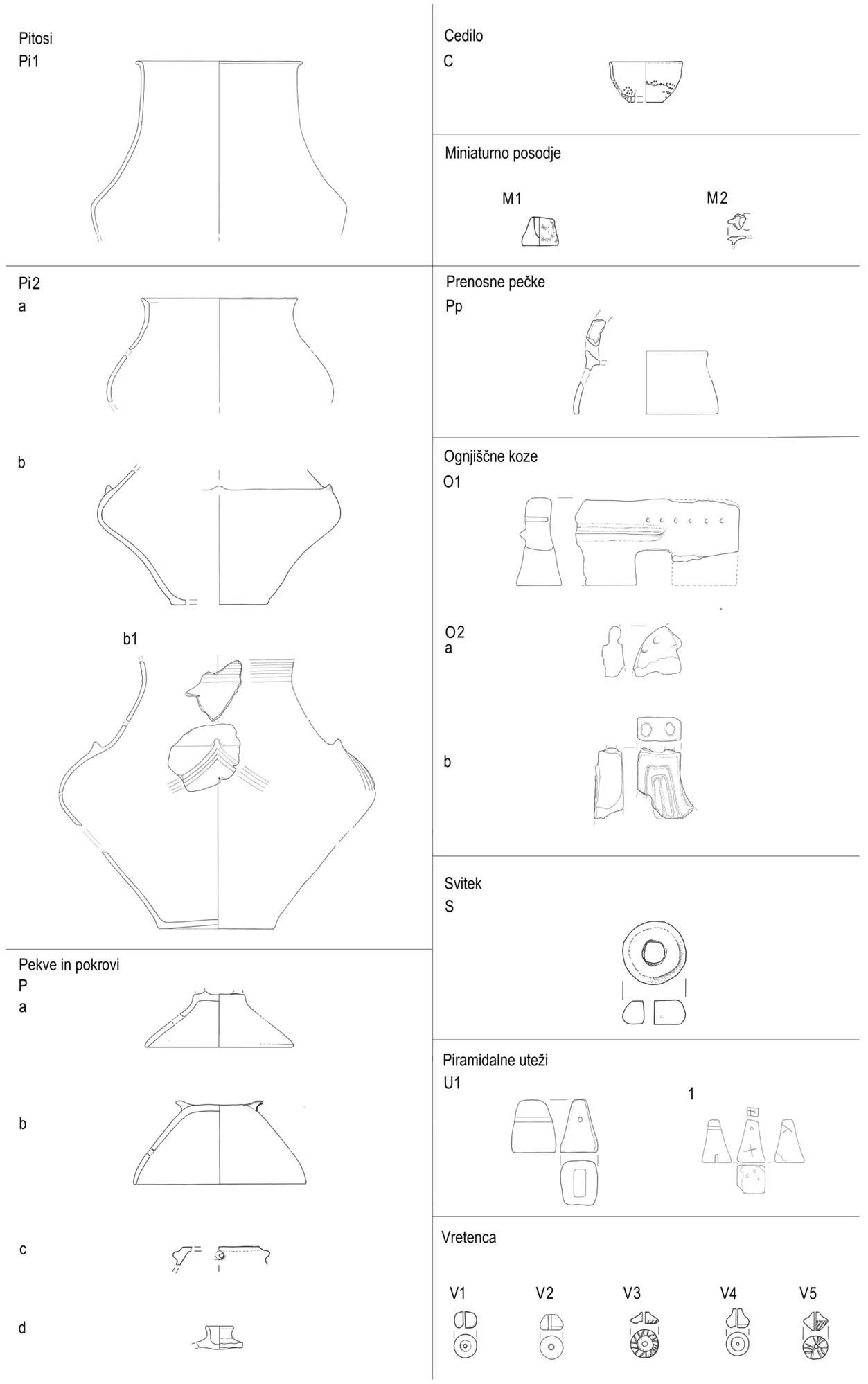
Other sherds include a piece of a cist (G218) and fragments of a vessel with a protuberated surface (G327).

Other ceramic artefacts (*fig. 8*)

These comprise items connected with the hearth and other items. Alongside baking lids the former include portable ovens[57], firedogs and ceramic rings. Other items comprise various loom weights

[57] Portable ovens are in recent literature called also pyraunoi (Pavlovič 2008; Gerbec 2018).

Slika 8. Hotinja vas. Tipološka razdelitev posodja in drugih keramičnih predmetov (M= 1:8).
Figure 8. Hotinja vas. Typology of the pottery and other ceramic artefacts (Scale = 1:8).



uvrščamo tkalske in predilne uteži; lahko pa tudi svitke in druge podstavke.

Prenosene pečke (Pp) so predmeti, ki so se uporabljali pri peki ali kuhi hrane (*sl. 8: Pp*).[58] V slovenski literaturi so različno poimenovani (prenosne pečke, prenosna ognjišča, piraunosi, *pyraunoi* (gr.), ognjiščne kozice idr.). Zaradi slabe ohranjenosti rekonstrukcija ter opredelitev njihove namembnosti ni vedno možna. Hotinjski primerki so cilindrične oblike, vrhnja ploskev je usločena, rob je izvlečen (G63–65, 421). Pri opredelitvi rabe smo se oprli na izsledke analize lipidov.

Ognjiščne koze (O) so predmeti, ki se v literaturi pojavljajo tudi pod imenom ražnji ali podstavki za ražnje, gr. *krateutai*. So ognjiščni podstavki, največkrat v obliki podolgovatega kvadra, ki so lahko različno okrašeni. So keramični (*sl. 8: O*), lahko so tudi kamniti ali kovinski (slo. zaglavnik). Opredelitev rabe je težavna. Povezuje se jih z ognjišči in razlaga kot držala za polena, distančnike pri pripravi hrane na ognjiščih; ker večkrat nimajo sledov ognja, pa tudi kot predmete za zamejitev ognjišča in v povezavi s kultom (predvsem posebno obliko teh predmetov, imenovano »lunin idol«).[59] Hotinjske ognjiščne koze so delno ohranjene, zato je njihova razdelitev le shematična.

Tip O1 so ognjiščne koze klopnega tipa. Na eni stranici so globoke vtisnjene jamice in plastično rebro ali široka vodoravna kanelura; v enem primeru je na obeh stranicah okras izdelan z vtisi zobatega pripomočka (G202, 335, 360, 375). Ognjišče koze tipa O2 imajo različno oblikovane zaključke na zgornji ploskvi; na eni stranici so vtisnjene plitve jamice. Pri različici O2a so zaključki v obliki živalskih glavic (G201), pri O2b v obliki čepkov (G347, 410). Pri teh je na eni stranici motiv plastičnih reber, ki so lahko razčlenjene z vtisi.

Svitki (S) so glinasti obroči različnih dimenzij in okroglega preseka (*sl. 8: S*). Služili so predvsem kot podstavki za posode na ali ob ognjišču, nekateri tudi kot tkalske uteži (G105, 299, 435).

Piramidalne uteži (U) so masivni predmeti s prečno luknjo (*sl. 8: U*). Večinoma so jih uporabljali kot uteži pri statvah (G78, 170, 195, 300, 301, 336, 371, 397). Verjetno sem sodita tudi G193 in 194. Posamezni kosi (U1.1) imajo vrezan okras križa ali vtisnjene jamice (G169, 302).

Vretenca (V) so manjše uteži različnih oblik z navpično luknjo, za katera so v uporabi različna poimenovanja (vijček, vretence, vreteno idr.; *sl. 8: V*).[60] Uporabljale so se pri ročnih vretenih za predenje niti.

and spindle whorls, possibly also rings and various stands.

Portable ovens (Pp) were used in baking or cooking (*fig. 8: Pp*).[58] They are known in literature under different names including the Greek word *pyraunoi*. They are usually not preserved well enough to enable a reconstruction of its form and use. The portable ovens from Hotinja vas are round, the upper surface or pan is concave and the rim everted (G63–65, 421). In order to help us determine the use they have been sampled and subjected to a lipid analysis.

Firedogs (O) are also known in literature under the Greek name of *krateutai*. They are elongated rectangular supports and bear varied decoration (*fig. 8: O*). It is difficult to determine their exact use; they are usually connected with hearths and interpreted as supports for either firewood or for preparing food on the hearth, some without traces of fire also as objects that delimited the cooking area or as cult items (the latter mainly refers to a special form of firedogs called 'moon idols').[59] The firedogs from Hotinja vas are only partially preserved and their classification is approximate.

Type O1 are firedogs of the 'bench' type and bear deeply impressed dots, as well as either a cordon or a wide horizontal groove on one side; one example bears decoration made by impressing a toothed object on both sides (G202, 335, 360, 375). The Type O2 firedogs have variously shaped finials and shallow dots impressed on one side. Subtype O2a bears finials in the shape of animal heads (G201), Subtype O2b bears knob-shaped finials (G347, 410); the latter may bear cordons with impressions on one side.

Ceramic rings (S) are of different sizes (*fig. 8: S*) and mainly served as pot stands on or near the hearth, some also as loom weights (G105, 299, 435).

Pyramidal weights (U) are large and have a horizontal hole (*fig. 8: U*). They were mainly used as loom weights (G78, 170, 195, 300, 301, 336, 371, 397). The sherds of G193 and 194 probably also belonged to such weights. Variant U1.1 bears either an incised cross or impressed dots (G169, 302).

Spindle whorls (V) are smaller, differently shaped weights with a vertical hole used in spinning (*fig. 8: V*).[60] I distinguish between five types at Hotinja vas: V1 are flattened spherical (G348), V2 are conical (G66), V3 are flat conical (G314), V4

[58] Delpino 1969, 311–340; Scheffer 1981; ista 1982; Romsauer 2003, 15–19; Horejs 2007, 148–153 idr.

[59] Hoops 1973, 390–399; Goetze 1976, 137; Bianchin Citton et al. 1998, 365.

[60] Krasnik 2009, 72; Preložnik 2010, 91–108.

[58] Delpino 1969, 311–340; Scheffer 1981; ead. 1982; Romsauer 2003, 15–19; Horejs 2007, 148–153 and others.

[59] Hoops 1973, 390–399; Goetze 1976, 137; Bianchin Citton et al. 1998, 365.

[60] Krasnik 2009, 72; Preložnik 2010, 91–108.

Ločimo pet tipov, V1 so sploščeno kroglaste oblike (G348), V2 stožčaste (G66), V3 konične (G314), V4 hruškaste (G361, 396) ter V5 bikonične oblike (G349), nekatera imajo okrasne žlebove.

Kovina, steklo in kamen

Med kovinskimi najdbami so bili ena bronasta čolničasta fibula šmarješkega tipa (G203; *sl. 9*), dva železna noža skoraj enake velikosti (14,5 cm in 14,6 cm; G362) ter 7 kosov in dva drobca žlindre s skupno maso 152 g (*sl. 10*). Odkrit je bil neopredeljiv odlomek iz temno modrega, skoraj črnega stekla (G204). Med najdbami je bilo še 56 kamnov s sledovi rabe.

KRONOLOŠKA OPREDELITEV NAJDIŠČA

Keramične najdbe

V večji meri so v Hotinji vasi zastopane oblike posod, ki so daljšega trajanja in razširjene na obsežnem območju, zato smo se omejili na primerjave iz bližnje okolice na Štajerskem.

Sklede tipa S1 so pogoste na vseh bližnjih najdiščih (*sl. 7*).[61] Tipu S2 je podobna skleda iz Ipavčeve gomile v Pivoli iz pozne Ha C–D1 stopnje, nekaj jih je iz naselja Burgstallkogel pri Kleinkleinu, kjer so iz stopnje Ha C oz. začetka stopnje Ha D1 in iz Kalsdorfa pri Gradcu.[62] Tudi latvice tipa S3 so dolgotrajne, razen okrasa se ne spreminjajo veliko. Za grobišče Kleinklein je bil predložen razvoj latvic od globokih s strmimi stenami k plitvejšim, a zaradi dolgotrajnosti posameznih oblik ne more služiti kot merodajno merilo pri datiranju.[63] Starejše, iz stopnje Poštela 1, so latvice z ostro zavihanim ustjem,[64] kakršnih pa Hotinja vas nima. Nizke latvice, kot je naš tip S3a, poznamo s Poštele, Hajndla in najdišča Pri Muri pri Lendavi.[65] Na Pošteli, iz sonde 64 z najdbami iz 3. poštelskega horizonta (Ha C2–D1), je najti primerjave tudi za tip S3b,[66] na najdišču Pri Muri pri Lendavi ter Novi tabli pri Murski Soboti pa za latvice S3c.[67] Ključno za opredelitev nizkih latvic v Hotinji vasi je, da se v

[61] Lamut 1988–1989, 242, T. 21: 9; Teržan 1990, T. 35: 13, 14, 16; Smolnik 1994, Abb. 18; 112–120; T. 6: 14, 17; 56: 11 itd.; Tiefengraber 2005, T. 36: 9; 37: 7; 38: 2–5, 7; Magdič 2006, 142, 149, T. 4: 1; 11: 7; 21: 4–5; 66: 3 idr.

[62] Teržan 1990, T. 66: 13; Smolnik 1994, T. 52: 3; 133: 11; 145: 6; Tiefengraber 2005, T. 55: 9.

[63] Dobiat 1980, 73–74.

[64] Teržan 1990, 32, sl. 1: 21.

[65] Teržan 1990, T. 37: 5, 6, 9, 12, 14 (Poštela); Kovač 2004, T. 40: 1; Magdič 2006, T. 37: 3; 67: 5; Mele 2009, T. 13: 2; 121: 7 idr. (Hajndl); Sankovič 2011, 45, sl. 31: 6; G297 (Pri Muri pri Lendavi).

[66] Teržan 1990, 32, T. 8: 6.

[67] Sankovič 2011, 45, sl. 31: 4c, G356; Pavlovič 2008, 483, sl. 2b: 4; Guštin et al. 2017, G1063, 1205, 1638 (grob 27 iz razvitega obdobja grobišča).

are pear-shaped (G361, 396) and V5 are biconical (G349). Some bear decorative grooves.

Metal, glass and stone finds

The metal finds from Hotinja vas comprise a bronze boat fibula of the Šmarjeta type (G203; *fig. 9*), two almost equally long iron knives(14.5 cm and 14.6 cm), as well as seven large and two small pieces of slag with a total weight of 152 g (*fig. 10*). Also found was an undeterminable fragment of very dark blue, almost black glass (G204), as well as 56 stones with traces of usewear.

CHRONOLOGICAL ATTRIBUTION OF THE SITE

Ceramic

The ceramic from Hotinja vas mainly belong to forms in use over long period and in wide areas, therefore we are given analogies just from the sites of Styria and neighbouring countries.

The S1 dishes are common finds across Slovenia and the surrounding areas (*fig. 7*).[61] The S2 dish is similar to one found in the Ipavec tumulus at Pivola, attributed to late Ha C–D1, some are also known from the settlement at Burgstallkogel, from Ha C–beginning of Ha D1, and from Kalsdorf near Graz.[62] The S3 dishes were also in prolonged use and did not change much in form, only in decoration. The pottery analysis for the cemetery at Kleinklein showed that dishes with an inturned rim developed from deep dishes with steep walls to more shallow dishes, but this is not chronologically indicative as individual forms stayed in use long.[63] Certainly earlier forms, attributable to the Poštela 1 phase, are the dishes with a sharply inturned rim,[64] but these have not been found at Hotinja vas. The low dishes such as those of Subtype S3a are known from Poštela, Hajndl and Pri Muri near Lendava.[65] Poštela, more precisely Trench 64 with finds from the Poštela 3 phase (Ha C2–D1) revealed comparisons for the S3b dishes.[66] The sites of Pri Muri near Lendava and Nova

[61] Lamut 1988–1989, 242, Pl. 21: 9; Teržan 1990, Pl. 35: 13, 14, 16; Smolnik 1994, figs. 18; 112–120; Pls. 6: 14, 17; 56: 11 etc.; Tiefengraber 2005, Pls. 36: 9; 37: 7; 38: 2–5, 7; Magdič 2006, 142, 149, Pls. 4: 1; 11: 7; 21: 4–5; 66: 3 etc.

[62] Teržan 1990, Pl. 66: 13; Smolnik 1994, Pls. 52: 3; 133: 11; 145: 6; Tiefengraber 2005, Pl. 55: 9.

[63] Dobiat 1980, 73–74.

[64] Teržan 1990, 32, fig. 1: 21.

[65] Teržan 1990, Pl. 37: 5, 6, 9, 12, 14 (Poštela); Kovač 2004, Pl. 40: 1; Magdič 2006, Pls. 37: 3; 67: 5; Mele 2009, Pls. 13: 2; 121: 7 etc. (Hajndl); Sankovič 2011, 45, fig. 31: 6; G297 (Pri Muri near Lendava).

[66] Teržan 1990, 32, Pl. 8: 6.

Slika 9. Hotinja vas. Bronasta čolničasta fibula iz objekta 10 (foto: N. Grum).
Figure 9. Hotinja vas. Bronze boat fibula from SH 10 (photo: N. Grum).

Slika 10. Hotinja vas. Mineralni delci iz jame 6 ob zemljanki 2 (vz. f3), ki so se oprijeli magneta (levo); analiziran vzorec žlindre iz zemljanke 3 (desno).
Figure 10. Hotinja vas. Particles from Pit 6 next to SH 2 (Sample f3) picked up by a magnet (left) and the analysed sample of slag from SH 3 (right).

Kleinkleinu v grobovih 2. in 3. stopnje (Ha C–D1) skupaj pojavljajo latvice, ki smo jih opredelili kot tipe S3c in S3d, pa tudi S3b. Taki primeri so latvice v gomilah Forstwald 21 in 22, Grellwald 20, 22, 34, 55 ter Leitengritschwald 138.[68] Latvice tipa S3e so plitvo kanelirane. Med fasetiranimi in vodoravno rahlo kaneliranimi latvicami je včasih težko ločiti. Lahko so istočasne; na bližnjih najdiščih se pojavljajo od 1. do 3. štajerskega horizonta. Po Branku Lamutu naj bi v Ormožu fasetirane latvice postopoma nadomestile kanelirane, slednje so zastopane predvsem v 2. stopnji Ormoža (Ha B3–C1).[69] Poševno kanelirana latvica iz Spodnjih Podlož pod Ptujsko goro je glede na kontekst gomile 2 datirana v 3. štajerski horizont.[70] Na Burgstallkoglu pri Kleinkleinu je kaneliranje pogosto v 3. fazi; pojavlja se tudi v 4., kar ustreza stopnji Ha C–D1.[71] V hrvaškem Podravju se podobne latvice pojavljajo v času razvite starejše železne dobe, npr. v naselju Torčec – Međuriče.[72] Globoke latvice tipa S3f–h so pogostejše v stopnjah Ha B2–B3 in Ha C1, zagotovo so v uporabi tudi še v času 3. štajerske stopnje oz. v Ha C2–D1.[73]

68 Dobiat 1980, T. 36: 1, 3, 4; 38: 4, 5; 66: 2, 3, 6; 69: 5, 7, 17; 73: 7, 8, 10, 11; 91: 1–6, 8, 9; 105: 4, 5.
69 Lamut 2001, 215.
70 Lubšina Tušek 1996, 93, T. 6: 4.
71 Smolnik 1994, 117–120, T. 126: 1, 2, 8, 9, 11–16; 144: 10, 12, 13 idr.
72 Kovačević 2009, 55, T. 6: 2; isti 2008.
73 Za tip 3f: Dobiat 1980, T. 42: 4; 99: 12; Teržan 1990, T. 36: 22–23; 68: 6; 80: 3; tip 3g: Magdič 2006, T. 89: 1; Pavlovič 2008, 483, sl. 2b: 5; tip 3h: Guštin et al. 2017, G1064; Teržan 1990, T. 71: 10; Dobiat 1980, T. 105: 2, 3 idr.

tabla near Murska Sobota yielded parallels for the S3c dishes.[67] The key point for attributing the low dishes with an inturned rim is that those here determined as Types S3c and S3d, but also S3b appear together in the burials of Phase 2 in even more so of Phase 3 (Ha C–D1) at Kleinklein, namely in the tumuli of Forstwald 21 and 22, Grellwald 20, 22, 34, 55, as well as Leitengritschwald 138.[68] The S3e dishes have shallow grooves. It is at times difficult to distinguish between the facetted and the horizontally grooved dishes; they may be contemporaneous and appear at nearby sites from the Styria/ Štajerska 1 to 3 horizons. According to B. Lamut, the facetted dishes gradually replaced the grooved ones at Ormož, the latter mainly known from the settlement's second phase (Ha B3–C1).[69] Also the dish with an inturned rim and oblique grooves from Tumulus 2 at Spodnje Podlože can be attributed to the Styria/ Štajerska 3 horizon.[70] At Burgstallkogel near Kleinklein, grooving is common in the third phase, but also appears in the fourth phase that corresponds with Ha C–D1.[71] In the Podravina region in Croatia, similar dishes occur in the developed Early Iron Age, for example at the settlement at Torčec – Međuriče.[72] The deep S3f–h dishes are more common in Ha B2–B3 and Ha C1, and certainly remain in use in the Styria/ Štajerska 3 horizon or Ha C2–D1.[73]

The decorated dishes with an inturned rim can be dated more easily. The S3c1 dish bears shallow grooves on the base interior radiating from the centre and forming either a sun or a star (*fig. 7: S3 c1*). Variants of this motif in vertical and oblique grooves are known in the Poštela 2 and 3 phases (Ha C–D1); they are also typical of the third phase at Ormož (developed Ha C) and Phases 2 and 3 at Kleinklein.[74] Apart from the decorative manner, dating is also indicated by the placement of the decoration. On these dishes, decoration does not appear on the exterior where its aesthetic value is readily apparent; it is in

67 Sankovič 2011, 45, fig. 31: 4c; G356; Pavlovič 2008, 483, fig. 2b: 4; Guštin et al. 2017, G1063, 1205, 1638 (Grave 27 from the developed phase of the cemetery).
68 Dobiat 1980, Pls. 36: 1, 3, 4; 38: 4, 5; 66: 2, 3, 6; 69: 5, 7, 17; 73: 7, 8, 10, 11; 91: 1–6, 8, 9; 105: 4, 5.
69 Lamut 2001, 215.
70 Lubšina Tušek 1996, 93, Pl. 6: 4.
71 Smolnik 1994, 117–120, Pls. 126: 1, 2, 8, 9, 11–16; 144: 10, 12, 13 etc.
72 Kovačević 2009, 55, Pl. 6: 2; id. 2008.
73 For Type 3f: Dobiat 1980, Pls. 42: 4; 99: 12; Teržan 1990, Pls. 36: 22–23; 68: 6; 80: 3; Type 3g: Magdič 2006, Pl. 89: 1; Pavlovič 2008, 483, fig. 2b: 5; Type 3h: Guštin et al. 2017, G1064; Teržan 1990, Pl. 71: 10; Dobiat 1980, Pl. 105: 2, 3 etc.
74 Teržan 1990, 32–36 (Poštela); Lamut 1988–1989, 241 (Ormož); Dobiat 1980, Pls. 28: 3; 29: 3; 53: 1–3, 6 etc. (Kleinklein).

Nekoliko lažje je poiskati časovno mesto okrašenim latvicam. Latvica tipa S3c1 ima v notranjosti okras plitvih kanelur, izhajajočih v obliki žarkov iz sredine dna, torej v motivu sonca ali zvezde (*sl. 7: S3c1*). Različne izvedbe okrasa z navpičnimi in poševnimi kanelurami se pojavljajo v 2. in 3. stopnji Poštele (Ha C–D1); značilne so tudi za 3. stopnjo Ormoža (razviti Ha C) ter 2. in 3. fazo Kleinkleina.[74] Ob načinu izdelave okrasa je za datacijo pomembno še njegovo mesto. V tem primeru ne gre za okras zunanjosti, kjer na prvi pogled prepoznamo estetsko vrednost. Ko je okrašena notranja stran, je okras viden le, ko je posoda prazna oz. ko se prazni, npr. pri pitju. Ruška žarnogrobiščna skupina ga v tem smislu ne pozna.[75] Latvice z raznolikim, tudi zvezdi podobnim vrezanim okrasom poznamo iz naselbine na Ptujskem gradu in z grobišča v Ormožu; bile naj bi tudi v gomili na Hardeku.[76] Dno, okrašeno s centralnim motivom kanelur, ima latvica s Hajndla, datirana v stopnjo Ha C.[77] Tovrstno okraševanje notranjosti posod je bilo uveljavljeno predvsem pri skupinah Dalj in Donja Dolina.[78] Iz groba 59 s starejše železnodobnega najdišča Dalj – Busija, Erdut (7), je latvica, ki ima dno okrašeno s krogom, iz katerega na štiri strani izhajajo po tri ravne črte.[79] S prav tako daljskega grobišča Lijeva Bara v Vukovarju je objavljena večja skleda, ki je na dnu okrašena z enakim motivom kot hotinjska, le da je njen okras izveden v rahlo izstopajočih plastičnih rebrih.[80] Primerjave poznamo tudi iz skupine Martijanec-Kaptol. Iz groba gomile 2 v Goričanu, datiranem v stopnjo HaC, je znana skleda, ki ima na dnu okras koncentričnega kroga iz petih kanelur, iz katerega izhajajo na tri strani po tri kanelure.[81] V začetku starejše železne dobe zasledimo koncept okraševanja notranje površine skled in skodel na celotnem območju štajersko-panonske skupine, pa tudi pri sosednjih skupinah. Na prostoru med Moravsko, Spodnjo Avstrijo in avstrijsko Štajersko ter JV Panonijo je okrasni motiv v notranjosti (razni centralni motivi, žarki) največkrat izveden s poliranimi pasovi in pasovi grafitnega premaza ali z različnimi kombinacijami vrezov in vtisnjenih

74 Teržan 1990, 32–36 (Poštela); Lamut 1988–1989, 241 (Ormož); Dobiat 1980, T. 28: 3; 29: 3; 53: 1–3, 6 itd. (Kleinklein).

75 Npr. Pahič 1957, T. 19: 4; Müller Karpe 1959, T. 116: 48; 119: 32; Korošec 1951, sl. 398.

76 Tomanič Jevremov 1988–89, 289, T. 6: 6; 19: 5; 20: 2; 23: 1; Korošec 1951, sl. 214; prim. Dular 2013, 74.

77 Kovač 2004, 119–120, T. 15: 6.

78 Tomanič Jevremov 1988–89, 289; Metzner Nebelsick 2002, T. 59: 10; 82: 3, 4 (Dalj – Busija); 123: 1 (Pécs – Jakabhegy).

79 Mihelić 2004a, 264, sl. 8.

80 Stalna razstava Arheološkega muzeja v Zagrebu.

81 Mihelić 2004b, 294, sl. 6.

the interior and only visible when the vessel is empty or being emptied, for example while drinking from it. As such, it is absent in the Ruše Urnfield culture group.[75] For the Styria/ Štajerska 2 horizon, we know of dishes with an inturned rim from the settlement at Ptujski grad and the cemetery at Ormož, presumably from a tumulus at Hardek as well, that have a varied, also star-shaped incised decoration.[76] The base decorated with a central motif of black-painted grooves is known on a dish with an inturned rim from Hajndl, attributed to Ha C.[77] The analysis of the vessels from Ormož burials has indicated that such decoration of vessel interiors was common in the Dalj and Donja Dolina groups.[78] Grave 59 from the Early Iron Age site at Dalj – Busija, Erdut (7), for example, yielded a dish with an inturned rim and the base decorated with a circle with stripes of three straight lines running from it on four sides.[79] Also of the Dalj group, the cemetery at Lijeva Bara in Vukovar revealed a slightly larger dish decorated on the base with the same motif as the S3c1 dish from Hotinja vas with the only difference being in the decoration consisting of ribs.[80] Other parallels are known from the Kaptol-Martijanec group in Podravina. A grave from Tumulus 2 at Goričan, for example, contained a dish with the decoration on the base interior consisting of five concentric grooved circles with three stripes of three grooves running from it; the grave is dated to the Ha C period.[81] For the beginning of the Early Iron Age, a similar concept of decorating the base interiors of dishes and bowls has been spread across the area of the Styrian/Štajerska-Pannonian and neighbouring groups, namely in areas extending from Moravia, Lower Austria to Styria and SE Pannonia. The decoration of different central and radiating motifs usually consists of polished strips and strips of graphite coating, or in different combinations of incisions and impressed rings. This is clearly visible on the vessels from the cemetery at Kleinklein.[82] As al-

75 E.g. Pahič 1957, Pl. 19: 4; Müller Karpe 1959, Pls. 116: 48; 119: 32; Korošec 1951, fig. 398.

76 Tomanič Jevremov 1988–89, 289, Pls. 6: 6; 19: 5; 20: 2; 23: 1; Korošec 1951, fig. 214; cf. Dular 2013, 74.

77 Kovač 2004, 119–120, Pl. 15: 6.

78 Tomanič Jevremov 1988–89, 289; Metzner Nebelsick 2002, Pls. 59: 10; 82: 3, 4 (Dalj – Busija); 123: 1 (Pécs – Jakabhegy).

79 Mihelić 2004a, 264, fig. 8.

80 Permanent exhibition at the Archaeological Museum in Zagreb.

81 Mihelić 2004b, 294, fig. 6.

82 Cf. decoration made with polished strips and graphite coating to form eight lines radiating from the centre of the vessel, attributed to Ha C2–D1 of the Horákov culture (Golec 2003, 224, No. 4(5)24); for incised decoration see e.g. the sites at Batina Gradac, Dalj Busija, Pécs – Jakabhegy (Metzner Nebelsick 2002, Pls. 47: 5; 82: 3,

krožcev. To jasno kaže grobišče v Kleinkleinu.[82] Kot smo že pokazali, je na prostoru SV Slovenije in na SZ Hrvaškem podoben okras izdelan predvsem z vrezi ali kanelurami, medtem ko je na Dolenjskem oz. v dolenjski kulturni skupini tak okras na dnu latvic skorajda neznan.[83] Čeprav hotinjske latvice ne moremo natančno časovno opredeliti niti po obliki niti po okrasu, pa je najverjetnejša datacija na podlagi primerjave iz groba v Goričanu. S kanelurami je okrašen tudi odlomek latvice tipa S3d1, ki ima najboljše primerjave v Ipavčevi gomili v Pivoli. Podobni sta tudi skodelica iz groba 2 Maggove gomile z istega grobišča ter skodelica s Poštele, ki sta enako okrašeni, vendar imata pokončen rob ustja. Vse sodijo v 3. štajerski horizont oz. stopnjo Ha C2/D1.[84]

Latvica tipa S3d2 je tik pod robom ustja okrašena z žigosanimi krožci, ki imajo v sredini vsak po štiri majhne trikotnike oz. gre za krog s križem. Krožce povezuje žigosana razčlenjena »cik-cak« črta[85] (*sl. 7: S3d2; 11B*). Okras je bil verjetno izdelan s posebnim pripomočkom, žigom, ki je imel eno stranico narezano oz. nazobčano. Ti pripomočki so bili iz različnih snovi: keramike, kosti, brona.[86] Vtiskovali so jih v še mehko površino posod. Pri tem je nastal vzorec iz majhnih vzporednih kvadratkov, pravokotnikov, trikotnikov ipd., ki so jih pustili zobje orodja. Ta okras je lahko samostojen (prim. G335), večkrat pa je v kombinaciji še z drugim (prim. G423). Na bližnji Pošteli se različno žigosanje (krožci in tudi razčlenjene črte, izdelane z zobatim pripomočkom) kot novost pojavi v 3. horizontu.[87] Tudi na območju Spodnje Avstrije se okras žigosanih krožcev uveljavi v mlajši fazi starohalštatskega obdobja; nekateri ga uvrščajo v stopnjo Ha C2, drugi v Ha D1.[88] Okras

[82] Prim. okras 8 linij, ki kot žarki izhajajo iz sredine posode, izdelan s poliranimi pasovi in grafitnim premazom iz stopnje Ha C2–D1 horakovske kulture (Golec 2003, 224, št. 4(5)24); za vrezan okras glej npr. najdišča Batina Gradac, Dalj Busija, Pécs – Jakabhegy (Metzner Nebelsick 2002, T. 47: 5; 82: 3, 4; 123: 1); Dobiat 1980, 169–170, T. 36: 9; 37: 3, 5; 42: 4–7; 43: 4–7; 47: 6; 54: 4, 6, 8; 83: 5; 95: 3, 5; 96: 7; 99: 6; 110: 7; večinoma vtisnjeni krožci tvorijo krog v osrednjem delu dna, grafitni pasovi so v obliki različnih žarkov (križni motiv, mreža idr.); datacija: faza 2, predvsem pa faza 3 (Kleinklein).

[83] Npr. Gabrovec 2006, T. 82: 16; 182: 223 (Stična).

[84] Teržan 1990, sl. 3: 7; T. 65: 2; 66: 4, 5; 76–77.

[85] Za vtisnjen linijski okras zasledimo v literaturi poimenovanja *Rädchen*, *Rollrädchen*, *Rollstempel*, *Zahnstempel*, *tracing wheel motiv*, *roller-stamped*, *rouletting*, koleščkan ornament, koleščkanje idr. ali pa splošno poimenovanje žigosanje.

[86] Dreslerová 1995a, 23, fig. 13: 1; Vulpe 1986, 79, fig. 8/8; Dušek, Dušek 1995, T. 67: 12; 94: 20; Preinfalk 2012, 92, kat. n. 635, 1103; primerov odtiskovanja različnih kovinskih predmetov je več, glej npr. Truhelka 1904, 36.

[87] Teržan 1990, 36.

[88] Rebay 2006, 127; Lochner 1988, 115.

ready shown above, similar decoration in NE Slovenia and NW Croatia mainly consists of incisions and grooves, while decorating the base interiors of dishes with an inturned rim is not common in the Dolenjska region.[83] The S3c1 dish from Hotinja vas cannot be precisely dated neither through its form nor its decoration, but we come closest to achieving this by comparing it to the dish from the above-mentioned grave at Goričan. Grooved decoration is also known on a fragment of an S3d1 dish with closest parallels from the Ipavec tumulus at Pivola. Also similar are the cup from Grave 2 of the Magg tumulus at Pivola and a cup from Poštela, which are comparable in decoration but have a vertical rim; the cups have been attributed to the Styria/ Štajerska 3 horizon or Ha C2/D1.[84]

The S3d2 dish from Hotinja vas bears stamped rings with four triangles within them that form a cross just below the rim connected with a stamped 'zigzag' line[85] (*fig. 7: S3d2*; *11B*). This decoration was probably made using a special tool such as a stamp, with one toothed edge. Such tools were made of different materials: clay, bone, bronze.[86] They were pressed into the wet clay of the vessels to make linear patterns consisting of small squares, rectangles, triangles and so forth. This decoration may appear on its own (cf. G335) or more commonly in combination with other decorative techniques (cf. G423). At nearby Poštela, different stamped motifs (rings and linear motifs made with a toothed tool) appear as a novelty of the Poštela 3 phase.[87] In Lower Austria as well, the decoration of stamped rings is in use in the late phase of the Early Hallstatt period; some scholars attribute it to Ha C2, others to Ha D1.[88] The decoration of rings with crosses or encircled crosses such as those on the dish from Hotinja vas is not common, but the comparisons are very telling. Such

4; 123: 1); Dobiat 1980, 169–170, Pls. 36: 9; 37: 3, 5; 42: 4–7; 43: 4–7; 47: 6; 54: 4, 6, 8; 83: 5; 95: 3, 5; 96: 7; 99: 6; 110: 7; mostly impressed rings form a circle in the central part of the base while the graphite strips form various radiating motifs (crosses, meshwork and so forth); date: second and even more so Phase 3 (Kleinklein).

[83] E.g. Gabrovec 2006, Pls. 82: 16; 182: 223 (Stična).

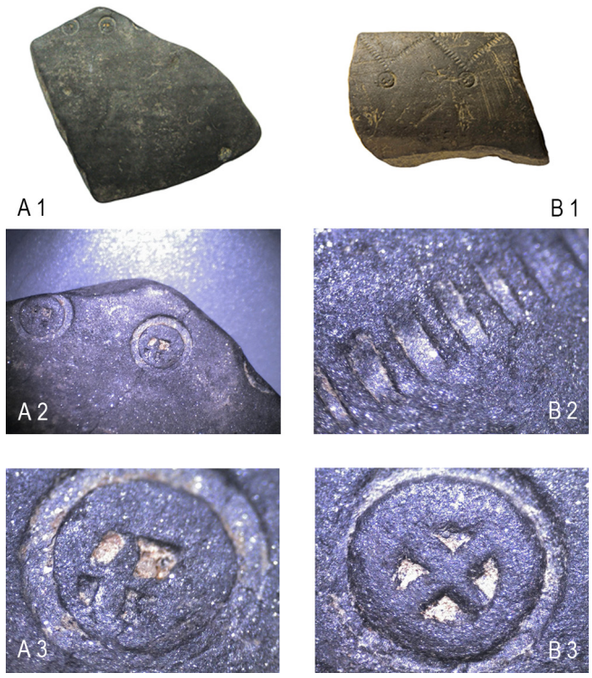
[84] Teržan 1990, fig. 3: 7; Pls. 65: 2; 66: 4, 5; 76–77.

[85] The impressed linear decoration is known in literature under different names in different languages, e.g. *Rädchen*, *Rollrädchen*, *Rollstempel*, *Zahnstempel*, *tracing wheel motif*, *roller-stamped*, *rouletting*, *koleščkan ornament*, *koleščkanje*, *žigosanje*.

[86] Dreslerová 1995a, 23, fig. 13: 1; Vulpe 1986, 79, fig. 8/8; Dušek, Dušek 1995, Pls. 67: 12; 94: 20; Preinfalk 2012, 92, Cat. No. 635, 1103; there are other examples of impressing/stamping different metal tools, see e.g. Truhelka 1904, 36.

[87] Teržan 1990, 36.

[88] Rebay 2006, 127; Lochner 1988, 115.



Slika 11. Okras na odlomku posode iz gomile na Veleniku (A 1) pri 10- in 60-kratni povečavi (A 2, A 3) in okras na odlomku latvice tip S3d2 iz Hotinje vasi (B 1) pri 60-kratni povečavi (B 2, B 3) (foto: M. Črešnar).

Figure 11. Decoration on a fragment of a vessel from the tumulus at Velenik (A 1) with magnifying powers of 10x and 60x (A 2, A 3) and on a fragment of a S3d2 dish with an inturned rim from Hotinja vas (B 1) with magnifying powers of 60x (B 2, B 3) (photo: M. Črešnar).

razčlenjenih krožcev, kakršni so na hotinjski latvici, ni pogost, vendar so primerjave povedne. Tako je bila okrašena še posoda iz gomile na Veleniku pri Spodnji Polskavi (*sl. 11A*) iz 3. horizonta Poštele.[89] Datacijo posode iz Velenika potrjuje okras na vratu posode. Gre za t. i. motiv »bežečega psa«. Ta motiv je tudi na vratu pitosa iz jame 146 na Skolibrovi ulici v Ormožu iz stopnje Ha C2–D1.[90] Glede na risbo se zdi, da je bil na enak način okrašen tudi keramičen podstavek, odkrit v gomili 3 v Spodnjih Podložah iz 3. štajerskega horizonta.[91] Primerjav za latvico S3d2 ni veliko; omejeni smo tudi s premajhno natančnostjo risb, ki so v objavah v pomanjšanem merilu.[92] Samo nakažemo lahko na možnost primerjav s posodami z zahodne Slovaške in Moravske. Iz naselja Smolenice – Molpir sta dve globoki latvici okrašeni z razčlenjenimi krožci v kombinaciji s šrafiranimi trikotniki ali pasovi, izdelanimi z odtisi nazobčanega pripomočka; ena je premazana z grafitnim premazom. Izhajata iz pozne Ha C2 ali iz Ha D1 stopnje.[93] Z najdišča Těšetice (Sutny) je podoben okras iz stopnje Ha D2, kasneje se ne pojavlja več.[94] Že Teržanova je omenila, da je ta motiv, krog z vpisanim križem, na prostoru

89 Teržan 1990, 83, T. 71: 6.
90 Dular 2013, 52, okras O 21.
91 Lubšina Tušek 1996, 100, T. 9: 1; predmet je v muzeju založen.
92 Za delno ohranjeno posodo iz Stične (Grahek 2013a, 177, sl. 100: okras O 24 c; ista 2013b, 102, T. 14: 2) se zdi, da ima enake razčlenjene krožce, vendar to ne drži, saj je na stiški posodi odtisnjen okrogel žig, ki je v pozitivu pustil okras križa.
93 Müller 2012, T. 39: 15; 54: 7; 88: 1.
94 Golec 2003, 98–99, 103, 235 – št. 912.

rings are known on a vessel from a tumulus at Velenik near Spodnja Polskava (*fig. 11A*) attributed to the Poštela 3phase.[89] The date of the vessel from Velenik is confirmed by the motif of the so-called running dog on its neck. This motif can also be found on the neck of a pithos from Pit 146 at the site of Skolibrova ulica in Ormož, attributed to Ha C2–D1.[90] The ceramic stand found in Tumulus 3 at Spodnje Podlože, attributed to the Poštela 3 phase, suggests a similar motif there.[91] The S3d2 dish has few parallels; we are also limited in this sense by the imprecise drawings of the finds published in reduced scale.[92] We may therefore only indicate possible similarities with the vessels from western Slovakia and Moravia. Two deep dishes with an inturned rim were found in the settlement at Smolenice – Molpír that are decorated with encircled crosses in combination with hatched triangles and bands made with a toothed tool; one of them is graphite-coated and both date to late Ha C2/D1.[93] Similar decoration from the site at Těšetice (Sutny) is attributed to Ha D2 and does not appear later.[94] Teržan observes that the motif of encircled crosses in Pannonia and the eastern Alps mainly appears on pottery;[95] it may represent a reduced version of the wheel or the sun motif.[96] In order to more precisely determine how this motif on the vessels from Velenik and Hotinja vas was made, we observed the sherds under the microscope with magnifying powers of 10x and 60x.[97] The edges of the rings on the vessel from Velenik are sharper and clearer than those on the vessel from Hotinja vas (*fig. 11 A3, B3*). This difference possibly only occurred because of the difference in the dryness or softness of the clay. The tool had sharp edges and it was presumably made of metal, bone, horn or hardwood. The comparison also showed that the cross is not always in the same spot in relation to the ring, hence the decoration on the vessel from Velenik was made using two different tools: one to stamp the ring and the other to stamp the central cross. This has not

89 Teržan 1990, 83, Pl. 71: 6.
90 Dular 2013, 52, okras O 21.
91 Lubšina Tušek 1996, 100, Pl. 9: 1.
92 The partially preserved vessel from Stična (Grahek 2013a, 177, fig. 100: decoration O 24 c; Grahek 2013b, 102, Pl. 14: 2) appears to have similar encircled crosses, but a closer examination has shown it has been decorated on the different way.
93 Müller 2012, Pls. 39: 15; 54: 7; 88: 1.
94 Golec 2003, 98–99, 103, 235 – No. 912.
95 Teržan 1990, 141–142, fig. 33: 2.
96 Cf. Di Fraia 2004, fig. 1: 7, 8; 3: 2, 6, 7, 9.
97 I would like to thank colleague Matija Črešnar (Department of Archaeology at the Faculty of Arts, University of Ljubljana) for his help and for the photographs.

Panonije in V Alp pogost predvsem na keramiki;[95] morda gre za droben motiv kolesa oz. sonca.[96]

Da bi natančneje spoznali način izdelave okrasa, smo si primere iz Velenika in Hotinje vasi ogledali pod mikroskopom pri 10- in 60-kratni povečavi.[97] Robovi krožcev so na veleniški posodi bolj ostri in pravilni kot pri hotinjski (*sl. 11 A3, B3*). Ta razlika je morda nastala le zaradi različno suhe oz. mehke površine posode, v katero je bilo orodje odtisnjeno. Orodje je imelo ostre robove, zato domnevamo, da je bilo kovinsko, koščeno oz. roženo ali iz trdega lesa. Pri veleniški posodi je tudi jasno, da je bil motiv izdelan z dvema orodjema; enim za odtis krožca, drugim za odtis sredinskega vzorca, saj slednji ni vedno na istem mestu znotraj krožca. Tega pri hotinjski posodi nismo ugotovili. Gotovo ti dve posodi nista bili okrašeni z istim orodjem, saj so na hotinjski posodi v sredini krožca odtisnjeni po štirje trikotniki, pri veleniški pa različni štirikotniki. Pri žigu razčlenjene linije vzporednih zobcev vidimo, da je najgloblje odtisnjen osrednji del, robovi pa se izklinijo.

Sklede ali skodele S-Sk1 (*sl. 7*) so primerljive s skledami s kratkim pokončnim vratom iz grobov 1. faze v Kleinkleinu, še najbolj skodelici iz gomile Offenmacherwald 13. V tej nekropoli je zaslediti razvoj od visokih trebušastih skled k plitvejšim s kratkim ramenom ali brez njega in z ostrim prelomom.[98] Hotinjska in njej podobne sklede bi tako sodile k mlajšim oblikam. Različne izvedbe okrasa z navpičnimi in poševnimi kanelurami oz. žlebovi (tip S-Sk2) se pojavljajo na Štajerskem v stopnjah Ha C–D1. Najbližje primerjave so med skledami s kratkim vratom in kaneliranim obodom s Poštele, ki so značilne za 3. horizont. Podoben kos je bil odkrit tudi na starejšeželeznodobni naselbini Nova tabla pri Murski Soboti.[99] Podobne primerke skledam ali skodelam tipa S-Sk3a so znane iz Ormoža ter Hajndla, datirane v čas Ha C–D1. Tovrstna neokrašena skodela s Poštele je bila odkrita v sondi 77 med najdbami iz stopnje Poštela 3.[100] Z avstrijskih najdišč Leopoldsberg pri Dunaju, Horn, Bärndorf – Kaiserköpperl in Kalsdorf so takšne posode opredeljene predvsem

[95] Teržan 1990, 141–142, sl. 33: 2.

[96] Prim. Di Fraia 2004, fig. 1: 7, 8; 3: 2, 6, 7, 9.

[97] Za pomoč in izdelavo posnetkov se zahvaljujem kolegu Matiji Črešnarju (Oddelek za arheologijo Filozofske fakultete Univerze v Ljubljani).

[98] Dobiat 1980, 78, T. 1: 7; 3: 9; 12: 6.

[99] Teržan 1990, 32–36. sl. 3: 3; Lamut 1988–1989, 241; Dobiat 1980, T. 28: 3; 29: 3; 53: 1–3, 6 itd.; Guštin et al. 2017, G1712.

[100] Dular, Tomanič Jevremov 2010, T. 50: 2; 148: 3; Magdič 2006, T. 22: 4; 51: 5–6; 58: 6; Mele 2009, 131, T. 67: 4–6, 9, 10 idr.; Teržan 1990, 32, T. 15: 10.

been established on the vessel from Hotinja vas. The two vessels were certainly not decorated with the same kinds of tools, because the ring on the Hotinja vas vessel was filled with four triangles and that on the Velenik vessel with different quadrangles. The stamped 'zigzag' line between the rings on the vessel from Hotinja vas shows that its middle part is impressed deepest and gets shallower towards the edges.

The S-Sk1 dishes or bowls (*fig. 7*) are comparable with the dishes with a short vertical neck from Phase 1 at Kleinklein, most of all with the cup from the Offenmacherwald 13 tumulus. The dishes from this cemetery reveal a development from deep ellipsoid dishes to shallower ones with a narrow shoulder or even shoulderless and with a sharp body-rim junction.[98] The S-Sk1 dishes from Hotinja vas and other sites would thus belong to the later forms. The different versions of the decoration consisting of vertical and oblique grooves (Type S-Sk2) appear in Styria/ Štajerska in Ha C–D1. The closest parallels for such decoration from Hotinja vas come from Poštela and are to be found on dishes with a short neck and grooves around maximum diameter characteristic of the Poštela 3 phase. A fragment of a similar vessel was found in the Early Iron Age settlement at Nova tabla near Murska Sobota.[99] Comparisons for the S-Sk3a dishes or bowls from Hotinja vas can be found among the pottery from Ormož and Hajndl that date to Ha C–D1. A plain bowl of this type from Poštela was found in Trench 77 among the finds attributed to the Poštela 3 phase.[100] Such vessels from the Austrian sites at Leopoldsberg near Vienna, Horn, Bärndorf – Kaiserköpperl and Kalsdorf are mainly attributed to Ha D1.[101] Similar to the S-Sk3b vessels are those that B. Lamut identified as a novelty of Phase 2 at Ormož, one from Poštela attributed to the Poštela 2 phase (Ha C) and one from the Early Iron Age site at Pri Muri near Lendava.[102] The dish with a vertical neck from Rifnik is probably slightly earlier as it was attributed to the settlement's second phase (Ha B2–3). The bowl from a tumulus at Črnolica below Rifnik can be dated more precisely,

[98] Dobiat 1980, 78, Pls. 1: 7; 3: 9; 12: 6.

[99] Teržan 1990, 32–36. fig. 3: 3; Lamut 1988–1989, 241; Dobiat 1980, Pls. 28: 3; 29: 3; 53: 1–3, 6 etc.; Guštin et al. 2017, G1712.

[100] Dular, Tomanič Jevremov 2010, Pls. 50: 2; 148: 3; Magdič 2006, Pls. 22: 4; 51: 5–6; 58: 6; Mele 2009, 131, Pl. 67: 4–6, 9, 10 etc.; Teržan 1990, 32, Pl. 15: 10.

[101] Urban 1996, 569, fig. 9: 512; Eibner 1996, 94, fig. 5: 8; Griebl 1996, 105, 107, fig. 6: q; Tiefengraber 2005, 172–173, Pls. 53: 13, 14; 68: 2.

[102] Lamut 1988–1989, Pls. 9: 18; 28: 8 (Ormož); Teržan 1990, 32, Pl. 10: 10 (Poštela); Sankovič 2011, 45, fig. 31: 7, G198 (Pri Muri near Lendava).

v stopnjo Ha D1.[101] Tipu S-Sk3b so podobne posode, ki jih je Lamut opredelil kot novost 2. ormoške stopnje; s Poštele je iz časa 2. horizonta (Ha C), ena je tudi s starejšeželeznodobnega najdišča Pri Muri pri Lendavi.[102] Skleda s pokončnim vratom z Rifnika je verjetno nekoliko starejša, saj izvira iz 2. stopnje naselbine (Ha B2–3). Natančnejšo datacijo, stopnja Štajerska IIIa oz. Ha C2, nudi skodela iz gomile iz Črnolice pod Rifnikom.[103] Skleda ali skodela tipa S-Sk3c je slabše ohranjena. Navpične in poševne kanelure so značilne za 2. in 3. horizont Poštele, vendar so skledice ostrih profilov značilne predvsem za 3. horizont. Razmeroma dobro ohranjena, opredeljena kot skleda na nogi, izvira iz grobišča v Novi tabli pri Murski Soboti, datirana v Ha D1. Primerljive so iz Ormoža, tudi iz stopnje Ha C1–2, medtem ko je Lamut skledo z rahlo višjim valjastim vratom in kanelurami na ramenu opredelil v zgodnjo Ha D1 stopnjo. Podobne so tudi nekatere sklede in skodele iz 3. faze grobišča v Kleinkleinu (Ha D1) ter skleda z naselja na Burgstallkoglu, uvrščena med tip XV, ki je zastopan v 3., predvsem pa v 4. fazi. Več jih je bilo odkritih v zemljanki V 4 na najdišču Unterparschenbrunn na Spodnjeavstrijskem, ki je okvirno datirano v stopnjo Ha D.[104]

Skledi ali skodeli, opredeljeni pod tipa S-Sk3d in S-Sk3e (*sl. 7*), sta edinstveni v Hotinji vasi. Prva je po okrasu ter kvalitetni glini in obdelavi površine enaka skledi iz Ormoža. Glede na klekasto zalomljen profil jo lahko primerjamo tudi s skledo iz izkopavanj Bernarde Perc v Ormožu, ki je datirana v 3. ormoško oz. razvito stopnjo Ha C. Najbližjo primerjavo drugi posodici pa predstavlja skodelica iz sonde 64 s Poštele iz 3. horizonta.[105]

Skodele s Hotinje vasi so slabše ohranjene. Tip Sk1 verjetno predstavlja trebušasto skodelo z višjim stožčastim vratom, tip Sk2 pa polkroglasto skodelico, ki se znotraj železnodobnih štajerskih in sosednjih najdišč pojavlja dlje časa in je bila v rabi v stopnjah Ha C2 in Ha D1.[106] Skodela tipa Sk3 ima

[101] Urban 1996, 569, Abb. 9: 512; Eibner 1996, 94, Abb. 5: 8; Griebl 1996, 105, 107, Abb. 6: q; Tiefengraber 2005, 172–173, T. 53: 13, 14; 68: 2.

[102] Lamut 1988–1989, T. 9: 18; 28: 8 (Ormož); Teržan 1990, 32, T. 10: 10 (Poštela); Sankovič 2011, 45, sl. 31: 7; G198 (Pri Muri pri Lendavi).

[103] Teržan 1990, sl. 10: 14; Vrenčur 2011, 130, T. 19: 2.

[104] Teržan 1990, 32–34 (Poštela); Guštin et al. 2017, G1362 (Nova tabla); Dular, Tomanič Jevremov 2010, 81, 123: 9; 125: 1; Lamut 1988–1989, 241, T. 26: 13 (Ormož); Dobiat 1980, 170, T. 38: 9; 42: 5 (Kleinklein); Smolnik 1994, 113, Abb. 18, T. 77: 11 (Burgstallkogel); Lauermann 1994, 173, T. 12: 5, 9, 10, 14; 13: 1 (Unterparschenbrunn).

[105] Dular, Tomanič Jevremov 2010, T. 148: 1; 150: 6; Lamut 1988–1989, 240, T. 25: 11 (Ormož); Teržan 1990, 32, T. 8: 3 (Poštela).

[106] Npr. Dobiat 1980, T. 71: 6; 79: 8; 82: 3; 87: 3; 92: 5; Kovačević 2010, T. 16: 3.

to Styria/ Štajerska IIIa or Ha C2.[103] From Hotinja vas, the S-Sk3c dish or bowl is less well preserved and bears vertical and oblique grooves such as are characteristic of the Poštela 2 and 3 phases, though the small dishes with a sharp rim-lower body junction mainly occur in the Poštela 3 phase. A relatively well preserved vessel of this subtype (determined as a footed dish) was found in the cemetery at Nova tabla near Murska Sobota and attributed to the end phase of the cemetery, i.e. Ha D1. Comparable finds are known from Ormož, of a Ha C1–2 date, and include a dish with a slightly higher cylindrical neck and grooves on the shoulder that B. Lamut attributed to early Ha D1. Also similar are some dishes or bowls from Phase 3 of the cemetery at Kleinklein (Ha D1) and a dish from the settlement at Burgstallkogel, the latter determined as Type XV that appears in its Phase 3 and is most common in Phase 4. Several such vessels came to light at Unterparschenbrunn in Lower Austria, roughly dated to Ha D.[104]

The two dishes or bowls from Hotinja vas determined as S-Sk3d and S-Sk3e (*fig. 7*) are represented singly at the site. They are similar in shape, the S-Sk3d mainly in decoration, as well as fabric and surface treatment to a dish from Ormož. In the carinated neck-body junction, the S-Sk3d dish is also comparable with the partially preserved dish that Bernarda Perc found during the excavation at Ormož, attributed to its Phase 3 or developed Ha C. The closest comparison for the S-Sk3e vessel from Hotinja vas is a cup without the impressed dots from Trench 64 at Poštela, attributed to the Poštela 3 phase.[105]

The bowls from Hotinja vas are less well preserved. The bowl with a high conical neck and a presumably ellipsoid body constitutes Type Sk1. Type Sk2 is a hemispherical cup in use on the sites in Styria/ Štajerska and the neighbouring regions over a long period, also in Ha C2 and Ha D1.[106] The bowl of Type Sk3 has a high handle with animal horns; such handles also appear on the dishes or bowls of Type S-Sk3 a, b and e. At Rifnik, such bowls were unearthed in Houses 1 and 5 of Phase 2 and House 3

[103] Teržan 1990, fig. 10: 14; Vrenčur 2011, 130, Pl. 19: 2.

[104] Teržan 1990, 32–34 (Poštela); Guštin et al. 2017, G1362 (Nova tabla); Dular, Tomanič Jevremov 2010, 81, Pls. 123: 9; 125: 1; Lamut 1988–1989, 241, Pl. 26: 13 (Ormož); Dobiat 1980, 170, Pls. 38: 9; 42: 5 (Kleinklein); Smolnik 1994, 113, fig. 18, Pl. 77: 11 (Burgstallkogel); Lauermann 1994, 173, Pls. 12: 5, 9, 10, 14; 13: 1 (Unterparschenbrunn).

[105] Dular, Tomanič Jevremov 2010, Pls. 148: 1; 150: 6; Lamut 1988–1989, 240, Pl. 25: 11 (Ormož); Teržan 1990, 32, Pl. 8: 3 (Poštela).

[106] E.g. Dobiat 1980, Pls. 71: 6; 79: 8; 82: 3; 87: 3; 92: 5; Kovačević 2010, Pl. 16: 3.

presegajoč ročaj z živalskimi rogovi. Takšni ročaji se lahko pojavljajo tudi pri prej obravnavanih skledah ali skodelah tipa S-Sk3a, b, ali e. Na Rifniku so bile odkrite znotraj hiš 1 in 5 iz 2. horizonta ter hiše 3 iz 3. horizonta. Odkrite so bile tudi v Ormožu, na Hajndlu, Kotarah – Bazi pri Murski Soboti ter Pošteli; na slednji med keramiko 3. faze, kjer pa se rogovi zaključijo v obliki čepkov. Zastopane so tudi v grobovih v Kleinkleinu v 2. in 3. fazi, kjer so večinoma okrašene. Z najdišča Sveti Petar Ludbreški v hrvaškem Podravju so skodelo s tovrstnim ročajem opredelili v 7.–6. stol. pr. n. št.[107] S skodelami, ki imajo na ročajih okras živalskih glav, se je ukvarjal tudi K. Tankó. Kot najstarejše je opredelil sklede z enostavnimi rogovi na ročajih in jih uvrstil v stopnjo Ha C2–D1 oz. na konec 7. stol. pr. n. št., te ustrezajo hotinjskemu primerku.[108]

Konični lonci (L1) in sklede (tip S1) so si podobni, ločili smo jih glede na premer ustja (*sl. 7*). Ti lonci se pojavljajo skozi vso starejšo železno dobo. Na Pošteli je bil tak lonec odkrit tudi v sondi 64, v Ormožu v jami 229 na Skolibrovi ulici ter v jami 2548 na Vrazovi ulici, ki je na podlagi najdb datirana v stopnjo Ha C1–2. Več jih je s Hajndla, iz objektov oz. jam, in so verjetno iz zaključne faze naselbine (Ha C2/D1). Z Burgstallkogla pri Kleinkleinu so tovrstni lonci združeni pod tip VI, podobni so skledam tipa XX. Oba tipa posod sta zastopana skozi vse štiri faze naselbine in sta proti 4. fazi pogostejša.[109] Cilindrični in ovalni lonci tipa L2 so ob latvicah najpogosteje zastopana zvrst posod na našem najdišču. Lonci tipa L2a so bili odkriti na Hajndlu v najmlajših objektih. Poznajo jih naselja v Podravini, npr. Torčec – Međuriče iz stopnje Ha C1b–C2, Virovitica – Đurađ istok in Kiškorija sjever iz pozne Ha C oz. začetka Ha D1 stopnje ter Zbelava. Zastopani so v grobovih 3. faze v Kleinkleinu.[110] Podobno datiramo tudi lončke tipa L2b, saj so bili tudi ti prisotni v objektih zadnje faze s Hajndla ter

[107] Pirkmajer 1983, T. 8: 20 (hiša 5); 16: 4 (hiša 3); 24: 28 (hiša 1) (Rifnik); Dular, Tomanič Jevremov 2010, T. 138: 10, 12 (Ormož); Magdič 2006, T. 22: 5 (Hajndl); Kerman 2011, 39, 170, G866 (Kotare – Baza); Teržan 1990, 50–51, sl. 3: 12 (Poštela); Dobiat 1980, T. 28: 4; 36: 9; 46: 11; 67: 5–8; 84: 10; 112: 19 (Kleinklein); Vinski Gasparini 1987, 207, sl. 13: 11; Balen-Letunić 2004, 304, sl. 23 (Sveti Petar Ludbreški).

[108] Tankó 2005, 154, 156, 159.

[109] Teržan 1990, 32, T. 8: 11 (Poštela); Dular, Tomanič Jevremov 2010, 81, T. 30: 1; 124: 5 (Ormož); Magdič 2006, 147–153, T. 8: 1; 13: 1; 42: 5; 52: 1; 66: 4; 70: 7 (Hajndl); Smolnik 1994, 36, 113, Abb. 18 (Burgstallkogel).

[110] Magdič 2006, 136–143, 147–149, T. 19: 3; 60: 3; 84: 5 (Hajndl); Kovačević 2009, 66, T. 5: 4; 9: 4; isti 2010, T. 4: 1; 16: 2; 18: 3; isti 2007, T. 1: 1; isti 2008, T. 6: 5 (Podravina); Dobiat 1980, 170, T. 37: 2; 74: 7; 94: 6; 105: 12 (Kleinklein).

of Phase 3. They were also found at Ormož, Hajndl, Kotare – Baza near Murska Sobota and Poštela; at the last site they were found among the pottery of the Poštela 3 phase where the horns terminate in knobs. Such vessels, predominantly decorated, are known also from the graves of Phases 2 and 3 at Kleinklein. A bowl with such a handle from Sveti Petar Ludbreški in the Croatian region of Podravina was dated to the 7th–6thcentury BC.[107] The bowls with animal heads on their handles have been studied by Károly Tankó. He found that the earliest bowls were those with simple horns on the handles and dated to Ha C2–D1, i.e. to the late 7thcentury BC; these bowls correspond with the Sk3 bowl from Hotinja vas.[108]

The dishes of S1 are similar to the conical jars of L1 and are distinguishable in the differing rim diameters (*fig. 7*). Such jars were in use throughout the Early Iron Age. Individual examples were found at Poštela in Trench 64 and at Ormož, at the latter site more precisely at Skolibrova ulica in Pit 229 and at Vrazova ulica in Pit 2548, attributed to Ha C1–2. Several have been found at Hajndl, even in buildings or pits presumably attributable to the final phase of the settlement (Ha C2/D1). Such jars from Burgstallkogel near Kleinklein constitute Type VI and are similar to the dishes of Type XX. Both vessel types are present throughout the four phases of the settlement and become commoner towards the last phase.[109] The cylindrical and ovaloid jars of Type L2 are, alongside the dishes with an inturned rim, the commonest types of vessels at Hotinja vas. Jars such as those of L2a have also been found in the latest buildings at Hajndl. They have been found in the settlements in Podravina, Croatia, for example at Torčec – Međuriče, attributed to Ha C1b–C2, Virovitica – Đurađ istok and Virovitica – Kiškorija sjever, from the late Ha C or early Ha D1, and at Zbelava, as well as in the graves of Phase 3 at Kleinklein.[110] A similar date is attributed to the small jars/beakers

[107] Pirkmajer 1983, Pl. 8: 20 (House 5); 16: 4 (House 3); 24: 28 (House 1) (Rifnik); Dular, Tomanič Jevremov 2010, Pl. 138: 10, 12 (Ormož); Magdič 2006, Pl. 22: 5 (Hajndl); Kerman 2011, 39, 170, G866 (Kotare – Baza); Teržan 1990, 50–51, fig. 3: 12 (Poštela); Dobiat 1980, Pls. 28: 4; 36: 9; 46: 11; 67: 5–8; 84: 10; 112: 19 (Kleinklein); Vinski Gasparini 1987, 207, fig. 13: 11; Balen-Letunić 2004, 304, fig. 23 (Sveti Petar Ludbreški).

[108] Tankó 2005, 154, 156, 159.

[109] Teržan 1990, 32, Pl. 8: 11 (Poštela); Dular, Tomanič Jevremov 2010, 81, Pls. 30: 1; 124: 5 (Ormož); Magdič 2006, 147–153, Pls. 8: 1; 13: 1; 42: 5; 52: 1; 66: 4; 70: 7 (Hajndl); Smolnik 1994, 36, 113, fig. 18 (Burgstallkogel).

[110] Magdič 2006, 136–143, 147–149, Pls. 19: 3; 60: 3; 84: 5 (Hajndl); Kovačević 2009, 66, Pls. 5: 4; 9: 4; id. 2010, Pls. 4: 1; 16: 2; 18: 3; id. 2007, Pl. 1: 1; id. 2008, Pl. 6: 5 (Podravina); Dobiat 1980, 170, Pls. 37: 2; 74: 7; 94: 6; 105: 12 (Kleinklein).

kleinkleinških grobovih 2. in 3. faze.[111] S štajerskih najdišč so tudi lončki, primerljivi tipu L2b1, z Ormoža in Poštele, tudi iz stopenj Ha C–D1.[112] Lonci tipa L2a1 so bili odkriti na Pošteli v sondah 64 in 77; na Hajndlu tudi v najmlajših objektih, številni so na Novi tabli pri Murski Soboti. V Šentjanžu pri Rečici je bil tak lonec v grobu 2 iz stopnje Poštela 3, v Kleinkleinu v grobovih 3. stopnje. Zelo podobna loncema s tremi oz. štirimi držaji (L2a1, posodi G177 in 405) sta lonca iz vodnjaka 7/3 na Skolibrovi ulici v Ormožu iz stopnje Ha C1–2, ki imata rob ustja razčlenjen enako kot lonec s Hotinje vasi, označen kot okrašena varianta L2a2. Morda je imel tudi hotinjski držaje. Lonci z razčlenjenimi polkrožnimi držaji so pogosti tudi na slovaških najdiščih Smolenice – Molpír, Sered' – Mačianske Vŕšky in Ratkovce. Tipu L2a1 so podobni tudi lonci iz naselja Torčec – Međuriče (Ha C1b–C2), pozna jih tudi Zbelava.[113] Zelo številni so v Stični. Stiški valjasti lonec tipa 1a in 1b ustreza hotinjskemu tipu L2a in L2b, stiška tipa 4 in 5 pa hotinjskima L2a1 in L2b1. V Stični so najpogostejši v plasteh k zidu I (stopnja Podzemelj 1–Stična 2), tip 5 (z bradavicami) pa do vključno plasti k zidu II (stopnja kačastih in certoških fibul).[114] Za tip L3 je več primerjav, ki kažejo na daljši čas rabe te oblike loncev. Več jih je znanih z žarnogrobiščnih najdišč, znani pa so tudi iz starejšeželeznodobnih naselbin, npr. z Miklavškega hriba nad Celjem, Hajndla, Nove table pri Murski Soboti, Kalsdorfa, Burgstallkogla ter iz grobov v Kleinkleinu in iz naselij Torčec – Međuriče, Virovitica – Đurađ Istok in Zbelava v Podravini.[115] Različica L3.1 je slabo ohranjena. Lonci s tako oblikovanim ustjem so pogosti na Hajndlu, nekateri imajo pod

[111] Magdič 2006, 138–143, T. 25: 8 (Hajndl); Dobiat 1980, T. 69: 11; 98: 9; 112: 5 (Kleinklein).

[112] Dular, Tomanič Jevremov 2010, T. 86: 12; 106: 13; 124: 6; Teržan 1990, 32, T. 8: 8.

[113] Teržan 1990, 32, T. 9: 1; 16: 1, 2 (Poštela); Magdič 2006, 149, T. 52: 5 (Hajndl); Pavlovič 2008, 482, sl. 2a: 2; Guštin et al. 2017, G1174, 1207, 1273, 1602 idr. (Nova tabla); Teržan 1990, 113, T. 81: 7 (Šentjanž pri Rečici); Dobiat 1980, T. 37: 1; 43: 1–3; 79: 14; 91: 14; 94: 5, 7; 105: 10, 11 (Kleinklein); Dular, Tomanič Jevremov 2010, 81, T. 98: 1, 2 (Ormož); Müller 2012, T. 74: 1; 80: 16; 135: 4; 142: 6; 143: 17; 175: 10 (Smolenice – Molpír, Sered', Ratkovce); Kovačević 2009, 66, T. 1: 3 (Torčec – Međuriče); isti 2007, T. 1: 8 (Zbelava).

[114] Grahek 2013a, 69, 71, 222, sl. 42 (L1a, L1b); 43 (L5); 129.

[115] Teržan 1990, T. 74: 4 (Miklavški hrib); Mele 2009, 196–200, T. 58: 8; 68: 10; 82: 7; 111: 4 (Hajndl); Guštin et al. 2017, G1490 (Nova tabla); Tiefengraber 2005, T. 32: 10, 11; 33: 1–4; 53: 4 (Kalsdorf); Smolnik 1994, T. 67: 9; 87: 5; 107: 16; 135: 8; 142: 6 idr. (Burgstallkogel); Dobiat 1980, T. 62: 3, 5 (Kleinklein); Kovačević 2009, T. 2: 1; 3: 13; 4: 4; 11: 1; isti 2010, T. 9: 7; 10: 1; isti 2008, T. 4: 4, 11; 6: 3; 7: 6 (Podravina).

of L2b, also recovered in the buildings of the last phase at Hajndl and in the graves of Phases 2 and 3 at Kleinklein.[111] Comparisons for the beakers of L2b1S also come from Styria/ Štajerska (Ormož and Poštela), dated to Ha C–D1 as well.[112] The L2a1 jars were found at Poštela in Trenches 64 and 77, and at Hajndl in the latest phase; numerous were also found at Nova tabla near Murska Sobota. One such vessel was found at Šentjanž near Rečica, in Grave 2 attributed to the Poštela 3 phase. Several such vessels also came to light in the graves of Phase 3 at Kleinklein. Very similar to the two jars with three or four grips (L2a1, vessels G177 and 405) are two jars from Water Well 7/3 at Skolibrova ulica in Ormož, attributed to Ha C1–2, which bear impressions on the rim similarly as the jar from Hotinja vas that is marked as Variant L2a2. This jar may also originally have had grips. The jars with semicircular grips with impressions are also common on the Slovakian sites at Smolenice – Molpír, Sered' – Mačianske Vŕšky and Ratkovce. Similar to the L2a1 jars are those from the settlement at Torčec – Međuriče (Ha C1b–C2), also found at Zbelava.[113] Numerous such jars have been found at Stična; those of Variants 1a and 1b correspond to those of Subtypes L2a and L2b at Hotinja vas, those of Types 4 and 5 correspond to Variants L2a1 and L2b1 at Hotinja vas. Such jars at Stična were predominantly found in the layers associated with Wall I (Podzemelj 1–Stična 2 phases), those of Type 5 (with knobs) were recovered from the layers up to and including those associated with Wall II (the Serpentine and Certosa Fibula phases).[114] More comparisons are available for L3 jars, which also indicate a prolonged use of the form. Numerous parallels are known from Urnfield culture contexts; several have also been recovered from Early Iron Age sites, for example at Miklavški hrib above Celje, Hajndl, Nova tabla near Murska Sobota, Kalsdorf, Burgstallkogel and from the graves at Kleinklein. In Croatian Podravina, they are known

[111] Magdič 2006, 138–143, Pl. 25: 8 (Hajndl); Dobiat 1980, Pls. 69: 11; 98: 9; 112: 5 (Kleinklein).

[112] Dular, Tomanič Jevremov 2010, Pls. 86: 12; 106: 13; 124: 6; Teržan 1990, 32, Pl. 8: 8.

[113] Teržan 1990, 32, Pls. 9: 1; 16: 1, 2 (Poštela); Magdič 2006, 149, Pl. 52: 5 (Hajndl); Pavlovič 2008, 482, fig. 2a: 2; Guštin et al. 2017, G1174, 1207, 1273, 1602 etc. (Nova tabla); Teržan 1990, 113, Pl. 81: 7 (Šentjanž near Rečica); Dobiat 1980, Pls. 37: 1; 43: 1–3; 79: 14; 91: 14; 94: 5, 7; 105: 10, 11 (Kleinklein); Dular, Tomanič Jevremov 2010, 81, Pl. 98: 1, 2 (Ormož); Müller 2012, Pl. 74: 1; 80: 16; 135: 4; 142: 6; 143: 17; 175: 10 (Smolenice – Molpír, Sered', Ratkovce); Kovačević 2009, 66, Pl. 1: 3 (Torčec – Međuriče); id. 2007, Pl. 1: 8 (Zbelava).

[114] Grahek 2013a, 69, 71, 222, figs. 42 (L1a, L1b); 43 (L5); 129.

ustjem, v zgornji tretjini posode, dodaten okras s plastičnim razčlenjenim rebrom; lahko imajo tudi držaj. Ti lonci so večinoma stožčaste oblike, nekateri so rahlo ovalni, izvirajo iz kompleksov datiranih v stopnjo Ha C–D1.[116] Tudi tip L4 je oblika, ki je dalj časa v rabi, predvsem v starejšem halštatskem obdobju. Podobni lonci so znani s Poštele, iz faze Poštela 1 in 2 (Ha B3–C), iz Brinjeve gore v starejši železnodobni plasti 5. Primerljivi, z le rahlo izvihanim ustjem, so lonci s Hajndla, ki izvirajo iz shrambne jame objekta 8 iz zaključne faze naselja. Veliko jih je zastopanih na Burgstallkoglu pri Kleinkleinu, kjer so bili v rabi do 3. faze.[117] Lonci tipa L5 imajo lahko pod ustjem, v zgornji tretjini posode, razčlenjeno plastično rebro; podobni so skledam lijakaste oblike z usločenim ustjem. Na Štajerskem so pogosti že v času kulture žarnih grobišč, npr. na Brinjevi gori in iz Ormoža, kjer so zastopani tudi še v stopnji Ha C. Tudi z Burgstallkogla so primerljivi lonci večinoma iz starejših faz naselbine, največ iz 1., redki iz 3. faze. Podobni so bili tudi na najdišču Kotare – Baza pri Murski Soboti. Primerki iz Kalsdorfa so združeni pod osnoven tip loncev z ravnim izvihanim robom ustja.[118] V Stični so podobni lonci (tip L25) zastopani v vseh plasteh naselbine.[119] Iz Ormoža je tudi nekaj primerjav za varianti loncev L5.1 in L5.2.[120] Lonci tipa L6 so pogosta in široko razprostranjena oblika. Iz Ormoža so večinoma iz 2. faze (Ha B3–C1), s Hajndla pa tudi iz stopnje Ha C–D1. V uporabi so bili tudi na Pošteli (mdr. v fazi I), Brinjevi gori, Ptujskem gradu, v Gornji Radgoni, na Novi tabli pri Murski Soboti, Novinah in Burgstallkoglu. V Kleinkleinu so iz grobov I. faze, v hrvaški Podravini so tudi mlajši, npr. v naselbini Virovitica – Đurađ istok.[121]

[116] Magdič 2006, 151, T. 86: 7; Mele 2009, 196–200, T. 27: 6; 33: 6; 90: 9; 117: 5 idr.

[117] Teržan 1990, T. 2: 6; 31: 32; 32: 1–6; 11: 7; 47: 13 (Poštela); Oman 1981, T. 41: 7; 47: 3 (Brinjeva gora); Magdič 2006, 139, 149, T. 40: 4; 60: 4; 67: 7; 68: 3; 71: 1 (Hajndl); Smolnik 1994, 113, Abb. 18, T. 59: 12; 62: 3; 64: 8; 112: 7; 118: 4, 7; 122: 1, 2, 4; 123: 13; 132: 1; 133: 2; 137: 14, 15 (Burgstallkogel).

[118] Oman 1981, T. 3: 1; 9: 3; 20: 3; 21: 15; 36: 2; 37: 10; 41: 8; 42: 3 (Brinjeva gora); Lamut 1988–1989, T. 17: 2; 18: 13; isti 2001, T. 5: 16; 12: 4; 22: 13; Dular, Tomanič Jevremov 2010, T. 44: 11; 69: 9; 111: 14; 117: 3; 120: 1; 148: 8 (Ormož); Smolnik 1994, 113, Abb. 18, T. 16: 14; 70: 8; 76: 9; 95: 11 (Burgstallkogel); Kerman 2011, 32, 45, 143, G259, 760, 763 (Kotare – Baza); Tiefengraber 2005, T. 36: 1–3 (Kalsdorf).

[119] Grahek 2013a, 78–79, sl. 46 (L 25).

[120] Tip L5.1: Dular, Tomanič Jevremov 2010, T. 5: 12; Lamut 2001, T. 15: 7; tip L5.2: Dular, Tomanič Jevremov 2010, T. 163: 3.

[121] Dular, Tomanič Jevremov 2010, T. 1: 7; 7: 12; 11: 7; 15: 9; 23: 2; 44: 12; 50: 3; 106: 7; 108: 9; 147: 9 idr.; Magdič 2006, 142, 146–147, T. 8: 5; 25: 2; Mele 2009, T. 14: 2;

from the settlements at Torčec – Međuriče, Virovitica – Đurađ Istok and Zbelava.[115] The jar of L3.1 from Hotinja vas is poorly preserved, but we can nevertheless say that jars with a similar rim are common at Hajndl, some bearing additional decoration of a cordon with impression below the rim or in the upper third of the vessel; some also have a grip. Such jars are mainly conical in form, some slightly ovaloid, and originate from complexes dated to Ha C–D1.[116] The jars of Type L4 were also in prolonged use, but predominantly in the Early Hallstatt period. Similar jars are known from Poštela, which mostly dated to the Poštela 1 and 2 phases (Ha B3–C). Those from Brinjeva gora were found in the Early Iron Age Layer 5. Comparable, with an only slightly everted rim, are the jars from Hajndl, most of which were found in the storage pit of Building 8 attributed to the final phase of the settlement. Numerous such jars are known from Burgstallkogel, mainly in use up to Phase 3 and dated from the first half of the 8th to and including the 7th century BC.[117] The jars of Type L5 can have a cordon with impressions below the rim, in the upper third of the vessel; they are similar to the funnel-shaped dishes. In Štajerska, they are already common in Urnfield culture contexts, for example at Brinjeva gora; at Ormož some also date to Ha C. The comparable jars from Burgstallkogel were also mainly found in the earlier phases of the settlement, most in Phase 1 and very rare ones in Phase 3 that lasted to the end of Ha C. Similar jars also came to light at Kotare – Baza near Murska Sobota. Those from Kalsdorf form the basic type of jars with a flat lip and an everted rim.[118] Comparable jars from Stična (Type L25) are represented in all layers of the

[115] Teržan 1990, Pl. 74: 4 (Miklavški hrib); Mele 2009, 196–200, Pls. 58: 8; 68: 10; 82: 7; 111: 4 (Hajndl); Guštin et al. 2017, G1490 (Nova tabla); Tiefengraber 2005, Pls. 32: 10,11; 33: 1–4; 53: 4 (Kalsdorf); Smolnik 1994, Pls. 67: 9; 87: 5; 107: 16; 135: 8; 142: 6 etc. (Burgstallkogel); Dobiat 1980, Pl. 62: 3, 5 (Kleinklein); Kovačević 2009, Pls. 2: 1; 3: 13; 4: 4; 11: 1; id. 2010, Pls. 9: 7; 10: 1; id. 2008, Pls. 4: 4, 11; 6: 3; 7: 6 (Podravina).

[116] Magdič 2006, 151, Pl. 86: 7; Mele 2009, 196–200, Pls. 27: 6; 33: 6; 90: 9; 117: 5 etc.

[117] Teržan 1990, Pls. 2: 6; 31: 32; 32: 1–6; 11: 7; 47: 13 (Poštela); Oman 1981, Pls. 41: 7; 47: 3 (Brinjeva gora); Magdič 2006, 139, 149, Pls. 40: 4; 60: 4; 67: 7; 68: 3; 71: 1 (Hajndl); Smolnik 1994, 113, fig. 18, Pls. 59: 12; 62: 3; 64: 8; 112: 7; 118: 4, 7; 122: 1, 2, 4; 123: 13; 132: 1; 133: 2; 137: 14, 15 (Burgstallkogel).

[118] Oman 1981, Pls. 3: 1; 9: 3; 20: 3; 21: 15; 36: 2; 37: 10; 41: 8; 42: 3 (Brinjeva gora); Lamut 1988–1989, Pls. 17: 2; 18: 13; id. 2001, Pls. 5: 16; 12: 4; 22: 13; Dular, Tomanič Jevremov 2010, Pls. 44: 11; 69: 9; 111: 14; 117: 3; 120: 1; 148: 8 (Ormož); Smolnik 1994, 113, fig. 18; Pls. 16: 14; 70: 8; 76: 9; 95: 11 (Burgstallkogel); Kerman 2011, 32, 45, 143, G259, 760, 763 (Kotare – Baza); Tiefengraber 2005, Pl. 36: 1–3 (Kalsdorf).

Pitos tipa Pi1 je zastopan z enim ali dvema primerkoma (G401; prim G433) (*sl. 8*). Najbližje primerjave poznamo s Hajndla, kjer ima sicer podobna posoda daljše izvihano ustje in debelejše stene ter ni bila tako natančno izdelana kot hotinjska; odkrita je bila v delovnem prostoru ob hiši 1 in je verjetno iz stopnje Ha C.[122] Bikonični pitos z visokim vratom poznata najdišči Smolenice – Molpír in Sered' – Mačianske Vŕšky na Slovaškem, kjer je datiran v stopnjo Ha C2/D1.[123] Tip bikoničnih pitosov s stožčastim vratom je značilen za keramična horizonta IIIb in IV (Ha C–C2/D1) v JV Panoniji. Pri teh posodah ustje sicer ni tako kratko in skoraj pravokotno izvihano kot pri hotinjskem primerku, temveč nekoliko daljše, lijakasto izvihano, vrat pa je bolj stožčast. Večina ima na spodnjem delu trupa jezičaste držaje, lahko tudi rahel klek na prehodu v rame.[124] Posode s stožčastim vratom (tip Pi2) so pogosta oblika na štajerskih najdiščih. Lahko so različno okrašene. Tipu Pi2a ne najdemo veliko primerjav; slednje imajo na prehodu v rame manjši klek, morda ga je imela tudi hotinjska posoda, ki pa je na tem mestu poškodovana. Podobna je npr. posoda iz groba 1/77 iz Kalsdorfa pri Gradcu iz poznega obdobja kulture žarnih grobišč. Podobnosti so tudi s posodami s srednje visokim stožčastim vratom z grobišča Statzendorf v Spodnji Avstriji (npr. tip 8.2.3.1 in 8.2.3.4) iz stopenj 2 in 3 oz. Ha C1, posodo z grobišča Loretto na Gradiščanskem ter posodo iz grobišča Kulm pri kraju Aigen v dolini Ennsa na avstrijskem Štajerskem iz starejšega halštatskega obdobja.[125] Posode tipa Pi2b so značilne za stopnjo Ha C1–2. Več jih poznamo iz grobov v Kleinkleinu, tudi iz 3. faze.[126] Posode z vratom, okrašenim z vzporednimi kanelurami, in ramenom z različnimi kaneliranimi ornamenti (tip Pi2b1) se pojavijo v stopnji Poštela 2 in so zastopane še v 3. stopnji, tako tudi v Ormožu.[127] Pogosto je pod bradavico snop okrasnih kanelur v obliki visečega trikotnika,

56: 3 (Hajndl); Teržan 1990, 31–32, T. 22: 3, 5, 6; 32: 13–15 idr. (Poštela); Oman 1981, T. 47: 4, 6, 8 (Brinjeva gora); Dular 2013, T. 25: 7; 31: 1, 3, 5; 51: 5, 7; 54: 3; 61: 2; 65: 2; 72: 10, 14 (Ptujski grad, Gornja Radgona); Pavlovič 2008, 483, l. 2b: 6; Guštin et al. 2017, G1083 (Nova tabla); Smolnik 1994, T. 8: 9; 30: 7; 57: 11; 85: 14; 119: 1; 133: 8 (Burgstallkogel); Dobiat 1980, T. 1: 1–2; 6: 2, 3; 62: 3 idr. (Kleinklein); Gaberz et al. 2015, 145, T. 1: 4; Vinazza et al. 2015, T. 6: 12; 20: 4 (Novine); Kovačević 2010, T. 17: 3 (Virovitica – Đurađ istok).

122 Mele 2009, 196, T. 46: 1.

123 Müller 2012, 148, T. 19: 11; 139: 10.

124 Metzner Nebelsick 1996, 305, Abb. 11, 13; ista 2002, 114–120, Abb. 42.

125 Tiefengraber 2005, 88, 90, Abb. 33 (Kalsdorf); Rebay 2006, 289–290 (Statzendorf); Nebelsick 1997, 74, Abb. 26 (Loretto); Artner 2012, 67, T. 1: 2 (Kulm).

126 Dobiat 1980, T. 18: 13; 35: 1; 98: 1; 111: 1 idr.

127 Teržan 1990, 32–33; Lamut 1988–1989, 241.

settlement.[119] Ormož also yielded several comparisons for the L5.1 and L5.2 jars.[120]At Hotinja vas, the next type of jars, i.e. Type L6, is a numerously represented and wide spread form. Such jars from Ormož are mainly attributed to Phase 2 (Ha B3–C1), those from Hajndl include those from Ha C–D1. They were also in use at Poštela (including the Poštela 1 phase), Brinjeva gora, Ptujski grad, Gornja Radgona, Nova tabla, Novine and Burgstallkogel. Those from Kleinklein were found in the graves of Phase 1, those in Podravina also in later contexts (such are the finds from the settlement at Virovitica – Đurađ istok).[121]

The plain pithos of Type Pi1 is represented at Hotinja vas with one or two examples (G401; cf. G433) (*fig. 8*). The closest parallels come from Hajndl, where a similar vessel has a broader everted rim, thicker walls and is less carefully made in comparison with that from Hotinja vas. The vessel from Hajndl was found in the working area at House 1 and probably dates to Ha C.[122] Two biconical pithoi with a high neck are known from Smolenice – Molpír and Sered' – Mačianske Vŕšky in Slovakia, respectively; the former is dated to Ha C2/D1.[123] The biconical pithoi with a conical neck are characteristic of the Ceramic Horizons IIIb and IV (Ha C–C2/D1) in SE Pannonia. The rim on these vessels is not as short and everted flat as on the jar from Hotinja vas, it is longer and funnel-shaped, while the neck is more conical. Most such pithoi have tongue-shaped grips on the lower body, some also a slightly carinated shoulder-lower body junction.[124] The pithoi with a conical neck (Type Pi2) are common finds across Štajerska and may bear decoration. Not many parallels are to be found for the Pi2a pithoi. One comparable find was found in Grave 1/77 at Kalsdorf near Graz and dates to the Late Urnfield culture period. There are also

119 Grahek 2013a, 78–79, fig. 46 (L 25).

120 Type L5.1: Dular, Tomanič Jevremov 2010, Pl. 5: 12; Lamut 2001, Pl. 15: 7; Type L5.2: Dular, Tomanič Jevremov 2010, Pl. 163: 3.

121 Dular, Tomanič Jevremov 2010, Pls. 1: 7; 7: 12; 11: 7; 15: 9; 23: 2; 44: 12; 50: 3; 106: 7; 108: 9; 147: 9 etc.; Magdič 2006, 142, 146–147, Pls. 8: 5; 25: 2; Mele 2009, Pls. 14: 2; 56: 3 (Hajndl); Teržan 1990, 31–32, Pls. 22: 3, 5, 6; 32: 13–15 etc. (Poštela); Oman 1981, Pl. 47: 4, 6, 8 (Brinjeva gora); Dular 2013, Pls. 25: 7; 31: 1, 3, 5; 51: 5, 7; 54: 3; 61: 2; 65: 2; 72: 10, 14 (Ptujski grad, Gornja Radgona); Pavlovič 2008, 483, l. 2b: 6; Guštin et al. 2017, G1083 (Nova tabla); Smolnik 1994, Pls. 8: 9; 30: 7; 57: 11; 85: 14; 119: 1; 133: 8 (Burgstallkogel); Dobiat 1980, Pls. 1: 1–2; 6: 2, 3; 62: 3 etc. (Kleinklein); Gaberz et al. 2015, 145, Pl. 1: 4; Vinazza et al. 2015, Pls. 6: 12; 20: 4 (Novine); Kovačević 2010, Pl. 17: 3 (Virovitica – Đurađ istok).

122 Mele 2009, 196, Pl. 46: 1.

123 Müller 2012, 148, Pls. 19: 11; 139: 10.

124 Metzner Nebelsick 1996, 305, figs. 11; 13; ead. 2002, 114–120, fig. 42.

na hotinjski posodi pa je pod bradavico snop kanelur v obliki pokončnega trikotnika. Verjetno je bilo podobno okrašenih nekaj posod s Poštele.[128] Nekaj odlomkov posod s stožčastim vratom je okrašenih z vtisnjenimi pikami (G82, 162, 252). Na Pošteli se vodoravne kanelure v kombinaciji z vtisnjenimi pikami pojavijo v 2. horizontu, hkrati je to značilnost posod stopnje Ha C v V alpskem svetu.[129]

Pekve (ali pokrovi) z ročaji (*sl. 8: P1a*) so pogost predmet v naselbinah skozi vso starejšo železno dobo. Podobne so z bližnje Poštele, Ormoža in Hajndla.[130] Pekve imajo lahko ob straneh tudi jezičaste ročaje.[131] Morda je bila takšna tudi katera od slabše ohranjenih hotinjskih pekev. Pekve z držaji (tip P1b in P1c) so v ostalih bližnjih naseljih redkejše. Nekaj jih je s Poštele, iz Ormoža, s Hajndla so ohranjene le fragmentarno, v Novi tabli pri Murski Soboti je bila takšna pekva odkrita v kontekstu, ki sodi v stopnjo Ha C, v stopnjo Ha B3–C1 pa je datirana pekva s štirimi držaji z naselja Pri Muri pri Lendavi.[132] Kot posebna zanimivost se kaže dejstvo, da v Hotinji vasi prevladujejo pekve z držaji, v ostalih bližnjih naselbinah, tj. na Pošteli, v Ormožu in na Hajndlu, pa te z ročaji. Podobni pokrovi kot je tip P1d, so znani še v Ormožu in na Burgstallkoglu, medtem ko je tisti iz Zbelave verjetno mladohalštatski.[133]

Cedila na štajerskih in prekmurskih najdiščih niso pogosta najdba (*sl. 8*). Z Brinjeve gore je ohranjen odlomek cedila v obliki skodelice, iz Ormoža in Hajndla pa le odlomki, nekateri izmed njih so pripadali cedilom z ravnim dnom, datirani so v stopnjo Ha C/D1. Delno ohranjena cedila so znana z Rifnika ter najdišč Virovitica – Đurađ istok in Zbelava. Na najdišču Leopoldsberg pri Dunaju je bilo v nižji plasti objekta 79 (Ha D1) odkrito cedilo v obliki skodelice z le nekoliko bolj odebeljenim izvihanim ustjem kot pri hotinjskem primerku. Cedila, tudi v obliki skodelic, je bilo najdenih tudi na drugih nižinskih železnodobnih naselbinah v Spodnji Avstriji, na zahodnem Madžarskem, Slovaškem in Moravskem,

128 Teržan 1990, T. 40: 1, 6.

129 Teržan 1990, 53.

130 Teržan 1990, T. 17: 3; 28: 33–43; 8: 12, 16 idr. (Poštela); Lamut 1988–1989, T. 22: 5; 24: 14 idr.; Dular, Lubšina Tušek 2010, T. 124: 1 (Ormož); Mele 2009, 166, 198, sl. 75, T. 65: 9; 75: 1; 123: 1; Magdič 2006, 149, T. 23: 4, 5 idr. (Hajndl).

131 Glej npr. Dular, Tomanič Jevremov 2010, T. 29: 8; 67: 2; 93: 9; Teržan 1990, T. 28: 31.

132 Lamut 1988–1989, T. 16: 5; 25: 9; Dular, Tomanič Jevremov 2010, T. 41: 11; 83: 8; 97: 4 (Ormož); Magdič 2006, T. 5: 5; 11: 9; 19: 8; 26: 9; 48: 5; 55: 7 idr. (Hajndl); Pavlovič 2008, 482, sl. 2a: 3 (Nova tabla); Šavel, Sankovič 2014, 72, sl. 2.9: 15 (Pri Muri).

133 Dular, Lubšina Tušek 2010, 80, T. 116: 16; 134: 5 (Ormož); Smolnik 1994, T. 4: 5 (Burgstallkogel); Kovačević 2008, T. 1: 4 (Zbelava).

similarities with the vessels with a medium high conical neck from the cemetery at Statzendorf in Lower Austria (Types 8.2.3.1 and 8.2.3.4) from Phases 2 and 3 (Ha C1), with a vessel from the cemetery at Loretto in Burgenland from the Early Hallstatt period and with a vessel from the cemetery at Kulm near Aigen in the Enns Valley, in the Austrian region of Styria.[125] The Pi2b pithoi are characteristic of Ha C1–2. Several of them are known from the graves at Kleinklein, also from its Phase 3.[126] The pithoi with parallel grooves on the neck and varied grooved motifs on the shoulder appear at Poštela in its Poštela 2 and 3 phase (Type Pi2b1), at Ormož they are in use in Phase 3.[127] These vessels often have stripes of grooves forming hanging triangles below the knobs, while the pithos from Hotinja bears stripes of grooves below the knobs that form standing triangles. Several vessels from Poštela also bear this kind of decoration.[128] Some fragments of vessels with a conical neck are decorated with impressed dots (G82, 162, 252). At Poštela, horizontal grooves appear in combination with impressed dots in the Poštela 2 phase, which is also characteristic of the vessels of Ha C in the eastern Alpine areas.[129]

Baking lids (or pot lids) with handles (*fig. 8: P1a*) are common finds in settlements throughout the Early Iron Age. Comparable finds have come to light at nearby Poštela, Ormož and Hajndl.[130] The baking lids with handles may also bear tongue-shaped grips applied at the sides.[131] It is possible that some of the less well preserved baking lids from Hotinja also had such grips. The baking lids with grips only (Types P1b and P1c) are more rare in other settlements in the vicinity; some have been found at Poštela, Ormož, those from Hajndl only survived in fragments, such a lid from Nova tabla near Murska Sobota was found in a pit that probably dates to Ha C, while the lid with four grips from Pri Muri near Lendava dates to Ha B3–C1.[132]

125 Tiefengraber 2005, 88, 90, fig. 33 (Kalsdorf); Rebay 2006, 289–290 (Statzendorf); Nebelsick 1997, 74, fig. 26 (Loretto); Artner 2012, 67, Pl. 1: 2 (Kulm).

126 Dobiat 1980, Pls. 18: 13; 35: 1; 98: 1; 111: 1 etc.

127 Teržan 1990, 32–33; Lamut 1988–1989, 241.

128 Teržan 1990, Pl. 40: 1, 6.

129 Teržan 1990, 53.

130 Teržan 1990, Pls. 17: 3; 28: 33–43; 8: 12, 16 etc. (Poštela); Lamut 1988–1989, Pls. 22: 5; 24: 14 etc.; Dular, Lubšina Tušek 2010, Pl. 124: 1 (Ormož); Mele 2009, 166, 198, fig. 75; Pls. 65: 9; 75: 1; 123: 1; Magdič 2006, 149, Pl. 23: 4, 5 etc. (Hajndl).

131 See e.g. Dular, Tomanič Jevremov 2010, Pls. 29: 8; 67: 2; 93: 9; Teržan 1990, Pl. 28: 31.

132 Lamut 1988–1989, Pls. 16: 5; 25: 9; Dular, Tomanič Jevremov 2010, Pls. 41: 11; 83: 8; 97: 4 (Ormož); Magdič 2006, Pls. 5: 5; 11: 9; 19: 8; 26: 9; 48: 5; 55: 7 etc. (Hajndl); Pavlovič 2008, 482, fig. 2a: 3 (Nova tabla); Šavel, Sankovič 2014, 72, fig. 2.9: 15 (Pri Muri).

npr. na najdiščih Tešetice – Vinohrady, Smolenice – Molpír, Sered' – Mačianske Vŕšky, Inzersdorf – Walpersdorf, Unterparschenbrunn idr.[134]

Miniaturne posode (*sl. 8*) se pojavljajo tako v naseljih kot v grobovih. Iz naselja Horn poznamo npr. cel repertoar miniaturnih posod in pripomočkov.[135] Ponekod jih lahko povežemo s kultom (grobovi, daritve),[136] nekatere bi lahko bile otroške igrače,[137] lahko pa le posodice za shranjevanje manjših količin snovi (zelišča, začimbe, barvila, mazila idr.).[138] Pekvica verjetno predstavlja otroško igračo. Zanimivo je, da gre za tip z jezičastimi držaji, ki je pogost prav na najdišču Hotinja vas.

Če lahko v slabo ohranjenih odlomkih prepoznamo cisto (G218), nam ta kaže na datacijo v stopnjo Ha C2–D1. Glinene ciste so posebnost vzhodnoalpskega in panonskega sveta, vendar so znane tudi na severnoitalijanskem področju, zlasti v Bologni. Vzhodnoalpske ciste so razčlenjene z vodoravnimi rebri in širokimi kanelurami. Odlomki iz Hotinje vasi se zdijo podobni poštelski cisti, ki je okrašena z lokalnim okrasom vodoravnih reber in vtisnjenih pik.[139] Delno ohranjena posodica, ki je ni mogoče natančno rekonstruirati (G327), je bila na vratu okrašena z vzporednimi kanelurami, na največjem obodu pa nagubana. Za nagubane posode je Teržanova pokazala, da se na Štajerskem pojavijo v času Poštele 3 oz. Kleinklein 3.[140]

Hotinjske prenosne pečke so delno ohranjene, le ena je risarsko rekonstruirana (*sl. 8*); manjkajo ji deli, ki bi dali podatek o odprtini v plašču ter kako je bil oblikovan pekač. Sledovi morebitnega okrasa niso ohranjeni. Prenosne pečke so pogosta najdba v naselbinskih kontekstih pozne bronaste in starejše železne

Interestingly, the predominant type of baking lids at Hotinja vas is that with grips, while other nearby settlements (Poštela, Ormož and Hajndl) predominantly yielded those with handles. The baking lids similar to those of Type P1d have been found at Ormož and Burgstallkogel; the lid from Zbelava probably dates to the Late Hallstatt period.[133]

Colanders are rare finds in Štajerska and Prekmurje (*fig. 8*). At Brinjeva gora, the recovered fragment of a colander is in the shape of a cup, the settlements at Ormož and Hajndl only yielded undiagnostic colander sherds, some of which had a flat base and date to Ha C and Ha C/D1. Partially preserved colanders are known from Rifnik, Virovitica – Đurađ istok and Zbelava. A cup-shaped colander, with an everted rim that was only slightly thicker than on the vessel from Hotinja vas, was found at Leopoldsberg near Vienna, in the layer of Building 79 from Ha D1. Numerous colanders, also cup-shaped, came to light in other lowland Iron Age sites in Lower Austria, western Hungary, Slovakia and Moravia, at sites such as Těšetice – Vinohrady, Smolenice – Molpír, Sered' – Mačianske Vŕšky, Inzersdorf – Walpersdorf and Unterparschenbrunn.[134]

Miniature vessels (*fig. 8*) appear in both settlements and cemeteries. The settlement at Horn has yielded a whole array of miniature vessels and utensils/tools.[135] These may sometimes be connected with the cult sphere (burials, offerings),[136] some may be interpreted as children's toys,[137] while others may simply have been containers for storing small quantities of goods such as herbs, spices, pigments,

134 Pahič 1981, 106, 125, op. 104; T. 45: 9; prim. še Črešnar 2009, 138 (Brinjeva gora); Magdič 2006, 149, T. 37: 7; 55: 4; Mele 2009, T. 37: 7; 43: 7, 8; 112: 7 (Hajndl); Dular, Tomanič Jevremov 2010, T. 111: 9; 128: 7, 129: 5; 138: 15; 168: 7 (Ormož); Pirkmajer 1983, T. 16: 8, 9 (hiša 3); 25: 6 (hiša 8) (Rifnik); Kovačević 2007, 102, sl. 4 (Virovitica); Urban 1996, 573, Abb. 13: 578 (Leopoldsberg); Podborský 1965a, 57, T. 2: 10; 5: 9; 7: 9–11 (Tešetice); Müller 2012, T. 83: 25 (Smolenice – Molpír); 138: 6; 168: 14–15 idr. (Sered'); Ramsl 1998, T. 107: 1034; 116: 1184–1187 (Inzersdorf – Walpersdorf); Lauermann 1994, T. 24: 2, 6 (Unterparschenbrunn).

135 Pirkmajer 1983, T. 15: 23 (hiša 3); 18: 3 (hiša 2); Dobiat 1980, T. 57: 5, 7; 110: 9; 112: 8; Griebl 1997, 53–54, Abb. 26; Hellerschmid 2006, 180–181, 231–232, T. 41; 42; Dular, Tomanič Jevremov 2010, T. 6: 15; 15: 16 idr.

136 Grobne najdbe: npr. Dobiat 1980; na Apeninskem polotoku so miniaturne posode pogosto povezane z različnimi rituali, glej npr. jamsko svetišče Grotta del Re Tiberio (Bertani 1996, 440–470 idr.); Bianchin Citton et al. 1998, 326.

137 Glej npr. Balen Letunić, Rendić-Miočević 2012.

138 Npr. Lauermann 1994, 173.

139 Teržan 1990, 77–78, T. 66: 22; Metzner Nebelsick 2002, 154–155, Abb. 61.

140 Teržan 1990, 113.

133 Dular, Lubšina Tušek 2010, 80, Pls. 116: 16; 134: 5 (Ormož); Smolnik 1994, Pl. 4: 5 (Burgstallkogel); Kovačević 2008, Pl. 1: 4 (Zbelava).

134 Pahič 1981, 106, 125, Fn. 104; Pl. 45: 9; also cf. Črešnar 2009, 138 (Brinjeva gora); Magdič 2006, 149, Pls. 37: 7; 55: 4; Mele 2009, Pls. 37: 7; 43: 7, 8; 112: 7 (Hajndl); Dular, Tomanič Jevremov 2010, Pls. 111: 9; 128: 7; 129: 5; 138: 15; 168: 7 (Ormož); Pirkmajer 1983, Pl. 16: 8, 9 (House 3); 25: 6 (House 8) (Rifnik); Kovačević 2007, 102, fig. 4 (Virovitica); Urban 1996, 573, fig. 13: 578 (Leopoldsberg); Podborský 1965a, 57, Pls. 2: 10; 5: 9; 7: 9–11 (Těšetice); Müller 2012, Pls. 83: 25 (Smolenice – Molpír); 138: 6; 168: 14–15 etc. (Sered'); Ramsl 1998, Pls. 107: 1034; 116: 1184–1187 (Inzersdorf – Walpersdorf); Lauermann 1994, Pl. 24: 2, 6 (Unterparschenbrunn).

135 Pirkmajer 1983, Pls. 15: 23 (House 3); 18: 3 (House 2); Dobiat 1980, Pls. 57: 5,7; 110: 9; 112: 8; Griebl 1997, 53–54, fig. 26; Hellerschmid 2006, 180–181, 231–232, Pls. 41; 42; Dular, Tomanič Jevremov 2010, Pls. 6: 15; 15: 16 etc.

136 Grave goods: e.g. Dobiat 1980; on the Apennine Peninsula, miniature vessels are often connected with various rituals, see e.g. the cave sanctuary at Grotta del Re Tiberio (Bertani 1996, 440–470 etc.); Bianchin Citton et al. 1998, 326.

137 See e.g. Balen Letunić, Rendić-Miočević 2012.

dobe.[141] Odkrite so bile na več štajerskih naselbinah starejše železne dobe, kot npr. na Pošteli, Rifniku, Brinjevi gori, Ormožu, Novinah, Novi tabli pri Murski Soboti ter na Burgstallkoglu pri Kleinkleinu, Kalsdorfu pri Gradcu in Frauenbergu pri Lipnici. S slednjega je primerljiv kos, podoben poštelski najdbi, opredeljen v stopnjo Ha C2. Na Koroškem so podobni predmeti znani tudi iz grobov, opredeljeni so kot pladnji na nogi. Odkriti so bili v starejšeželeznodobni gomili 20 in v zasipu gomile 77 na Führholzu ter v pripadajoči naselbini. Nekaj podobnih odlomkov je tudi iz Gurine. Pozna jih tudi npr. naselje Smolenice – Molpír, od koder smo že pokazali na primerljive najdbe.[142] Najdemo jih tudi na Dolenjskem,[143] pa tudi v gorenjskih in primorskih naseljih, v Istri ter Estah.[144]

Dva odlomka prenosnih pečk (G65, 421), in sicer iz zemljanke 1 ter jarka 3, imata na površini ohranjeno zoglenelo organsko snov (*sl. 12*). Ker smo se nadejali novih podatkov o rabi teh predmetov, je bila opravljena analiza lipidov.[145] V keramiki prenosne pečke (G63; *sl. 12*) so bili prisotni živalski in tudi rastlinski lipidi. Živalski so bili ugotovljeni na podlagi porazdelitve maščobnih kislin (C16:0 in C18:0). Razlike v njihovi izotopski sestavi, ki je znašala –2,83 ‰, so pokazale, da so v vzorcu prisotne maščobe prežvekovalcev. Rastlinski lipidi so bili prepoznani na podlagi prisotnosti n-alkanov z daljšimi verigami C16--C33. V vzorcu ni bilo zaslediti voskov. Dušik (N) ni bil ugotovljen. Kaže, da se ni ohranil. Na podlagi teh rezultatov domnevamo, da so na zgornji površini te prenosne pečke pekli meso goveda ali drobnice; glede na prisotnost rastlinskih lipidov lahko predpostavimo

ointments and so forth.[138] The small baking lid from Hotinja vas probably represents a child's toy. Interestingly, it is of the type with four grips, such as are also most common at the site in the large version.

Hotinja vas yielded sherds of a cist (G218), which would indicate a Ha C2–D1 date. Ceramic cists are vessels particular to the eastern Alpine and Pannonian regions, but are also known in northern Italy, especially in Bologna. The eastern Alpine cists usually bear cordons and wide grooves. The sherds from Hotinja vas are similar to the cist found at Poštela, which is decorated with the locally characteristic cordons and impressed dots.[139] Hotinja vas also yielded sherds of a partially surviving vessel (G327); it is decorated with parallel grooves on the neck and protuberances at maximum diameter. Teržan has studied vessels with such a decoration and shown that they appear in Styria in the Poštela 3 phase or Phase 3 at Kleinklein.[140]

The portable ovens from Hotinja vas are only partially preserved (*fig. 8*); only one could be reconstructed in drawing and even that is missing the parts that would reveal the shape of the opening and the exact shape of the whole oven, it also bears no traces of the possible decoration. Portable ovens are common finds in the settlements of the Late Bronze and the Early Iron Ages.[141] They have come to light in a number of Early Iron Age settlements in Styria/Štajerska, such as Poštela, Rifnik, Brinjeva gora, Ormož, Novine, Nova tabla near Murska Sobota, Burgstallkogel, Kalsdorf and Frauenberg near Leibnitz. The portable oven from Frauenberg is similar to one excavated at Poštela and attributed to Ha C2. In Austrian Carinthia/Kärnten, similar artefacts were also found in graves and determined as footed platters: they were found in the Early Iron Age Tumulus 20 and Tumulus 77 at Führholz, as well as in the associated settlement. Several similar sherds were unearthed at Gurina, but also in the settlement at Smolenice – Molpír.[142] Portable ovens have been found

141 Pred kratkim je izšel članek z zbranimi slovenskimi najdbami (Gerbec 2018, 87-136).

142 Teržan 1990, 36, 271, sl. 10: 26 (Rifnik – plast 2. horizonta); T. 8: 1 (Poštela – stopnja 3); Oman 1981, 150–151, T. 48: 6, 7; Teržan 1990, sl. 11 (Brinjeva gora – plast 5); Dular, Tomanič Jevremov 2010, T. 78: 7; 117: 9; Lamut 1988–1989, T. 17: 26 – okrašen (Ormož); Guštin et al. 2017, G1172, 1173 (Nova tabla); Smolnik 1994, T. 131: 12; 145: 9 (Burgstallkogel); Tiefengraber 2005, T. 65: 4, 5 (Kalsdorf); Groh, Sedlmayer 2005, 24, T. 2: 217/4 (Frauenberg); Vinazza et al. 2015, T. 9: 28 (Novine); Wedenig 1990, 173, T. 1: 4; isti 1997, T. 4: 4; isti 1993, 141, T. 4: 5 (Führholz); Jablonka 2001, T. 6: 7, 8 (Gurina); Müller 2012, T. 74: 2 (Smolenice – Molpír).

143 Grahek 2013a, 126–127, sl. 63 (Pp); Guštin 1976, 16, 47, T. 88: 18; Dular et al. 1991, 81–84, T. 19: 1–2; Dular et al. 2003, 189, T. 16: 1, 2; 18: 5.

144 Npr. Gerbec 2009, 110, T. 8: 3; 25: 8; 30: 15; 31: 15 (Bled); Bratina 2014, sl. 38.4: 15, 23, 24 (Tomaj); Sakara Sučević 2004, št. 496, 782 (Kaštelir); Svoljšak, Dular 2016, T. 3: 5; 7: 2 (Most na Soči); Gregnanin 2002, 178–179, n. 195; Dämmer 2002, 255–256, 265–266, n. 50–51 (Este) idr.

145 Za pomoč pri pripravi vzorcev se zahvaljujem Andreji Žibrat Gašparič (Oddelek za arheologijo Filozofske fakultete Univerze v Ljubljani). Glej Ogrinc 2015, 165–166.

138 E.g. Lauermann 1994, 173.

139 Teržan 1990, 77–78, Pl. 66: 22; Metzner Nebelsick 2002, 154–155, fig. 61.

140 Teržan 1990, 113.

141 Recently an article was published, where all known examples from Slovenia are gathered (Gerbec 2018, 87-136).

142 Teržan 1990, 36, 271, fig. 10: 26 (Rifnik – layer of Phase 2); Pl. 8: 1 (Poštela – stopnja 3); Oman 1981, 150–151, Pl. 48: 6, 7; Teržan 1990, fig. 11 (Brinjeva gora – Layer 5); Dular, Tomanič Jevremov 2010, Pls. 78: 7; 117: 9; Lamut 1988–1989, Pl. 17: 26 (Ormož); Guštin et al. 2017, G1172, 1173 (Nova tabla); Smolnik 1994, Pls. 131: 12; 145: 9 (Burgstallkogel); Tiefengraber 2005, Pl. 65: 4, 5 (Kalsdorf); Groh, Sedlmayer 2005, 24, Pl. 2: 217/4 (Frauenberg); Vinazza et al. 2015, Pl. 9: 28 (Novine); Wedenig 1990, 173, Pl. 1: 4; id. 1997, Pl. 4: 4; id. 1993, 141, Pl. 4: 5 (Führholz); Jablonka 2001, Pl. 6: 7, 8 (Gurina); Müller 2012, Pl. 74: 2 (Smolenice – Molpír).

Slika 12. Hotinja vas. Pogled na pekač delno ohranjene prenosne pečke iz zemljanke 1 pred odvzemom vzorca. Na pekaču je vidna zoglenela snov. S puščico je označeno mesto, kje je bil vzet vzorec za analizo.
Figure 12. Hotinja vas. Charred substance on the pan of the partially preserved portable oven from SH 1 prior to sampling. The arrow marks the sampled spot.

tudi peko druge vrste hrane. Etnološke primerjave in tudi današnja raba primerljivih pripomočkov, ki jih poznamo z Bližnjega vzhoda ter Severne Afrike, kažejo na peko nizkih kruhkov.[146]

Ognjiščne koze so bile v rabi predvsem v pozni bronasti in starejši železni dobi (*sl. 8*). Najbližje primerjave so znane s Poštele. Tip O1 se pojavi že v 1. horizontu, zastopane pa so tudi kasneje. V 3. horizontu so pogosto okrašene z žigosanim okrasom; lahko imajo zaključke v obliki živalskih glavic kot tip O2a. Takšne z globokimi jamicami ter plastičnim rebrom na eni od stranic (kot G202, 360 in 375) so datirane v 3. horizont. Iz sond 88–1933 je tudi ena okrašena z žigi, izdelanimi z zobatim pripomočkom (kot G335). Tip O2b, ki ima verjetno na zaključkih okrasne glavice s čepki, lahko primerjamo s predmeti iz stopnje Poštela 3.[147]

Najdbe prenosnih pečk, pekev, svitkov in tudi ognjiščnih koz pričajo o načinu priprave hrane. Opozorili bi na veliko število pekev v primerjavi s svitki.

Na podlagi najdb piramidalnih uteži (10) in vretenc (6) sklepamo, da sta se v naselju v Hotinji vasi odvijali tkanje in predenje (*sl. 8*). Piramidalne uteži se razlikujejo glede na velikost in težo. Dokaj dobro ohranjenih je 6 uteži (G169, 170, 195, 300, 301, 302), visoke so 6,7–10,8 cm; pri čemer sta največja in najmanjša iz iste stavbe (zemljanka 13). So le posredni dokaz za statve. Pokazano je bilo, da okras na utežeh morda nakazuje težo uteži oz. mesto, kjer je bila utež na statvah; morda se veže na področje kulta, lahko pa tudi kaj drugega.[148] Pri vretencih so ključni podatki oblika, velikost (predvsem razmerje premera in višine), premer jamice ter teža. Vse to namreč vpliva na hitrost vrtenja ter čvrstost predene niti. Predvsem teža vretenca nakazuje kvaliteto niti in vrsto preje.[149] Po P. Holodňáku (1981) naj bi bila

[146] Prim. Di Gennaro, Depalmas 2011, 56–61.

[147] Teržan 1990, sl. 1: 20; 2: 11 (tip O1); 34, sl. 3: 15, 16; T. 26: 4 (O2a); 32, T. 7: 1; 18: 19 (tip O2b); 32, T. 7: 6; 26: 7; 27: 1 (okras plastičnih reber in vtisnjenih jamic).

[148] Dobiat 1990, 54–60; Stegmann Rajtar 1998, 263–287; prim. Belanová et al. 2007, 428; Griebl 2004, 185–187.

[149] Vretenc še nismo tehtali; glej Gleba, Mannering 2012, 9–10.

also in the Dolenjska region,[143] and in the settlements in Gorenjska, Primorska, Istria and at Este.[144]

Two fragments of portable ovens from Hotinja vas (G65, 421), found in SH1 and Ditch 3 respectively, bear a charred organic substance on the pan that may represent the remains of food (*fig. 12*). Hoping to gain new data as to the use of these items, we performed a lipid analysis (G63; *fig. 12*).[145] The clay of this portable oven contained animal and plant lipids. The animal lipids have been identified on the basis of the distribution of the fatty acids (C16:0 and C18:0). The differences in their isotopic composition (–2.83‰) have shown that the sample contained the fatty acids of ruminants. The plant lipids have been identified on the basis of the presence of the long-chain-alkanes from C16 to C33. The samples revealed no traces of waxes. Nitrogen (N) has not been established; it seems not to have survived. These results suggest that the ovens were used to roast the meat of either cattle, sheep or goats on the pan, but also to prepare other kinds of food judging from the presence of plant lipids. Ethnological comparisons and modern use of similar objects in the Near East and Northern Africa indicate flatbread baking.[146]

Firedogs were mainly in use in the Late Bronze and Early Iron Ages (*fig. 8*). The closest parallels for those from Hotinja vas are known from Poštela. The firedogs of Type O1 at Poštela already appear in the Poštela 1 phase, but also later. The firedogs from the Poštela 3 phase are frequently decorated with stamped decoration; they may even have animal head finials such as are known on the O2a firedogs. The examples with impressed dots and a cordon on one of the sides (such as G202, 360 and 375) have been attributed to the Poštela 3 phase. Trench 88/1933 also yielded a firedog decorated with impressions made with a toothed tool (for example G335). The O2b firedogs, probably with finials terminating in knobs are comparable with artefacts attributed to the Poštela 3 phase.[147]

[143] Grahek 2013a, 126–127, fig. 63 (Pp); Guštin 1976, 16, 47, Pl. 88: 18; Dular et al. 1991, 81–84, Pl. 19: 1–2; Dular et al. 2003, 189, Pls. 16: 1, 2; 18: 5.

[144] E.g. Gerbec 2009, 110, Pls. 8: 3; 25: 8; 30: 15; 31: 15 (Bled); Bratina 2014, fig. 38.4: 15, 23, 24 (Tomaj); Sakara Sučević 2004, Nos. 496, 782 (Kaštelir); Svoljšak, Dular 2016, T. 3: 5; 7: 2 (Most na Soči); Gregnanin 2002, 178–179, No. 195; Dämmer 2002, 255–256, 265–266, Nos. 50–51 (Este) etc.

[145] I would like to thank Andreja Žibrat Gašparič (Department of Archaeology at the Faculty of Arts, University of Ljubljana) for helping me prepare the samples for analysis. See Ogrinc 2015.

[146] Cf. Di Gennaro, Depalmas 2011, 56–61.

[147] Teržan 1990, figs. 1: 20; 2: 11 (Type O1); 34, fig. 3: 15, 16; Pl. 26: 4 (O2a); 32, Pl. 7: 1; 18: 19 (O2b); 32, Pls. 7: 6; 26: 7; 27: 1 (decorated with cordons and impressed dots).

vretenca, ki v premeru merijo do 35 mm, namenjena predenju fine preje, tista s premerom do 45 mm za predenje grobih lanenih vlaken ali volnene preje srednje debeline, vretenca s premerom, večjim od 45 mm, pa naj bi bila za predenje grobe volnene niti.[150] Po tej razdelitvi je bilo za predenje finih niti ustrezno le vretence iz jame 12 (G361). Največ jih je bilo za prejo srednje debeline (G66, 348, 349, 396); eno vretence iz zemljanke 14 bi bilo primerno za izdelavo debele niti (G314).

Na vprašanje, ali so predmeti ostali bolj ali manj in situ, ni lahko odgovoriti. Za boljše razumevanje te problematike je bil izdelan seznam opredeljivih najdb[151] ter grafičen prikaz razprostranjenosti posameznih najdb v J naselbinskem delu (*sl. 13–15*).[152] Da so nekateri predmeti ostali v svoji primarni legi, jasno kažejo ponavljajoči se vzorci znotraj stavb in jam. Pogosto se skupaj pojavljajo lonci in pekve oz. pokrovi (zemljanke 1, 3, 4, 7–9, 12–14, jame 10, 12, 13, 18, 22, jarek 3) ter lonci in sklede oz. skodele, lahko skupaj s pekvami oz. pokrovi (zemljanke 1–4, 6–8, 10, 11, 13, jami 10, 18, območje zgostitve keramike in kamenja). Večkrat je poleg najden tudi pitos,[153] ti so bili tudi v večjih (jami 5, 18) in manjših okroglih jamah (jami 52, 54). Ognjiščne koze (jame 8, 10, 12, 15, 43, zemljanka 10) se ne pojavljajo skupaj s svitki (objekt 3) ali prenosnimi pečkami (zemljanka 1, jarek 3). Piramidalne uteži so bile odkrite posamično (zemljanki 1 in 7, večje okrogle jame 8, 13 in 18), morda dve skupaj (zemljanka 9), v enem primeru tri (zemljanka 13). Vretenca izvirajo predvsem iz večjih okroglih jam (jame 10, 12, 18) in tudi zemljank (zemljanki 1, 14). Samo v jami 10 sta bili dve skupaj. Najdbe piramidalnih uteži ter vretenc se večinoma (sedemkrat) izključujejo, razen dvakrat (zemljanka 1, jama 18). To navaja k misli, da sta tkanje in predenje potekali ločeno. Kot kažejo najdbe tkalskih hiš,[154] je tkanje potekalo znotraj stavb, tudi v zemljankah. Predli so lahko tudi na prostem in morda zato vretenca najdemo zunaj objektov; morda tudi kot odpad v raznih jamah. Za zemljanko 1 je poveden podatek, da je bilo v njej odkritih največ skled oz. skodelic (tip S-Sk3), kar kaže, da je večji del posod po opustitvi ostal v objektu. Podobno sta bili v zemljanki 13 odkriti dve konični skledi (tipa S1a in S1b).[155] V

[150] Dreslerová 1995a, 23–24.
[151] Gerbec 2014b.
[152] Gerbec 2014b, priloga 7, sl. 124, 125.
[153] Prim. npr. inventar zemljanke iz naselja Turska kosa na Hrvaškem (Čučković 1993, 167–169).
[154] Npr. Teržan 1996, 507–514.
[155] Prim.: za najdišče Göttlesbrunn je bilo pokazano, da bi različen okras na posodju lahko povezali z dvema različnima skupinama v naselju (Griebl 2004, 125–127).

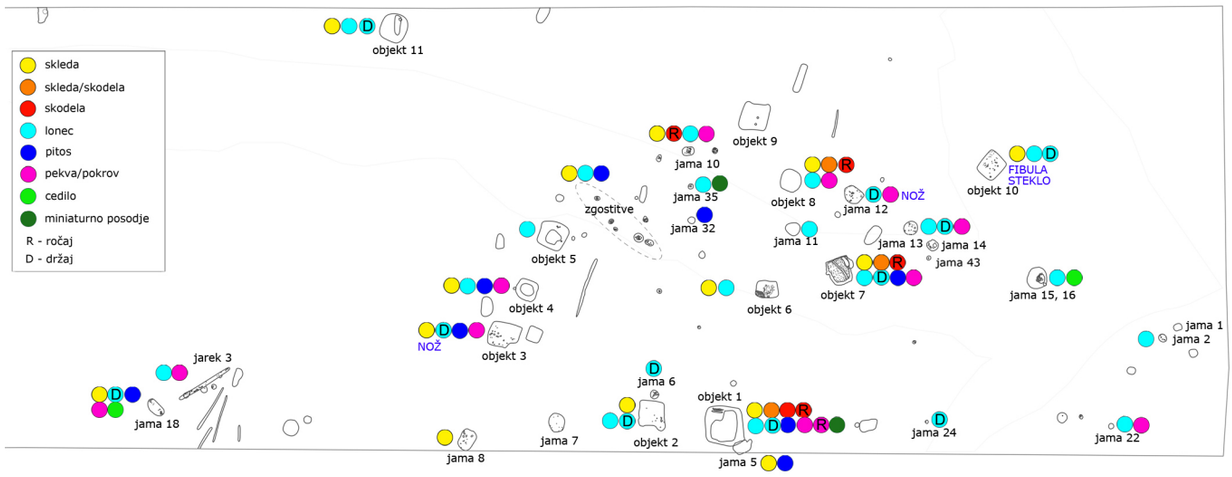
The finds of portable ovens, baking lids, ceramic rings and firedogs all tell of the way people prepared their food. In connection with these, we should point out the markedly higher number of baking lids in comparison to those of the ceramic rings.

The finds of pyramidal weights (10) and spindle whorls (6) indicate that weaving and spinning took place at the settlement as well (*fig. 8*). Pyramidal weights differ in size and weight. Hotinja vas yielded 6 fairly well preserved weights (G169, 170, 195, 300, 301, 302) that measure 6.7–10.8 cm in height; of these, the largest and the smallest weights were found in the same SH 13. They provide only indirect evidence of the use of the loom. Analyses have indicated the possibility of the decoration on the weights indicating their weight or place on the loom; the decoration may also be connected with the cult or some other sphere.[148] The key features of spindle whorls are their form, size (mainly the diameter to height ratio), hole diameter and weight, all of which influence the speed of spinning and the strength of the yarn. The weight of the whorl in particular may indicate the quality and the type of yarn.[149] According to Petr Holodňák (1981), the whorls measuring up to 35 mm in diameter were used for fine yarn, those measuring up to 45 mm in diameter were presumably used for the coarse flax fibres and medium-thick wool yarn, while those measuring over 45 mm in diameter were used for thick wool yarn.[150] This suggests that only one of the spindle whorls from Hotinja vas, from Pit 12 (G361), was used for fine yarn, one whorl, from SH 14 (G314) was used for thick yarn and most for medium-thick yarn (G66, 348, 349, 396).

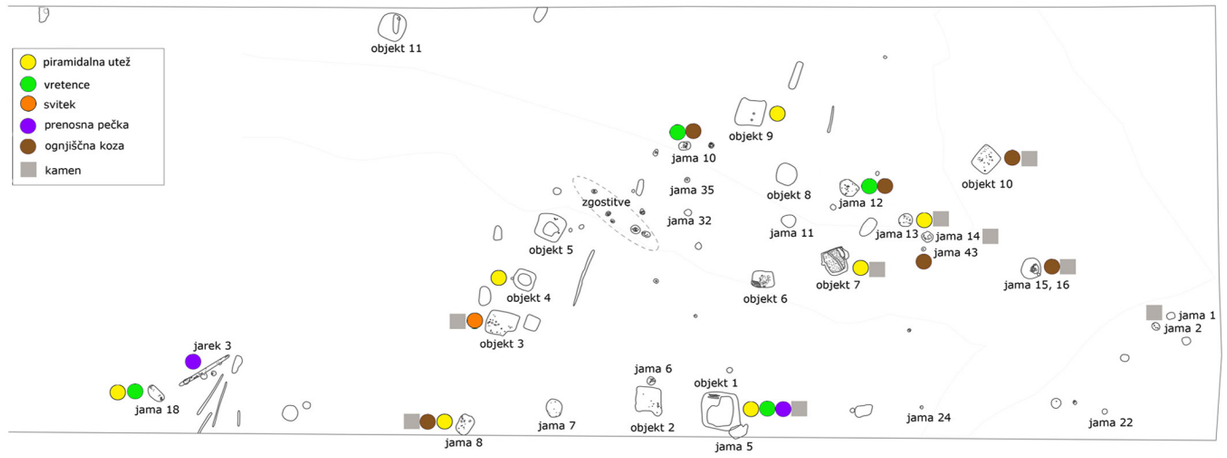
It is difficult to find out whether the finds came to light more or less *in situ*. In order to gain an insight into this issue, we took the characteristic artefacts[151] and plotted them onto a plan of the S cluster of buildings (*figs. 13–15*).[152] The patterns observable within individual buildings and pits indicate that some objects remained in their original locations. They also show that jars were often unearthed close to baking and other lids (SHs 1, 3, 4, 7–9, 12–14, Pits 10, 12, 13, 18, 22, Ditch 3) or to dishes and/or bowls, sometimes all three categories together (SHs 1–4, 6–8, 10, 11, 13, Pits 10, 18, concentration of pottery and stones). There are also several instances

[148] Dobiat 1990, 54–60; Stegmann Rajtar 1998, 263–287; cf. Belanová et al. 2007, 428; Griebl 2004, 185–187.
[149] The whorls have not yet been weighed. See also Gleba, Mannering 2012, 9–10.
[150] Dreslerová 1995a, 23–24.
[151] Gerbec 2014b.
[152] Gerbec 2014b, App. 7, figs. 124, 125.

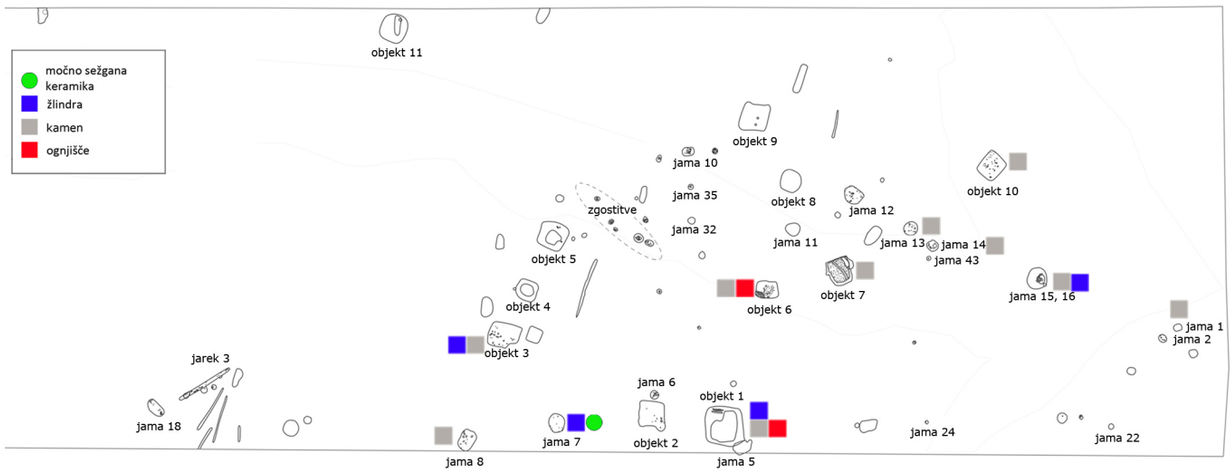
Slika 13. Razprostranjenost tipov posod ter steklenih in kovinskih najdb v J gruči naselbine v Hotinji vasi.
Figure 13. Distribution of pottery types, as well as glass and metal finds in the S cluster of the settlement at Hotinja vas.



Slika 14. Razprostranjenost različnih pripomočkov v južni gruči naselbine v Hotinji vasi.
Figure 14. Distribution of different tools in the southern cluster of the settlement at Hotinja vas.



Slika 15. Razprostranjenost žlindre, ognjišč in kamnitih najdb naselbine v Hotinji vasi.
Figure 15. Distribution of slag, hearths and stone finds in the S cluster of the settlement at Hotinja vas.



večjih okroglih jamah je bila odkrita večina ognjiščnih koz (le ena je bila v zemljanki 10)[156] in predilnih vretenc. Samo v teh jamah so bili odkriti kosi cedil. Pogosti poleg keramike so bili tudi kamni s sledovi rabe. Manjše jame so raznolike. Shrambene so tiste s pitosi in večjimi lonci; skoraj vse so odmaknjene od zemljank.

of a pithos found next to jars;[153] pithoi also appeared in large (Pits 5, 18) and small round pits (Pits 52, 54). Firedogs (Pits 8, 10, 12, 15, 43, SFB 10) do not appear alongside either spindle whorls (SH 3) or portable ovens (SH 1, Ditch 3). Pyramidal weights were mainly unearthed individually (SHs 1 and 7, large round Pits 8, 13 and 18), possibly in a pair (SH 9), and only in one instance three together (SH 13). Spindle whorls were mainly found

156 Pri podobni študiji namembnosti posameznih jam je npr. S. Müller ognjiščne koze povezoval s kultom (Müller 2009, 209–225).

153 Cf. the contents of a SH from the settlement at Turska kosa in Croatia (Čučković 1993, 167–169).

individually in the large round pits (Pits 10, 12, 18) and in the SHs 1, 14, only once in a pair (Pit 10). The finds of pyramidal weights and spindle whorls are for the most part (in seven instances) mutually exclusive and were found together only twice (SH 1, Pit 18). This suggests that weaving and spinning were separate activities. The excavated examples of weaving buildings[154] indicate that weaving took place indoors, even in SHs. Spinning could also be conducted outdoors, which might explain the finds of spindle whorls outside the buildings, possibly as refuse in different pits. The finds recovered from SH 1 at Hotinja vas included most numerous dishes and/or bowls (Type S-Sk3), indicating that most of the household vessels remained in the building after it had been abandoned. Similarly, SH 13 revealed two conical dishes (Subtypes S1a and S1b).[155] The large round pits also revealed the majority of firedogs (only one of which was unearthed in SH 10)[156] and spindle whorls, as well as all of the sherds of colanders. Apart from ceramics, these large pits also yielded stones with traces of usewear. The small pits are more diverse; those with pithoi and large jars were storage pits and almost all were located at some distance from the SHs.

Kovinske najdbe

Bronasta fibula pripada šmarješkemu tipu čolničastih fibul (G203; *sl. 9*), značilnih za stopnjo Ha C2 ter razširjenih na širokem prostoru od dolenjske halštatske skupine, preko Štajerske in Prekmurja vse do Moravske.[157] V severovzhodni Sloveniji so bile razen v Hotinji vasi tovrstne fibule odkrite na Rifniku, Brinjevi gori, Pošteli, v Rabelčji vasi na Ptuju in Novi tabli pri Murski Soboti, kar se kaže kot indikativen vzorec, saj gre za najmlajše halštatske najdbe na omenjenih naselbinah (razen na Rifniku), katerih konec je na ta način nakazan v obdobju prehoda Ha C2 v Ha D1.[158]

Odkrita železna noža (G362) nista kronološko občutljivi najdbi.

Žlindra je bila odkrita v zemljanki 3, jami 5 zemljanke 1 ter v jamah 7 in 15. To so stranski proizvodi taljenja rude in prečiščevanja kovin; razlikujejo se po barvi, specifični teži, morfologiji in velikosti. Dva vzorca žlindre (*sl. 10: desno*) sta bila analizirana z namenom določiti vrsto ter mineralno in kemično sestavo. Oba sta metalurškega porekla; najverjetneje ostanek prečiščevanja železa in izdelave predmetov.

Metal finds

The bronze fibula from Hotinja vas (G203; *fig. 9*) is a boat fibula of the Šmarjeta type, such as were widespread across the Dolenjska Hallstatt group, in Štajerska and Prekmurje, but also as far as Moravia, and were characteristic of Ha C2.[157]Apart from Hotinja vas, such fibulae were found in many other settlements in Styria / Štajerska such as Brinjeva gora, Poštela, Rifnik, Rabelčja vas at Ptuj and in graves of Nova tabla near Murska Sobota.[158]

The site also yielded two iron knives that are chronologically undiagnostic.

Pieces of slag were found in SH 3, Pit 5 of SH 1 and in Pits 7 and 15. These are by-products of smelting or refining of ore; they differ in colour, specific weight, morphology and size. Their properties indicate the kind of process they were

157 Teržan 1990, 43, karta 16; prim. Jerin 2001, 6–7; Tecco Hvala 2012, 217.

158 Teržan 1990, 220, sl. 6: 4; 7: 2; T. 45: 4; Guštin, Tiefengraber 2001, sl. 5: 12–13 (Nova tabla).

154 E.g. Teržan 1996, 507–514.

155 Cf.: the study of the finds from Göttlesbrunn has shown that the differences in the pottery decoration may indicate different groups living within the same settlement (Griebl 2004, 125–127).

156 In a similar study of the function of individual pits, Müller connected the finds of firedogs with the cult sphere (Müller 2009, 209–225).

157 Teržan 1990, 43, Map 16; cf. Jerin 2001, 6–7; Tecco Hvala 2012, 217.

158 Teržan 1990, 220, figs. 6: 4; 7: 2; Pl. 45: 4; Guštin, Tiefengraber 2001, fig. 5: 12–13 (Nova tabla).

Glede na morfologijo (kupolasti tip) bi lahko bila kovaška žlindra. Omenimo, da je bilo v obeh vzorcih opaziti malo kapljic železa, ki ga je v vzorcu 2 približno 3 % več. Fajalitna žlindra je pri temperaturi redukcije in na kovaškem ognjišču zaradi nizkega tališča tekoča, pri dovolj visoki temperaturi pa je manj viskozna, dobro tekoča, zato ne zadržuje kapljic železa.[159] Za morebitne ostaline mikrožlindre smo pregledali vzorce, ki so bili vzeti za potrebe paleobotaničnih raziskav in so bili flotirani.[160] V vseh vzorcih je bila približno enaka, manjša količina magnetnih delcev (*sl. 10: levo*). Geološka preiskava je pokazala, da gre za delce z značilnostmi, ki so posledica vpliva visoke temperature. Ne gre za mikrožlindro, ampak drobce metamorfnih kamnin, ki so lahko precej magnetni, še posebno, če so izpostavljeni gorenju. Vse to velja za najbolj drobno frakcijo in je lahko dokaz za kurjenje. V frakciji relativno večjih zrn pa so močno prevladovala zaobljena zrna kremena, kar je posledica vodotokov.[161]

Ob žlindri je še nekaj elementov, ki bi jih lahko povezali s predelavo železa. Npr. odlomek keramike (G331) iz jame 7 je bil v primerjavi z ostalo sekundarno prežgano keramiko izpostavljen bistveno višji temperaturi. Po obliki spominja na odlomek posode. Konveksna površina je manj poškodovana kot konkavna, ki je zelo porozna (*sl. 16*). Takšne spremembe se v glini zgodijo pri zelo visokih temperaturah; pri nekaterih vrstah gline je to 1200 °C. Pri žganju na tako visoki temperaturi se začne steklasta faza keramike, pri še višji pa se zaradi tvorbe plinov poveča poroznost keramike. Če se plini ne sprostijo, se površina napihne.[162] Lahko bi šlo za delček notranje obloge peči ali sapnice, del glinene obloge kovaškega ognjišča, kjer je mesto vpihovanja, ali za odlomek talilnega lončka.[163]

V starejši železni dobi naj bi kovaške delavnice postale nepogrešljiv del naselbin.[164] Talilnice in

[159] Gutman 2015, 167–171.

[160] Za flotiranje sta bili uporabljeni najmanj 2 siti z mrežo pribl. 2 ter 5 mm, morda tudi gosta cedilka.

[161] Za pregled flotiranega materiala in opredelitev delcev se zahvaljujem Branku Mušiču (Oddelek za arheologijo Filozofske fakultete Univerze v Ljubljani).

[162] Rice 1987, 86, 104; različne gline imajo različno tališče.

[163] Prim. Garner 2011, 39–42, Abb. 46–49 (latensko najdišče); *Centre for Archaeology guidelines: Archaeometallurgy* 2001, 23.

[164] Žlindra in drugi znaki predelave ali obdelave železa so bili odkriti tudi na nekaterih drugih naseljih iz starejše železne dobe v Podravju, na Pošteli (Teržan 1990, 263–265, 269, 284–285, T. 19: 7; 45: 14; 46: 4), Novinah (Pahič 1966, 134, op. 99; Gaberz et al. 2015, 140, 143; Vinazza et al. 2015, 176), Hajndlu (Mele 2009, 43 (jarek 1078: železen ingot, odlomki žlindre), 49 (jarek 073: žlindra); Magdič 2006, 14–15 (objekt 1, objekt 3 (žlindra)), ne pa v sosednjem Ormožu (Dular 2013, 119, v slednjem je bilo dokazano livarstvo). Dokaze za livarstvo (kalupi ali bronasta

involved in. Two samples of slag (*fig. 10: right*) have been analysed with the aim of determining the type of slag as well as the mineral and chemical composition. Both sampled pieces were products of metallurgic processes, most likely the by-products of refining of the iron ore and smithing. The morphology (bulk slag) suggests they could be smithing slag. Both samples contained very few drops of iron/iron prills (of the two samples, there is roughly 3% more of these in Sample 2). Because of its low melting point, the fayalite-based slag is liquid at reduction temperature and on the smithing hearth; it is less viscous and liquid at a higher temperature, and hence does not retain drops of iron/iron prills.[159] We also inspected the soil samples taken for palaeobotanical analyses to look for possible micro-slags; these samples were water-sieved as well.[160] The examined samples showed a uniformly small amount of magnetic particles (*fig. 10: left*).The geologic inspection revealed that these particles show the characteristics caused by high temperatures and that we are not dealing with micro-slags, but rather with bits of metamorphic rocks that can be quite magnetic, particularly if exposed to fire. All this applies to the finest fraction and may be evidence of firing. The predominant component in the fraction of the relatively large grains was rounded quartz grains, which indicates prolonged water transport.[161]

Apart from slag, the site yielded several other items possibly indicating iron smelting and smithing. These include a ceramic sherd (G331) from Pit 7, which was exposed to considerably higher temperatures in comparison with other secondarily fired finds. Its form is reminiscent of a vessel; the convex surface is less damaged that the concave one that is highly porous (*fig. 16*). Such changes in clay occur at very high temperatures, i.e. at 1200°C for some types of clay. At such a high temperature, the clay begins to vitrify, while the gasses that appear at even higher temperatures increase the porosity of the clay; if these gasses are not released, the surface of the object bloats.[162] The recovered piece may therefore be part of an interior lining of a kiln or of an air pipe, part of the clay lining of a smithing

[159] Gutman 2015, 167–171.

[160] Wet sieving involved the use of at least two sieves with a mesh of roughly 2 and 5 mm, respectively, in some cases also a fine-mesh strainer.

[161] I would like to thank Branko Mušič (Department of Archaeology at the Faculty of Arts, University of Ljubljana) for examining the sieved material and identifying the finds.

[162] Rice 1987, 86, 104; different clays have different melting points.

Slika 16. Hotinja vas. Keramičen odlomek iz jame 7 z znaki visoke temperature. Pogled na zunanjo (zgoraj) in notranjo površino (spodaj). Poleg sta dva drobca žlindre.
Figure 16. Hotinja vas. Ceramic sherd from Pit 7 with signs of exposure to high temperatures. View of the exterior (top) and the interior surface (bottom). Found next to it were two bits of slag.

kovačnice so delovale tudi v zemljankah s površino 9–12 m². Pogoste so bile v Srednji Evropi, predvsem na Češkem.[165] Tam je bila npr. žlindra odkrita v vsaki naselbini iz starejše železne dobe, ki je štela več kot 5 stavb, in je predstavljala pogost tip najdbe. Taljenje in kovanje sta bili verjetno sezonska dejavnost;[166] taljenje v zemljankah naj bi zadostovalo potrebam lokalnih naselbin.[167] Kovaška ognjišča so bila lahko na prostem, nadstrešena ali pa je bila kovaška delavnica poseben objekt. V zasipu ognjišča se najde oglje, pepel in (mikro)žlindra. Pri kovanju sta pomemben element še voda ter oglje, oboje se je nahajalo v neposredni bližini. Ko je odpad, tj. žlindra, postal napoti, so ga odstranili iz kovačnice.[168] Analize z različnih najdišč z ostalinami proizvodnje oz. izdelave železnih predmetov so pokazale, da so oglje pripravljali največ iz lesa hrasta in bukve, pa tudi iz lesa drugih vrst, večinoma listavcev (topol, javor, jelša idr.), manj iglavcev (jelka, bor, macesen).[169] Za vzorce oglja iz Hotinje vasi ne vemo, ali so bili del stavbne konstrukcije, inventarja ali so z ognjišč.

hearth where air gets blown in or a piece of a melting pot.[163]

It is believed that smithies became a ubiquitous part of settlements in the Early Iron Age;[164] these settlements provided evidence of other ironworking processes taking place as well. Smelteries and smithies also operated in SHs covering 9–12 m². They were characteristic of central Europe, most of all are known from in the Czech area.[165] There for example, slag has been found in every Early Iron Age settlement with more than five unearthed buildings and represents a common find. Smelting and smithing were probably seasonal activities;[166] the smelting taking place in SHs presumably met the needs of the local community.[167] Smithing hearths may have been located in the open, covered with a roof or constructed in a special building. The fills of such hearths contain charcoal, ash and (micro)slag. Also requisite in smithing are water and charcoal, both of which were locally available. When the waste material, i.e. slag, became a hindrance, it was removed from the smithy.[168] The analyses of the ironworking remains from different sites have shown that charcoal was predominantly obtained from oak and beech wood, as well as the wood of other tree species, particularly the deciduous (poplar, maple, alder and others) and less of coniferous trees (fir, pine, larch).[169] Charcoal has also been sampled at Hotinja vas, but it is not clear whether it represents the remains of structural wood, household items, furnishings or hearths.

žlindra) poznamo tudi z Rifnika (Pirkmajer 1983, T. 6: 19; 12: 1) in Gornje Radgone (Horvat-Šavel 1981, 293–295).

165 Pleiner 2006, 135; isti 2000, 64–65; prim. Motyková, Pleiner 1987, 393–394, Abb. 17–18.

166 Dreslerová 1995b, 154–155.

167 Pleiner 2000, 67.

168 Pleiner 2006, 53, 123, 131, 133–134.

169 Pleiner 2000, 116–118.

163 Cf. Garner 2011, 39–42, figs. 46–49 (La Tène period site); *Centre for Archaeology guidelines: Archaeometallurgy* 2001, 23.

164 Slag and other traces of ironworking have been found at several other Early Iron Age settlements in Podravje: Poštela (Teržan 1990, 263–265, 269, 284–285, Pls. 19: 7; 45: 14; 46: 4), Novine (Pahič 1966, 134, Fn. 99; Gaberz et al. 2015, 140, 143; Vinazza et al. 2015, 176), Hajndl (Mele 2009, 43 (Ditch 1078: iron ingot, pieces of slag), 49 (Ditch 073: slag); Magdič 2006, 14–15 (Building 1, Building 3 (slag)), but not at nearby Ormož (Dular 2013, 119), where archaeologists found evidence of casting activities. Evidence of casting (moulds and bronze slag) has also been found at Rifnik (Pirkmajer 1983, Pls. 6: 19; 12: 1) and Gornja Radgona (Horvat-Šavel 1981, 293–295).

165 Pleiner 2016, 135; idem 2000, 64–65; Cf. Motyková, Pleiner 1987, 393–394, figs. 17–18.

166 Dreslerová 1995b, 154–155.

167 Pleiner 2000, 67.

168 Pleiner 2006, 53, 123, 131, 133–134.

169 Pleiner 2000, 116–118.

Kamnite najdbe

Petrografska analiza je zajela večji del odkritega kamnitega gradiva s Hotinje vasi. Pregledanih 30 vzorcev sodi večinoma med metamorfne kamnine (24), manjši del je magmatskih (6), kamor sta prišteti tudi dve piroklastični kamnini. Vse razen tufa najdemo na Pohorju. Vse pregledane najdbe imajo sledove rabe. Ob morebitnih orodjih oz. pripomočkih (G79, 106, 171, 172, 372) so bili v Hotinji vasi odkriti še kosi, za katere smo domnevali, da so žrmlje. Analiza jih je potrdila četvero (vz. 1, 2, 9, 10).[170] Razni kamniti pripomočki, tudi takšni, ki spominjajo na žrmlje, pa so bili v uporabi tudi pri drugih delih, npr. strojenju kož,[171] drobljenju pustil za pripravo lončarske gline in pripravi barvil.[172] Tudi pri raznih metalurških dejavnostih so bili pogosto v rabi kamniti pripomočki, drobilci, nakovala, lahko tudi kakšen drug kovaški pripomoček pri ognjišču.[173]

Za vse analizirane kose ter večji kamen iz jame 14, ki nas je spominjal na nakovalo, smo izmerili vrednost magnetne susceptibilnosti (*sl. 17*). Meritve smo opravili s terenskim merilcem; po 5 meritev na večjo ploskev vsakega kamna, posamezno tudi ob robu. Za kamen iz jame 14 meritev magnetne susceptibilnosti ni potrdila, da bi bil izpostavljen visokim temperaturam. Ob upoštevanju srednjih vrednosti za vsako kamnino lahko rečemo, da vzorci 4, 7, 11, 12, 13, 14, 26 in 29 izrazito odstopajo po izmerjenih vrednosti susceptibilnosti od ozadja za te kamnine. Omenimo naj vzorec 26 iz amfibolita, ki na površini nima vidnih znakov visokih temperatur, kot so npr. značilni za apnence, peščenjake ipd. Tega brez opravljene meritve torej ne bi zaznali. Pri vzorcih 3, 8, 10, 18, in 28 je susceptibilnost sicer višja od ozadja za te kamnine, vendar manj izrazita, kar pomeni, da visokih temperatur kot vzroka za višjo susceptibilnost ne moremo izključiti. Ker se toplotni učinek manjša z oddaljenostjo od vira toplote, gre lahko za kose kamnov, ki niso bili stalno izpostavljeni visokim temperaturam. V večini primerov imajo znake izpostavljenosti visokim temperaturam gnajsi, ki kažejo na gorenje, rabo v ognjišču ali ob

[170] Zupančič 2015, 164–165.

[171] Npr. Zimmermann 1992, Abb. 100.

[172] Murgelj 2013, 18.

[173] Pleiner 2006, 133; prim. tudi isti 2000, 217; Jarc 1999, 22; za dobro ohranjeno nakovalo in kamne za drobljenje rude iz 6.–5. stol. pr. n. št. glej npr. najdišče Neuenbürg – Waldrennach (Gassmann, Wieland 2008, 142, sl. 5; 6); prim. še kamnite najdbe iz latenskega najdišča Siegen – Niederschelden v Nemčiji (Garner 2011, 22, 44, Abb. 10; 11; 51).

Stone finds

Most of the recovered stone finds have been subjected to a petrographic analysis. The 30 analysed finds were predominantly made of metamorphic rocks (24) and six pieces were made of magmatic rocks that include two pyroclastic rocks. With the exception of tuff, all the rocks are present in the Pohorje Mountains. The examined stone finds all bear traces of usewear. Alongside the presumed tools or implements (G79, 106, 171, 172, 372), Hotinja vas also yielded pieces suspected to be quernstones; analysis has confirmed that four actually were used as querns (Samples1, 2, 9, 10).[170] Different stone implements, also those that resemble quernstones, were used in other processes, for example hide tanning,[171] crushing temper for clay fabrics and the preparation of pigments.[172] Metallurgic activities also involved the use of stone tools, such as crushers, anvils and other smithing tools used at the hearth.[173]

All the examined stone finds, as well as the large stone from Pit 14 that resembled an anvil have been subjected to a magnetic susceptibility analysis (*fig. 17*). The measurements were taken using a portable meter, taking five measurements of the largest side of each stone, individually also along the edges. The measurements taken of the large stone from Pit 14 did suggest exposure to high temperatures. Considering the mean values of each of the rocks, we can conclude that Samples 4, 7, 11, 12, 13, 14, 26 and 29 deviate considerably from the background values of the respective rock. Particularly noteworthy is Sample 26 of amphibolite that shows no visible signs of exposure to high temperatures in excess of those characteristic of limestones, sandstones and so forth, hence such exposure would not have been detected without the magnetic susceptibility measurements. The susceptibility measured in Samples 3, 8, 10, 18 and 28 is higher than the background value, but not considerably higher, hence we cannot exclude the possibility of the higher susceptibility being caused by higher temperatures. As the effect of heat diminishes with the distance from the heat source, the samples may have been taken from stones not in permanent exposure to high temperatures. Of the different rocks, it is the samples of gneiss that most

[170] Zupančič 2015, 164–165.

[171] E.g. Zimmermann 1992, fig. 100.

[172] Murgelj 2013, 18.

[173] Pleiner 2006, 133; also cf. idem 2000, 217; Jarc 1999, 22; for a well preserved anvil and ore-crushing stones from the 6th–5th century BC see e.g. the site at Neuenbürg – Waldrennach (Gassmann, Wieland 2008, 142, figs. 5; 6); also cf. the stone finds from the La Tène site at Siegen – Niederschelden in Germany (Garner 2011, 22, 44, figs. 10; 11; 51).

		Izmerjena magnetna susceptibilnost / Measured magnetic susceptibility (SI)		
vzorec / sample	kamnina / rock	ploskev 1 / face 1	ploskev 2 / face 2	rob / edge
1	gnajs / gneiss	+0,803	+0,861	
2	gnajs / gneiss	+0,513	+0,636	
3	gnajs / gneiss	+2,441	+2,421	
4	gnajs / gneiss	+3,286	+8,680	+1,149
5	tuf / fuff	+0,175	+0,036	+0,056
6	blestnik/gnajs / mica-schist/ gneiss	+0,317	+0,413	
7	gnajs / gneiss	+4,072	+2,247	
8	gnajs / gneiss	+2,805	+2,585	
9	pegmatit / pegmatite	+0,051	+0,025	
10	aplit/gnajs / aplite/gneiss	+2,871	+0,607	
11	amfibolit / amphibolite	+5,424	+1,272	
12	drobno zrnat gnajs / fine-grained gneiss	+4,203	+1,772	+1,570
13	drobno zrnat gnajs / fine-grained gneiss	+3,771	+1,253	
14	gnajs / gneiss	+2,220	+0,154	
15	gnajs / gneiss	+0,335	+1,839	
16	kvarcit / quarzite	+0,120	+0,562	
17	pegmatit / pegmatite	+1,726	+2,53	
18	kvarcit / quarzite	+3,665	+2,763	
19	gnajs / gneiss	+0,75	+0,308	
20	aplit / aplite	+0,018	+0,036	
21	granodiorit / granodiorite	+0,223	+0,187	
22	granodiorit / granodiorite	+2,426	+2,921	+0,324
23	filit/skrilavi meljevec / phyllite/shaly mudstone	+0,535	+0,56	
24	gnajs / gneiss	+1,886	+0,877	
25	kvarcit / quarzite	+0,685	+0,863	
26	amfibolit / amphibolite	+36,42	+32,45	
27	gnajs / gneiss	+0,793	+0,433	
28	gnajs / gneiss	+3,575	+2,166	+1,144
29	gnajs / gneiss	+0,776	+7,747	
30	amfibolit amphibolite	+0,441	+0,361	
jama 14	gnajs / gneiss	+0,516	+0,320	

Slika 17. Hotinja vas. Tabela meritev magnetne susceptibilnosti.
Figure 17. Hotinja vas. Magnetic susceptibility measurements for the samples from Hotinja vas.

njem, morda kuho, lahko tudi na rabo pri katerih od obrti.[174]

Rastlinski ostanki

Paleobotanična analiza je zajela 9 vzorcev oglja (zemljanke 1, 5, 7, 9, 12, 13) in vse vzorce oglja, ki so bili pridobljeni s flotacijo vzorčenih plasti (zemljanke 1–3, 6, 10, 14, jame 5, 18, 56). Skupno je bilo analiziranih 399 primerkov. Največ vzorčenega oglja je pripadalo hrastu (*Quercus*) in bukvi (*Fagus*); oglja drugih drevesnih vrst, gabra (*Carpinus*), jelše (*Alnus*), topola (*Populus*), vrbe (*Salix*) in jerebike (*Sorbus*), je bilo le po nekaj primerkov. Iglavcu je pripadal en sam primerek oglja, morda gre za jelko (*Abies*). Iz vzorcev, pridobljenih s flotacijo, so bili primerki oglja veliki le nekaj milimetrov; dodatno so bili ugotovljeni še brest (*Ulmus*), jesen (*Fraxinus*), javor (*Acer*), breza (*Betula*), črni bezeg (*Sambucus*), smreka (*Picea*) in tisa (*Taxus*). Večina oglja je pripadala lesu (hrast, bukev), iz katerega so bili zgrajene stavbe oz.

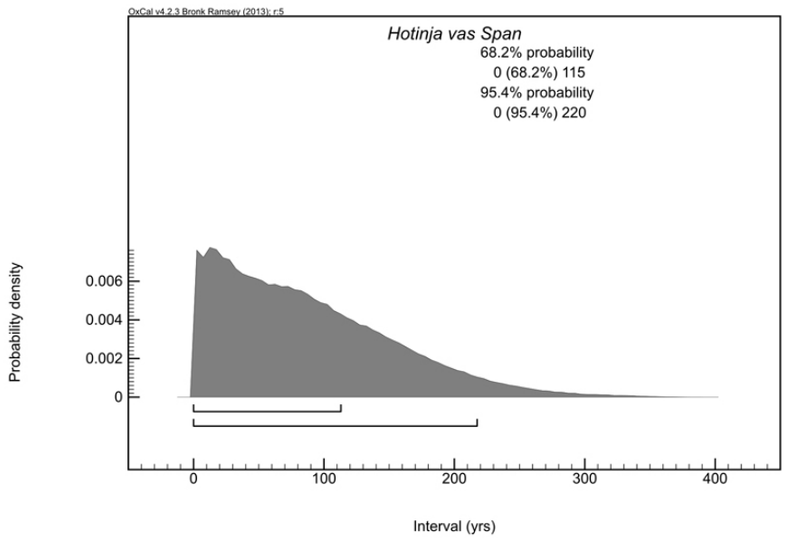
[174] Meritve je opravil Igor Medarić, pojasnil pa jih je Branko Mušič (Oddelek za arheologijo Filozofske fakultete Univerze v Ljubljani).

frequently show signs of high temperature exposure. These signs indicate burning, use in or near a hearth, but possibly also use in one of the crafts practised at the settlement.[174]

Plant remains

The palaeobotanical analysis involved a total of 399 pieces of plant remains excavated at Hotinja vas that comprised 9 charcoal samples in the SHs (SHs 1, 5, 7, 9, 12, 13) and the charcoal samples obtained during wet sieving of soil samples from the SHs (SHs 1–3, 6, 10, 14, Pits 5, 18, 56). Most of the sampled charcoal pieces belonged to oak (*Quercus*) and beech (*Fagus*); the charcoal of other tree species, hornbeam (*Carpinus*), alder (*Alnus*), poplar (*Populus*), willow (*Salix*) and rowan (*Sorbus*), was represented with only a few pieces. A single piece of charcoal belonged to a conifer, possibly fir (*Abies*). The samples obtained from wet sieving were only a few millimetres large and revealed the additional presence of elm (*Ulmus*), ash (*Fraxinus*), maple (*Acer*), birch (*Betula*), elder (*Sambucus*), spruce (*Picea*) and

[174] The measurements were taken by Igor Medarić and interpreted by Branko Mušič (Department of Archaeology at the Faculty of Arts, University of Ljubljana).



Slika 18. Radiokarbonske datacije – ocena trajanja naselbine (parameter razpon) v Hotinji vasi.
Figure 18. Estimated duration of the settlement at Hotinja vas (span parameter).

nosilci njihove konstrukcije. Iz preostalih vrst lesa so bili morda manj pomembni gradbeni elementi, hišni inventar ali pa izvirajo iz ognjišč.[175]

Iz desetih vzorcev prsti, ki so bili flotirani, je bilo izbranih 1484 semen. Nezoglenela so zanesljivo recentna (semena travniških in ruderalnih rastlin ali poljskih plevelov), pooglenela pa z večjo gotovostjo pripišemo naši naselbini. Od žitaric sta bila ugotovljena proso (*Panicum milliaceum*) in ječmen (*Hordeum vulgare*), od stročnic leča (*Lens culinaris*), od plodov lešnik (*Corylus avellana*). Nekaj manjših fragmentov, morda koščic plodov, je bilo nedoločljivih.[176]

Ohranjena zoglenela semena so pokazatelji takratnega poljedelstva in nabiralništva ter prehrane. Naselje je stalo v ravnici, ki je bila primerna za obdelavo, zato lahko polja predvidevamo v bližini. Zemljanke, v vzorcih katerih so bila ugotovljena žita in stročnice (zemljanka 1 in jama 5, zemljanke 2, 3, 10), lahko razumemo kot bivalne. V vzorcu iz zemljanke 6 z večjim ognjiščem ni bilo ostalin hrane. Ni jih bilo niti v vzorcu iz jame 56, v kateri je bil delno ohranjen pitos in za katero domnevamo, da je bila shrambna.

Na 9 vzorcih oglja so bile opravljene radiokarbonske analize.[177] Za kalibracijo in nadaljnjo analizo rezultatov[178] smo uporabili program OxCal, različico 4.2.[179] s krivuljo IntCal13.[180] Zaradi pomanjkanja stratigrafske sekvence na najdišču (ena faza poselitve,

[175] Culiberg 2015, 166.
[176] Culiberg 2015, 166–167.
[177] Rezultati radiokarbonskih datacij: Gerbec 2014a; ista 2015.
[178] Za pomoč pri razumevanju problematike radiokarbonskih datacij ter izdelavo grafov v programu OxCal se zahvaljujem Marku Sraki (Oddelek za arheologijo Filozofske fakultete Univerze v Ljubljani).
[179] Bronk Ramsey 2009.
[180] Reimer et al. 2013.

yew (*Taxus*). We presume that most charcoal samples (oak, beech) belonged to the wood used in the construction of buildings. The wood of the other tree species was probably used for the structural elements of lesser importance, household items, furnishings and as hearth fuel.[175]

There were 1484 grains selected from the ten wet-sieved soil samples. The uncharred ones are certainly recent in date (belonging to grassland and ruderal plants or cropweeds), while the charred grains can with more certainty be ascribed to the Early Iron Age settlement. The identified cereals comprise millet (*Panicum milliaceum*) and barley (*Hordeum vulgare*), the identified legumes are represented by lentil remains (*Lens culinaris*) and the fruit by a hazelnut (*Corylus avellana*). Several small fragments, possibly fruit stones, were undeterminable.[176]

The surviving charred grains tell of the arable farming, plant gathering and diet of the day. The settlement was located in lowland suitable for cultivation, hence the fields of the inhabitants presumably stood in the vicinity. The SHs that revealed cereal and legume remains (SH 1 and Pit 5, SHs 2, 3, 10) may be interpreted as residential buildings; of these, however, SH 3 may have served a purpose other than residential. The sample from SH 6 with a large hearth revealed no remains of food. Grains or charcoal were also not found in the sample from Pit 56 that contained a partially preserved pithos and presumably served as a storage pit.

Nine of the charcoal samples were subjected to a radiocarbon analysis.[177] Calibration and further analysis of the results[178] was made using the OxCal programme, Version 4.2.[179] with an IntCal13 curve.[180] The absence of a stratigraphic sequence at the site (one habitation phase, all samples from presumably contemporaneous buildings) and the fact that the calibrated 14C dates fall within the so-called Hallstatt plateau substantially limit our capacity to reliably interpret the obtained 14C dates. In spite of the limitations, we applied the Bayesian method (*figs. 18–19*).[181]

[175] Culiberg 2015, 166.
[176] Culiberg 2015, 166–167.
[177] Results of the radiocarbon dates: Gerbec 2014a; ead. 2015.
[178] I would like to thank Marko Sraka (Department of Archaeology at the Faculty of Arts, University of Ljubljana) for his help in understanding the raw data of the radiocarbon analyses and in producing graphs using the OxCal programme.
[179] Bronk Ramsey 2009.
[180] Reimer et al. 2013.
[181] Buck, Millard 2004; Bronk Ramsey 2009; Bayliss 2007; 2009.

vsi vzorci so predvidoma iz istočasnih objektov) in dejstva, da kalibrirane 14C datacije padejo na t. i. halštatski plato, so možnosti razlage 14C datacij iz Hotinje vasi omejene. Kljub temu smo se odločili za Bayesov pristop (*sl. 18–19*).[181]

Ker je bilo datirano oglje, moramo upoštevati možnost t. i. učinka starega lesa (*old wood effect*), za katerega pa domnevamo, da na najdišču ni znaten. To posredno sklepamo na podlagi prežganega stenskega ometa, v katerem so odtisnjene oblice, ki v premeru ne merijo več kot 10 cm, ter premera jam za stojke, ki so stale na robu ali dnu jam nekaterih zemljank, in ki ni znašal več kot 25 cm.[182] Domnevamo torej, da uporabljen les ni bil več kot nekaj desetletij (10–30 let) starejši od gradnje zemljanke. Tako vsaj pri stavbnem lesu učinek starega lesa ni verjeten.

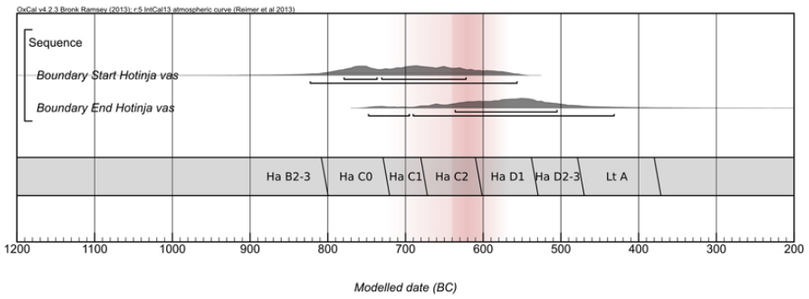
Pri Bayesovi statistični analizi 14C smo datacije združili v zamejeno fazo, ki predstavlja obdobje obstoja naselbine, in tako ocenili čas začetka in konca naselbine. Upoštevajoč parameter razpona, rezultati izračuna kažejo, da je naselbina trajala 0–115 let (68,2 % verjetnosti) oz. 0–220 let (95,4 % verjetnosti). Kot je razvidno iz *sl. 18*, domnevamo precej kratko trajanje naselbine; le nekaj človeških generacij, saj krivulja verjetnosti pada od višjih k nižjim vrednostim oz. teži k letu 0.

Ocena začetka in konca naselbine nakazuje širok razpon (začetek približno med 780 in 625 pr. n. št. ter konec med približno 645 in 505 pr. n. št. pri 68,2 % verjetnosti), vendar ocena njenega trajanja kaže na kratek čas. Zato le na osnovi 14C datacij ni mogoče natančno določiti časa obstoja naselbine, iščemo ga med 8., 7. ali 6. stol. pr. n. št. Kratkotrajnost naselja smo prikazali tudi s tipo-kronološko analizo keramičnih in kovinskih najdb in s stratigrafsko situacijo (mlajši vkopi praviloma ne sekajo starejših, pri stavbah ni zaslediti popravkov). V prid kratkotrajnosti naselja govorijo tudi druga dejstva, kot je relativno malo najdb, med katerimi so le redki kovinski predmeti, ter tip stavb, ki je značilen za občasno naselitev oz. kratkotrajno bivanje.

Natančnejšo starost naselja opredeljujejo najdbe. Značilne so keramične oblike stopnje Ha C oz. predvsem Ha C2, z najmlajšimi najdbami s prehoda v stopnjo Ha D1. Najdb, ki bi bile eventualno starejše od Ha C stopnje (oz. starejše od okvirno 720 ali 730 pr. n. št.), na najdišču ni. Prav tako ni verjetno, da bi najdišče trajalo v Ha D1 (okvirno 600 pr. n. št. in pozneje). Glede na časovni okvir navedenih

[181] Buck, Millard 2004; Bronk Ramsey 2009; Bayliss 2007; isti 2009.

[182] Jama 31: 30 × 24 cm, jama 24: 8 × 6 cm, jama 46: pr. 25 cm.



Slika 19. Prikaz ocene začetka in konca naselja v Hotinji vasi.
Figure 19. Estimated beginning and end of the settlement at Hotinja vas.

Having dated charcoal samples, we had to consider the so-called old wood effect. The pieces of burnt daub with the impressions of logs measuring up to 10 cm in diameter and the diameter of the postholes located at the edge or on the bottom of some of the SHs, that did not exceed 25 cm,[182] suggest that the wood could not have been more than a few decades (10–30 years) old when construction of the SHs began and hence that the old wood effect, at least as far as structural wood is concerned, is negligible.

When performing the Bayesian statistical analysis we joined the 14C dates into a single limited phase that represents the duration of the settlement; we thereby estimated the beginning and the end of the settlement. Taking into account the span parameter, the analysis has pointed to the duration of the settlement between 0 and 115 years (68.2% probability) or between 0 and 220 years (95.4% probability). As shown on *fig. 18*, we may presume a fairly short duration of the settlement, lasting only a few generations, as the probability curve falls from high to lower values and gravitates towards zero years.

The estimate of the beginning and the end of the settlement has a wide range (beginning roughly between 780 and 625 BC, ending roughly between 645 and 505 BC at 68.2%probability), but the estimate of the duration shows a relatively short period. Based on the 14C results alone, we can only offer a broad time frame for the existence of the settlement, which should be sought in the 8th, 7th or 6thcentury BC. The results of the typo-chronological analysis of the finds and the stratigraphic evidence (later pits usually not disturbing the earlier ones, no observed repairs of the buildings) have already indicated a short duration of the settlement, further corroborated by other observations such as a relative paucity of small finds that include only rare metal objects, as well as the type of buildings that is rather characteristic of occasional or temporary habitation.

[182] Pit 31: 30 × 24 cm, Pit 24: 8 × 6 cm, Pit 46: pr. 25 cm.

halštatskih stopenj v kombinaciji s kratko oceno trajanja naselbine na osnovi analize radiokarbonskih datacij (0–115 let pri 68,2 % verjetnosti) postavljamo naselje približno v 7. stol. pr. n. št. oz. predvsem v 2. pol. 7. stol. pr. n. št. (*sl. 18–19*).

A step towards a more precise dating of the settlement is provided by the finds. As shown they are typical of Ha C, mainly Ha C2, with the latest finds attributable to the transition to Ha D1. The site revealed no finds predating Ha C (i.e. earlier than roughly 720 or 730 BC). It is also not likely that the settlement continued to Ha D1 (roughly 600 BC). The chronological framework for individual phases of the Hallstatt period coupled with the estimate of the duration of the settlement as suggested by the radiocarbon results (0–115 years at 68.2% probability) shows the settlement was occupied sometime in the 7thcentury BC or, based on all available evidence, most likely in the second half of the 7thcentury BC (*fig. 18–19*).

NIŽINSKA NASELJA NA OBMOČJU PANONIJE IN V SOSEDNJIH POKRAJINAH – PREGLED IN OPIS STAVBNIH ZNAČILNOSTI

Na prostoru vzhodnohalštatskega kulturnega kroga, med vzhodnimi oz. jugovzhodnimi Alpami, zahodnim lokom Karpatov ter Panonsko nižino z reko Donavo kot njeno vzhodno mejo, je obstajalo v železni dobi več Hotinji vasi podobnih naselij. To so naselja v ravninah in gričevnatem svetu s podobnim načinom gradnje stavb ter s podobno organiziranostjo in gospodarskimi dejavnostmi (*sl. 20*).

Obravnavan prostor je pretočen v smeri S–J in V–Z, kjer se srečujejo komunikacije, vplivi in stiki vzdolž jantarne ceste med Baltiškim in Jadranskim morjem ter vzdolž Donave.[183] Vendar so zemljanke kot poseben tip naselbin oz. način poselitve znane tudi v zahodnohalštatskem kulturnem krogu.[184]

Značilnosti poselitve v SV Sloveniji v pozni bronasti in starejši železni dobi so že bile obravnavane,[185] raziskave zadnjih 15 let pa so razkrile več novih naselij, predvsem je poselitvena slika dopolnjena v nižinah Prekmurja in Dravskega polja. Nekatera naselja so večperiodna, znotraj posamezne mikroregije so opazni tudi premiki v poselitvi med (pozno) bronasto in zgodnjo železno dobo (npr. na območju Ptuja, in v okolici Murske Sobote med Kotarami in Novo tablo).

Na Z robu Dravskega polja je bilo v starejši železni dobi nedvomno pomembno središče višinska utrjena naselbina Poštela. Med Poštelo in Hotinjo vasjo na jugu je še eno starejšeželeznodobno višinsko

LOWLAND SETTLEMENTS IN THE AREA OF PANNONIA AND NEIGHBOURING COUNTRIES – AN OVERVIEW AND CONSTRUCTIONAL CHARACTERISTICS

The area of the East Hallstatt circle, extending from the eastern and south-eastern Alps, the western edge of the Carpathians to the eastern and southern edges of the Pannonian Basin, marked by the Danube river, has thus far revealed several settlements such as Hotinja vas that date to the Iron Age. These are all settlements in lowland or hilly areas showing comparable construction manners, organisation of space and economic activities. Some were inhabited over longer periods or in several periods (*fig. 20*). The area's main communication lines run in a N–S direction, making it an area of contacts along the Amber Route and along the Danube towards the east and west.[183] A similar type of settlement has also been observed in the West Hallstatt circle.[184]

The characteristics of settlement in NE Slovenia in the Late Bronze and Early Iron Ages have already been discussed.[185] The investigations in the last fifteen years revealed several new settlements, particularly in the lowlands of the Prekmurje region and in the plain of Dravsko polje. Some of the settlements are multi-period. We have also been able to observe shifts in settlement from the (Late) Bronze to the Iron Age within individual microregions (areas around Ptuj, between Kotare and Nova tabla near Murska Sobota).

183 Literatura za ta prostor je obširna, v prispevku so navedena le dela, ki so nam bila v času te študije (2016) dostopna.

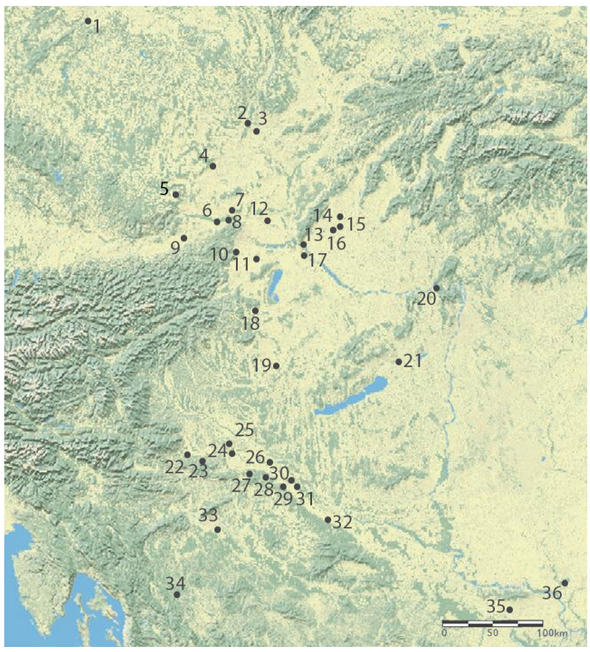
184 Zemljanke se v starejši železni dobi pojavljajo še na znatno večjem prostoru, kot je zajet v naši obravnavi (npr. v Švici, Nemčiji, na Poljskem, v Romuniji); njihova gradnja je odvisna od geološke podlage in ne kulture.

185 Prim. Teržan 1990, 118–121; ista 1999, 133–135; ista 2001, 132–135; Črešnar 2010, 74–80; Dular 2013, 111–122; glej tudi Arheološki vestnik 70, 2019, 319-486.

183 The literature for this area is extensive and the contribution only cites the publications available at the time of the study (2016).

184 In the Early Iron Age, SH appear across much wider areas than presented in this contribution (e.g. in Switzerland, Germany, Poland, Romania); their construction depends on the geology rather than culture.

185 Cf. Teržan 1990, 118–121; ead. 1999, 133–135; ead. 2001, 132–135; Črešnar 2010, 74–80; Dular 2013, 111–122; see also Arheološki vestnik 70, 2019, 319-486.



Slika 20. Karta naselij z zemljankami na prostoru V Alp in Panonije, omenjenih v tekstu.
Figure 20. Map of select sites with SHs in the area of the eastern Alps and Pannonia mentioned in the text.
Seznam najdišč / List of sites:
1. Jenštenj,
2. Kuřim,
3. Brno,
4. Těšetice,
5. Horn,
6. Unterparschenbrunn,
7. Michelstetten,
8. Großmugl,
9. Inzersdorf – Walpersdorf,
10. Wien – Oberlaa,
11. Göttlesbrunn,
12. Stillfried,
13. Ivanka pri Dunaji,
14. Ratkovce,
15. Hoste,
16. Sered',
17. Nové Košariská,
18. Sopron – Krautacker,
19. Vát – Bodon tábla,
20. Pilismarót,
21. Fehérvárcsurgó,
22. Hotinja vas,
23. Lancova vas,
24. Hajndl,
25. Kotare – Baza in Nova tabla pri Murski Soboti,
26. Goričan,
27. Zbelava,
28. Ludbreg,
29. Farkašić,
30. Sigetec,
31. Delovi,
32. Virovitica,
33. Zagreb,
34. Turska Kosa,
35. Gradina na Bosutu,
36. Kalakača.

naselje Črета in pa gomile v Rogozi; morda je iz tega časa tudi ena od jam iz pozno bronastodobne nižinske naselbine pri Slivnici. Vse omenjene lokacije so vidne s Poštele.[186]

Doslej najbolje raziskani in objavljeni nižinski naselji Kotare – Baza pri Murski Soboti in Hajndl pri Ormožu imata s Hotinjo vasjo skupne točke v razporeditvi stavb v okviru naselja, čeprav je prevladujoči tip bivalnih stavb v vsaki od njih drugačen. Hajndl in Kotare – Baza sta bila poseljena dlje časa, njun raster se je skozi čas deloma spreminjal, medtem ko je bilo življenje v Hotinji vasi kratkotrajnejše in je zato tloris bolj jasen. Zemljanke s Hajndla bi lahko bile samostojni bivalni objekti, lahko pa tudi pomožni objekti ob večjih stavbah. V naselju sta se odvijali kovaštvo in tkanje. Gruče stavb (kmetije) so tudi po dobrih 40 m narazen.[187] Na naselju Kotare – Baza prevladujejo različno usmerjene, s stojkami grajene stavbe. Gre za razpršen tip naselja vrh blagega hrbta, katere raster je bil pogojen s tekom potoka Dobel. Podobnosti s Hotinjo vasjo se kažejo v razporeditvi stavb okrog osrednjega, praznega prostora. Na Z in V robu je morda obstajala po ena kmetija, kjer so bile strnjene večje bivalne stavbe in drugi vkopani elementi, kot odpadne jame in zemljanke. Na dvorišču V dela so bili dve peči in vodnjak, na J pa večja zemljanka.[188] Podoben model gručaste vasi razpršenega tipa ob bregovih rek in potokov v Podravju in Prekmurju je znan že iz srednje in pozne bronaste dobe, ko je prevladovala poselitev v nižinah. Za nje

In the Early Iron Age, the hillfort at Poštela represented an important centre, located on the western edge of the Dravsko polje. In its surrounding area, between Poštela and Hotinja vas, there was another Early Iron Age hillfort at Črета; tumuli were excavated at Rogoza; possibly dating to the same period is one of the pits from the Late Bronze Age lowland settlement at Slivnica. All these locations are visible from Poštela.[186]

The lowland settlements that have thus far been most extensively investigated and published are those at Kotare – Baza near Murska Sobota and Hajndl near Ormož. Both show points in common with that at Hotinja vas in the internal layout of buildings, although the dominant types of houses differ. Hajndl and Kotare – Baza were inhabited over a longer period and their internal layouts did see some changes through time, while habitation at Hotinja vas was of a shorter duration and its ground plan hence clearer. The SHs at Hajndl may have functioned as independent living quarters, but may also have been outhouses of the larger buildings. Smithery and weaving took place within the settlement. Individual clusters of buildings (farmsteads) were located over 40 m apart.[187] The settlement at Kotare – Baza was mainly composed of buildings of a post-in-ground construction and different orientations. It may at first seem to have been a settlement with buildings scattered across a gentle ridge, the layout of which was determined by the Dobel stream. A comparison with the settlement at Hotinja vas, however, shows similarities in the arrangement of buildings around a central empty space. At Kotare – Baza, there may have been farmsteads at the W and E edges of the settlement, where a concentration of larger residential buildings and features that mainly consisted of refuse pits and SHs were exavated. The courtyard of the E part also revealed two fireplaces and a water well, the S part held a large SH.[188] A similar type of a clustered village located along the bank of a stream or a river has been known in the Podravje and Prekmurje regions already in the Middle and Late Bronze Ages, when settlements were predominantly located in the lowland. These suggest a particular importance of their (potential) agrarian hinterland.[189]

Lowland settlements have also been unearthed in the neighbouring region of Styria in Austria, along the upper reaches of the Mura at Strettweg. These

186 Teržan 1990, 340 (Črета); Črešnar 2009.
187 Mele 2009, 76–78, 213–216, sl. 77; 90; Magdič 2006, 182–183.
188 Prim. Kerman 2011, 29–31, sl. 77.

186 Teržan 1990, 340 (Črета); Črešnar 2009.
187 Mele 2009, 76–78, 213–216, figs. 77; 90; Magdič 2006, 182–183.
188 Cf. Kerman 2011, 29–31, fig. 77.
189 Teržan 1999, 134.

se zdi pomembno predvsem njihovo (potencialno) agrarno zaledje.[189]

Nižinska naselja so odkrili v zadnjem času tudi na avstrijskem Štajerskem, npr. v zgornjem toku Mure pri Strettwegu. Le-te naj bi bile sočasne z višinsko naselbino na Falkenbergu in naj bi dodatno zagotavljale njen obstoj.[190]

Na Dolenjskem so nižinska, neutrjena naselja iz starejše železne dobe komajda poznana. Skromni sledovi poselitve se omenjajo na lokaciji Marjanov hrib pri Studencu v bližini utrjenega gradišča Cvinger nad Virom pri Stični ter na lokaciji Vovk pri Beli Cerkvi v bližini gradišča na Velikem Vinjem vrhu. Domnevana je tako stojkasta gradnja stavb kot stavbe na kamnitih temeljih.[191] Nekoliko bolje je raziskano najdišče Grofove njive pri Drnovem, kjer je bila odkrita manjša naselbina s pripadajočo gomilo iz certoške stopnje. Štiri stavbe velikosti 20–26 m^2 so bile grajene s stojkami, ob treh so bile ob njihovih daljših stranicah še manjše jame neznane namembnosti; v osrednjem delu, v bližini poti, pa so se nahajale večje jame okroglega ali kvadratnega tlorisa.[192]

Tudi poznavanje poselitve v starejši železni dobi na prostoru severozahodne Hrvaške je skromno. Gosteje poseljeno je bilo le Medžimurje in zgornja Podravina. Med Virovitico in Varaždinom se kažejo kot značilna nižinska naselja, čeprav so znana tudi gradišča. Med nižinskimi naselji so takšne z zemljankami kot v Hotinji vasi Zbelava – Pod Lipom, Šemovec – Šarnjak, Ludberg, Sigetec – Loke (Kroglice), Torčec – Međuriče, Goričan, Farkašić, Delovi – Grede I in Poljane I, Virovitica – Đurađ istok, Kiškorija sjever ter Đota. Ta naselja so običajno stala na rahlo dvignjenih predelih nad poplavno ravnico, a v bližini vodotokov. Bivalni ter delovni objekti so obdani s številnimi vkopanimi elementi; med njimi je več shrambnih in odpadnih jam. Nekatera so bila poseljena dlje časa.[193] Med bolje raziskanimi je Zbelava

189 Teržan 1999, 134.

190 Tiefengraber 2009, 397; Tiefengraber, Tiefengraber 2010, 410; Tiefengraber 2011, 399.

191 Dular, Tecco Hvala 2007, 119–122.

192 Pavlovič 2007; na tem mestu omenimo še eno podobnost s prostorom SV Slovenije. Obod gomile je obdajal jarek, ki je bil razprt; podobno je na najdiščih Nova tabla pri Murski Soboti (Guštin, Tiefengraber 2001, 109–113, sl. 3), le da je bilo v dolenjski gomili več grobov, v Prekmurju pa po en žgan grob.

193 Kovačević 2007, 94–98, 105–106; isti 2008, 47–55, 66–68; isti 2012, 57–106 (Zbelava); Šimek 1989, 26; Bekić, Percan 2006, 143–144 (Šemovec – Šarnjak); Vikić-Belančić 1983–84; prim. Kovačević 2007, 96 (Ludbreg); Šimek 1980, 48–49; ista 1981, 42–43; ista 1982a, 265–278; ista 1982b, 25–33; prim. Kovačević 2009, 96 (Sigetec – Loke); Tomičić, Vidović 1984a, 87; ista 1984b, 91–93; Tomičić 1985, 26–30; prim. Teržan 1990, 144 (Goričan);

were presumably contemporaneous with the hillfort at Falkenberg and ensured its survival.[190]

In the region of Dolenjska, unfortified settlements from the Early Iron Age are scarcely known. Scarce habitation traces from the Early Iron Age are mentioned for the site at Marjanov hrib near Studenec, located in the vicinity of the hillfort at Cvinger above Vir pri Stični, and for the site at Vovk near Bela Cerkev in the area of the hillfort at Veliki Vinji vrh. The two settlements presumably included post-in-ground buildings and those with stone foundations.[191] Slightly better known is the site at Grofove njive near Drnovo, where a small settlement was unearthed with an associated tumulus from the Certosa phase. It included four 20–26 m^2 large, post-in-ground buildings, three had small pits of unknown function along their longer sides, while the central part, near the path, revealed large round or square pits.[192]

The Early Iron Age lowland settlement in NW Croatia is also poorly known, though its regions of Međimurje and upper Podravina appear to have been more densely settled. Typical lowland settlements have been unearthed between Virovitica and Varaždin. The lowland settlements with SHs comparable with Hotinja vas are: Zbelava – Pod Lipom, Šemovec – Šarnjak, Ludberg, Sigetec – Loke (Kroglice), Torčec – Međuriče, Goričan, Farkašić, Delovi – Grede I and Poljane I, Virovitica – Đurađ istok, Kiškorija sjever and Đota. These settlements usually occupy locations slightly elevated above the floodplain, but in the vicinity of waterways. Residential and working buildings were surrounded by numerous other pits that included several storage and refuse pits. Some of these settlements were inhabited over longer periods.[193] The more extensively researched

190 Tiefengraber 2009, 397; Tiefengraber, Tiefengraber 2010, 410; Tiefengraber 2011, 399.

191 Dular, Tecco Hvala 2007, 119–122.

192 Pavlovič 2007; we should mention another similarity with NE Slovenia: the tumulus was enclosed with a penannular ditch. Similar features have been found at Nova tabla near Murska Sobota (Guštin, Tiefengraber 2001, 109–113; fig. 3), though the tumulus from Dolenjska contained more burials and those from Prekmurje single cremations.

193 Kovačević 2007, 94–98, 105–106; id. 2008, 47–55, 66–68; id. 2012, 57–106 (Zbelava); Šimek 1989, 26; Bekić, Percan 2006, 143–144 (Šemovec – Šarnjak); Vikić-Belančić 1983–84; cf. Kovačević 2007, 96 (Ludbreg); Šimek 1980, 48–49; ead. 1981, 42–43; ead. 1982a, 265–278; ead. 1982b, 25–33; cf. Kovačević 2009, 96 (Sigetec – Loke); Tomičić, Vidović 1984a, 87; eid. 1984b, 91–93; Tomičić 1985, 26–30; cf. Teržan 1990, 144 (Goričan); Marković 1982a, 51; id. 1982b, 248–251 (Farkašić P); id. 1984, 296–297; Teržan 1990, 144 (Delovi); Hršak 2006, 80–81; Kovačević 2010, 44–73; Ložnjak Dizdar 2006, 78–80 (Virovitica).

– Pod lipom. Ob večjih, bivalnih stavbah (nadzemne stavbe ter zemljanke) so bile odkrite še manjše enoprostorne zemljanke, več jam za shrambo in kurišča ter različne odpadne jame. Dve manjši zemljanki z jamami pravokotnega tlorisa, opredeljeni kot delovna prostora, sta po tlorisu podobni hotinjskim. Pri eni je bil ob zunanjem robu delno ohranjen 20 cm širok pas temnejše zemlje in zoglenelega lesa, ki nakazuje način nadgradnje.[194] V nekaterih zemljankah so bila tla iz zbite ilovice, kot npr. v naseljih Zbelava, Segetec, Delovi – Poljane I, Farkašič blizu kraja Draganovec; v slednjem je bila v večji vkopani stavbi glinena peč.[195] Nabor najdb iz teh naselij je podoben kot v Hotinji vasi (posodje, tkalske uteži, kamniti predmeti, redke kovinske najdbe). Metalurška oz. livarska dejavnost se domneva v naselju Goričan; odkrita je bila tudi železova žlindra,[196] podobno tudi na lokacijah Delovi – Poljane I[197] in Zbelava.[198]

Zemljanke so bile odkrite tudi v starejšeželeznodobnih naseljih, ki so stale na nekoliko dvignjenih legah in ne le v ravnini. V Zagrebu so bili na gornjegrajskem platoju pri cerkvi sv. Marka in v parku Grič izkopane ostaline naselja z zemljankami, delovnimi objekti, odpadnimi jamami in kurišči;[199] enako tudi na gradišču Kameni Vrh jugozahodno od Lepoglave.[200] Na najdišču Turska kosa je bila na območju naselja odkrita večja zemljanka, prav tako datirana v pozno bronasto in starejšo železno dobo. V enem od prostorov je bila odkrita manjša klop, v zasutju pa keramika in večja količina glinenega ometa. Ob zemljanki je stala večja nadzemna stavba, opredeljena kot tkalska hiša. Na robu naselja so se nahajale enostavne peči, katerih namembnost še ni jasna.[201]

V Vojvodini in severni Srbiji, na prostoru bosutske skupine, prevladujejo nižinske naselbine na visokih terasah, dvignjene nad poplavna območja. V teh naseljih so bile odkrite tudi (pol)zemljanke. Ena izmed njih je dobro raziskana Kalakača, kjer so našli več zemljank s stranicami dolžine med 2–3 m ter globine do 0,45 m in shrambenih jam. Podobne vkopane stavbe so bile odkrite tudi v prvi naselbinski

Marković 1982a, 51; isti 1982b, 248–251 (Farkašić P); isti 1984, 296–297; Teržan 1990, 144 (Delovi); Hršak 2006, 80–81; Kovačević 2010, 44–73; Ložnjak Dizdar 2006, 78–80 (Virovitica).

194 Kovačević 2007, 94–98, 105–106; isti 2008, 47–55, 66–68; isti 2012, 57–106.

195 Marković 1982a; isti 1982b.

196 Tomičić, Vidović 1984a; ista 1984b; Tomičić 1985; za datacijo tudi Teržan 1990, 144.

197 Marković 1984, 296–297.

198 Kovačević 2008, 52.

199 Mašić 2005; Mašić, Pantlik 2006; Mašić et al. 2006.

200 Šimek 1985.

201 Čučković 1993, 167–169; isti 2009, 24.

settlement is that at Zbelava – Pod lipom. Unearthed alongside larger, residential buildings (above-ground and SH) were smaller, single-room SHs, several storage pits, fireplaces and different refuse pits. Two of the smaller SHs of a rectangular ground plan, interpreted as working places, are comparable with the buildings from Hotinja vas in plan. One of them revealed a partially surviving 20 cm wide strip of dark earth and charred wood along one of the outer edges, which indicates the wooden construction.[194] Some of the SHs had the floor of beaten earth, for example those of the settlements at Zbelava, Segetec, Delovi – Poljane I, Farkašič near Draganovec; the settlement mentioned last probably also had a clay fireplace located next to a large SH.[195] The array of finds from these settlements is comparable to that from Hotinja vas (pottery, loom weights, stone objects, rare metal finds). Metallurgic activity, presumably casting, has been confirmed at Goričan; also recovered were pieces of iron slag.[196] Similar finds came to light at Delovi – Poljane I[197] and Zbelava.[198]

NW Croatia also revealed Early Iron Age SHs in settlements located on slight elevations. In Zagreb, for example, remains of a settlement with SHs, working buildings, refuse pits and fireplaces have been unearthed on the plateau of Gornji Grad near the church of St Marko and in the Grič park,[199] while SH and above-ground buildings were present in the hillfort at Kameni Vrh SW of Lepoglava, dated to the Late Bronze and the Early Iron Age.[200] The settlement at Turska kosa, attributed to the Late Bronze and Early Iron Ages, revealed a large SH that possibly had a small bench in one of the rooms. There were found pottery and a large amount of clay daub with impressions. Excavated beside the SH was a large above-ground building interpreted as a weaver's building, while simple furnaces of an as yet unknown function were found at the edge of the settlement.[201]

Lowland settlements on high terraces, elevated above the floodplain, are predominant habitations in Vojvodina and northern Serbia, i.e. in the area of the Bosut group. These settlements also revealed (semi-) SHs. In a good excavated settlement at Kalakača several SHs were found, with sides measuring 2–3 m

194 Kovačević 2007, 94–98, 105–106; id. 2008, 47–55, 66–68; id. 2012, 57–106.

195 Marković 1982a; id. 1982b.

196 Tomičić, Vidović 1984a; eid. 1984b; Tomičić 1985; for dating also see Teržan 1990, 144.

197 Marković 1984, 296–297.

198 Kovačević 2008, 52.

199 Mašić 2005; Mašić, Pantlik 2006; Mašić et al. 2006.

200 Šimek 1985.

201 Čučković 1993, 167–169; id. 2009, 24.

fazi Gradine na Bosutu, kjer so nedvomno bivalne; tla in stene teh jam so bile utrjene z ilovico.[202]

Pomembne raziskave nižinskih naselij iz pozne bronaste in starejše železne dobe so potekale na Spodnjeavstrijskem in Gradiščanskem. Tu so v času kulture žarnih grobišč prevladovala nižinska naselja s stavbami, grajenimi s stojkami; ob koncu pozne bronaste in v starejši železni dobi so se pojavile zemljanke. Njihova površina je znašala približno 9–12 m^2, globina pa približno 1 m. Naselja so bila med seboj približno enako oddaljena, ob njih so bila odkrita plana grobišča. Gre predvsem za najdišča, kot so Unterparschenbrunn, Horn, Göttlesbrunn, Inzersdorf – Walpersdorf, pa tudi Stillfried in Wien – Oberlaa. M. Lauermann je objavil še nekaj naselij z zemljankami, kot npr. Hollarbrunn, Großmugl, Michelstetten, Leobendorf ter Straß im Straßertal, ki jih razlaga kot nižinska ruralna naselja na odprtem.[203]

Podobno urejenost kot Hotinja vas ima Göttlesbrunn, kjer sta bili dve sočasni gruči stavb, datirani v stopnje Ha C1–D1. Na vmesnem prostoru med njima so bile odkrite shrambne jame trapezoidnega profila ter drugi elementi, npr. ognjišča. Zemljanke so bile različne, največ jih je bilo kvadratnega tlorisa, različno globoke, v nekaterih so bile jame za stojke. V naselju je potekala izdelava tekstila, keramike in druge dejavnosti. Pozornost vzbuja posodje, ki izkazuje stilistične posebnosti v okrasu, kar je morda odraz obstoja dveh različnih skupin (družin) v naselju. Domneva se, da gre za dve skupnosti, ki sta kljub razlikam delili osrednji prostor v naselbini za shrambo in pripravo hrane.[204] Drug primer predstavlja naselje Michelstetten, v katerem so bile odkrite bivalne in druge zemljanke ter jame kvadratnega in okroglega tlorisa, pri čemer je bila večina zemljank enotno usmerjena.[205] V naselju Unterparschenbrunn je bilo odkritih več vkopanih stavb kvadratnega tlorisa, a brez jam za stojke. V večini naj bi šlo za delavnice (tkalnice, lončarska delavnica idr.), nekatere bi lahko bile bivalne.[206] Tudi v Stillfriedu so bile odkrite zemljanke pravokotnega tlorisa, ki predstavljajo bodisi bivalne bodisi prostore za druge dejavnosti.[207]

[202] Medović 1978, 16–19, 26, 43; Vasić 1987a, 546; Medović 1988.

[203] Lauermann 1996a, 220–222, Abb. 2–6; isti 1997b, 146–157 (Unterparschenbrunn); isti 1994, 127–217; Griebl 1996, 95–114; ista 1997 (Horn); Hellerschmid 2006, 9–23, 97–103 (Stillfried); Ransedler 2006, 9–37, 234 (Wien – Oberlaa); Ramsl 1998, 9–16, 44–53 (Inzersdorf – Walpersdorf).

[204] Griebl 2004; Müller 2009, 217–220.

[205] Lauermann 1996a; isti 1996b; isti 1996c; isti 1997a; Preinfalk 2012.

[206] Lauermann 1994, 127–217; isti 1996a, 222, Abb. 2–6; isti 1997b, 153–157.

[207] Hellerschmid 2006, 9–23, 97–103.

and with pits measuring up to 0.45 m depth, as well as storage pits. Similar buildings were also found in the first habitation phase at Gradina above the River Bosut; these were certainly residential and had their floors and walls covered with loam.[202]

Important excavations of lowland settlements have been conducted in Lower Austria and in Burgenland. In the Urnfield culture period, lowland settlements with post-in-ground buildings dominated the area, joined at the end of the Bronze and in the Early Iron Ages by SHs that covered a surface of 9–12 m^2 and were dug roughly a metre into the ground. Settlements in the lowland and hilly areas were located at roughly equal distances from one another, and were associated with flat cemeteries. The key sites include Unterparschenbrunn, Horn, Göttlesbrunn, Inzersdorf – Walpersdorf, as well as Stillfried and Wien – Oberlaa. M. Lauermann has published several other settlements from Lower Austria that revealed SHs as Hollarbrunn, Großmugl, Michelstetten, Leobendorf and Straß im Straßertale, which he interprets as lowland rural settlements in an area of open land.[203]

An internal layout similar to that of Hotinja vas has been found at Göttlesbrunn, which revealed two clusters of probably contemporary buildings from Ha C1–D1. The empty space between the buildings revealed storage pits of a trapezoid cross section and other features, such as hearths. The SHs were constructed in different mannes, most of them square in plan and dug in at different depths and some held postholes. The activities identified at the settlement include textile and pottery production, as well as food preparation. The pottery shows different stylistic details and decorations that indicate two differences in the groups inhabiting the settlement; it would appear that two communities lived in the settlement and shared the central space intended for storing and preparing food.[204] Several contemporary residential units that consisted of residential and other SHs, as well as other square and round pits were excavated at Michelstetten, where most SHs shared a common orientation.[205] The settlement at Unterparschenbrunn revealed several SHs, also square in

[202] Medović 1978, 16–19, 26, 43; Vasić 1987a, 546; Medović 1988.

[203] Lauermann 1994, 127–217; id. 1996a, 220–222, figs. 2–6; id. 1997b, 146–157 (Unterparschenbrunn); Griebl 1996, 95–114; ead. 1997 (Horn); Hellerschmid 2006, 9–23, 97–103 (Stillfried); Ransedler 2006, 9–37, 234 (Wien – Oberlaa); Ramsl 1998, 9–16, 44–53 (Inzersdorf – Walpersdorf).

[204] Griebl 2004; Müller 2009, 217–220.

[205] Lauermann 1996a; id. 1996b; id. 1996c; id. 1997a; Preinfalk 2012.

Na lokaciji Großmugl je bilo odkritih več kot 100 vkopanih naselbinskih elementov; med njimi jame za shrambo in večji, verjetno bivalni objekti s podobnim naborom najdb (keramično posodje, vretenca in uteži za statve, hišni omet, redke kovinske najdbe).[208] Tudi na najdišču Wien – Oberlaa so bile odkrite vkopane stavbe – zemljanke oz. jame nepravilnega tlorisa, dolžine 3–4,2 m ter 0,6–1,2 m globoke. V zemljankah ni bilo jam za stojke, niti ognjišč ali tlaka poda; vendar je bilo ob eni od stavb 11 manjših jam kvadratnega tlorisa.[209]

Raziskave zadnjih desetletij na Češkem in Slovaškem so korenito spremenile sliko poselitve v starejši železni dobi. Pokazala se je presenetljiva gostota naselij v stopnji Ha C, zlasti v okviru posameznih mikroregij; ena od teh je severozahodno od Prage, ob 12 km dolgem potoku Vinoř, levem pritoku Labe. Na tem območju je bilo evidentiranih približno 30 halštatskih najdišč, eno od teh je naselje Jenštenj (Ha D1/2–LT A), kjer so ob objektih, grajenih s stojkami, prevladovale enotno usmerjene zemljanke in polzemljanke, večina velikosti 10–19 m^2. Tudi tu so bile odkrite predvsem keramične in le redke kovinske najdbe, pa tudi kamniti predmeti (žrmlje in brusi), kosi kovaške žlindre. Jenštenj je opredeljen kot ruralno naselje. Posamezno kmetijo so sestavljali zemljanka (ali polzemljanka), večji vkopan objekt ali dva, dve ali tri shrambne jame, jama s pečjo, ena ali dve plitvi ter ena ali dve globlji ovalni jami brez posebnih znakov o namembnosti, jama za izkop gline, do ena stavba, grajena s stojkami, in do ena delavnica. Vsaki kmetiji je v premeru pripadalo približno 30 m, naselbina pa naj bi se razprostirala na okoli 3–4 ha. V naselju je bivalo okoli 5 sočasnih kmetij, ki bi naj obstajalo približno 150 let. Približno 250 m proč je bilo odkrito naslednje istočasno naselje, približno 700 m oddaljeno pa še naselje iz stopnje Ha C2/D1.[210] Kaže, da tudi tu niso bile zemljanke značilne samo za »prave« nižine in neutrjena naselja, temveč tudi na višjih legah.[211]

Pomembne nove rezultate so prinesle tudi raziskave v nižinskem in gričevnatem območju južne Moravske, zlasti v okolici Brna in Znojma. Med pretežno ravninskimi naselbinami z zemljankami z

[208] Lauermann 1994, 149–151; Bachner, Lantschner 1994, 253–265; Bachner et al. 1994, 422.

[209] Ransedler 2006, 9–37, 234.

[210] Dreslerová 1995a, 1–2, 24–25, 61–62, 68–69.

[211] V Pragi je bilo npr. na terasi gradišče nad desnim bregom Vltave (Fridrichová 1974). Za mladohalštatska naselja, med njimi tudi takšna s podobnim tlorisom in stavbami kot Hotinja vas, glej npr. že pri Soudská 1966, 535–595 (najdišča Touchoměřice, Hostomice, Praha – Hloubětin, Krašovice (tloris dostopen na: http://www.archaiabrno.org/home_cs/?acc=preview&image=002538), idr.).

plan, either without postholes or with one posthole in the centre of the SH or in front of it. These were presumably mainly workshops (weaver's, potter's and others), some could have been residential; the site is interpreted as a rural settlement.[206] The rectangular SHs from Stillfried are deemed to be either residential or working buildings, for example for weaving.[207] The site at Großmugl revealed over a hundred SHs that included storage pits and larger SHs, probably residential, with an array of finds similar to that from Hotinja vas (pottery, spindle whorls and loom weights, daub, rare metal finds).[208] The site of Wien – Oberlaa also revealed three 0.6–1.2 m deep pits with sides measuring 3–4.2 m beside SHs of irregular plan. The buildings had no postholes, hearths or floors; one of them had eleven smaller square pits dug along one of its sides.[209]

In the Czech Republic and Slovakia, the research over recent decades has brought significant changes into the settlement feature in the Early Iron Age. Investigations have revealed a surprising density of settlements from Ha C. The research of the changes in the settlement pattern have predominantly been conducted within certain micro-regions; one of these lies NW of Prague, along the 12 km long Vinoř stream, the left tributary of the Laba. This area revealed roughly thirty Hallstatt sites. One is the settlement at Jenštenj (Ha D1/2–LT A) that revealed post-in-ground buildings alongside the predominant and mainly 10–19 m^2 large SHs and semi-SHs of a common orientation. The recovered finds mostly consisted of pottery with rare metal finds, stone artefacts (querns and whetstones) and pieces of smithing slag. Jenštenj has been interpreted as a rural settlement; one farmstead at the site was composed of a SH or semi-SH, one or two large sunken-pits, two or three storage pits, a pit with a hearth, one or two shallow and one or two deep oval pits without clear signs as to their function, a clay pit, an optional post-in-ground building and an optional workshop. Each farmstead measured roughly 30 m across and the settlement presumably extended over roughly 3–4 ha. The settlement was composed of around five contemporary farmsteads and was presumably inhabited over a period of around 150 years. Another, contemporary settlement was found only 250 m away, and roughly 700 m away a settlement attributed to Ha

[206] Lauermann 1994, 127–217; id. 1996a, 222, figs. 2–6; id. 1997b, 153–157.

[207] Hellerschmid 2006, 9–23, 97–103.

[208] Lauermann 1994, 149–151; Bachner, Lantschner 1994, 253–265; Bachner, Lantschner, Urbanek 1994, 422.

[209] Ransedler 2006, 9–37, 234.

območja horakovske kulture naj omenimo Brno – Řečkovice in Královo pole, Bezkov, Bulhary, Podivín, Skalice, Smolín in Kuřim, ki so živele v razvitem in mlajšem halštatskem obdobju.[212]

Posebej omembe vredno je nižinsko naselje Těšetice, kjer je bilo na lokaciji Vinohrady odkritih 17 vkopanih zemljank in drugih naselbinskih objektov iz stopnje Ha C2–D1. Zemljanke so bile večinoma pravokotnega tlorisa. Naselbina ima namreč podoben tloris kot Hotinja vas; zemljanke so bile razporejene okrog osrednjega, pretežno praznega prostora. Domnevno naj bi v teh bivališčih živelo 80–100 ljudi. Približno 100 m oddaljeno od naselbine v smeri proti severu je bilo pripadajoče grobišče.[213]

Podobna situacija, kot je pokazala že l. 1979 E. Studenikova,[214] je bila ugotovljena tudi na jugozahodnem Slovaškem, zlasti na območju Bratislave z okolico, kjer naj bi v stopnji Ha C porasla nižinska naselja (Rusovce, Trnávka, Vajnory, Mylanská dolina – Habánsky mlyn, Októbrové námestie, Primaciálny palác, Devínska Nova Ves ter Chorvátsky grob, Ivanka pri Dunaji, Bernolákovo, Stupava).[215] Več nižinskih naselij je bilo raziskanih tudi v ravninskih predelih ob Malih Karpatih, npr. Sered', Križovany nad Dudváhom, Ratkovce, Bučany, Hoste ter na podunajskih najdiščih Pusté Úľany, Janíky – Dolné Janíky in Nové Košariská.[216]

Na naselju Bratislava – Dúbravka so bile v mladohalštatski in zgodnjelatenski čas opredeljene 4 bivalne zemljanke. V tlorisu so bile pravokotne z zaobljenimi vogali, velikosti 4,5–5,5 × 3,4–4 m. V eni je bilo ognjišče, ena je imela na robu več jam za stojke. Stavbe so bile postavljene približno 20 m narazen in enotno usmerjene.[217]

Na naselju Hoste iz stopnje Ha D1 so bile bivalne zemljanke prav tako pravokotnega tlorisa, največja je merila 3,5 × 4,5 m, v globino pa 0,6 m. Več stavb je bilo manjših, zato je njihova bivalna namembnost vprašljiva; v nekaterih so bile jame za stojke, ognjišča, v dveh pa peč.[218] Podobne vrste je

[212] Golec 2003, 16–17; Čižmár 1999, 16–17; Nekvasil 1979; Ondruš 1961, 51–57; Podborský 1965b; isti 1970, 19–36; Tichý 1969, 168–177.

[213] Podborský 1965a; isti 1970, 20–21; Golec 2003, 18–20, 147.

[214] Studeníková 1979, 21–31.

[215] Studeníková 1984, 68; ista 1981, 37–44 (Chorvátsky Grob, Ivanka pri Dunaji); ista 1986, 221–226; Kraskovská 1970, 85–117 (Ivanka pri Dunaji); Veliačik, Romsauer 1994, 67–70 (Chorvátsky grob).

[216] Belanová et al. 2007, 423 (s tam navedeno literaturo); König 2003, 93–118 (Pusté Úľany); Müller 2012 (Sered', Ratkovce) idr.

[217] Stegmann-Rajtár 1996, 455–470.

[218] Bujna, Romsauer 1984, 277–322.

C2/D1.[210] In this area as well, the construction of SHs was not limited only to the lowland settlements 'proper' and to unfortified settlements.[211]

The significant new results were brought also by research in the lowland and hilly area of southern Moravia, in the surroundings of Brno and Znojmo. The predominantly lowland settlements with SHs from the area of the Horákov culture include those at Brno – Řečkovice, Brno – Královo pole, Bezkov, Bulhary, Podivín, Skalice, Smolín and Kuřim, occupied in the Early as well as the Late Hallstatt period.[212]

Especially attention has to be due to the lowland settlement at Těšetice - Vinohrady, where seventeen SHs and other settlement objects from Ha C2–D1, mostly rectangular in plan, were excavated. This settlement is similar in layout to Hotinja vas: the SHs were arranged around the largely empty central space; it is estimated that 80–100 individuals lived here in these houses. The associated cemetery was unearthed some 100 m northwards.[213]

A similar picture can be observed in SW Slovakia, as already in 1979 showed E. Studenikova.[214] Especially the area of Bratislava has been dotted with lowland Ha C settlements (Rusovce, Trnávka, Vajnory, Mylanská dolina – Habánsky mlyn, Októbrové námestie, Primaciálny palác, Devínska Nova Ves and Chorvátsky grob, Ivanka pri Dunaji, Bernolákovo, Stupava).[215] Several lowland settlements have been excavated in the lowland along the Lesser Carpathians, such as at Sered', Križovany nad Dudváhom, Ratkovce, Bučany, Hoste. Lowland settlements with either above-ground or SHs have also been found at Pusté Úľany, Janíky – Dolné Janíky and Nové Košariská.[216]

Four residential SHs from the settlement at Bratislava – Dúbravka have been attributed to the Late Hallstatt and Early La Tène periods, located some

[210] Dreslerová 1995a, 1–2, 24–25, 61–62, 68–69.

[211] In Prague, a hillfort was located on a terrace on the right bank of the Vltava (Fridrichová 1974). On Early Hallstatt settlements, also such of a comparable plan and SHs to Hotinja vas, see Soudská 1966, 535–595 (the sites at Touchoměřice, Hostomice, Praha – Hloubětín, Krašovice (ground plan available at: http://www.archaiabrno.org/home_cs/?acc=preview&image=002538), etc.).

[212] Golec 2003; Čižmár 1999, 16–17; Nekvasil 1979; Ondruš 1961, 51–57; Podborský 1965b; id. 1970, 19–36; Tichý 1969, 168–177; Čižmar 1999.

[213] Podborský 1965a; id. 1970, 20–21; Golec 2003, 18–20, 147.

[214] Studenikova 1979, 21–31.

[215] Studeníková 1984, 68; ead. 1981, 37–44 (Chorvátsky Grob, Ivanka pri Dunaji); ead. 1986, 221–226; Kraskovská 1970, 85–117 (Ivanka pri Dunaji); Veliačik, Romsauer 1994, 67–70 (Chorvátsky grob).

[216] Belanová et al. 2007, 423 (with cited references); König 2003, 93–118 (Pusté Úľany); Müller 2012 (Sered', Ratkovce) etc.

bilo 5 km oddaljeno naselje Sered' iz stopnje Ha C2/D1. Ležalo je na rahlo dvignjenem območju ob sotočju dveh rek in v bližini pomembne višinske naselbine – gradišča Molpír pri Smolenicah. Odkrite so bile stavbe, grajene s stojkami, večja zemljanka nepravilnega tlorisa dolžine 9,5 m ter manjše zemljanke kvadratnega tlorisa; med slednjimi so bile nekatere obdane z jamami za stojke na robu jame ali okrog nje. Te naj bi služile za shrambe za žito, kleti ali druge gospodarske dejavnosti; njihova bivalna funkcija je vprašljiva.[219]

Približno 20 km oddaljeno od Sereda se je na robu rečne terase nahajalo istočasno naselje Ratkovce. Tudi tu sta bili odkriti dve naselbinski gruči, približno 200 m narazen, s po štirimi zemljankami. Dve stavbni jami sta bili v tlorisu kvadratni z zaobljenimi vogali, ostale so bile ovalnega oz. nepravilnega tlorisa. V nekaterih so bili sledovi ognjišč. Približno v oddaljenosti 2 do 5 km se obstajale še druge sočasne naselbine.[220]

Približno 250 m od gomilnega grobišča Nové Košariská je bilo odkrito nižinsko naselje z zemljankami in stavbo s stojkami. V eni izmed zemljank z razpoznavnim vhodom (objekt 2/05) so bile odkrite raznolike najdbe, kot keramika, kovinski predmeti, žrmlje in omet z odtisi desk.[221] Izjemno odkritje predstavlja pravokotna zemljanka (objekt 1/02), velikosti predvidoma 4 × 5,5 m, v kateri je bilo na njenem podu in ob dveh stenah odkritih 170 piramidalnih uteži, ki nakazujejo obstoj dveh statev. Večje število tkalskih uteži je bilo odkritih tudi v zemljankah nekaterih drugih naselbin z obravnavanega prostora, kot npr. Chorvátsky grob – Triblavina, Ivanka pri Dunaji, Smolenice – Molpír ter Freundorf v Spodnji Avstriji. Zemljanko s statvama oz. velikim številom tkalskih uteži v naselbini v Nove Košariski je morda možno povezati z t. i. grobom tkalke iz gomile 6, in zato domnevati, da v tej naselbini ni živelo le enostavno strukturirano kmečko prebivalstvo, temveč tudi pripadniki višjega družbenega sloja.[222]

Z območja Panonije/ Transdanubije so ob višinskih gradiščih, ki so nastala ob pomembnih trgovskih poteh, znana predvsem nižinska naselja. Med bolje

[219] Paulik 1955, 135–194; Müller 2012, 306–357; z vprašanjem, ali so zemljanke bivalne, so se ob Müllerju ukvarjali tudi drugi raziskovalci; ključen faktor za opredelitev namembnosti mu je velikost zemljank. Odgovor, zakaj v večini naselbin na odprtem manjka dokazov za druge tipe stavb, je, da naj bi bile te stavbe zgrajene brez vkopanih elementov (Müller 2009, 209–225; isti 2012, 352–357; prim. Ranseder 2006, 236–238; Griebl 2004, 101–127; Lauermann 1994, 170; isti 1996a, 221–225).

[220] Müller 2012, 404–414, 440–441.

[221] Čambal, Gregor 2005; Čambal 2006, 56–59.

[222] Belanová et al. 2007, 419–434; prim. Teržan 1996, Abb. 6.

20 m away from one another and sharing a common orientation. They were rectangular in plan with rounded corners, measuring 4.5–5.5 × 3.4–4 m in surface. One of them had a hearth and one several postholes along the edge.[217]

At the settlement at Hoste (Ha D1), the SHs, including the residential ones, were also square in plan. The largest one covered a 3.5 × 4.5 m large surface and was dug 0.6 m deep. Several SHs were smaller and their residential character is uncertain; the interiors of some had postholes, hearths, two even a furnace.[218] A similar settlement was excavated 5 km away at Sered', attributed to Ha C2/D1. The site lies on slightly elevated ground at the confluence of two rivers and in the vicinity of the important hillfort at Molpír near Smolenice. Excavations unearthed post-in-ground buildings, a large SH of irregular plan measuring 9.5 m in length, as well as smaller square SHs. Some of them had post holes either at the edge of the pits or around them; they are interpreted as cereal storehouses, workshops, cellars, while their residential function is questionable.[219] A contemporary settlement was also found at the roughly 20 km distant site at Ratkovce, lying at the edge of a river terrace. Here as well, two clusters of buildings were found located some 200 apart from one another and each comprising four SHs. Two of the SHs were square with rounded corners, others were either oval or irregular in plan. Some revealed traces of hearths. Nearby sites lie only 2 or 5 km away.[220]

A lowland settlement with SHs and one above-ground building was excavated some 250 m from the well-known tumulus cemetery at Nové Košariská. One of the SHs (2/05) yielded a variety of finds: pottery, metal artefacts, quernstones and pieces of daub with the impressions of wooden boards; the entrance into the building was also identified.[221] A very revealing SH represented a partially preserved rectangular Building 1/02 that presumably measured 4 × 5.5 m. It revealed 170 loom weights, as parts of two looms, lying on the floor along two sides of the SH with some other ceramics. Large quantities of loom

[217] Stegmann-Rajtár 1996, 455–470.

[218] Bujna, Romsauer 1984, 277–322.

[219] Paulik 1955, 135–194; Müller 2012, 306–357; other researchers besides Müller have dealt with the question of whether the SHs functioned as living quarters; for Müller, the factor in identifying the function was size; he also believed that the reason for the lack of evidence for other types of buildings in the lowland settlements lies in the fact that these would have been devoid of any kind of cut features (Müller 2009, 209–225; Müller 2012, 352–357; cf. Ranseder 2006, 236–238; Griebl 2004, 101–127; Lauermann 1994, 170; id. 1996a, 221–225).

[220] Müller 2012, 404–414, 440–441.

[221] Čambal, Gregor 2005; Čambal 2006, 56–59.

raziskanimi naselji z zemljankami je Sopron – Krautacker, ki sodi v poznohalštatsko in zgodnjelatensko obdobje. Ob pravokotnih zemljankah domnevajo tudi nadzemne stavbe.[223] Zemljanke so bile odkrite tudi v halštatskodobni naselbini Fehérvárcsurgó, na bližnjem najdišču Mór[224] in v naseljih Pilismarót,[225] Vát – Bodon[226] iz stopnje Ha C2–D1, ter mlajšem naselju Sé – Doberdo.[227] Bile so kvadratnega, pravokotnega ali nepravilnega tlorisa, lahko s centralno stojko ali več stojkami v notranjosti. Imele so osnovno ogrodje iz brun ter stene iz prepleta, premazanega z glino. V več zemljankah so bile klopi (podesti), jame ter v enem od vogalov ali v sredini ognjišče. Tik ob hiši so se nahajale shrambne in druge jame. V zasutju zemljank so bili predvsem odlomki keramike, živalske kosti ter predilna vretenca in piramidalne uteži. Poljedelskih orodij je bilo odkritih zelo malo, nekaj več je najdb železnih nožev; ti so bili pogosto odkriti ob ognjiščih, zato jih povezujemo s pripravo hrane. Živalski kostni ostanki nakazujejo, da je imela živinoreja vsaj tako pomembno vlogo kot poljedelstvo.[228]

Če strnemo, se je na obravnavanem prostoru poselitev razmahnila predvsem v stopnji Ha C oz. Ha C2. V tem času je obstajalo oz. na novo nastalo več nižinskih naselij, ki so imela podobno notranjo urejenost kot Hotinja vas (npr. Göttlesbrunn in Těšetice) (*sl. 20*). Kot so nekateri raziskovalci že opozorili, sta potreba po poselitvi območij, primernih za kmetijstvo, in s tem nastanek nižinskih naselij z zemljankami verjetno povezana s poslabšanjem vremenskih razmer (navsezadnje gre za čas »halštatskega platoja«).[229]

Gre za gručaste zaselke, skupine zemljank s spremljevalnimi naselbinskimi objekti; pogosta je razvrstitev stavb okrog dvorišča, enotna usmerjenost stavb, jame za shrambo pa na robu bivalnega prostora. Gre za nižinska naselja ruralnega značaja, s posameznimi kmetijami/ gospodarstvi, ki glede na odkrite najdbe izkazujejo primerljive gospodarske dejavnosti in deloma samozadostno obrt (kovaštvo, predenje in tkanje idr.). Le ob nekaterih naseljih so bila odkrita tudi pripadajoča grobišča.

Nižinska naselja so verjetno odraz že močno razslojene družbe v starejši železni dobi. Zaradi lege na ugodni ravnici bi lahko preskrbovala s hrano višinska

[223] Jerem et al. 1984, fig. 7; Schwellnus 2009, 245–261; ista 2011, 359–373.
[224] Béla 1993, 191–197.
[225] Wollák 1975, 56–58, Abb. 2.
[226] Molnar, Farkas 2011, 43–66.
[227] Gál, Molnár 2004, 165, 214, 18., 35 tábla.
[228] Jerem 2003, 184, 190–191.
[229] Prim. Griebl 2004, 127–128; Felgenhauer 1956, 16–180; Preinfalk 2012; Langenecker 1996, 221–234.

weights within SHs have been found in several other settlements, for example at Chorvátsky grob – Triblavina, Ivanka pri Dunaji, Smolenice – Molpír and Freundorf in Lower Austria. The SH with loom weights from the setttlment of Nove Košariská alludes the grave of a female weaver from Tumulus 6 at Nové Košariská, therefore it has been suggested that the settlement was not inhabited just by simply structured farmer population, but that it held a pride of place.[222]

In Pannonia or Transdanubia, respectively, the lowland settlements of SHs have been excavated along the hillforts situated near the important communication lines. One of the better researched sites is the Late Hallstatt/Early La Tène lowland settlement at Sopron – Krautacker that comprised both SH and aboveground buildings.[223] SHs were also found in the area of the Hallstatt settlement at Fehérvárcsurgó, the nearby site at Mór,[224] in the settlements at Pilismarót,[225] Vát – Bodon[226] (both Ha C2–D1) and Sé – Doberdo (Ha D2-3/ Lt A)[227] and elsewhere. It is nevertheless possible to state that the population here mainly lived in SHs with a timber framework and wattle-and-daub walls. Several SHs had small benches, pits and hearths located in a corner or in the centre. Storage and other pits were found next to these buildings. Their fills mainly included pottery, animal bones, spindle whorls and loom weights. They contained very few farming tools. More numerous are the finds of knives; they were frequently found near the hearths and must therefore have been connected with food preparation. Animal bone remains indicate that livestock farming was at least as important as land cultivation.[228]

In conclusion, we should note that the lowlands of the East Hallstatt circle suitable for arable and livestock farming became more densely settled in Ha C or Ha C2. At this time, several lowland settlements existed or were established a new that had an internal layout similar to that established at Hotinja vas (particularly comparable sites at Göttlesbrunn and Těšetice) (*fig. 20*). As several researchers have already pointed out, the need to inhabit areas suitable for arable farming and the appearance of lowland settlements with residential SHs may have been connected with the deteriorating weather conditions (it is, after all, the period of the 'Hallstatt plateau').[229]

[222] Belanová et al. 2007, 419–434; cf. Teržan 1996, fig. 6.
[223] Jerem, et al. 1984, fig. 7; Schwellnus 2009, 245–261; ead. 2011, 359–373.
[224] Béla 1993, 191–197.
[225] Wollák 1975, 56–58, fig. 2.
[226] Molnar, Farkas 2011, 43–66.
[227] Gál, Molnár 2004, 165, 214, 18., 35 tábla.
[228] Jerem (ed.) 2003, 184, 190–191.
[229] Cf. Griebl 2004, 127–128; Felgenhauer 1956, 16–180; Preinfalk 2012; Langenecker 1996, 221–234.

utrjena naselja, ki naj bi skrbela za varnost svojih teritorijev in za zatočišče v nemirnih obdobjih, kar pa je le ena od možnih predpostavk. Nekaj je pokazateljev, da pri nižinskih naselij z zemljankami ne gre le za naselja nižjega sloja prebivalstva, ampak drugih kulturnih ali etničnih skupnosti. Kot kaže nižinsko naselje Nové Košariská v bližini bogato opremljenih gomil, pa so morda v nekaterih teh naselij bivali tudi pripadniki višjega družbenega sloja, ki so svoje svojce pokopavali v gomilah, kajti ob nižinskih naseljih na Slovaškem, v Spodnji Avstriji in Gradiščanskem so doslej znana predvsem plana grobišča.

Na tem obširnem in kulturno različnem prostoru, pa ob podobnem tipu naselij in bivalnih stavb ugotavljamo tudi podobnosti v keramičnem repertoarju. Omenimo naj le nekatere, kot so npr. ovalni lonci z držaji (tip L2a1), sklede ali skodele tipa S-Sk3, centralni okrasni motivi v notranjosti skled, cedila, ognjiščne koze ter pitosi tipa Pi1. Na širšo povezanost celotnega obravnavanega prostora kaže tudi razprostranjenost čolničastih fibul šmarješkega tipa, kateremu pripada tudi edina odkrita fibula v Hotinji vasi.

Nižine severovzhodne Slovenije v starejši železni dobi niso bile tako skromno poseljene, kot se je to zdelo pred začetkom arheoloških raziskav, ki so spremljale izgradnjo avtoceste. Naša raziskava je pokazala, da so nižinska naselja nastala bodisi nedaleč proč od višinskih utrjenih naselij bodisi od njih oddaljena v rodovitni ravnici Dravskega in Ptujskega polja ter Prekmurja.

Vloga Hotinje vasi je bila verjetno podobna, kot so jo imela ostala nižinska naselja na prostoru štajersko-panonske skupine oz. vzhodnohalštatskega kulturnega kroga. Bila je ruralno, deloma samooskrbno in kmetijsko usmerjeno naselje, ki je nastalo v zaledju višinskega naselja, gradišča kot regionalnega središča.

These lowland settlements comprised clusters of SHs that shared a common orientation, were arranged around an empty central space or courtyard and were associated with features that included storage pits located next to the living quarters. In several instances, these settlements have been interpreted as rural settlements composed of individual farmsteads. The recovered finds show that similar activities took place in them and similar crafts were practised (smithing, spinning, weaving and so forth), making them at least in part self-sufficient units. Associated cemeteries have also been found for some of them.

The lowland settlements suggest a stratified society. Being located in the fertile plains, they may have supplied food to the hillforts that in turn provided security to the settlements in the lowland, though this is a mere speculation at this point. There are also indications of the lowland settlements not being occupied by people of a lower social status, but rather of different cultural or ethnic backgrounds. The lowland settlement at Nové Košariská, Slovakia, with an adjacent tumulus cemetery, shows that some of these settlements may have been inhabited by higher classes that buried their dead under tumuli, while other settlements in Slovakia and those in Lower Austria and Burgenland/ Gradiščanska are associated mostly with flat cemeteries.

This vast area was inhabited by a population of different cultural groups that built comparable settlements and houses, but also used pottery that shows certain similarities. These include forms such as ovaloid jars with grips (Type L2a1), dishes or bowls of Type S-Sk3, central decorative motifs on the base interiors of dishes, colanders, firedogs and pithoi of Type Pi1; also pointing to a connectedness of the area is the boat fibula of the Šmarjeta type.

The investigations that took place in advance of the construction of the motorway cross in Slovenia have shown that the plains of NE Slovenia were not as sparsely settled during the Early Iron Age as previously thought. Our research has shown that the lowland settlements in this area stood either in proximity to the hillforts or slightly farther away on the fertile plains of the Dravsko polje, Ptujsko polje and Prekmurje.

The role of the settlement at Hotinja vas was probably comparable to that of the other lowland settlements in the Styria/ Štajerska-Pannonia group or the East Hallstatt circle. It was a partly self-sufficient agricultural settlement established in the hinterland of a hillfort that functioned as a regional centre.

OPISI NAJDB

Tab. 1:

Zemljanka 1

1. Skleda, delno ohranjena (G1). SE 44, inv. št. A18137.
2. Skleda, delno ohranjena (G68). SE 43, inv. št. A18162.
3. Odl. ustja sklede z navpičnimi vzporednimi kanelurami (G4). SE 44, inv. št. A18202.
4. Odl. ustja sklede (G5). SE 44, inv. št. A18189.
5. Odl. sklede ali skodele z navpičnimi vzporednimi kanelurami in bradavico (G6). SE 44, inv. št. A18222.
6. Skleda ali skodela, delno ohranjena, z vodoravnimi vzporednimi kanelurami na vratu, nizom vtisnjenih jamic na prehodu, vzporednimi navpičnimi kanelurami na največjem obodu in sledovi grafitnega premaza (G69). SE 43, inv. št. A18165.
7. Odl. ustja sklede ali skodele z vzporednimi in navpičnimi kanelurami (G7). SE 44, inv. št. A18174.
8. Odl. lonca z navpičnim držajem (G11). SE 44, inv. št. A18241.
9. Odl. ustja lonca (G13). SE 44, inv. št. A18211.
10. Odl. ustja lonca, rob je razčlenjen z odtisi prstov (G15). SE 44, inv. št. A18215.
11. Odl. pekve z jezičastim držajem (G52). SE 44, inv. št. A18236.
12. Prenosna pečka, delno ohranjena (G65). SE 44, inv. št. A18180.
13. Miniaturna pekva z jezičastim ročajem, delno ohranjena (G77). SE 43, inv. št. A18170.
14. Stožčasto vretence (G66). SE 44, inv. št. A18201.
15. Piramidalna utež, delno ohranjena (G78). SE 43, inv. št. A18172.
16. Kamnito orodje, fragmentirano (G79). SE 43, inv. št. A18476.

Zemljanka 8

17. Odl. ustja sklede (G173). SE 248, inv. št. A18252.
18. Odl. sklede ali skodele z vzporednimi poševnimi kanelurami (G175). SE 248, inv. št. A18251.
19. Odl. sklede ali skodele z vzporednimi širokimi kanelurami in sledovi grafitnega premaza. SE 248, inv. št. A18257.
20. Lonec s štirimi vodoravnimi držaji, delno ohranjen. SE 248, inv. št. A18249.
21. Odl. ustja lončka. SE 248, inv. št. A18242.
22. Pekva ali pokrov, delno ohranjena. SE 248, inv. št. A18250.

Tab. 2:

Zemljanka 13

1. Odl. ustja sklede (G226). SE 267, inv. št. A18376.
2. Skleda, delno ohranjena (G228). SE 267, inv. št. A18305.
3. Odl. ustja skodele s presegajočim ročajem (G235). SE 267, inv. št. A18381.
4. Odl. ustja lončka (G249). SE 267, inv. št. A18363.
5. Odl. ustja lonca (G250). SE 267, inv. št. A18320.
6. Odl. ustja lonca z uvitim plastičnim rebrom (G246). SE 267, inv. št. A18354.
7. Lonec (G238). SE 267, inv. št. A18377.
8. Odl. pekve ali pokrova (G281). SE 267, inv. št. A18327.
9. Odl. pekve z držajem (G278). SE 267, inv. št. A18349.
10. Piramidalna utež z vrezanim križem na zgornji ploskvi (G 302). SE 267, inv. št. A18371.

Večja jama 12

11. Odl. pekve z jezičastim držajem (G359). SE 238, inv. št. A18087.
12. Odl. ustja lonca (G353). SE 238, inv. št. A18086.
13. Odl. posode s plastično bradavico (G356), inv. št. A18081.
14. Ognjiščna koza, delno ohranjena (G360), inv. št. A18089.
15. Vretence z vzporednimi žlebovi (G361), inv. št. A18477.
16. Železen nož s trnastim nastavkom za ročaj (G362), inv. št. A18477.

Manjša jama 32

17. Posoda z visokim vratom, delno ohranjena (G402), inv. št. A18396.

LITERATURA / REFERENCES

Adámek F. 1961
Pravěké Hradisko u Obřan, Monografické práce Moravského Muzea v Brně, Scientiae sociales 1, Brno.

Andraschko F. M. 1995
Studien zur funktionalen Deutung archäologischer Siedlungsbefunde in Rekonstruktion und Experiment, Hamburger Beiträge zur Archäologie 1, Duderstadt.

Artner W. 2012
Von Hallstatt auf dem Weg nach Süden Grabfunde von Kulm bei Aigen im Ennstal, Obersteiermark, sowie Funde der Hallstatt- und Früh-La-Tène-Zeit zwischen Öden- und Hallstätter See. – *Fundberichte aus Österreich* 51, 61–87.

Bachner M., Lantschner M. 1994
Rettungsgrabung in einer hallstattzeitlichen Siedlung in Großmugl, Flur-Todtenweg. – *Fundberichte aus Österreich* 33, 253–265.

Bachner M., Lantschner M., Urbanek M. 1994
Großmugl. – *Fundberichte aus Österreich* 33, 422.

Balen-Letunić D. 2004
Zdjela, Sveti Petar Ludbreški – Staro groblje, Ludbreg (24), sustavno iskopavanje 1960., jama 21, sonda IV. – V/In: D. Balen-Letnić (ur./ed.), *Ratnici na razmeđu istoka i zapada: starije željezno doba u kontinentalnoj Hrvatskoj / Warriors at the crossroads of East and West / Krieger am Scheideweg zwischen Ost und West. Katalog* 23, Zagreb, 304.

Balen-Letunić D., Rendić-Miočević A. 2012
Čarolija igre / The magic of play. – Zagreb.

Bayliss A. 2007
Bayesian buildings: An introduction for the numerically challenged. – *Vernacular architecture* 38*, 76–87*.

Bayliss A. 2009
Rolling out revolution: Using radiocarbon dating in archaeology. – *Radiocarbon* 51(1), 123–147.

Bekić T., Percan T. 2006
Šarnjak–Šamovec. – *Hrvatski arheološki godišnjak* 3/2006, 143–144.

Béla J. 1993
Early Iron Age (HC2) settlement centre at Fehérvárcsurgo. – V/In: J. Pavúk (ur./ed.), *Actes du XIIe Congrès International des Sciences Préhistoriques et Protohistoriques, Bratislava, 1-7 septembre 1991*, Bratislava, Nitra, 191–197.

Belanová T., Čambal R., Stegmann-Rajtár S. 2007
Die Weberin von Nové Košariská – Die Webstuhlbefunde in der Siedlung von Nové Košariská im Vergleich mit ähnlichen Fundplätzen des östlichen Hallstattkulturkreises. – V/In: M. Blečić, M. Črešnar, B. Hänsel, A. Hellmuth, E. Kaiser, C. Metzner-Nebelsick (ur./eds.), *Scripta Praehistorica in Honorem Biba Teržan*, Situla 44, Ljubljana, 419–434.

Bertani M. G. 1996
I materiali dell'età del ferro della Grotta del Re Tibero. – V/In: M. Pacciarelli (ur./ed.), *La Collezione Scarabelli,* Preistoria 2, Bologna, 440–470.

Bianchin Citton E., Gambacurta G., Ruta Serafini A. 1998
…»presso l'Adige ridente«… Recenti rinvenimenti archeologici da Este a Montagnana. – Padova.

Blaznik P. 1986
Historična topografija slovenske Štajerske in jugoslovanskega dela Koroške do leta 1500, 1 (A–M). – *Historična topografija Slovenije / Topographia Sloveniae* 2.

Bowman S. G. E. 1990
Radiocarbon Dating (Interpreting the Past). – London.

Bratina P. 2014
Tomaj. – V/In: B. Teržan, M. Črešnar (ur./eds.), *Absolutno datiranje bronaste in železne dobe na Slovenskem / Absolute Dating of Bronze and Iron Ages in Slovenia*, Katalogi in monografije 40, Ljubljana, 587–595.

Bronk Ramsley C. 2009
Bayesian analysis of radiocarbon dates. – *Radiocarbon* 51(3), 337–360.

Buck C. E., Millard A. (ur./ed.) 2004
Tools for constructing Cronologies. Crossing Disciplinary Boundaries. – Lecture Notes in Statistics 177.

Bujna J., Romsauer P. 1984
Halštatské sídlisko v Hostiach / Hallstattzeitliche Siedlung in Hoste. – *Slovenská archeológia* 31, 277–322.

Centre for Archeology guidelines: Archeometallurgy 2001/01. – http://www.english-heritage.org.uk/publications/archaeometallurgy/.

Chapelot J., Fossier R. 1985
The Village and House in the Middle Ages. – London.

Culiberg M. 2015
Paleobotanične analize. – V/In: T. Gerbec, *Hotinja vas*. – Arheologija na avtocestah Slovenije 45, Ljubljana, 167.

Čambal R. 2006
Tkáčska dielňa kalendenberskey kultúry v Nových Košariskách. – *Pamatky a múzeá* 2/2006, 56–59.

Čambal R., Gregor M. 2005
Dunajská Lužna v praveku. – Dunajská Lužna.

Čižmář Z. 1999
II.5 Kuřim, okr. Brno-Venkov. – V/In: Podborský (ur./ed.), *Pravěká sociokultovní architektura na Moravě / Primeval socio-ritual architecture in Moravia*, Brno, 73–80.

Črešnar M. 2009
Rogoza pri Mariboru in njeno mesto v bronasti in starejši železni dobi Podravja. – Doktorska disertacija / Ph. D. thesis, Oddelek za arheologijo, Filozofska fakulteta, Univerza v Ljubljani (neobjavljena / unpublished).

Črešnar M. 2010
New research on the Urnfeld period of Eastern Slovenia. A case study of Rogoza near Maribor. – *Arheološki vestnik* 61, 7–119.

Čuček M. 2014
Dolnica: prazgodovinska naselbina v Mezgovcih ob Pesnici. – Diplomska naloga / Diploma, Oddelek za arheologijo, Filozofska fakulteta, Univerza v Ljubljani (neobjavljena / unpublished).

Čučković L. 1993
Prepovijesne gradine karlovačkog kraja. – *Izdanja Hrvatskog arheološkog društva* 16, 163–171.

Čučković L. 2009
Turska kosa 1. Monografija arheološkog lokaliteta. – Karlovac.

Dämmer H. W. 2002
Il santuario sud-orientale. Le indagini recenti. – V/In: A. Ruta Serafini (ur./ed.), *Este preromana: una cittá e i suoi santuari*, Cannova, 248–269.

Delpino F. 1969
Fornelli fittili del eta del bronzo e dell ferro in Italia. – *Rivista di scienze preistoriche* 24, 311–340.

Di Fraia T. 2004
Il motivo della ruota nei fornelli del Bronzo Finale. – V/In: N. Negroni Catacchio (ur./ed.), *Preistoria e protostoria in Etruria. Atti del secondo incontro di studi, Farnese, 21-23 maggio 1993*, Milano, 235–244.

Di Gennaro F., Depalmas A. 2011
Forni, teglie e piastri fittili per la cottura: aspetti formali e funzionali in contesti archaeologici ed etnografici / Pottery ovens, pans and hotplates for cooking and baking. – V/In: F. Lugli, A. A. Stoppiello, S. Biagetti (ur./eds.), *Atti 4°Convegno Nazionale di Etnoarcheologia, BAR International Series* 2235, Oxford, 56–61.

Djurić B. 2006
Poročilo o rezultatih ekstenzivnega arheološkega pregleda, AC SG01 Slivnica-Draženci. – Neobjavljeno poročilo / Unpublished report, Ljubljana.

Djurić B., Tica G., Plestenjak A., Masaryk R. 2006
SG 01/1 Slivnica - Draženci. Poročilo o rezultatih arheološkega pregleda na potencialnem najdišču Hotinja vas. – Neobjavljeno poročilo / Unpublished report, Ljubljana.

Djurić B. 2015
Intenzivni površinski pregled. – V/In: T. Gerbec, *Hotinja vas*, Arheologija na avtocestah Slovenije 45, Ljubljana, 8–12.

Dobiat C. 1980
Das hallstattzeitliche Gräberfeld von Kleinklein und seine Keramik, Schild von Steier. Beiheft 1, Graz.

Dobiat C. 1990
Der Burgstallkogel bei Kleinklein I. Die Ausgrabungen der Jahre 1982 und 1984. – Marburger Studien zur Vor- und Frühgeschichte 13, Marburg.

Donat P. 1980
Haus, Hof und Dorf in Mitteleuropa von 7. bis 12. Jahrhundert. – Schriften zur Ur- und Fruhgeschichte 33, Berlin.

Dreslerová D. 1995a
A Late Hallstatt settlement in Bohemia: Excavation at Jenštejn, 1984, Prague.

Dreslerová D. 1995b
Model for a prehistoric microregion. – V/In: M. Kuna, N. Venclová (ur./eds.), *Whither archaeology? Papers in honour of Evžen Neustupný*, Prague, 145–160.

Dular J. 2013
Severovzhodna Slovenija v pozni bronasti dobi / Nordostslowenien in der späten Bronzezeit. – Opera Instituti Archaeologici Sloveniae 27, Ljubljana.

Dular J., Križ B., Svoljšak D., Tecco Hvala S. 1991
Utrjena prazgodovinska naselja v Mirenski in Temeniški dolini. – *Arheološki vestnik* 42, 65–198.

Dular J., Pavlin P., Tecco Hvala S. 2003
Prazgodovinska višinska naselja v okolici Dol pri Litiji. – *Arheološki vestnik* 54, 159–224.

Dular J., Tecco Hvala S. 2007
South-Eastern Slovenia in the Early Iron Age. Settlement. Economy. Society / Jugovzhodna Slovenija v starejši železni dobi. Poselitev. Gospodarstvo. Družba. – Opera Instituti Archaeologici Sloveniae 12, Ljubljana.

Dular J., Tomanič Jevremov M. 2010
Ormož. Utrjeno naselje iz pozne bronaste in starejše železne dobe / Ormož. Befestigte Siedlung aus der späten Bronze- und der älteren Eisenzeit. – Opera Instituti archaeologici Sloveniae 18, Ljubljana.

Dušek M., Dušek S. 1995
Smolenice – Molpír. Befestiger Fürstensitz der Hallstattzeit II. – Materialia Archaeologica Slovaca 13, Nitra.

Eibner C. 1996
Das »Kaiserköpperl« in Bärndorf, Gem. Rottenmann, Stmk., ein Ansitz der Späthallstatt-/Frühlatènezeit im Grenzbereich zwischen Ost- und Westhallstattkreis. – V/In: E. Jerem, A. Lippert (ur./eds.), *Die Osthallstattkultur. Akten des Internationalen Symposiums, Sopron, 10.-14. Mai 1994*, Archaeolingua 7, Budapest, 87–94.

Felgenhauer, F. 1956
Eine Siedlung der Hallstattkultur in Asparn a.d. Zaya, NÖ. – *Archaeologia Austriaca* 19/20, 163–180.

Fridrichová M. 1974
Halštatská sídliště v pražském území. – Acta musei pragensis 74, Prague.

Gaberz S., Kiszter S., Mele M. 2015
Archäologische Grabungen auf der österreichischen Seite des Bubenbergs (Hoarachkogels) bei Spielfeld / Arheološka izkopavanja na avstrijski strani Novin pri Šentilju. – V/In: M. Črešnar, M. Mele, K. Peitler, M. Vinazza M. (ur./eds.), *Archäologische Biographie einer Landschaft an der steirisch-slowenischen Grenze Arheološka biografija krajine ob meji med avstrijsko Štajersko in Slovenijo Ergebnisse des grenzübergreifenden Projekts BorderArch-Steiermark Rezultati čezmejnega projekta BorderArch-Steiermark.* Schild von Steier, Beiheft 6/2015,120–165.

Gabrovec S. 2006
Stična II/1. Gomile starejše železne dobe / Grabhügel aus der älteren Eisenzeit. – Katalogi in monografije 37, Ljubljana.

Gál K., Molnar A. 2004
Se-Doberdó. Az 1998-as és 2001-es ásatások vaskori leletanyaga. – *Bulletin of Museums of County Vas* 28, 159–230.

Garner J. 2011
Der latènezeitliche Verhüttungsplatz in Siegen-Niederschelden »Wartestrasse«. – Metalla, Bochum 2010, 17(1/2).

Gassmann G., Wieland G. 2008
Heißes Eisen beim kalten Herz. Keltische Eisenproduktion bei Neuenbürg im Nordschwarzwald. – *Denkmalpflege in Baden-Württemberg. Nachrichtenblatt der Landesdenkmalpflege* 37, 3/2008, 140–143.

Gerbec T. 2009
Prazgodovinska naselbina na Bledu, najdišče »pod gradom«. – Diplomska naloga / Diploma, Oddelek za arheologijo, Filozofska fakulteta, Univerza v Ljubljani (neobjavljeno / unpublished).

Gerbec T. 2014a
Hotinja vas. – V/In: B. Teržan, M. Črešnar (ur./eds.), *Absolutno datiranje bronaste in železne dobe na Slovenskem / Absolute Dating of the Bronze and Iron Ages in Slovenia*, Katalogi in monografije 40, 275–286.

Gerbec T. 2014b
Nižinska poselitev severovzhodne Slovenije v starejši železni dobi, primer Hotinja vas. – Doktorska disertacija / Ph. D. thesis, Oddelek za arheologijo, Filozofska fakulteta, Univerza v Ljubljani (neobjavljena / unpublished).

Gerbec T. 2015
Hotinja vas pri Mariboru. – Arheologija na avtocestah Slovenije 45, Ljubljana.

Gerbec, T. 2018
Piraunosi s slovenskih najdišč. Prispevek k poznavanju posebne vrste ognjiščne keramike in pripravi hrane v prazgodovini. – V/In: M. Črešnar, M. Vinazza (ur./eds.), *Srečanja in vplivi*

v raziskovanju bronaste in železne dobe na Slovenskem. Zbornik prispevkov v čast Bibi Teržan, Ljubljana, 87–136.

Gerbec, T. 2019
Hotinja vas in nižinska poselitev na zahodnem obrobju Panonske nižine v starejši železni dobi. Ureditev naselja in njegovo časovno mesto / Hotinja vas and lowland settlement on the western edges of the Pannonian plain in the Early Iron Age. The organization of the settlement and its chronological position. – *Arheološki vestnik* 70, 473–486.

Gleba M., Mannering U. 2012
Textiles and Textile Production in Europe from Prehistory to AD 400. – Ancient Textiles series 11, Oxford.

Goetze B. R. 1976
Feuerböcke und Hüttenakrotere. Ein Definitionsversuch. – *Archäologisches Korrespondenzblatt* 6, 137–140.

Golec M. 2003
Těšetice. 6, Horákovska kultura v těšetickém mikroregionu. – Opera Universitatis Masarykianae Brunensis, Facultas Philosophica 342, Brno.

Grahek L. 2013a
Železnodobno gradišče Cvinger nad Virom pri Stični: Stratigrafija in tipološko-kronološka analiza naselbinske keramike. – E-monografije Instituti Archaeologici Sloveniae 3/1, Ljubljana.

Grahek L. 2013b
Železnodobno gradišče Cvinger nad Virom pri Stični: Katalog, table in podatkovna baza keramike. – E-monografije Instituti Archaeologici Sloveniae 3/2, Ljubljana.

Grahek L. 2015
Orehova vas. – Arheologija na avtocestah Slovenije 46, Ljubljana.

Gregnanin R. 2002
La ceramica. – V/In: A. Ruta Serafini (ur./ed.), *Este preromana: una città e i suoi santuari*, Treviso, 164–179.

Griebl M. 1996
Siedlungsobjekte der Hallstattkultur aus Horn, N.Ö. – V/In: E. Jerem, A. Lippert (ur./eds.), *Die Osthallstattkultur. Akten des Internationalen Symposiums, Sopron, 10.-14. Mai 1994*, Archaeolingua 7, Budapest, 95–114.

Griebl M. 1997
Siedlungsobjekte der Hallstattkultur aus Horn (Niederösterreich): Notbergungen auf dem Gelände der Ziegelei Thalhammer und den benachbarten Flächen in den Jahren 1888/89 bis 1976. – Mitteilungen der Prähistorischen Kommission 31, Wien.

Griebl M. 2004
Die Siedlung der Hallstattkultur von Göttlesbrunn, Niederösterreich. Rettungsgrabungen im Zuge des Ostautobahnbaus (A4) im Jahre 1989. – Mitteilungen der Prähistorischen Kommission 54, Wien.

Groh S., Sedlmayer H. 2005
Der nörisch-römische Kultplatz am Frauenberg (Österreich). – Prahistorie Européenne 9, Montagnac.

Guštin M. 1976
Libna. – Posavski muzej Brežice 3, Brežice.

Guštin M., Tiefengraber G. 2001
Prazgodovinske najdbe z avtocestnega odseka Murska Sobota-Nova tabla. – *Arheološki vestnik* 52, 107–116.

Guštin M., Tiefengraber G., Pavlovič D., Zorko M. 2017
Nova tabla pri Murski Soboti. Prazgodovina. – Arheologija na avtocestah Slovenije 52/1, Ljubljana.

Gutman M. 2015
Analiza žlindre. – V/In: T. Gerbec, *Hotinja vas*, Arheologija na avtocestah Slovenije 45, Ljubljana, 167–171.

Hellerschmid I. 2006
Die urnenfelder- und hallstattzeitliche Wallanlage von Stillfried an der March: *Ergebnisse der Ausgrabungen 1969-1989 unter besonderer Berücksichtigung des Kulturwandels an der Epochengrenze Urnenfelder- und Hallstattkultur.* – Mitteilungen der Prähistorischen Kommission 63, Wien.

Hložek M., Kazdová E. 2002
Nálezy grafitu v kultuře s lineární keramikou v Těšeticich. – Kyjovicich a rešeni otázky jejich provenience. – *Sbornik prací Filozofické fakulty brněnské univezity* 7, 23–31.

Holzer, van H. 1964
Exkursion 11/3: Niederösterreichische Graphitlagerstätten. – *Mitteilungen der Geologischen Gesellschaft in Wien* 57, 1964/1, 163–168.

Hoops J. 1973
Feuerböcke. – *Reallexikon der Germanischen Altertumskunde* 1, 390–399.

Horejs B. 2007
Das prähistorische Olynth. Ausgrabungen in der Toumba Agios Mamas 1994–1996. Die spätbronzezeitliche handgemachte Keramik der Schichten 13 bis 1. – Prähistorische Archäologie in Südosteuropa 21, Rahden/Westf.

Horvat-Šavel I. 1981
Rezultat sondiranj prazgodovinskega naselja v Gornji Radgoni. – *Arheološki vestnik* 32, 291–310.

Hršak T. 2006
Virovitica – Đurađ istok. – *Hrvatski arheološki godišnjak* 2/2005, 80–82.

Jablonka P. 2001
Die Gurina bei Dellach im Gailtal. Siedlung, Handelsplatz und Heiligtum. – Aus Forschung und Kunst 33, Stuttgart.

Jarc V. 1999
Srednjeveške poti in železarstvo na visoki Gorenjski, Radovljica.

Javornik M. 1997
Veliki splošni lekskikon v osmih knjgah, Ljubljana.

Jelenc D. 1953
Oraziskovanju mineralnih surovin v LR Sloveniji / Searching for mimeral-row-materials in Slovenia. – *Geologija* 1, 11–36.

Jerem E. 2003
A Vaskor. – V/In: M. Nagy (ur./ed.), *Magyar régészet az ezredfordulón*, Budapest, 192–202.

Jerem E., Facsar G., Korods L. 1984
A Sopron-Krautackeren féltart vaskori telep régészeti és környezetrekonstrukciós viszgálata 1. – *Archaeologiai Értesítő* 111, 141–169.

Jerin B. 2006
Čolničaste fibule v Sloveniji. – Diplomska naloga / Diploma, Oddelek za arheologijo, Filozofska fakulteta, Univerza v Ljubljani (neobjavljena / unpublished).

Jurković I. 2003
Metalogenija južne Tisije - Moslovačka gora, Psunj, Papuk, Krnidija. – *Rudarsko-geološko-naftni zbornik: glasilo Rudarsko-geološko-naftni fakultet Sveučilišta u Zagrebu i Društva hrvatskih rudarskih inžinjera* 15, 1–13.

Kerman B. 2011
Kotare-Baza pri Murski Soboti. – Arheologija na avtocestah Slovenije 17, Ljubljana.

König T. 2003
Halštatský objekt z Pustých Úľan. – *Zborník Slovenského národného múzea* 97, *Archeológia* 13, 93–118.

Kolenko Š. 1953
Poročilo o Geološkem zavodu LRS od ustanovitve do leta 1952. – *Geologija* 1, 262–283.

Korošec J. 1951
Prazgodovinska naselbina na Ptujskem gradu. – Dela SAZU 6, Ljubljana.

Kovač O. 2004
Hajndl pri Ormožu – prazgodovinska naselbina, območje 1 (sektorji 1–6, 17, 18, 24 in 25). – Diplomska naloga / Diploma, Oddelek za arheologijo, Filozofska fakulteta, Univerza v Ljubljani (neobjavljena / unpublished).

Kovač O., Predan P. 2007
Poročilo o arheoloških izkopavanjih na lokaciji Hotinjska agrarna. – Neobjavljeno poročilo / Unpublished report, Slovenska Bistrica.

Kovačević S. 2007
Karakteristični nalazi kasnohalštatskog naselja u Zbelavi kod Varaždina / Characteristic Finds from the late Hallstatt Settlement at Zbelava near Varaždin and a Velem-type Fibula. – *Prilozi instituta za arheologiju u Zagrebu* 24, 89–112.

Kovačević S. 2008
Osvrt na strukturu i keramičku proizvodnju kasnohalštatskog naselja v Zbelavi kod Varaždina / A look at the structure and ceramic production of the late Hallstatt settlement in Zbelava near Varaždin. – *Prilozi instituta za arheologiju u Zagrebu* 25, 47–80.

Kovačević S. 2009
Torčec – Međurice – prilog poznavanju materialne kulture halštatskih naselja u Koprivničkoj Podravini / Torčec – Međurice – a Contribution to the Understanding of the Material Culture of the Hallstatt Settlements in the Podravina Region around Koprivnica. – *Prilozi instituta za arheologiju u Zagrebu* 26, 45–78.

Kovačević S. 2010
Prilog poznavanju naseljenosti virovitičke Podravine tjekom starijega željeznog doba / A contribution to understanding human settlement in the Virovitica Podravina during the Early Iron Age. – *Opuscula Archaeologica* 34, 37–113.

Kovačević S. 2012
Karakteristični nalazi iz naselja kasne faze starijeg željeznog doba Zbelava–Pod lipom. – V/In: J. Balen, H. Potrebica (ur./eds.), *Arheologija varaždinskog kraja i srednjeg Podravlja*, Izdanja Hrvatskog arheološkog društva 28, Zagreb, 57–105.

Kraskovská L. 1970
Sídlisko z doby halštatskej a rímskej v Ivanke pri Dunaji. – *Zborník Slovenského Národného Múzea* LXIV, *História* 10, 85–117.

Krasnik B. 2009
Tkanje, ostanki tkanin in oblačila starih Slovanov / The Weaving, Textile finds and Clothing of the Ancient Slavs. – *Arheo* 26, 63–108.

Lamut B. 1988–1989
Kronološka skica prazgodovinske naselbine v Ormožu. – *Arheološki vestnik* 39–40, 235–276.

Lamut B. 2001
Ormož – the Cronological Structure of the Late Bronze Age and Early Iron Age Settlement. – V/In: A. Lippert (ur.), *Die Drau-, Mur- und Raab-Region im 1. vorchristlichen Jahrtausend. Akten des internationalen und interdisciplinären Symposiums vom 26. bis 29. April 2000 in Bad Radkersburg*, Universitätsforschungen zur prähistorischen Archäologie 78, Bonn, 207–242.

Langenecker U. 1996
Der Burgstall bei Eisenstadt – keine befestigte Höhensiedlung der Hallstattkultur. – V/In: E. Jerem, A. Lippert (ur./eds), *Die Osthallstattkultur. Akten des Internationalen Symposiums, Sopron, 10.-14. Mai 1994*, Archaeolingua 7, Budapest, 221–234.

Lauermann E. 1994
Eine Siedlung der Hallstattkultur aus Unterparschenbrunn, Gemeinde Sierndorf, Niederösterreich. – *Archaeologia Austriaca* 78, 127–217.

Lauermann E. 1996a
Hausformen der Hallstattkultur im Weinviertel Niederösterreichs. – V/In: O. Urban (ur./ed.), *Hausformen und Siedlungsstrukturen der Eisenzeit, Sitzung der Arbeitsgemeinschaft Eisenzeit des Deutschen Verbandes für Altertumsforschung am 19. Mai und 20. Mai 1997 in Wien*, Archaeologia Austriaca 80, Wien, 220–224.

Lauermann E. 1996b
Archäologische Forschungen Michelstetten 1994. – *Katalog des NÖ Landesmuseums Neue Folge*, 394, Asparn.

Lauermann E. 1996c
Archäologische Forschungen Michelstetten 1995. – *Katalog des NÖ Landesmuseums Neue Folge*, 405, Asparn.

Lauermann E. 1997a
Archäologische Forschungen Michelstetten 1996. – *Katalog des NÖ Landesmuseums Neue Folge*, 416, Asparn.

Lauermann E. 1997b
Neue Forschungen auf dem Gebiet der Hallstattkultur im Weinviertel Niederösterreichs. Siedlungswesen. – V/In: J. W. Neugebauer (ur./ed.), *Hallsattkultur im Osten Österreichs*, Wissenschaftliche Schriftenreihe Niederösterreich 106/109, Wien, 146–157.

Lochner M. 1988
Ein Flachgräberfeld der Hallstattkultur in Grafenwörth, Pol. Bez. Tulln, Neiderösterreich. – *Archaeologia Austriaca* 72, 91–157.

Ložnjak Dizdar D. 2006
Virovitica–Đota. – *Hrvatski arheološki godišnjak* 2/2005, 78–80.

Lubšina Tušek M. 1996
Nove raziskave Podloških gomil pod Ptujsko goro. – *Ptujski zbornik* 6, 85–129.

Magdič A. 2006
Prazgodovinska naselbina Hajndl pri Ormožu. Izkopavanje 1999/2000 – Območje 2. – Diplomska naloga / Diploma, Oddelek za arheologijo, Filozofska fakulteta, Univerza v Ljubljani (neobjavljena / unpublished).

Marković Z. 1982a
Farkašić (P), Koprivnica-naselje starijeg željeznog doba (halštatski period). – *Arheološki pregled* 23, 51.

Marković Z. 1982b
Rezultati istraživanja prethistorijskih lokalitet oko Koprivnice 1981. godine. – *Podravski zbornik* 82, 239–264.

Marković Z. 1984
Prilog poznavanju kontinuiteta naseljavanja terena oko Delova. – *Podravski zbornik* 84, 295–319.

Mašić B. 2005
Zagreb – park Grič. – *Hrvatski arheološki godišnjak* 1/2005, 114–115.

Mašić B., Pantlik B. 2006
Zagreb – Park Grič. – *Hrvatski arheološki godišnjak* 2/2005, 166–168.

Mašić B., Burgar A., Pantlik B. 2006
Zagreb – Trg sv. Marka. – *Hrvatski arheološki godišnjak* 2/2005, 168–171.

Medović P. 1978
Naselja starijeg gvozdenog doba u jugoslovenskom Podunavlju. – Dissertationes et monographiae 22, Beograd.

Medović P. 1988
Kalakača. Naselje ranog gvozdenog doba. – Monographien 10, Novi Sad.

Mele M. 2009
Naselbini Hajndl in Ormož v pozni bronasti in zgodnji železni dobi. – Doktorska disertacija / Ph. D. thesis, Oddelek za arheologijo, Filozofska fakulteta, Univerza v Ljubljani (neobjavljena / unpublished).

Metzner Nebelsick C. 1996
Die Urnenfelder- und Hallstattzeit in Südostpannonien – eine Region im Spannungsfeld zwischen Osthallstattkreis, karpatenländisch-balkanischer Eisenzeit und Steppenkultur. – V/In: E. Jerem, A. Lippert (ur./eds.), *Die Osthallstattkultur. Akten des Internationalen Symposiums, Sopron, 10. –14. Mai 1994*, Archaeolingua 7, Budapest, 283–314.

Metzner Nebelsick C. 2002
Der »Trako-Kimmerische« Formenkreis aus der Sicht der Urnenfelder- und Hallstattzeit im südöstlichen Pannonien. – Vorgeschichtliche Forschungen 23/1–2, Berlin.

Mihelić S. 2004a
Izbor iz groba Dalj – Busija, Erdut (7), sustavno izkopavanje 1909., grob 59. – V/In: D. Balen-Letnić (ur./ed.), *Ratnici na razmeđu istoka i zapada: starije željezno doba u kontinentalnoj Hrvatskoj / Warriors at the crossroads of East and West / Krieger am Scheideweg zwischen Ost und West. Katalog*, Zagreb, 264.

Mihelić S. 2004b
Izbor iz groba Goričan (25), sustavno istraživanje 1975., razoreni grob, tumul II. – V/In: D. Balen-Letnić (ur./ed.), *Ratnici na razmeđu istoka i zapada: starije željezno doba u kontinentalnoj Hrvatskoj / Warriors at the crossroads of East and West / Krieger am Scheideweg zwischen Ost und West. Katalog*, Zagreb, 294.

Mioč P. 1983
Tolmač za list Ravne na Koroškem: L 33-54: Socialistična federativna republika Jugoslavija, osnovna geološka karta, 1: 100.000, Beograd.

Mlinarič J. 1976
Gospoščina Limbuš pri Mariboru. – *Časopis za zgodovino in narodopisje* 1976/1, 68–92.

Molnar A., Farkas C. 2011
Hallstatt-kori település Vát – Bodon tábla lelôhelyen. Elôzetes közlemény. – *Savaria* 41/1, 43–66.

Motyková K., Pleiner R. 1987
Die römerzeitliche Siedlung mit Eisenhütten in Ořech bei Prag. – *Památky Archeologické* 78/2, 371–448.

Müller S. 2009
Nur Gruben und Abfall? Überlegungen zur Strukturierung von Flachlandsiedlungesplätzen der nordöstlichen Hallstattkultur. – V/In: K. Raimund, J. Leskovar (ur./eds.), *Interpretierte Eisenzeiten. Fallstudien, Methoden, Theorie. Tagungsbeiträge der 3. Linzer Gespräche zur interpretativen Eisenzeitarchäologie,* Studien zur Kulturgeschichte von Oberösterreich 22, Linz, 209–225.

Müller S. 2012
Smolenice – Molpir, Sered' und Ratkovce. Studien zu Siedlungen der frühen Eisenzeit in der Südwestslowakei. – Universitätsforschungen zur prähistorischen Archäologie 220, Bonn.

Müller Karpe H. 1959
Beiträge zur Chronologie der Urnenfelderzeit nördlich und südlich der Alpen. – Römisch-Germanische Forschungen 22, Berlin.

Murgelj I. 2013
Podsmreka pri Višnji gori. – Arheologija na avtocestah Slovenije 42, Ljubljana.

Nebelsick L. D. 1997
Die Kalendenberggruppe der Hallstattzeit am Nordostalpenrand. – V/In: J. W. Neugebauer (ur./ed.), *Hallsattkultur im Osten Österreichs*, Wissenschaftliche Schriftenreihe Niederösterreich 106/109, Wien, 9–128.

Nekvasil J. 1979
Horákovské sídliště v Brne: Králově poli. – Fontes archaeologiae Moravicae 12, Brno.

Ogrinc N. 2015
Analize lipidov in stabilnih izotopov ogljika v maščobnih kislinah C16:0 in C18:0. – V/In: T. Gerbec, *Hotinja vas*, Arheologija na avtocestah 45, Ljubljana, 165–166.

Oman D. 1981
Brinjeva gora 1953. Obdelava prazgodovinske keramike. – *Arheološki vestnik* 32, 144–216.

Ondruš V. 1961
Pozdněhalštatská chata ve Smolíne (okr. Břeclav). – *Časopis Moravského muzea. Vědy společenské / Acta Musei Moraviae, Scientiae sociales* 40, 51–57.

Pahič S. 1957
Drugo žarno grobišče v Rušah / Das zweite Urnenfeld in Ruše. – Razprave 1. razreda SAZU 4/3, Ljubljana.

Pahič S. 1966
Železnodobne najdbe v Slovenskih goricah. – *Arheološki vestnik* 17, 103–143.

Pahič S. 1981
Brinjeva gora 1953. – *Arheološki vestnik* 32, 71–143.

Pahič S. 1986
Pradavni časi ob Hočkem Pohorju / The Ancient Times at Hočko Pohorje. – *Časopis za zgodovino in narodopisje*, n. v. 22, 57, 19–23.

Paulik J. 1955
Halštatská a halštatsko-latenska osada pri Seredi. – *Slovenská archeológia* 3, 135–194.

Pavlovič D. 2007
Grofove njive pri Drnovem. Halštatskodobna naselbina in gomila. – Diplomska naloga / Diploma, Oddelek za arheologijo, Filozofska fakulteta, Univerza v Ljubljani (neobjavljena / unpublished).

Pavlovič D. 2008
Prazgodovinski piraunos z Nove table pri Murski Soboti? – *Annales. Series Historia et Sociologia* 18/2, 479–488.

Pirkmajer D. 1983
Prazgodovinska naselbina na Rifniku (materialne ostaline iz arheoloških izkopavanj v letih 1956 do 1961). – Diplomska naloga / Diploma, Oddelek za arheologijo, Filozofska fakulteta, Univerza v Ljubljani (neobjavljena / unpublished).

Pleiner R. 2000
Iron in archaeology: the European bloomery smelters, Prague.

Pleiner R. 2006
Iron in archaeology: early European blacksmiths, Prague.

Pleinerová I. 1986
Březno: experiments with building old slavic houses and living in them. – *Památky archeologické* 77/1, 104–176.

Podborský V. 1965a
Die Hallstattsiedlung in Těšetice / Halštatské sídliště v Těšeticích / Gal'štatskoe selenie v Tešeticah. – *Fontes archeologici Pragenses* 9, Prague.

Podborský V. 1965b
Sídliště horákovské kultury u Brezkova, okres Znojmo. – *Sborník prací filozofické fakulty brněnské university* 10, 134–154.

Podborský V. 1970
Jihomoravská halštatská sidliště I. – *Sborník prací filozofické fakulty brněnské university* 15, 7–102.

Predan P., Bekljanov Zidanšek I., Bremec R., Ciglar I., Jovanović A., Kovačič A., Olić S., Plestenjak A., Rozman R., Verbič T., Vinder J., Vojaković P. 2016
Lancova vas. – Neobjavljeno poročilo / Unpublished report.

Preinfalk A. 2012
Die hallstattzeitliche Siedlung von Michelstetten. – Archäologische Forschungen in Niederösterreich 10, Wien.

Preložnik A. 2000
Predilni izrazi v slovenski arheologiji / Spinning Terminology in Slovenian Archaeology. – *Arheo* 27, 91–108.

Ramsl P. C. 1998
Inzersdorf-Walpersdorf: Studien zur späthallstatt-/latènezeitlichen Besiedlung im Traisental, Niederösterreich. – Fundberichte aus Österreich. Materialhefte, A, 6, Wien.

Ranseder C. 2006
Eine Siedlung der Hallstattkultur in Wien 10, Oberlaa. – Monografien der Stadtarchäologie Wien 2, Wien.

Ravnik M. 2007
Poročilo o opravljenih arheoloških izkopavanjih na lokaciji Hotinja vas na odseku trase AC Slivnica-Draženci (SG 01/1). – Neobjavljeno poročilo / Unpublished report, Kranj, Trebnje.

Rebay K. C. 2006
Das hallstattzeitliche Gräberfeld von Statzendorf in Niederösterreich. Möglichkeiten und Grenzen der Interpretation von Sozialindexberechnungen 1. – Universitätsforschungen zur prähistorischen Archäologie 135, Bonn.

Reimer P. J., Bard E., Bayliss A., Beck J. W., Blackwell P. G., Ramsey C. B., Buck C. E., Cheng H., Edwards R. L., Friedrich M., Grootes P. M., Guilderson T. P., Haflidason H., Hajdas I., Hatté C., Heaton T. J., Hoffmann D. L., Hogg A. G., Hughen K. A., Kaiser K. F., Kromer B., Mannig S. W., Niu M., Reimer R. W., Richardson D. A., Scott E. M., Southon J. R., Staff R. A., Turney C. S. M., Plicht J. van der 2013
IntCal13 and Marine13 radiocarbon age calibration curves, 0–50,000 years cal BP. – *Radiocarbon 55(4), 1869–1887*.

Rice P. M. 1987
Pottery analysis: a sourcebook, Chicago, London.

Romsauer P. 2003
Pyraunoi. Prenosné piecky a podstavice z doby bronzovej a doby železnej, Nitra.

Ruttkay M. 2002
Der ländliche Hausbau des 5. bis 15. Jh. im nördlichen Karpatenbecken (Slowakei) / The house building in the Carpatian basin Northern part (Slovakia) in 5th–15th centuries / Construction de maisons rurales dans le basin Karpathique du Nord (Slovaquie) à partir du 5° jusgu'au 15c s. – V/In: J. Klápště (ur./ed.), *The rural house: from the migration period to the oldest still standing buildings, Ruralia IV*, Památky archaeologické. Supplementum 15, Prague, 264–271.

Sabján T. 1999
A veremház rekonstrukciója / Die Rekonstruktion des Grubenhauses. – V/In: Z. Bencze, F. Gyulai, T. Sabján, M. Takács (ur./eds.), *Egy Árpád-kori veremház feltárása és rekonstrukciója*, Monumenta historica Budapestinensia 10, Budapest, 131–176.

Sabján T. 2002
Reconstructions of Medieval pit-houses / Die Rekonstruktion des mittelalterlichen Grubenhauses / Reconstruction des cabanes enterrées médiévales. – V/In: J. Klápště (ur./ed.), *The rural house: from the migration period to the oldest still standing buildings, Ruralia IV*, Památky archaeologické. Supplementum 15, Prague, 320–332.

Sankovič S. 2011
Starejša železna doba. – V/In: I. Šavel, S. Sankovič, *Pri Muri pri Lendavi*, Arheologija na avtocestah Slovenije 23, Ljubljana, 43–47.

Sakara Sučević M. 2004
Kaštelir. Prazgodovinska naselbina pri Novi vasi / Brtonigla (Istra). – Annales Mediteranea 3, Koper.

Scheffer C. 1981
Acquarossa Vol. II, Part 1. Cooking and cooking stands in Italy 1400–400 B. C. – *Skrifter utgivna av Svenska Instituet i Rom* 4°, 38 (2/1), Stockholm.

Scheffer C. 1982
The cooking stands in Italy 1400–400 B. C. – *Skrifter utgivna av Svenska Instituet i Rom* 4, 38 (2/2), Stockholm.

Schwellnus F. 2009
Die Späthallstatt- bis Frühlatenezeit im Ödenburger Becken – Befund I der Siedlung Sopron – Krautacker/Ungarn. – V/In: P. Trebsche, I. Balzer, C. Eggl, J. Fries-Knoblach, J. K. Koch, J. Wiethold (ur./eds.), *Architektur: Interpretation und Rekonstruktion. Beiträge zur Sitzung der AG Eisenzeit während des 6. Deutschen Archäologie-Kongresses in Mannheim 2008*, Beiträge zur Ur- und Frühgeschichte Mitteleuropas 55, Langenweissbach, 245–261.

Schwellnus F. 2011
Die Siedlung von Sopron-Krautacker (Westungarn) in der späten Hallstatt- und Frühen Latènezeit. – *Archäologisches Korrespondenzblatt* 41/3, 359–373.

Smolnik R. 1994
Der Burgstallkogel bei Kleinklein II. Die Keramik der vorgeschichtlichen Siedlung. – Veröffentlichung des Vorgeschichtlichen Seminars Marburg 9, Marburg.

Soudská E. 1966
Obydlí na pozdně halštatských sídlištích. – *Památky archeologické* 57/2, 535–595.

Stegmann Rajtár S. 1996
Eine Siedlung der Späthallstatt-/Frühlatènezeit in Bratislava Dúbravka (Slowakei). – V/In: E. Jerem, A. Lippert (ur./eds), *Die Osthallstattkultur. Akten des Internationalen Symposiums, Sopron, 10.–14. Mai 1994*, Archaeolingua 7, Budapest, 455–470.

Stegmann Rajtar S. 1998
Spinnen und Weben in Smolenice – Molpír. Ein Beitrag zum wirtschaftlichen und religiös-kultischen Leben der Bewohner des hallstattzeitlichen »Fürrstensitzes«. – *Slovenská Archeologia* 46/2, 263–387.

Strmčnik Gulič M., Ravnik M., Kajzer Cafnik M. 2008
Hotinja vas. – *Varstvo spomenikov* 44, 72–73.

Studeníková E. 1979
Nález jamy s ihlancovými závažiami v Ivanke pri Dunaji. – *Zborník Slovenského Národného Múzea* 73, *História* 19, 21–31.

Studeníková E. 1981
Správa o záchrannom výskume halštatských sídlisk v Chorvátskom Grobe a Ivanke pri Dunaji. – *Archeologické Rozhledy* 33, 37–44.

Studeníková E. 1984
Príspevok k poznaniu bratislavskej oblasti v dobe halštatskej. – V/In: E. Studeniková, L. Zachar (ur./eds.), *Zborník prác Ľudmile Kraskovskej: k životnému jubileu*, Bratislava, 64–73.

Svoljšak D., Dular J. 2016
Most na Soči. Gradbeni izvidi in najdbe. – Opera Instituti Archaeologici Sloveniae 33, Ljubljana.

Šalkovský P. 2001
Häuser in der frühmittelalterlichen slawischen Welt. – Archaeologica Slovaca Monographiae 6, Bratislava.

Šalkovský P. 2002
Stavebná kultúra a urbanizmus osád. – V/In: A. Ruttkay, M. Ruttkay, P. Šalkovský (ur./eds.), *Slovensko vo včasnom stredoveku*, Archaeologica Slovaca Monographiae 7, Projet Moravia magna, Nitra, 57–68.

Šalkovský P. 2007
Problematika pravokutnih i elipsoidnih zemunica kod Slavena / Problém obdĺžinkovitých a ovalnych zemníc u Slovanov. – *Prilozi Instituta za arheologijo u Zagrebu* 24, 301–307.

Šavel I., Sankovič S. 2014
Trimlini pri Lendavi. – V/In: B. Teržan, M. Črešnar (ur./eds.), *Absolutno datiranje bronaste in železne dobe na Slovenskem / Absolute Dating of the Bronze and Iron Ages in Slovenia*, Katalogi in monografije 40, Ljubljana, 65–78.

Šimek M. 1980
Sigetec, Ludbreg – višeslojno naselje iz starijeg i mlađeg gvozdenog doba. – *Arheološki pregled* 21, 47–49.

Šimek M. 1981
Sigetec, Ludbreg – naselje starijeg željeznog doba. – *Arheološki pregled* 22, 41–43.

Šimek M. 1982a
Dosadašnja arheološka istraživanja u Sigecu. – *Podravski zbornik* 82, 265–278.

Šimek M. 1982b
Nekoliko nalaza iz halštatske zemunice u Sigecu. – *Muzejski vjesnik* 5, 2–33.

Šimek M. 1985
Kameni vrh. – *Godišnjak gradskog muzeja Varaždin* 7, 49–79.

Šimek M. 1989
Novi podaci o lokalitetu Šarnjak kod Šemovca. – *Muzejski vjesnik* 12, 23–30.

Takács M. 2002
Der Hausbau in Ungarn vom 2. bis zum 13. Jahrhundert n. Chr. – ein Zeitalter einheitlicher Grubenhäuser? – V/In: J. Klápště (ur./ed.), *The rural house: from the migration period to the oldest still standing buildings*, *Ruralia IV, 8.-13. September 2001, Bad Bederkesa, Lower Saxony, Germany*, Památky archaeologické. Supplementum 15, Prague, 272–290.

Tankó K. 2005
»Horn-handled« bowls of the Central Europe in the Iron Age. – V/In: H. Dobrzańska, V. Megaw, P. Poleska (ur./eds.), *Celts on the Margin, Studies in European Cultural Interaction 7th Century BC – 1st Century AD. Dedicated to Zenon Woźniak*, Kraków, 153–162.

Tecco Hvala S. 2012
Magdalenska gora. Družbena struktura in grobni rituali železnodobne skupnosti / Magdalenska gora. Social structure and burial rites of the Iron Age community. – Opera Instituti Archaeologici Sloveniae 26, Ljubljana.

Teržan B. 1990
Starejša železna doba na Slovenskem Štajerskem / The Early Iron Age in Slovenian Styria. – Katalogi in monografije 25, Ljubljana.

Teržan B. 1996
Weben und Zeitmessen im südostalpinen und westpannonischen Gebiet. – V/In: E. Jerem, A. Lippert (ur./eds.), *Die Osthallstattkultur. Akten des Internationalen Symposiums, Sopron, 10.–14. Mai 1994*, Archaeolingua 7, Budapest, 507–536.

Teržan B. 1999
An Outline of the Urnfield Culture Period in Slovenia / Oris obdobja kulture žarnih grobišč na Slovenskem. – *Arheološki vestnik* 50, 97–143.

Teržan B. 2001
Die spätbronze- und früheisenzeitliche Besiedlung im nordöstlichen Slowenien. Ein Überblick. – V/In: A. Lippert (ur./ed.), *Die Drau-, Mur- und Raab-Region im 1. vorchristlichen Jahrtausend. Akten des Internationalen und Interdisziplinären Symposiums vom 26. bis 29. April 2000 in Bad Radkersburg*, Universitätsforschungen zur prähistorischen Archäologie 78, Bonn, 125–135.

Tichý R. 1969
Horakovske sidlište v Brne – Řečkovicích. – *Archeologické rozhledy* XXI/1, 168–177.

Tiefengraber G. 2001
Vorbericht über die Ausgrabungen 1999 und 2000 in Murska Sobota/Nova tabla unter besonderer Berücksichtigung der spätbronze- und eisenzeitlichen Funde / Preliminary report about the excavations of 1999 und 2000 in Murska Sobota/Nova tabla with special consideration of the Late Bronze and Iron Age finds. – V/In: E. Jerem, A. Lippert (ur./eds.), *Die Osthallstattkultur. Akten des Internationalen Symposiums*, *Sopron, 10.–14. Mai 1994*, Archaeolingua 7, Budapest, 77–101.

Tiefengraber G. 2005
Untersuchungen zur Urnenfelder- und Hallstattzeit im Grazer Becken. – Universitätsforschungen zur prähistorischen Archäologie 124, Bonn.

Tiefengraber G. 2009
KG Waltersdorf, SG Judenburg, PB Judenburg. – *Fundberichte aus Österreich* 48, 399.

Tiefengraber G. 2011
KG Waltersdorf, SG Judenburg. – *Fundberichte aus Österreich* 50, 399.

Tiefengraber G., Tiefengraber S. 2010
KG Waltersdorf, SG Judenburg, PB Judenburg. – *Fundberichte aus Österreich* 49, 410.

Tomanič Jevremov 1988–1989
Žarno grobišče v Ormožu. – *Arheološki vestnik* 39–40, 277–322.

Tomičić Ž., Vidović J. 1984a
Poskusna arheološka istraživanja naselja Goričan tjekom 1983. godine (preliminarni izvještaj). – *Muzejski vjesnik* 7, 84–87.

Tomičić Ž., Vidović J. 1984b
Arheološka istraživanja u Goričanu 1983. godine (preliminarni izvještaj). – *Muzejski vjesnik* 7, 88–93.

Tomičić Ž. 1985
Sumarni osvrt na rezultate arheoloških istraživanja područja Međimurja u razdoblju od 1972–1982 godine (II). – *Muzejski vjesnik* 8, 26–37.

Trampuž Orel N. 2012
The beginning of iron in Slovenia / Začetki železa na Slovenskem. – *Arheološki vestnik* 63, 17–36.

Truhelka Ć. 1904
Der vorgeschichtliche Pfahlbau im Savebette bei Donja Dolina (Bezirk Bosnisch-Gradiška). Bericht über die Ausgrabungen bis 1904. – Wissenschaftliche Mitteilungen aus Bosnien und der Herzegowina 9, Wien.

Urban O. H. 1996
Der Leopoldsberg in Wien zur Hallstatt- und Frühlatenèzeit. – V/In: E. Jerem, A. Lippert (ur./eds.), *Die Osthallstattkultur. Akten des Internationalen Symposiums, Sopron, 10.-14. Mai 1994*, Archaeolingua 7, Budapest, 549–580.

Urek M., Horjak M. 2012
Poročilo o arheoloških izkopavanjih na lokaciji ceste Dornava 7 na trasi železniške proge Pragersko – Hodoš (Mezgovci ob Pesnici, Prazgodovinska naselbina Dolnica, EŠD 29504). – Neobjavljeno poročilo / Unpublished report, Kranj.

Vasić R. 1987a
Bosutska grupa. – V/In: A. Benac (ur./ed.), *Praistorija jugoslavenskih zemalja, 5. Željezno doba*, Sarajevo, 536–554.

Veliačik L., Romsauer P. 1994
Vývoj a vzťah osídlenia lužických a stredodunajských popolnicových polí na západnom Slovensku I. Katalóg. – Nitra.

Vikić-Belančić B. 1983–84
Sustavna istraživanja u Ludbregu od 1968–1969. god. – *Vjesnik Arheološkog muzeja u Zagrebu* 3/XVI–XVII, 119–166.

Vinazza M., Nanut T., Mihelič M., Črešnar M. 2015
Arheološka izkopavanja na slovenski strani Novin pri Šentilju / Archäologische Grabungen auf der slowenischen Seite des Bubenbergs (Hoarachkogels) bei Spielfeld. – V/In: M. Črešnar, M. Mele, K. Peitler, M. Vinazza (ur./eds.) *Archäologische Biographie einer Landschaft an der steirisch-slowenischen Grenze Arheološka biografija krajine ob meji med avstrijsko Štajersko in Slovenijo Ergebnisse des grenzübergreifenden Projekts BorderArch-Steiermark Rezultati čezmejnega projekta BorderArch-Steiermark.* Schild von Steier, Beiheft 6, 166–205.

Vinski Gasparini K. 1987
Grupa Martijanec-Kaptol. – V/In: A. Benac (ur./ed.), *Praistorija jugoslavenskih zemalja V – Željezno doba*, Sarajevo, 182–231.

Vrenčur I. 2011
Črnolica pod Rifnikom. Bronastodobno grobišče in železnodobna gomila. – Diplomska naloga / Diploma, Oddelek za arheologijo, Filozofska fakulteta, Univerza v Ljubljani (neobjavljena / unpublished).

Vulpe A. 1986
Zur Entstehung der geto-dakischen Zivilisation. Die Basarabi-Kultur. – *Dacia* 30, 1–2, 49–91.

Wedenig R. 1990
Vorbericht über die Ausgrabung 1989 im hallstattzeitlichen Gräberfeld von Führholz in Unterkärnten. – *Carinthia* I 180, 171–198.

Wedenig R. 1993
Vorbericht über die Ausgrabung 1991 im hallstattzeitlichen Hügelgräberfeld von Führholz in Unterkärnten. – *Carinthia* I 183, 129–149.

Wedenig R. 1997
Vorbericht über die Ausgrabung 1996 im hallstattzeitlichen Gräberfeldvon Führholz in Unterkärnten. – *Carinthia* I 187, 65–93.

Wollák K. 1979
Hallstatt Kori leletek a Pilismarót-szobi révi terepfetárásból. – *Dunai régészeti közlemények*, 49–76.

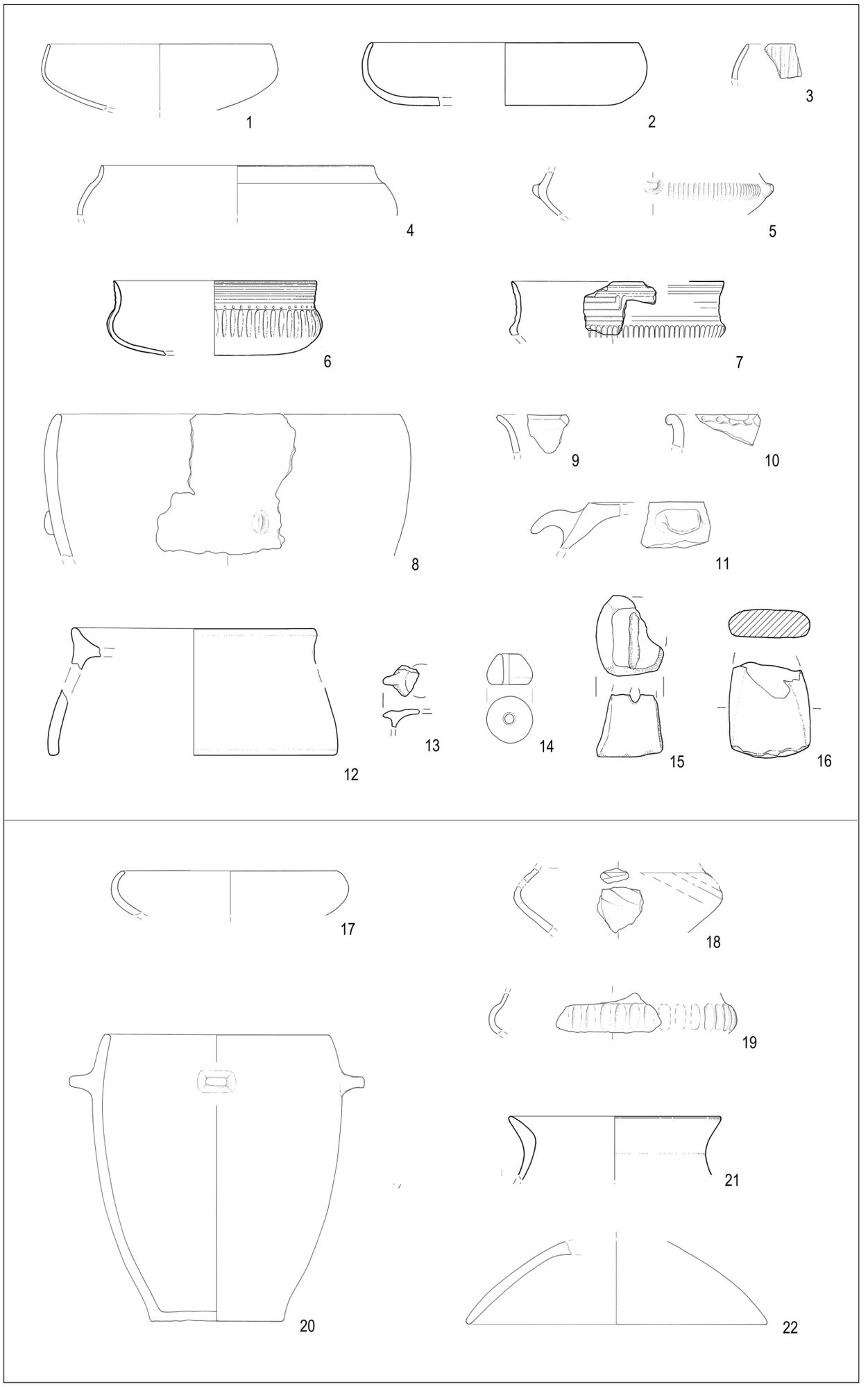
Zimmermann W. H. 1992
Die Siedlungen des 1. bis 6. Jahrhunderts nach Christus von Flögeln-Eekhöltjen, Niedersachsen: Die Bauformen und ihre Funktionen, Probleme der Küstenforschungen im südlichen Nordseegebiet 19, Wilhelmshaven.

Zimmermann W. H. 1998
Pfosten, Ständer und Schwelle und der Übergang vom Pfosten- zum Ständerbau – Eine Studie zu Innovation und Beharrung im Hausbau. Zu Konstruktion und Haltbarkeit prähistorischer bis neuzeitlicher Holzbauten von den Nord- und Ostseeländern bis zu den Alpen, Probleme der Küstenforschungen im südlichen Nordseegebiet 25, Wilhelmshaven.

Zupančič N. 2015
Petrografske analize. – V/In: T. Gerbec, *Hotinja vas*, Arheologija na avtocestah Slovenije 45, Ljubljana, 164–165.

Žorž Z., Moser B. 2002
Remšnik: zgodovina, geologija, minerali / Geschichte, Geologie, Mineralien, Ravne na Koroškem.

Tabla 1. Hotinja vas. Izbor najdb iz zemljanke 1 (1–16) ter zemljanke 8 (17–22). M = 1:4.
Plate 1. Hotinja vas. Select finds from SH 1 (1–16) and SH 8 (17–22). Scale = 1:4.



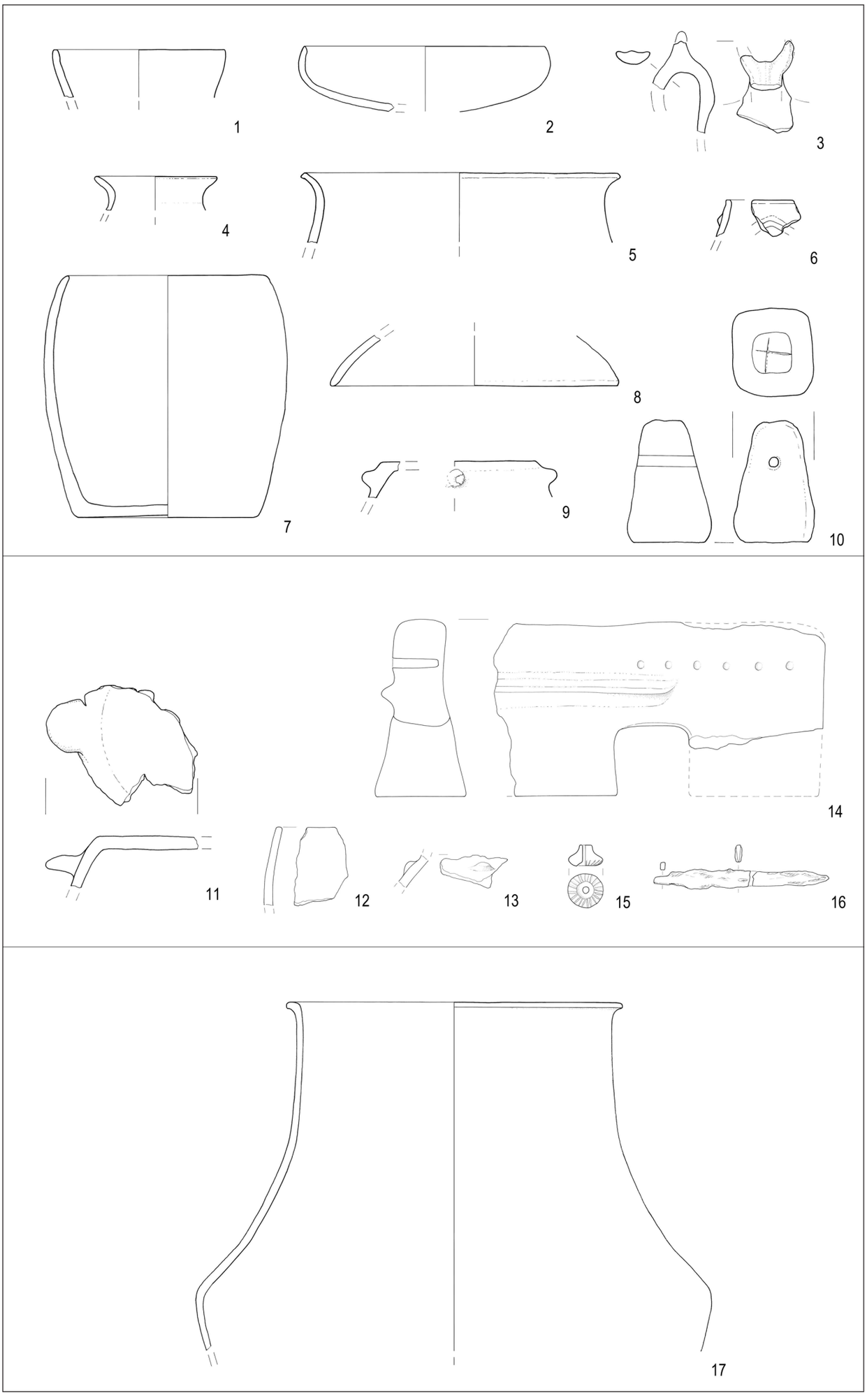


Tabla 2. Hotinja vas. Izbor najdb iz zemljanke 13 (1–10), večje jame 12 (11–16) in manjše jame 32 (17). M = 1:4.
Plate 2. Hotinja vas. Select finds from SH 13 (1–10), large Pit 12 (11–16) and small Pit 32 (17). Scale = 1:4.