# Feasting with music? A musical instrument and its context from the later 5<sup>th</sup> millennium BC Hungary

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festoiement

## Introduction

In this paper we pursue three goals that are interlinked. The primary goal is the publication of a significant find, a clay horn from the second half of the 5<sup>th</sup> millennium BC along with its full archaeological context, as far as this is still possible three decades after excavation. We regard this goal to be optimally fulfilled with discussing two further points. Our second aim is to summarise the current state of chronological and cultural research. Without clarifying some aspects of the chronological and cultural background, the horn and its two parallel finds deposited together cannot be discussed in sufficient depth to be related. As a consequence of the complicated and disharmonic terminology of the Late Neolithic, Early and Middle Copper Age in Hungary, Eastern Austria, and Slovakia, it also becomes obvious that this unique deposition deserves to be placed in its right chronological context within the late Lengyel, Epilengyel, Balaton-Lasinja and Ludanice cultural circle, highlighting some relations in Transdanubia that have remained less obvious. And last, since not only the clay horn find, but its archaeological context is also meaningful, we try to interpret the assemblage and explore their characteristics, indicating that several of these speak for the remains to be deposited after a shared consumption, presumably as paraphernalia of a communal feast. The circumstances speaking for (and against) this assumption are taken together.

To give some introductory thoughts on the last point mentioned: the power of commensality, acts of shared feasts in a community's life is well attested in the literary sources. Countless ethnographic and socio-psychological studies have demonstrated the importance of feasts in the cohesion of communities, in negotiating and re-affirming personal and group relations or even of the overall hierarchy; broadly speaking, they often negotiate, consolidate, or change the social position and rank of the participants of feasts. Organising and hosting a feast could be the expression of the self-identity and of the cohesion of a smaller group such as a family or community (HAYDEN 2001, with further literature). It is generally assumed that feasting had been a widespread custom in prehistory. John Robb sees Neolithic cuisine as a generative map for social life (ROBB 2007, 156). Feasting is often invoked in the interpretation of special deposits, particularly if there is nothing to indicate

the ritual or sacrificial nature of the context. An unusually large amount of animal bones apparently discarded at the same time or shell middens are often regarded as the remains of feasts. All the more so if these represent the remains of large-bodied wild or domestic species and in particular when they are found together with vessels. Yet, assemblages whose every element reflects a deposition after feasting are seldom brought to light from closed contexts, as was the case on a Copper Age site in the Danube Valley in the Carpathian Basin, at Mosonszentmiklós-Pálmajor. We present a horn made of clay here, together with a vessel that can be interpreted as a drum. The assemblage was buried in a meticulous arrangement with whole vessels along with intact cattle bones, remains of the consummation of a large amount of meet. Since the horn gives a strong tone, the chances for dealing with the remains of a feast accompanied with music will also be contemplated on.

In 1993, during their investigation of the Mosonszentmiklós-Pálmajor site, archaeologist András Figler and his colleagues uncovered houses and pits of the late Lengyel and Middle Copper Age Ludanice / Balaton-Lasinja cultures (Figler 1996; 1997a; 1997b). A particular pit, described and discussed in this study is one of the contexts, whose function definitely appears to have been non-domestic. Our focus will be on the intact Copper Age clay horn as well as on the overall context and the other finds deposited with it. The clay horn and its context are able to shed significant new light on prehistoric feasts, particularly on the interpretation of the archaeological remains of the less known Neolithic and Copper Age examples in the Carpathian basin and in south eastern Europe.

# Background

The northern Transdanubian Danube Valley in the later 5th millennium BC

Mosonszentmiklós-Pálmajor (County Győr-Moson-Sopron, HU) is located on an alluvial plain along the middle Danube section in the north-westerly part of the Carpathian Basin (Fig. 1). From the onset of the Neolithic; this area was occupied by the Central European Linearbandkeramik (LBK, 5350-5000 cal BC), the immediate descendants of the earliest farmers arriving from the Balkans. The LBK and the succeeding Lengyel culture (4900-4400 cal BC) were both distributed over an extensive territory. Two main areas can be distinguished within the immense Lengyel distribution. In the west, the Lengyel complex extended across the greater part of Austria and Moravia, while its eastern variant occupied the vast area from eastern Transdanubia through the mountain region of north-eastern Hungary and eastern Slovakia to south-eastern (Lesser) Poland. One difference between the western Lengyel (or Moravian Painted Ware) and the eastern Lengyel complex is the much greater intensity of occupation on the eastern Lengyel settlements. At Alsónyék, for example, the settlement covered an area of 80 hectares in the 48th-46th centuries BC. It lies in the neighbourhood of similarly large sites such as Zengővárkony and the eponymous site of Lengyel. Large grave groups and cemeteries are known from the eastern Lengyel distribution (over 2300 graves were excavated at Alsónyék alone: BÁNFFY et al. 2016). In contrast, the western Lengyel complex is characterised by smaller, dispersed settlements and we know next to nothing about how the dead were buried. No formal cemeteries have been found and the mortuary record is principally made up of dead who were accorded special treatment (BÁNFFY 1986) such as bodies "dumped" into pits and single, multiple, or partial burials, the latter containing mutilated bodies (Bánffy 1985). The Mosonszentmiklós-Pálmajor site can be assigned to the western Lengyel complex both geographically and in terms of its cultural traditions.

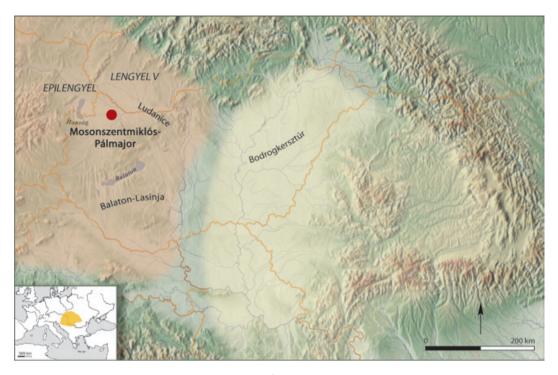


Fig. 1. The central Carpathian Basin in the later 5<sup>th</sup> millennium BC, with the site of Mosonszentmiklós-Pálmajor indicated.

Given the internal structural changes and the appearance of copper artefacts, the latest phase of the Lengyel sequence can be assigned to the Copper Age. The contemporaneity of this phase with the Early Copper Age of eastern Hungary (c. 4400–4000 cal BC) is also confirmed by radiocarbon dates (Bánffy 1996a; Raczky-Siklósi 2013). In the later 5<sup>th</sup> millennium BC, during the latest phase of the Lengyel culture, cultural development was moulded by the recurring influx of new population groups and cultural impacts from the Balkans, which precipitated major transformations in southern Transdanubia, in the southwesterly part of the Carpathian Basin. The appearance of early copper and gold metallurgy, of fluted pottery imitating metal vessels of the Balkanic type, and of smaller, more briefly occupied settlements was initially believed to signal a major cultural change and discontinuity (Kalicz 1973; 1980). This led scholars to introduce a new archaeological culture, the Balaton-Lasinja culture.

However, there are persuasive arguments against this initially assumed discontinuity. The settlement excavations and their detailed assessments in the late 20<sup>th</sup> century indicate that there were no major disruptions in the Lengyel settlement network, nor can any major shifts be observed in the location of the settlements that lay on gently sloping hillsides and on terraces overlooking streams and rivers. Moreover, the onset of the changes assumed to signal the arrival of a new population can be traced to the final, Early Copper Age phase of the Lengyel culture (Bánffy 1996a; 1996b). Cultural impacts from the northern Balkans in the wake of the disintegration and restructuring of the late Vinča culture, the southern neighbour of the Lengyel culture, rippled through southern Transdanubia too.

The aforementioned arguments indicate that the late Lengyel development in Transdanubia, in the western part of the Carpathian Basin, was not uniform. Unsurprisingly,

the strongest cultural influences from the south can be felt in the western Lengyel complex distributed in the southerly regions bordering on the northern Balkans, as confirmed by the archaeological record from two micro-regions west of Lake Balaton (the Little Balaton micro-region, investigated between 1979–1985, and the Hahót Valley to its west, explored between 1986–1993) (Bánffy 1986; 1996a; 1996b). The settlements and the finds that have been brought to light in these two regions provided clear evidence for the southern impacts during the late Lengyel period. They palpably became more intense during the ensuing Balaton-Lasinja period but did not involve a cultural break or the arrival of a new population. The conventional names for denoting archaeological cultures are still used by researchers despite their obsoleteness, and it should be borne in mind that these are no more than technical categories that have not been discarded solely for the lack of better ones.

The settlement network outlined by more recently analysed and published sites enabled the reconstruction of a trade and cultural communications route leading from the northern Balkans to Central Europe (Bánffy 2001), which undoubtedly survived into the ensuing centuries of the Middle Copper Age.

The southern impacts are attested to differing extents and increasingly weakly in the central and northern regions of Transdanubia. The traits reflecting the continuity of the Lengyel culture and the Balkan impacts could be clearly distinguished on sites in the Budapest area (Vtrag 1995). Given the sites' northern location and the decreasing intensity of Balkan impacts, the Balaton-Lasinja label was discarded when describing the finds, which were assigned to the Ludanice culture distributed in the northern Carpathian Basin, in northern Hungary and Slovakia. In the Slovakian chronological system established for the 5th millennium BC, the Ludanice culture is often denoted as Lengyel V to highlight the fact that it represents the continuity of the material culture and traditions of the Lengyel culture north of the Danube (Lichardus / Vladar 1964). The label "Epilengyel" used in neighbouring eastern Austria similarly reflects continuity (Ruttray 1976).

Although Balkan (Balaton-Lasinja) elements can be discerned on the Middle Copper Age sites along the north-western Hungarian section of the Danube, among which Moson-szentmiklós-Pálmajor is no exception, the area is linked by many cultural strands to the Nitra Basin in south-western Slovakia and to the core distribution of the Ludanice culture in the area of the Ludanice (Nyitraludány) site.

Thus, what we see is that the entire vast geographic area with Lengyel antecedents underwent a slow Chalcolithisation, reflected by the series of gradual changes in settlement patterns and lifestyles as well as the adoption of various innovations, rather than cultural gaps in the wake of migrations. The main difference between the Balaton-Lasinja and the Ludanice culture is essentially one of proportion (Bánffy 1994), which in turn reflects the geographic distance from the northern Balkan Vinča and post-Vinča distribution and the long-distance routes, with the cultural impacts diminishing towards the west and northwest.

The slow transformation involved the appearance of smaller settlements which replaced the previous large, permanent settlements. A similar process can be noted not only farther to the east, for example on the Hungarian Plain, where tell settlements were abandoned for smaller, more briefly occupied settlements (LINK 2006), but also in south-western Transdanubia, where a smaller Balaton-Lasinja settlement (Bánffy 1993) was identified in the immediate neighbourhood of an extensive later Lengyel period settlement ringed by an enclosure (Barna et al. 2019). An overlap between the two cultures and the Early and Middle Copper Age settlements has been noted on other Transdanubian sites as well (Simon 1990; Bánffy 1996a; 1996b; Éri et al. 1969).

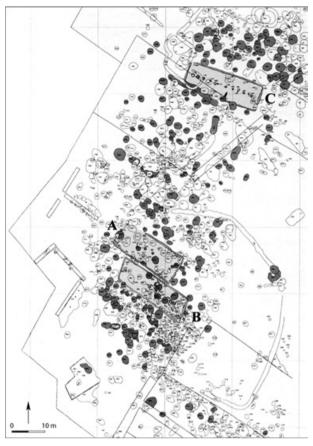


Fig. 2. Mosonszentmiklós-Pálmajor. Ground plan of the western part of the excavation area with the chalcolithic houses and pits indicated.

# The Mosonszentmiklós-Pálmajor site

The greater part of the immense volume of finds brought to light during the extensive salvage excavations on the site ahead of large-scale construction projects of the past few decades remains unpublished. The construction of the M1 Motorway between Budapest and Vienna in the early 1990s was preceded by a series of excavations, in the course of which the remains of several Neolithic and Copper Age sites were uncovered in the northwestern Carpathian Basin (in fact, another site was found in the immediate vicinity of the site discussed here, cf. Egry 2003). The investigation of the Mosonszentmiklós-Pálmajor site involved the excavation of a 9 hectares large area in 1993-1995, representing one of most extensive archaeological operations carried out at the time. Lying on the eastern fringes of the Hanság wetland, the site is located on a roughly 80 hectares large ridge-like hill rising to a height of 3–3.5 m above the surrounding often waterlogged land. The ridge was continuously occupied from the Neolithic onward: population groups of at least ten different periods had established their settlement in this location (FIGLER 1996, 18–19; 1997a; 1997b). Owing to the disturbances from later periods, the Neolithic and Copper Age finds were predominantly found in secondary contexts and only the superposition of the archaeological features and the prehistoric pits yielding finds with a dating value

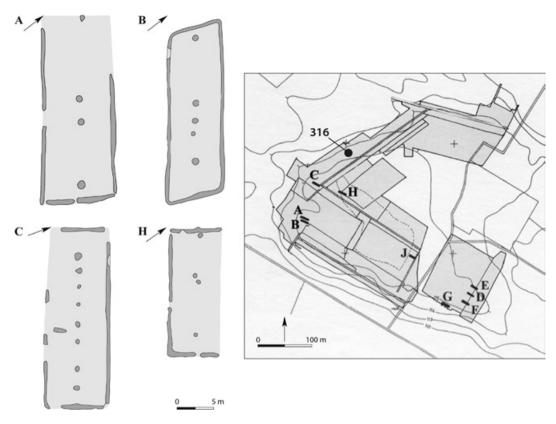


Fig. 3. Mosonszentmiklós-Pálmajor. Details of Houses A, B, C, H and location of Pit 316.

provide some clues for establishing a chronological sequence of the features dating from various periods. The only exceptions are a few undisturbed pits and the remains of buildings, whose bedding trenches and sunken floors were clearly outlined, with the burnt daub debris covering the occupation area with two distinct house groups. The unusual pit discussed here represents one of these exceptions.

The bedding trenches of four houses of the latest Lengyel population that occupied the site between 4500-4400 cal BC came to light in the south-eastern part of the investigated area, where they formed a distinct cluster: the houses had a rectangular groundplan with rounded corners and an inner partition wall dividing the space into two rooms with a 1/3:2/3 proportion. The ensuing Ludanice / Balaton-Lasinja community settling in the north-western part of the excavated area had similar rectangular houses, although these buildings had a single room and were of varying sizes. These buildings similarly formed a separate cluster (Houses A, B, C, H and J) (Virág / Figler 2007, 355) (Figs 2–3). Six contemporaneous pits could be associated with these houses: in the case of three pits that can be securely assigned to the Balaton-Lasinja / Ludanice period, we may tentatively assume that the vessels recovered from them had been intentionally deposited in these features (Features 78, 438, and 724, yielding six, three, and one intact vessels, respectively). The deposition act seems quite obvious in the case of two other pits as well (Feature 9: nine vessels, and Feature 1159: nine vessels). This study focuses on the sixth pit, Feature 316. All six round pits had an almost identical size and were dug into the open area between the houses by the occupants of the Copper Age settlement. Feature 316, which could equally well be asso-

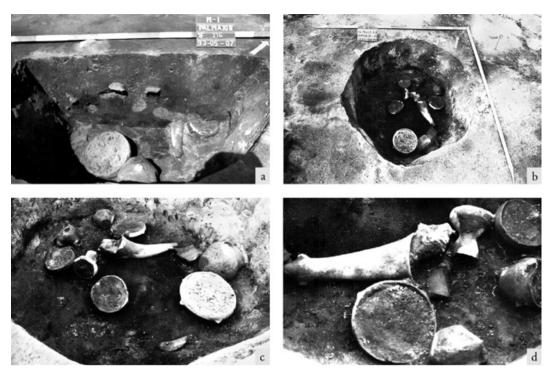


Fig. 4. Mosonszentmiklós-Pálmajor. Pit 316 during excavation.

ciated with House C or H, lay to their north, at some distance from the houses (*Fig. 3*). Interestingly enough, five of the six pits lay in each other's proximity. Pits 438, 9, and 724 lay closer to the buildings than Pit 316. One good anchor for the site's internal chronology is that Pit 1159 cut the southern wall of House C; however, this detail is not mentioned in the brief site report (Virág / Figler 2007) and its discussion also falls beyond the scope of the present study.

# The clay horn and its context

# Description of the pit with the clay horn

Pit 316 was a round feature with a flat, even floor, having a diameter of 160 cm and a depth of 46 cm. Although there is no field record of the pit's excavation, the accurate and meticulously made drawings as well as a series of black-and-white photos and a video documenting the pit's excavation have survived. The ensuing description is based on these documents.

The pit's fill was homogenous, made up of loose blackish earth mixed with sand. This black earth was greasy to the touch and the excavator remarked in the field diary that it was probably rich in organic matter. Unfortunately, no samples were taken from this part of the fill. Eight intact vessels lay on the floor of the pit, together with a nearly 40 cm long clay horn which was placed in its centre (Fig. 4a–d). Most of the vessels were found lying in the pit's northern section, while one bowl and two vessel fragments lay in the pit's southern part. An empty space was observed between them, characterised by an especially thick layer of black, greasy, soft soil. Although no samples were taken from this area either, a remark

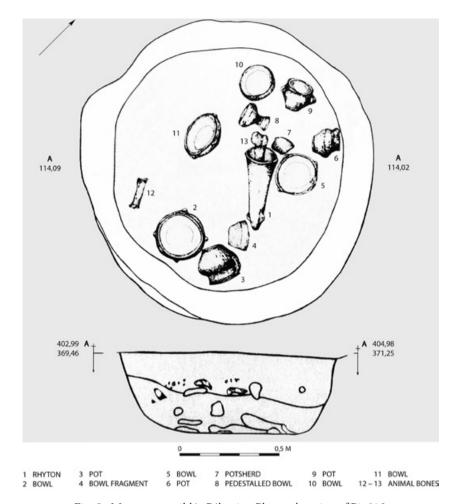


Fig. 5. Mosonszentmiklós-Pálmajor. Plan and section of Pit 316.

in the field diary records the impression that a piece of thick fur, leather, or heavy woven textile may perhaps also have been deposited as part of the assemblage.

The clay horn and a pedestalled vessel were both placed on their side close to each other, a jug and a pot, similarly laid on their side, lay a little farther (*Fig. 5*). Four conical bowls were set around the clay horn, an arrangement that is clearly visible on the photo and the drawings. Three of the vessels recovered from the pit are smaller pots with prominent shoulder (*Fig. 6,1–3*), three are biconical bowls with lug handles (*Fig. 7,1–3*), while one is a smaller pedestalled bowl with two pointed knobs on the shoulder (*Fig. 8*). The clay horn lay immediately beside the latter vessel.

Unfortunately, the vessels themselves have not been found in either of the local museums and their magazines. Our quest resulted in the information that they were sent to a graphic artist to be drawn for a paper by the excavator András Figler and Zsuzsa M. Virág in the early 2000s, but the place where the vessels were stored, perished in flames soon after that. There is only one pedestalled vessel, exhibited in the Mosonmagyaróvár museum, but no permission was given to remove it from there in order to subject it to even slightly destructive examinations. Thus, the only exact hints on the ceramic finds are those that are published by Virág and Figler (2007).



Fig. 6. Mosonszentmiklós-Pálmajor. 1–3 pots from Pit 316. Drawings scale 1:4.

Two cattle long bones, an intact femur and a large tibia fragment, were also part of the assemblage. The intact femur was tucked into the wide end of the horn, while the tibia fragment lay near the horn, on the greasy black soil covering the pit's floor, closer to the wall of the pit. Two larger potsherds were also found lying on the floor. We made every effort to find the femur, even corresponding with radiocarbon laboratories thinking that it had perhaps been sent to one for sampling but found no traces of it. It seems likely that the bone had been bagged separately as an "important find" and now lies forgotten somewhere in a museum storeroom. However, we did manage to find the tibia, which could then be

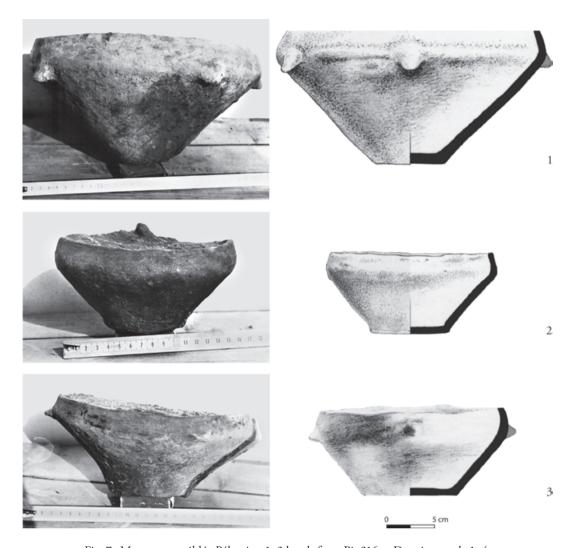


Fig. 7. Mosonszentmiklós-Pálmajor. 1–3 bowls from Pit 316. – Drawings scale 1:4.



Fig. 8. Mosonszentmiklós-Pálmajor. Pedestalled bowl (drum?) from Pit 316. – Drawing scale 1:4.



 $Fig.\ 9.\ Mosonszentmiklós-Pálmajor.\ The\ clay\ horn\ from\ Pit\ 316.-a,\ b,\ d,\ e\ scale\ 1:4;\ c\ without\ scale.$ 

sampled: the radiocarbon date confirms that the pit is contemporaneous with the settlement's Middle Copper Age houses (see below; *Fig. 13*).<sup>1</sup>

The almost intact curved clay artefact resembling a cattle horn lay in the pit's centre. We interpreted this artefact with two open ends as a horn, as a musical instrument (*Fig. 9a–b*). The yellowish-brown, well-fired artefact was made of well-levigated clay tempered with sand; its polished surface bore an occasional patch of soot and it was visibly a very carefully made artefact. L. 37.6 cm, Th. 0.6–0.8 cm, diam. of the slightly oval wider end 13.7–14.6 cm, diam. of mouth end 2.5 cm (*Fig. 9c–d*).

The horn's wider, funnel-like end has a slightly oval opening, while the narrower end grades into a flattened oval opening. Two small, symmetrically placed, rounded loop handles are set 6 cm downward from the horn's narrow mouth end (*Fig. 9e*). The two small handles with a diameter of 2.5 cm probably had a practical function, most likely for suspending the instrument, possibly from the neck; at the same time, their position on the horn in relation to the entire object recalls the proportions of the human body to some extent.

# The musical sound of the horn

The clay horn was blown after its discovery in 1993 by the first author of the present study in the presence of András Figler, the site's excavator. Due to the lack of a mouthpiece – which was either of some organic material and did not survive, or to the fact that the horn lacked one originally – blowing the horn called for a special lipping technique. Its deep, rich sound, which carried quite far, was later recorded as part of an acoustic experiment. It reached a strength of 96.0 dB and a frequency of 215–301 Hz. According to Beate Maria Pomberger's comparative table and description, this sound carried for some 100 m (Pomberger 2016, 55). Due to its overall nature, it was probably an instrument for calling and signalling, being suitable for emitting both deeper and higher notes.

The clay horn from Mosonszentmiklós-Pálmajor has two openings. In contrast, the clay horn's model, the natural cattle horn, was not perforated at its pointed end. With an appropriate lipping technique, ocarina-type hollow clay artefacts can also be sounded, and thus when looking for the horn's closer and more distant analogies, we should by all means also consider artefacts that have been described and interpreted as drinking horns (rhytons) simply because their pointed end is not perforated, as possible musical instruments.

# The currently known parallels of the clay horn (Fig. 10)

The small number of clay horns in time and space from the onset of the Neolithic onwards suggest that the overwhelming majority of musical horns had indeed been made from cattle or sheep horns and that clay reproductions were few and far between. The first wind instruments fashioned from clay appear in the mid-6<sup>th</sup> millennium BC. The few examples cited below all date from the Early Neolithic of South-East Europe and from the Linear-bandkeramik (LBK), the earliest Neolithic culture of Central Europe (see *Fig. 10*).

The radiocarbon measurements were performed at the Curt-Engelhorn-Zentrum Archäometrie GmbH, Mannheim (DE); MAMS 44913.

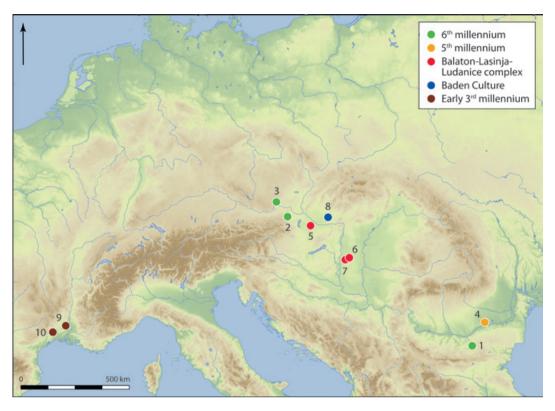


Fig. 10. Prehistoric clay horns mentioned in the text. 1 Ovčarovo-Gorata (BG); 2 Brunn am Gebirge (AT); 3 Breiteneich (AT); 4 Gumelniţa (RO); 5 Mosonszentmiklós-Pálmajor (HU); 6 Császártöltés-Kiscsala (HU); 7 Szihalom-Sóhajtó (HU); 8 Pilismarót-Basaharc (HU); 9 Brugas / Vallabrix, Dép. Gard (FR); 10 Rouet (FR). Green: 6<sup>th</sup> millennium; yellow: 5<sup>th</sup> millennium; red: Balaton-Lasinja-Ludanice complex; blue: Baden Culture; brown: early 3<sup>rd</sup> millennium.

# Ovčarovo-Gorata, Bulgaria (c. 5700–5600 cal BC)

According to the current record, the earliest clay horn came to light on this northern Balkanic settlement. The roughly twelve cm long cylindrical object is described as a thin-walled, downward slightly flared object with three perforations near the mouth end on one side and a pair of smaller perforations on the other (Krauss 2014, 166 fig. 100,2). Raiko Krauß cites the artefact from Brunn am Gebirge in support of its interpretation as a clay horn, although he does concede that ocarina-like instruments only became more widespread from the Copper Age onward.

# Brunn am Gebirge 2a, Austria (c. 5550 cal BC)

The clay horn from this site is the earliest representative of clay horns visibly imitating natural cattle horns. The settlement itself dates to the earliest, formative phase of the Central European LBK (Stadler 1995; Stadler / Kotova 2010). The clay horn came to light in one of the post-holes of an LBK longhouse and it was therefore interpreted as a foundation deposit. Although the horn was broken and only about 65% survived, the four perforations on its side could be clearly made out: two near each other near the rim and

two farther down on the body. B. M. Pomberger believed that a mouth-piece was needed to play the instrument; she experimented with a reconstructed replica and succeeded in coaxing various sounds from the horn by covering the perforations near the rim. However, no mouth-pieces were discovered on either site (Pomberger 2016, 38–39 pl. 1,1).

# Brunn am Gebirge 2b, Austria (c. 5200 cal BC)

Two fragments interpreted as the remains of a clay horn were brought to light on the extensive LBK settlement near Vienna, dating from the culture's late, Notenkopf period (Pomberger 2016, 40 pl. 1,2a–b; 1,3a–b).

# Breiteneich, Austria (c. 5200 cal BC)

The unstratified find from eastern Austria came to light on a late LBK (Notenkopf) settlement. The 56 mm long fragment comes from the horn's lower, pointed terminal (POMBERGER 2016, pl. 1,4).

The period between the final centuries of the sixth millennium and the later fifth millennium, the horizon from which clay horns are again known, was spanned by the Lengyel culture. Although pedestalled vessels purportedly used as drums can be found in this culture, horns and other wind instruments have not yet been reported from Lengyel contexts.

# Gumelnița, Romania

A clay artefact with curved body and oval end opening described as a rhyton found at Gumelniţa in the Lower Danube region can perhaps also be assigned to the category of clay horns. The artefact is covered with a design of deeply incised triangles combined with white painting in-between (Dumitrescu 1985, fig. 17).

The next horizon yielding clay horns falls into the Middle Copper Age. The three horns from this period share countless similar traits: the horn discussed here, which can be assigned to the Balaton-Lasinja-Ludanice complex, continuing Lengyel traditions in the Carpathian basin, and the further two clay horns from two distant sites. All three finds are coeval and stand close to each other, although they come from different regions of the Carpathian basin.

# Szihalom-Sóhajtó, Hungary (Fig. 11)

This clay horn came to light on the outskirts of Szihalom on the northern Hungarian Plain during the salvage excavations preceding the construction of the M3 Motorway. A cemetery section with twenty-seven burials of the Middle Copper Age Bodrogkeresztúr culture was uncovered at the site, alongside a section of the associated settlement. The clay horn was found in the upper part of the fill of Pit 62, in an area lying immediately underneath the humus that was disturbed by later archaeological cultures (Szabó 1997, 54–55 fig. 14).

Described as a "ritual vessel" in the exhibition catalogue *Utak a múltba / Paths into the Past*, the Szihalom artefact bears the greatest resemblance to the horn from Mosonszent-miklós-Pálmajor. It is a slightly asymmetrical, cylindrical horn made of clay tempered with sand and fired to a yellowish-brown colour with the occasional grey mottling. The 39 cm long clay horn with two small, rounded loop handles is carefully smoothed: one end has a slightly flaring round opening with straight rim (diam. 9.2 cm), the other end is narrow with a round opening (diam. 1.2 cm). The handles probably served for suspension, simi-





Fig. 11. The clay horn from Szihalom-Sóhajtó. – Scale 1:4.

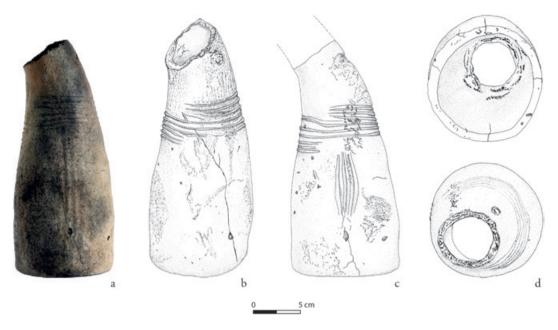


Fig. 12. The clay horn from Császártöltés 10. – Scale 1:4.

larly as in the case of the Mosonszentmiklós horn. However, the anthropomorphic traits, barely perceptible on the latter, are more pronounced on the Szihalom exemplar: the two rounded knobs between the handles can be regarded as the stylised depiction of female breasts.

# Császártöltés 10 (Kiscsala, Útőrház I), Hungary (Fig. 12)

The unusual clay artefact that can be identified as the fragment of a clay horn was found together with an abundance of good-quality pottery sherds of the Copper Age Bodrog-keresztúr culture on a hill rising above the surrounding land during the field survey conducted on the outskirts of Császártöltés, a settlement lying along Road 54 in the Danube-Tisza interfluve. The slightly curved tubular artefact flares towards one end and narrows towards the other, damaged end. Its body is decorated with a bundle of circumferential lines running parallel to the intact end and a bundle of lines perpendicular to it underneath. L. of fragment 26 cm (reconstructed L. 38–40 cm), diam. of end opening 11 cm (KNIPL 2009a, 145 fig. 1,2–3; 2009b, 98 pls 2–4 fig. 15a–c).

The three roughly contemporaneous clay horns with more or less identical form, size and canonised traits were found on sites in the north-western, north-eastern and central regions of the Carpathian Basin, possibly an indication of the one-time communications network. It also seems likely that the clay imitations were linked by several "original" natural horns (*Fig. 13*).

From the close of the 4<sup>th</sup> millennium BC, the Carpathian Basin was occupied by a single cultural complex, the Baden culture. Clay horn fragments came to light from two burials of the cemetery excavated at Pilismarót-Basaharc. Although the artefacts were described as drinking horns, the features shared with clay horns of the preceding two millennia would nevertheless suggest that these were also musical instruments.



Fig. 13. Close parallels in time and space: The three Middle Copper Age clay horns from Hungary (s. Figs 9–11). – Scale 1:4.

# Pilismarót-Basaharc, Hungary

The two fragments of cattle horn-shaped rhytons are described in detail in the publication of the well-known cemetery of the Baden culture. One was recovered from Grave 359 (Torma 1973, 494 fig. 5,1; Bondár 2015, pl. 12,4), the burial of a roughly 20-year-old adult of indeterminate sex. One end of the curved artefact was broken off (L. 21.5 cm, diam. of mouth 9.5 cm). The perforation can clearly be made out on the photo published in the first excavation report. The artefact is covered with an incised zig-zag pattern, its wide rim with short incisions, while there is "a perforation for suspension" near the pointed base (Bondár 2015, 44–45). However, this perforation would rather suggest a function as a musical instrument because two perforations would be needed for suspension and, in any case, a perforation through which a beverage would flow out makes little sense on a drinking horn.

# Pilismarót-Basaharc, Hungary

The other fragment interpreted as part of a rhyton comes from Grave 405. The greyish-brown fragment lay on top of the strongly disturbed burial with a stone packing together with a few vessels. It is decorated with an incised zig-zag pattern, similarly to the other piece from the cemetery. The reconstructed length is 22–24 cm (Bondár 2015, 66–67).

Several other possibly analogous finds can be cited from the Late Copper Age of the Carpathian Basin. The Proto-Boleráz culture, appearing in the later fourth millennium, is regarded as the forerunner of the Baden culture, a cultural complex strongly imbued with Lower Danubian cultural elements, and thus the "drinking horn" from Pécsbagota can be seen as a link with the horns of the Baden culture from Mosonszentmiklós-Pálmajor, Császártöltés and Szihalom-Sóhajtó (Kalicz 2001, fig. 4), as can the exemplars from Pilismarót-Basaharc and the fragment of a similar object decorated with a herringbone pattern from Balatonőszöd (Horváth 2014, 191; 203–204 fig. 163,4).

The last period from which several clay wind instruments can be cited is the earlier third millennium. Two finds from France attest to the use of the clay imitations of natural horns.

# Brugas / Vallabrix, France (3000-2500 cal BC)

The horn came to light on a site occupied during successive millennia from the Palaeolithic onward, which had been destroyed by modern construction activity (Coularou et al. 1981). The clay horn was found in a small cavity among the settlement features and finds of the Copper Age Fontbuxien site (Coularou et al. 1981, fig. 1). L. 355 mm, diam. of end opening 90 mm, average Th. 7 mm. Its curved form is clearly an imitation of cattle horns. A fluted applied ornament extends from its mid-section to the end. The two perforated lug handles probably had a cord threaded through them for suspension, similarly as on the other clay horns.

# Rouet, France (c. 3000-2500 cal BC)

The horn was first published by J. Coularou in 2007. The 3200 mm long horn with an end diameter of 90 mm has a similar curved shape as the piece from Brugas and the Mosonszentmiklós horn. A small knob with two perforations, possibly for suspension, is set on the body roughly halfway down its length. In her study on the experimental reconstruction of prehistoric musical instruments, Tinaig Clodoré-Tissot published a photo of the horn and noted that it took her two hours to make its replica, noting that the greatest difficulty was ensuring that the wall thickness be identical because otherwise it would not produce the desired sound (Clodoré-Tissot 2010, 40–41 fig. 17).

In sum, the clay horns faithfully evoke the form, size and other traits of cattle (or occasionally sheep) horns, not only in early periods but throughout the timespan between the mid-6<sup>th</sup> and the mid-3<sup>rd</sup> millennium BC in European regions lying far from each other. These occasional finds strongly suggest that the "prototype" had never disappeared and that natural animal horns were continuously used during the millennia, even if they did not survive in the archaeological record, while their clay replicas were made in exceptional cases only. These finds can, in a sense, be regarded as the tip of the iceberg, as an indication that natural animal horns had been often blown during feasting or had been used for signal calls, a form of communication.

# The conjectural drum and its parallels

The pit containing the horn also yielded a 13.7 cm high pedestalled vessel, whose fill had a higher phosphate content than the other ceramics (*Fig. 8*). The analysis of the geochemical samples taken from the vessels suggests that the vessels had been empty or had contained but a minimal amount of food, at least judging from the occasional higher calcium content and low phosphate values (see below). The somewhat higher phosphate content of the pedestalled vessel is therefore quite puzzling. Perhaps it had been covered with skin, which had seeped into the vessel's interior after its decomposition. The drum skin had perhaps been secured and drawn tight by means of the four, pointed knobs on the carination. If this was indeed the case, the objects deposited in the pit had included not one but two musical instruments.

The use of drums in Neolithic contexts has been posited by several scholars and the cited ethnographic analogies would suggest that the objects in question had been rudimentary goblet drums. Vessels with a tall pedestal and a smaller bowl, known from the late LBK period through the extensive Lengyel distribution to the Early and Middle Copper Age of the Carpathian Basin, i.e. also in the 5<sup>th</sup> millennium BC (when the Mosonszentmiklós-Pálmajor settlement flourished), were ubiquitous and many could have been used as drums. One good example comes from Großweikersdorf, a site of the Lengyel culture in eastern Austria (Pomberger 2016, 232 pl. 3,1). With its height of 12.2 cm, it matches the pedestalled vessel from Mosonszentmiklós. Beate Maria Pomberger assigned the vessel to the membranophone category: she made a replica of the ceramic drum, experimented with playing it, and found that it could produce sounds at several different pitches: somewhat deeper sounds could be produced in its centre and higher ones along the edges, depending on the tautness of the skin. The sounds produced by drumming were 76–86 dB and carried as far as 40 m, depending on the outer temperature and the humidity of the air (Pomber-GER 2016, 52–53). A strikingly high number of comparable membrane drums have been reported from the Baden period, particularly from the northern sites characterised by a strong Funnel Beaker (TRB) presence (Pomberger 2016, 233–235 pls 5–7; 10). Many ceramic drums are known from southern Scandinavia, Poland, Moravia and Bohemia from between 3600 and 2400 BC. Most ceramic drums are profusely ornamented: over one-half of the currently known exemplars were recovered from burials or from a location where rituals were performed. Volume 3 of the Studien zur Musikarchäologie series lists some 340 drum finds that can be assigned to the TRB culture (Lustig 2002).

Analysis of the samples taken from the vessel fills and the animal bones

# The animal bones

The pit contained two larger animal bones, as mentioned above, both from cattle. One was an intact femur which was tucked into the opening of the horn so that only its end was visible, as can be clearly seen on the drawings and photos. Regrettably, our efforts to locate this bone proved unsuccessful. In addition to corresponding with several museums in whose storeroom the cattle femur could have been stored, we also contacted the radiocarbon laboratory in Debrecen in the hope that András Figler, the site's excavator, had perhaps sent the bone there for age determination, where it would hopefully be found. Our thrill upon learning that the laboratory's samples included animal bones from the site was short-lived: as it turned out, the bone samples in question originated from the settlement's Bronze Age occupation. We therefore sampled the cattle tibia, which, although broken,

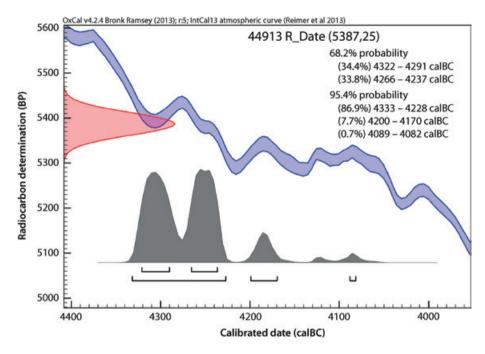


Fig. 14. Mosonszentmiklós-Pálmajor. Radiocarbon dating of Pit 316.

could be found in the storeroom of the Mosonmagyaróvár museum together with the vessels and the soil samples. The bone had been investigated from the zooarchaeological point of view before sampling by Éva Ágnes Nyerges. She could not observe any damages or cutmarks on its surface. The fraction at one end of the tibia could still be a sign for intentional destruction, for accessing the marrow (L. Bartosiewicz, pers. comm.).

# Radiocarbon dating

As mentioned in the above, radiocarbon dating was performed on the cattle tibia. Sampling was performed by Balázs Gusztáv Mende, the measurements by Susanne Lindauer and Ronny Friedrich of the Curt-Engelhorn-Zentrum Archäometrie GmbH. Sample MAMS 44913 gave a date of 4333–4228 cal BC (1  $\sigma$ , 95.4%) and 4322–4291 cal BC (2  $\sigma$ , 68.2%), respectively (Fig. 14). This corresponds to the Balaton-Lasinja-Ludanice-Lengyel V-Epilengyel horizon (as discussed above) in the western Carpathian Basin and to the coeval Bodrogkeresztúr period, filling the Middle Copper Age in eastern Hungary. This time interval can be equated with the earlier phase of the Balaton-Lasinja and Ludanice horizons (Oross et al. 2011, 398); the detailed assessment of the houses and the finds will no doubt shed additional light on the site's late Lengyel occupation and the possible continuity with the next period, the Balaton-Lasinja-Ludanice phase. However, any speculations in this regard would exceed the scope of this study. The important point is that the result of the radiocarbon dating did not challenge the cultural context of the finds from Pit 316 of the Mosonszentmiklós-Pálmajor site.

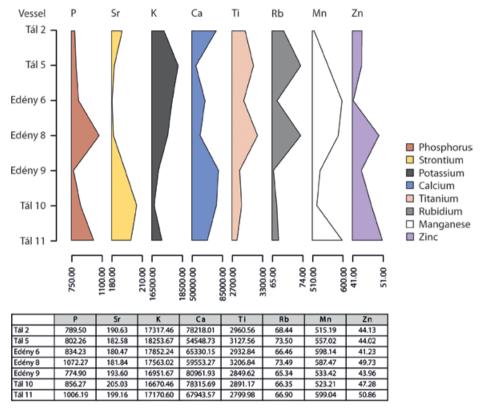


Fig. 15. Mosonszentmiklós-Pálmajor. Geochemical analysis of the filling of ceramic vessels from Pit 316.

## The RFA analysis of the soil samples

The fill of each vessel was carefully removed and packaged during the excavation. We used one-half of each fill, putting aside the other half for future analyses. The samples were submitted for geochemical and botanical analyses, which were coordinated by Isabel Hohle: the geochemical analysis was performed by Melani Podgorelec, Romano-Germanic Commission, the botanical analysis by Astrid Stobbe of the J. W. von Goethe University in Frankfurt.

We sampled each vessel for X-ray fluorescence analyses. The pulverised samples were examined with a Portable Thermo Scientific Niton XL3 t analyser. The routine involved four phases of filtering the samples; we used measurement mode environmental samples (minerals with Cu/Zn) for the measurements. A Standard NIST2709a was measured after every tenth measurement in order to eliminate mistakes and to correct standards. For this reason, the metadata were elaborated in several steps. Each sample was measured four times and each sample was given middle range data (*Fig. 15*).

The phosphorus rates lie between c. 775 to 1070 ppm (parts per million), none of which can be considered to be high. However, calcium contents reached the rate of 81,000 ppm. Besides phosphorus, calcium typically shows elevated values in pits and cooking areas, always indicating a strong anthropogenic impact (MIDDLETON / PRICE 1996), and there-

fore in general terms, higher calcium values imply more mussels and shells, while higher phosphorus values are an indicator for decomposed leather and bones (HOLLIDAY 2004, 301–302). Higher calcium values may therefore indicate bone or mussel remains from meals (perhaps some soup) that remained in the vessels after the edible parts had been consumed. Burnt daub or wood ashes, the third component indicating human activity that is primarily characteristic for animal remains, remains in the average ranges, as do the values of strontium, rubidium, manganese, and zinc.

# Determination of soil texture, organic matter, and pollen conservation

Samples were taken from the sediment fills of the seven vessels to determine the grain size composition (sieve and pipette method, after SCHLICHTING et al. 1995) as well as the total organic carbon / soil organic matter (TOC/SOM) ratio. In addition, the samples were also examined for possible pollen grains.

The sediments in vessels 316/2, 316/6, and 316/9 consist of loamy sand (silt levels below 40%). Vessels 316/5, 316/8, 316/10, and 316/11 contain silty-loamy sand (silt content over 40%) (Ad-hoc-AG Boden 2005). The high silt content and the fine sand component suggest that the material is of aeolian origin and was subsequently remobilised by the Danube. The organic material contents are remarkably high. Vessel 316/5 has the lowest value at 2.83% (moderately organic). The SOM values of the other vessels are between 4.0 and 5.45% (highly organic). The sediments contain a relatively large proportion of microcharcoal, which is certainly partly responsible for the high organic carbon values. A few heavily corroded pollen grains (especially *Pinus*, Cichorioideae and Poaceae) were found in similar percentages in all vessel fills, probably topsoil material containing high percentages of charred plant remains.

The vessels had probably contained the remains of a stew or a thick broth on their bottom. The consumption of cooked dishes does not exclude that whole joints of meat were also roasted and then carved up, as noted by N. Russel in her discussion of the two main modes of food preparation cooking and roasting and consumption at the Vinča settlement of Opovo (Russell 1999, 162).

We would have liked to submit a sample from the rim of the pedestalled vessel interpreted as a drum for protein analyses, but this would have been impossible without damaging the vessel that is currently displayed in the exhibition of the Mosonmagyaróvár museum. The same holds true for the vessel interiors – it was not possible to conduct any other analyses. While additional data on the composition of the organic material inside the vessels would no doubt have been interesting, the soil samples taken several decades ago did not enable further analyses.

Discussion: a feasting event memorialised in the Mosonszentmiklós-Pálmajor deposit

#### The context

In the light of the context and the finds of the Copper Age pit uncovered at Moson-szentmiklós-Pálmajor, we may confidently assert that the assemblage can be interpreted as a structured deposition (see e.g. Chapman 2000, with further literature): the intact clay horn and the eight intact vessels around it had been placed into the pit on one specific event. Pit 316 lay in an area that lacked houses, and with the exception of a single pit, the other similar pits were also dug in the open area among buildings. The thick, loose,

greasy soil layer overlying the pit's floor would suggest that the floor had been lined with a thick organic material, perhaps an animal hide, a woollen blanket, a thick carpet or some other textile. Placed onto the blanket were food remains, intact vessels and at least one but more likely two musical instruments, since the pedestalled vessel was in all likelihood a membrane drum. The area where the organic cover was the thickest was left empty, with at least no ceramic or bone objects. The bovine long bone tucked into the horn and the other bones lying around the vessels create the impression of having been the remains of food consumed by a group of people, while the vessels did not apparently contain any intentionally deposited food.

The type of meat consumed by the participants also reveals much about the feast itself. The fact that cattle was butchered speaks for an out-of-the-common event: cattle has been up to modern times bred mainly for milk and dairy products and to a lesser extent for meat, so cattle meat consummation was usually not part of the every-day-diet (Marciniak 2005; Gillis et al. 2017). Several archaeological and archaeozoological studies have been devoted to the prominent role of cattle and how they became symbols of wealth and prestige in food-producing societies (Bogucki 2011; Russell 2012; Marciniak / Pollard 2015, 752). There is increasing evidence that milk and milk products were the main staples of the diet in daily life (Ebersbach 1996; Helmer / Vigne 2007; Vaiglova et al. 2018) and that cattle were only slaughtered and consumed on exceptional occasions: "Cows would have been social valuables appreciated and circulated during their lifetimes; when they were eaten, large numbers of people got together for a social occasion" (Robb 2007, 153–154).

Now let us have a closer glimpse at the two bones found in the pit. These bones carry crucial information on the extent of the presumed shared consummation and thus on the interpretation of the whole assemblage as a deposition after feasting. They were identified as cattle femur (intact) and cattle tibia (with a broken end). In order to get an impression of the amount of meat, László Bartosiewicz (pers. comm.) estimates that the weight of one femur and tibia makes 9.1 % within the whole excavated skeleton (some decrease in weight due to fossilisation is to be assumed [see also REICHSTEIN 1994]). Based on modern cattle with an average live weight of 600 kg, this would mean 11.2% for one hind leg, which might reach the weight of 41.5 kg<sup>2</sup>. Regarding the fact that prehistoric cattle were not stall-fed for their meat, this number could be decreased with 30% but possibly even with 50%. Taking all circumstances into account, the most precise estimation of the meat that was consumed before the assemblage with the clay horn became buried with the bones was no less than 20.75–30 kg (Bartosiewicz 1988). There is hard proof for the meat being consumed indeed before the deposition and that solely the bones chewed bare had been deposited (instead, for example, of a complete roasted haunch). This is confirmed by the cattle bone tucked into the horn: the detail photo made during the pit's hand excavation (Fig. 4d) clearly reveals that a meaty bone would not have fitted inside the opening and that even the bare cattle bone could hardly be squeezed into the horn's slightly curved body. These circumstances can be taken as clear indication that the consumption of the food had occurred immediately before the act of deposition.

We can also surmise other kinds of food, "side dishes" – vegetables, porridge or similar cereals – were consumed together with this large amount of meat. The vessels accompanying the horn and the food rests might also indicate some soup or pottage (unfortunately, since the vessels are lost, no further investigation for any food remains can be carried out).

https://extension.tennessee.edu/publications/ Documents/PB1822.pdf.

Consequently, counting with an average amount of meat (flesh with bones) suggested for one person, 250 g, together with side dish, the meat would serve a group of 70–80 people at least. Based on the known number and size of the houses in the settlement, the participants may have involved a considerable part of the whole community, where definitely several families must have come together. According to Michael Dietler (2001, 89), feasts can be defined simply by differences in the sheer quantity of food and drink consumed. This criterion is, presented by the above short analysis, fulfilled in the present case.

The interpretation of this assemblage as the imprint of a single event adds flesh to the bones of the dry facts. The kind and amount of meat consumed, the intact vessels and the musical instruments placed in the described way make a kind of deposition likely that was motivated by a special, festive occasion and realised by a large shared consumption. We interpret the assemblage as a deposition of material remains in the aftermath of a feasting event. Several reasons speak for this.

The first interpretation that usually springs to mind when excavating assemblages of this type is that the pit preserves the remains of a food offering, the remains of a sacrifice of some sort. The analysis of the soil samples from the vessels indicated that they had not contained food (or perhaps only some microscopic food remnants at the bottom, but since the vessels are no longer at our disposal, this question cannot be further investigated). The clean bones, devoid of any meat, placed beside the vessels attest to the consumed dishes.

The arguments for a large shared meal are completed with the above calculations on the amount of meat consumed. Furthermore, the probable selection of vegetables and bread or porridge fulfil the criterion for a communal food consumption event with members of several households: this is one of the points often highlighted by anthropologists when defining feasting (Twiss 2008, 419). Paul Halstead (1996) has pointed out that Neolithic stockbreeding, especially cattle raising, called for close cooperation between households, another important argument for bolstering the conjecture that the feast involving the consumption of cattle meat had been the joint festive occasion of several households.

Beverages were also served to accompany the dishes. Some of the vessels, for example the two jugs, were used for pouring or drinking beverages (as noted above, the vessels could not be sampled). It seems likely that food processing such as salting and smoking meat was practiced from the Early Neolithic in the Carpathian Basin (BÁNFFY 2015), while the fermentation of milk products was similarly a preservation technique that had been known from the earliest Neolithic period (Helmer / Vigne 2007; Evershed et al. 2008). It has been convincingly demonstrated that the fermentation of cereals was practiced before domestication and the transition to a sedentary lifestyle, as was the production and consumption of fermented alcoholic beverages prepared from fruits and grapes (DIETRICH et al. 2012). Alcoholic beverages, as frequent requisites of feasting, are generally attested (Dietler 1990; Dietler / Hayden 2001; Hayden 2014). Alcoholic fermentation might have been discovered long before the domestication of plants and animals during the Neolithic, and the fermentation of cereals enriched this scale of plants used (GUERRA-DOCE 2017). Alcoholic beverages have a privileged role in feasting, as they amplify the important dramaturgical aspects (Dietler 2001, 73). Fermented beverages could have been produced before the invention of pottery during the Neolithic (Vencl 1994, 307; Sherratt 1995) and there are data about fruit wine, also in the Neolithic of the Carpathian basin (Gyulai 2010). That a part of the Mosonszentmiklós vessels had contained alcoholic beverages, seems thus to have some probability.

Further to eating and drinking, the next argument touches upon the clay horn and the possible drum placed as part of the assemblage. The presence of the horn and the tentatively identified drum strongly suggests that the communal food consumption event was

enhanced by music. This might sound a courageous assumption, given the generally scarce archaeological data speaking for feasts, and especially, as oral effects are barely attributed to prehistory. However, the deposit of Mosonszentmiklós, made after a community consumption event, does involve a wind instrument (the horn) and possibly also a drum. The range of sounds that could be produced by blowing the horn (and by beating the membrane drum) is not particularly varied. Yet, the interpretation of these finds as merely signalling instruments would plainly contradict their closed archaeological contexts. The idea to give "performances (singing, dancing, music, oratory, etc.)" comes from a most detailed and widely cited table by Katheryn C. Twiss, on "Common aspects of feasting", which she compiled for interpreting feasting beginning as early as the Pre-Pottery Neolithic (Twiss 2008, 420–422). Thus, the idea of placing musical instruments together with paraphernalia of a community event allows the assumption of 'feasting with music' (hence the title of our study; see also Susan Pollock's view on feasting scenes that involve artefacts used like musical instruments: Pollock 2003, 25). We can probably conjecture that songs had been chanted during the feast. Regrettably, we shall never know what these songs were about or whether they had been accompanied with dance movements.

The individual characteristics of the deposition might point in various directions and would allow a number of other interpretations, perhaps. Yet, taking all features together into consideration, the remains seen as one deposition after a communal feasting seems a highly logical inference.

In the following, we shall briefly discuss the role of feasting (and, judging from several similar assemblages recovered from pits, recurring feasting events) in the life of the Copper Age communities of western Transdanubia.

# Feasting

"Feast" is an event that is used to describe forms of ritual activity that involve a communal consumption of food and drink, not necessarily implying highly elaborate ceremonies or showing 'sacred' characteristics (Dietler 2001, 65–67). The tracing of feasts in archaeological remains has been barely investigated so far, the main reason being their extremely difficult visibility in the material culture left behind. At this place, we aim to give background information that underpins our hypothesis on the Mosonszentmiklós-Pálmajor assemblage, admitting that the closer content of this event (i. e. the reasons or occasion for the feasting) cannot be defined.

Following the lead of Claude Lévi-Strauss (1983) as well as of Mary Douglas (1975), it has by now become a commonplace that food and eating does not merely serve the sustenance of life but is an important means of social interaction, of building personal networks, and of negotiating and expressing hierarchy in a particular community and in society as a whole: in this sense, feasts are "central arenas of social action that have had a profound impact on the course of historical transformations" (Dietler / Hayden 2001, 16). Feasts, communal eating and drinking, are generally held on special occasions with a specific purpose such as the evocation of past events or the celebration of an important turning point in an individual's or community's life such as initiation or marriage or other rites of passage (Dietler / Hayden 2001, 28). The events of feasting gained an extraordinary role in societies without hierarchy, or in those, which underwent either transformation or endangered times that both need group identity to be strengthened (Benz / Gramsch 2006, 425–426). In many cases, feasting was both the medium and the arena of achieving peace (Sahlins 2004, 132–133). John Robb, according to whom "cooking in the Neolithic way meant reproducing Neolithic society", confers an even greater significance to

the salient elements of feasting (ROBB 2007, 152–158). The completion of major communal activities such as house building, harvesting and the commemoration of ancestors, or perhaps even establishing some form of contact with them, were all occasions for feasting, during which special dishes were served – either in terms of their amount, variety or quality – even if the vessels and other objects used on these occasions were no different from the ones employed in daily life.

As far as could be inferred from the excavated area, the houses of the Mosonszentmiklós-Pálmajor settlement formed distinct clusters. The six pits that can be associated with feasting were not located immediately beside the houses but in the open area between them, meaning that none could be associated with a specific house or household, the implication being that they held the remnants of a joint feasting event. The report on the settlement does not mention any differences between the orientation, size, internal division, furnishings or finds of the houses, and therefore we have no reason to assume that the family or paterfamilias hosting the feast had enjoyed a more prominent social status.

The deposition as the concluding act of the feast and its location are very telling. The pits lying scattered in the open, shared space would imply that the area was vested with a special significance and that the repeated acts of deposition re-affirmed the framework within which the settlement existed, the boundaries of houses and households, and the open zones between them. The location of the six pits would suggest that there was no designated central area for the feasts and that households took turns in hosting them.

Food sharing – portions of beef enough for 70–80 participants, as discussed above – is in itself a potent act for re-affirming the community's cohesion and for negotiating the finer details of social interaction, and the festive outward trappings no doubt enhanced the event. Finally, the ceremonial deposition of the feast's remnants in a pit specially dug for the purpose ensured that the event would be firmly embedded in the community's cultural memory. The similarity of the pits and their carefully deposited assemblages of intact vessels and other objects attest to the norms regulating acts of deposition. The presence of the pits in the shared space preserved the significance of the outstanding event and it is possible that the pits' location had been marked in some manner. It also seems possible that the allotment of the house plots was permanent and that there was no danger of any construction activity in the empty spaces between them the main point is that no buildings were erected over the pits during the Copper Age.

Together with several other complementary rites, feasting was a shared, festive occasion that was usually accompanied by rhythmic music and other sound effects, joint singing and perhaps instrumental music. "Social eating and drinking are universal social bonding activities that trigger the release of endorphins, and are very likely to have included music in some way early on, as they do today all over the world" (Killin 2018, 12). Stephen Mithen described joint singing and recitations accompanied by rhythmic music and perhaps rhythmic movement as a major stimulus to human cognitive and emotional development from the Middle Palaeolithic onward (MITHEN 2007). Later descriptions of feasts from periods with written records often mention that they oft-times involved the theatrical re-enactment of a legend, an ancestor myth or an emotional narrative, often with dancing and joint singing.

On the testimony of the Mosonszentmiklós assemblage, the community's feasts were quite certainly accompanied by music: the horn's deep strong voice can still be sounded today. The vessel beside it, interpreted as a drum, had been the instrument for providing a constant rhythmic background beat. The changing rhythm indicated the transition from one phase to the next during the feast. As Anthony Jackson noted, "a change of rhythm is far more significant than a change of melody" (Jackson 1968, 296) and has a greater

impact on the audience. Feasting thus encapsulated both permanence and rhythmic change and its phases (especially if held as part of rites of passage: cf. Gennep 1960). In contrast to the horn, which emits a single deep basic sound, the dual musical accompaniment expressed the dual nature of feasting.

# Conclusion: shared food, shared tunes, shared memories

The context and the finds of Pit 316 uncovered at Mosonszentmiklós-Pálmajor both conform to the material correlates of feasting, which are as follows (Twiss 2008, tab. 1): the consumption of a considerable amount of cattle, a food not generally eaten as part of daily meals in larger quantities; the intact vessel set that included jugs, which had perhaps contained alcoholic beverage(s); the ceramic horn and a possible membrane drum, the material evidence of the musical accompaniment, alongside the remains of food and drink, and finally, the remains of the feast had been carefully deposited beside each other in a pit lined with some thick textile or fur. It must be noted here that the ritual deposition of the food remains, the vessels used during the feast, and the other paraphernalia in pits of the same size and form specifically dug for this purpose indicates that feasts were periodically, possibly regularly held events, rather than a single exceptional occasion. Six pits of this type were uncovered in the investigated area, although there were probably many more on the entire settlement.

Activities performed regularly and in the same manner associated with non-quotidian tasks are more than simple customs because they are embedded in social tradition to the extent that the repeated activity becomes powerful in its own right. Thus, a series of actions performed repeatedly, i.e. ritual activity, is all-important in a community's life (BOURDIEU 1977, 166).

Taken together, the Mosonszentmiklós assemblage fulfils the five main criteria for defining a feasting event to the following extent (DIETLER 2001, 91):

- 1. *Spatial distinctions:* the deposition among houses, but at some distance in an open, shared space, speaks for a meal for several households and so might be the venue; yet, the exact place of the shared consumption cannot be exactly said.
- 2. *Temporal distinctions:* no data regarding e.g. the order of meals, but important data speak for a full synchrony between the archaeological material of the assemblage in the pit and the houses around.
- 3. Qualitative distinctions: we can define the kind of meat and the possible side dish variety, the possible consumption of alcoholic beverages. The are no hints on the customs of consumption, for example, on the order in which the participant (males? females? hierarchy?) are allowed to consume.
- 4. *Quantitative distinctions:* we do have reliable calculations for a meal serving at least 70 participants.
- 5. Behavioural distinctions: the clay horn and the possible drum speak for actions pointing beyond mere eating and drinking. Further, the reason for or type of the feasting remains mostly unknown. The only exception might be lying in the several similar depositions among houses in the settlements, which speaks for regularity.

Consequently, while the interpretation of the pits, among them of Pit 316, is unambiguous, the custom of deposition following a feast reveals little about the community's social relations. The location of the houses suggests that the shared space was the scene of feasts shared by several households, but it remains unclear whether the feast marked a festive

event for the entire community. The remains offer no clues as to whether all occupants of the houses partook in the feast, whether there was an individual or a small group of people, perhaps one or several families with a more prominent role who carved up and distributed the meat, who blew the horn, who recited the legends and myths associated with the ritual, and who performed the act of deposition. The distinct location of the pits conveys the impression that even if each feast did have a master of ceremonies, it might have been a different person or persons on each occasion, perhaps the occupant(s) of the house hosting the feast. As regards the existence of a social hierarchy in the Neolithic of the Carpathian Basin, there is evidence for some stratification from the early 5<sup>th</sup> millennium onward (Siklósi 2013); however, the deposits from Mosonszentmiklós-Pálmajor offer few clues in this respect. One of the main purposes of the deposition of the paraphernalia of the feast and of the food remains may have been memory-building. The maintenance of community memory was no doubt essential in an age when a human generation was much shorter than today and when it played a much more prominent role in ensuring the community's continuity and survival by reinforcing adherence to social norms and customs.

Finally, it should be recalled that the material correlates of countless similar uncustomary activities concealed in regular pits are known from the western Lengvel complex, including the traditions of the direct Lengyel descendants, from western Hungary, eastern Austria, south-western Slovakia, and southern Moravia. In the overwhelming majority of cases, as for example at Balatonmagyaród-Hídvégpuszta, the excavated features also included human remains, often partial or multiple burials, and these pits were therefore interpreted within the framework of mortuary contexts (BÁNFFY 1986; 1990/1991, with further literature), even though the practice of deposition in a regular pit can in certain cases have a relevance beyond mortuary archaeology. In other cases, contexts reflecting ritual activity as at Hluboké Masúfky (ALTGRÄFIN / VILDOMEC 1936/1937), where three fragments of the same figurine were deposited in three pits lying far from each other, a clear instance of deliberate fragmentation, became the springboard of other important studies (Chapman / GAYDARSKA 2007). However, this is perhaps the first time that indubitable indications of a feasting event could be observed in a closed context. It is our hope that the detailed description and discussion of the ceramic horn and the associated finds from Mosonszentmiklós-Pálmajor will contribute to the recognition of similar assemblages and contexts on other sites. Thus, the present study is a contribution to the growing attestations of the prehistoric tradition of feasting.

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# Abstract: Feasting with music? A musical instrument and its context from the later 5<sup>th</sup> millennium BC Hungary

Feasts, occasions of festive commensality, play a prominent role in every human society, and prehistory was no exception. An assemblage suggesting a deposition act performed after feasting came to light from a closed context on a Copper Age site dating from the later 5<sup>th</sup> millennium BC in the north-westerly region of the Carpathian Basin. One of the pits among the many similar features lying between the houses of the settlement investigated at Mosonszentmiklós-Pálmajor, Hungary, contained a remarkable set of finds: the pit's floor was covered with a greasy, blackish organic layer, onto which were deposited cattle long bones and intact vessels, one interpreted as a drum, alongside an almost intact clay horn, which can still be played as a musical instrument today. The assessment of the musical instrument(s), the other finds and of the overall context was undertaken together with the evaluation of the radiocarbon dates and the botanical analysis of the soil samples taken from the vessels, which strongly indicated that the assemblage can be interpreted as a deposit made after feasting.

# Zusammenfassung: Feasting mit Musik? Ein Musikinstrument und sein Kontext aus dem späten 5. Jahrtausend v. Chr. aus Ungarn

Feste, Anlässe festlicher Geselligkeit, spielen in jeder menschlichen Gesellschaft eine prominente Rolle, und auch die Vorgeschichte bildet hier keine Ausnahme. Aus einem geschlossenen Befund einer kupferzeitlichen Fundstelle aus dem späten 5. Jahrtausend v. Chr. im nordwestlichen Karpatenbecken wurde eine Assemblage geborgen, die auf einen Deponierungsakt nach einem Festmahl hindeutet. Eine der vielen Gruben zwischen den Häusern der untersuchten Siedlung in Mosonszentmiklós-Pálmajor, Ungarn, enthielt ein bemerkenswertes Fundensemble: Der Boden der Grube war mit einer schmierigen, schwärzlichen organischen Schicht bedeckt, auf der Langknochen von Rindern und intakte Gefäße deponiert waren, eines davon mit einer möglichen Trommel, daneben ein fast intaktes Tonhorn, das noch heute als Musikinstrument gespielt werden kann. Die Bewertung des Musikinstruments bzw. der Musikinstrumente, der anderen Funde und des Gesamtzusammenhangs erfolgte zusammen mit der Auswertung der Radiokarbondaten und der botanischen Analyse der aus den Gefäßen entnommenen Bodenproben, die deutlich darauf hinweisen, dass die Assemblage als Deponierung nach einem Festmahl interpretiert werden kann.

# Résumé: Festoiement en musique ? Un instrument de musique et son contexte à la fin du cinquième millénaire av. J.-C. en Hongrie

Les fêtes, occasions de convivialité festive, jouent un rôle déterminant dans les sociétés et la préhistoire n'échappe pas à la règle. Un contexte clos d'un site chalcolithique de la fin

du cinquième millénaire av. J.-C. situé dans le Nord-Ouest du bassin des Carpates a livré un ensemble indiquant le dépôt d'objets à la suite d'un repas festif. L'une des nombreuses fosses identifiées entre les maisons de l'habitat étudié à Mosonszentmiklós-Pálmajor (Hongrie) contenait un étrange ensemble : Le fond de la fosse était recouvert par une couche organique grasse, noirâtre, sur laquelle reposaient des os longs de bovins et des vases intacts, dont un avec un éventuel tambour, à côté une corne en argile presque intacte dont on peut encore jouer aujourd'hui. L'évaluation de l'instrument de musique, respectivement des instruments de musique, des autres objets et du contexte global fut menée parallèlement à l'exploitation des données radiocarbone et de l'analyse botanique des échantillons de terrain extraits des vases. Ces échantillons révèlent clairement que l'ensemble peut être interprété comme un dépôt réalisé à la suite d'un repas festif.

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