

AUREL RUSTOIU, SÁNDOR BERECKI

**A GREEK CRAFTSMAN IN PRE-ROMAN DACIA.  
ABOUT A MOULD  
FOR CASTING AMPHORA-SHAPED PENDANTS FROM ANGHELUŞ  
(EASTERN TRANSYLVANIA, ROMANIA)**

ABSTRACT

A. Rustoiu, S. Berecki 2015. *A Greek craftsman in pre-Roman Dacia. About a mould for casting amphora-shaped pendants from Angheluş (eastern Transylvania, Romania)*, AAC 50: 101–136.

The ceramic mould analyzed in this paper was discovered in a house from the Dacian settlement at Angheluş (Covasna County) in south-eastern Transylvania, Romania. The pottery vessels from the house, together with the ones identified in the occupation level corresponding to the existence of the Dacian settlement, can be dated between the 1<sup>st</sup> century BC and the 1<sup>st</sup> century AD. The mould was used for casting amphora-shaped pendants, probably made of gold. This type of pendants was an element of complex jewellery, like earrings and necklaces, popular in the eastern Mediterranean and Black Sea regions during the Hellenistic Period. They are not present among the discoveries made so far in pre-Roman Dacia, where the choice for personal ornaments and jewellery was conditioned by different visual and symbolic factors. The mould from Angheluş confirms the presence of a Greek goldsmith in the Dacian environment of south-eastern Transylvania. He probably had arrived here from the Pontic region and at the request of local elites made objects which were different in comparison with the ones from his area of origin. These “foreign” craftsmen (Greeks or Romans) have also been identified in other settlements or fortresses belonging to the Dacian Kingdom. In this context, the discussion revolves around the nature of the final products manufactured by the “foreign” craftsmen (the so-called “desirable goods”), their social status within the communities from the period of the Dacian Kingdom, the magic dimension of the craft involving the “transformation” and “shaping” of the metal.

**Key words:** Transylvania; Dacian Kingdom; craftsmanship; mould; amphora-shaped pendant; jewellery

Received: 7.05.2015; Revised: 25.07.2015; Revised: 10.08.2015; Accepted: 11.11.2015

INTRODUCTION

This paper intends to discuss an old discovery from south-eastern Transylvania, which has been mentioned several times in Romanian archaeological literature of the past four decades, but has never been extensively analyzed (Székely 1976, 232–233, Fig. 3:1; Crişan 2000, 20, 134, Pl. 73:4; Rustoiu

2011, 100, Fig. 2:10; Rustoiu, Berecki 2014, 251–252, Fig. 2:1)<sup>1</sup>. It consists of a ceramic mould used for casting amphora-shaped pendants, probably made of gold. These pendants were popular especially during the Hellenistic Period and were an element of complex jewellery, like earrings and necklaces, from the Mediterranean and Pontic regions. The mould was discovered in a settlement from pre-Roman Dacia, in an area where this type of personal ornaments is not present. This situation raises a number of important issues regarding the historical and archaeological interpretation. They are related to the following aspects: the origin of the mould; its technical characteristics; the manner in which it circulated in an area situated far away from the environment where this jewellery was produced and used; the mobility of the goldsmiths; the status of different craftsmen in general and their specific position within the Dacian cultural environment etc. But before reflecting on all these aspects, it is first necessary to clarify the context of the discovery. All the more so, since the archaeological excavations at Angheluş were carried out over four decades ago and most of the documentation regarding the investigations, not very clear at times, has never been published to this day.

### THE CONTEXT OF DISCOVERY

The village of Angheluş (Hungarian Angyalos, comună Ghidfalău, judeţul Covasna) is located in south-eastern Transylvania, on the western foothills of the Bodoc Mountains, at the eastern limit of the Sfântu Gheorghe Depression, in the valley of Angyalos-patak creek which flows into Negru River. The La Tène settlement is located at the north-eastern extremity of the modern village, on the terrace of a secondary creek named Bükkös-patak<sup>2</sup> (Fig. 1:1; see also Fig. 12 at the end of the paper).

The archaeological site at Angheluş was discovered and researched in 1972 by Z. Székely, who published some brief information a few years later (Székely 1976, 232–233). He unearthed two La Tène sunken houses, together with several archaeological features dated to the 8<sup>th</sup> century and between the 12<sup>th</sup> and

<sup>1</sup> This work was supported by a grant of the Romanian Ministry of Education, CNCS — UEFISCDI, project number PN-II-RU-PD-2012-3-0316.

We would like to warmly acknowledge our colleague S.-J. Sztáncsu from the National Szekler Museum in Sfântu Gheorghe for his help during the investigation of archaeological materials. Likewise, we thank M. Treister (Berlin), F. Ciulavu (Bucharest) and V. Bărcă (Cluj-Napoca) for bibliographic information. Warm thanks must also go to S. Mustaţă for the English translation of the text.

<sup>2</sup> The toponym designating the place where the settlement was discovered has been recorded and named in different manners both in the original documentation from the Szekler National Museum, Sfântu Gheorghe, where the finds from Angheluş are stored, as well as in the archaeological literature which mentioned the site (Székely 1990, 5–6; Székely 1992; Crişan 1969, 252, No. 7; Căvruţ 1998, 84, No. XVIIIa:8–238; Crişan 2000, 20–21). All these Hungarian toponyms (*Kövecses oldal*, *Kövesdomb*, *Remetedomb*, *Nyíroldala*, *Templomnyir*, *Remeteoldal*) very likely designate the same place referred to in Romanian as *Mestecănişul Bisericii*.

13<sup>th</sup> centuries AD. The La Tène settlement was erroneously dated to the 3<sup>rd</sup> and 2<sup>nd</sup> centuries BC and this information was subsequently used by all the scholars who mentioned this site.

The mould for casting amphora-shaped pendants was discovered in a house with a rectangular plan<sup>3</sup>. According to the original drawings, made during the excavations, it was fitted with a circular hearth or, more likely, an oven made of stone and clay, positioned in the eastern corner. The same sadly brief documentation indicates that the house was sunk, most likely around 0.30–0.40 cm down from the outlining level, and it measured 3.20 × 3 m (Fig. 1:2).

The pottery identified inside the house was selectively collected from the very moment of its discovery and only the fragments considered at the time to be relevant were stored at the National Szekler Museum in Sfântu Gheorghe. These included: rims, bases, handles and decorated body parts. Thus, in these circumstances a statistic analysis of the pottery cannot be carried out. Nonetheless, the preserved pottery offers an image which is coherent enough to determine the nature and chronology of this archaeological feature. The pottery repertoire is supplemented by a series of fragments identified in the occupation level of the La Tène settlement or recovered, in secondary position, from the features belonging to later periods.

The preserved pottery belongs to several functional categories: kitchenware, tableware (vessels for eating and drinking) and storage vessels.

The *kitchenware* consists of handmade vessels, manufactured from coarse clay containing sand, small pebbles and crushed pottery fragments. These vessels frequently show traces of soot on the outside, caused by secondary burning due to their use on open fire.

The most numerous group of vessels from this category is composed of biconical jars of different dimensions. Their body is ornamented with a plastic decoration made of notched bands and cylindrical knobs. Sometimes, it is combined with incised lines or notches. These vessels have been discovered both inside (Fig. 2:1–4) and outside the house (Fig. 3:1–5). Jars belonging to this type are among the most common vessels from the repertoire of Dacian pottery, and they have been identified in all of the settlements dated between the 1<sup>st</sup> century BC and the 1<sup>st</sup> century AD.

The kitchenware also includes the so-called “cups-lamps” or “Dacian cups”. They have a conical shape with a handle and were handmade from a fabric that is similar to the one used for the jars. Likewise, traces of secondary burning can be observed on both inside and outside of the vessels. Their body, and sometimes the handles, are decorated with notched bands (Fig. 2:5, 3:6–9). Generally, though they are considered to be lighting instruments (an idea enforced by Crişan 1969, 115), they appear in large numbers in all the Dacian settlements together with other categories of ceramic vessels used for

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<sup>3</sup> Earlier literature recorded wrongly that the houses from the settlement at Angheluş had a circular plan: Cavruc 1998, 84, No. XVIIIa:8–238; Crişan 2000, 20–21.

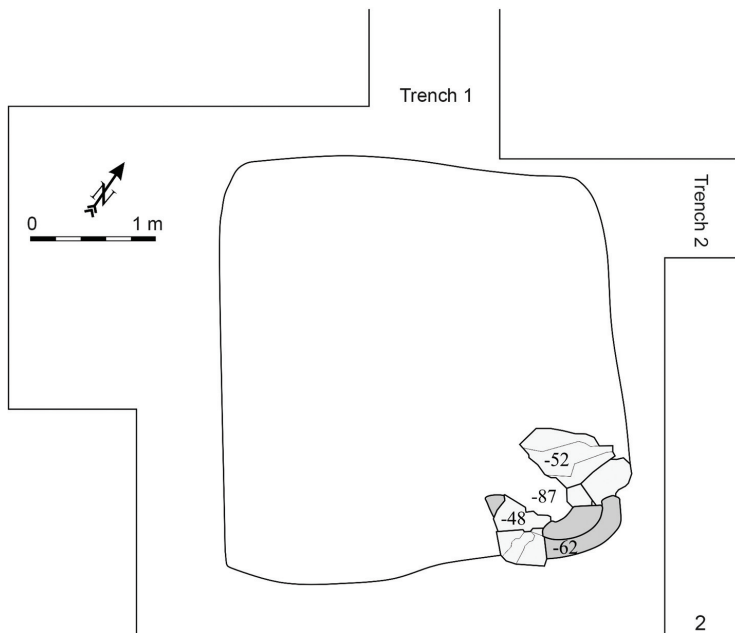
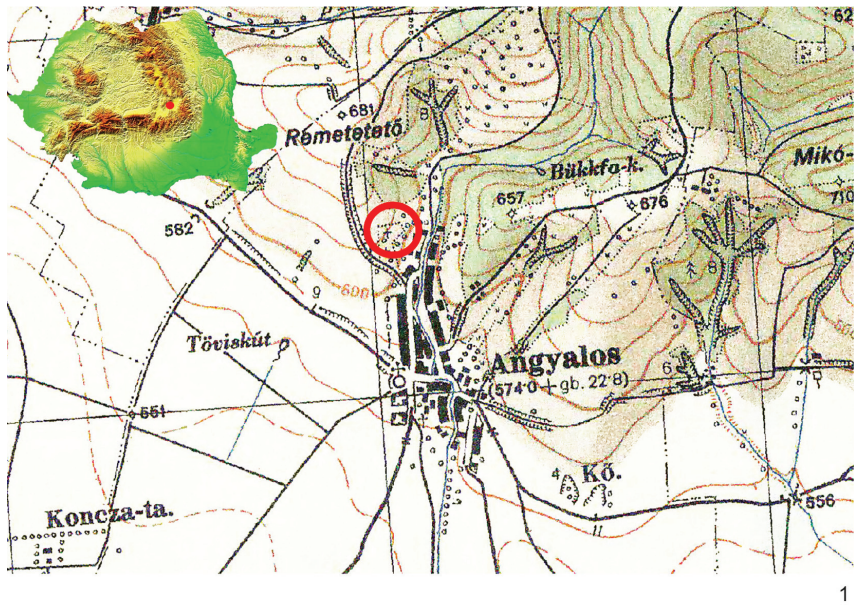


Fig. 1. Angheluș, județul Covasna. Localisation of the research area; computer design by S. Berecki.

- 1 — Location of archaeological site (red circle) on a Hungarian military map from 1941–1944;  
 2 — Ground plan of the Late Iron Age house in which the mould was found.



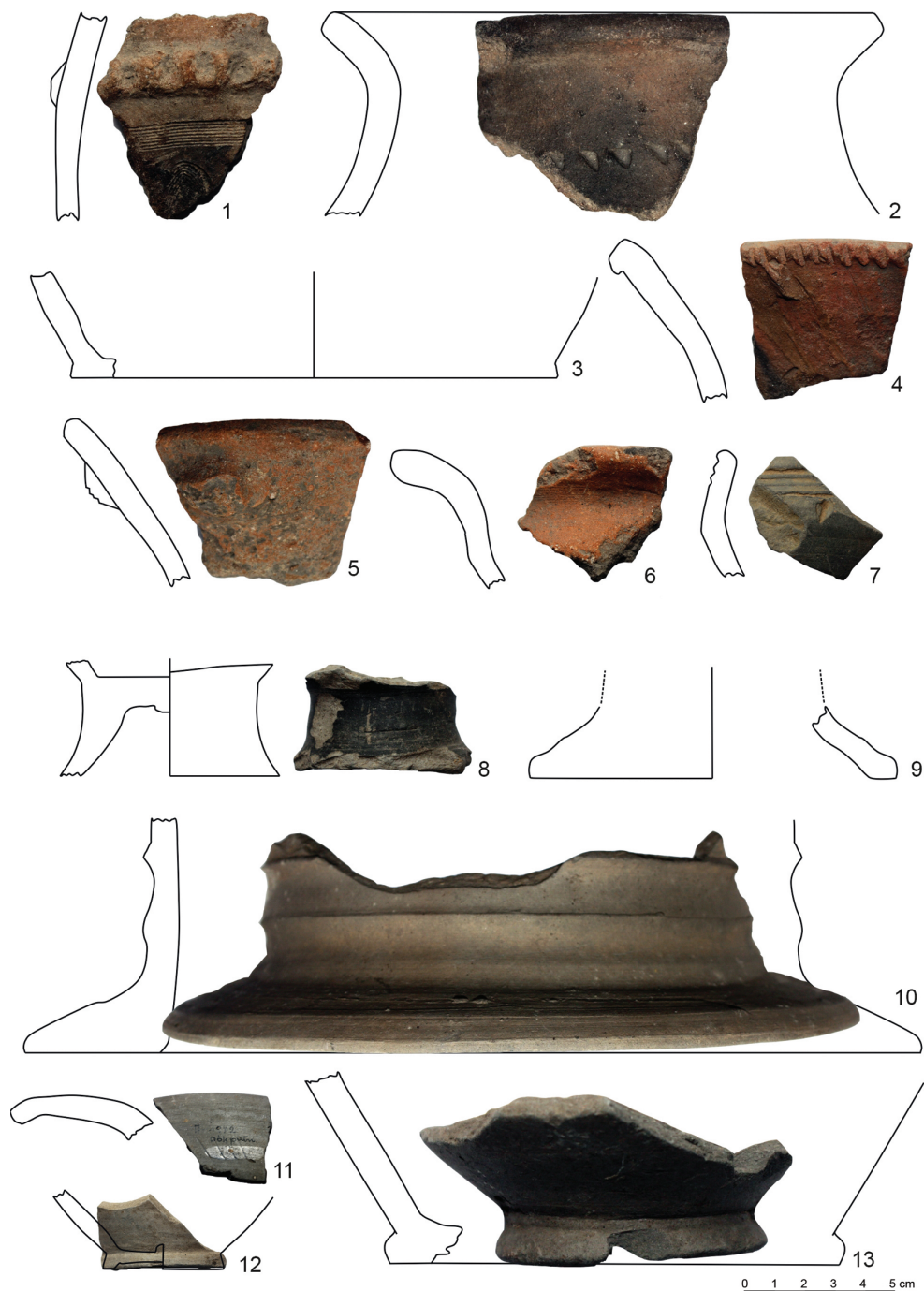


Fig. 2. Angheluş, judeţul Covasna. Handmade and wheelmade pottery from the house;  
Photo, drawings and computer design by S. Berecki.

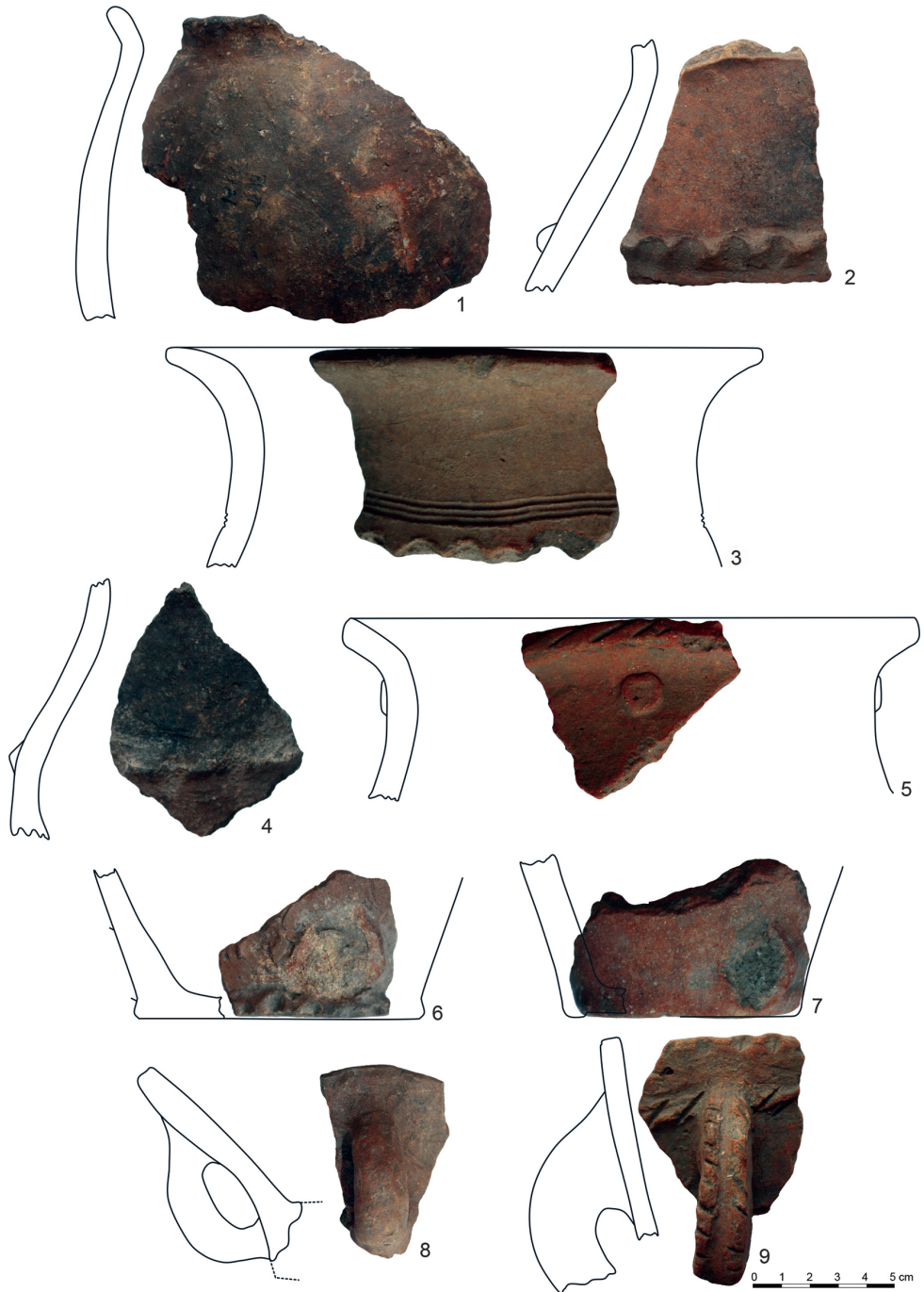


Fig. 3. Angheluș, județul Covasna. Handmade pottery from the settlement;  
Photo, drawings and computer design by S. Berecki.

cooking. Therefore, their use in activities related to cooking, as attested for other similar vessels discovered in the Near East, seems more likely (Horedt 1983). They were produced during a long period of time, and have been identified in contexts dated between the 2<sup>nd</sup> century BC and the 1<sup>st</sup> century AD and even later, during the existence of Dacia as a Roman province. Moreover, they were also discovered in Dacia's bordering areas, such distribution proving their popularity (Horváth 1998, 69, type XIII:1).

The *vessels for serving food* are represented by various types and variants of bowls.

A fragmentary bowl with everted rim discovered in the house was hand-made and shows traces of secondary burning on the inside (Fig. 2:6). Similar vessels have been discovered in other Dacian settlements, in contexts dated to the 1<sup>st</sup> century BC (see, for example, the settlement at Brad, on the Siret River: Ursachi 1995, Pl. 58:6) or to the 1<sup>st</sup> century AD (Brad: Ursachi 1995, Pl. 58:10; Sighișoara-Wietenberg, in Transylvania: Rustoiu 1997, 124, Fig. 51:3, 86:5).

Another bowl, found in the same house, was wheel-made of grey fine clay (Fig. 2:7). The vessel has an inverted rim and a decoration consisting of horizontal grooves can be observed underneath it. This type of bowl, very likely imitating Mediterranean prototypes, is frequently encountered in some settlements from eastern Transylvania, like the ones at Merești and Jigodin (Crișan 2000, 129, Pl. 62–63). It also appears in other Dacian regions from the second half or the end of the 1<sup>st</sup> century BC (Sprâncenata: Preda 1986, 94, Pl. 37:3).

A bowl with a triangular, elongated rim, wheel-made of fine clay of grey colour (Fig. 4:1), was identified in the occupation level belonging to the settlement. This type of vessel imitates the Eastern Sigillata ware (Hayes 1997, 14–15, Fig. 1:2, 3:3) or, more likely, the Pontic one (Zhuravlev 2010, Pl. 24:168). A similar imported vessel comes from the settlement at Răcățău, on the Siret Valley, dated to the end of the 1<sup>st</sup> century AD (Popescu 2013, 134, no. 239, Pl. 15), and another one from the settlement at Orlovka, at the mouth of the Danube, which was dated to the second half or the end of the 1<sup>st</sup> century AD (Sîrbu, Bârcă 2000, 37, 6:3).

Two other bowls, which were wheel-made of grey clay, displaying a rounded, outward flaring rim, come from the Dacian settlement (Fig. 5:1, 5). This type also imitates Mediterranean prototypes. Similar vessels were discovered in large quantity in the area of the Dacian Kingdom's capital in the Orăștie Mountains. They were identified in archaeological features which were already in use during the second half of the 1<sup>st</sup> century AD and were destroyed during the wars against the Romans, at the beginning of the 2<sup>nd</sup> century AD (Cristescu 2014, 121–123, Fig. 5:4–8).

The largest group of vessels used for serving food, discovered in the house, but also within the occupation level of the settlement, is represented by the so-called “fruit-bowls”. From a morphological and functional point of view, these vessels resemble of a bowl with a wide, everted rim and a tall hollow foot.



Fig. 4. Angheluș, județul Covasna. Wheelmade pottery from the settlement;  
Photo, drawings and computer design by S. Berecki.

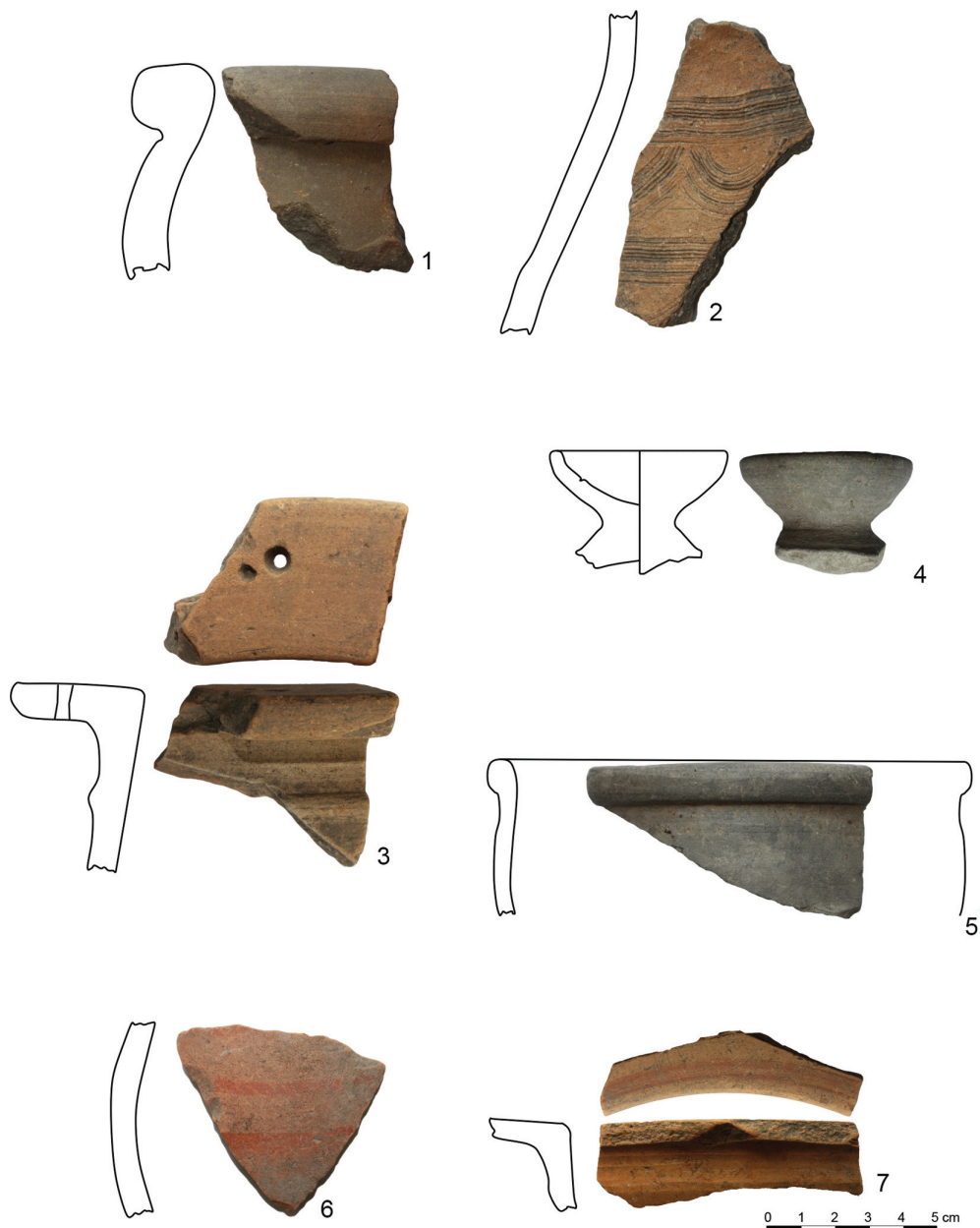


Fig. 5. Angheluș, județul Covasna. Wheelmade pottery from the settlement;  
Photo, drawings and computer design by S. Berecki.



The ones discovered in Angheluş were wheel-made and are grey in colour (Fig. 2: 8–11, 4:2–4). Only one of the “fruit-bowls” has a brick-red colour and was painted on the rim with thin red stripes (Fig. 5:7). The “fruit-bowls” are among the most distinctive vessels from the Dacian ceramic repertoire and they appear in all settlements from the period of the Dacian Kingdom. The ones from Angheluş have a horizontal rim and similar vessels can be found more often during the 1<sup>st</sup> century AD, although they had already appeared during the previous century, as stratigraphic and statistical data from the settlement at Brad are showing (Ursachi 1995, 172–173). It is important to mention here the absence of the fruit-bowls with angular rim, typical for the 2<sup>nd</sup> and 1<sup>st</sup> centuries BC, from the settlement. Regarding the painted one, similar vessels are frequent in the settlements located along the Siret Valley, east of the Carpathian Mountains, but also in other regions of Dacia, including the eastern part of Transylvania (Ursachi 1995, Pl. 135:1–8; Florea 1998, 121–131, Pl. 92; Crişan 2000, Pl. 82; Drăgan 2014, 302, Pl. 1:2E2).

The *drinking vessels* are represented by biconical jugs with a ring-shaped base and a loop handle. They were wheel-made of fine grey clay (Fig. 2:12–13; 4:5–6). This type of vessel is common in Dacian settlements dated between the 1<sup>st</sup> century BC and the 1<sup>st</sup> century AD.

Finally, the *storage vessels* include large wheel-made containers, brick-red in colour. They have a horizontal rim and their body is ornamented with incised lines which can be either horizontal or arranged in garlands (Fig. 5:2–3). The vessels imitate Mediterranean shapes and are dated to the 1<sup>st</sup> century AD, especially to the second half (Glodariu 1981, 156–157, 161). However, they were also identified in several Dacian settlements dated to the 1<sup>st</sup> century BC (Rustoiu 1997, 84–85). A body fragment painted with horizontal red lines could also belong to a storage vessel (Fig. 5:6). The type is common in other settlements from the period of the Dacian Kingdom (Florea 1998, Pl. 25–26).

A lid fragment, wheel-made and of grey colour, can be added to these ceramic categories (Fig. 5:4). The form is characteristic of the period between the 1<sup>st</sup> century BC and the 1<sup>st</sup> century AD (see, for example, Ursachi 1995, Pl. 111–112).

The house discovered at Angheluş also contained two ceramic objects. The first one is a biconical, greyish-brown spindle whorl burnished on the outside (inventory No.: 16477; see Fig. 6:1).

The functionality of the second object is uncertain. It has dark brown colour and an oval, convex base and a cylindrical handle, set perpendicular to the base, which is broken. Its dimensions are: length: 90 mm; width: 51 mm; height: 26 mm (inventory No.: 16476; see Fig. 6:2). Romanian archaeological literature considers these objects as potter’s implements, used for burnishing or shaping the body of the vessels (for the discussion see Babeş 1980). This type of tools appears frequently in household inventories from Dacian settlements dated between the 1<sup>st</sup> century BC and the 1<sup>st</sup> century AD, being associated with pottery and everyday objects. To give an example, V. Sîrbu noted that several



Fig. 6. Angheluș, județul Covasna. Ceramic tools from the house with the mould;  
Photo by S. Berecki.

1 — spindle whorl; 2 — household tool.

dozens of such objects came to light, especially in houses, in the settlement at Grădișteea, in the Lower Danube region. Therefore, it is hard to understand why he considers them pottery tools (Sîrbu 1996, 40–41). The occurrence of these objects in pottery workshops is very rare. The only example known by the authors of the present article comes from Belgrade-Karaburma (Ljuština, Spasić 2014, 289, Pl. 3:2, left). For this reason, the object discussed above is more likely to be used in daily activities. V. Kotigoroško considers that they were used for leather processing, to smooth stitches or surface of leather. They were first heated in order to be used, a practice which explains both the traces of secondary burning and the presence of the handle (Kotigoroško 1995, 91–92).

Beside the pottery and the two implements mentioned above, the excavation of the house also revealed an anthropomorphic figurine made of clay (inventory No. 16609; see Fig. 7). It represents a human figure in a very schematic manner. The frontal side presents two notches suggesting the face and nose. Two other almost circular impressions can be noticed on the “abdomen”, while the legs were sketched on the lower part. Its dimensions are: height: 47.7 mm; thickness: 22.1 × 16.8 mm. The object has been mentioned before in the literature, sometimes with errors<sup>4</sup> and without detailed analysis.

Anthropomorphic figurines of this type were widely distributed during the Late Iron Age, especially in the regions of the Lower Danube and in south-eastern Transylvania. The discoveries are scarce in the rest of the Transylvanian Basin (Sîrbu 1993, Fig. 6). They were identified within settlements, in graves and as components of magical toolkits. It was presumed that they were used

<sup>4</sup> Székely 1976, 233, Fig. 3:3 with a blurry photo and wrong caption, which located the discovery at Poian; Șoancă 1992, 52 considers that the representation is feminine; Sîrbu 1993, 110 dates it erroneously between the 3<sup>rd</sup> and 2<sup>nd</sup> centuries BC; Crișan 2000, Pl. 125:1 with the correct location of the discovery.



Fig. 7. Angheluş, judeţul Covasna. Ceramic anthropomorphic figurine from the house with the mould; Photo by S. Berecki.

in magical practices. The body of these figurines occasionally displays prodigious marks, which indicate the practice of “black magic” (Sîrbu 1993, 58–62, 64–70; 2006, 68–70). These representations were used in the same manner as the so-called “voodoo dolls” from the Mediterranean region (Faraone 1991; Ogden 1999, 71–79; Collins 2008, 64, 92–97).

Summing up, it can be said that the settlement at Angheluş had a rural character and did not cover a large area. Chronologically, the pottery discovered inside the house discussed above, as well as the one identified within the occupation level of the settlement can be generally dated between the 1<sup>st</sup> cen-

ture BC and the 1<sup>st</sup> century AD. The absence of certain ceramic forms which characterize the first half of the 1<sup>st</sup> century BC more likely indicates that the beginning of the settlement can be placed in the second half or maybe even at the end of the 1<sup>st</sup> century BC. Subsequently, it evolved during the next century and was probably abandoned after the Roman conquest.

#### THE MOULD FOR CASTING AMPHORA-SHAPED PENDANTS

The mould (inventory No. 16610) was used for casting amphora-shaped pendants, which were fashioned in a realistic manner (Fig. 8). It has a parallelepiped shape and was made of clay mixed with sand, small pebbles, and crushed pottery. A thin layer of graphite can be observed inside the amphora-shaped cavity and on the flue. No traces of molten metal were identified on the mould. Microscopic and chemical analyses could detect in the future these potential marks. Traces of secondary burning are visible on the edges of both the cavity and the flue. The upper left corner of the mould was damaged at a certain point during ancient times, this being probably the reason for which it was discarded.

The mould's dimensions are: length: 44.26 mm; width: 31.43 mm; thickness: 21.33 mm; height of the pendant: 22.2 mm; weight: 50.2 g.



Fig. 8. Angheluş, judeţul Covasna. Ceramic mould for casting amphora-shaped pendants; Photo by S. Berecki.



Ceramic moulds or those made, less often, of limestone, sandstone or even reused pottery fragments were discovered before in inventories of metallurgical workshops or, in rare cases, inside settlements from pre-Roman Dacia dated between the 1<sup>st</sup> century BC and the 1<sup>st</sup> century AD. They were used for manufacturing various objects (Rustoiu 1996, 47–48, Fig. 14–16): bars made of copper, tin, bronze or silver and especially simple rings (Fig. 9:1). Moulds for casting other types of artefacts are less frequent. A mould used for casting bronze bridle cheek-pieces from a metallurgical workshop at Pecica (judeţul Arad, western Romania) should be mentioned in this regard (Crişan 1978, 85, Pl. 116:7; Kołkówna 1978, 66, Fig. 26–27). A bronze bridle cheek-piece of the same dimensions as the mould was identified almost 150 km away, in the settlement at Židovar, near Vršac, in north-eastern Serbia (Medeleţ 1995, 96, Fig. 2:3). Its presence illustrates the extent of the distribution area of the products coming from the Pecica workshop. Finally, a mould for casting bar-shaped pendants (Fig. 9:2) was discovered in the settlement at Popeşti (judeţul Giurgiu, southern Romania; see Vulpe, Gheorghiş 1981, 59, Pl. 1:4). Similar bronze objects are frequent during the 1<sup>st</sup> century AD, especially in settlements located east of the Carpathians, along the Siret Valley (Rustoiu 1996, 123–124, Fig. 89).

Numerous moulds made of clay, stone (sandstone or limestone) or reused ceramic fragments (usually walls or handles coming from amphorae) were identified in the Greek milieu on the northern and western Pontic shores. Chronologically, they cover a long period, lasting from the Archaic Period until the Early Roman Imperial one. The objects cast in these moulds show a wide typological and functional variety, but most of them belong to the category of personal ornaments (Fig. 9:3-5): earrings, bracelets, finger rings or simple rings, amulets etc. (Coja 1962, 134–135, Fig. 12; Kołkówna 1978, 55–59; Treister 1998; Krutilov 2010, 473–477 etc.).

Another technical aspect regarding the mould from Angheluş is related to the thin layer of graphite observed inside the flue for pouring metal. Graphite is one of the minerals with the highest thermal stability and a good heat conductor (Martinón-Torres, Rehren 2005, 142; Martinón-Torres, Rehren 2009, 61–64; Martinón-Torres, Rehren 2014, 124). Due to these properties, it was widely used during the La Tène Period in the fabric composition of certain cooking jars (the so-called *situla*-shaped vessels) from Central Europe, where graphite deposits were exploited (Kappel 1969; Hlava 2008; Trebsche 2011; Golánová 2014), as well as in the surrounding areas where the mineral was “imported” (Rustoiu 1993; Havancsák, Bajnóczi, Tóth, Kreiter, Szöllósi 2014). Graphite added to the fabric of pottery vessels increased their thermal conductivity, thus saving time and fuel during their use on fire (Martinón-Torres, Rehren 2005, 142).

The same chemical and physical properties of graphite determined its use as a component of “technical” ceramics intended for metallurgical activities. Thus, during the La Tène Period, as well as later in modern times, a series



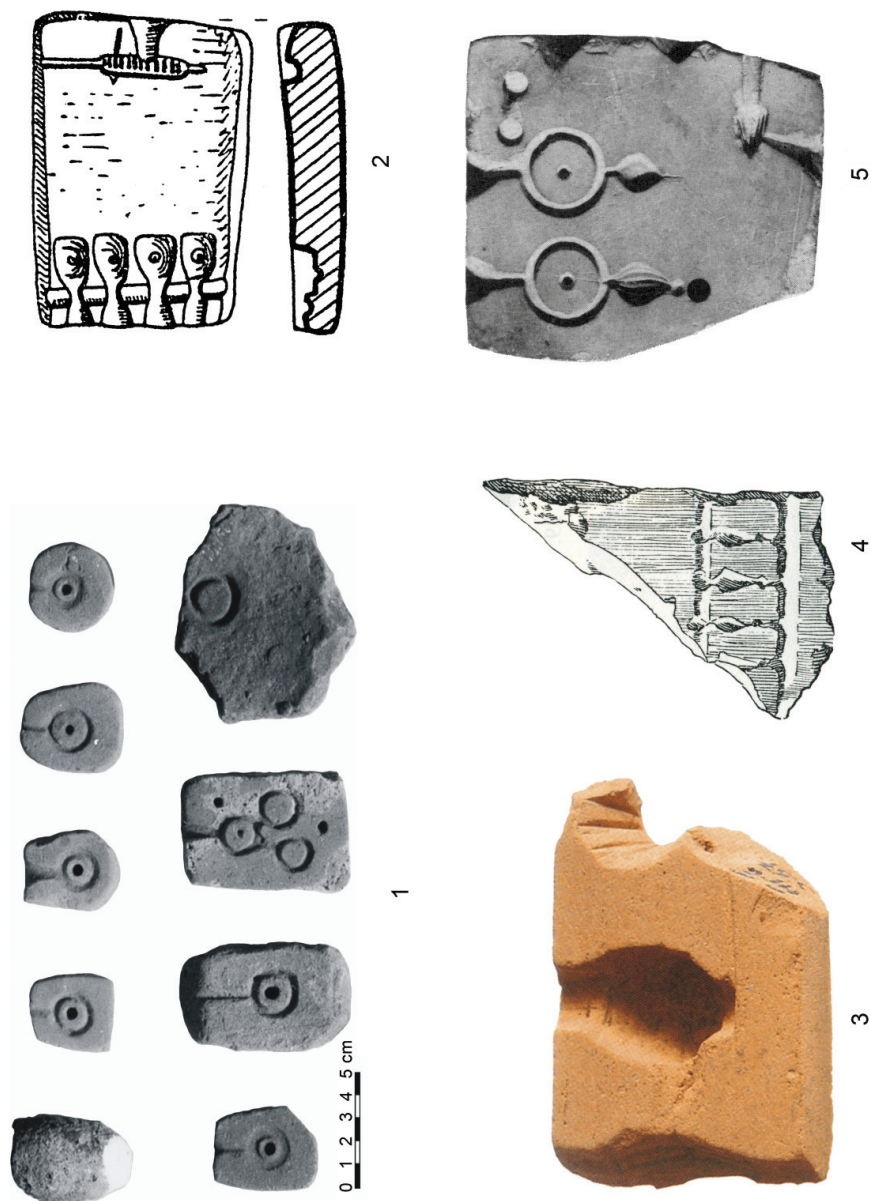


Fig. 9. Ceramic or stone moulds discovered in pre-Roman Dacia or in Greek Pontic cities (2–5 — no scale); computer design by A. Rustoiu. 1 — Banița, județul Hunedoara (above, left, ceramic crucible); Photo by A. Rustoiu; 2 — Popești, județul Vrancea; after A. Vułpe, M. Gheorghitã (1981, Pl. 1:4); 3 — Olbia; after V. V. Krutilov (2010, 474, No. Rb-6, Pl. 357); 4 — Phanagoreia; after S. Kołkówna (1978, Fig. 35); 5 — Histria; after M. Coja (1962, Fig. 12:3b).

of crucibles for smelting and casting precious or nonferrous metals were made of clay mixed, in different proportions, with graphite. In some situations even pure graphite was used (Hochuli-Gysel, Picon 1999; Bayley, Rehren 2007, 47). So far, the crucibles with graphite in the fabric are not numerous during the Late Iron Age. Those discovered at Wallersdorf, in Bavaria (Kappel 1969, 49, Fig. 13:1–2), or at Inzersdorf-Walpersdorf, in Lower Austria, the latter with traces of molten gold on the inside (Ramsel 1998, 42–43, Fig. 28–30), ought to be mentioned here as an example.

Finally, vessel fragments with graphite in the fabric were sometimes reused for the production of moulds intended for casting metal bars, metal “flans” or “pearls”. The latter were utilised for manufacturing gold and silver coins or different roundels and counters (Kappel 1969, 50, Fig. 14:1–3; Hlava 2008, 241; Čižmář 2002, 305–306, Fig. 6–7; Pieta 2010, 167–168, Fig. 71: 25–26). In both cases (crucibles and moulds), graphite inhibited the oxidation of molten metal and prevented the occurrence of cracks or fractures in the body of the containers. For example, it is significant in this respect that in England, during the 16<sup>th</sup> and 17<sup>th</sup> centuries, graphite, then commonly called “Black Lead”, was employed for coating the inner walls of the moulds used for casting “Bomb Shells, Round Shots and Cannon Balls”. The importance of graphite for the war industry in England is confirmed by passing legal regulation on resource protection (*Statutes* 1764, 415).

To sum up, technical reasons determined the use of graphite for coating the functional part of the mould from Angheluș. The craftsman had access to this mineral, even though graphite resources were located at great distance. Graphite deposits exploited during the Late Iron Age are attested in Bavaria, Lower Austria, Bohemia, and Moravia (Kappel 1969, Fig. 11). Other graphite ore sources are known at Baia de Fier, south of the Carpathians, in Romania, or at Zavalye, on the southern Bug, in Ukraine (Nokleberg, Bawiec, Doebrich, Lipin, Miller, Orris, Zientek 2005, 49, Fig. 7B); however, it cannot be established to what extent they were known and exploited during the period in question.

Regarding the amphora-shaped pendants, they were fashionable for a long period of time in the Circum-Mediterranean area, despite the morphologic changes affecting them throughout the centuries. Made of gold in a stylized manner, they were used, hanging on necklaces, in Greece and Macedonia during the Late Archaic Period, (*Sindos* 1985, 265; Popović 1997, 168, Fig. 3:7–8), as illustrated, among others, by representations on women statues of the period<sup>5</sup> (Fig. 10). The ones made of precious metals, with a more or less conical shape, were subsequently imitated in bronze, amber, and especially glass (Philipp

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<sup>5</sup> For example, a string of amphora-shaped beads is represented on a statue from the Late Archaic Period discovered in the rural cemetery at Myrrhinous (Merenda) in eastern Attica (Hurwit 2007, 265–267, Fig. 30). The beads were initially painted with golden paint (not preserved) in order to indicate the metal from which they were made (Brinkmann, Koch-Brinkmann, Piening 2010).

1981, Pl. 25, 82; Popović 1997). The glass ones were produced on a large scale in workshops from the Greek Mediterranean or Pontic milieu. From here they were distributed between the 5<sup>th</sup> and 3<sup>rd</sup> centuries BC in different regions of the Lower Danube, in the Balkans, and in the Carpathian Basin (Popović 1997; Schönfelder 2007; Rustoiu 2011).

The popularity of the amphora-shaped pendants increased during the Hellenistic Period, especially in the eastern part of the Mediterranean Basin. During this period they underwent a series of morphological and functional changes. Thus, conical-shaped pendants from the previous period (see Fig. 9:3–5) were provided with additional elements which contributed to the development of the actual amphora shape. Modified in this manner, new pendants became components of golden earrings (Higgins 1980, 161–162). The British Museum has a rich collection of such earrings originating mostly from the eastern Mediterranean Basin, dated generally to the 2<sup>nd</sup> and 1<sup>st</sup> centuries BC or to the beginning of the new era (Marshall 1911, 273–280, Pl. 51; Higgins 1980, Pl. 48:C).

Similar objects were also documented along the western Pontic shores. A pair of golden earrings discovered in the necropolis at Messambria, dated to the 3<sup>rd</sup> century BC, should be mentioned in this regard (Gălăbov 1955, 141, Fig. 15; *L'or...* 2003, 204–205, No. 308f), as well as another earring coming from a burial in the cemetery at Anchialos (Pomorie, Bulgaria), dated to the end of the 1<sup>st</sup> century BC and the beginning of the 1<sup>st</sup> century AD (Tonkova 1997, 92–93, Pl. 6:1). A larger number of discoveries come from the northern Pontic area, from both the Greek and the indigenous environment. Some of them were dated between the 2<sup>nd</sup> and the 1<sup>st</sup> centuries BC, while others were discovered in funerary contexts belonging to the first two centuries of the Christian era. This situation would indicate that this type of jewellery was used for a longer period of time after its production (for more details see: Mordvintseva, Treister [eds.] 2007).

Regarding the technology of the amphora-shaped pendants, they were manufactured in different manners<sup>6</sup>. The ones made of metal were either hammered (with the use of punches or matrices) or cast in moulds.

The first technique implied the use of a punch for modelling a gold sheet. Two identical halves of the pendant could be obtained in this manner, and then subsequently assembled together. One such punch is preserved in the collections of the British Museum (Higgins 1980, 13, Fig. 1), while another was discovered in a fortified indigenous settlement at Ruen, near Burgas, in

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<sup>6</sup> A series of pendants attached to earrings were made from multiple elements. Among these are the ones manufactured from a core consisting of a glass bead or a precious stone which was mounted in gold settings in such a manner that the object had the shape of a handled amphora. Earrings or necklaces composed of this type of pendants are generally dated to the 2<sup>nd</sup> and 1<sup>st</sup> centuries BC. They were widely distributed in Crimea and in the Sarmatian environment from the north-western region of the Black Sea (Simonenko, Marčenko, Limberis 2008, 32, Fig. 22:1; Treister 2004, 259–260, note 10 with a list of the discoveries; Fless, Treister 2007, 272–274, Fig. 6:20–21).



Fig. 10. String of amphora-shaped beads depicted on a statue belonging to the late Archaic Period, discovered in the rural cemetery at Myrrhinous (Merenda) in eastern Attica and preserved in the National Archaeological Museum Athens (no scale); Photo by A. Rustoiu.

Bulgaria (Tonkova 1994, 175, 181, 191 Footnote 7). Both tools were dated to the Hellenistic Period. Matrices were sometimes employed instead of punches. A matrix that was also used for modelling amphora-shaped pendants belonged to a deposit composed of metallurgical tools and semi-finished or final products discovered in a fortified indigenous settlement at Ošanići, near Stolac, in Bosnia–Herzegovina. The deposit was buried in the second half of the 3<sup>rd</sup> century or the beginning of the 2<sup>nd</sup> century BC (Marić 1978, 28, no. 14, Pl. 23:14; Treister 2001, 292). However, regardless of the technique employed for shaping the gold sheet, the handles made of gold wire were attached afterwards, by welding or heat-sealing, to the body of the pendant. Sometimes the bodies and handles of the pendants were decorated with filigree and granulation. Among the jewellery with pendants made in this technique are, for example, the ear-



rings from Messambria and Anchialos mentioned above or a pair of earrings identified in a grave at Panticapaeum (Fig. 11:1), dated to the first quarter of the 1<sup>st</sup> century AD (Mordvintseva, Treister 2007, 69, Cat. A220.1, Pl. 4; Fless, Treister 2007, Fig. 6:15).

The amphora-shaped pendants were also cast in moulds. Made of stone or clay, moulds were discovered in several Greek cities from the northern Pontic coast. A mould made from a Rhodian amphora handle, discovered at Olbia, was used for casting metal (or glass?) pendants typical for the 4<sup>th</sup> and 3<sup>rd</sup> centuries BC (Fig. 9:3; see Krutilov 2010, 474, No. Rb-6, Pl. 357). Two other moulds, one made of gypsum and another of clay, were identified at Olbia and were dated to the 1<sup>st</sup> century AD or even later (Kołkówna 1978, 70–72, No. 35, 44, Fig. 37, 46). However, the contexts of the discoveries are not clear enough, therefore an earlier dating cannot be excluded. In fact, regarding the mould listed by S. Kołkówna under No. 44 from Olbia, M. Treister has remarked that the pendant cast in it is similar to the matrix from the deposit at Ošanići, which belongs to an earlier context (Treister 2001, 292). Another mould, made of marble, was discovered at Delos in a house located south of the Tetragonal Agora. It is considered that it was used for casting lead *ex voto* objects (Déonna 1938, 307, Pl. 1:6). This example raises the possibility that some of the pendants were produced using the lost-wax casting method (*à cire perdue*). Thus the moulds could have been used for obtaining wax models needed during the process. Actually, pendants made of bronze using the lost-wax casting method are attested in Greece, as demonstrated by two objects discovered at Stymphalos, in the Peloponnese (Young 2014, 125, No. 180–181, Fig. 6:10, 19). Regarding the gold pendants cast in moulds, such examples were documented during the late Hellenistic Period in the eastern Mediterranean Basin. A necklace discovered near Medinet Gurob in the Fayum oasis (Egypt) and kept in the collections of the Museum of Fine Arts, Boston (Fig. 11:2), should be mentioned here as an example. It includes four amphora-shaped pendants, together with biconical, pomegranate and lotus flower beads (MFA 2015). Moreover, this type of pendants decorates a pair of earrings discovered in a funerary context near Damascus and kept in British Museum (Fig. 11:4), which can be probably dated to the 2<sup>nd</sup> or 1<sup>st</sup> century BC (Marshall 2011, No. 2324–2325, Pl. 51). In the Black Sea area, a pair of cast gold pendants decorated with granulation was discovered in a Sarmatian grave at Kalinovka, in the Volgograd region (Fig. 11:3), dated to the end of the 1<sup>st</sup> century BC and the beginning of the 1<sup>st</sup> century AD (Mordvintseva, Treister 2007, 37, Cat. A101.3, Pl. 11).

In conclusion, the mould discovered at Angheluş was used for casting amphora-shaped pendants, more likely made of gold since there are no similar bronze pendants in the Pontic region or the northern Balkans. These pendants, used as elements of composite jewellery (earrings, necklaces), were popular in the Greek eastern Mediterranean and Pontic environment, as well as among the people from the northern Pontic region, during the Hellenistic Period and



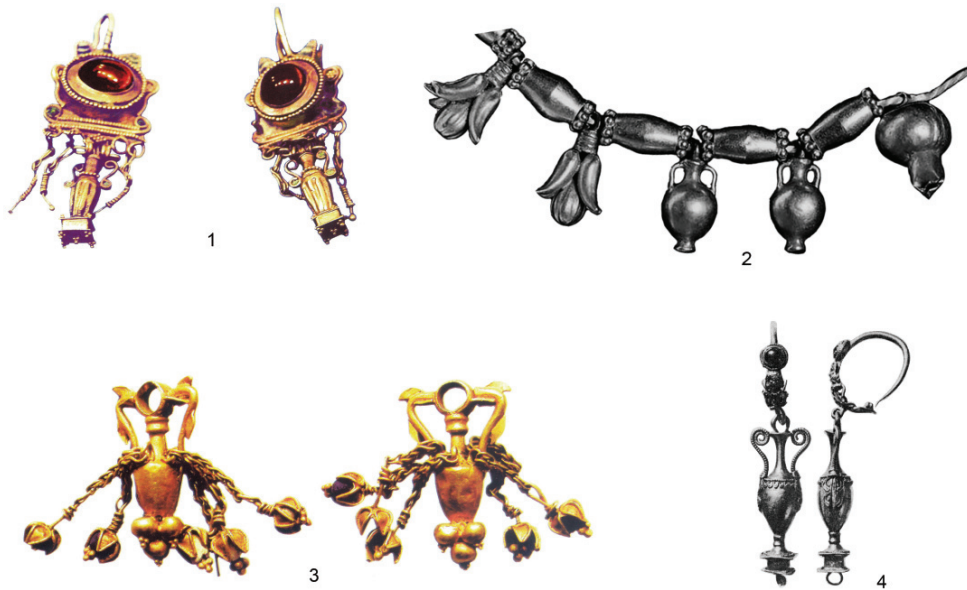


Fig. 11. Gold amphora-shaped pendants included in some Hellenistic earrings and necklaces (no scale); computer design by A. Rustoiu.

1 — Panticapaeum; after V. Mordvintseva, M. Treister (2007, Pl. 4); 2 — Medinet Gurob in the Faiyum (Egipt), detail; computer design by S. Berecki; 3 — Kalinovka, Russia; after V. Mordvintseva, M. Treister ([eds.] 2007, Pl. 2); 4 — near Damascus; after F. H. Marshall (2011, No. 2324–2325, Pl. 51).

at the beginning of the Christian era. Nevertheless, this type of jewellery has not yet been discovered in pre-Roman Dacia. The pendants commonly found in this region were made mainly of silver, bronze and iron, and the repertoire of discoveries comprises types that were different from the ones preferred in the Black Sea region (see Rustoiu 1996, 121–127). How to explain then the presence of a Hellenistic mould for casting amphora-shaped pendants in a settlement from pre-Roman Dacia? The answer to this question can be at least suggested by analyzing several aspects related to the mobility of individuals (especially craftsmen), ideas and cultural goods. Likewise, the relations established by the communities from Transylvania with the Greek Pontic region during the period of the Dacian Kingdom (from 1<sup>st</sup> century BC to 1<sup>st</sup> century AD) are relevant in an attempt to understand the cultural connections between the two areas.

## DISCUSSION

The diffusion of knowledge and technologies across wide areas was based, first of all, on the increased mobility of craftsmen. This mobility was determined by their social position and their relations with the customers, as well as within their own social and professional group. For this reason, the interpretation of

the aspects concerning the mobility of the artisans needs to consider several important factors.

First of all, the activity of the craftsmen was determined by the needs of those who ordered and used their products. The craftsmen specialized in producing prestige goods or objects meant to visually express a specific social status depended on the elites and on the leaders of the communities. The latter were the main customers and they were the ones who dictated the nature, the morphology, the symbolic meanings or the functional characteristics of the goods they sought (Rustoiu 2002a, 63–70; Rustoiu, Berecki 2014; Egri 2014a, 234–235). Therefore, the craftsmen produced both for the elites and entire communities the so-called “desirable goods”. This term designates “the goods perceived as having a higher social, political or/and economic relevance in a given society [...]” (Egri 2014a, 233; also see in detail 233–235). This is why the spatial mobility of the craftsmen was determined by their need of finding clients who could provide raw materials, demand and maybe, at least in some cases, protection.

This spatial mobility of the artisans had different forms. A “commercial” mobility is defined as a voluntary movement in search of clients. It already took place, for example, in the first half of the 1<sup>st</sup> millennium BC in Greece or the Levant, or in certain communities from the Near East after the collapse of the Bronze Age societies (Zaccagnini 1983, 257–264). Presumably the same phenomenon also characterized, to a great extent, temperate Europe during the Iron Age.

Likewise, the mobility of the craftsmen can be “reciprocative”, meaning that the specialized craftsmen, dependant to a certain extent, were sent from one “master” to another following the same mechanisms that governed the exchange of gifts (Zaccagnini 1983, 249–256). This type of mobility occurs in societies which are strongly hierarchical and are dominated by an authoritarian aristocracy that relies on an economic and social system based on prestige.

Another important factor is represented by the temporal mobility of the craftsmen. This implies the transfer of technologies and specific knowledge from one generation to another within the same family or group of artisans. It explains the longevity of certain types of artefacts or production techniques (for the Carpathian Basin and the northern Balkans, see Rustoiu, Berecki 2014).

The term “itinerant craftsman”, frequently used to define the mobility of the artisans, should be understood just as a temporary displacement during a transfer from one client to another and not as a permanent or institutional lifestyle. Workshops are essentially stationary, immovable and are functioning amongst different customers represented by individuals or entire communities (Zaccagnini 1983, 258–259; Rustoiu 1996, 53).

Regarding the communal relations and connections of the Transylvanian region with the Black Sea area between the 1<sup>st</sup> century BC and the 1<sup>st</sup> century AD, they need to be interpreted according to the historical context in which the Dacian Kingdom evolved in this period.

Burebista<sup>7</sup> was the first king of the Dacians (and of the Getae)<sup>8</sup> mentioned in ancient written sources. Despite the fact that the epigraphic sources and the contemporary or later mentions of ancient authors are scarce (see Ruscu 2002, 295, Fotenotes 238–239), the modern works regarding king Burebista are extremely numerous. The chronology and the deeds of the Dacian king are still subject of controversy (for a summary of the debate, see Ruscu 2002, 296–297). Nevertheless, all of the scholars agree that Burebista was a contemporary of C. Julius Caesar. Likewise, the warlike campaigns carried out to the west, against the Boii and the Tauriscii, the plundering expeditions in Macedonia and Illyria, as well as the military operations carried out on the Black Sea coast allowed, in a short period of time, for the establishment of a wide enough realm that impressed some of the ancient writers (see Strabo VII.3.11 [C. 303], p. 210–213). Actually, even the decree in honour of Akornion of Dionysopolis (*IGB* I[2] 13), dated 48 BC, mentions that Burebista controlled territories to the north and south of the Danube (Fig. 12).

As far as Burebista's relations with the Greeks from the Black Sea shores are concerned, they differed from one city to another. Burebista's actions along the northern and western coast of the Black Sea resulted in most of the cases in plundering the cities. However, there were also a few cases in which friendly relationships were established, for example with Dionysopolis.

However, Burebista's political construct had proved to be ephemeral. Confronted probably with the internal social and political competition of the warrior elites, he was overthrown. The events must have happened sometimes after 48 BC, but before Octavian's Illyrian campaign from 35 BC (Dobesch 1995, 15–19). The kingdom was initially divided in four and afterwards, during the time of Augustus, in five parts (Strabo VII.3.11 [C. 303], p. 212–213). From an archaeological perspective, the separation of certain territories from Burebista's former realm can sometimes be noted due to changes in habitat structure (Fig. 12). For example, the dismantling of the defensive systems in the second half or towards the end of the 1<sup>st</sup> century BC can be observed in settlements located on the Siret Valley, east of the Carpathians, which had

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<sup>7</sup> King Rubobostes mentioned by Trogus Pompeius (Trogus, *Prol.* XXXII, p. 152, Footnote 29) is most probably Burebista (Iliescu 1968; Lica 1997, 12–17; Dana 2006, 103, 107; Rustoiu 2008, 135–136 etc.), despite the fact that some scholars have considered that he could be another Dacian dynast from the end of the 3<sup>rd</sup> century or the 2<sup>nd</sup> century BC (Daicoviciu 1955, 50–51; Crişan 1977, 30; Glodariu 1970 etc.).

<sup>8</sup> The analysis of the ancient literary sources suggests that during the 1<sup>st</sup> century BC and later, the terms “Dacians” and “Getae” referred to a population speaking the same language. The distinction between the two is first of all a geographic one. Strabo (VII.3.12 [C. 304], p. 212–213) mentions that the Getae are the ones inhabiting the area towards the Pontus and the east, while the Dacians occupy the territory from the opposite side, towards Germania and the source of the Istros. During the Roman Imperial Period the term “Dacians” is generally mentioned by Latin writers, while the term “Getae” is used by the ones writing in Greek. It is important in this regard that the population from Moesia Inferior, known as “Getae” before the Roman conquest, is designated with the term “Dacians” in the official documents of the province (Dana, Matei-Popescu 2006, 203–204; Dana 2007, 235–236).

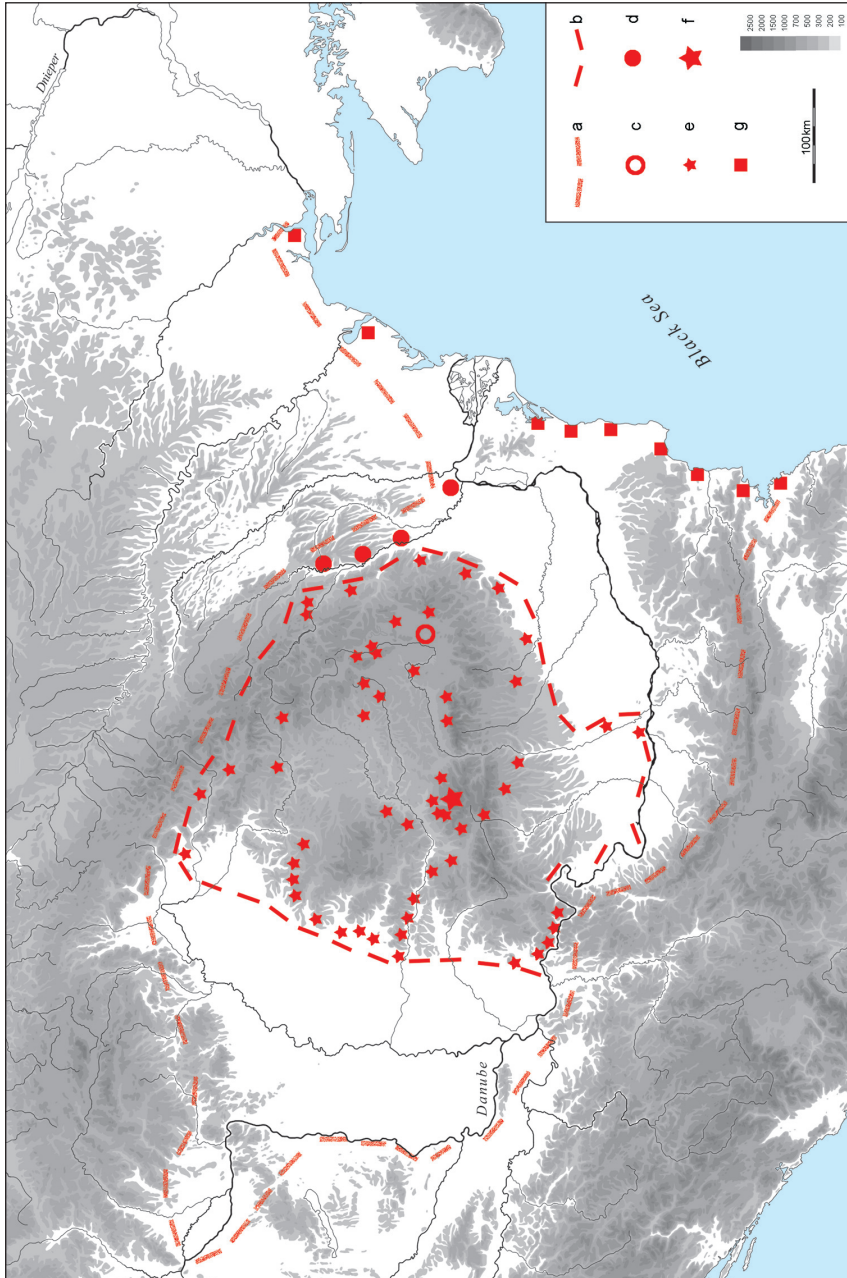


Fig. 12. Map of pre-Roman Dacia; drawing by A. Rustoiu and I. Jordan.

a — limits of Burebista's kingdom; b — limits of the Dacian Kingdom in the 1<sup>st</sup> century AD; c — settlement from Angheluş, judeţul Covasna; d — Dacian settlements on the Siret valley, whose fortifications were dismantled after the fall of Burebista; e — fortresses and fortified settlements of the 1<sup>st</sup> century BC — 1<sup>st</sup> century AD; f — Dacian capital at Grădiştea de Munte, judeţul Hunedoara, probably ancient Sarmizegethusa Basileion/Regia; g — Greek colonies on the north-western and western shores of the Black Sea.

been fortified with ramparts and palisades in the time of Burebista (Ursachi 1986–1987). In other territories, as in the case of the Lower Danube region, literary sources mention some local *basileis* in the last third of the 1<sup>st</sup> century BC (Cassius Dio LI.26., p. 72–73).

The central area of Burebista's large territory, with the capital in the Orăștie Mountains, outlived the disappearance of the king and continued to evolve until the Roman conquest of Dacia at the beginning of the 2<sup>nd</sup> century AD. Several kings succeeded one after another, the last of them being Decebalus. The distribution area of the fortified settlements and fortresses dated between the 1<sup>st</sup> century BC and the 1<sup>st</sup> century AD, expressing a pattern of social, economic and territorial organization typical of the Dacian Kingdom, and different from the one reflected by the Central and Western European *oppida* (Florea 2011, 55–175, Fig. 9), most probably marks the extent of the territory controlled by the Dacian dynasts from Transylvania (Fig. 12). The borders of this territory correspond, to a certain degree, to the frontiers of the future Roman province of Dacia.

As far as the archaeology is concerned, Burebista's Pontic expeditions left their mark for a long period of time on the appearance of the civilian habitat and on the religious buildings from the area of the Dacian capital in the Orăștie Mountains. During the reign of Burebista, soon after 50 BC, Greek architects and stonemasons were brought in to the mountain area from south-western Transylvania to build fortifications, civilian buildings and temples using limestone blocks<sup>9</sup>. The construction technique (*opus quadratum*) and the plans of the fortresses and of certain buildings are Hellenistic in nature (Glodariu 1983; Florea 2011, 107–159). Since the Dacians did not use writing, the presence of these Greeks is also documented by numerous examples of masonry marks and Greek letters identified on some stone blocks, as well as on everyday objects or iron tools (Florea 2000; Florea 2001; Florea 2011, 149–151, Fig. 34b; Egri 2014a, 237, Pl. 3:1–3). These artefacts suggest that the construction specialists were perhaps accompanied by other categories of craftsmen, like blacksmiths or potters.

Burebista's successors continued and extended this building program, turning to Greek artisans even if they lost the direct control over the territories from the Black Sea area. Furthermore, during the 1<sup>st</sup> century AD, and especially in its second half, various specialized craftsmen from the Roman Empire were also drawn into the region (Rustoiu 2002a, 77–78). Around the time of the Dacian wars from the end of the 1<sup>st</sup> century and the beginning of the 2<sup>nd</sup> century AD, the region of the Orăștie Mountains comprised a vast network of fortresses and watch towers made of stone, civilian settlements and manufacturing areas, all of them revolving around a large settlement and sacred area at Grădiștea de Munte, which was the capital and the religious centre of the kingdom.

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<sup>9</sup> During Burebista's reign, these Greek artisans were either prisoners or slaves from plundered Greek cities, or craftsmen employed from the "friendly" cities.



Consequently, in order to acquire the so-called “desirable goods” meant to show their prominent prestige and social status in relation to the “others”, the Dacian dynasts benefited from the services of certain “court artisans”, some of them of Greek origin, others arriving from the Roman Empire. It is significant to mention in this respect that several local chieftains from the periphery of the kingdom tried to imitate a number of buildings from the area of the capital, like the rectangular stone towers with tiled roof, which served as aristocratic residences. These residences played an important symbolic role in the visual expression of a certain social status and authority. Since they were not able to obtain the services of specialized Greek craftsmen, these chieftains used local stonemasons and traditional construction techniques which used local roughly cut stone and timber elevation. Such situations were documented, for example, in the fortress at Divici, on the Danube, in the one at Ardeu, in Transylvania, at Cetățeni, south of the Carpathians, or at Piatra Neamț–Bâtca Doamnei, east of the mountains (Rustoiu 2005, 64–67, Fig. 43; Ferencz, Hegyi 2014; Rustoiu 1985–1986, 768–770, No. 2 and 8 with previous bibliography).

With the exception of these “court artisans”, certain “independent” craftsmen were also active in Dacia<sup>10</sup> and their origins, from the Greek environment or the Roman Empire, are obvious in some cases. They were attracted by the trading and production centres that flourished especially between the 1<sup>st</sup> century BC and the 1<sup>st</sup> century AD.

As an example, the emergence of mould-made bowls with relief decoration, imitating eastern Mediterranean prototypes, in the local settlements from the Lower Danube region during the 2<sup>nd</sup> and 1<sup>st</sup> centuries BC was determined by the activity of Greek craftsmen. The Mediterranean technique that implied the production of vessels in moulds was previously unknown in the Dacian environment. The Greek potters adapted the decoration of these vessels to the visual and symbolic demands of the local consumers, thus producing vessels that were ornamented in a different manner than the originals (Egri 2014a, 237–238, Pl. 2).

The settlements on the Siret Valley, at Poiana, Răcățău and Brad (Fig. 12) experienced economic prosperity as well. This development was determined by intensive manufacturing activities and trade connections, as documented by the presence of some workshops or specialized tools (Ursachi 1995, 117–123; Rustoiu 1996, 58–60; Vulpe, Teodor 2003, 42–43) and numerous “imports” which arrived from the Black Sea region (especially from the northern and western Pontic cities) or from the Danubian provinces of the Roman Empire (Popescu 2013). Certain discoveries indicate the contribution of “foreign” craftsmen.

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<sup>10</sup> Some scholars make a clear distinction between the so-called “independent” specialists, who produced for a wider range of clients, and the “attached” ones, who had a stronger connection with the elites and their needs (Brumfiel, Earle 1987, 5–6). This distinction is just a mere ideal theoretical model. In practice an “independent” craftsman can become “attached”, and vice versa, according to particular circumstances (Egri 2014a, 234–235).

Thus, a series of semi-finished objects or production waste illustrates the activity of a craftsman, originating probably from the southern part of Roman Pannonia, who produced strongly profiled brooches at Poiana during the 1<sup>st</sup> century AD (Rustoiu 2002a, 79, Fig. 65; Egri 2014a, 238; 2014b, 178–180). The large amount of final products of this type discovered in the settlement at Poiana, as well as in the surrounding area illustrates the intensity of this production and the existence of a regional trade (Rustoiu 2002b; Vulpe, Teodor 2003, Fig. 105–113).

Another example is provided by a cremation grave discovered at the periphery of the civilian area in the settlement at Brad (Ursachi 1995, 258–265, Pl. 358, 357). It contained a funerary inventory typical of the Roman Danubian provinces in the 1<sup>st</sup> century AD. The burial illustrates the expression of a particular ethnic and professional identity. It is characteristic of a group of “foreign” merchants or specialized craftsmen from the settlement at Brad, maintaining and “publicly” displaying the burial customs from their homeland (Egri 2014a, 237; 2014b, 178).

Despite the fact that after Burebista’s disappearance and the dissolution of his realm the settlements in the Siret Valley were no longer part of the Dacian Kingdom, strong contacts continued to exist between the communities positioned east of the Carpathians and the ones from eastern Transylvania. These connections are confirmed by a large number of products, typical of the eastern Carpathian area, which have been identified in settlements from eastern Transylvania. They were most probably produced in workshops which functioned in the Siret Valley. Among them are sets of pottery vessels (Florea 1998, 105–106) or clothing accessories and personal ornaments (brooches, earrings, pendants etc.: Rustoiu 1996; 2002b, 201, Fig. 17). The distribution of these objects was mostly determined by individual mobility and intense circulation across the mountains. Furthermore, the eastern Carpathians never constituted a real barrier between the eastern and western regions. They are crossed by numerous passes which have been intensively used since prehistory. It should be noted in this context that the settlement at Angheluş is located in the vicinity of the Negru River Valley, an important route which connects south-eastern Transylvania, across the mountains, to the regions from southern Moldavia where the settlement at Poiana is located. The importance of this route is emphasized by the fact that, after the conquest of Dacia, the Romans fortified it with forts that oversaw the access to this road.

The depression the Angheluş settlement lies in had an important economic role, due to the metallurgical richness of the area (Glodariu, Iaroslavschi 1979, 23–25). Iron ores were exploited since the beginnings of the Early Iron Age (Boroffka 1987). During the 1<sup>st</sup> century BC and the 1<sup>st</sup> century AD the depression experienced an intense habitation and a social hierarchy typical of the Dacian Kingdom. The presence of this hierarchy is sustained by the existence of a series of fortresses and fortified settlements that surround the depression (Crişan 2000, Pl. 4), among which the archaeological site at Covasna is the

typical one (Crişan, Sîrbu 2010). A number of subordinated civilian settlements, like the one at Angheluş (Crişan 2000, Pl. 3), were located around the above mentioned fortresses, in the plains or lateral valleys. In these circumstances, various craftsmen were drawn into this region, fulfilling the demands of a varied, hierarchical local clientele.

The craftsman from Angheluş was not the only one. A deposit composed of anvils associated with a silver ingot and silver finished objects, some of them repaired, was discovered in the vicinity, at Surcea. The inventory, which has been attributed to a goldsmith, can be dated to the 1<sup>st</sup> century BC (Fettich 1953, 128–132; Rustoiu 1996, 69, Fig. 19:6–11; Spânu 2012, 244–245, no. 113). Two other deposits consisting of silver jewellery and female clothing accessories were identified nearby, at Ghelinţa and Peteni, and were dated to the second half of the 1<sup>st</sup> century BC or the beginning of the 1<sup>st</sup> century AD (Fettich 1953; Székely 1965). Moreover, a spoon-shaped silver brooch, similar to some of the objects from the Peteni deposit, comes from the Dacian fortress at Covasna-Cetatea Zânelor (Crişan, Sîrbu 2010, Pl. 12:17). All these artefacts illustrate the nature and function of the products manufactured by these craftsmen.

## CONCLUSIONS

In conclusion, the following “scenario” can be outlined. The mould discovered in the house from the settlement at Angheluş attests the temporary activity of a goldsmith in this region. The mould was used for casting amphora-shaped pendants, probably made of gold. These objects, which were elements of composite jewellery (earrings or necklaces), are not found among the discoveries made so far in pre-Roman Dacia, but they are widely distributed in the Mediterranean and the Black Sea region. Taking all these facts into consideration, it can be presumed that the examined mould was part of a toolkit of a goldsmith most probably originating from the Greek Pontic area, where this type of jewellery was commonly produced. Prior to his arrival in Transylvania, the goldsmith possibly stopped for a while in one of the Dacian settlements in the Siret Valley. As noted above, the presence of “foreign” craftsmen in the Dacian environment east of the Carpathians or in Transylvania was far from exceptional during the period of the Dacian Kingdom. Great manufacturing or trade centres, or aristocratic courts, which controlled socially and economically various regions of the Dacian Kingdom attracted these specialists, who provided “desirable goods” for elites. The products of the goldsmith from Angheluş were the ones ordered by the local elite and they were quite different from the ones commonly manufactured in the Pontic area. Upon his arrival in Transylvania, the mould for casting amphora-shaped pendants was still part of the toolkit used by him and later abandoned in Angheluş. This scenario may explain the presence of this type of mould in an environment

where the choice for personal ornamentation was conditioned by different visual and symbolic factors.

The discovery from Angheluş offers information regarding the status of such goldsmiths within the indigenous community. He might have been an “independent” craftsman, who lived and worked in a regular house together with other inhabitants of the rural settlement at Angheluş, though being subordinated, like the rest of the community, to the local elites who controlled the nearby fortresses. However, certain discoveries from Dacia reflect another type of professional position of the goldsmiths. Several goldsmith tools came from the fortress at Piatra Roşie, in the Orăştie Mountains, being discovered in a rectangular stone tower constructed in the Hellenistic technique. The same type of tools was also identified in other fortresses from the same region, like the ones at Băniţa and Căpâlna, or in other regions in Transylvania and Banat (Rustoiu 1996, 53–60). They indicate the presence of certain “court artisans”, who lived and worked inside fortresses, close to the elites, and probably benefited from a privileged status or at least a higher one in comparison with the goldsmiths from the rural environment.

Finally, the status of the craftsmen and especially of the ones specialized in metalworking (either blacksmiths or goldsmiths) was also conditioned by the magical dimension of their craft.

The transformation of matter, its change from one state to another involves certain interferences between the human world and that of the spirits. For this reason this transformative process was accompanied by numerous ritual and magical precautions. A metalworker was the “master of fire”, who created something new and different from the matter that had already existed in nature. As a result, smelters and blacksmiths were perceived in archaic societies as having powers similar to the ones of shamans, healers and magicians. The whole atmosphere that defined the activity of the artisans was shrouded in sacredness and mystery, involving initiations, specific rituals and “trade secrets” which were not accessible to the uninitiated outsiders. Thus, the artisan was also a magician who knew certain secrets. “The one who *makes* efficient things is the one who *knows*, the one who holds the secret of making them” (see in detail Eliade 1996 [see also 1997]; 1997, 429–432 [see also 1983]; for the relation between metallurgy, magic and ritual from an archaeological perspective see also Budd, Taylor 1995, 138–141; Rustoiu 2002a, 71–75; 2002c; Stöllner 2007, 243–244).

From this perspective, the house of the goldsmith from Angheluş seems to offer reasons favouring the idea of a connection between artisans and the art of metalworking on the one hand, and the magical and occult practices on the other. A ceramic anthropomorphic figurine used in such practices was part of the inventory of the house. The distribution area of these figurines between the 4<sup>th</sup> century BC and the 1<sup>st</sup> century AD shows a concentration south of the Carpathians, in the Lower Danube region, as well as east of the Carpathians, in

Moldavia and the north-western Pontic area. In Transylvania, a higher number of such objects can be noted in the depressions from the east and south-east. Therefore, the craftsman from Angheluş carried out his activity in a region which, from a spiritual perspective, was also familiar to him, being similar to the Black Sea environment.

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*Addresses of the Authors*

*Aurel Rustoiu*

*Institutul de Arheologie și Istoria Artei*

*Str. M. Kogălniceanu 12–14*

*400084 Cluj-Napoca, Romania*

*e-mail: aurelrustoiu@yahoo.com*

*Sándor Berecki*

*Muzeul Județean Mureș*

*Str. Mărăști 8/A*

*540328 Târgu Mureș, Romania*

*e-mail: sberecki@yahoo.com*