Cast bronze vessels in the northern Adriatic region (c. 600 AD). Rome and Ravenna, Nocera Umbra and Budakalász

Bronasto ulito posodje na severnojadranskem območju (okrog leta 600). Rim in Ravena, Nocera Umbra in Budakalász

Joan PINAR GIL

Izvleček

Čeprav ni bilo odkritih prav veliko bronastih ulitih posod iz obdobja med 6. in 8. st., pa njihova izdelava in razprostranjenost dokaj dobro kažeta splošne gospodarske usmeritve in razvoj trgovskih mrež v porimskem Sredozemlju.

Iz prostorske razprostranjenosti teh predmetov je razvidno, da je severnojadranski prostor na prelomu iz 6. v 7. st. postal glavna vhodna točka za redistribucijo posod v vzhodnjaškem slogu v srednjo Evropo in zahodno Sredozemlje in nadomestil dotlej glavno zahodno stičišče Rim z bližnjimi pristanišči. Z območja severnega Jadrana je več tipov posodja potovalo po kopnih poteh v Padski nižini in Porenju ter po morskih poteh, ki so povezovale Jadran z Novo Kartagino (Carthago Nova) in jugovzhodno Iberijo.

Nekatere značilnosti porimskih bronastih ulitih posod in njihovi najdiščni konteksti nakazujejo, da so bile izdelane po različnih standardih kakovosti za različna družbena okolja. Kartiranje razprostranjenosti posodja različnih kakovosti kaže, da je to lahko potovalo prek različnih trgovskih mrež, in razkriva vpliv stroškov prevoza na končno ceno teh izdelkov.

Ključne besede: zahodno Sredozemlje; srednja Evropa; Jadransko morje; zgodnji srednji vek; bronasto posodje; predelava kovin; gospodarstvo

Abstract

Although cast bronze vessels of the 6th-8th centuries are not recorded in particularly large numbers, their production and distribution provide a representative sample of the general economic trends and of the evolution of trade networks in the post-Roman Mediterranean.

The geographical dissemination of these objects shows that at the turn of the 6th century, the northern Adriatic region became the main gateway of 'eastern-style' vessels into Central Europe and the Western Mediterranean. The region was thus replacing the Rome area as the main Western hub for redistributing this type of object. From the northern Adriatic area, several types of vessels were distributed both over land along the Po and Rhine valleys and through maritime routes connecting the Adriatic with Carthage and the Spanish Levant.

The intrinsic features and the depositional contexts of the post-Roman cast bronze vessels suggest that they were manufactured according to different quality standards, which targeted different social milieus. Furthermore, mapping the distribution of the different quality standards reveals that each of them might have been distributed by different networks of merchants and unveils the impact of transportation costs on the final price of these products.

Keywords: Western Mediterranean; Central Europe; Adriatic Sea; Early Middle Ages; trade; economy; metalwork; bronze vessels

More than 150 cast bronze vessels dating from the 6th-8th centuries have been recorded in Western and Central Europe. The typology and distribution of these objects have been recently discussed by Michelle Beghelli and Joan Pinar (Beghelli, Pinar 2019a, 413-427, 433-435, with related literature, figures, and find lists). A long-lasting scholarly tradition attributes their origin to metalwork production in Coptic Egypt or, more generally, to Byzantine territories in the Eastern Mediterranean (e.g., Werner 1938; 1952; 1954-1957; 1961; Erdmann 1938-1939; Holmqvist 1939; Palol 1950; Dannheimer 1979; Mundell Mango 2001; 2009). However, further reviews on the issue have insisted on the multiplicity of production centres and the role of Western workshops in the production of these artefacts (Carretta 1982; Périn 2005; Beghelli, Pinar 2013; 2019a; Drandaki 2016; 2019; Pinar, Vizcaíno 2021).

A recent attempt to reframe the production of cast bronze vessels within its general economic background (Beghelli, Pinar 2019a, 428-432) suggests identifying three main periods in their timeline in the post-classical West. The first one stretches from the late 5th to the early 7th centuries and is defined by the regular arrival in the Western Mediterranean of cast bronze vessels manufactured in Egypt or the Levant. The second period is broadly equivalent to the central decades of the 7th century and shows a remarkably different picture: as direct contacts with the eastern manufacturing centres faded, the production of cast bronze vessels began to be surely attested in several European regions. Finally, in the latest stage, in the late 7th and 8th centuries, the mobility of this type of good was even more limited, and 'exports' outside the regional background were rather exceptional. In these developments, it is not difficult to recognise an instance of the overall trade contraction that reliable economic indices such as fine wares and shipwrecks outline rather clearly for the 7th century (Beghelli, Pinar 2019a, 431; Pinar, Vizcaíno 2021).

CAST BRONZE VESSELS IN THE NORTHERN ADRIATIC

With this background in mind, one sees the significant role that the northern Adriatic appears to have played in the production and distribution of this type of product. However, this role can be difficult to notice, since the region's heyday was during a transitional period dated to around 600 AD when the latest imports from the Eastern Mediterranean apparently coexisted with the earliest Western products. Therefore, it can be difficult to attribute the cast vessels to a precise manufacturing tradition and even more so to a specific workshop or regional production.

A key issue in understanding the dissemination of cast bronze vessels is to assume that each type or variant had a specific distribution; moreover, finding different types in the same deposit does not necessarily imply a common origin, a coincident chronology of production or distribution through the same trade routes, as the accumulation, use and deposition patterns of these objects clearly show (Beghelli, Pinar 2019a, 431–432; 2019b, 285–287). Nevertheless, examining the dissemination of various types in well-defined regional contexts and its evolution over time can provide relevant data on production centres and distribution channels of this particular group of artefacts.

The importance of the northern Adriatic in the supply of cast bronze vessels in Europe is clearly mirrored by the spread of B1 basins with an openwork foot (*Fig. 1:* 7,8,11). The type is well attested in Egypt, the Mediterranean Levant, and Western Europe (Beghelli, Pinar 2019a, 414). In the West, it shows a well-defined pattern: almost 97% of the finds are located in Adriatic Italy, the Po and Rhine valleys and the North Sea region (*Fig. 2*).

It seems rather clear that the northern Adriatic was the vessels' gateway into Europe: the northern half of Italy is, by far, the region which delivered the largest amount of B1 basins; 17 out of the 27 basins recorded in northern Italy are nevertheless clustered around the Adriatic coastline. From there, the vessels were distributed mainly along the Po and Rhine axis, reaching the British Isles. A consistent quantity of parallels found in the Eastern Mediterranean and technological links with eastern metalwork traditions suggest that this may be the type's original production area. Archaeometric data, albeit fragmentary, suggest, though, that the Eastern workshops may not have had a monopoly in the production of B1 basins: a proportion of British finds, for instance, could have been produced by local workshops (Périn 2005, 91-92); it seems likely that at least some of the B1 basins recorded on the continent were also produced in the West, as was the case for several coeval types of vessels (see below in this chapter). In favour of this hypothesis, one should mention both the long period of use of B1 basins (deposited between the late 6^{th} and the early 8^{th}

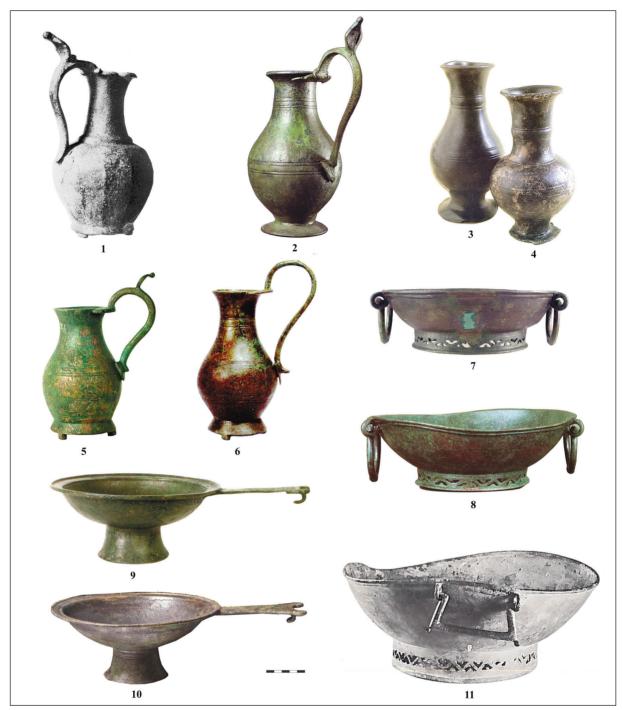


Fig. 1: Regional typological repertoire of cast bronze vessels in the Northern Adriatic. *Sl. 1:* Nabor regionalnih tipov bronastih ulitih posod na severnem Jadranu.

1 - Prepotto (Carretta 1982); 2 - Montale (Gelichi 1988); 3,4 - Salona (Salona 1994); 5 - Cividale/Čedad-San Mauro, Gr. 50 (Ahumada Silva 2010); 6 - Spilamberto, Gr. 62 (Medioevo svelato 2018); 7 - Cividale/Čedad-Santo Stefano in Pertica, Gr. 1 (© Museo Archeologico Nazionale, Cividale); 8 - Castel Trosino, Gr. 90 (Paroli 1995); 9 - Cividale/Čedad-San Mauro, Gr. 21 (Ahumada Silva 2010); 10 - Reggio Emilia (Baldini 2008); 11 - Cividale/Čedad-train station (Carretta 1982)

century) and the fact that the parallels recorded in Egypt show a wider range of decorative motifs (e.g., cross-shapes, rhomboid patterns made of pierced triangles) in their openwork feet (*Fig. 3:* 1-2), features that are absent from the examples recorded in Europe. Although very relevant for studies on cultural transfer and the dissemination of forms and decorations, these sorts of 'imprecise parallels' may fail to define production centres and supply chains.

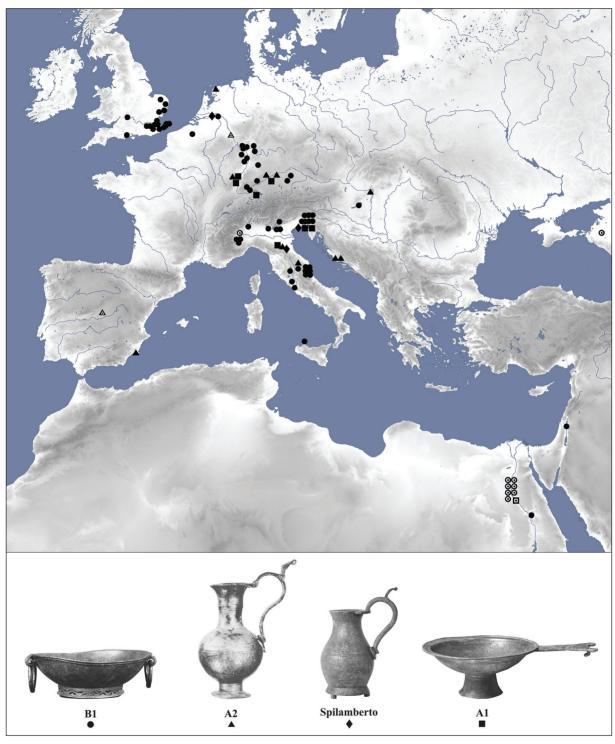


Fig. 2: Distribution map of selected types of cast bronze vessels from c. 600 AD. *Sl. 2:* Razprostranjenost izbranih tipov bronastih ulitih posod iz časa okrog leta 600. (Icons with a dot / Simboli s piko = uncertain provenance / nezanesljivi najdiščni podatki)

The development of B1 basins in the West can be better understood by examining Prepotto ewers (*Fig. 1:* 1; 3: 5; 5: 1; 9: 7), another type attested in the northern Adriatic area (Beghelli, Pinar 2019a, 416–417). The distribution map of these ewers (*Fig. 4*) shows many coincidences with that of the B1 type, but only in its easternmost half: the type is attested in Egypt's peripheral regions (Ballana in Nubia) and in the northern Adriatic (Prepotto); in the westernmost territories, however, it is re-

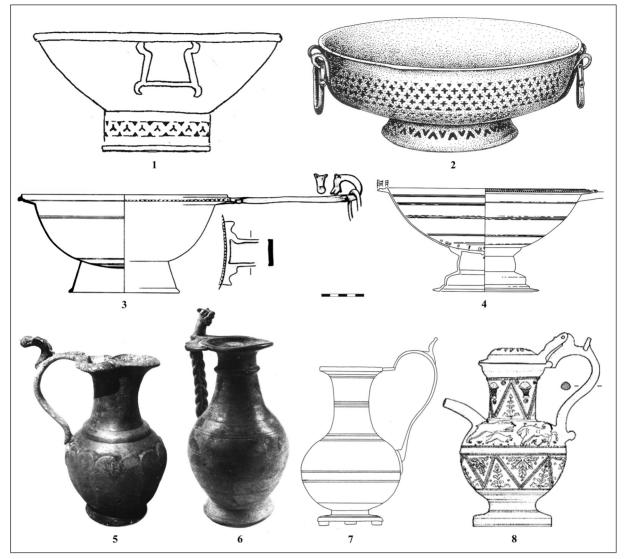


Fig. 3: 'Imprecise parallels' for European cast ewers. *Sl. 3:* "Nenatančne primerjave" za ulite vrče iz Evrope.

1 – Egypt? (Palol 1959); 2 – Dil-Eskelessi (Dannheimer 1979); 3 – 'Negev desert' (Golan et al. 2016–2017); 4 – 'Middle Egypt' (Hayes 1984); 5 – Ballana, Tomb 118, Chamber 8 (Emery 1938); 6 – El Bahnasa (Dannheimer 1979); 7 – Amathus, agora (drawing after / po: Byzart.eu); 8 – Sakha (Drandaki 2016)

corded exclusively on Mediterranean shores, as shown by examples from Rome and Tarragona. Above all, the importance of this vessel type is that it provides tangible evidence that Eastern Mediterranean (probably Egyptian) models were imported, (re)produced and (re)distributed in the West: the examples from Prepotto, Rome and Tarragona are distinct from their easternmost counterparts, as demonstrated by their smaller sizes and less profiled beaks. In addition, a chronological hiatus seems to be noticeable between the 'eastern' and the 'western' variants of the Prepotto ewers: the examples from the Nile valley were deposited before the beginning of the 6th century (Emery 1938, 320–321; Török 1986), whereas the ewer from Tarragona was found in a grave dug after 590/600 AD (Hauschild 1994, 154–155). Production approximately during the central decades of the 6th century thus appears likely for the 'western Prepotto' ewers. Another significant piece of evidence lies in a similar ewer found in Rome, which can be interpreted as a simplified local version of the Prepotto ewers (*Fig. 5: 2*). Its main features (circular mouth and rather simple unsophisticated decoration) make it stand out as a possible link between the Prepotto type and later western types, such as some types of Spilamberto and A2 ewers (*Fig. 1: 2–*6).

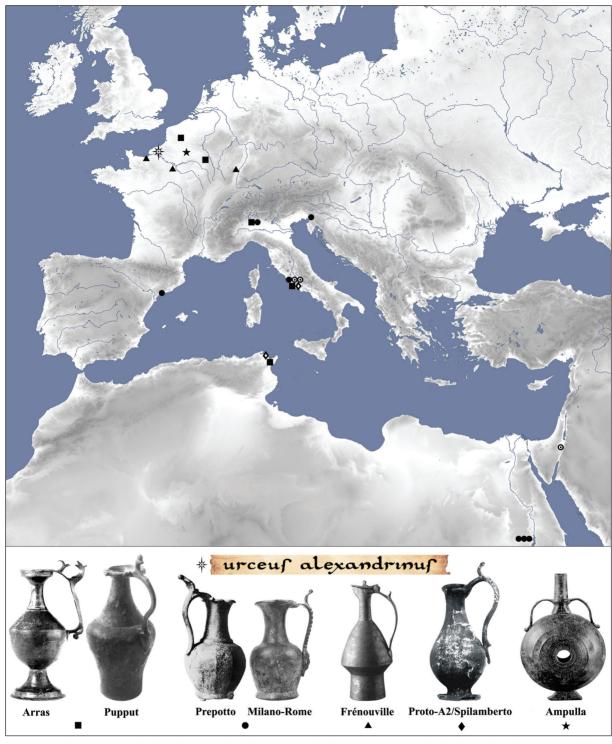


Fig. 4: Distribution map of selected types of cast bronze vessels from c. 550 AD and of early medieval mentions of *'urcei alexandrini'*. (Icons with a dot = uncertain provenance)

Sl. 4: Razprostranjenost izbranih tipov bronastega ulitega posodja iz časa okrog leta 550 in zgodnjesrednjeveških omemb posod *"urcei alexandrini".* (Simboli s piko = nezanesljivi najdiščni podatki)

With A1 pans, Spilamberto and A2 ewers outline the main features of production and distribution of cast vessels in the West c. 600 AD. The main regional clusters of A2 type (Beghelli, Pinar 2019a, $(417-418)^1$ are located in the northern Adriatic

¹ The caption for Fig. 6.6 of Beghelli, Pinar 2019b is incorrect: the picture is that of the Welsrijp ewer (after Boeles 1951).

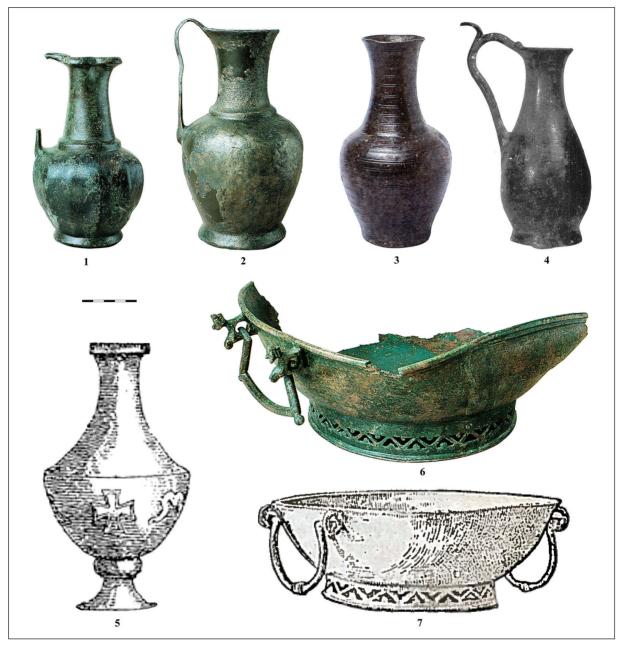


Fig. 5: Regional typological repertoire of cast bronze vessels in Rome and surroundings. *Sl. 5:* Regionalni nabor tipov bronastih ulitih posod iz Rima in okolice.

1,3 - 'Rome'; 2 - Rome-Vittorio Emanuele monument; 4 - unknown provenance / neznano najdišče, Vatican Museums;
5 - Rome-St. Stefano; 6 - Rome-Tiber; 7 - Sutri.

(After / po: Arena et al. 2001 [1-3,6]; Palol 1950 [4]; Monti 1858 [5]; Carretta 1972 [7])

and South-West Germany and French Alsace (*Fig.* 2). The pattern largely coincides with that of the broadly coeval B1 type, but only on its central part: the type is absent in both the North Sea region and the Eastern Mediterranean. The earliest deposits date from c. 590–610 and mainly cluster in Italy (Crespellani 1887, 14; Gelichi 1988, 561–564; Pasqui, Paribeni 1918, 194–199; Palol 1950, 36; Rupp 2005, 25–27; Cardarelli, Malnati 2009, 30).

In the upper Rhine valley, these ewers seem to have been used longer, from the late 6^{th} -early 7^{th} centuries to the late 7^{th} century (Werner 1935, 85–86; Werner 1943; Trier 1992, 290; Nawroth 2001, 244–246; Gall, Te β mann 2018, 116). Two deposits containing A2 ewers were also recorded in Spain's eastern coast and the middle Danube area, dating from c. 575–650 and c. 640–660 (Vida 2017, 15–16; Pinar, Vizcaíno 2021). The diachronic

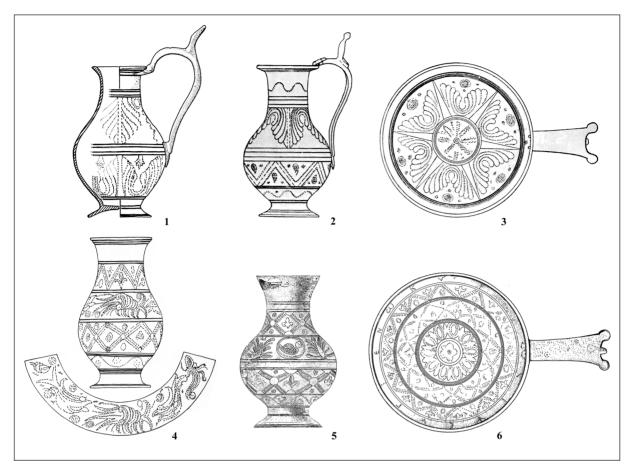


Fig. 6: A1 and A2 vessels with punched and carved decoration. Different scales. *Sl.* 6: Posode tipov A1 in A2 z vtolčenim in vrezanim okrasom. Različna merila.
1 – Montale; 2,3 – Ittenheim; 4 – Pfahlheim, Gr. 4/1891; 5 – 'Bonn'; 6 – Cividale/Čedad–San Mauro, Gr. 21. (After / po: Gelichi 1988 [1]; Werner 1938 [2–5]; Ahumada 2010 [6])

trends in its dissemination show two interesting phenomena. On the one hand, the earliest depositions are located exclusively in northern Central Italy (Montale and Nocera Umbra) and the Rhine valley (Ittenheim). On the other, there seems to be a direct correlation between distance from the Rhine banks and time of deposition of the ewers discovered in South-Western Germany: one can thus follow a pathway oriented West-East in a quite orderly manner outlined by the consecutive burials of Ittenheim, Pfahlheim and Oberbaar. A similar pattern is also mirrored by B1 basins, the earliest deposits (Winkel, Eppstein and Hüfingen: Schoppa 1966, 15; Engels 2002, 52; Vielitz 2003, 169; Drauschke 2011, num. 455, 761, 1735) being clustered in the vicinity of the Rhine.

As for Spilamberto ewers (Beghelli, Pinar 2019a, 418–419), they are found in north-eastern Italy and the lower Rhine valley; the chronological contexts (Ahumada Silva 2010, 117–123; De Vingo 2010, 47–56) suggest a date of deposition around

600 AD. Despite the limited amount of recorded finds, it seems clear that the dissemination of these ewers followed the same pathway as that of other coeval types. The tight correlations between the spread of all these items belonging to the same period indeed suggest that this pattern is not a fortuitous result of the state of research.

The last type of cast bronze vessel clearly related to the northern Adriatic area corresponds to Joachim Werner's A1 pans (*Fig. 1:* 9–10; *3:* 3–4; *6:* 3,6). As shown by *Fig. 2*, recorded examples once more cluster in north-eastern Italy, the Rhine valley and south-western Germany (Beghelli, Pinar 2019a, 414–415). Much like B1 basins and A2 ewers, the earliest depositions of these pans (about 600 AD) occurred either in north-eastern Italy (Cividale–San Mauro: Ahumada Silva 2010, 35–50) or close to the Rhine (Ittenheim and Güttingen: Werner 1943; Fingerlin 1964); further east, they were buried as grave goods around the mid-7th century: the only available datum is given by a probably local variant of an A1 pan, attested at Wittislingen (Werner 1950; see also below); a 'regular' A1 example found in the Salgen cemetery in Bavaria lacks a proper stratigraphic context, although general contextual evidence supports a date within the 7th century (Franken 1944, 59–61).

A1 pans provide particularly relevant data regarding the production of cast bronze vessels in the Adriatic area. The type is well attested in the Eastern Mediterranean (Hayes 1984, 124–125; Golan et al. 2016–2017, 150–151); much like Prepotto ewers, however, the eastern examples show morphological details unattested in the West, for instance, the presence of a *nodus* in the pan's foot or a zoomorphic ending on its handle (*Fig. 3:* 3–4). Therefore, it seems very likely once more that at least a significant proportion of the A1 pans were produced in the West.

This hypothesis is further strengthened when one compares the spread of A1, A2 and B1 vessels (Fig. 2). As mentioned above, they fully coincide and point to two major clusters in the northern Adriatic and the upper Rhine; the absence of A2 ewers in the East supports the hypothesis that most of the vessels recorded in Europe were produced in the West. The fact that some A1 and A2 vessels originated from the same production centres is best demonstrated by comparisons between the decoration of vessels found at Ittenheim (an actual drinking set consisting of pan and ewer), and that of examples from 'Bonn', Pfahlheim and Cividale-San Mauro (Fig. 6). Quantitatively richer evidence of B1 basins, widespread in Adriatic Italy, highlights this region as the likeliest source for producing and distributing cast bronze vessels in Europe.

A group of decorated A1 pans with Greek inscriptions is useful in defining the main characteristics of their production centre. Here again, all examples recorded in proper archaeological context cluster around the Adriatic area (Cividale-San Mauro and Reggio Emilia: Werner, Bischoff 1952; Baldini 2008, 411; Ahumada Silva 2010, 35-50) and South-West Germany (Güttingen: Fingerlin 1964); parallel finds from the antiquities trade are given generic east Mediterranean origins, an attribution that cannot be proven (Ross 1962, 46-48; Mundell Mango et al. 1989, 304). The find spots of the closely related inscriptions from Reggio Emilia and Cividale-San Mauro (Colussa 2003, 126-127) suggest they were manufactured in a workshop located in the northern Adriatic region, probably in a Greek-speaking environment: the largely bilingual élites living in Ravenna at the turn of the 6th century (Carile 1992; Cavallo 1992) stand out as the likeliest customers for this sort of product. In all likelihood, Ravenna was also the production centre for at least a fraction of the B1 basins, as well as for Spilamberto and A2 ewers. Regarding the latter, the Latin inscription on the specimen from Thierhaupten-Oberbaar (Trier 1992) can be regarded as further evidence of the bilingual milieu of origin of many bronze cast vessels dated to around 600 AD.

ALEXANDRIA, ROME AND RAVENNA

Only three European regions have delivered three or more of the five types of cast bronze vessels discussed so far: Italy's northern half,

	Region											
Туре	Northern / Central Italy	Southern Germany / Switzerland / Alsace	Lower Rhine / southern North Sea	Egypt / Nubia								
B1	27	17	3	8								
A1	3	4	-	1								
A2	2	3	2	-								
Spilamberto	2	-	1	-								
Prepotto	3	-	-	3								

Tab. 1: Composition of the typological repertoires of the main regions of clustering of cast bronze vessels between the mid- 6^{th} and the early 7^{th} century. Regions where at least three types of vessels have been recorded are the only ones considered; types occurring in at least two regions are the only ones considered.

Tab. 1: Sestava tipoloških zbirov v glavnih območjih z najdbami ulitih bronastih posod v času med sredino 6. in zgodnjim 7. st. Predstavljena so samo območja, kjer so bili najdeni vsaj trije tipi, in samo tipi, ki se pojavljajo vsaj na dveh območjih.

	Re				
Туре	Rome, Latium and Tuscany	Chronology			
Proto-Spilamberto	1	-			
Rome/Milano	1	-	~ 525–575		
Western Prepotto	2	1			
B1	3	15			
A1	-	3			
A2	-	1	~ 575–625		
Spilamberto	-	2			

Tab. 2: The Tyrrhenian-Adriatic shift. Typological repertoires of cast bronze vessels in Italy between the mid- and late 6th century.

Tab. 2: Tirensko-jadranski premik distribucije. Tipološki zbiri bronastih ulitih posod v Italiji med sredino in poznim 6. st.

South-West Germany and the lower Rhine valley up to the North Sea. As mentioned above, Italy's northern Adriatic coastline appears as the source for the distribution of these items: not only does the region have the largest total amount of finds, but it is also the only one where every single type of vessel has been recorded. Comparisons between regional typological inventories thus point to Adriatic Italy, not only as a significant production and distribution centre of cast bronze vessels in Europe but also as the main redistributive centre for eastern imports (*Tab. 1*).

The general typological repertoire of cast bronze vessels in the West c. 525–625 has much more to do with Egypt than with any other eastern region: as a matter of fact, Egypt is the only non-European territory in which at least three types of the aforementioned cast vessels have so far been recorded. Based on the current state of research, there is little doubt that a significant proportion of the vessels used in Western Europe were produced following specifically Egyptian models, rather than Levantine or generically 'Byzantine' ones.

Comparisons between regional repertoires of cast vessels are also useful to map the degree of connectivity between Egypt, on the one hand, and the western territories on the other. The result is rather straightforward: Italy is the only Western region where every 'Egyptian' type has been recorded. This fact suggests that similarities between the various regional European repertoires derive from their connections with Italy rather than from direct connections between each other: regional typologies mutually coincide in only 67% of recorded types, whereas all (100%) are attested in Italy.

The connection between Egypt and Italy was obviously seaborne: the Camarina shipwreck in eastern Sicily (Di Stefano 1995; Zagari 2005, 110), which included a B1 basin in its cargo, adds rather explicit empirical evidence to the already telling geographical distribution of the vessels, mainly clustered on coastal territories. In all likelihood, the port of Alexandria was the main export hub for Egyptian bronze vessels: evidence for the shipments of bronze items is preserved in written sources dating from the late 5th century (Mundell Mango 2001, 98), whereas the seaborne circulation of 'silver and other valuable goods' between Alexandria and the Adriatic around 600 AD is mentioned by the 7th century Life of Saint John the Almsgiver (Mundell Mango 2001, 101–102).

The Italian end(s) of the route, however, may have changed over time. As seen, a snapshot of the situation around 600 AD seems quite clear and emphasises Ravenna or a nearby *emporion* as the likeliest 'Italian gateway' for cast bronze vessels into Europe. Nevertheless, a comparison between regional repertoires in and around Rome (*Fig. 5*), on the one hand, and in the northern Adriatic (*Fig.* 1) on the other, suggests that the situation around 550 AD may have been quite different (*Tab. 2*).

Earlier types are better documented in the central Tyrrhenian region than in the northern Adriatic. In addition to Prepotto ewers and derivatives (*Fig.* 5: 1-2), an ewer with an ovoid body curated in the Vatican Museums (Palol 1950, 37–38) should be mentioned: on morphological grounds, it can be seen as a convincing prototype for later Spilamberto ewers (*Fig.* 5: 4). It can hence be argued that Rome or a nearby port could have been the

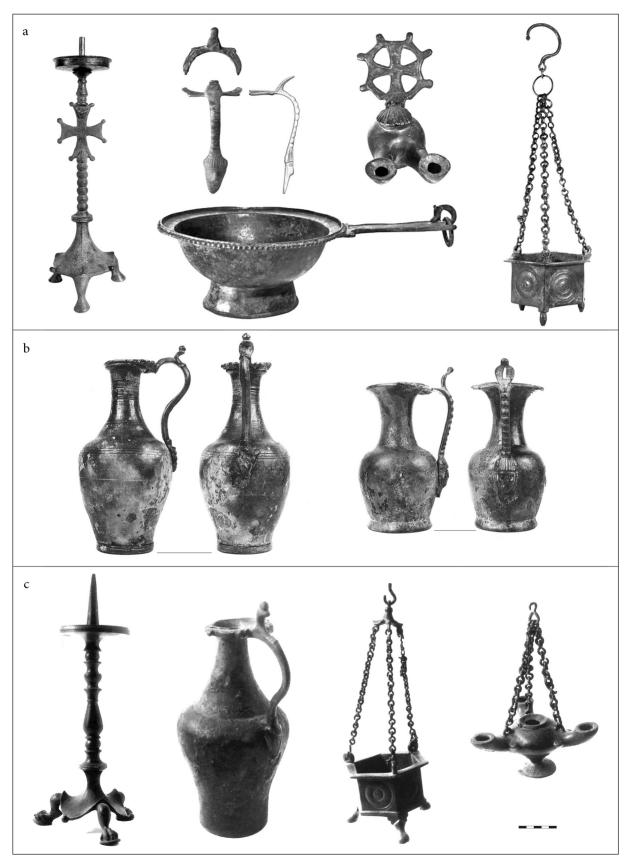


Fig. 7: Three Mediterranean deposits of bronze implements from the 6th century, selection of objects. *Sl. 7:* Trije sredozemski konteksti z izborom bronastih predmetov iz 6. stoletja. a - 'Negev desert' (Golan et al. 2016–2017); b - Milano-San Raffaele (Castoldi 1989); c - Pupput (Baratte 1998)



Fig. 8: Dumbarton Oaks. Byzantine silver plate from Justin II's times, with enlarged depictions of liturgical implements (after Weitzmann 1979).

Sl. 8: Dumbarton Oaks. Bizantinski srebrni krožnik iz časa Justina II. Detajla: liturgični pripomočki (po Weitzmann 1979).

preferential destination for Alexandrian shipments of cast bronze vessels during the central decades of the 6th century. In all likelihood, the production of the earliest 'western' cast ewers began in Rome; likewise, the city and its port probably acted as the main redistributive centre for other regions of the West, as one shall see.

Ravenna apparently replaced Rome at some point in the late 6th century as the main hub for trade and production of 'Egyptian-style' bronze vessels. Comparing the typological repertoire between the Tyrrhenian and the Adriatic areas indicates approximately when the shift occurred. The most relevant data are the absence of A1, A2 and Spilamberto vessels (deposited from c. 590 AD onwards) in the Tyrrhenian region, as well as the presence of the slightly earlier Prepotto type in both territories; this suggests that B1 basins, also present in both areas, may have had a similar, relatively early chronology. Of particular importance in this context is the B1 basin with trapezoidal drop handles (Fig. 5: 6) found in the Tiber in Rome (Arena et al. 2001, 421–422): this variant is particularly well attested in Egypt but extremely rare in the Adriatic region (Koch 1994,

79; Werz 2005, 86); it appears very likely that trapezium-handled basins were the earliest B1 vessels circulating in Europe, and that they were broadly coeval to Prepotto ewers. According to these data, the shift from the Tyrrhenian to the Adriatic should be placed no later than the 570/80s, a historical horizon of great importance: although no direct connection with the state of international affairs is necessarily implied, one should notice that this time-span coincides rather precisely with the reorganisation of Byzantine dominion in Italy and the institution of the Exarchate in Ravenna. In addition, it coincides quite well with late 6^{th} and 7^{th} century pottery evidence from the port of Classe, which highlights a significant boost in supplies of trade goods from the Eastern Mediterranean (Baldassarri, Cirelli 2009, 925; Augenti, Cirelli 2010, 609; Guarnieri 2020, 269-270); numismatic data emphasises the position of Ravenna as the main regional economic centre at the time (Rovelli 2012, 274-278; Prigent 2020).

A deposit of metal implements unearthed at Milano–San Raffaele (Castoldi 1989, 84–86) is paramount in defining and dating the whole group of 6^{th} century cast bronze ewers (*Fig. 7b*).

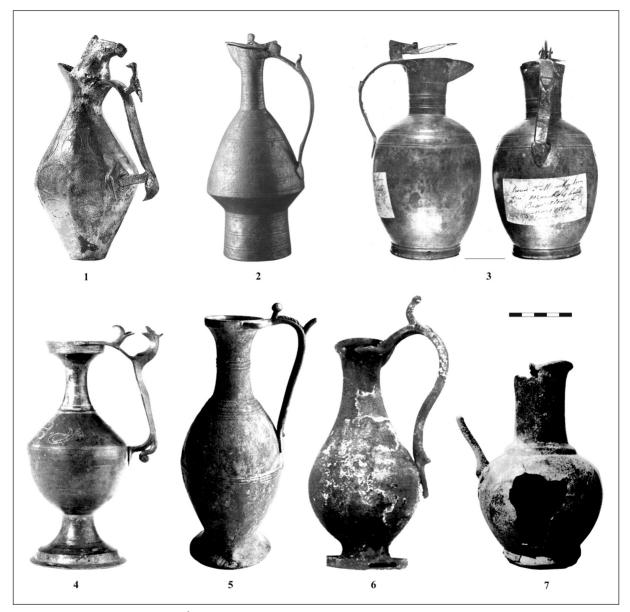


Fig. 9: Cast ewers from the mid-6th century found west of Italy.

Sl. 9: Uliti vrči iz sredine 6. stoletja, najdeni zahodno od Italije.

1 – Vicq, Gr. 617 (Périn 1992); 2 – Frénouville, Gr. 508A (Pilet 2008); 3 – Meckenheim (Vallet 1976); 4 – 'Arras' (Schulze-Dörrlamm 2006); 5 – Lavoye, Gr. 307bis (Joffroy 1974); 6 – unknown provenance / neznano najdišče, Bardo Museum (Vida 2006); 7 – Tarragona–Cathedral cloister (Hauschild 1994)

One of the two ewers recorded in this deposit displays close morphological affinities with finds in Africa (*Fig. 7c*, Pupput: Baratte 1998; Jacquest, Baratte 2005, 125–129), Gaul (*Fig. 9:* 5, Lavoye: Joffroy 1974, 86, 129–130) and Rome (*Fig. 5:* 3; Arena et al. 2001, 420), whereas the other seems to be morphologically related to a different type recorded in Rome, namely the already discussed 'western Prepotto' type. Another deposit from an unspecified location in the Negev desert (*Fig. 7a*) is nevertheless very useful in dating the group, as it had a jug handle and an incense burner with exact parallels at both Milano–San Raffaele and Pupput (Golan et al. 2016–2017, 148–149, 153). The assemblage also included a variant of an A1 pan decorated with a pearled rim (Golan et al. 2016–2017, 150–151; see also above). Moreover, the object has a good counterpart among the components of a liturgical set depicted on a silver plate (*Fig. 8*) with control stamps of Justin II (565–582) (Weitzmann 1979, 88; Mundell Mango 1986, 165–170) and is probably slightly older than

any of its western parallels; it thus helps place the early western cast jugs from Pupput and Milano within the 6th century. On the other hand, the grave goods found next to the ewers (*Fig. 9: 3,5*) in the graves of Lavoye and Meckenheim (Vallet 1976; *Die Franken* 1997, 1003–1004) in Gaul suggest that the burials are from the second third of the 6th century, thus narrowing the dating of the group. In particular, the Ostrogothic *siliqua* from Meckenheim provides an absolute *terminus post quem* of 526 AD.

The hypothesis of a 'Tyrrhenian-Adriatic shift' is clearly supported by evolution in the distribution of cast ewers in Western Europe between the mid-6th and the early 7th centuries. Western finds contemporary with the functioning of the Roman hub mainly cluster in the Seine basin in northern Gaul (Fig. 4; 9: 1–5), as suggested by the finds from Frénouville, Vicq, Lavoye, Arras and Meckenheim (Joffroy 1974, 89, 129-130; Vallet 1976, 75-78; Pilet 1980, 254; Périn 1992, 44; Schulze-Dörrlamm 2006, 605-620; Beghelli, Pinar 2019a, 431). It appears very likely that they travelled westwards from Rome: a seaborne itinerary connecting Rome to Marseille, then upriver through the Rhone valley, appears most convincing. This is best suggested by the exact parallel of the Arras jug recorded at the Santo Stefano basilica in Rome (Monti 1858; Schulze-Dörrlamm 2006, 618-619); broadly coeval imported goods, such as 5th-6th century Eastern Mediterranean amphorae, reached cities in the Seine valley by following the Mediterranean-Rhone route via Marseille (Pieri 1998, 105). A bronze cast ampulla with a Latin inscription, found in a 6th century grave in Concevreux (Pilloy 1912, 209-210), probably arrived in the Seine basin by the same route.

If the jugs recorded at Milano–San Raffaele are to be connected with commercial operations along the Rome-Marseille route, they can also be probably understood as evidence for cabotage navigation along the Tyrrhenian and Ligurian coastlines, which communicated with Milano via Luni or Genoa.² The present-day absence of 6th-century cast vessels in Corsica and Sardinia further supports this hypothesis. An 'early' trapeze-handled B1 basin found at Testona near Turin (Carretta 1982, 19–20) with an exact counterpart at Rome (*Fig.* 5: 6) may also be considered from this viewpoint.

Based on the current state of research, archaeology cannot provide conclusive evidence on the nature and extent of links between the early cast ewers from Gaul, northern Italy and Africa on the one hand, and Egyptian manufacturing centres on the other. Nevertheless, an ewer from El Bahnasa (Fig. 3: 6: Dannheimer 1979, 131-132) and the aforementioned handle from the Negev area are to be seen as some of the best eastern counterparts for examples from the early typological repertoire in the West. Recollections of the distant origins of the Gallic finds (whether as actual production centre or a source of inspiration), however, may have left a trace in written sources: the term urceus alexandrinus is recorded in the 9th century at the abbey of Saint-Wandrille in the lower Seine Valley, a location within the area of the spread of Gallic cast ewers (Fig. 4). Furthermore, it has been surmised that the term was introduced into Latin at some point in the 6th century (Beghelli, Pinar 2019a, 430). Thus, one may be dealing not just with a linguistic fossil describing a reality almost three hundred years old, but also with a local term deriving from an object whose spread was solely regional: this seems a convincing explanation for its extremely elusory presence in written sources.

The remaining early cast ewers recorded in the West show clear spatial correlation with major western cities, such as Tarragona, Milano, Pupput and possibly Carthage (Fig. 9: 6: Vida 2006, 265-266). Unlike the Rome-Marseille connection, though, the seaborne axis connecting Italy with North Africa and the Spanish Levant is evenly outlined by finds of bronze ewers dating from c. 600 AD. The A2 ewers from Cartagena-Cerro del Molinete (Pinar, Vizcaíno 2021) and from an unspecified spot in Spain (Palol 1950, 62-63) are quite telling examples, since they have very close counterparts in Salona (Werner 1954-1957), suggesting their likely Adriatic origin. Throughout the 6th century, the occurrence of cast bronze ewers in the Western Mediterranean thus shows a tight correlation with major Byzantine trading places.

By 600 AD, however, the overall situation had changed significantly. The spread of B1, A1, A2 and Spilamberto types resulted in major clustering in the territories neighbouring the Byzantine dominions of the northern Adriatic (Cividale, Reggio Emilia, Montale, Spilamberto, Nocera Umbra, Castel Trosino). From this area, they probably followed the Po Valley westwards and reached the

² A broadly contemporary hammered ewer recorded at Milano–S. Satiro (Castoldi 1989, 86–87) has an almost exact counterpart in one of the cast ewers from Rome (*Fig.* 5: 3), and is, therefore, evidence for a trade route between these two metropolises along which metal vessels circulated.

upper Rhine through the western Alpine passes, as Joachim Werner had already suggested (Werner 1938). The finds of B1 basins in upper Piedmont and Lombardy (e.g., Momo, Trezzo sull'Adda, Brescia) may reflect the importance of this route. From the Rhineland, the vessels would spread during the next decades throughout southern Germany; judging by the chronology of depositions of A1, A2 and B1 vessels, they were in use for a long time before being buried.

Circulation of these vessels along the Rhine valley led to their importation to the region around the North Sea coast; traces of their presence, however, become somewhat more blurred in this area: the amount of recorded vessels is far lower; consequently, recorded dating contexts are few. It seems, though, that B1 basins reached the area as early as approx. 600 AD or slightly later, as suggested by evidence from Grave 122 at Beerlegem (Roosens, van Doorselaer 1966, 29-32). That might have been the case also for some of the ewers of the types Spilamberto and A2 recorded in the area. Apparently, only B1 basins, conspicuously recorded in England, continued their journey further north. As said, they may have been the inspiration for local productions inspired by these exotic imports.

The spread of the vessels very clearly shows that the Seine basin was completely outside the circulation routes of cast bronze vessels dating from 600 AD. Evidently, the shift from Rome to Ravenna was contemporary with a no less significant shift from the Rhône to the Rhine, which became the new main axis in the importation of bronze vessels from the Italian hubs to Central Europe.

Other categories of trade goods further detail the pattern outlined by the bronze vessels. The decline in the exchange between Rome and Marseille is well attested by the distribution of Phocaean, Cypriot and Gallic orange-grey terra sigillata: once evidence for close connections between Rome and the Eastern Mediterranean and southern Gaul, these types of TS from Late Antiquity gradually vanished from Roman contexts in the 6th century (Panella, Saguì 2001, 786). At roughly the same time, south-western Italian Keay LII amphorae were not further recorded in southern Gaul after the early decades of the 6th century (Bonifay 2005, 89); likewise, the amount of Eastern Mediterranean amphorae imported to Marseille shrank significantly throughout the 6th century (Bonifay, Pieri 1995, 116).

NOCERA UMBRA AND BUDAKALÁSZ

The ewer found at Budakalász (*Fig. 10: 4*) is the only example belonging to the Werner A2 type recorded in the lands of the middle Danube (Vida 2017). This apparently unusual location, many miles from the main routes on which these vessels usually circulated, can be correlated with the exceptional features of the ewer, which display lavish figurative decoration in low-relief style with no counterparts on any other A2 ewers.

After a thorough examination of the object, Tivadar Vida concluded that it was manufactured following Byzantine metalworking traditions and was probably made in Constantinople or in Syria in the late 5th or early 6th centuries (Vida 2017, 159-160). Its form, size, and proportions, however, do not reveal any substantial differences with A2 ewers discovered in the West (in particular, the example from Pfahlheim, Fig. 6: 4). Connections with western vessels are also visible when looking at decorative details (Fig. 6), such as the figurative motifs organised in friezes (Pfahlheim, 'Bonn') and the bands of stylised acanthus leaves (Ittenheim). As mentioned, the entire group was most probably produced by a workshop active in the northern Adriatic area around the late 6th century: it seems reasonable to also attribute the Budakalász ewer to this same production milieu. This hypothesis is further supported by the fact that, despite its 'unusual' location, the ewer strictly follows the dissemination and deposition patterns of the entire A2 group: beyond the best-connected territories (Adriatic Italy, the Po and the Rhine valleys), depositions tended to occur on average five to eight decades after the ewers' estimated production date (see above). The Budakalász burial, attributed to c. 640–660, quite comfortably fits into this pattern.

Its lavish and intricate relief decoration makes it a truly unique object. Tivadar Vida has pointed out that it is deeply rooted in Mediterranean artistic traditions, with solid iconographic, compositional and stylistic parallels in late antique metalwork (Vida 2009; Vida 2017, 25–39, 67–158), in particular among silver vessels with *repoussé* figurative decoration. The geographical clustering of some of these artefacts further supports the hypothesis of a northern Adriatic origin. Several examples of silverware deposited in Italy during the mid- or late 6th century, for instance, as part of the widelyknown treasures of Arten, Castelvint, Reggio Emilia, Perugia, Canoscio and Canicattini Bagni



Fig. 10: The Budakalász ewer and selected Italian metalwork of the mid and late 6th century. Different scales.
Sl. 10: Vrč iz Budakalásza in izbrani italijanski izdelki iz sredine in poznega 6. st. Različna merila.
1 - Reggio Emilia (© Civici Musei di Reggio Emilia); 2 - Arten (Calvi 1980); 3 - Nocera Umbra, Gr. 1 (*Die Langobarden* 2008); 4 - Budakalász, Gr. 740 (Vida 2017)

(Giovagnoli 1935; Agnello 1954; Degani 1959; Bierbrauer 1975, 302–309; Calvi 1980; Ciampoltrini 1985; Baldini, Pinar 2010; Aimone 2013a; 2015), share features with the Budakalász ewer: similar leave-shaped bands and wavy patterns can be observed on the silver cups from Reggio Emilia (*Fig. 10:* 1), Arten and Canicattini Bagni and, in particular, on a plate and basin from Canoscio, while comparable classicising figurative motifs are attested at Arten (*Fig. 10:* 2), Castelvint and Perugia (*Fig. 14c*).

It is well established among art historians that decorations should be considered as a whole and along with their background, since comparing only a selection of decorative elements is often misleading (e.g., Jurković 2000; 2016). What suggests that ornamental similarities may be of relevance in this particular case is the close chronological and spatial relationship between this group of silverware and the Adriatic cast bronze vessels. With the only exception of the Castelvint plate, the silver cups, basins and plates occurring in these deposits show a remarkable typological uniformity that renders it highly unlikely that they were exceptionally old objects at the moment of their burial. In addition, the composition of the treasures is consistent with other deposits surely dated to the mid- and late 6th century, such as the

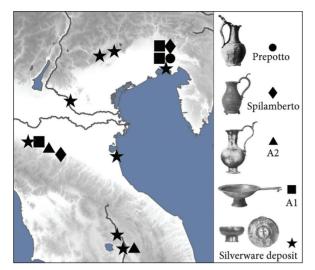


Fig. 11: Distribution map of silverware deposits and cast bronze vessels found in north-eastern Italy (c. 530–600). *Sl. 11:* Razprostranjenost srebrnih in ulitih bronastih posod v severovzhodni Italiji (pribl. v času 530–600).

Desana, Pavia, Classe and Isola Rizza (Fig. 14b) treasures in northern Italy (von Hessen 1968, 43-53; Peroni 1972; Bierbrauer 1975, 263-272; Bolla 1999; Maioli 2009; Aimone 2010; 2013b; Baldini 2017). Production taking place no earlier than 520/30 thus seems convincing in the case of this group of silverware, agreeing with the absolute dates provided by the inscription and the stamps recorded on the Gelimer plate from Arten and on the Nereid one kept in Turin (Cruikshank Dodd 1961, 256-257), manufactured in 530-533/34 and 541, respectively. This time-span slightly antedates and partially overlaps production of the earliest Italian cast bronze vessels ('western' Prepotto variant, 'proto-Spilamberto' prototypes and, somewhat later, types Werner A1-A2 and Spilamberto). The chronological proximity between both groups is thus complemented by a high degree of spatial correlation (Fig. 11), as silverware and cast bronze vessels cluster in the same regions: Spilamberto, Montale and Reggio in Emilia; Nocera Umbra, Perugia and Canoscio in Umbria; Prepotto, Cividale and Grado in Friuli.

Although some scholars suggest identifying some of the silver plates found in Italy as Eastern Mediterranean products (e.g., Mango 2010), some stylistic details (Aimone 2015, 20–21), their geographical distribution and the typological homogeneity of the deposits in which they occurred argue in favour of a Western origin. Two of the group's plates, the Gelimer and the 'Turin' ones, were most likely produced in Carthage (Baratte 1997, 124–127); the rest may be connected to northern Adriatic manufacturing centres, as suggested by stylistically related silverworks (e.g., Grado, identified as a 6thcentury regional product based on its inscription: Cuscito 1973, 311–313) and by their correlation with cast vessels: it is reasonable to suggest that a significant part of these silver and bronze artefacts were produced in or around Ravenna, and distributed along the same trade networks. In all likelihood, mid-6th century Italian silverware was one of the direct artistic sources of inspiration for the Budakalász ewer.

Another important piece of evidence on connections between the Budakalász ewer and Adriatic Italy comes from the well-known Lombard-period cemetery at Nocera Umbra. Located in one of the regions where 6th-century silverware and cast bronze vessels cluster, two of its graves strongly recall features of the Budakalász ewer. The first burial is the aforementioned Grave 17 (Pasqui, Paribeni 1918, 194-199; Rupp 2005, 25-27), containing a female skeleton deposited with an A2 ewer with punched decoration. The second one is Grave 1 (Pasqui, Paribeni 1918, 155-164; Rupp 2005, 3-5), which contained an exceptional assemblage of grave goods, including a sword with gold ornamentation, a set of gold belt fittings and a shield boss with openwork figurative decoration. The latter (Fig. 10: 3; 14a), despite its fragmentary state, shares common features with the Budakalász ewer: the classicising hunting scene set in a central register and the lower band of acanthus leaves recall several examples of A2 ewers (e.g., Fig. 6: 4-5), and the low-relief effect of the openwork 'shell' applied to the boss appears to be a convincing parallel for the Budakalász decoration.

A recent re-examination of the shield suggests identification as a 4th century eastern Mediterranean production (De Pasca 2016), hence an antique at the time of the burial, which was dug around 600 AD. The form of the shield boss is well attested during the 4th-5th centuries in northern, central and eastern Europe (e.g., Straume 1987, 88-89, 93-94, 103, 109; Kazanski 1994, 441; Kontny 2019, 109); it occurs rather frequently, however, in other Italian assemblages from about 600 AD, such as Graves 5 and 6 at Nocera Umbra itself (Pasqui, Paribeni 1918, 172-181; Rupp 2005, 5-13). In addition, comparable openwork shells were noticed on famous examples of 6th-century metalwork (e.g., Weitzmann 1979, 606-608). In such circumstances, the only argument favouring the shield's early dating is the decoration's alleged

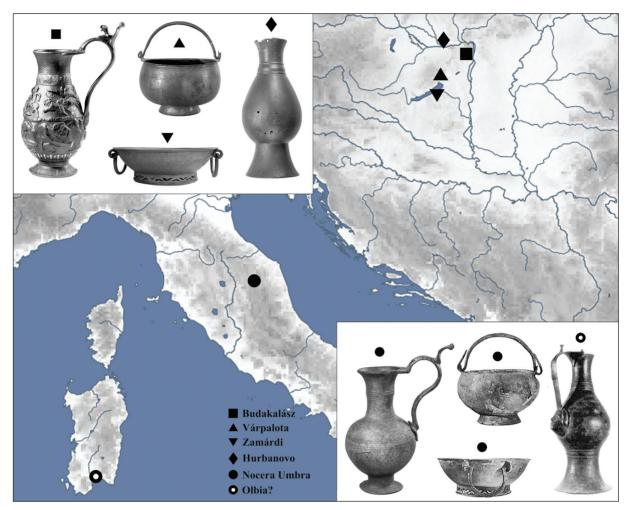


Fig. 12: Nocera Umbra and Pannonia (c. 600–650). A comparison of typological repertoires. *Sl. 12*: Nocera Umbra in Panonija (pribl. v času 600–650). Primerjava izbranih tipov.

iconographic parallels. This evidence appears, though, to be far too flimsy: generally speaking, long-lasting, widely-spread motifs, such as hunting and mythological scenes, provide little assistance in refined archaeological chronology (e.g., Beghelli 2020, 292, n. 26); in this particular case, moreover, comparison with the decoration of the Budakalász ewer can be used to attribute the shield to a period between the late 6th and the mid 7th century, as suggested by the depositional contexts of the A2 ewers (see above).

The shield's manufacture had earlier been dated to the late 6th-early 7th centuries by scholars (Melucco Vaccaro 1974, 362; Paroli 2001, 287; De Marchi 2021, n. 8): this assumption seems to be particularly well-founded when considering that Graves 1, 5, 6 and 17 of Nocera Umbra, respectively containing the openwork shield, two shields with the same form and an A2 ewer, are from the very same period, that is c. 590–610. Likewise, the evidence derived from bronze vessels and silverware treasures leaves little room for an exotic, easternmost origin of the shield: a provenance from Adriatic Italy, as the site's location already suggests, appears to be the most probable choice.

Morphology, decoration, chronology and geographical location thus agree to attribute a northern Adriatic origin to the Budakalász ewer. That implies that the most probable route of the A2 ewer to Budakalász may have been from the ports in the northern or north-eastern Adriatic, through passes in either the Julian or the Dinaric Alps. An 'indirect' itinerary through South-West Germany and the Danube valley, although possible, is not supported by any archaeological finds and would thus appear as a *lectio difficilior*. Once more, the finds from Nocera Umbra, dating from the late 6th-early 7th centuries, highlight the connections of the Budakalász ewer with Adriatic Italy (*Fig. 12*): apart from the shield and the ewer from Graves 1 and 17, a B1 basin (Grave 27) and a bucket with a semi-circular handle (Grave 32) must also be mentioned (Pasqui, Paribeni 1918, 216-218, 226-228; Rupp 2005, 39-41, 47-49). Both types of object are well attested in Italy; in Pannonia, however, they cluster with Budakalász within a quite restricted territory, located between the Balaton lake and the banks of the Danube, as shown by the examples from Zamárdi-Rétiföldek, Gr. 244 and Várpalota-Gimnázium, Gr. 204 (Vida 2016, 73-88; 2017, 173-178). In all likelihood, the spread of these vessels reflects a trade route linking north-western Pannonia with the Adriatic ports. The regional picture is further completed by a bronze cast ewer found at Hurbanovo (Zábojník 2004, 90-91, 159), about 80 km north-west of Budakalász: the object can be interpreted as a Sardinian local form of the mid- or late 7th century (Beghelli, Pinar 2019a, 419), and strongly backs the hypothesis of a connection between the middle Danube region and the Italian coasts.

QUALITY, COST AND DISTANCE

The ewer from Budakalász can be safely interpreted as a 'higher-class version' of the A2 vessels, the only example recorded so far: the sophisticated, time-consuming decoration of the object, plus the variety of the raw materials used (including silver and red copper inserts), reflects its greater cost and exclusivity (see Baratte 2003 and Pinar 2017 on cost calculation in early medieval metalwork and its social implications) when compared to any other known ewer originating from the northern Adriatic.

It is a common phenomenon in intentional deposits that the most expensive items occur together with other expensive ones (Pinar 2017, 130-139). Hence, observing and studying correlations between the objects' value-features and the deposits' composition become possible. Furthermore, in particularly suitable contexts (for example, long series of regionally and chronologically coherent graves), this kind of data may lead to the definition of an articulated sequence of relative 'investment per deposit', which, combined with other relevant information (e.g., topographic, bioarchaeological or epigraphic data), can be useful in tackling social and economic questions (Pinar 2016; 2021). Likewise, the method can be applied to grasp the correspondences between quality and cost of particular types of objects occurring in archaeological deposits, provided that both objects and the composition of the deposits have enough common traits to enable thorough comparison.

Some graves from c. 600 AD, for example, suggest that differences in decoration of A2 ewers may have impacted their cost/price and the exclusivity of their social use (Tab. 3). In central Italy, the ewers from Montale and Nocera Umbra were found in two broadly coeval female burials with quite similar associated goods, including two combinations of bow and disc brooches which nevertheless mirrored some economic differences between the two deposits. At Montale (Fig. 13b), two bow brooches made in gilt silver and carved decoration were associated with a bronze disc brooch with punched decoration, and an A2 ewer decorated with parallel grooves and punched acanthus leaves (Crespellani 1887, 14; Gelichi 1988, 561-564; Cardarelli, Malnati 2009, 30); in the Umbrian grave (Fig. 13a), a pair of similar bow brooches was combined with a disc brooch decorated in garnet-on-gold cloisonné, gold adornments such as necklace pendants and a foil cross, with another A2 ewer showing grooved and punched decoration (Pasqui, Paribeni 1918, 194-199; Rupp 2005, 25-27). Despite similarities between these two typological contexts, some details (e.g., the 'expensive' disc brooch and other gold adornments, absent at Montale) suggest that the assemblage of goods at Nocera Umbra was, generally speaking, costlier. Grave 62 at Spilamberto certainly pertains to the same typological background: the grave contained gold embroideries, a folding chair and a drinking horn (De Vingo 2010, 47-56; Roffia 2010, 69-73), with very similar parallels appearing at Nocera Umbra Gr. 17. However, the cost of the disc brooch is to be described as 'middle' range, somewhere between that from Nocera Umbra and the one from Montale: it consists of a gilded silver pendant with inlaid decoration, later recycled into a brooch. Unlike items in the other graves, the Spilamberto ewer is decorated only with parallel grooves, a simpler decoration, much quicker to do. Spilamberto 62 should thus be placed somewhere between Nocera Umbra 17 and Montale in absolute levels of 'funerary investment'.

The deposits containing A2 ewers recorded in the upper Rhine valley share crucial features with the aforementioned Italian graves: they display a similar combination of typologically homogeneous sets of objects and perceptible shades of meaning related to different levels of funerary investment. The composition of the grave goods

	Silver phalerae	Gold-and-garnet disc brooch	Gold fingerring	Gold coin	Gold foil appliqué	Iron cheek piece	Gold pendant/bead	Gold-and-bronze hairpin	Gold damascening	Punched pan	Punched ewer	Silver belt	Silver disc brooch	Silver bow brooch	Grooved pan	Hammered bronze basin/pan	Gold thread	Glass horn	Bronze/silver hairpin	Iron belt	Bronze belt	Silver/copper damascening	Grooved ewer	Bronze disc brooch	Silver coin	Silver fingerring
Ittenheim	•				•	•				•	•	•														
Güttingen 38		•	•				•			•		•	•													
Wittislingen 1		•	•	•	•		•	•				•		•	•											
Nocera Umbra 17		•			•		•				•			•		•	•	•			•	•				
Pfahlheim 4/1891			•	•		•			•		•					•				•						
Cividale/Čedad 21							•			•			•	•					•		•					
Spilamberto 62												•	•				•	•				•	•			
Montale											•			•					•					•		
Cividale/Čedad 50																				•	•	•	•		•	•

Tab. 3: Quality and exclusivity. Composition of the grave goods associated to A1 and A2 vessels with punched and grooved decoration.

Tab. 3: Kakovost in ekskluzivnost. Sestava grobnih pridatkov, povezanih s posodjem tipa A1 in A2 z vtolčenim in kaneliranim okrasom.

from Ittenheim and Pfahlheim, Gr. 4/1891 (Werner 1943; Nawroth 2001, 244–246) included, among other objects, belt fittings, horse harness elements, weaponry and drinking sets. However, these objects were shaped in very different ways: the belt fittings and the silver *phalerae* from Ittenheim are considered costly imports made of silver, whereas Pfahlheim (Fig. 13c) was furnished with far less exclusive counterparts made of iron, widespread in southern Germany. Comparable differences are displayed in the drinking sets: the homogeneous and decorated combination of a cast bronze pan and an ewer from Ittenheim seems to have been much more exclusive than that of the somewhat motley set from Pfahlheim, consisting of an A2 ewer and a hammered basin probably originating in the region (Beghelli, Drauschke 2017, 16–20).

The fact that the Ittenheim and Pfahlheim graves included male burials renders systematic comparison with their Italian counterparts quite difficult. Nevertheless, 'links' between the two regional groups can be spotted. The assemblage of artefacts recorded at Cividale–San Mauro, Gr. 50 (Ahumada Silva 2010, 117–123) is one of them (*Fig. 13d*).

It was discovered in the burial of a 2-4-yearold child who can plausibly be identified as a boy based on his grave goods. Apart from an ewer of Spilamberto type, the grave contained remains of a sax or knife scabbard, two belt buckles (one showing damascened decoration), and a fingerring. All these elements also occur at Pfahlheim Gr. 4/1891, permitting comparison, despite the geographical distance (south-western Germany vs north-eastern Italy), the chronology (mid-7th century vs late 6th-early 7th centuries) and the age of the people related to the grave goods (presumably adult vs young child). The result is very clear: the punch-decorated ewer from Pfahlheim was accompanied, among other items, by a gold finger ring and gold-on-iron damascened objects, whereas the Cividale child was furnished with less exclusive objects, such as a grooved ewer, a silver finger ring and a silver-on-iron belt buckle. The funerary investment in terms of grave goods in this burial was apparently much lower than the broadly contemporary graves in the Rhineland. Another chain link between the Rhineland and Italy is the heterogeneous drinking set recorded at Pfahlheim: formed by a hammered basin and a

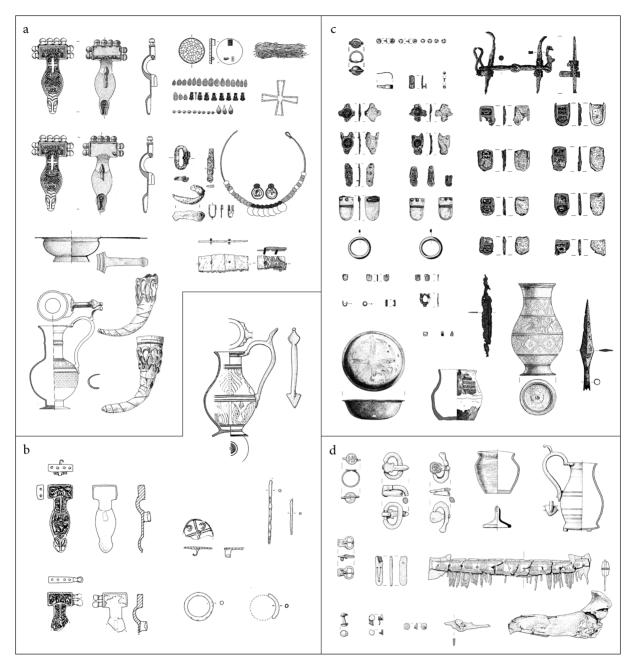


Fig. 13: Examples of funerary deposits with bronze cast ewers, selection of objects. Different scales.

Sl. 13: Primeri grobnih celot z bronastimi ulitimi vrči, izbor predmetov. Različna merila.

 a - Nocera Umbra, Gr. 17 (Rupp 2005);
 b - Montale (Gelichi 1988);
 c - Pfahlheim, Gr. 4/1891 (Nawroth 2001);
 d - Cividale/ Čedad–San Mauro, Gr. 50 (Ahumada 2010)

cast ewer, it can be compared to the combination of a hammered pan and a similar ewer recorded at Nocera Umbra Gr. 17. This feature could somehow connect the 'poorer' contexts in the Rhine valley with the 'richer' ones recorded in Italy.

The composition of these deposits suggests that ewers decorated with punched motifs and parallel grooves circulated in somewhat different social circles. Although both occurred in contexts related to people of 'middle-range' wealth (Spilamberto Gr. 62, Montale), punched decoration is the only one recorded in 'richer' graves, such as those at Ittenheim, Pfahlheim and Nocera Umbra Gr. 17; it is absent from amidst the 'poorer' grave goods at Cividale–San Mauro Gr. 50. A1 pans seem to confirm this trend: punched examples are predominant in 'middle-range' (Cividale–San Mauro Gr. 21) and 'wealthier' (Ittenheim, Güttingen) assemblages. Unlike A2 ewers, A1 pans include an apparently anomalous example occurring in a

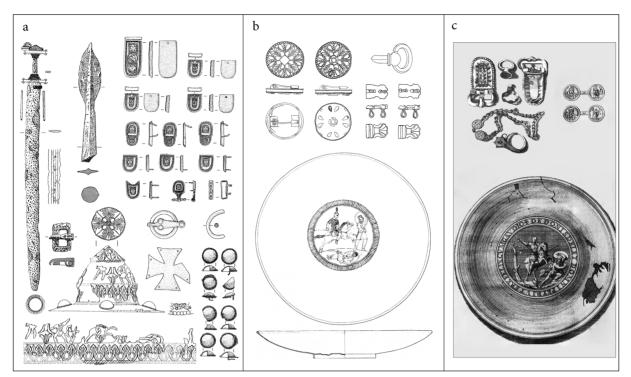


Fig. 14: Deposits with gold belts and figurative metalwork from the late 6th century. Different scales. *Sl. 14:* Najdbe zlatih pasnih garnitur in figuralnega kovinskega posodja iz poznega 6. st. Različna merila. *a* – Nocera Umbra, Gr. 1 (Rupp 2005); *b* – Isola Rizza (Bolla 1999); *c* – Perugia–palazzo Donini (Ciampoltrini 1985)

'wealthier' context, that of Wittislingen, Gr. 1. It is a common phenomenon that 'cheaper' objects occasionally occur in 'rich' contexts, since social groups with access to costly objects had more than enough resources also to acquire less exclusive products. In this particular case, however, the Wittislingen grave goods could suggest that the pan should not be regarded as an A1 vessel, but as a later derivate from the mid-7th century, presumably originating from a different centre of manufacture and circulating via other distribution networks: the proportions between the pan's body and the foot, indeed, show clear affinities to coeval B2 pans with an openwork foot.

The results of this survey thus agree in suggesting that cast vessels belonging to types A1 and A2 were manufactured according to different quality standards: in particular, ewers decorated with parallel grooves were of a lower cost/quality level than those displaying more complex ornamentation. In addition, the examined evidence confirms that there was a direct correlation between the complexity of vessel decoration and the socio-economic environment in which they circulated. Apparently, the extra time and the display of artistic skills required by the craftsman by elaborate decoration directly impacted the price of the ewers, making the punched ewers more costly and exclusive: only wealthier customers and patrons could afford them. The frequent association between punched decorations and Greek inscriptions (a language mostly connected to Ravenna's uppermost social strata: see above) further supports this observation.

In accordance with the same principle, it may be assumed that the Budakalász ewer was even more costly and exclusive than any of its punched and grooved counterparts. In this particular case, however, the context of deposition is not helpful for testing the hypothesis: the altered state of the grave, the uniqueness of the ewer when compared to its regional background and its late deposition as an 'antique', perhaps implying that the woman buried at Budakalász was not the original purchaser of the ewer, hinder any clear-cut conclusions. An approximate insight into the social milieu in which 'low-relief' ewers may have circulated is provided by the aforementioned Grave 1 at Nocera Umbra (*Fig. 14a*). As a working hypothesis, it can be argued that the shield decorated with openwork (see also Fig. 10: 3) can be used as an approximate instance for the 'A2 top quality standard', on the basis of its singular features and its decorative similarities to the Budakalász ewer (see above). Among other objects, the shield occurred together with

a combination of gold sword ornaments and belt fittings almost unparalleled in Lombard-period Italy, a combination associated with extremely exclusive social circles (De Marchi 2021, with former literature). Similar milieus can connect some late 6th-century deposits, such as the Perugia-Palazzo Donini grave and the Isola Rizza treasure (Fig. 14b-c), which contain very select associations of gold belt fittings and silver plates with figurative decoration. Given this evidence, it becomes clear that the bronze ewers ornamented with 'low relief' decoration were not only the most expensive and exclusive version of this entire category of finds but also that examples of these vessels such as the one from Budakalász were meant to circulate within the uppermost social milieus of early medieval Europe.

A third element relates to quality and cost indices: the average geographical distance between the centre of production and the findspot of a manufactured object. The comparison between the upper Rhine and the central-northern Italian groups of deposits already provides clues: as far as the limited amount of finds can tell, it is easy to notice that the deposits recorded in southern Germany and Alsace are, in average, 'wealthier' than those of Italy. In my view, this observation has twofold importance: on the one hand, it further supports the hypothesis of the Adriatic origin of most A1 and A2 ewers recorded in the West; on the other, it suggests that transportation costs had a visible impact on the final monetary value of travelling objects. The same phenomenon can also be identified, although in a less clear-cut way, on a regional scale: it is probably no coincidence that the richest deposit recorded in Italy (Nocera Umbra Gr. 17) lies in a somewhat peripheral location, at quite a distance from the estimated production area in the northern Adriatic. The opposite aspect is represented by 'middle-range' contexts (Montale, Spilamberto, Cividale), which cluster around the northern Adriatic.

This type of qualitative evidence strongly supports the hypothesis that Ravenna was the main production and distribution centre of bronze cast vessels. The association of a 'costly' punched ewer and less expensive bronze accessories at Montale, for instance, could suggest that the purchase of such ewers was more affordable in territories well connected with Ravenna than at far more distant locations such as Cividale or Nocera Umbra. If one considers the Adriatic region only, these two localities are the most distant points from Ravenna where either A1 or A2 vessels have been recorded: the former displays 'middle-range' and 'poorer' deposition contexts, whereas the latter contained a single 'wealthier' deposit. The comparison between these two sites sheds further light on the links between the spread of cast bronze ewers and seafaring routes: Cividale is located less than 50 km from major ports such as Aquileia and Grado, while the shortest route between Nocera Umbra and the Adriatic coast is about 100 km long. Apparently, transportation costs grew significantly as the distance from the Adriatic ports increased. This phenomenon suggests a tight correlation between the purchase price of the ewers, their availability in local markets and the distance between those markets and the main trade routes.

Despite the scanty amount of recorded finds, the difference in distribution of the various 'quality standards' of A2 ewers clearly suggests that costlier ewers travelled afar much more often than simpler variants: *Tab. 4* shows that 100% of topquality ewers recorded so far (i.e., the Budakalász ewer itself) were found more than 500 km from the estimated production centre in the Ravenna area, whereas the percentage of exported 'average or middle-quality' items with punched decoration is lower than 67%. 'Cheaper' ewers with parallel

Distance from Ravenna	Type of decoration								
(in km)	Low relief motifs	Punched and carved motifs	Parallel grooves						
< 250	-	2	2						
250-500	-	-	2						
> 500	1	4	4						

Tab. 4: Cost and distance. Linear distance between the find spots of A2 ewers and their estimated production centre (Ravenna).

Tab. 4: Cena in razdalja. Linearne razdalje med najdišči vrčev tipa A2 in njihovim predpostavljenim produkcijskim centrom (Ravena).

grooves (including both A2 and Spilamberto ewers) retrieved more than 500 km away instead amount to just 50% of the total number.

It is certainly not by chance that the most exclusive/expensive vessels were the ones travelling the furthest. Generally speaking, 6th-7th century cast bronze vessels followed a pattern more reminiscent of fine pottery and glassware than of precious metal artworks. Byzantine silverware, for instance, was still reaching the West as late as the reign of Heraclius; available evidence suggests that it circulated only in major ports and inside exceptionally exclusive social circles (e.g., Valdonne, Dorestad, Sutton Hoo: Mundell Mango 1998; 2009). Quite the contrary, regular bronze vessels were diminishing their average travelling distances as their production centres in the West multiplied (Beghelli, Pinar 2019a, 428-432; Pinar, Vizcaíno 2021): apparently, bronze vessels circulated more as a 'middle-range cost' product than as a status symbol intended for exclusive elite consumption. These observations fit well with the results of Heiko Steuer's (1982, 325) and Jörg Drauschke's (2011, 134-135) calculations: the average cost of the metal employed in the production of cast ewers was roughly one quarter to one-and-a-half solidus, which was the average monthly wage of a skilled craftsman in the Byzantine Empire (Ostrogorsky 1932, 297): a rather expensive manufactured item, of course, yet affordable for a sizeable segment of the population.

With this general background in mind, the geographical location of the Budakalász ewer reinforces the impression that A2 ewers decorated with 'low relief' motifs had more in common with luxury silverware than with undecorated ewers of the same type: as a high-quality product, A2 ewers circulated in a way rather similar to, for instance, 7th century Byzantine silver plates. Geographical information regarding this remarkable artefact agrees with the results discussed above of the examination of depositional contexts such as Nocera Umbra 1, Perugia and Isola Rizza (see earlier in this chapter).

Correlations between depositional context, decorative features and geographical location suggest that cast bronze vessels were manufactured according to different quality standards: therefore, it would be misleading to consider all of them as luxury products for the elite. A comparison with present-day wristwatches may be useful to understand how cast bronze ewers spread: the distribution patterns and the social profile of the users of top-quality versions has little to do with those associated with lower, cheaper instances of the same watch. In quite a similar fashion, the social profile of the original patron of the Budakalász ewer may have been sharply different from the users of ewers decorated in much simpler ways such as the Cividale, Spilamberto or Salona ones.

Cast bronze vessels as a whole should not, therefore, be regarded as reflections of 'anomalous' long-distance trade with the metropolises in the Eastern Mediterranean, an opinion that derives from their status as luxury goods (Wickham 2005, 696–697, sums up the position of trade in luxury commodities within an economic system). Their connection to high-status social circles, as seen earlier, seems to be at least as blurred as their alleged eastern origin: one must assume that a majority of the cast bronze vessels of the 6th-8th centuries recorded in the West were middle-range products in terms of cost, originating in regional workshops. Changes in their geographical distribution between the mid-6th and the early 8th-century mirror the very same economic tendencies as those suggested by other coeval 'middle-range cost' productions such as pottery and glassware (e.g., Parker 1992; Panella 1993; Reynolds 1995; McCormick 2001, 83-114; Bonifay 2004; Pieri 2005; Wickham 2005, 708-759; see also above in the introduction to this paper).

CONCLUSIONS

As shown in this overview, refined artefact typologies and short chronologies are useful both in defining and comparing regional typological inventories and in analysing the composition of archaeological deposits. In addition, the results contribute to clarifying general patterns of production and distribution of early medieval cast bronze vessels and their evolution over time.

Available data agree in emphasising the key role played by the northern Adriatic region (mainly its Italian shore) in the spread of cast bronze vessels in the post-Roman West. There is little doubt that around 600 AD this region was the gateway for cast bronze vessels to be exported further into Europe: vessels manufactured in Egyptian workshops arrived in this area, and the local production of derived vessels was started. These Adriatic adaptations of Egyptian bronzeware were, in turn, distributed throughout Western and Central Europe. In all likelihood, the main hub for the production and (re)distribution of cast bronze vessels in the region was located in or around Ravenna. Apparently, a similar role had been fulfilled by Rome during the larger part of the 6th century; the shift from the Tyrrhenian to the Adriatic seems to have occurred as from the 570/80s, thus broadly coinciding in time with the establishment of the Exarchate.

Early medieval cast bronze vessels from Italy were distributed along sea routes leading to ports in Dalmatia, North Africa, eastern Spain, and southern Gaul. Continuous use of this trade axis can be observed throughout the 6th century, right up to the early 7th century. The main trade routes brings cast bronze vessels into Central Europe, however, fluctuated as the location of the main hub in Italy shifted: around 550 AD, the main overland route had been the Rhone valley, importing Mediterranean vessels into the Seine basin; by 600 AD, however, the distribution of cast bronze vessels shows that this route was no longer in use, apparently replaced by the Adriatic-Po-Rhine axis reaching as far as the North Sea coast. It thus seems that the circulation of cast bronze vessels along the Rome-Marseille route was interrupted at some point in the late 6th century, a phenomenon concomitant with the 'Italian shift'.

Examining the cast bronze vessels thus rather sharply reveals a significant change in trade connections between major Western Mediterranean centres like Ravenna, Rome, Carthage and Marseille, thus confirming and further illustrating the tendencies revealed by other categories of archaeological finds, such as imported pottery. In particular, the slight chronological hiatus between the Egyptian LRA 7 amphorae recorded in Carthage and Ravenna (well attested in late 6th century contexts: Bonifay 2013, 533-534, n. 18; Baldassari, Cirelli 2009, 925; Guarnieri 2020, 264), on the one hand, and those found in Rome and Marseille (present only from the beginning of the 7th century onward: Bonifay, Pieri 1995, 114; Saguì 2002, 17), on the other, may be related to the same rearrangement of (re-)distribution centres that triggered the circulation of substantial amounts of cast bronze vessels in and around the northern Adriatic. Soapstone vessels from the western Alps, attested in Ravenna as from the late 6th century (Guarnieri 2020, 271, 273), may be regarded as another example of the movement of goods between the northern Adriatic, the Po plain and the Rhine valley.

Another Central European territory, namely north-western Pannonia between the Balaton lake and the Danube bank, was well-connected with the Adriatic hub c. 600 AD. The regional repertoire of cast bronze vessels (Budakalász, Zamárdi, Várpalota) shows clear parallels in coeval grave goods buried at the cemetery of Nocera Umbra in central Italy, well connected with coastal territories on the Adriatic. The north Pannonian finds, together with a Sardinian ewer found at Hurbanovo in Slovakia, highlight a trade route that had its most probable origin in the northern Adriatic ports, continuing overland through passes in either the Julian or the Dinaric Alps.

The Budakalász ewer is a particularly important piece of evidence for understanding the production and circulation of Werner A2 ewers between the Adriatic Sea and Central Europe. It proves that these ewers were manufactured according to different quality standards and that they targeted different social circles: as shown by the examination of depositional contexts, there is a clear correlation between the complexity of decoration of the ewers and the average cost of assemblages in which they occur. This is an important aspect when trying to understand the distribution of these objects, since the most valuable objects tended to travel over longer distances: this may help explain why the Budakalász ewer, presumably manufactured in Adriatic Italy, was found in such a faraway land. This pattern fits quite well with the general picture of Mediterranean trade during the 6th-7th century, reflecting a gradual contraction with-luxury products being the only ones travelling long distances.

Quality and cost, albeit important, were not the only factors affecting patterns of dissemination of cast bronze vessels. Evidence related to A2 ewers, for instance, suggests the existence of a long-distance route, linking the Adriatic with the Balearic sea, which apparently traded exclusively in 'cheaper' versions of the ewers. This constitutes a specific phenomenon that cannot be evidenced along the contemporary Po-Rhine axis, since finely decorated and simpler vessels circulated regularly along the latter. Such differences may have been related to the intrinsic features of the supply chain itself, among which the strategies, network and logistics of merchants and the tastes and purchasing power of the patrons and customers.

Another interesting example lies in the spread of Werner B1 basins: although evidence suggests that they circulated between the northern Adriatic and the southern North Sea coasts along the same routes as other coeval vessels, they occur over a much wider territory than any of the latter, being abundantly attested in Britain and Egypt. There is little doubt that the presumed multiplicity of production centres, whose extent cannot yet be defined archaeologically, is an important factor with which to be reckoned. However, available data suggest another interesting correlation: B1 are far more numerous than any of the other contemporary vessels in every single region (Tab. 1), both in the East and West. Factors related to demand and representativeness must be mentioned and should be properly investigated: for instance, B1 basins appear in exceptionally rich deposits (e.g., Chiusi/Castel Trosino: Pazienza 2006), and also in much humbler contexts, suggesting wider social use than other categories of vessels;³ on the other hand, the frequent occurrence of basins in graves, in higher proportions than any ewer and pan of the same period, may be related to a particular role of basins in burial ceremonies. An explanation concerning the organisation of production can also be proposed, though: it may be argued that 'mass production' or, at least, production in larger numbers than any contemporary type, may have lowered transportation costs, thus enabling B1 basins to travel further than, for instance, A1 and A2 vessels, produced in far more limited series.

However, the two hypotheses may be to a large extent complementary and mirror an important fact: each single type of cast bronze vessel and even each 'quality standard' were probably linked to different networks of distributors, patrons, and purchasers. Even in those cases where archaeological evidence suggests that different types of vessels originated in a single production centre or area (e.g., Ravenna), the phenomenon is perceptible in the significant differences in both the patterns of geographical distribution and the contexts of deposition and is visible even along the same commercial route. The examples of B1 basins and A2 ewers, when compared with each other, are in themselves quite revealing.

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³ This phenomenon correlates with unusually high morphological variability within the type, which brings together basins of quite different sizes.

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Bronasto ulito posodje na severnojadranskem območju (okrog leta 600). Rim in Ravena, Nocera Umbra in Budakalász

Povzetek

V zahodni in srednji Evropi je bilo odkritih več kot 150 bronastih ulitih posod iz obdobja 6.–8. stoletja. Dolgo časa so jih raziskovalci tradicionalno pripisovali kovinski obrti koptskega Egipta ali bolj splošno bizantinskih ozemelj vzhodnega Sredozemlja. Bolj poglobljene raziskave so poudarjale, da je gotovo delovalo več produkcijskih centrov in da so vlogo pri tem imele tudi delavnice na Zahodu. Še več, pred kratkim je bilo pokazano, da sta izdelava in razprostranjenost bronastih ulitih posod na Zahodu zanesljiv pokazatelj splošnega krčenja trgovine na dolge razdalje, katere vzpostavitev dobro orisujejo gospodarski indici, dokazani z najdbami fine keramike in odkritimi ostanki brodolomov.

Splošni nabor tipov bronastega ulitega posodja na Zahodu v letih od približno 525 do 625 ima več povezav z Egiptom kot s katerokoli drugo vzhodno regijo. Glede na trenutno stanje raziskav ne gre dvomiti, da je pomemben delež posodja, ki so ga uporabljali v zahodni Evropi, izdelan po egipčanskih modelih. Povezava med Egiptom in Italijo je potekala po morju, z Aleksandrijo kot glavnim izvoznim središčem. Na italijanski strani pa so se konci te poti skozi čas lahko spreminjali. V desetletjih iz sredine 6. st. so bili najbolj priljubljeni cilji pošiljk ulitega bronastega posodja iz Aleksandrije verjetno Rim ali bližnja pristanišča. Prav tam se je najverjetneje začela tudi najzgodnejša "zahodna" produkcija posod. Rim je s svojimi pristanišči verjetno deloval kot glavni redistribucijski center za druge zahodne regije, kot so severna Afrika, vzhodna Španija (prek Nove Kartagine) in severna Galija (prek današnjega Marseilla).

Iz razprostranjenosti najdb pa je videti, da je bila okrog leta 600 najverjetnejša vhodna točka v Evropo za bronasto ulito posodje Ravena ali bližnji emporij. Severnojadranski prostor je bil, kot kaže, v tistem času središče izdelave in distribucije bronastega ulitega posodja. Od tam je znano ne le največje skupno število tovrstnih predmetov, ampak so tudi zastopani vsi tipi. Od tu so vrči in kozice potovali po Padski nižini in Porenju do obal Severnega morja, po morju pa v severno Afriko in jugovzhodno Iberijo.

Primerjava nabora tipov, najdenih v tirenskem in jadranskem prostoru, kaže na čas, ko se je zgodil ta premik, datiramo ga lahko najpozneje v desetletje med letoma 570 in 580. Ob tem kaže omeniti, da to obdobje sovpada z reorganizacijo bizantinskih posesti v Italiji in z ustanovitvijo ravenskega eksarhata.

Poleg Porenja in severnomorskih obal je bilo severnojadransko jedro povezano tudi s Panonijo, kjer se tovrstne najdbe pojavljajo na precej ozkem območju med Blatnim jezerom in Donavo. Iz tega je mogoče sklepati na potek trgovske povezave med severozahodno Panonijo in jadranskimi pristanišči prek Julijskih Alp ali Dinarskega gorovja.

Konteksti z bronastimi ulitimi vrči, najdenimi v Italiji in srednji Evropi, jasno kažejo, da so bili ti predmeti izdelani po različnih standardih kakovosti za različne družbene kroge. Zavajajoče bi bilo misliti, da je vedno šlo le za luksuzne izdelke za elito. Prodajali so jih prek različnih trgovskih mrež, dražji predmeti pa so daleč potovali precej pogosteje kot cenejše različice. Korelacije med grobnimi konteksti, okrasjem in prostorskimi podatki govorijo, da je bila končna cena bronastih ulitih posod močno odvisna od njihove dostopnosti na lokalnem trgu, ki je pogosto odsevala razdaljo med krajem in glavnimi trgovskimi potmi in emporiji.

Prevod: Tina Milavec

Joan Pinar Gil Department of Archaeology, University of Hradec Králové Rokitanského 62 500 03 Hradec Králové Czech Republic joan.pinargil@uhk.cz https://orcid.org/0000-0003-0398-129X

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