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LA TÈNE CERAMIC TECHNOLOGY AND TYPOLOGY OF SETTLEMENT ASSEMBLAGES IN NORTHEAST HUNGARY (3RD–2ND CENTURY BC)

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Until recently research of the Late Iron Age in the Carpathian Basin – the La Tène period – was based on unevenly distributed ceramic assemblages. In the Early and Middle La Tène period, burial assemblages dominate, while Late La Tène material derives mainly from small scale excavations on fortified settlements. Information on Early and Middle La Tène settlements and their utilitarian pottery was scarce up to recent past. This imbalance is evident in Ilona Hunyady's monograph on Celtic pottery and other objects found in the Carpathian Basin, where her ceramic typology is based entirely on burial assemblages (HUNYADY 1942–1944, 127–146). The situation changed in the second half of 1990's when the Archaeological Institute of the Eötvös Loránd Science University in collaboration with French archaeologists began to research Late Iron Age settlement structure on the Great Hungarian Plain. La Tène settlements excavated near Polgár and Sajópetri were established in the earliest Celtic occupation on the Great Hungarian Plain, during the late 4th and early 3rd centuries BC. These assemblages show the traditions of the immigrant Celtic, as well as the local, so-called, Scythian communities (SZABÓ *ET AL.* 1997, 81–89). As well as the recent motorway rescue excavations, several small scale investigations (for instance Benczúrfalva, Mátraszőlős, Pásztó, etc.) provided new data regarding the occupation of the La Tène Culture in north-eastern Hungary in the 3rd–2nd centuries BC.

In this paper I try to give a brief summary of the La Tène utilitarian ceramic manufacture in Northeast Hungary from open-air, farm-like settlements (LT B2–C1). As the forthcoming publications of Ludas and Sajópetri summarize the distinctive features of burial pottery, this present paper will focus on the domestic earthenware. Four sites, in four different geographic areas will be discussed: Sajópetri–Hosszú-dűlő Celtic settlement in North-eastern Hungary, located on the alluvium in between the Sajó valley and the Bükkalja, at the meeting point of the Great Hungarian Plain and the Bükk mountains. The recent monographic publication of this Celtic settlement, with its excavated area of circa 41,000 m², is a milestone in Carpathian Basin's settlement research (SZABÓ 2007a). Furthermore, its the evident ceramic technology and typology, which I discuss in this paper, may well prove to be the basis of future research (SZABÓ *ET AL.* 2007). A second site to be discussed is Polgár 1–*Király-érpart* which is located in the Tisza valley on the northern periphery of the Great Hungarian Plain. The site lies on the bank of the palaeo-channel of the Tisza River, on the north side of the Sajó-Tisza confluence. Polgár was an important site in terms of Late Iron Age pottery research, the publication of its pottery assemblages

was based on the technological and typological framework previously worked out for the Sajópetri site (SZABÓ *ET AL.* 2008). This comparative study involves two further Late Iron Age sites investigated on a smaller scale: Mátraszőlös–Királydomb¹ is in the Zagyva valley, which runs in a north–south direction between Cserhát and Mátra mountains. Karcsa–Sérhomok² lies east of the Zempléni hills, on the alluvium in between the Bodrog and the Tisza, in Bodrogek (Pl. 1).

Pottery discovered on these settlement sites located along the northern fringes of the Great Hungarian Plain and the surrounding highland zone dating to the third and second centuries BC could be answer to a number of pressing questions: What are the similarities and differences in these assemblages? Could the differences in these assemblages have been in their typological and technological composition? Could environmental factors and cultural influences be demonstrated in pottery?

		Type	Colour	Fabric	Surface
WHEEL-THROWN	FINE WARE	CTFC	Light (from beige to orange)	Fine (or medium-fine) textured, well-levigated, usually tempered with fine-grained sand	Mostly smoothed (matt), occasionally burnished (shiny)
		CTFG	homogenous gray	Fine (or medium-fine) textured, well-levigated, usually tempered with fine-grained sand. So-called “gray pottery”	
		CTFS	Dark (from brown to black)	Fine (or medium-fine) textured, well-levigated, usually tempered with fine-grained sand, occasionally small amount of fine graphite powder mixed in	
	HOUSEHOLD POTTERY	CCTC	Light (from beige to orange)	Medium-fine (occasionally rough) textured, tempered with sand, occasionally tiny pebbles, lime or graphite fragments mixed in	More or less careful smoothing. (Occasionally banded or thorough smoothing with graphite powder)
		CCTS	Dark (from brown to black)		
		CCTG	Gray, graphite-gray	Medium-fine texture, tempered with fine graphite powder or grainy/gritty graphite fragments (so-called Grafton)	
HAND-MADE	FINE POTTERY	CNTFC	Light (from beige to orange)	Fine textured, well-levigated, usually tempered with fine-grained sand	Vertically smoothed almost without exception, application of graphite on the surface is frequent. Burnishing occurs occasionally and also the combination of smoothing (matt) and burnishing (shiny) creating bands on the surface
		CNTFS	Dark (from brown to black)		
	ROUGH POTTERY	CNTGC	The surface is mainly light, but the colour is often uneven	Formed of roughly kneaded clay, tempered with sand, sandy grit, gritted lime, graphite or grog or the combination of these	Frequently smoothed (matt) and burnished (the polished zones are visible). Often burnished, smoothed with graphite, scraped (by sharp object) and roughened (sanding off the fine grains emphasizing the tempering agent)
		CNTGS	The surface is mainly dark, but the colour is often uneven		

Fig. 1. Ceramic manufacturing-technology system of Sajópetri (after French terminology of SZABÓ *ET AL.* 2007).

First I will discuss the ceramic assemblage from Sajópetri. The large amount of earthenware discovered at the settlement of Sajópetri made it possible and appropriate to employ a similar methodology

1. Under publication. Co-authored by Andrea Vaday.

2. Publication in progress.

to that established at the excavations at Bibracte in France. The initial step in recording the data was to separate the wheel-thrown from the hand-made pottery. Within the category of wheel-turned ceramics, fast wheel-thrown fine ware (CFT) and slow- or hand wheel-thrown household pottery (CCT) were defined. Differences in quality could also be observed among the hand-made pots: fine household ware (CNTF) and rough utility pottery (CNTG). These categories could be divided further according to the tempering material (graphite for example), and the method of firing (reduced or oxidized) (SZABÓ *ET AL.* 2007, 231–252), these technological categories are shown in Fig. 2. This ceramic technology classification system, developed for the Sajópetri assemblage, was not only recently applied to material from Polgár, but most importantly, successfully applied to another Late Iron Age settlements as well (SZABÓ *ET AL.* 2008). The pottery categories at Sajópetri and Polgár were identical. Beside the wheel-thrown sherds, hand-made pot fragments decorated with bosses, finger impressions were present at both sites and the majority of the latter was poorly fired. The wheel-thrown pots follow La Tène forms, whereas the hand-made pottery clearly represents the style of the Early Iron Age Vekerzug Culture. Apparently, these ceramic products could relate to two distinct cultural traditions: on one hand to the Celtic, and on the other to the “Scythian” (Vekerzug) Culture. Similar phenomena can be observed at the site of Mátraszőlös and Karcsa. Although, – as we referred to in relation to Sajópetri earlier – simply on technical criteria, these two traditions can be separated only approximately (SZABÓ *ET AL.* 2007, 234–237). Ilona Hunyady’s theory stating that wheel-thrown ceramic forms found in Scythian burials on the Great Hungarian Plain appear as a result of Celtic influence, was widely accepted in academic circles for long time (HUNYADY 1942–1944, 51). According to her view the fast wheel-thrown fine ware and the slow wheel thrown or hand-made household pottery was manufactured by the La Tène Celts while the hand-made, rough, utilitarian pottery (except the ones tempered with graphite) is attributed to the local indigenous “Scythians”. Although, it would not be wise to draw further conclusions, it is feasible that the hand-made pottery found on settlements dating to third and second centuries BC could derive mainly from Early Iron Age potting traditions, whereas the majority of the wheel-thrown pottery shows typical La Tène features. However, ceramic technology on its own is only one aspect of cultural identity. The potting wheel was already in use in the Early Iron Age on the Great Hungarian Plain and even the western Celts produced hand-made vessels (SZABÓ *ET AL.* 2007, 234–237).

Following the definition of pottery technologies (primarily: hand-made and wheel-thrown) we created the typological classification system based on formal characteristics (SZABÓ *ET AL.* 2007, fig. 46–47). Among the Vekerzug tradition a number of forms were identified, including: bi-conical (Pl. 2/I.5.3), flowerpot-shaped (Pl. 2/I.5.1), barrel-shaped cooking pots (Pl. 2/I.5.2), semi-spherical bowls (Pl. 2/I.2.1), and bowls with inverted rim (Pl. 2/I.2.2–4). These types, classified as “Scythian” forms by Bottyán and Chochorowski (BOTTYÁN 1955; CHOCHOROWSKI 1985), form the majority of the hand-made pottery. Following Scythian traditions, hand-made one-handled mugs (Pl. 2/I.6), and its wheel-thrown variants, like the little jugs (Pl. 3/II.7), are represented only in small numbers among the settlement finds. One-handled vessels with fingernail-impressed or stamped motifs are often recovered in Celtic cemeteries located east from the Danube (HUNYADY 1942–1944, 51–54; PATAY 1972, 355; ZIRRA 1976, 783–784; HELLEBRANDT 1999, 95, 249; SZABÓ 2005, 163–167). Interestingly, in the cemetery of Ludas one-handled mugs were almost exclusively found as grave goods accompanying ornate female burials (SZABÓ–TANKÓ 2006, 341), whereas in the contemporary necropolis of Sajópetri these vessels were discovered in armed (male) burials as well (GUILLAUMET–SZABÓ 2004, 62–65).

Both hand-made (Pl. 2/I.2.2–4) and wheel-thrown (Pl. 3/II.1.5) variants of the bowls with inverted rim are often represented on Late Iron Age settlement sites in Northeast Hungary. It is difficult to differentiate between these two variants, the body or the rim was only often finished on a slow turning wheel. As the hand-made and the wheel-thrown variants of these bowls are present in both the Vekerzug and La Tène traditions the factor of pottery manufacturing technique has a limited significance in terms of identification of cultural origin.

The classic S-profiled bowl (Pl. 3/II.1.1) and the semi-spherical bowl with a thickened rim (Pl. 3/II.1.2) are represented in the material from all four settlement sites. These are typical vessel forms of the La Tène Culture; recently SCHWAPPACH (1979) analysed the chronology and typological development of the S-profiled bowls in detail.

Situlae with (Pl. 3/II.2.2.) or without (Pl. 3/II.2.1.) combed decoration are frequent finds on Late Iron Age settlements. Within this type – based on the shape of the rim and the decoration on the shoulder (e.g. smoothing, ribs, channelling and spike motif) – further variants can be classified (SZABÓ *ET AL.* 2007, 241–242). These can be tempered with, or without, graphite. Fragments tempered with graphite covered by combed decoration were formerly thought as the leading type of the LT D, later LT C–D phase (HUNYADY 1942–1944, 141–142; KAPPEL 1969, 53). However, this still awaits chronological clarification. Despite the uncertainties of early dating, it is apparent that the graphite vessels decorated with vertical combing, usually with a rib running below the rim together with incised “spike” or “her-ring-bone” motif appear in the LT B2 phase (SZABÓ 2007b, 317–318).

Different variants of the wheel-turned cooking pots (Pl. 3/II.3), bottles (Pl. 3/II.8) and small pots (Pl. 3/II.5) also occur among settlement material. It is notable however that as the majority of these vessels is thin-walled and was made on a fast turning wheel, they are more fragmented than other types. As the majority of these are rim fragments, it is difficult to ascertain with certainty whether these sherds belong to a cooking pot, a bottle or a small pot. Exact identification is only possible after the profile of the vessel has been reconstructed. These factors result in the under-representation of these types at particular sites. We tried to overcome this typological problem in the case of Sajópetri by discussing the small pots and the cooking pots under the same category in the summarizing chapter (SZABÓ *ET AL.* 2007, 251).

The two-handled kantharoi (Pl. 3/II.6), and the one-handled jugs (Pl. 3/II.7) can only be identified by fragments showing at least part of a handle, creating a significant problem during typological analysis. For instance a kantharos fragment without a part of a handle could be identified as a small pot (Pl. 3/II.5), whereas a handled jug could falsely be classified among the bottles (Pl. 3/II.8). At the same time, if only one handle of a kantharos was found the vessel could be categorised as a jug. Because the nature of typology this problem is almost unavoidable, however the proportions of the errors could be reduced by thorough selection of the fragments. Another difficulty is that the amount of these identifiable vessel types (kantharoi, jugs) is relatively small, compared to minimum number of individual vessels (NMI), regarding the whole number of sherds found on each site. The problem was apparent in Sajópetri where out of approximately 10,000 analysed sherds, among the identified minimum 2000 vessels, only two kantharoi could be reconstructed (SZABÓ *ET AL.* 2007, 243). It is not surprising that on other sites where the number of fragments were much lower these types are very scarcely represented or not at all. For example, a decorated sherd found at Polgár was an exact analogue to the also decorated kantharos fragment from Szolnok–*Vegyigyár* (SZABÓ *ET AL.* 2008, fig. 14).

As I discussed above, ceramics of the La Tène period in Northeast Hungary shows a relatively unified picture from the technological and typological point of view. However, beside the standard vessel forms slight variation in the material of the four sites represented here can be observed.

Strainer-like ceramic objects mostly identified as “ember cover” occur at Sajópetri as well as at Mátraszőlős (Pl. 2/I.8), known from the context of the Vekezug Culture on the Great Hungarian Plain (Gyulavári: GYUHA 2002, fig. 7/4), Nyíregyháza–*Manda-bokor*: BOTTYÁN 1955, 175, 85; Szolnok–*Zagyvapart*: CSEH 2001, fig. 11) and has been found in clearly La Tène contexts as well (Nitra–*Sindolka*: BŘEZINOVÁ 2000, Taf. 12/2a–b; 58/1; 66/5). There are several theories considering the function of the vessel. Most often they are described as “ember covers”, strainers, or sometimes as incense burners (ISTVÁNOVICS 1997, 76; CSEH 2001, 90; GYUHA 2002, 62). In fact on the surface of the objects found at Nyíregyháza, Szolnok and Gyulavár traces of burning can be observed, and the large hole on their “bases” suggesting an ember or torch/lamp cover function.

Two examples of pedestalled bowls discovered at Sajópetri (Pl. 2/I.2.5; 4/1) are unique objects in the region of Eastern Hungary. J. Chochorowski classified the pedestalled bowls belonging to the Vekezug Culture (CHOCHOROWSKI 1985, 48), even though this vessel type only seldom occur in the area of the Vekezug Culture (e.g. Csanytelek: GYULA 2001, 163; Tápiószéle: PÁRDU CZ 1966, 23. t./8). The origin of these objects could be traced back to Transylvania based on their distribution (CRIȘAN 1969, 126–131) and finds at the Celtic settlements along the Maros River – besides the dominance of the La Tène Culture – it proves the presence of indigenous communities (FERENCZ 2007, 98–104; BERECKI 2008, 57). Similar vessels found occasionally to the west and north of the Tisza – including the objects from Sajópetri – are likely to be imports, or, eastern cultural influence appearing in local (Celtic) pot-

tery making traditions. At this stage of research, it is not possible to assign an ethnic label (for example Dacian or Scythian) for the pedestalled bowls of La Tène Iron Age in Eastern Hungary (Sajópetri and Nyíregyháza KE 27, ALMÁSSY 2009, fig 12/2).

The number of cooking pots with finger-impressed rims at Karcza was much higher in comparison to the ceramic material found on all other Eastern Hungarian settlements (Pl. 4/5–11). This particular rim type occurs on some sites on the Great Hungarian Plain (e.g. Szelevény: CSEH 2003, fig. 12, 4–5), Transylvanian (e.g. Morești: BERECKI 2008, pl. 40/6) and Southern Poland (e.g. Roszowicki Las: BEDNAREK 2005, fig. 2), which is not surprising given that the close relationship between the Upper Tisza region, Transylvania and Transcarpathian territories during the La Tène period has been proven (OLEŃDZKI 2005, 145–150).

Considering the typological composition of the analysed settlements, it is apparent that the T-rimmed bowls (Pl. 3/II.1.3) are only present at Sajópetri and Mátraszőlős, while they are totally absent in the material of Polgár and Karcza. It is also conspicuous that the vertical rimmed bowl (or lid? – Pl. 3/II.1.4) and dolium (Pl. 3/II.4) are only found at Sajópetri. It is still an open question whether these differences could be explained by local potting traditions, chronological differences or by the method of sampling within one particular area (domestic building, workshop, storage structures, etc.). The dolium is not a unique object in this region: fragments known from the oppidum of Bükk-szentlászló (HELLEBRANDT 1992, fig. X/1, 8, 10–11) and several sherds were discovered during the field survey of Late Iron Age settlements at Mátraszőlős and its vicinity.³ On the other hand, exclusive presence of the vertical rimmed bowl (or lid? – Pl. 3/II.1.4) at Sajópetri raises another issue. It has no analogue so far among the currently published material from Northern Hungarian settlement sites. On the contrary, from the oppida of Manching (PINGEL 1971, Taf. 81–82) and Bratislava (ČAMBAL 2004, Tab. LXXVII–LXXVIII, Typ VIII/1a) and from the Late La Tène settlements of Southern Poland (e.g. POLESKA 2006, Ryc. 8, 7) several examples are known. However, it would be inappropriate to identify these pieces as Late La Tène (LT D); comparing the total number of sherds on the settlements, these particular sherds occur only in small numbers and almost exclusively found in pottery kilns (SZABÓ *ET AL.* 2007, 241). Referring to K. ALMÁSSY's (2009, 261) study, the low number of these particular types, the lack of typical smoothed-impressed gray pottery and the absence of the red-white painted ware at Sajópetri does not allow its classification to the Late La Tène horizon. The abandonment of the settlement – following the thorough analysis of its entire material – could be dated to the end LT C1 at the latest (SZABÓ 2007, 319). The most plausible explanation might be that the presence of the vertical rimmed bowl – which is generally related to the Late Celtic oppida – suggests a transition between the abandonment of the Middle La Tène settlements and cemeteries (the end of LT C1, BUJNA 1982, 343–344; SZABÓ 2007, 316) and the formation of the oppida (LT C2, FICHTL 2000, 31 skk). In the case of Sajópetri no destruction layer was observed implying that the inhabitants left the site peacefully. Most possibly the community settled down at Bükk-szentlászló–Nagysánc where the region's largest oppidum was established (SZABÓ 2007, 319).

In summary it can be stated that vessel types present on settlement sites in Northeast Hungary in the 3rd–2nd centuries BC are similar, and both Scythian (Vekerzug Culture) and Celtic (La Tène) traditions are represented in the pottery. This allows us to conclude that the Celtic occupation in the 3rd century BC assimilated the local population peacefully. Results drawn from technological and typological ceramic analysis suggest the blending and cohabitation of Celtic and Scythian communities. However, we ought to beware of drawing any direct conclusions regarding the ethnicity of these communities (SZABÓ 2007, 332). Beside the dominance of the La Tène and Vekerzug cultural elements, relationships pointing towards Transylvania and the Transcarpathian region can also be demonstrated, although, only in the case of a few, unique objects. In other words, the pottery manufacturing techniques and the statistical distribution of vessel types suggest the heterogeneity of the cultural components and also their blending which led to the establishment of an independent ceramic manufacturing circle on the fringes of the Great Hungarian Plain and its surrounding highland zone.

3. Field survey conducted by the author – unpublished.

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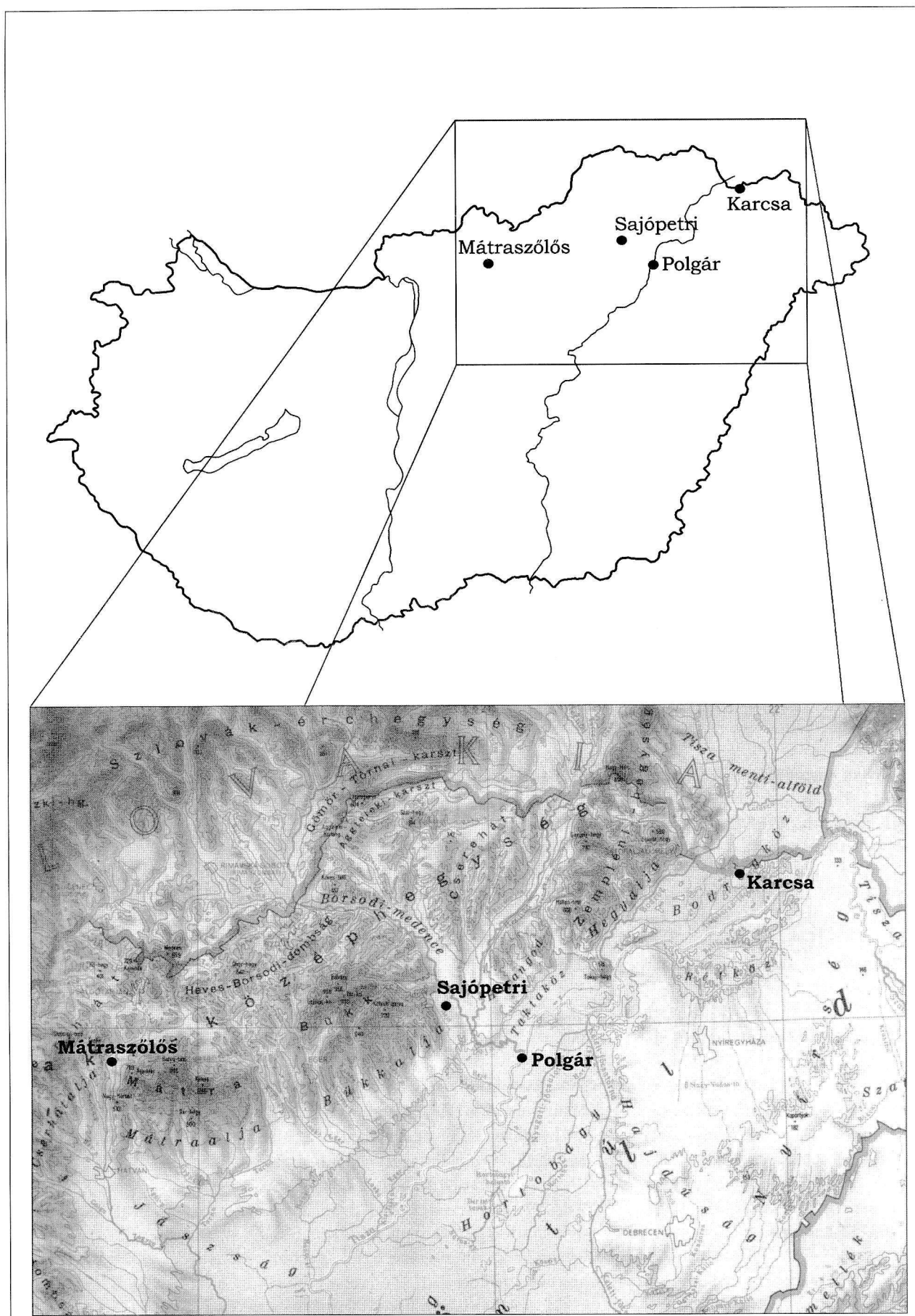


Plate 1. Analysed La Tène settlements (3rd–2nd century BC) in Northeast Hungary.




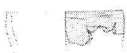






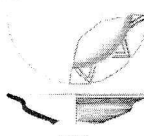

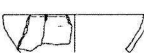
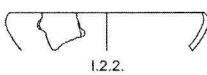
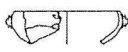

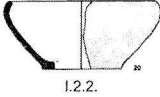

















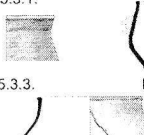



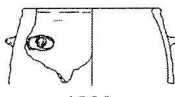
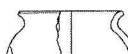
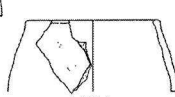
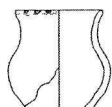


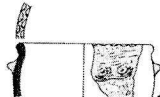







SAJÓPETRI	POLGÁR 1	MÁTRASZÖLŐS	KARCSA
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 I.2.1.  I.2.2.  I.2.3.  I.2.4.  I.2.5.	 I.2.2.	 I.2.1.  I.2.2.  I.2.2.	 I.2.1.  I.2.2.  I.2.3.
 I.3.1.  I.3.2.  I.3.3.	 I.3.1.	 I.3.1.	 I.3.1.
 I.4.1.		 I.4.  I.4.	
 I.5.1.  I.5.2.2.  I.5.2.1.  I.5.3.1.  I.5.3.2.  I.5.3.3.  I.5.3.4.  I.5.4.	 I.5.1.  I.5.3.2.	 I.5.2.1.  I.5.2.2.  I.5.3.2.  I.5.3.1.  I.5.3.1.  I.5.3.1.	 I.5.2.1.  I.5.2.2.  I.5.3.2.
 I.6.		 I.6.	 I.6.
 I.7.			
 I.8.		 I.8.	

Plate 2. Hand made pottery from northeast Hungarian La Tène settlements (3rd–2nd century BC).













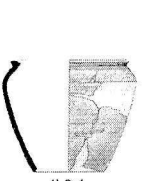







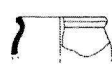
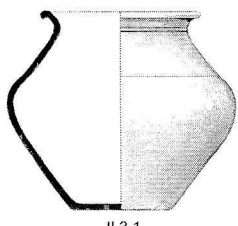



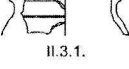
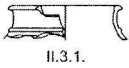




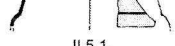



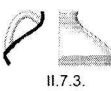



SAJÓPETRI	POLGÁR 1	MÁTRASZÖLŐS	KARCSA
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 II.2.1.  II.2.2.1.  II.2.2.2.	 II.2.1.  II.2.2.1.	 II.2.2.2.  II.2.2.2.	 II.2.1.  II.2.1.
 II.3.1.  II.3.4.  II.3.2.  II.3.3.		 II.3.1.  II.3.1.	
 II.4.			
 II.5.1.  II.5.2.	 II.5.1.		 II.5.1.
 II.6.			
 II.7.1.  II.7.2.  II.7.3.			
 II.8.		 II.8.	
 II.9.			

Plate 3. Wheel-thrown pottery from northeast Hungarian La Tène settlements (3rd–2nd century BC).

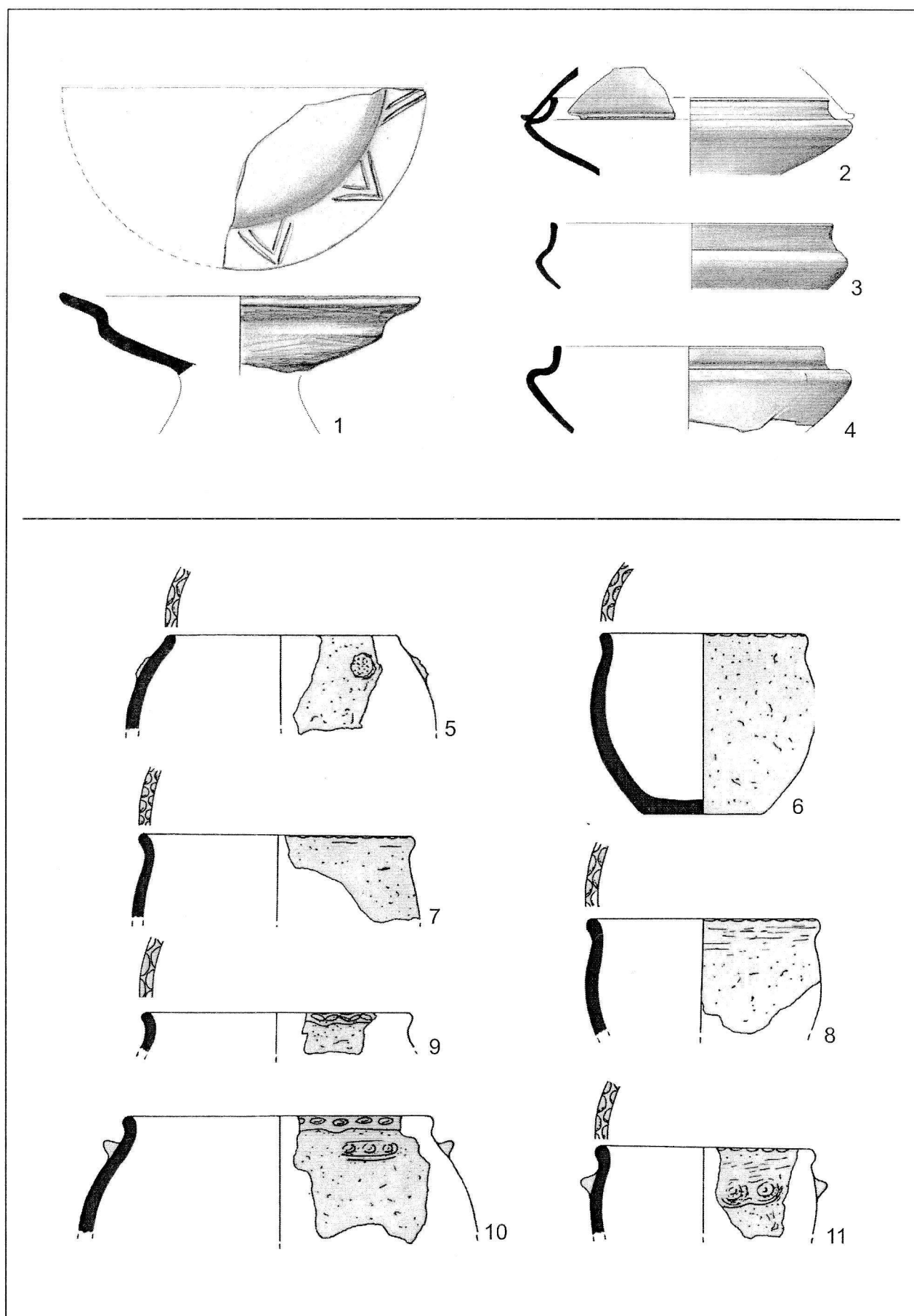


Plate 4. Rare pottery forms and decorations from northeast Hungarian La Tène settlements (3rd–2nd century BC). 1–4. Sajópetri–Hosszú-dűlő (after SZABÓ 2007a), 5–11. Karcsa–Sérhomok.