

GROG IN THE BRONZE AGE CARPATHIAN BASIN?

Thoughts on the Late Bronze Age Drinking Culture in Connection with a Unique Strainer

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In recent decades, due to the looting through the use of metal detectors that is supported by the trade in artifacts, numerous finds of outstanding significance from Hungary and the Carpathian Basin have turned up in western European auction houses. Almost daily we can see the results of this unfortunate process in the online catalogues of Hermann Historica, Gorny&Mosch and Christie's, as well as in the metal detector forums on eBay and even the Hungarian marketplace website Vatera. This essay deals with a recent "victim" of the trade in artifacts, a strainer – most likely found in Hungary – sold through the Gorny&Mosch auction house. This rare find is a significant loss to scholarship, since the type of utensil in question plays a key role in late Bronze Age customs of alcohol consumption, and in the better understanding of the connections between the Carpathian Basin and Scandinavia.

ABOUT CONICAL STRAINERS

This metal utensil first appeared as item no. 510 in the 2011 catalogue of the *Gorny&Mosch Giessener Münzhandlung* (Munich, Germany) auction house, together with several other Bronze Age objects from the Carpathian Basin (Figs 1–2). Its reserve price was 5000 €, or approximately 1,500,000 HUF.¹

DESCRIPTION OF THE OBJECT: Conical strainer with a recurved rim and funnel-shaped neck. Presently restored, its condition when found may have been more fragmentary. Its cast handles with long hammered ends were attached with six conical studs. Around the body of the object there is an embossed decoration made up of a delicate pattern of protuberances. In the upper section of the pattern run larger bosses flanked by two rows of smaller bosses. Below this are "solar barge" patterns in the upper strip accompanied by four larger bosses each. The lower two-thirds of the utensil is perforated in accordance with it being a strainer. Published measurements: height: 20 cm (without handles), diameter: 31.5 cm (Figs 1–2).



Fig. 1: The only published picture of the strainer sold by the Gorny&Mosch auction house (Gorny&Mosch. *Giessener Münzhandlung GMBH 4 Jahre, Auktion Kunst der Antike 29. Juni 2011. 198. 210, fig. 510.*)

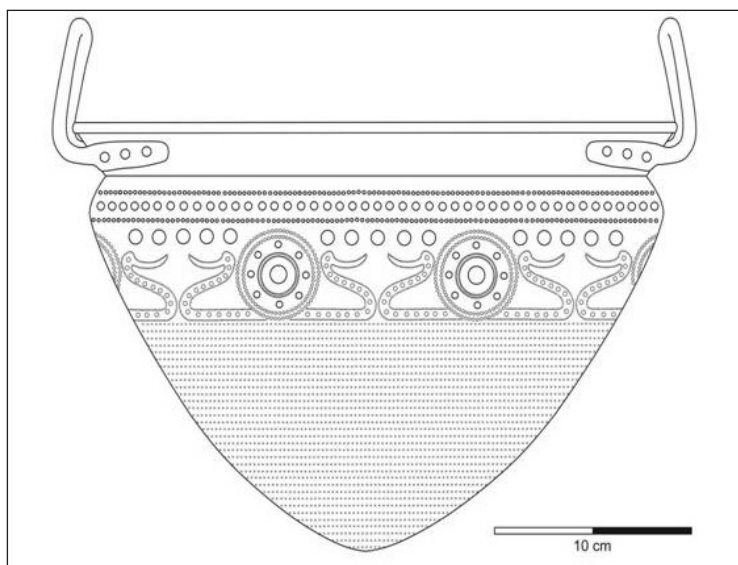


Fig. 2: Reconstruction of the patterns from the strainer sold by the Gorny&Mosch auction house (on the basis of the published picture: Gorny&Mosch. *Giessener Münzhandlung GMBH 4 Jahre, Auktion Kunst der Antike 29. Juni 2011. 198. 210, fig. 510.*)

¹ Gorny&Mosch. *Giessener Münzhandlung GMBH 4 Jahre, Auktion Kunst der Antike 29. Juni 2011. 198. 64–65, 210–213.*

The find being discussed can be placed in the category of rare conical strainers, which on the basis of its method of manufacture can be linked to the northeastern zone of the Carpathian Basin and presumably was placed on the market from here during the course of the 10th century B.C. (Ha B1). This date and region are supported by the fact that the form and decoration of the utensil in question are similar to the Hajdúböszörmény type situlae (e.g. the one known from Lúčky) that are also connected to this area.² The special character of the object under study is indicated by the fact that from the entire Central European region we know of comparable utensils from altogether two Hungarian archaeological sites.³ We can see an example decorated with dissimilar bird figures in the treasure trove containing socketed axes, needles and saw blades found at Tiszavasvári in the 1930s.⁴ Róbert Müller uncovered an undecorated piece of similar construction during the Várvölgy excavations in the 2000s. A point of interest in this find was that they placed the strainer with its mouth facing down on the other objects, as we have observed in the case of other groups of finds.⁵ We know of the third, most surprising parallel from the deposit containing jewelry and a cup from Kostræde, Denmark (*Fig. 3*).⁶ In addition to the above, strainers similar to cups are also known of, which can be found in deposits containing sets of utensils or warrior graves from Romania to France.⁷

FORGOTTEN BANQUET AND DRINKING SETS?

One of the most interesting questions in connection with conical strainers is the use of this type of object. On the basis of the finds in Western Europe, it cannot be ruled out that before these bronze objects landed up in the ground they were originally a part of larger banquet and drinking sets (*Fig. 4*).⁸ Amongst these we can find personal objects such as various types of cups that were often the only metal utensils placed next to the deceased. The situlae, amphorae and cauldrons known for the most part through treasure troves can be linked to major community banquets, and in all probability so can the strainers studied by us. In addition to these, other rare types of utensils may have been parts of these sets, for example smaller

² Novotná, Mária: *Die Bronzegefäße in der Slowakei*. Prähistorische Bronzefunde 2/11 (Stuttgart: Franz Steiner Verlag, 1991), 58, Taf. 11. 54; Patay, Pál: *Die Bronzegefäße in Ungarn*. Prähistorische Bronzefunde 2/10 (München: C.H.Beck'sche Verlagbuchhandlung, 1990), 71–72.

³ As a point of interest, the strainer from the Býči skála cave find can be mentioned, which corresponds in form to the Urnfield pieces. In the Czech research they did not consider it out of the question that in the case of this object, which was deposited in the early Iron Age, they may be dealing with an older Urnfield piece. Nekvasil, Jindra – Podborský, Vladimír: *Die Bronzegefäße in Mähren*. Prähistorische Bronzefunde 2/13 (Stuttgart: Franz Steiner Verlag, 1991), 23, Taf. 12. 46.

⁴ Kemenczei, Tibor: *Die Spätbronzezeit in Nordostungarns*. Archaeologia Hungarica 51 (Budapest: Akadémiai Kiadó, 1984), 189, Taf. CCXIIIa, 3–7.

⁵ Müller, Róbert: Késő bronzkori magaslati település kutatása Várvölgy, Nagyláz-hegyen (2003–2006) / Investigation of a hill settlement from the Late Bronze Age Várvölgy, Nagyláz-hegy. *Régészeti kutatások Magyarországon / Archaeological Investigations in Hungary* (2006), 15–16, Fig. 8; Soroceanu, Tudor: Zu den Fundumständen der europäischen Metallgefäße bis in das 8. Jh. v Chr. Ein Beitrag zu deren religionsgeschichtlicher Deutung. In: *Bronzefunde aus Rumänien. Beiträge zur Veröffentlichung und Deutung bronze-und älterhallstattzeitlicher Metallfunde in europäischem Zusammenhang / Descoperiri de Bronzrui din România. Contribuții la publicarea și interpretarea descoperirilor de metal din epoca bronzului și din prima vârstă a fierului în context european*, hrsg. Soroceanu, Tudor (Cluj-Napoca: Accent, 2005), Abb. 4c, Abb. 5f.

⁶ Thrane, Henrik: *Europæiske forindelser. Bidrag til studiet af fremmede forbindelser i Danmarks yngre broncealder (periode IV – V)* (København: Nationalmuseet, 1975), 144, Fig. 88.

⁷ Martin, Jens: *Die Bronzegefäße in Mecklenburg-Vorpommern, Brandenburg, Berlin, Sachsen-Anhalt, Thüringen und Sachsen*. Prähistorische Bronzefunde 21/16 (Stuttgart: Franz Steiner Verlag, 2009), 86–88.

⁸ Hänsel, Alix: Das metallene Tafelgeschirr im Opfer. In: *Gaben an die Götter: Schätze der Bronzezeit Europas*. Ausstellung der Freien Universität Berlin in Verbindung mit dem Museum für Vor- und Frühgeschichte, Staatliche Museen zu Berlin, hrsg. Hänsel, Alix – Hänsel, Bernhard. *Preußlicher Kulturbesitz* (Berlin: Staatliche Museen zu Berlin, 1997), Abb. 1; Metzner-Nebelsick, Carola: Ritual und Herrschaft. Struktur von spätbronzezeitlichen Metallgefäßdepots zwischen Nord- und Südosteuropa. In: *Rituale in der Vorgeschichte Antike und Gegenwart. Studien zur Vorderasiatischen, Prähistorischen und Klassischen Archäologie, Ägyptologie, Alten Geschichte, Theologie und Religionswissenschaft. Interdisziplinäre Tagung Februar 2002 an der Freien Universität Berlin*, hrsg. Metzner-Nebelsick, Carola (Rahden/Westf.: Marie Leidorf GmbH, 2003), 105–106, 109.

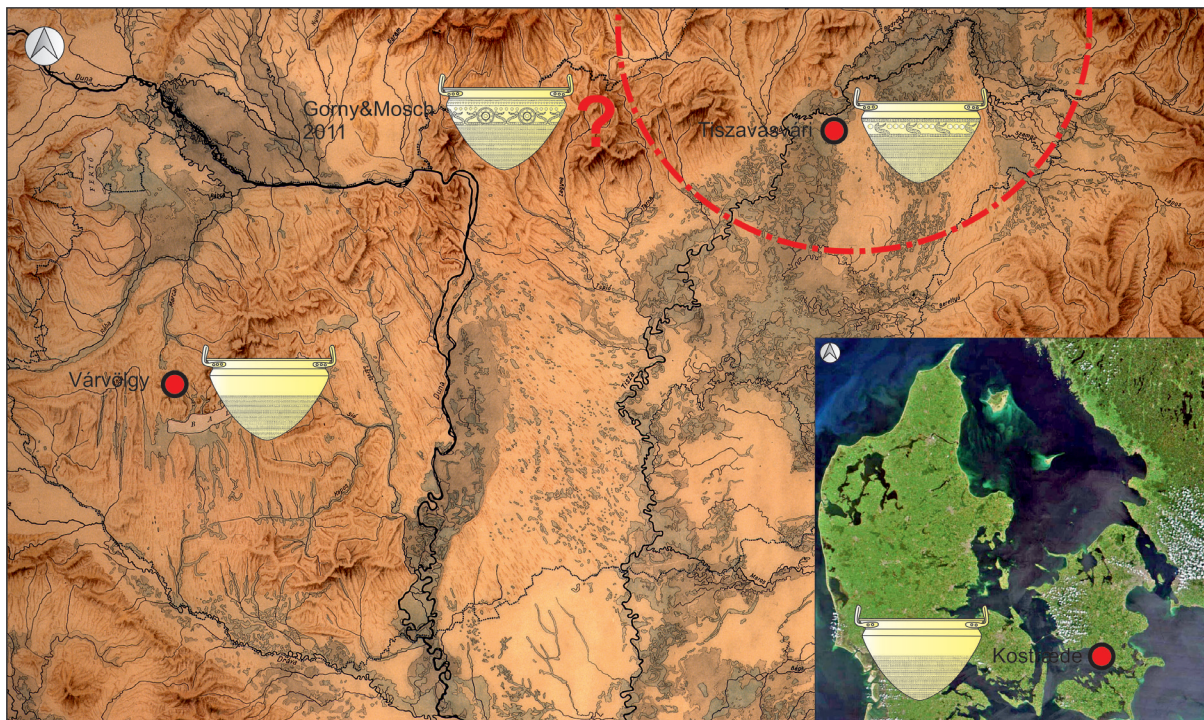


Fig. 3: Distribution of conical metal strainers in the Carpathian Basin and in northern Europe (Müller Róbert: *Késő bronzkori magaslati település kutatása Várköly, Nagyláz-hegyen (2003–2006) / Investigation of a hill settlement from the Late Bronze Age Várköly, Nagyláz-hegy. Régészeti kutatások Magyarországon / Archaeological Investigations in Hungary (2006), Fig. 8; Patay, Pál: Die Bronzegefäße in Ungarn. Prähistorische Bronzefunde 2/10 (1990), Taf. 46. 120; Thrane, Henrik: Europæiske forindelser. Bidrag til studiet af fremmede forbindelser i Danmarks yngre bronzealder (periode IV – V) (København, 1975), Fig. 88.)*

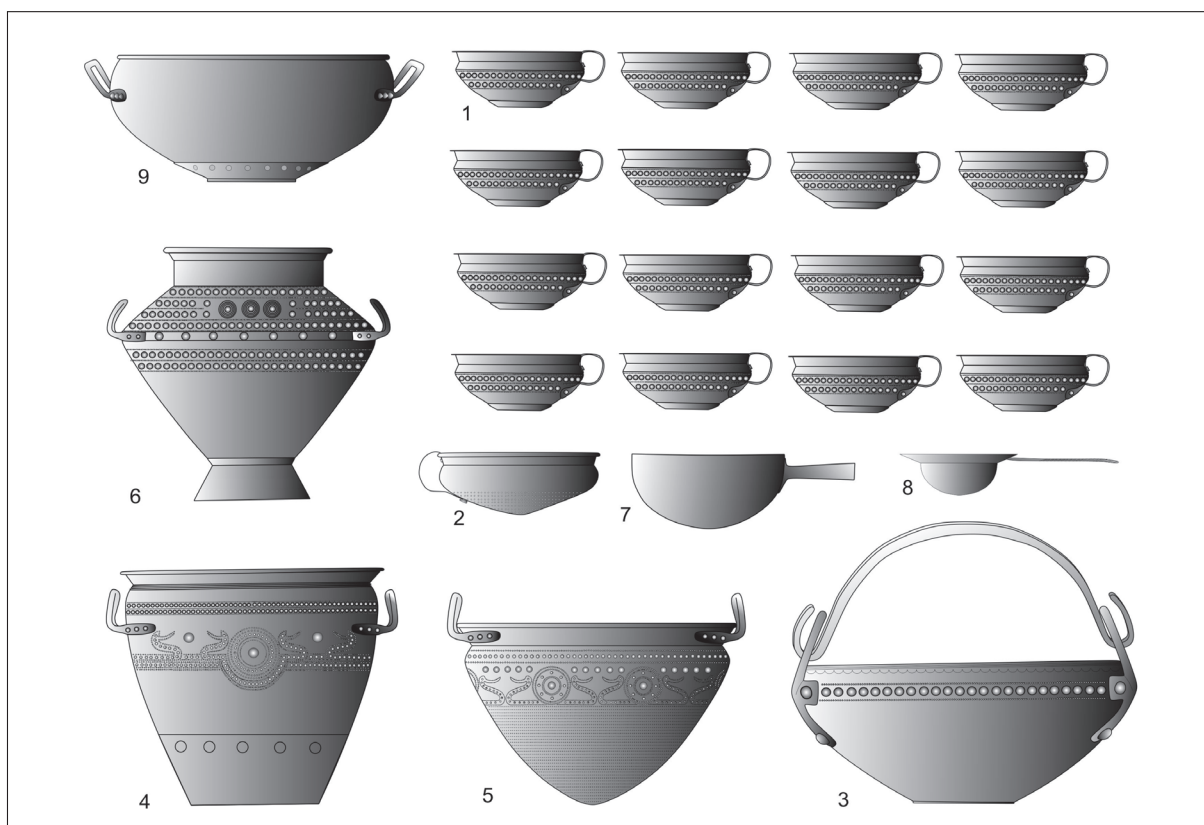


Fig. 4: Metal drinking and banquet set in the 10th century B.C.: 1. cups 2. straining bowl 3. cauldron 4. situla 5. strainer 6. amphora 7. pan 8. ladle 9. serving vessel (terrine) (on the basis of Patay, Pál: *Die Bronzegefäße in Ungarn. Prähistorische Bronzefunde 2/10 (1990), Plate 36, 69A; Plate 81, 57, 68, 69, 95, 121, 122, 123.*)

buckets, serving vessels, pans and ladles.⁹ Full groups containing metal drinking sets are not known from the Carpathian Basin, although individual elements of these all can be found from the 10th century B.C. It is interesting that in our region – in contrast to Scandinavia – utensils made of precious metals are less characteristic. Up to this point no extraordinary set of gold objects has been found such as that from Eberswalde in Germany or Villena in Spain.¹⁰ This latter fact is particularly surprising from the aspect that the necessary technology and gold fields can be found in this area as well.¹¹ Gold utensils are rarely found in the Carpathian Basin, mostly coming from the end of the late Bronze Age and the beginning of the early Iron Age.¹² The appearance of banquet sets can be placed far earlier than the Ha B1 phase. They appear in graves of the elite in the Carpathian Basin already during the 13th and 12th centuries B.C. (they are known of from Čaka and Očkov in Slovakia), as well as in deposits of ceramic vessels.¹³ Early metal utensils that appear in more highly decorated variants in the Ha B1 phase can also be found during this period in the treasure hoards of the region. The forms of metal utensils appearing at the beginning of the late Bronze Age are the result of a technological advance. At this time a tool kit for metalworking appears in the Central European region and in the Carpathian Basin that is able to produce offensive and defensive weaponry, as well as metal vessels of complex workmanship. The pieces of this kit were the socketed hammers, anvils, punches for chasing and repoussé, chisels, files and metal saws that turn up in great numbers in deposit ensembles in the Carpathian Basin.¹⁴ On the basis of the methods of production of the strainer sold by the Gorny&Mosch auction house, or rather the decorative patterns of bosses and sun barges, it may have been the product of this particular type of metalworking. This extraordinarily rare object presumably belonged to a set that was not for everyday use.

⁹ Clausing, Christof: Urnenfelderzeitliche Vorläufer Eisenzeitlicher Rippenzisten? *Archäologisches Korrespondenzblatt* 26 (1996), 413–421, Abb. 6; Mozsolics, Amália: *Bronzefunde aus Ungarn. Depotfundhorizonte von Aranyos, Kurd und Gyermely* (Budapest: Akadémiai Kiadó, 1985), 25–27; Patay, Pál: *Die Bronzegefäße in Ungarn. Prähistorische Bronzefunde* 2/10 (München: C. H. Beck'sche Verlagsbuchhandlung, 1990), 19–73.

¹⁰ Armbruster, Barbara: Goldgefäße der Nordischen Bronzezeit – eine Studie zur Metalltechnik. *Praehistorische Zeitschrift* 87 (2012), 371–372, Abb. 1.; Garcia, J. M. Soler: *El Oro de los Tesoros de Villena* (Valencia, 1969); Hidde, Birgit: Eberswalde, Kr. Oberbarnim, Prov. Brandenburg. In: *Gaben an die Götter. Schätze der Bronzezeit Europas. Ausstellung der Freien Universität Berlin in Verbindung mit dem Museum für Vor- und Frühgeschichte, Staatliche Museen zu Berlin*, hrsg. Hänsel, Alix – Hänsel, Bernhard. *Preußischer Kulturbesitz* (Berlin: Staatliche Museen zu Berlin, 1997), 128–130; Metzner-Nebelsick, Carola: Ritual und Herrschaft. Struktur von spätbronzezeitlichen Metallgefäßdepots zwischen Nord- und Südosteuropa. In: *Rituale in der Vorgeschichte Antike und Gegenwart. Studien zur Vorderasiatischen, Prähistorischen und Klassischen Archäologie, Ägyptologie, Alten Geschichte, Theologie und Religionswissenschaft. Interdisziplinäre Tagung Februar 2002 an der Freien Universität Berlin*, hrsg. Metzner-Nebelsick, Carola (Rahden/Westf.: Marie Leidorf GmbH, 2003), 100–101, Abb. 1.

¹¹ Armbruster, Barbara: Goldgefäße der Nordischen Bronzezeit – eine Studie zur Metalltechnik. *Praehistorische Zeitschrift* 87 (2012), 382–400; Czajlik Zoltán: *A Kárpát-medence fémnyersanyag-forgalma a későbronzkorban és a vaskorban* (Trade in Metallic Raw Materials in the Carpathian Basin in the Late Bronze Age and the Iron Age) (Budapest: Tántalom Könyvek, 2012), 37–40, Fig. 1.

¹² Kemenczei, Tibor: Kora vaskori aranyleletek (Early Iron Age Gold Finds). In: *A Magyar Nemzeti Múzeum Óskori Aranykincsei. Kiállítás a Magyar Nemzeti Múzeumban 2000. V. 18. – VII. 16.* (Prehistoric Gold Treasures of the Hungarian National Museum. Exhibit at the Hungarian National Museum). (Budapest: Magyar Nemzeti Múzeum, 2000), 85, Figs 49–50; Soroceanu, Tudor: *Die vorskythenzeitlichen Metallgefäße im Gebiet des heutigen Rumänien. – Vasele de metal prescitice de pe actualul teritoriu al României.* *Bronzefunde aus Rumänien/Descoperiri de Bronzuri din România* 3 (Berlin: Accent, 2008), 232–237.

¹³ Paulík, Jozef: Das Velatice-Baierdorfer Hügelgrab in Očkov. *Slovenská Archeológia* 10/1 (1962), 46–57, Abb. 13, Taf. I–VI; Točík, Anton – Paulík, Jozef: Výskum mohyly v Čaka v Rokoch 1950–51. – Die Ausgrabung eines Grabhügels in Čaka in den Jahren 1950–51. *Slovenská Archeológia* 8 (1960), 84–88; V. Szabó, Gábor: A tiszacsegei edénydepó. Újabb adatok a Tisza-vidéki késő bronzkori edénydeponálás szokásához (The Deposit of Vessels in Tiszacsege. Recent Data on the Custom of Depositing Vessels in the Late Bronze Age in the Tisza Region) / Das Gefäßdepot von Tiszacsege. Neue Angaben zur Sitte der spätbronzezeitlichen Gefäßdeponierung in der Theißgegend. *A Móra Ferenc Múzeum Évkönyve – Studia Archaeologica* 10 (2004), 87–90.

¹⁴ Jockenhövel, Albrecht: Zu den ältesten Tüllenhämmern aus Bronze. *Germania* 60 (1982), 467; Nessel, Bianka: Schmiede und Toreuten in den urnenfelderzeitlichen Depotfunden des Karpatenbeckens? – Funktionanalyse von Handwerksgerät und soziale Implikationen. In: *Siedlung und Handwerk. Studien zu sozialen Kontexten in der Bronzezeit*, hrsg. Horejs, Barbara – Kienlin, Tobias. *Universitätsforschungen zur prähistorischen Archäologie* 215 (Bonn: Rudolf Habelt, 2010), 2–10.

GROG LINKS: CONTACTS BETWEEN THE CARPATHIAN BASIN AND SCANDINAVIA IN THE LATE BRONZE AGE

Behind the style of metalworking and the characteristic material culture outlined above, an elite class that probably appeared during the late Bronze Age, expressed its power in a new way and had an extensive network of contacts can be hypothesized. It is fundamentally characteristic of the period that the offensive and defensive weaponry as well as the metal utensils that can be linked to the elite spread beyond the borders of the individual archaeological cultures.¹⁵ One of the best examples of this phenomenon is the strainer from the Kostræde treasure, which may have been made in the Carpathian Basin. This Danish piece is only one of the objects that indicate a system of contacts between the two regions. A similar manifestation of this is based on the territorial extent of swords, adzes, and several types of jewelry that can be observed already in the middle Bronze Age.¹⁶

In the case of the late Bronze Age, the distribution of metal utensils reflects the contacts between the two regions for the most part. It can be clearly seen on the basis of Pál Patay's and Géza Szabó's works that already from the 13th century B.C. similar cups (e.g. the cup from Tamási), amphorae (e.g. the one from the Keresztéte hoard) and other types of utensils appear in the Carpathian Basin and northern European areas, as well as in Poland and the west-central European zone.¹⁷ The Hajdúböszörmény type situlae, which are very similar in their production techniques to the strainers, can be highlighted, and these also reached the northern European area, such as those found in Siem in Denmark. The same distribution is shown by the B1 type cauldrons as well, with two examples known from Hvedholm and Vester Skjerninge.¹⁸ We can also introduce further interesting examples in connection with defensive weaponry. A parallel of the shield fragment from deposit find 2 of Nyírtura is found from the Lommelev site in Denmark.¹⁹ One of the finds that is perhaps the most convincing is the disk-shaped belt mount from Dunaföldvár, which has parallels from the female log coffin burials from period III of the northern Bronze Age (14th–13th centuries B.C.).

¹⁵ Uckelmann, Marion: The Function of Bronze Age Shields. In: *Bronze Age Warfare: Manufacture and Use of Weaponry*, ed. Uckelmann, Marion – Mödinger, Marianne. BAR International Series 2255 (Oxford: Archaeopress, 2011), 197, Fig. 5; Patay, Pál: Einige Worte über Bronzegefäße der Bronzezeit. In: *Studien zur Metallindustrie im Karpatenbecken und den benachbarten Regionen. Festschrift für Amália Mozsolics zum 85. Geburtstag*, hrsg. Kovács, Tibor (Budapest: Magyar Nemzeti Múzeum, 1996), 404–410, Abb. 1–5.

¹⁶ Harding, Anthony: Trade and Exchange. In: *The Oxford Handbook of the European Bronze Age*, ed. Fokkens, Harry – Harding, Anthony (Oxford: Oxford University Press, 2013), 379; Kristiansen, Kristian – Larsson, B. Thomas: *The Rise of Bronze Age Society. Travels, Transmissions and Transformations* (Cambridge: Cambridge University Press, 2005), 202–212; Szabó, Géza: Újabb adatok a Kárpát-medencei és az északi bronzkor kapcsolatához (New Data on the Relationship between the Bronze Age in the Carpathian Basin and in the North) / Ein neuer Beitrag über die Beziehungen des Karpatenbeckens zur Nordischen Bronzezeit. *TISICUM. A Jász-Nagykun-Szolnok Megyei Múzeumok Évkönyve VIII* (1993), 105–106; Szabó, Géza: Északi bronztárgyak – vagy északi technológia a Kárpát-medencében? (Northern Bronze Objects – Or Northern Technology in the Carpathian Basin?) / Nördliche Bronzegegenstände – oder nördliche Technologie im Karpatenbecken? *Archaeologiai Értesítő* 121–122 (1994–1995), 82–83.

¹⁷ Patay, Pál: *Die Bronzegefäße in Ungarn*. Prähistorische Bronzefunde 2/10 (1990), 44–45; Patay, Pál: Einige Worte über Bronzegefäße der Bronzezeit. In: *Studien zur Metallindustrie im Karpatenbecken und den benachbarten Regionen. Festschrift für Amália Mozsolics zum 85. Geburtstag*, hrsg. Kovács, Tibor (Budapest: Magyar Nemzeti Múzeum, 1996), 406–411; Szabó, Géza: Újabb adatok a Kárpát-medencei és az északi bronzkor kapcsolatához (New Data on the Relationship between the Bronze Age in the Carpathian Basin and in the North) / Ein neuer Beitrag über die Beziehungen des Karpatenbeckens zur Nordischen Bronzezeit. *TISICUM. A Jász-Nagykun-Szolnok Megyei Múzeumok Évkönyve VIII* (1993), 105–106; Szabó, Géza: Északi bronztárgyak – vagy északi technológia a Kárpát-medencében? (Northern Bronze Objects – Or Northern Technology in the Carpathian Basin?) / Nördliche Bronzegegenstände – oder nördliche Technologie im Karpatenbecken? *Archaeologiai Értesítő* 121–122 (1994–1995), 79–83, 86.

¹⁸ Jankovits, Katalin: Beiträge zu der Situla und Bronzepfanne mit Handgriff in Nordostitalien in der Spätbronzezeit. In: *Studien zur Metallindustrie im Karpatenbecken und den benachbarten Regionen. Festschrift für Amália Mozsolics zum 85. Geburtstag*, hrsg. Kovács, Tibor (Budapest: Magyar Nemzeti Múzeum, 1996), 303–322; Patay, Pál: Der Bronzefund von Mezökövesd. *Acta Archaeologica Academiae Scientiarum Hungaricae* 21 (1969), 181–190.

¹⁹ Patay, Pál: Urnenfelderzeitliche Bronzeschilde im Karpatenbecken. *Germania* 46 (1968), 241, Abb. 2, Taf. 31.

Here we can consider the well known graves from Borum Eshøj and Ølby.²⁰ When considering pieces of apparel it is by all means necessary to mention the brooch from the Sebeş region and the casting mold from Geoagiu. Both objects are related to the characteristic group of Scandinavian metal plate brooches.²¹ This same contact link can be traced from the Haschendorf find in Burgenland that perfectly corresponds to the disk from Balkåkra in Sweden, or in the case of the miniature swords from Velem that have recently been reexamined.²² On the basis of the examples listed we can see that the contact between the two regions can be discerned through a group of extraordinary objects that perhaps have a symbolic function and that demand a distinctly high level of production techniques.²³ All of this indicates that these finds probably spread through the network of contacts of the former elite. We could presume, for example, an exchange of gifts between the leaders of the two distant regions or marriage alliances between elite families. The trade along the Amber Road can be discussed in connection with the spread of similar objects, or even pillaging related to minor clashes. Precisely which events took place that caused these objects to be transported such great distances cannot be clearly determined through archaeological means. However, the recent research on the strainers we have also analyzed can provide new data to more precisely understand the phenomenon described above.

Even though Hungarian archaeology has not yet chemically examined the deposits of food or drink on the late Bronze Age utensils from the territory of Hungary or the composition of these deposits, in general the primary function of the utensils can be concluded on the basis of their particular forms. In the case of strainers, it is hypothesized that they may have been used to purify and prepare some kind of drink. The possibility of the consumption of alcoholic beverages (wine, beer and mead) that is well documented in the Near East and the Aegean during the Bronze Age and Iron Age can only be discussed on a theoretical basis for the central and eastern European region.²⁴ Of the above drinks, the consumption of wine has been considered the least likely due to the rarity of grape seed finds, the difficulty in cultivating the plant and last but not least the complexity of preparing the drink. Although remains of domesticated grapes (*Vitis Vinifera*) are known from late Bronze Age Central Europe (for example the finds from Sopron and Stillfried),²⁵ this

²⁰ Glob, Peter Vilhelm: *The Mound People. Danish Bronze-Age Man Preserved* (London: Cornell University Press, 1974), Fig. 11, Fig. 15; Szabó, Géza: Újabb adatok a Kárpát-medencei és az északi bronzkor kapcsolatához. – Ein neuer Beitrag über die Beziehungen des Karpatenbeckens zur Nordischen Bronzezeit. *TISICUM. A Jász-Nagykun-Szolnok Megyei Múzeumok Évkönyve VIII* (1993), 106–109; Szabó Géza: Archaeometallurgiai adatok a technológiai ismeretek és nyersanyagok áramlásához a Kárpát-medence késő bronzkorában (Archaeometallurgical Data on the Circulation of Technical Knowledge and Raw Materials in the Late Bronze Age of the Carpathian Basin). In: *MOMOS VI. Őskoros kutatók VI. összejövetele. Kőszeg, 2009. március 19–21. Nyersanyagok és kereskedelem* (MOMOS VI. Forth meeting of researchers in Prehistory. Kőszeg, 19–21 March 2009. Raw materials and trade), ed. Ilon Gábor (Szombathely: Kulturális Örökségvédelmi Szakszolgálat – Vas megyei Múzeumok Igazgatósága, 2009), 349–350, Figs 10–12.

²¹ Bader, Tibor: *Die Fibeln in Rumänien*. Prähistorische Bronzefunde XIV/6 (München: C. H. Beck'sche Verlagsbuchhandlung, 1983), 39–41, Taf. 5, 23, Taf. 5, 24.

²² Gömöri János – Kaus, Karl: A hasfalvi bronzkorong, 1914–2014 (The Bronze Disk from Haschendorf) / Das Kultgerät von Haschendorf, 1914–2014. *Soproni Szemle* 68 (2014)/1, 69, Figs 1–2; Notroff, Jens: Ein nordisches Miniaturschwert in Ungarn? Gedanken ein Phänomen der späten Bronzezeit Nordeuropas im Spiegel Prähistorischer Kontaktzonen. *Analele Banatului SN. Arheologie – Istorie* 17 (2009), 265–266, Taf. 1–2.

²³ Thrane, Henrik: *Europæiske forindelser. Bidrag til studiet af fremmede forbindelser i Danmarks yngre bronzealder (periode IV – V)* (København: Nationalmuseet, 1975), 261.

²⁴ Kalla Gábor – Raczky Pál – V. Szabó Gábor: Ünnepek és lakoma a régészetben és az írásos forrásokban. Az őskori Európa és Mezopotámia példái alapján (Feasts and Banquets in Archaeology and in the Written Sources. On the Basis of Prehistoric European and Mesopotamian Examples). In: *Antion könyvek 2. Convivium. Az Eötvös Loránd Tudományegyetem Bölcsészettudományi karán 2012. november 6–7-én tartott vallástudományi konferencia előadásai* (Antion Books 2. Convivium. Papers at the conference in religious studies held at the Faculty of Arts of the Eötvös Loránd University on 6–7 November 2012), ed. Déri, Balázs (Budapest: ELTE BTK VTK, 2013), 26–27.

²⁵ Jerem Erzsébet – Facsar Géza – Kordos László – Krolopp Endre – Vörös István: A Sopron-Krautackerer feltárt vaskori telep régészeti és környezetrekonstrukciós vizsgálata II. (The Archaeological and Environmental Reconstruction Examinations into the Excavated Iron Age Settlement at Sopron-Krautacker II) *Archaeológiai Értesítő* 112 (1985), Figs 20, 30; Kohler-Schneider, Marianne – Clemens, Eibner: *Verkohlte Kultur- und Wildpflanzenreste aus Stillfried an der March als Spiegel spätbronzezeitlicher Landwirtschaft im Weinviertel, Niederösterreich. Zur chronologischen Einordnung der botanischer Makroreste aus der Wallanlage von Stillfried an der March*. Mitteilungen der Prähistorischen Kommission 37 (Wien: Verlag

does not by itself prove the existence of a complex winemaking and drinking culture, since the grapes may have come to this area as a rare luxury good and may have been eaten instead.²⁶ It is not likely that they made use of them purely as *wine grapes*, considering that in Central Europe there are no complex vineyards and cellars such as those uncovered in the Aegean and the Near East.²⁷ More likely in the European Bronze Age is the production and consumption of beverages fermented from fruits, grains and honey that were similar to *grog*, such as shown in the birch-bark container at the Egtved burial.²⁸ On the basis of the most recent studies by Patrick McGovern and his colleagues, a more complex image of late Bronze Age drinking customs has been outlined. In their work they have analyzed the chemical composition of the remains of drinks found on the inner surfaces of several vessels from the Bronze Age and early Iron Age in Northern Europe, including samples taken from the Kostræde parallel to the utensil presented here. On the basis of the latter, the appearance of a beverage made from a base of grapes and honey emerged that also contained some kind of grain that is extremely hard to identify. In addition to this it contained the remains of birch wood, which has antibiotic properties, and pine, which inhibits acetification, as well as juniper and bog myrtle that presumably were for flavoring. The outstanding significance of this discovery is that in a utensil that positively came from the area of the Carpathian Basin it was possible to identify the remains of grapes, which cannot be cultivated in the northern European region.²⁹ This fact and the presence of ingredients that served as preservatives, both further support the suspicion that the Kostræde find may have been an import. On the basis of the results, it also emerges that grape-based alcoholic drinks were consumed in the Carpathian Basin in the late Bronze Age, and this is also the first basis when considering the precise function of this type of object.³⁰ While we still cannot presume a developed grape cultivation and wine producing culture such as can be seen in the Aegean and the Near East at this same time, nor can we rule out that in the late Bronze Age in the Carpathian Basin alcoholic beverages containing grapes were also consumed that were prepared using special utensils such as the conical strainer we are studying.

In conclusion it can be established that the strainer sold by the Gorny&Mosch auction house presumably had been hidden with a treasure cache in the northeastern region of Hungary during the period between 1000 and 900 B.C. This strainer and similar types of utensils signals a striking change in cultural history taking place in the late Bronze Age, during which an elite class emerged whose power and economic strength is indicated by special utensils and weaponry. The chemical analyses performed on the Kostræde find are able to provide support for the function of the object as well; they probably strained an alcoholic beverage in it, perhaps *grog* that contained grapes. On the basis of this, it was not only production techniques for new utensils that appeared in this period, but together with this a refined banqueting and drinking culture developed, a system of customs that reached a zenith for which there is archaeological evidence in the early Iron Age Hallstatt culture and later can be observed in the Celts.

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²⁶ Kohler-Schneider, Marianne: Zur Rekonstruktion des spätbronzezeitlichen Ackerbaus in Stillfried, NÖ. *Archäologie Österreichs* 10/2 (1999), 65–66; Stika, Hans-Peter – G. Heiss, Andreas: Plant Cultivation the Bronze Age. In: *The Oxford Handbook of the European Bronze Age*, ed. Fokkens, Harry – Harding, Anthony (Oxford: Oxford University Press, 2013), 354–359, 363, Tab. 19,5–19,8.

²⁷ Fantalkin, Alexander: Group of Iron Age Wineries from Ancient Jaffa (Jippa). *Salvage Excavation Reports* 2 (2005)/3, 3–5, 17–21; Hamilakis, Yanis: Wine, Oil and the dialectics of power in Bronze Age Crete: A review of the Evidence. *Oxford Journal of Archaeology* 15 (1996), 22; Younger, William: *Gods, Men, and Wine* (London: Wine and Food Society, 1966), 83.

²⁸ McGovern, Patrick, E.: *Uncorking the Past: The Quest for Wine, Beer, and Other Alcoholic Beverages* (California: University of California Press, 2009), 144–145.

²⁹ According to Gad Rausing it cannot be ruled out that it may have been possible to cultivate grapes in the northern European region in the Bronze Age. His hypothesis is based on the fact that between 1800 and 500 B.C. the climate was 2–5 °C warmer at the latitudes of 58° and 59°. Rausing, Gad: The wheeled cauldrons and the wine. *Antiquity* 71 (1997), 995.

³⁰ McGovern, E. Patrick – Hall, R. Gretchen – Mirzoian, Armen: A biomolecular archaeological approach to 'Nordic grog'. *Danish Journal of Archaeology* 13 (March 2014), 2, 5–8, 12–14.

TERMINOLOGY

GROG

In this context the northern European version of a mixed alcoholic drink. On the basis of the chemical analysis of remains found on Bronze Age and Iron Age vessels it can be determined that it was a beverage fermented from honey, berries (e.g. lingonberries and grapes) and grain (e.g. wheat, rye and barley), to which other plants could be added for flavoring (e.g. juniper and bog myrtle).³¹ The consumption of mixed beverages cannot be considered an exclusively European phenomenon, for it can be seen in advanced cultures of the Near East as well in the Iron Age. Lummu, or “Assyrian grog” can be brought as an example, which was a hot drink mixed from beer and wine whose consumption was the privilege of high-ranking guests at banquets.³² Chemical analyses have shown similar mixed drinks in the area of Phrygia as well. Remains of wine from grapes, barley beer and mead have been found in the metal vessels of the so-called Tomb of King Midas (Central Turkey, Tumulus MM).³³

COMMON GRAPE VINE (*Vitis vinifera* L.)

This is a domesticated grape that can be categorized into more than 10,000 types currently in the world. Its domestication may have begun around 7000–6000 years ago in the area of the Caucasus and the Near East. The oldest seed remains were excavated at the Nevalı Çori site in Anatolia and are dated to 6450 B.C., with other important finds from the sites of Shulaveris Gora (6000 B.C.), Kura-Araxes and Khizanaant Gora (3500 B.C.). The site of Nosiri (western Georgia) dated to the second half of the 2nd millennium B.C. should be highlighted, where grape vine branches were excavated. It is not precisely known which properties were given preference during the prehistoric domestication of the plant. The present abundance of species covers numerous variations: the grapes can be small or large, long or round. They vary in color, most commonly white, green, pink, red, black and bronze. In addition, we can observe differing combinations of flavors and aromas as well as the proportion of sugars and acids. One of the most important results of breeding is that *Vitis vinifera* L. is a polymorph, that is it is hermaphroditic, in contrast to the dioecious wild grape (*Vitis sylvestris*). This grape type primarily prefers Mediterranean type environments, but has survived in environments with colder climates, which is why it was able to be domesticated in Central and Western Europe as well.³⁴ It is also worthwhile to mention *Vitis Sylvestris*. This deep red, rarely white, colored plant with small fruits is acerbic due to its low sugar and iron content. According to the opinion of Andrew Sheratt it was unsuitable for the production of wine. In contrast, several researchers, including Daniel Zohary, Maria Hopf and Ferenc Gyulai believe that *Vitis Sylvestris* is excellently suited to being the basis for fermented drinks.³⁵

GRAPE WINE

The earliest known remains of grape wine are from the primary domestication zone of the fruit, the Near East and the Trans-Caucasian region. The presence of wine on the inner surface of the vessels is shown by the detection of tartaric acid or

³¹ McGovern, E. Patrick – Hall, R. Gretchen – Mirzozian, Armen: A biomolecular archaeological approach to ‘Nordic grog’. *Danish Journal of Archaeology* 13 (March 2014), 1.

³² Kalla Gábor – Raczky Pál – V. Szabó Gábor: Ünnepek és lakoma a régészetben és az írásos forrásokban. Az őskori Európa és Mezopotámia példái alapján (Feasts and Banquets in Archaeology and in the Written Sources. On the Basis of Prehistoric European and Mesopotamian Examples). In: *Antion könyvek 2. Convivium. Az Eötvös Loránd Tudományegyetem Bölcsészettudományi karán 2012. november 6–7-én tartott vallástudományi konferencia előadásai* (Antion Books 2. Convivium. Papers at the conference in religious studies held at the Faculty of Arts of the Eötvös Loránd University on 6–7 November 2012), ed. Déri, Balázs (Budapest: ELTE BTK VTK, 2013), 35.

³³ McGovern, Patrick E. – Glusker, Donald I. – Moreau, Robert A. – Nuñez, Alberto – Beck, Curt W. – Simpsons, Elizabeth – Butrym, Eric D. – Exner, Lawrence J. – Stout, Edith C.: A funerary feast fit for King Midas. A royal banquet has been reconstructed from residues in pots found inside the tomb. *Nature* 402, 23/30 December 1999, 864.

³⁴ Janick, Jules: The Origins of Fruits, Fruit Growing and Fruit Breeding. *Plant Breeding Reviews* 25 (2005) 16–17; Kohler-Schneider, Marianne – Clemens, Eibner: *Verkohlte Kultur- und Wildpflanzenreste aus Stillfried an der March als Spiegel spätbronzezeitlicher Landwirtschaft im Weinviertel, Niederösterreich. Zur chronologischen Einordnung der botanischer Makroreste aus der Wallanlage von Stillfried an der March*. *Mitteilungen der Prähistorischen Kommission* 37 (Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2001), 149–150; McGovern, Patrick E.: *Ancient Wine: The Search for the Origins of Viniculture* (Woodstock/Oxfordshire: Princeton University Press, 2003), 12–13, 19–24; Zohary, Daniel – Hopf, Maria: *Domestication of Plants in the Old World: The Origin and Spread of Cultivated Plants in West Asia, Europe, and the Nile Valley* (Oxford: Oxford University Press, 2000), 151, 155.

³⁵ Borowski, Oded: *Agriculture in Iron Age Israel* (Boston: American Schools of Oriental Research, 2002), 102; De Mattia, Fabrizio – Imazio, Serena – Grassi, Fabrizio – Doulati Baneh, Hamed – Scienza, Attilio – Labra, Massimo: Study of Genetic Relationships Between Wild and Domesticated Grapevine Distributed from Middle East Regions to European Countries. *Rendiconti Lincei* 19 (2008), 224–225; McGovern, Patrick E.: *Ancient Wine: The Search for the Origins of Viniculture* (Woodstock/Oxfordshire: Princeton University Press, 2003), 12; Sheratt, Andrew: Cups that Cheered: The Introduction of Alcohol to Prehistoric Europe. In: *Economy and Society in Prehistoric Europe. Changing Perspectives*, ed. Sherratt, Andrew (Edinburgh: Edinburgh University Press, 1997), 377–402; Zohary, Daniel – Hopf, Maria: *Domestication of Plants in the Old*

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Malvin, which gives grapes, plums and pomegranates their red color. The earliest known wine remains are from Hajji Firuz Tepe, dated between 5400 and 5000 B.C., where with the aid of an infrared spectroscope the remains of tartaric acid were detected in addition to pistachio resin in a vessel for holding liquids.³⁶

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