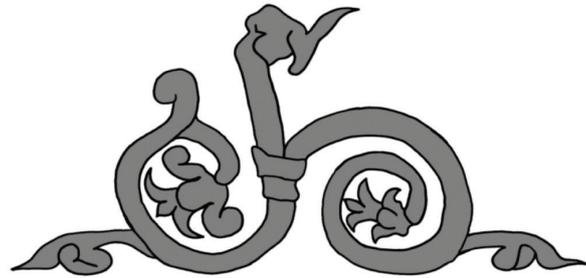


ZIRIDAVA
STUDIA ARCHAEOLOGICA

31

2017

MUSEUM OF ARAD



ZIRIDAVA
STUDIA ARCHAEOLOGICA

31
2017

Editura MEGA
Cluj-Napoca
2017

MUSEUM OF ARAD

EDITORIAL BOARD

Editor-in-chief: Peter Hügel.

Editorial Assistants: Florin Mărginean, Victor Sava.

EDITORIAL ADVISORY BOARD

V. Bârcă (Cluj-Napoca, Romania), M. Cârciumaru (Târgoviște, Romania), S. Cociș (Cluj-Napoca, Romania), F. Gogâltan (Cluj-Napoca, Romania), S. A. Luca (Sibiu, Romania), V. Kulcsár (Szeged, Hungary), M. Takács (Budapest, Hungary), J. O'Shea (Michigan, USA), K. Z. Pinter (Sibiu, Romania), I. Stanciu (Cluj-Napoca, Romania), I. Szatmári (Békéscsaba, Hungary).

In Romania, the periodical can be obtained through subscription or exchange, sent as post shipment, from Museum of Arad, Arad, Piata G. Enescu 1, 310131, Romania.
Tel. 0040-257-281847.

ZIRIDAVA STUDIA ARCHAEOLOGICA

Any correspondence will be sent to the editor:
Museum of Arad
Piata George Enescu 1, 310131 Arad, RO
e-mail: ziridava2012@gmail.com

The content of the papers totally involve the responsibility of the authors.

Layout: Francisc Baja, Florin Mărginean, Victor Sava

ISSN 2392-8786



EDITURA MEGA | www.edituramega.ro
e-mail: mega@edituramega.ro

Contents

Octavian Cristian Rogoza Discoveries Attributed to the Early Vinča Phase in Tărtăria “Gura Luncii” (Alba County). The 214 Preventive Archaeological Researches Performed on “Site 10B”.....	7
Georgeta El Susi Animal Bones from the Neolithic (Szakálhát) Levels at Uivar (Timiș County).....	29
Victor Sava, Florin Mărginean, Adrian Ursuțiu The Eneolithic Cemetery in Pecica “Est” (Arad County).....	55
Tünde Horváth Budakalász, ein besonderer Bestattungsplatz der Badener Kultur. Kritische Anmerkungen zum Buch: Mária Bondár – Pál Raczky (Red.): The Copper Age cemetery of Budakalász.....	69
Tobias L. Kienlin, Klára P. Fischl, Liviu Marta Exploring Divergent Trajectories in Bronze Age Landscapes: Tell Settlement in the Hungarian Borsod Plain and the Romanian Ier Valley.....	93
Călin Ghemiș The Late Bronze Age Gold Ring Discovered in Betfia (Bihar County, Romania).....	129
Liliana Daniela Mateescu-Suciu Glass Recipients from Sarmizegetusa Regia. <i>Unguentaria</i> and Bottles.....	137
Horațiu Cociș The Rural Landscape of the Frontier of Dacia Porolissensis. A Case Study: the Northern Sector – <i>territorium Arcoba(da)rense</i> – The Valley of River Someșul Mare.....	153
Norbert Kapcsos Sarmatian graves from Pecica Site 18. Remarks upon the phenomenon of „isolated” graves from the Cris-Tisa-Mures region.....	165
Ioan Stanciu On Early Medieval Roasting Trays and their Presence in the Settlements from the North-Western Part of Romania.....	181
Călin Cosma, Adrian Bolog, Ovidiu Oargă Avar Graves Recently Discovered in Gâmbaș (Alba County) on the Spot Called “Ogoarele de jos”	195
Dan Băcuet-Crișan, Gruia Fazecaș, Doru Marta An Early Medieval Feature Discovered in Oradea – Salca “Ghețarie” (Petrom Gas Station).....	215
Daniela Tănase, Gábor Bertók, Anita Kocsis, Balázs Major The location of Egres Cistercian monastery – Igrăș (Timiș County), in the light of recent geophysical research...229	229
Florin Mărginean, Zsolt Csók, Keve László, Victor Sava Unveiling History. Archaeological Excavations in the Fortress of Ineu (Arad County).....	241
Dorel Micle, Bogdan Alin Craiovan, Andrei Stavilă, Octavian-Cristian Rogoza The Times before Fischer’s Furniture Store. The Preventive Archaeological Researches in Sfântul Gheorghe Square 2–3, Timișoara (Timiș County).....	279
Andrea Demjén, Florin Gogâltan The Ciuc-Ghimeș Quarantine (18 th –19 th Centuries). Archaeological Researches of the Former Customs Point “Cetatea Rákóczy”.....	301
Abbreviations.....	325

On Early Medieval Roasting Trays and their Presence in the Settlements from the North-Western Part of Romania*

Ioan Stanciu

Abstract: These clay containers, larger in size, are known throughout the Early Medieval Period in the entire eastern half of Europe. Consensus has not been reached on how they should be called in Romanian literature (the recently employed term is “platouri”) and in the older literature they were often interpreted as “portable hearths”. This explanation cannot be supported by more precise observations and is mainly contradicted by the low strength of their walls, a characteristic that excludes the possibility that they were moved. Still, this possibility cannot be entirely excluded, as sturdier items were sometimes signaled, made of more compact and better fired fabric; at times, though very rarely, they also had transversal orifices at the base. Their connection with ovens made of clay and stone is nevertheless certain, as these roasting trays have been built on top of such ovens on a wattle structure. There are numerous contexts relevant for this, mentioned in settlements dated to the second half of the 6th century and the first part of the 7th century in the southern part of Wallachian Plain where they are thus attested for the first time. During the same period they were introduced in the north-western part of Romania as well, where they were used until the 9th–10th centuries. Like elsewhere, the contexts of discovery indicate the same connection to the ovens inside dwellings but sometimes also to hearths set in the area between the dwellings. The great majority of roasting trays are rectangular in shape, but there are some that are also oval or circular ones (those in the latter category are larger and have higher walls than the clay pans *per se*). Over the entire territory of Romania, the peak presence of such containers, probably mainly used for drying cereals, fruit, and vegetables, can be set during the 8th–9th centuries. The latest items known from the territory of Romania are those from settlements on the Lower Danube, dated to the 11th–12th centuries.

Keywords: “roasting trays”, connection to ovens inside dwellings, “roasting tray” function, Romania, north-western Romania.

Highlighting the suspected functions of this type of “receptacles”, the Romanian archaeological literature has coined them in diverse and sometimes contradictory ways: *tăvi* (trays, clay pans), *vetre portative* (portable hearts), sometimes even *vetre portative cu marginea înălțată* (portable hearths with heightened edges) or *cuptor de lut portativ* (portable clay oven), more recently *platouri de lut* (baking trays)¹, these containers were sometimes found in clear connection to inner ovens made of stone or with the cavity carved in a block of clay, which was left unexcavated when the more or less pitted part of the dwellings was built². In these situations they were built directly

* English translation: Ana M. Gruia.

¹ Gheneșcu 2002, 77–78, 81. The confusing term “cuptor ‘țest’” [baking bell oven] appears in Dumitrașcu 1994, 89. References to “plită sau tavă rectangulară” [rectangular roasting plate or tray] (Constantiniu, Panait 1965, e.g. p. 115.) or “tavă fixă de pe cuptor” [fixed tray on top of an oven] (Teodor E. S. 2000, 326) are more precise. Partly, the term “cuptor mobil” [mobile oven] would fit the baking trays better. See Mesnil, Popova 2002. In the Romanian literature, the term *platou* [roasting tray] was initially adopted from French, corresponding to *tavă* [tray] or *tipsie* [clay pan] in Romanian (for example Dolinescu-Ferche 1979, 223). The advantage of such a term is that it removes the possible confusion with clay pans, also called small trays and, sometimes, even trays. Unlike them, roasting trays are significantly larger and largely rectangular. Even more so compared to the older literature, the two shapes (“tipsii” [clay pans] and “platouri” [roasting trays]) were not markedly differentiated (Herrmann 1986, 267, with references). The German correspondent of these roasting trays is *Lehmwannen*.

² The most relevant contexts are in southern Romania, i.e. in settlements from the second half of the 6th century–first half of the 7th century (Dolinescu-Ferche 1979, 223; Dolinescu-Ferche 1995). As examples, roasting trays on stone ovens: București–Cățelu Nou (Leahu 1963, 38); trays above ovens carved in blocks of clay left unexcavated: Dulceanca II (Dolinescu-Ferche 1986, 123–124, 125 fig. 2/1 and others). There are also later examples: roasting trays found in connection to clay ovens in the settlement of Băneasa–Sat, dated to the 10th century (Constantiniu, Panait 1965, 108, 115). More examples to be found in the settlement from Biharea–Grădina SA-Baraj, i.e. in habitations dated to the 7th–9th centuries: rectangular item found under the debris of a stone oven, another above the stone oven inside dwelling 4/1977,

on top of the fire installation, following the horizontal shape of the ovens' upper part on a structure of twigs or laths (that had burnt away at the first firing of the ovens), as indicated by the imprints of such structures³. At least in the case of the settlements from southern Romania dated during the 6th–7th centuries the trays usually replaced the vault, sometimes overlapping the vault of the clay ovens (Fig. 1/3)⁴. Specialists have noted contexts in which such trays were placed above the mended ovens, though one cannot know if they were also used in the initial stage of use of the fire installations in question⁵.

In the settlements from the southern plain of Romania, usually dated during the second half of the 6th century and in the first half of the 7th century, these roasting trays or larger trays were relatively frequently found in the inventory of the dwellings, sometimes with items found *in situ* that attest to their location on top of ovens carved into blocks of clay left unexcavated or made out of stone and to the fact that they were part of the construction of such ovens (an example in Fig. 1/1a–1b)⁶. In the same region, such larger trays sometimes seem to overlap with ovens carved into the walls of dwellings, but the context referred to remains unclear, certainly debatable⁷.

The above mentioned terms have been suggested and used in direct relation to the presumed function of these clay containers. They were usually explained as “mobile hearths”, “portable trays” or elements fixed on top of ovens. In fact, there is a major difference in meaning between a hearth – even if a “mobile” one – and a tray, as the first one tends to envisage a container in which fire was made, while a tray was placed, in some way or another, above the fire; besides, traces of repeated firing have not been signaled on the inner surface of such “larger trays”⁸.

The already mentioned examples indicate with sufficient clarity the existence of these roasting trays in the 6th–7th centuries settlements in the Wallachian Plain, placed on top of clay or stone ovens, as stable parts of their construction. In the same region, identical ovens were found in the settlement of Băneasa-Sat, dated to the tenth century⁹. It is difficult to identify the reasons why such containers were periodically moved from the top of the oven. On the other hand, given their size, weight, and especially in the case of those with poorer firing, it is unlikely they were moved at all, as they would

other fragments discovered under the debris of the stone oven in dwelling 9/1980 (Dumitrașcu 1994, 89, 183, 186). On the same site, there was the strange context of a “small oven or baking bell dug into the virgin clay”, near a stone oven. According to the description, this was certainly a rectangular roasting tray (Dumitrașcu 1994, 184). Remains of such trays were also found in connection to ovens in other early medieval settlements such as those in Karos–Mókahomok (Herold 2006, 10, 15) and Örménykút–site 54 (Herold 2004, 43).

³ They could have been modeled elsewhere and subsequently placed on top of the ovens (Dolinescu-Ferche 1995), but in this case they had to be left to dry for a while. For traces of such an “encasing”, for example: Constantiniu 1963, 86; Teodor 1978, 75; Dolinescu-Ferche 1984, 126, 130 n. 79; Dolinescu-Ferche 1995, 165, 179, 182–184; Ghenescu 2002, 82. Besides these mentions, there are also other authors who have explained such roasting trays in connection to the construction of the ovens, for instance Constantiniu 1963, 94–96, Constantiniu, Panait 1965, 108–109, 115; Teodor 1978, 74–75; Olteanu 1983, 70–71; Teodor 2011, 54; Spinei 2009, 215.

⁴ Dolinescu-Ferche 1984, 126; Dolinescu-Ferche 1995, 163.

⁵ Clay ovens dated to the 6th–7th centuries as examples: Dulceanca I – pit house no. 2 (Dolinescu-Ferche 1974, 85, 96 fig. 104); Dulceanca II – pit houses nos. 1, 10 and 19 (Dolinescu-Ferche 1986, 123–124, 128; Străulești-Lunca – dwelling A (Constantiniu 1963, 94–96). See also Dolinescu-Ferche 1979, 192. The use of the roasting trays each time the oven was built is also attested later, in the case of pit houses nos. 3 and 4 in the settlement of Băneasa-Sat, dated to the 10th century (Constantiniu, Panait 1965, 108–109, 115).

⁶ For example Dolinescu-Ferche 1995, 163–176, with notes indicating the corresponding illustrations.

⁷ Pit house no. 8 in the settlement of Dulceanca II is envisaged, as the mention features in Dolinescu-Ferche 1995, 177, 178 fig. 13/4–6. This was in fact a slightly pitted dwelling, thus the construction of the oven was adapted to this situation. This means that a shallow pit (in comparison to the floor) was dug in a corner of the dwelling and the oven was set in one of the pit's walls, similar to those carved in a block of clay left unexcavated, with a roasting tray placed on top (Dolinescu-Ferche 1986, 124, 126 fig. 3/2). As several actual examples from the earlier settlement in Lazuri-Lubi tag indicate, at least in the north-western part of Romania, the ovens carved into the walls of the pitted parts of the dwellings were located on the outside of the construction and their vault did not reach the ground level of the settlement, though there might have been an opening for ventilation (Stanciu 2011, 143–145). Thus, the fragment found in dwelling no. 3 in Bobota-Pe vale (8th–9th centuries) did not likely belong to a roasting tray placed above on oven carved into the wall (Băcuet-Crișan 2010, 15, 65–66 Pl. 9–10, 71 Pl.15).

⁸ Krauss, Jeute 1998, 516; Ghenescu 2002, 78; Stanciu 2011, 260. A movable hearth was probably the one in Bârlad-Prodana, circular in shape (with the diameter measuring around 120 cm), provided with a central chimney and perforations that allowed for it to be hanged (Teodor 1978, 75).

⁹ Constantiniu, Panait 1965, 108, 115.

have broken¹⁰. At least in the case of clay ovens built on a structure of wattle and with the vault modeled in the shape of such roasting trays, as specialists have sometimes presumed, the latter were structurally joined to the body of the ovens and thus moving them was impossible¹¹. Even in the case of ovens built out of stone or carved in a block of clay left unexcavated, the trays modeled on top of them would have merged, to a smaller or larger degree, to the rest of the construction already at the time of the first firing.

Tab. 1. Distribution of clay pans (modeled by hand), larger trays (roasting trays) and baking bells in the settlements from north-western Romania that have been investigated to varying degrees. A—Total number of complexes. B—Number of dwellings. C—Complex. D—Estimated number of clay pans. E—Estimated number of baking bells. F—Estimated number of large trays (baking trays). *—Dwelling. In parentheses I have indicated the proportion of the complexes that have revealed clay pans out of all researched complexes in each settlement (row C) and the average distribution coefficients in the complexes (rows D and E).

Nr. crt.	Sit	A	B	C	D	E	F	
1.	Lazuri-Lubi tag	24	1	1/1995	14	3	–	
			13/1995	3	3	–	–	
			25/1995	1	–	–	–	
			15/1995	7	1	1	–	
			24/1995	1	1	–	–	
			72/1995	3	1	–	–	
			Sf. 9–10–43'95	10	7	2	–	
			194/2000	2	–	–	–	
			39/2001	10	4	–	–	
			40/2001*	2	1	3	–	
			45/2001	8	1	–	–	
			Total =			11 (45,83%)	61 (5,54)	22 (2,00)
		2.	Aghireș-Sub pășune	58	8	46/2008	1	–
102/2009	59/2008				1	–	–	
103/2009	1				–	–	–	
104/2009	1				–	–	–	
105/2009	3				–	1	–	
106/2009	1				–	–	–	
107/2009*	2				–	–	–	
109/2009	5				1	–	–	
111/2009	2				–	–	–	
	4				–	–	–	
Total =				9 (15,51%)	21 (2,33)	1 (0,11)	1	
3.	Badon-La Răstignire	1	1	?*	1	–	–	
4.	Bobota-Pe vale	14	6	1/2003*	1	–	–	
			3/2003*	4	–	1	–	
			X/2003*	4	1	–	–	
			C. 1/2003	1	–	–	–	
		Total =			5 (35,71%)	11 (2,20)	1 (0,20)	1
5.	Carei-Stația epurare	2	–	Groapă/1984	1	–	–	
			Cuptor/1992	2	3	–	–	
Total =			2 (100%)	3 (1,50)	3 (1,50)	–		
6.	Cheud-Sub hij	1	1	1/2009	1	1	–	
7.	Crăciunești-Mohelca	1	1	1+2/1972*	3	3	–	

¹⁰ Ghenescu 2002, 77; Herold 2006, 10. It is possible that the observations on the items from the settlement in Stradów check out in other parts. According to the structure of the fabric, two groups were identified there, the second characterized by the lower frequency of organic inclusions and an increased resistance, while their traces of secondary firing indicate the fact that they were used above fires (Szmoniewski, Lityńska-Zajac 2005, 221–225). In regard to this fact, the fragments found in dwelling no. 1 in Lăpușel-Ciurgău are similar (Stanciu 1994, 274, 276 Pl. III/13, 302).

¹¹ Rappoport 1975, 152 Fig. 55.

Nr. crt.	Sit	A	B	C	D	E	F
8.	Cuceu-Valea Bochii	9	2 3/1999* 4/1999 Groapa 3/1999	1/1999*	4	-	-
				4	-	-	-
				2	1	-	-
				2	-	-	-
Total =				4 (44,44%)	12 (3,00)	1 (0,25)	-
9.	Lăpușel-Ciurgău	13	2 L. 2/1992* Groapa 12/1992 L. 3/1992-93 Groapa 3/1993 Groapa 16/1993 Groapa 17/1993 Groapa 33/1993	L. 1/1992*	6	-	1
				5	-	-	-
				2	-	-	-
				8	1	-	-
				1	-	-	-
				4	-	-	-
				3	-	-	-
				1	-	-	-
Total =				8 (61,53)	30 (3,75)	1 (0,12)	1
10.	Marca-Primăria nouă	2	2	4/2006*	1	1	-
11.	Mirșid-Fântâna albă	4	4	4/2000*	4	1	-
12.	Pericei-Keller tag	3	2	4/1999*	2	1	-
13.	Popeni-Pe pogor	8	- B/1999 6/1999 7/1999	Groapa 1/1978	2	-	-
				1	-	-	-
				14	2	1	-
				3	-	-	-
Total =				4 (50%)	20 (5,00)	3 (0,75)	1
14.	Porț-La baraj	28	9 4/2007 17/2007 20/2007 22/2007* 23/2007* 38/2007*	3/2007*	1	-	1
				1	-	-	-
				2	-	-	-
				1	-	1	-
				1	-	-	-
				2	-	1	-
				1	-	-	-
				1	-	-	-
Total =				7 (25%)	9 (1,28)	-	3
15	Sarasău-Zăpodie	?	35	13/1971	1	3	-
16.	Săcășeni-F. ciobanului	?	1	?/1972	3	-	1?
17.	Turulung-Vii-Hegyalja	3	- 1/1975	2/1975	4	-	-
				1	-	-	-
Total =				2 (66,67%)	5 (2,5)	-	-
18.	Zalău-Bl. M. Viteazul	5	3 Din strat	7/1998*	2	-	-
				13	5	-	-
Total =				1	15	5	-
19.	Zalău-Pálvár	4	3	?/2002	1	-	-

Even if descriptions are not very clear, there are a couple of mentions of orifices discovered in the walls of these roasting trays, sometimes connected to a possible way of transporting them¹². At least in the early medieval settlements from the north-western part of Romania, the use of mobile large-size trays is not indicated by any actual piece of information. It is possible that such roasting trays were used on top of open air hearths, resting on supports made of rocks, but this explanation also lacks clear footing¹³. In fact, arguments supporting this explanation could exist in the case of the settlements and

¹² The suggestion probably envisages poles inserted through these perforations (Glodariu *et al.* 1980, 92). A bier would have been nevertheless much more efficient. Other times, the perforations have been connected to supporting posts or their function interpreted as that of allowing liquids to pour out during use (Herold 2006, 10). The clay plaques with perforations found in several ovens from Străulești-Lunca remain unclear (Constantiniu 1963, 86). Fragments from “o tavă fără bordură” [an edgeless tray], found in front of an oven and explained as a portable hearth, were signaled in a dwelling from Durlești-Valea Babei (Republic of Moldavia), dated to the 9th century (Tentiuc 2012, 42-43, 83).

¹³ Herrmann 1986, 272; Szmoniewski, Lityńska-Zajac 2005, 225 Fig. 4A, 227. In the settlement of Aghireș-Sub pășune a

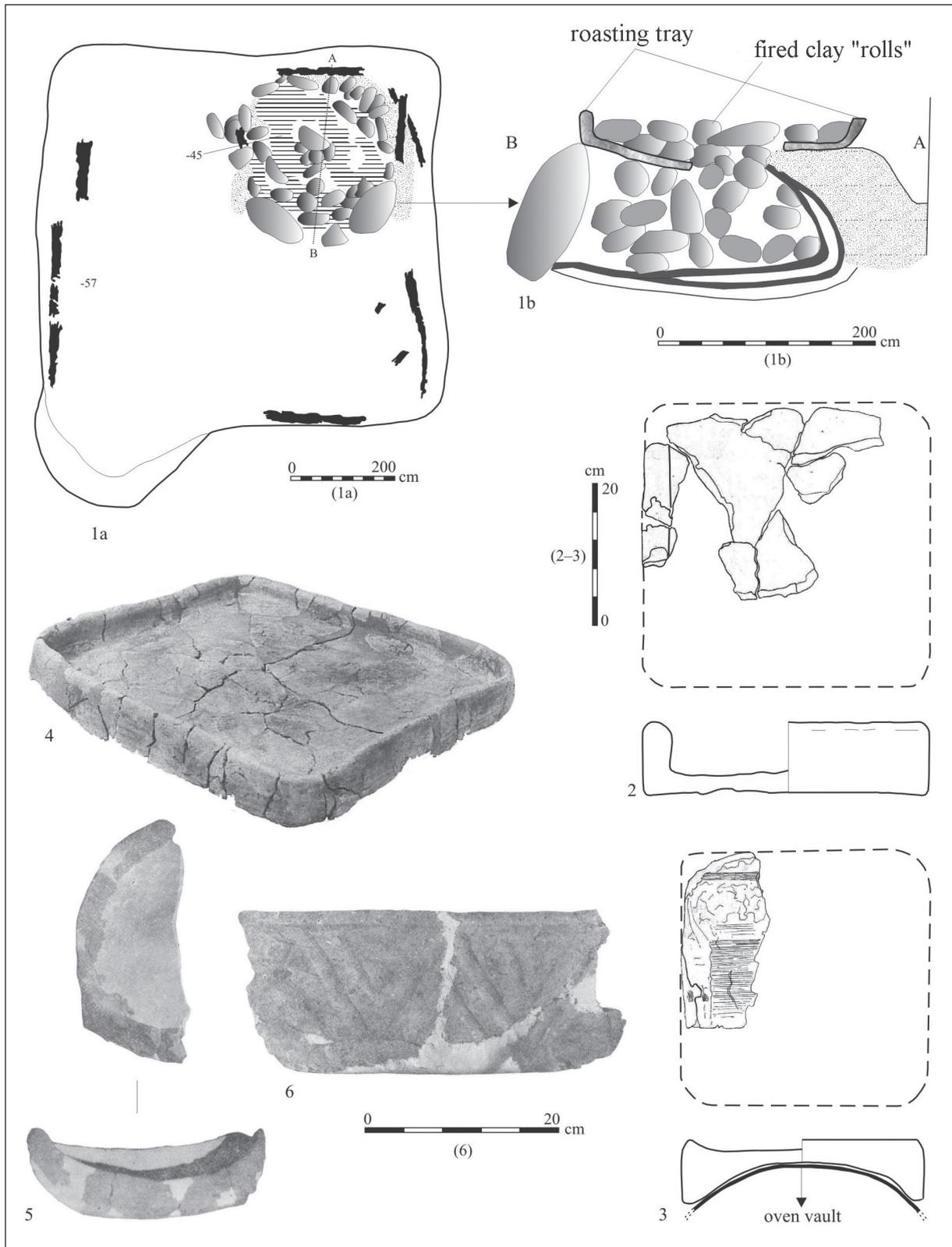


Fig. 1. 1a, 1b—Dulceanca II (second half of the 6th century): pit house no. 1 and section through the oven that was used during two stages (graphic processing of an image taken from Dolinescu-Ferche 1986). 2—Dulceanca I (second half of the 6th century): clay baking tray found on top of the oven in pit house no. 2 (taken from Dolinescu-Ferche 1974). 3—Dulceanca I (more likely the second half of the 6th century, not the 3rd century), tray found above the vault of the oven in the “Dacian” pit house no. III (taken from Dolinescu-Ferche 1974). 4—Klučov (Bohemia), 8th–9th-century settlement: rectangular clay baking tray (taken from Beranová 1980). 5, 6—Radovanu (second half of the 6th century – 7th century): “oval hearth” (tray) found in pit house A (5) and “hearth with ornamented edging” from pit house B (taken from Comşa 1975).

fire installations in the two south-Carpathian settlements of Bucov, in use during the 8th through the 10th century. Fragments of “hearths with heightened edges”, rectangular or more or less circular, were often discovered there in connection to the hearths of pit-houses or ground dwellings, on the surface of certain fire installations (usually slightly pitted as compared to the level of the floor) or in their close proximity. River rocks or, in one case a brick, were sometimes found around them, very likely indicating supporting walls for such trays or roasting trays¹⁴. Another example was even found in a region neighboring that in question here, i.e. the 7th–8th centuries settlement of Biharea–Grădina SA-Baraj (Bihor County)¹⁵. Even more convincing though is the case of a hearth built in the space between the dwellings of the settlement of Brășăuți (Neamț County), dated to the 8th–9th centuries. A rectangular roasting tray, with rounded corners, incompletely fired, was placed on top of several rocks with traces of burning¹⁶. It is difficult to say if in such situation the trays were mobile containers, precisely due to their fragility. Probably they were most often fixed, set under some roof in order to avoid destruction due to rain.

As for the shape and dimensions of these larger trays or roasting trays, the observations expressed some time ago are probably still valid in general lines. Rectangular items are more numerous, with rounded corners, but there are also circular and oval ones. The sides of rectangular items reach up to 85 cm in length, while the maximum height of the walls reaches 18 cm, noting the base that was usually thick¹⁷. In general, the clay (sometimes described as sandy) contains cereal chaff, sometimes even grass¹⁸. In north-western Romania also the majority of the items signaled so far seem to be rectangular (for example Fig. 2/9), there are some certainly circular in shape (Fig. 2/18–19), but oval ones are not missing either (Fig. 2/8). The maximum height surpasses 17 cm in the case of an item, probably rectangular, from the settlement in Aghireș–Sub pășune (Fig. 2/3), while the minimum height (of an item from the settlement in Lazuri–Lubi tag) measures around 8 cm (Fig. 2/16). The thickness of the walls varies between 3 and 6 cm, and in the case of a fragment from the base of a roasting tray found in Lazuri, the value reaches the maximum of 7 cm. The composition of the fabric is most often the one described above and the majority of the items had been insufficiently fired, thus their walls and the base were rather weak.

fragment of a roasting tray was found in connection to an open air hearth bordered by rocks (Băcuet–Crișan *et al.* 2009, 37, 239 Pl. 139 C. 113/2009, 353 Pl. 253/4). In the early medieval settlement in Gergelyugornya (on the Lower Someș, in Hungary) archaeologists have signaled a feature that is rather a hearth with heightened edges and open on the side where it was stoked with wood. It is very similar to the roasting trays in question, but it was fixed, raised above ground level (Simonova 2008, 141 Fig. 13).

¹⁴ Comșa 1978, 22–23, 26, 39 Fig. 24, 40 Fig. 25. The context recorded in pit house no. 1 in Bucov–Rotari is exemplary. The description is quoted after the author of the research: “The first [hearth] was almost round. When it was rebuilt, river rocks were placed on top of it and they were covered with a new layer of clay. The second hearth has the margin like some sort of a collar, looking like an irregular pan, larger in size. One brick fragment was found near its margin. No rocks were found near either of them. Small river rocks were placed above and around it” (Comșa 1978, 23 and 37 Fig. 22/1). The entire context could receive a different explanation. The tray (the second hearth), probably circular, supported by bricks and smaller river rocks, had fallen on top of the hearth *per se*. In the settlement of Dridu, the small rocks around the hearths have constantly been explained as an edging (Zaharia 1967, for example p. 41–42). The “clay covering” found on top of the river rocks that covered the first hearth might be explained in connection to the remains of a possible clay covering of the walls that supported the “pan-shaped” hearth. Besides, tray fragments are being constantly presented as distinct items from the clay covering of the proper hearths, with the clear mention that sometimes such fragments were found around the hearths or mixed with pieces of burnt clay covering from the walls. As they have been illustrated, the fragments of the second hearth certainly belong to roasting trays (Comșa 1978, 26, 40 Fig. 25/9, 10). Another interesting context is that of the hearth from house 7 (ground dwelling). In this case imprints of, naturally, horizontal posts were found on the base of such a tray (Comșa 1978, 26) and they might indicate a skeleton for the support of the “container” during modeling, in its turn supported by walls or stone bases, while the wood had burnt away after the fire was started.

¹⁵ “A hearth with coals and ash was found at the depth of 0.60 m and near it, southwards, was a cluster or rocks from the oven, on top of which was located a small clay oven. A subsequent intervention, seemingly even modern, has led to the toppling, disturbing of this important fire installation that was discovered displaced, in secondary position ...” (Dumitrașcu 1994, 79). This “small clay oven” is envisaged when the author presents a rectangular roasting tray (Dumitrașcu 1994, 89). It is unclear if this installation was located inside a dwelling or in the open. Similarly, a hearth above which fragments of a roasting tray were found is recorded in dwelling 2/1977 (Dumitrașcu 1994, 182).

¹⁶ Spinei, Monah 1970, 375, Fig. 18.

¹⁷ There are even larger items (Ghenescu 2002, 77, but without references). The indicated maximum dimensions are those of a rectangular roasting tray found in dwelling 9/1980 from the early medieval settlement in Biharea–Grădina SA-Baraj, described through the following dimensions: its sides measure 85 × 46 cm. Another item from the same settlement measures 68 × 42 cm, and the walls are 18 cm high (Dumitrașcu 1994, 184, 186).

¹⁸ For example, descriptions of these containers in Teodor 1978, 74–75; Herrmann 1986, 267; Parczewski 1993, 69; Krauss, Jeute 1998, 513–516; Ghenescu 2002, 77; Musteață 2005, 58; Szmoniewski, Lityńska-Zajac 2005.

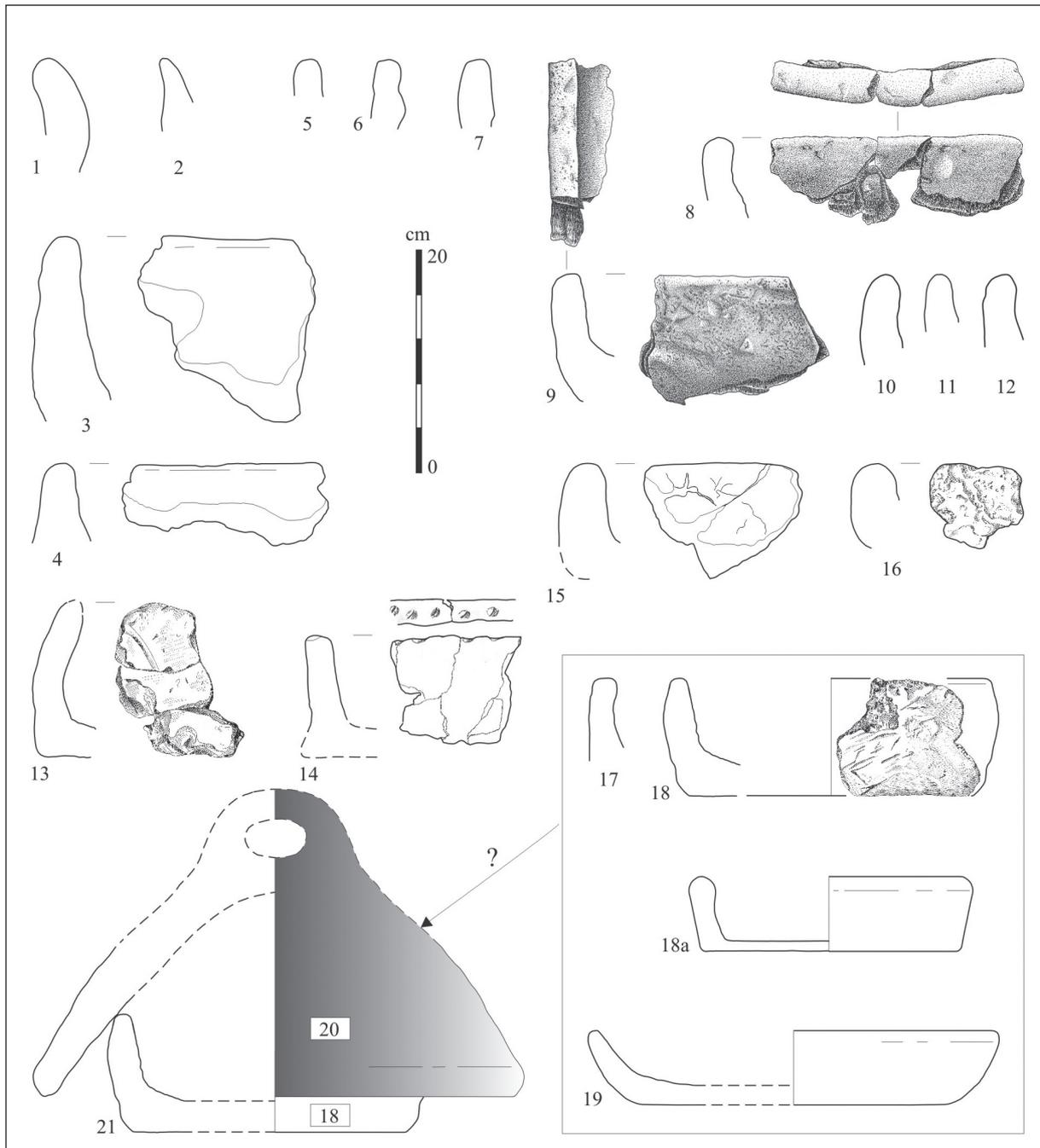


Fig. 2. Clay roasting trays (modeled by hand) from north-western Romania (20—Baking bell). 5, 7, 8, 12, 13, 15, 16, 18, 20—Lazuri-Lubi tag. 1, 3, 4—Aghireș-Sub pășune (taken from Băcuet-Crișan *et al.* 2009). 2, 6, 11, 17—Porț-La baraj (taken from Matei, Băcuet-Crișan 2011). 8, 9—Lăpușel-Ciurgău (taken from Stanciu 1994). 14—Popeni-Pe pogor (taken from Băcuet-Crișan 2006a). 18a—Nușfalău-Țigoiul lui Benedek (taken from Băcuet-Crișan 2014). 19—Săcășeni-Fântâna ciobanului (taken from Lazin 1975).

At least in the case of the early medieval settlements from the north-western part of Romania, no matter the shape of these roasting trays or trays on a horizontal plane, one can distinguish between those with thicker walls, and more importantly thicker base (Fig. 2/3–4, 9–12, 15, 16), that seem to be mostly rectangular in shape, and those with thinner walls and the base equal in size to the latter (Fig. 2/13, 14, 17, 18). It has been suggested that the category with thinner walls had other uses than the ovens, precisely due to the thickness of the walls that would make them brake through repeated manipulation¹⁹. Stronger or weaker traces of secondary firing are often visible, mainly at the base

¹⁹ Krauss, Jeute 1998, 516.

of the walls and on the base (on the outer surface). An item found in a dwelling in Săcășeni, with the fabric containing just a bit of sand, could be included in the category of very large clay pans (the reconstructible diameter of its mouth surpasses 37 cm, while the height of its margin measures 6 cm), as its shape is identical to that of clay pans, but also to that of the roasting trays under discussion (Fig. 2/19).

A situation that specialists have failed to notice before and that seems rather frequently encountered, at least in some settlements, is that in the same dwelling one encounters several roasting trays together, often in pairs, sometimes different in shape. This is even the example of the only known dwelling from Lazuri-Lubi tag, where the roasting tray corresponding to the stone oven is indicated by pieces from a thick base, while other fragments indicate two distinct trays, one almost certainly circular, with lower edging, and the other with the edge considerably higher (Fig. 2/13, 18). Dwelling no. 1 in Lăpușel contained, among the stones of the oven, fragments of a rectangular roasting tray with higher edging (Fig. 2/9), while in close proximity archaeologists found fragments from a second tray, with a very short and much thicker edging²⁰. Similarly, fragments from at least two items were recovered from dwelling 29 in the settlement from Porț-La baraj²¹. In the early medieval settlement from Băneasa-Sat (10th century), the oven in pit house no. 3, rebuilt four times, was provided during the final stage with that rectangular roasting tray, but there was also “an edging, probably portable”, with shorter walls. Just like in the case of pit house no. 4, the report stresses the difference between the roasting tray per se (“plită” [roasting plate]) and a “portable tray, similar in shape to a roasting plate, but with thinner walls and base, finished on both surfaces”²². The situation repeats itself in the settlement of Bucov-Tioca, namely in dwellings dated to the 9th–10th centuries or the 10th century, where the common rectangular roasting trays were associated with circular trays²³. The case must have also been common in some of the 6th–7th centuries settlements like the one in Radovanu, where fragments from three rectangular roasting trays and a relatively circular one were found in two pit houses (measuring along the axes 40 × 60 cm, with the edging measuring 8 cm in height)²⁴.

The conclusion is that other containers, possibly mobile ones, probably most often circular (with the diameter between 40 and 70 cm), modeled out of the same fabric, sometimes with greater care, at least according to the mentions provided in the case of the items from Băneasa-Sat, were sometimes found besides the roasting trays set on top of actual ovens or hearths. The shape of these containers is very similar to that of clay pans, from which they differ through the greater diameter, higher edging, more massive structure, and the inclusion of vegetal remains in the fabric. One may presume that these larger trays differed in function from rectangular roasting trays and their comparison with a sort of “mobile ovens” attested until today over the entire south-eastern European area is inevitable. The items in question are the clay baking bells, spread in Romania especially in the south or the *podnica/ponica* from north-eastern and central Bulgaria, used for baking bread or flat bread²⁵. It is possible that the two items from the settlement of Lazuri were used to similar ends (Fig. 2/13, 18, 20–21).

According to the sources, the Latin *testum*, the term that produced the Romanian *țest* [baking bell]²⁶, initially designated a sort of lid under which chick flat bread was baked. Different types of bread were baked in or under another type of clay or metal pot (*clibanus*, from a Greek term originally), circular in shape, slightly wider towards the base. The same sources describe the manner of using these pots, similarly to the one indicated by ethnographic parallels for eras closer to the present: the hearth was fired heating up the *testum* or *clibanus*, then the hearth was cleaned, the flat bread was placed upon the hearth and covered with the heated pot turned upside down, while hot coals were placed on top of and around it²⁷.

²⁰ Stanciu 1994, 276 Pl. III/12–13.

²¹ Matei, Băcuet-Crișan 2011, 166 Pl. 82/2–4.

²² Constantiniu, Panait 1965, 108, 115.

²³ Comșa 1978, 26, 40 Fig. 25.

²⁴ Comșa 1975, 336, 337 Fig. 1.

²⁵ Chelcea 1968; Krauss, Jeute 1998, 513; Mesnil, Popova 2002.

²⁶ For example, Chelcea 1968, 171.

²⁷ Vida 2016, 365, 376–377, with references to the sources. See also Mesnil, Popova 2002, 243. For the function of baking bells, with numerous references: Vida 2016, 368–370. Ethnographic analogies also often indicate the use of baking bells in the absence of a support, placed straight on the hearth. For example, Chelcea 1968, 172 and Larionescu, Armășescu

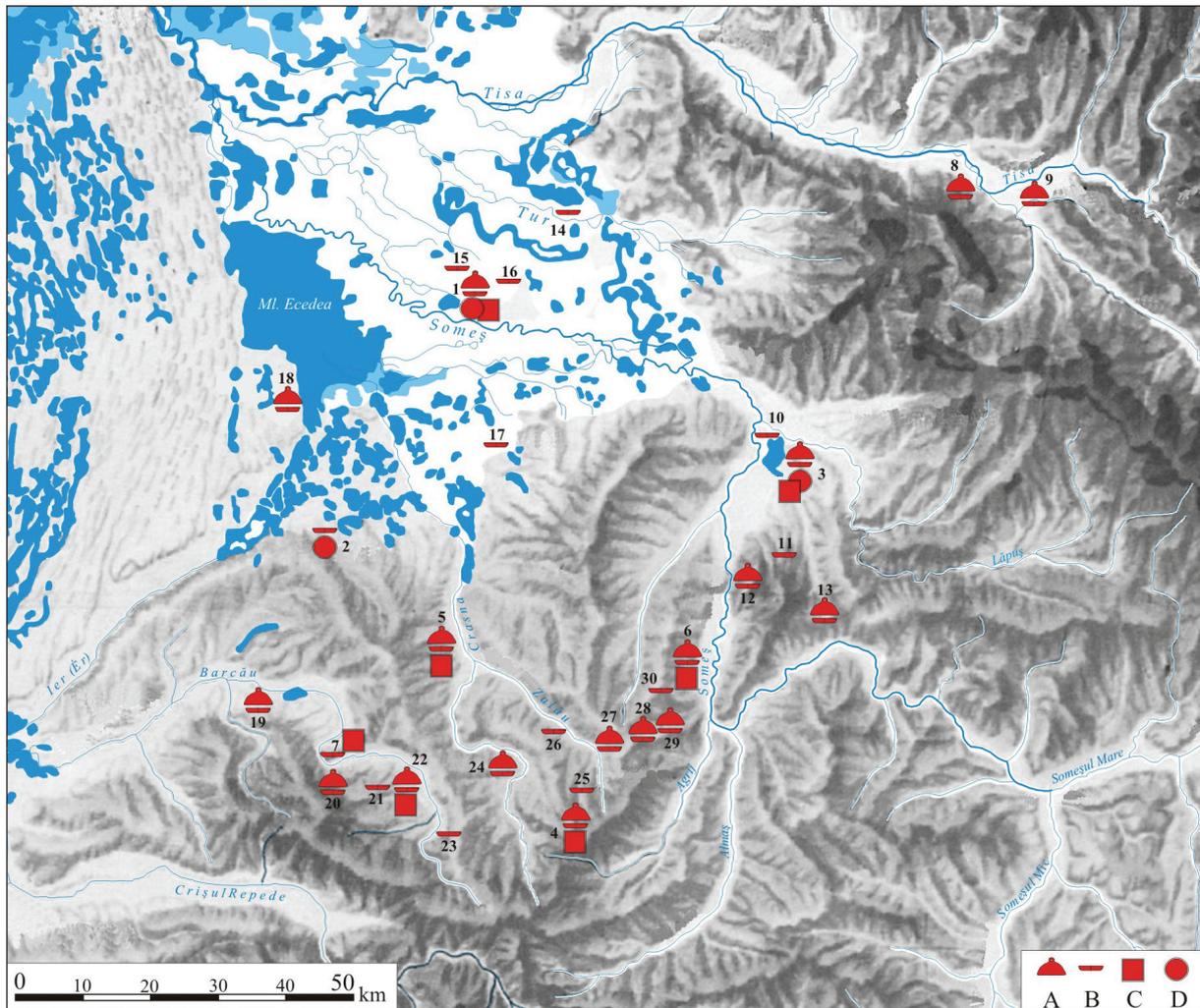


Fig. 3. Distribution of baking bells and roasting trays in the early Medieval settlements (second half of the 7th century – 9th/10th centuries) in the north-western part of Romania. Sites investigated to a various degrees (the majority) or only identified in the field. A—Baking bells. B—Clay pan. C—Rectangular trays. D—Circular or oval trays.
 1—Lazuri–Lubi tag (Satu Mare County). 2—Săcășeni–Fântâna ciobanului (Satu Mare County; taken from Lazin 1975). 3—Lăpușel–Ciurgău (Maramureș County; taken from Stanciu 1994). 4—Aghireș–Sub pășune (Sălaj County, taken from Băcuet–Crișan et al. 2009). 5—Bobota–Pe vale (Sălaj County; taken from Băcuet–Crișan 2010). 6—Popeni–Pe pogor (Sălaj County; taken from Băcuet–Crișan 2006). 7—Porț–La baraj (Sălaj County; taken from Matei, Băcuet–Crișan 2011). 8—Sarasău–Zăpodie (Maramureș County; taken from Popa, Harhoiu 1989). 9—Crăciunești–Mohelca (Maramureș County, taken from Popa, Harhoiu 1989). 10—Bozânta Mică–Grind (Maramureș County). 11—Vălenii Șomcutei–Ograda Budenilor (Maramureș County; taken from Stanciu 1992). 12—Cheud–Sub hij (Sălaj County; taken from Culic, Băcuet–Crișan 2010). 13—Mesteacăn–La parhon and Valea caselor (Maramureș County; taken from Iuga 1979 and Iuga 1980). 14—Turulung–Vii–Hegyalja (Satu Mare County; taken from Stanciu, Bader 2003). 15—Peleş–Liget (Satu Mare County). 16—Noroieni pădure (Satu Mare County; taken from Stanciu 2003). 17—Baba Novac (Satu Mare County; taken from Stanciu 2003). 18—Carei–Stația de epurare (Satu Mare County; taken from Stanciu 2003). 19—Margine–Poini (Bihor County; taken from Crișan, Marta et al. 2005). 20—Marca–Primăria nouă (Sălaj County; taken from Băcuet–Crișan 2008). 21—Drighiu–Tăul cucului, sit 29 (Sălaj County; taken from Cosma 2002 and Băcuet–Crișan 2014). 22—Nușfalău–Țigoiul lui Benedek (Sălaj County). 23—Valcău de Jos–site 83 (Sălaj County; taken from Băcuet–Crișan 2014). 24—Pericei–Keller tag (Sălaj County; taken from Băcuet–Crișan D., Băcuet–Crișan S. 2000). 25—Zalău–Valea răchișorii (Sălaj County; taken from Băcuet–Crișan S., Băcuet–Crișan D. 2003). 26—Badon–La Răstignire (Sălaj County; taken from Băcuet–Crișan D., Băcuet–Crișan S. 2000). 27—Zalău–Bul. M. Viteazul 104–106 (Sălaj County; taken from Băcuet–Crișan S., Băcuet–Crișan D. 2003). 28—Mirșid–Pe luncă (Sălaj County; taken from Băcuet–Crișan 2014). 29—Cuceu–Valea Bochii (Sălaj County; taken from Băcuet–Crișan 2006). 30—Popeni–Racovă (Sălaj County; taken from Băcuet–Crișan 2014).

According to an ethnographic explanation, baking bells should be envisaged as “mobile ovens”, i.e. a set consisting of two complementary parts, a support and the “pot” placed on top of it. But the terms that can be encountered in the south-eastern part of Europe only really mention one of the parts, even if they always suggest the set. Thus, in Romanian, the *țest* [baking bell] refers to the upper part and

1973, 247. An interesting experimental study, that included the making of the baking bells, ended with baking chicken meat under the bell, straight on the hearth (Fusek, Zábajník 2006).

the *podnica* from Bulgaria indicates the lower part, the support, though it was used with a lid, made of various materials, including clay²⁸.

Some authors have expressed their belief in the fact that in the environment of the Avar Khaganate clay pans were used together with baking bells, as their supports, for the baking of flat bread and other foodstuffs such as meat²⁹. This possibility can only be discussed for the north-western part of Romania, as the material from the inventory of the same dwelling (complex 40) from Lazuri–Lubi tag indicates (Fig. 2/21). The context has revealed fragments from a larger clay pan or circular roasting tray similar to the *podnica*, but also others from a larger baking bell, found together on the hearth of the oven and near it (Fig. 3).

In north-western Romania the majority of the items were likely of the same type as the rectangular roasting trays. They are not too numerous, but they feature in all of the settlements that have been investigated to a larger extent (Tab. 1 – only records the complexes in which they were associated with clay pans; Fig. 3). In the case of complex 40 in Lazuri (dwelling) all of the fragments were found in the debris of the stone oven and on its hearth, beside several fragments from a larger baking bell (Fig. 2/13, 18, 20–21). Fragments from two items were found in the debris of the stone oven in dwelling no. 1 inside the settlement from Lăpușel–Ciurgău³⁰, while in the settlement in Aghireș–Sub pădure one roasting tray fragment was discovered in connection to an open-air hearth³¹. No mentions regarding the connection to the contexts in the dwellings where they were found are available for the other cases.

One should note a fragment from the settlement in Popeni–Pe pogor, the edging of which is decorated with alveoli (Fig. 2/14). The entire wall of an item from the 6th–7th centuries settlement in Radovanu was also ornamented, but in a more complex manner, with successive triangular fields obtained through the incision of lines in the raw clay (Fig. 1/6)³². Even if these are isolated examples, they do indicate the intention of the owners of some of the dwellings to decorate this element of their ovens.

Regarding the function of these clay roasting trays, rectangular, oval, or circular in shape, the most often encountered explanation is that they were used for the drying or light roasting of cereal grains before grinding or even of vegetables and fruit, a mandatory procedure for the preservation of such foodstuffs³³. As charred wheat was discovered in clay roasting trays in burnt constructions from the borough in Tornow, specialists have indicated that they were used as “storage pots” modeled directly on barn floors³⁴. This opinion has been contradicted, as these containers were not proper to the storage of wheat in good conditions, especially since in Tornow, together with the clay roasting trays archaeologists also found remains from wooden chests that made for much better storage spaces (the charred grains could have ended up in the roasting trays from Tornow by chance)³⁵. The com-

²⁸ Mesnil, Popova 2002, 241 fig. 1, 244. The same authors support convincing arguments in connection to the ritual production of these clay artifacts (exclusively in the charge of women), in general with mythical and ritual meanings that accompany them and can be deciphered. See also Chelcea 1968, 171 and Larionescu, Armășescu 1973. Regarding *podnica* (with the diameter between 50 and 70 cm): Krauss, Jeute 1998, 513; Vida 2016, 366, 369; Curta 2016, 162–163, with bibliographic references.

²⁹ Vida 2016, 369–370, 391. H. Herold claims that baking bells were not associated with clay pans throughout the Avar Period and in the entire Carpathian Basin (Herold 2014, 211). This is for example the situation in the settlements of Eperjes and Örménykút, where baking bells were present and clay pans were not (Bálint 1991 and Herold 2004). Besides the examples indicated by T. Vida, the north-western territory of Romania is precisely illustrative (see Fig. 3). No matter in which region, this possibility was also taken into account by Erdélyi, Szimonova 1985, 387. As an ethnographic analogy (from the region of the Eastern Rhodope), a clay lid with handle, identical to a baking bell, that was used on top of clay pans, more probably a *podnica* (Krauss, Jeute 1998, 513 fig. 30, 528 K 51).

³⁰ Stanciu 1994, 273, Pl. I, 276 Pl. III/12–13.

³¹ Băcuet–Crișan *et al.* 2009, 37, 239 pl. 139 C. 113/2009, 353 pl. 253/4.

³² Though without references, the two decorative motifs are also mentioned in Teodor 1978, 75.

³³ For example: Herrmann 1986, 272, with references; Krauss, Jeute 1998, 514–515; Ghenescu 2002, 81, with references; Herold 2006, 10. Besides fulfilling this function, they were presumably also used for bread baking (Filipchuk 2008, 73).

³⁴ Their use for drying cereals is not excluded (Herrmann 1986, 271–272). The authors have considered their use for flour preservation (Krauss, Jeute 1998, 514 n. 29), dough kneading (Herrmann 1986, 272) or even for metallurgical activities (Szmoniewski, Lityńska-Zajac 2005, 225, 227).

³⁵ Krauss, Jeute 1998, 514–515. The preservation of cereals in wooden barns or rope sacks is confirmed not only by ethnographic parallels, but also by other archaeological discoveries, such as those made in the region of the Lower Danube (Olteanu 1983, 70).

parison between the more massive central European clay roasting trays, with thicker walls – even if they are rectangular – and the Balkan *podnica* indicates, according to some authors, their similar use in bread baking. There is nevertheless the issue of the lids, as baking bread requires an enclosed space, thus the theory was completed with the possible use of iron lids, similar to those used today together with the *podnica*³⁶. Still, such views disregard the multiple cases in which the roasting trays, preponderantly rectangular, were found in clear contexts, as constitutive part of clay or stone ovens. If this interpretation is certain, at least in the case of the rectangular items, the discussion should continue with the possible use of circular ones for baking bread or the preparation of other foods.

The early dating of some roasting trays to the Roman Era has already been contested³⁷. According to current data, the earliest dating is that of the roasting trays known from Wallachian Plain, north-western Romania, and the eastern Carpathian region, from settlements with the main periods of use during the second half of the 6th century and the first half of the 7th century³⁸. One should note the observation that in all of these regions the roasting trays have been associated with clay pans from the very beginning³⁹. The earlier items from Slovakia, Poland, Bohemia, Moravia, and eastern Germany have been dated to the 7th century or the 7th–8th centuries⁴⁰. Starting at the earliest during the second half of the 7th century but rather from the 8th century these roasting trays and/or larger trays spread to the entire central and eastern Europe, while their maximum presence in settlements probably corresponds to the 8th–9th centuries. The observation stands true for Transylvania and the north-western part of Romania as well, probably also for the western regions, then to those east and south of the Carpathians⁴¹. The latest items known from the territory of Romania might be those from 11th–12th centuries habitations on the Lower Danube⁴². Clay roasting trays, some circular in shape, with traces of burning, compared to the above mentioned *podnica* (*ponitse*) that are still being used today, were found in close proximity but south of the Danube, in connection to the early medieval habitation in Krivina (Bulgaria)⁴³.

Ioan Stanciu

Romanian Academy Cluj Branch
Institute of Archaeology and Art History Cluj-Napoca
Cluj-Napoca, ROU
ioan_stanciu@academia-cj.ro

BIBLIOGRAPHY

- | | |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bálint 1991 | Cs. Bálint, <i>Die spätavarenzeitliche Siedlung von Eperjes (Kom. Csongrád)</i> , VAH 4. Budapest 1991. |
| Băcuet-Crișan 2006 | D. Băcuet-Crișan, <i>Așezările medievale timpurii de la Popeni – „Pe Pogor” și Cuceu – „Valea Bochii” (jud. Sălaj)</i> , Bibl. Limes-Lekton 7. Zalău 2006. |
| Băcuet-Crișan 2008 | D. Băcuet-Crișan, <i>Vestigiiile medievale timpurii de la Marca „Primăria nouă” (județul Sălaj)</i> . AMP 30, 2008, 220–236. |
| Băcuet-Crișan 2010 | D. Băcuet-Crișan, <i>Cercetările arheologice preventive de la Bobota „Pe Vale/Iertaș” (județul Sălaj)</i> , Bibl. Mus. Porolissensis XI. Cluj-Napoca 2010. |

³⁶ Krauss, Jeute 1998, 515–516. Other authors have also discussed the use of the roasting trays, not matter their shape, for baking bread and/or drying of cereals. See Ghenescu 2002, 81, with references. Without explanations, their multifunctional role is also indicated in Parczewski 1993, 69.

³⁷ Nizna Myšla in Slovakia (Fusek 1994, 78), Wólka Lasiicka in Poland (Parczewski 1993, 69) and Dulceanca I (Stanciu 1998, 231 with footnote 19).

³⁸ The items from Romania's sub-Carpathian area are regarded as the earliest, with reference to the 6th century. See Parczewski 1993, 69 and Fusek 1994a, 78.

³⁹ Together with clay pans, clay roasting trays were presumably present during the Early Slavic Period only among the eastern and southern Slavs and subsequently spread to a wider area (Herrmann 1986, 267).

⁴⁰ With references, Stanciu 2011, 260.

⁴¹ Ghenescu 2002, 80.

⁴² Ghenescu 2002, 80.

⁴³ Krauss, Jeute 1998, 516.

- Băcuet-Crișan 2014 D. Băcuet-Crișan, *Contribuții arheologice privind nord-vestul României în secolele VII–XI. Cercetări în Depresiunea Silvaniei*, Bibl. Mus. Porolissensis XVI. Cluj-Napoca 2014.
- Băcuet-Crișan D., Băcuet-Crișan S. 2000 D. Băcuet-Crișan, S. Băcuet-Crișan, *Două locuințe prefeudale descoperite în județul Sălaj*. AMP, 23–I, 2000, 499–520.
- Băcuet-Crișan S., Băcuet-Crișan D. 2003 S. Băcuet-Crișan S., D. Băcuet-Crișan, *Cercetări arheologice pe teritoriul orașului Zalău*, Bibl. Mus. Porolissensis V. Zalău 2003.
- Băcuet-Crișan et al. 2009 D. Băcuet-Crișan, S. Băcuet-Crișan, I. Bejinariu, H. Pop, Al. V. Matei, *Cercetări arheologice preventive pe traseul șoselei ocolitoare a municipiului Zalău*, Bibl. Mus. Porolissensis X. Cluj-Napoca 2009.
- Beranová 1980 M. Beranová, *Zemědělství starých slovanů*. Praha 1980.
- Chelcea 1968 I. Chelcea, *Țestul de copt pâine*. RevMuz 5–2, 1968, 170–172.
- Comșa 1975 M. Comșa, *Unele date privind așezarea din sec. VI–VII de la Radovanu, județul Ilfov*. MuzNat 2, 1975, 335–341.
- Comșa 1978 M. Comșa, *Cultura materială veche românească (Așezările din secolele VIII–X de la Bucov–Ploiești)*, Bibl. de arheologie XXXIII. București 1978.
- Constantiniu 1963 M. Constantiniu, *Săpăturile de la Bucureștii-Noi din 1960. Sectorul Străulești–Lunca*. CAB 1, 77–137.
- Constantiniu, Panait 1965 M. Constantiniu, P. I. Panait, *O așezare feudală timpurie la Băneasa–Sat*. CAB 2, 1965, 98–140.
- Cosma 2002 C. Cosma, *Vestul și nord-vestul României în secolele VIII – X d. H.*, Interferențe etnice și culturale în mileniile I a.Chr. – I p.Chr. 6. Cluj-Napoca 2002.
- Crișan et al. 2005 I. Crișan, D. Marta, A. Lakatos, S. Romát, E. Szabó, A. Hágó, Margine, com. Abram, jud. Bihor. Punct: Poini (Sinica).” CCA 2005, 222–223 no. 144 [http://www.cimec.ro/Arheologie/cronicaCA2005/cd/index.htm].
- Culic, Băcuet-Crișan 2010 D. Culic, D. Băcuet-Crișan, *O locuință medievală timpurie descoperită pe Valea Someșului la Cheud, jud. Sălaj*. In: H. Pop, I. Bejinariu, S. Băcuet-Crișan, D. Băcuet-Crișan (Eds.), *Identități culturale și regionale în context european. Studii de arheologie și antropologie istorică*, Bibl. Mus. Porolissensis XIII. Cluj-Napoca 2010, 613–618.
- Curta 2016 Fl. Curta, *Observații asupra tipurilor de lut din secolele VI–VII*. In: B. Ciupercă (ed.), *Arheologia mileniului I p. Chr.*, vol. V. Identități și schimburi culturale în mileniul I p. Chr. Brăila 2016, 149–246.
- Dolinescu-Ferche 1974 S. Dolinescu-Ferche, *Așezări din secolele III și VI e. n. în sud-vestul Munteniei. Cercetările de la Dulceanca*, Bibl. de arheologie XXIV. București 1974.
- Dolinescu-Ferche 1979 S. Dolinescu-Ferche, *Ciurel, habitat des VI^e–VII^e siècles de notre ère*. Dacia N.S. 23, 1979, 179–230.
- Dolinescu-Ferche 1984 S. Dolinescu-Ferche, *La culture Ipotești-Ciurel-Cîndești (V^e–VI^e siècles). La situation en Valachie*. Dacia N.S. 28–1–2, 1984, 117–149.
- Dolinescu-Ferche 1986 S. Dolinescu-Ferche, *Contributions archéologiques sur la continuité daco-romaine – Dulceanca, deuxième habitat du VI^e siècle de notre ère*. Dacia N.S. 30–1–2, 1986, 121–154.
- Dolinescu-Ferche 1995 S. Dolinescu-Ferche, *Cuptoare din interiorul locuințelor din secolul al VI-lea e.n. de la Dulceanca*. SCIVA 46–2, 1995, 161–191.
- Dumitrașcu 1994 S. Dumitrașcu, *Biharea I. Săpăturile arheologice din anii 1973–1980*. Universitatea din Oradea, Seria: Istorie II. Oradea 1994.
- Erdélyi, Szimonova 1985 I. Erdélyi, E. Szimonova, *Grabung in der Gemarkung von Vásárosnamény*. SlovArch 33–2, 1985, 379–397.
- Filipchuk 2008 M. Filipchuk, *Raikovetz'ka kul'tura v ukrayins'komu Prykarpatti: chronolohiia i periodizaciia*. VIA 3, 2008, 68–135.
- Fusek 1994 G. Fusek, *Slovensko vo včasnoslovanskom období*, Arch. Slovaca Monogr. Stud. 3. Nitra 1994.
- Fusek, Zábajník 2006 G. Fusek, J. Zábajník, *Experiment modelovaním zvonov na pečenie*. In: J. Zábajník (ed.), *Aevum Medium. Zborník na počesť Jozefa Hošša*, Studia Archaeologica et Medievalia VIII. Bratislava 2006, 19–22.

- Ghenescu 2002 O. Ghenescu, *Observații asupra prezenței platourilor de lut în așezările din secolele VI–X de pe teritoriul Transilvaniei*. BCȘS 8, 2002, 77–86.
- Glodariu et al. 1980 I. Glodariu, Fl. Costea, I. Ciupea, *Comana de Jos. Așezările de epocă dacică și prefeudală, Contribuții la istoria Țării Făgărașului 1*. Făgăraș 1980.
- Herold 2004 H. Herold, *Die frühmittelalterliche Siedlung von Örménykút 54*, Teil I, VAH XIV. Budapest 2004.
- Herold 2006 H. Herold, *Frühmittelalterliche Keramik von Fundstellen im Nordost- und Südwest-Ungarn*, Opuscula Hungarica VII. Budapest 2006.
- Herold 2014 H. Herold, *Insight into the chronology and economy of the Avar Khaganate and the post-Avar Period: pottery production and use in the Carpathian Basin from the late 6th to the 10th century AD*. AAC 49, 2014, 207–229.
- Herrmann 1986 J. Herrmann, *Getreidekultur, Backteller und Brotindizien frühslawischer Differenzierung*. In: M. Apostolski (ed.), *Zbornik posveten na Boško Babić. Mélange Boško Babić 1924–1984*. Prilep 1986, 267–272.
- Iuga 1979 G. M. Iuga, *Raport preliminar privind cercetarea arheologică de la Mesteacăn, jud. Maramureș*. MCA 13, 1979, 311–314.
- Iuga 1980 G. M. Iuga, *Raport preliminar privind cercetarea arheologică de la Mesteacăn, jud. Maramureș*. MCA 14, 1980, 236–2239.
- Krauss, Jeute 1998 R. Krauss/G. H. Jeute, *Traditionelle Getreideverarbeitung in Bulgarien. Etnoarchäologische Beobachtungen im Vergleich zu Befunden der Slawen im frühen Mittelalter zwischen Elbe und Oder*. EAZ 39, 489–528.
- Larionescu, Armășescu 1973 S. Larionescu, I. Armășescu, *Țestul – un cuptor mobil*. RevMuz 10–3, 1973, 245–247.
- Leahu 1963 V. Leahu, *Raport asupra săpăturilor arheologice efectuate în 1960 la Cățelu Nou*. CAB 1, 1963, 15–47.
- Matei, Băcuet-Crișan 2011 AL. V. Matei, D. Băcuet-Crișan, *Contribuții arheologice privind topografia și structura internă a satului medieval timpuriu din nord-vestul României. Așezarea de la Porț–La baraj (județul Sălaj)*, Bibl. Mus. Porolissensis XIV. Cluj-Napoca 2011.
- Mesnil, Popova 2002 M. Mesnil, A. Popova, *Le four mobil, image du monde*. Civilisations. Revue internationale d’anthropologie et de sciences humaines 49–1/2, 2002, 239–258.
- Musteață 2005 S. Musteață, *Populația spațiului pruto-nistean în secolele VIII–IX*. Chișinău 2005.
- Olteanu 1983 Șt. Olteanu, *Societatea românească la cumpănă de milenii (secolele VIII–XI)*. București 1983.
- Parczewski 1993 M. Parczewski, *Die Anfänge der frühslawischen Kultur in Polen*, Veröff. der österr. Ges. für Ur- und Frühgesch. XVII. Wien 1993.
- Popa, Harhoiu 1989 R. Popa, R. Harhoiu, *Mărturii arheologice din Maramureș aparținând mileniului I e.n.* SCIVA 40–3, 1989, 249–272.
- Rappoport 1975 P. A. Rappoport, *Drevnerusskoe zhilishce*, Arheologia SSSR E1–32. Leningrad 1975.
- Simonova 2008 E. N. Simonova, *Material’naja kultura slavjanskogo Severo-Vostochnoj Vengrii VII–XI vekov. Po keramicheskim materialam*. Moskva 2008.
- Spinei 2009 V. Spinei, *The Romanians and the Turkic Nomads North of the Danube Delta from the Tenth to the Mid-Thirteenth Century*, East Central and Eastern Europe in the Middle Ages, 450–1450, vol. 6. Leiden/Boston 2009.
- Spinei, Monah 1970 V. Spinei, D. Monah, *Așezarea prefeudală de la Brășăuți*. MemAnt 2, 1970, 372–387.
- Stanciu 1992 I. Stanciu, *Descoperiri din a doua jumătate a mileniului I î.H. și mileniul I d.H. în județul Maramureș*. EphNap 2, 1992, 169–191.
- Stanciu 1994 I. Stanciu, *Așezarea prefeudală de la Lăpușel, jud. Maramureș (cercetările arheologice din anii 1992, 1993)*. EphNap 4, 1994, 267–322.
- Stanciu 1998 I. Stanciu, *Über frühslawische Tonklumpen und Ton‘brötchen’*. EphNap 8, 1998, 215–272.
- Stanciu 2003 I. Stanciu, *Descoperiri medievale timpurii din județele Satu Mare și Maramureș. Date noi, observații și opinii referitoare la ceramica medievală timpurie din nord-vestul României*. Marmatia 7–1, 2003, 249–316.
- Stanciu 2011 I. Stanciu, *Locuirea teritoriului nord-vestic al României între antichitatea târzie și perioada de început a epocii medievale timpurii (mijlocul sec. V – sec. VII timpuriu)*, Patrimonium Archaeologicum Transylvanicum 4. Cluj-Napoca 2011.

- Stanciu, Bader 2003 I. Stanciu, T. Bader, *O nouă așezare medievală timpurie din zona nord-vestică a României (Turulung-Vii, jud. Satu Mare)*. In: D. M. Istrate, A. Istrate, C. Gaiu (Eds.), *In memoriam Radu Popa. Temeiuri ale civilizației românești în context european*, Bibl. Muz. Bistrița, Ser. Historica 7. Cluj-Napoca 2003, 129–149.
- Szmoniewski, Lityńska-Zajac 2005 B. S. Szmoniewski, M. Lityńska-Zajac, *Prażnice z wczesnośredniowiecznego grodziska w Stradowie, gm. Czarnocin*. BG 28, 2005, 219–229.
- Tentiuc 2012 I. Tentiuc, *Contribuții la istoria și arheologia spațiului pruto-nistrean. Siturile de la Durlăști și Molești*, Bibl. „Tyragetia” XXI. Chișinău 2012.
- Teodor 1978 D. Gh. Teodor, *Teritoriul est-carpatic în veacurile V – XI e.n. Contribuții arheologice și istorice la problema formării poporului român*. Iași 1978.
- Teodor 2011 D. Gh. Teodor, *Un centru meșteșugăresc din evul mediu timpuriu. Cercetările arheologice de la Lozna-Botoșani*. Bibl. Archaeologica Moldaviae XV. Brăila 2011.
- Teodor 2000 E. S. Teodor, *Ceramica așezărilor din secolul al VI-lea de la Dulceanca*. In: M. Iacob, E. Obeländer-Târnoveanu, Fl. Topoleanu (Eds.), *Istro-Pontica. Muzeul Tulcea la a 50-a aniversare (1950–2000)*. Tulcea 2000, 295–342.
- Vida 2016 T. Vida, *Backglocken, Backdeckel und Backhauben. Archäologische Angaben zur Ernährungskultur Süd- und Mitteleuropas*. ActaArchHung 67, 2016, 361–422.
- Zaharia 1967 E. Zaharia, *Săpăturile de la Dridu. Contribuții la arheologia și istoria perioadei de formare a poporului român*, Bibl. de Arheologie XII. București 1967.

Abbreviations

AAASH	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
Acta Ant et Arch Suppl	Acta Antiqua et Archaeologica Supplementum. Szeged.
AAC	Acta Archaeologica Carpathica. Krakow.
ACMIT	Anuarul Comisiunii monumentelor istorice. Secția pentru Transilvania. Cluj.
ARA	Annual Review of Anthropology. Stanford.
ActaArchHung	ActaArchHung Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
AEM	Archäologische Epigraphische Mitteilungen aus Österreich-Ungarn. Heidelberg.
AIIA Cluj	Anuarul Institutului de Istorie și Arheologie. Cluj-Napoca.
AISC	Anuarul Institutului de Studii Clasice. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Zalău.
ATF	Acta Terrae Fogarasiensis. Făgăraș.
ATS	Acta Terrae Septemcastrenses. Sibiu.
Agria	Agria. Annales Musei Agriensis. Az egri Dobó István Vármúzeum évkönyve. Eger.
AnB S.N.	Analele Banatului. Timișoara.
AMS.CEU	Annual of Medieval Studies at CEU. Budapest.
ACN	Archaeological Computing Newsletter. Florence.
ArchÉrt	Archaeologiai Értesítő. A Magyar Régészeti és Művészettörténeti Társulat tudományos folyóirata. Budapest.
ArchJug	Archaeologia Iugoslavica. Beograd.
ArhPregled	Arheološki Pregled. Arheološko Društvo Jugoslavije. Beograd.
ArchSlovCat	Archaeologia Slovaca Catalogi. Bratislava.
Archaeológiai Közlemények	Archaeológiai Közlemények. A hazai Műemlékek Ismeretének Előmozdítására. Budapest.
ArchKorr	Archäologisches Korrespondenzblatt. Mainz.
ArhMold	Arheologia Moldovei. Iași.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Zalău.
ArchRozhl	Archeologické Rozhledy. Praga.
ArhMed	Arheologia Medievală. Cluj-Napoca, Brăila, Reșița.
ASMB	Arheologia Satului Medieval din Banat. Reșița 1996.
AVSL	Auftrage des Vereins für siebenbürgische Landeskunde, Wien.
Banatica	Banatica. Reșița.
BAM	Brvkenthal Acta Mvsei. Sibiu.
BAR Int. Ser.	British Archaeological Reports. International Series. Oxford.
BCMI	Buletinul Comisiunii Monumentelor Istorice. București.
BCȘS	Buletinul Cercurilor Științifice Studentești. Arheologie – Istorie – Muzeologie. Alba Iulia.
BG	Botanical Guidebooks. Kraków.
BerRGK	Bericht der RömischGermanischen Kommission. Frankfurt a. Main.
BHAB	Bibliotheca Historica et Archaeologica Banatica. Timișoara.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis. Timișoara.
BMB. SH	Biblioteca Muzeului Bistrița. Seria Historica. Bistrița Năsăud.
BMÉ	Bihari Múzeum Évkönyve. Berettyóújfalu.
BMI	Buletinul Monumentelor Istorice. București.
BMN	Bibliotheca Musei Napocensis. Cluj-Napoca.
BMMK	A Békés Megyei Múzeumok Közleményei. Békéscsaba.
BMMN	Buletinul Muzeului Militar Național. București.
BThr	Bibliotheca Thracologica. Institutul Român de Tracologie. București.

CAB	Cercetări Arheologice în București. București.
CAH	Communicationes Archaeologicae Hungariae. Budapest.
Carpica	Carpica. Muzeul Județean de Istorie și Arheologie, Bacău.
CAMNI	Cercetări Arheologice. Muzeul de Istorie al R. S. România/Muzeul Național de Istorie. București.
CIL	<i>Corpus Inscriptionum Latinarum</i> . Berlin.
CCA	<i>Cronica cercetărilor arheologice (din România)</i> , 1983-1992 <i>sqq.</i> (și în variantă electronică pe http://www.cimec.ro/scripts/arh/cronica/cercetariarh.asp).
Classica et Christiana	Classica et Christiana. Iasi.
CRSCRCR	Coins from Roman sites and collections of Roman coins from Romania. Cluj-Napoca.
Crisia	Crisia. Muzeul Țării Crișurilor, Oradea.
Dacia N.S.	Dacia. Revue d'archéologie et d'histoire ancienne. Nouvelle serie. București.
Danubius	Danubius - Revista Muzeului de Istorie Galati. Galați.
DDME	A Debreceni Déri Múzeum Évkönyve. Debrecen.
DolgCluj	Dolgozatok az Erdélyi Nemzeti Érem- és Régiségtárából, Klozsvár (Cluj).
DolgSzeg	Dolgozatok. Arbeiten des Archäologischen Instituts der Universität. Szeged.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
EMEÉ	Az Erdélyi Múzeum-Egyesület Évkönyve. Cluj-Napoca.
EMÉ	Erdélyi Múzeum Évkönyve. Cluj-Napoca.
EAZ	Ethnographisch-Archäologische Zeitschrift. Berlin.
FADDP/GMADP	Führer zu archäologischen Denkmälern in Dacia Porolissensis/Ghid al monumentelor arheologice din Dacia Porolissensis. Zalău.
File de Istorie	File de Istorie. Bistrița.
FolArch	Folia Archaeologica. Budapest.
Forsch. u. Ber. z. Vor- u. Frühgesch. BW	Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-Württemberg.
GPSKV	Gradja za proučavanje spomenika kulture Vojvodine. Novi Sad.
GSAD	Glasnik Srpskog Arheološkog Društva. Beograd.
HOMÉ	A Herman Ottó Múzeum Évkönyve. Miskolc.
HTRTÉ	Hunyadvámegye Történelmi és Régészeti Társulat Évkönyve. Déva (Deva).
JAMÉ	A nyíregyházi Jósa András Múzeum Évkönyve. Nyíregyháza.
JahrbuchRGZM	Jahrbuch des RömischGermanischen Zentralmuseums Mainz.
JAHA	Journal of Ancient History and Archaeology. Cluj-Napoca.
Lohanul	Lohanul. Revistă culturală științifică. Huși.
MCA	Materiale și Cercetări Arheologice. București.
MCA-S.N.	Materiale și Cercetări Arheologice-Serie Nouă. București.
MA / MemAnt	Memoria Antiquitatis. Piatra Neamț.
MFME	A Móra Ferenc Múz. Évkönyve. Szeged.
MFME StudArch	A Móra Ferenc Múzeum Évkönyve, <i>Studia Archaeologica</i> . Szeged.
MN / MuzNat	Muzeul Național. București.
NumAntCl	Numismatica e antichitàclassiche. Milano.
Opitz Archaeologica	Opitz Archaeologica. Budapest.
Opuscula Hungarica	Opuscula Hungarica. Budapest.
OM	Orbis Mediaevalis. Arad, Cluj-Napoca.
OTÉ	Orvos- Természettudományi Értesítő, a Kolozsvári Orvos-Természettudományi Társulat és az Erdélyi Múzeum-Egylet Természettudományi Szakosztálya.
Palaeohistorica	Acta et Communicationes Instituti Archaeologici Universitatis Groninganae.
PamArch	Památky Archeologické. Praha.
Past and Present	Past and Present. Oxford.
PIKS/PISC	Die Publikationen des Institutes für klassische Studien/ Publicațiile Institutului de studii clasice. Cluj-Napoca.
PBF	Praehistorische Bronzefunde. Berlin.
PMÉ	Acta Musei Papensis – Pápai Múzeumi Értesítő.
PZ	Prähistorische Zeitschrift. Berlin.

ReDIVA	Revista Doctoranzilor în Istorie Veche și Arheologie. Cluj-Napoca.
Revista Bistriței	Revista Bistriței. Bistrița.
RevMuz	Revista Muzeelor. București.
RIR	Revista Istorică Română.
RMM-MIA	Revista Muzeelor și Monumentelor. Seria Monumente istorice și de artă. București.
RMMN	Revista Muzeului Militar Național. București.
RESEE	Revue des Études Sud-Est Européennes. București.
Ruralia	Ruralia. Památky Archeologické – Supplementum. Praha.
RVM	Rad Vojvodjanskih Muzeja. Novi Sad.
Sargetia	Sargetia. Muzeul Civilizației Dacice și Romane, Deva.
Savaria	Savaria. A Vas megyei Múzeumok Értésítője. Szombathely.
SCIV(A)	Studii și Cercetări de Istorie Veche. București.
SCN	Studii și Cercetări Numismatice. București.
SlovArch	Slovenská Archeológia. Nitra.
SIA	Studii de Istoria Artei. Cluj Napoca.
SIB	Studii de istorie a Banatului. Timișoara.
SKMÉ	A Szántó Kovács János Múzeum Évkönyve. Orosháza.
SMIM	Studii și Materiale de Istorie Medie. București.
SMMA	Szolnok Megyei Múzeumi Adattár. Szolnok.
SMMIM	Studii și Materiale de Muzeografie și Istorie Militară. București.
Starinar	Starinar. Arheološki Institut. Beograd.
Stratum plus	Stratum plus. Archaeology and Cultural Anthropology. Kishinev.
StCl	Studii Clasice. București.
StComBrukenthal	Studii și comunicări. Sibiu.
StudArch	Studia Archaeologica. Budapest.
StudCom	Studia Comitatus. Szentendre.
Studii și Comunicări	Studii și Comunicări. Arad.
StudUnivCib	Studia Universitatis Cibiniensis. Sibiu.
StudCom – Vrancea	Studii și Comunicări. Muzeul Județean de Istorie și Etnografie Vrancea. Focșani.
StudŽvest	Študijne Zvesti Arheologického Ústavu Slovenskej Akadémie Vied. Nitra.
Symp. Thrac.	Symposia Thracologica. București.
Századok	Századok. A Magyar Történelmi Társulat Folyóirata. Budapest.
TIR L34	D. Tudor, <i>Tabula Imperii Romani</i> . București 1965.
Tempora Obscura	Tempora Obscura. Békéscsaba 2012.
Tibiscus	Tibiscus. Timișoara.
VAH	Varia Archaeologica Hungarica. Budapest.
VIA	Visnik Institutu arkheolohii. L'viv.
Ziridava	Ziridava. Arad.
ZSA	Ziridava Studia Archaeologica. Arad.
w.a.	without author