SOCIO-HISTORICAL BACKGROUND OF CULTURAL CHANGES IN SOUTH-WESTERN HUNGARY AS REFLECTED BY ARCHAEOLOGICAL DATA DURING POST-LBK TIMES

ABSTRACT: The questions of socio-historical circumstances in South-Western Hungary based on observations made mainly at sites in Zala county during Post-LBK times are discussed below. This time period corresponds to the turn of the Middle and Late Neolithic in Western-Hungary which is, at the same time, the beginning of the emergence of the Lengyel culture. It has previously been accepted that there was genetic continuity between the LBK and the Lengyel cultures. The formation process of the Lengyel culture in Hungary has recently been reviewed. The role of the Sopot culture turned out to be more significant than it formerly had been conceived. The emergence of the Lengyel culture has been reconsidered also in other territories, e.g. in Slovakia, where a great cultural and historical break from the preceding LBK (Želiezovce Group) was proved. Climatic changes are hypothesized in the background of the changes. According to former theories the genesis of the Lengyel culture was considered as a process taking place on the multicultural substrate of the LBK groups in which the Sopot culture played a catalyser role causing and inspiring the transformations. On the other hand, essential details of this time period, among them the factual character of the changes, were not clarified.

A fair number of new data resulted from lately excavated sites of the Sopot culture, e.g. Becsehely-Bükkaljai-dűlő, Petrivente-Újkút-dűlő, Sormás-Török-főldek, and Sormás-Mántai-dűlő have broadened our knowledge significantly on the turn of the Middle and Late Neolithic. By the end of the Middle Neolithic a high concentration of Late LBK and Sopot settlements developed in South-Western-Transdanubia. In the territory considered earlier as a periphery compared to the Sopot central core area a secondary settlement block was formed, which consisted of a close chain of extended and enclosed settlements (e.g. the sites mentioned above).

The nature of Post-LBK times are mainly discussed on detailed analyses of two sites from the study area. A multicultural site at Sormás-Török-főldek represents settlements of the Sopot and Lengyel cultures. Beyond substantial new relative chronological data several absolute chronological radiocarbon data are also available both from Sopot and formative Lengyel contexts from the site.
The present paper focuses basically on two topics. One of them is to discuss the socio-historical circumstances in South-Western-Hungary as reflected by archaeological data obtained from two sites, Sormás-Török-földek and Esztergályhorváti in Zala county (Figure 1) dated to Post-LBK times. The investigated time period corresponds to the turn of the Middle and Late Neolithic in Western Hungary (according to Hungarian terminology). The key-question is to clarify the character of Post-LBK times in the study area: was this time range a clam, peaceful period producing prosperous and continuous development of local communities or should it rather be interpreted as a wartime, fraught with danger and violence? Was the transition a culturally-socially balanced process or was it determined by a radical change causing break and discontinuity in the development? For the sake of answering these questions I compare these two important, though in character far differing sites with each other.

I also employ several relevant data obtained from further, mostly coeval sites excavated in the study area, e.g. Petrivente-Ujkkuti-dűlő, Becsely-Bükkelaj-dűlő (Kalicz et al. 2007, 2012, Horváth, Kalicz 2003), Sormás-Mántai-dűlő (P. Barna 2009, 2012).

The investigation of the site at Sormás-Török-földek has offered opportunities for new approaches in evaluation of the coeval Esztergályhorváti mass grave. This unique feature constitutes the other main topic of this paper. The re-publishing and reappraisal of the Esztergályhorváti mass grave was an additional task of this work. The comparative review of these two sites aims to clarify whether Post-LBK times in South-Western-Hungary were calm, peaceful terms generating prosperous and continuous development of local communities or should it rather be interpreted as a wartime, fraught with danger and violence? The author sets out arguments in favour of the peaceful nature of this time period.

**KEY WORDS:** South-Western Hungary – Enclosure – Mass grave – Sopot culture – Formative Lengyel culture

---

**INTRODUCTION**

The present paper focuses basically on two topics. One of them is to discuss the socio-historical circumstances in South-Western-Hungary as reflected by archaeological data obtained from two sites, Sormás-Török-földek and Esztergályhorváti in Zala county (Figure 1) dated to Post-LBK times. The investigated time period corresponds to the turn of the Middle and Late Neolithic in Western Hungary (according to Hungarian terminology). The key-question is to clarify the character of Post-LBK times in the study area: was this time range a clam, peaceful period producing prosperous and continuous development of local communities or should it rather be interpreted as a wartime, fraught with danger and violence? Was the transition a culturally-socially balanced process or was it determined by a radical change causing break and discontinuity in the development? For the sake of answering these questions I compare these two important, though in character far differing sites with each other.

I also employ several relevant data obtained from further, mostly coeval sites excavated in the study area, e.g. Petrivente-Ujkkuti-dűlő, Becsely-Bükkelaj-dűlő (Kalicz et al. 2007, 2012, Horváth, Kalicz 2003), Sormás-Mántai-dűlő (P. Barna 2009, 2012).

The investigation of the site at Sormás-Török-földek has offered opportunities for new approaches in evaluation of the coeval Esztergályhorváti mass grave. This unique feature constitutes the other main topic of this paper. The re-publishing and reappraisal of the Esztergályhorváti mass grave was an additional task of this work.

The mass grave at Esztergályhorváti was first published in Hungarian, completed with a short English summary, in 1996 (P. Barna 1996). A review of the find assemblage was necessary mainly due to the large number of contemporaneous finds discovered posteriorly in Sormás-Török-földek (P. Barna 2007), which are suitable for comparison. The thorough processing of the Sormás finds has been fulfilled in my PhD dissertation (P. Barna in press), the results turned out to modulate also the evaluation of the Esztergályhorváti mass grave indirectly.

South-Western-Transdanubia played a role of primary importance in the formation of the Lengyel culture at the beginning of the 5th millennia BC. As it is generally viewed, the two main components in the formation of the culture were the LBK and the Sopot culture. It has also been accepted that there was genetic continuity between the LBK and the Lengyel cultures, in the first instance on the grounds of the high scale coincidence of the territories of both cultures; even though no factual pieces of evidence of the continuity were available (Kalicz 1988, Pavúk 1969, 1981, 2007). The presence of the Transdanubian Sopot culture – on the grounds of the settlement pattern earlier thought to be loose and dispersed (Kalicz, Makkay 1972, Regenyé 2002) – seemed to be hardly at all correlated with the groups of the LBK, that is Keszthely group, Music Note and Zseliz phases (according to Hungarian terminology). At the same time the high scale similarity found in the material culture proved that there was a direct correlation between the Sopot and the Lengyel cultures. Accordingly, the genesis of the Lengyel culture was considered as a process taking place on the multicultural substrate of the LBK groups in which the Sopot culture played a catalyser role causing and inspiring the transformations (Kalicz 1988).

The formation process of the Lengyel culture in Western-Hungary has recently been reviewed (P. Barna in press) and it has been reconsidered also in other parts of the formation territory. The analysis of the geographical locations of the early Lengyel sites in Slovakia proved a great cultural and historical break from the preceding LBK (Útlezovce Group, according to Slovakian terminology). Climatic changes are hypothesized in the background of the changes (Pažinová 2009).

Compared to the status quo outlined above the results of large surface excavations beginning at the end of the
1990's in Zala county brought sweeping changes to this research area. The late Sopot find assemblages on the sites at Sormás-Török-földek (P. Barna 2007), Sormás-Mántai-dűlő (P. Barna 2009), Petrivente-Újkúti-dűlő and Becsehely (I)-Bükkaljai-dűlő (Horváth, Kalicz 2003, Kalicz et al. 2007, 2012) dated to the turn of the Middle and Late Neolithic, which were unearthed during the works preceding the construction of the M7 motorway in Zala county providing an opportunity to create a more elaborated picture also on Post-LBK times. The reappraisal of the Sopot culture as one of the basic components of the Lengyel culture also made it necessary to revise the complex problem of the formation of the Lengyel culture. This fact gave a special significance to Sormás-Török-földek, since besides the find material from the Sopot culture, the find material from the formative phase of the Lengyel culture was also found here. I have explored these problems in my PhD dissertation (P. Barna in press). Out of the achieved results, the history of the settlement at Sormás-Török-földek can be highlighted in terms of present article. Sormás-Mántai-dűlő, an extensive, enclosed, typically flat, single-layer settlement of the Sopot culture (P. Barna 2009, 2012), is not discussed here. The history of this settlement and its findings were also discussed in detail in the dissertation.
SITES CHARACTERISTICS

Sormás-Török-földek

The Sormás-Török-földek site (Figures 1–2) is situated on a plateau and southern slope of an elevation the height of which is 185.0 m a.s.l. During four excavation phases (2002–2003, 2005–2006) on the site at Sormás-Török-földek in total an unbroken area of 5.25 ha and 1260 archaeological features were unearthed. Apart from finds from the Sopot and Lengyel cultures, to a lesser extent, remains of several other cultures were also unearthed (P. Barna 2007). A special importance is given to the site by two Neolithic enclosures: Enclosure No. I and No. II (P. Barna, Pásztor 2010, 2011).

Four habitation phases could have been identified on the site during the Neolithic time range. Habitation phase 1 corresponds to the Late Starčevo culture, while habitation phase 2 is characterised by the sparse settlement features of the Keszthely group of the LBK. Following these short Early and Middle Neolithic antecedents (1st and 2nd habitation phases) – the 3rd habitation phase associated with the Sopot culture was the longest one. By this time an extended and long-lived enclosed settlement was established, which lived partly contemporaneously with the neighbouring Sormás-Mántai-dűlő site (P.Barna 2009), but contrary to it, it experienced the beginning of the formative phase of the Lengyel culture. Habitation phase 3 can be divided into further sub-phases. Enclosure No II had been established in sub-phase 3a1 and was used throughout the entire life of the Sopot settlement.

The 4th habitation level, which was also significant, is constituted by the formative and the early phase of the Lengyel culture. This is proved not only by the establishment of another roundel (Enclosure No. I), groups of houses and rich array of finds, but also by the fact, that it is one of the biggest, central-type settlements of the formative phase of the Lengyel culture. The

<table>
<thead>
<tr>
<th>Find Description</th>
<th>Size (cm)</th>
<th>Figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fragments of a cup.</td>
<td>H = 2.4</td>
<td>Figure 3, 4</td>
</tr>
<tr>
<td>2. Fragment of a small, painted pedestal-ls vessel.</td>
<td>H = 6.3</td>
<td>Figure 3, 5a–b</td>
</tr>
<tr>
<td>3. Small jar decorated with paintings.</td>
<td>H = 10.6; W, D = 4.0</td>
<td>Figure 3, 6</td>
</tr>
<tr>
<td>4. Fragment of a deep bowl.</td>
<td>H = 10.0; W, D = 18.6</td>
<td>Figure 3, 7</td>
</tr>
<tr>
<td>5. Fragment of an amphora.</td>
<td>W, D = 11.5</td>
<td>Figure 3, 8</td>
</tr>
<tr>
<td>6. Pottery fragments.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Fragment of a radiolarite blade base</td>
<td>L = 1.8; W = 1.0</td>
<td>Figure 3, 3</td>
</tr>
<tr>
<td>8. Fragments of grinding stones.</td>
<td>19.0 x 22.0; 10.0 x 10.0</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 1. List and description of the finds of the common grave at Esztergályhorváti (H, Height; W, width; D, diameter; L, length; B. d, bottom diameter).
chronological relationship between the Sopot and the Lengyel cultures can be detected on the one hand by the stratigraphic data, and on the other hand, by the relationship of the two circular enclosures. The find material confirms the data obtained through the analysis of the settlement layout. Habitation 4 can be divided into two sub-phases (4a and 4b).

The topographical location and the geometrical (set out) central point of Enclosure No. I were most certainly arranged to the topographical location and geometrical central point of Enclosure No. II. This later one had most certainly already been established by the Sopot culture; the central points of both enclosures lie on a common North-South oriented axis. The establishment of Enclosure No. II dates back much earlier, but by the end of its active use, for a short time, it existed simultaneously with the then newly established Enclosure No. I (P. Barna, Pásztor 2011).

In the settlement layout, in the use of the enclosures, and natural sources (e.g. the different types of wood, see: Náfrádi et al. 2015) it is possible to distinguish distinct phases. However, in other aspects, primarily in the pottery finds, the analyses points out signs of continuous, uninterrupted development. The find material belonging to the 3b habitation phase – reflects a perceptible uninterrupted development. The find material confirms the data obtained through the analysis of the settlement layout. Habituation 4 can be divided into two sub-phases (4a and 4b).

The find assemblage was unearthed in the yard of a house on the site of a stable, which had been pulled down not long before (Figure 1:3a). The foundation of the stable was shallow, but the 0.5 m wide foundation ditch for a new building to replace the old one was dug 1.5 m deeper than the original ditch. Human skeleton remains were found in the lower third of this new ditch. The stable, which was pulled down, had previously been attached to the western edge of the house that was standing on the site. The grave pit was located under the common wall of the two buildings at a depth of approximately 1 m. The eastern part of the pit, the dimensions of which are not known, extended under the wall of the house therefore it could not be disclosed. The reconstructed and idealized cross-section of the mass grave is shown in Figure 3:9.

The layout of the explored part of the pit was similar to a square with rounded corners. The foundation ditch for the new building cut this feature in two parts in a direction of approx. north to south (Figure 3:1). The width of the pit was 1.80 m, the length extending north to south was also 1.80 m. Its walls were straight, its average depth was 1.30–1.40 m.

At a depth of about 0.30–0.40 m measured from the already bulldozed surface there was a red clay stratum, which was seriously burned through, and which entirely covered the mouth of the pit (Figure 3:9). The burnt stratum, whose thickness varied between 2 and 20 cm, had probably been uninterrupted however when the foundation pit was dug, it was disturbed (this is how the bones were discovered). Vessels and ceramic fragments (Figure 3:4–8) lay on this partially disturbed, burnt
FIGURE 2. 1–2 Combined radiocarbon dates of the Esztergályhorváti mass grave based on 7 measurements; 3–4 Combined radiocarbon dates of the Esztergályhorváti mass grave based on 5 measurements; 5, Radiocarbon dates from sites mentioned in the text. (The names of the sites the codes are referring to are given in Table 2).
FIGURE 3. 1, The uppermost layer of the mass grave cut across by a foundation ditch; 2, Idealized reconstruction of the lay of human bodies in the uppermost layer thrown in the pit; 3–8, Stone and pottery finds of the mass grave; 9, The reconstructed and idealized cross-section of the mass grave. (Drawings made by Ms. Edit Ambrus, Göcseji Museum, Zalaegerszeg).
stratum, so it cannot be excluded that some finds had been destroyed by the builders. Two pieces of grinding stones, some charred bone fragments and several daub fragments were found in the filling matter above the burnt stratum east of the ditch. A radiolarite blade fragment was a single find found among the skeletons (Figure 3.3).

Due to the conditions present during the rescue excavations it was impossible to disclose the skeletons from stratum to stratum. The disclosure process first had to be performed along the line of the foundation ditch cutting across the pit, which caused mingling of the skeletons. Due partly to this process and also partly to natural rotting the exact number of persons buried in the pit could not be established even after anthropological examinations were later performed. Zsuzsanna K. Zoffman (Hungarian National Museum) performed the anthropological examinations (see Appendix in P. Barna 1996; Zoffmann 2007).

According to Zs. Zoffmann, all the 38 persons buried in the pit were men. It is very difficult to express a firmly based opinion concerning the cause of the death of the males thrown unsystematically into the pit, if only because of the defectiveness of the find material. On the

---

**TABLE 2.** Radiocarbon dates from sites mentioned in the text. Calibrated by the OxCal 4.1 programme and IntCal 09 curve. 1–8, Dates of the formative Lengyel cultures; 9–20, Dates of the Late Sopot cultures.

<table>
<thead>
<tr>
<th>Name of site</th>
<th>Code</th>
<th>BP (1 σ)</th>
<th>(cal BC) Calibrated age</th>
<th>Sample</th>
<th>Archaeological feature</th>
<th>Bibliography</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Esztergályhorváti</td>
<td>OxA-6208</td>
<td>5900±75</td>
<td>4900-4680</td>
<td>4960-4550</td>
<td>Human bone</td>
<td>Common grave</td>
</tr>
<tr>
<td>5. Esztergályhorváti</td>
<td>OxA-6275</td>
<td>5970±70</td>
<td>4950-4770</td>
<td>5050-4700</td>
<td>Human bone</td>
<td>Common grave</td>
</tr>
</tbody>
</table>
Socio-historical background of cultural changes in South-Western-Hungary as reflected by archaeological data during Post-LBK times

only relatively well preserved skull, an injury from a blow which might have caused death can be observed without any trace of healing beside two more injuries with similar shapes but caused by weaker blows. All three blows must have come from some sharp, ± 30 mm wide weapon. Disregarding another injury probably from a blow (?) on another skull, no other trace suggesting the cause of death could be observed, but observations in this direction were seriously limited by the considerable defectiveness of the material (Zoffmann 2007).

The finds of the common grave deserve special interest, since the dating of the feature is based mainly on the ceramic finds (Table 1). The ceramic fragments reveal characteristic features dating to the earliest, formative phase of the Lengyel culture. Their closest parallels can be found in Sé (Kalicz 1998) and Sormásvöldek (P. Barna 2007).

As for the contemporaneity of the Esztergályhorváti and Sormásvöldek sites it is a fact of extraordinary importance that absolute chronological data are available from both sites. Radiocarbon data from several Neolithic sites from the study area mentioned in the text are used for comparison (Figure 2:5, Table 2). As it can be seen the radiocarbon data of the Late Sopot and formative Lengyel cultures show a partial overlap concerning both cultures. On the other hand, the contemporaneity of the Esztergályhorváti and Sormásvöldek sites can also be seen (Figure 2:5).

The radiocarbon series extracted from the seven samples taken from the human bones in the Esztergályhorváti mass grave is the most important, most numerous sample series from the period under review up to this day (Bronk Ramsey et al. 1999). The combined value of the seven radiocarbon data is 4940–4720 (95.4 % probability) (Figure 2:1–4). This 220-year-long time period can be considered as the most precise date for the beginning of the Lengyel culture for the time being. The absolute chronology of the Esztergályhorváti mass grave strengthened the dating and cultural classification of the site based solely on pottery typology previously.

COMPARISON WITH SIMILAR SITES AND EVALUATION OF THE FIND ASSEMBLAGE

No other find assemblage similar to the mass grave unearthed at Esztergályhorváti has been discovered from the region and age of the Lengyel culture up to this date. As for burial customs, no general trends can be established for the whole territory of this culture (Kalicz 1998: 56, Zalai-Gaál 2010).

The LBK "massacres" concern a period around 5000 BC and are centred on archaeological sites e.g. Talheim (Price et al. 2006), Herxheim (Spatz 1998, Zeeb-Lanz et al. 2007), Wiederstedt (Meyer et al. 2004) and Schletz-Asparn (Windl 1994, 2001) in Austria. They may well be compared to the Esztergályhorváti find assemblage. The comparable features are e.g. the large number of bodies and the peculiar features of the burials. Skeletons of several individuals and parts of skeletons were not only found in pits (e.g. Talheim, Wiederstedt), but also in ditch systems found at LBK settlements such as Schletz-Asparn, Eisleben (Kaufmann 1990) or Herxheim. The regular inhumations in ditches (e.g. Menneville or Vaihingen) of the LBK are not discussed here (Faruggia et al. 1996, Krauss 1998, 2002). Most such burials date to the younger stage, the late or even the latest period of the LBK (Kaufmann 1990, Müller-Scheeffel et al. 2007: 11). With the exception of Herxheim, which can only be evaluated as related to rites (Zeeb-Lanz 2009), there is one thing common in these sites: they are equally interpreted as remains of massacres due to unequivocal evidence of violence.

A characteristic feature of the Köln (Cologne)-Lindenthal type enclosures, among others, is that obvious traces of violence can often be documented in relation to them. These features are manifested at sites e.g. Schletz, Eisleben, however also at ditches B and C at Erkelenz-Kückhoven and Köln (Cologne)-Lindenthal (Podborský, Kovárník 2006: 47). Some archaeologists are of the opinion that these traces of violent acts and in certain cases those of cannibalism might be indicative of events that resulted in the end of the LBK such as over-population, economic crisis, over-utilisation of the environment, climatic changes, difficulties relating to the acquisition of raw materials, etc. (Faruggia 2002, Makkay 2000: 39). Nevertheless, in the case of Esztergályhorváti evidences of violence could be detected only in a lesser extent, meanwhile some quite obvious traces of ritual activity were documented.

Altogether three comparable find assemblages from the Lengyel culture may be mentioned: Friebritz 1 (Austria), Bajé-Ragona and Ružindol-Borová (Slovakia). Inside a double roundel in a site at Friebritz 1 (Austria) a small burial site with 10 contracted skeletons was unearthed. The skeletons revealed evidence of violence (Neugebauer-Maresch 2005: 225). The remains of a couple – the male was probably 20–30 years of age, the female about 18–25 years old – were found nearby. The couple was buried in a peculiar way (Gronenborn 2005: Abb. 5.5). The finds indicate that both were shot with arrows. In the case of the male, whose skeleton lay at the bottom of the grave, it
could be observed that he had suffered a strong blow at the jaw while he was still alive. His arms seemed to have been tied together. It seemed quite certain that the bodies were disturbed after the burial for reasons of anthropophagia (manipulation of human remains). Due to its age and mainly to the unusual features, this double burial unearthed at Friebritz may be regarded as a close parallel find to the Esztergályhorváti find assemblage.

In a shaft-like, circular-shaped 2.73 m deep pit at Bajč-Ragona dated to the Ludanice group, regarded as a late developmental phase within the Lengyel culture, skeletons of altogether six persons were unearthed in several strata (Točík 1991: 307–308, Fig. 4). The arrangement of items in the burial (the skeletons lay close to the bottom, the grave furniture was found closer to the top), the composition of the grave furniture (ceramics, a flint tool), furthermore, the fact that this pit was also found far from a settlement are common features with those observed in the case of the Esztergályhorváti find assemblage.

The victims of an unambiguous massacre in a site at Ružindol-Borová (Slovakia) dating to the early Lengyel culture period might be mentioned due to the high number of skeletons found there. Remains of a minimum number of 18 persons among them new-born babies, children, males and females were found in the filling of the roundel. On the bones traces of non-healed injuries and animal bites could be observed, which indicate that there was a one-way fight and clear violence in that area (Němejcová-Pavúková 1995: 214–215, 1997: 95–99, Jakab 1997: 193–218, Makkay 2000: 43, Neubauer, Trnka 2005: 223).

Interpretation of the Esztergályhorváti find assemblage. As for profane or ritual features of the Esztergályhorváti find assemblage despite discussions concerning this matter, no clear position may be taken based on data available at present. In the first publication I have interpreted this find assemblage as one of ritual character. At the same time I have rejected its interpretation as human sacrifice – regarding the fact that the act of intentional homicide with ritual motif cannot be proved (P. Barna 1996: 153). In the case of finds interpreted as human sacrifices (e.g. Jungferrn Cave, Eilsleben, Cviklivci, Traian) diverse forms of intentional manipulation may be proved, which, according to certain experts, are regarded as criteria for sacrificial characteristic features. The definition "mass grave" can be used in the absence of a better expression. The fact that a minimum number of 38 persons of the same sex (male) were buried in a relatively small size pit provides reasonable grounds for this definition.

This condition alone excludes that this find assemblage may be interpreted as a customary act of pit burial. However, there are some further ritual features: the presence of fragmented and painted ceramics (for reasons of prestige?), the character of the potteries (looking like being parts of an assortment used for rites); the grinding stones and the burnt clay stratum, which closes the mouth of the pit and also the fact of burning. The extremely unusual features compared to customary burial rites of this find assemblage raise diverse problems and opportunities for interpretation such as ritual acts, a burial following a massacre (war) or a newly discovered burial custom not seen before, etc.

Regarding the find context it must be stated that the Esztergályhorváti pit was not part of a settlement, but a completely independent feature. It is proved by the fact that no other archaeological features were found in the foundation ditches of the building under construction. Naturally, this issue can undergo final evaluation only when excavations are completed in the eastern part of the pit, which has not yet been explored. The find assemblage may not be interpreted as a building sacrifice, since that type of bloody sacrifices was performed in a fundamentally different form during the Lengyel culture. They originated in building sacrifices performed and placed in post holes of long houses in the LBK (in the Music Note phase; Makkay 1978).

Zs. K. Zoffmann drew temporary and conditional conclusions from anthropological examinations, which are awaiting corroboration by other, similar finds. In this author’s opinion in the case of the mass grave found at Esztergályhorváti the injuries, which (could also) cause(d) death, exclude the possibility of an epidemic, which could have killed these persons. Anthropophagy cannot be proved, and the number of dead bodies is too high for either a ritual-related murder or to a mass killing performed for profane reasons, nor to an accident. The author regards it most probable that these persons were killed in an internal conflict, or during an act of tribal (?) retaliation, after which these people, who were kept in captivity, were buried ritually. This is indicated by a fire over the pit and since traces indicating respect for the buried persons were not found, the people buried in this pit might have been enemies (Zoffmann 2007: 56).

J. Makkay first correlated this find assemblage with historical events that took place during the transitory period between the Sopot-Bicske phase and the Lengyel culture. This period, in his opinion, was not a peaceful transition, but a period during which invaders and invaded people waged war against each other (Makkay et al. 1996: 275). Next time he devoted
an independent, short monograph to this topic with an informative title "A prehistoric war", in which he affirmed his original interpretation (Makkay 2000). His final conclusion was that since this was the only mass burial that included males only, there must have been a war waged in this region as a result of which these males were buried. The cause of death of these males could not be determined exactly, and it is not known, either, who performed the burial act. Were these males buried by survivors within their own community following a not completely successful military attack (Makkay 2000: 35), or by the enemy, who won the battle (Makkay 2000: 63–65). As a third possibility J. Makkay supposes that the survivors, after they were conquered by representatives of the Lengyel culture, mingled with the Lengyel population, took over their ceramic style, and used these for the burial rites of males, who fell in this battle from their own community. He considered cult purposes "secondary" only (Makkay 2000: 73).

I. Zalai-Gaál supported the opinion of C. Lichter (2001: 200–201), who thought that it is a mass grave independent of any cult of the dead, and that this grave served the purpose of burying dead bodies only or, perhaps it commemorates a particular act, which cannot be interpreted based on the available information (Zalai-Gaál 2010: 229).

The excavation of the site at Sormás-Török-földek yielded new information on the issue concerning Esztergályhorváti, as well. Sormás-Török-földek is the largest site in the study area dated to the same Post-LBK transition phase between the Middle and Late Neolithic period. This period is characterised by the cultural change between the Late Sopot and formative Lengyel cultures. In this way the site is of fundamental importance for the interpretation regarding the general conditions, among them the issue of wars during this period. As it was already mentioned above, data obtained from this site indicate an unbroken, internal development than a sharp political and cultural change accompanied by wars which queries Makkay's "war-theory". Moreover at various other settlements dating to the late Sopot period, mainly at neighbouring Sormás-Mántai-dűlő, Petrivente-Újküti dűlő and Becehely I no traces were found, which could indicate any hostile attack. Taken all round the mass grave found at Esztergályhorváti in itself may not cause one to suppose that there were social or ethnic tensions also manifested by wars in South-Western-Transdanubia during Post-LBK times. A bare, inner conflict within the local community could have resulted in a mass grave.

CONCLUSION

As it has been mentioned J. Makkay was the first who brought the Esztergályhorváti mass grave in relation with violence, correlating it with the social and military conditions and events of the transition period from the Sopot-Bicske times (i.e.: the Transdanubian Sopot culture) to the Lengyel ones. Meanwhile, he also emphasised the ritual character of the find assemblage (Makkay et al. 1996: 275). J.-P. Faruggia has interpreted the Esztergályhorváti mass grave together with the LBK massacres of Asparn, Talheim and Herxheim as a manifestation of violence accompanying a crises hypothesised around 5100 BC. According to Faruggia the crises, which reached across the whole of Europe might have been of economic and social character resulting in the sudden end of the LBK. He located the origin of the crises somewhere in the middle Danube (Faruggia 2002). From among the above mentioned sites, on which Faruggia stated his theory, the interpretation of at least two sites is debatable. In the case of Esztergályhorváti the settlement history of coeval sites, e.g. the one at Sormás-Török-földek, contradict the probability of any crises in the study area. In turn in the case of Herxheim A. Zeeb-Lanz also rejects possibility of any kind of warfare, famine or climate crises resulting in the end of the LBK which she rather explains by social-cultural factors account for the spiritual-religious domain (2009).

Regarding the nature of the crises around 5100–5000 BC, also climatic causes can be hypothesized. In D. Gronenborn's theory the spread of the Neolithic has been driven by periods of crises in which rapid and drastic climate changes have played a decisive role. He has stated chronological correlation between periods of increased anomalies (IRD-events) during early to Mid-Holocene and the spread of Neolithisation. IRD-events would have had consequences for the economy and, as a result of it, also for the societies, causing instability in their social, ritual, and political stability (Gronenborn 2010). In the case of Post-LBK times, the trend toward drier conditions by the end of the LBK is of special interest, around the end of 6th millennium cal BC. It was argued that these climatic uncertainties might have resulted in the final collapse of LBK (Strien, Gronenborn 2005) and ultimately in the change towards the emergence of Middle Neolithic societies (e.g. Hinkelstein, Stichbandkeramik or Lengyel; according to German terminology). On the other hand, the mentioned climatic uncertainties could not reach our study area. Furthermore, the settlement histories of the large, late

In spite of the obvious similarities apparent among the Asparn, Talheim, Herxheim, and Esztergályhorváti features also stressed by e.g. Makkay and Faruggia, an essential difference must be highlighted. While the previously mentioned three sites belong to the LBK, Esztergályhorváti can be dated maximum as a Post-LBK site. As it was argued earlier, the ceramic finds date the Esztergályhorváti find assemblage explicitly to the formative phase of the Lengyel culture (P. Barna 1996).

On the strength of that at least one significant difference, a cultural one, can be stated among the Asparn-Talheim-Herxheim features and Esztergályhorváti.

What can be the cause of the apparent similarities? Could it be the same reason hypothesized behind these features, e.g. health (epidemic or famine), social (breaking a taboo), military conditions, or climatic causes (drought), to sum up: any kind of crisis? Even without giving a final answer to these questions it can be presumed that in spite of the cultural differences there must have been some common (ritual? ideological? social?) reason behind the mass graves of the LBK and the formative Lengyel culture. Due to the genetic relations between the LBK and the Lengyel culture the possibility of an independent and policienrical development of such a special burial act is not taken into consideration in the case studied here as it was in the case of an early Copper Age site located in the Bánát region (Gligor 2010). This similarity of the burial acts the background of which is yet unknown can also be taken as a further argument of continuity in Post-LBK times just like the history of the settlement at Sormás-Török-földek where definite signs of continuous progressiveness were detected. The continuity can be traced beyond the material culture also in the settlement mode, also in the development of the enclosures belonging to settlements, and, partly related to it, in sacral life, as well between the Late Sopot and formative Lengyel cultures. As it was already studied in detail earlier one of the Neolithic enclosures excavated in South-Western-Transdanubia can be evaluated as of defensive character (P. Barna, Pásztor 2011).

No evidences of any kind of crisis could be detected in the approximately 400-year-long unbroken inner development of the Sormás-Török-földek site. The same can be stated regarding further Neolithic sites in this region. On the strength of all these, a peaceful and calm social and political background is outlined in South-Western-Transdanubia during Post-LBK times. The case of Esztergályhorváti at the same time puts us wise to further aspects. One of them is that "radical" solutions of inner conflicts could also have appeared even in peacetime sporadically. One further aspect is that local distinctiveness cannot be left out of consideration. The low number of massacre sites in proportion to the huge territory of the LBK queries the general validity of the theories based on them. The present article covers such a case of local validity from South-Western-Transdanubia.

REFERENCES


P. BARN A J., in press: The Formation of the Lengyel Culture in South-Western Transdanubia. PhD dissertation defended at Eötvös Loránd University, Faculty of Humanities, Archaeological Program of Sciences of History Doctoral School, Budapest (2012). (The publication of the English version of the dissertation is in progress.)


Judit P. Barna
Balatoni Museum
H-8360, Keszthely
Múzeum u.2.
Hungary
E-mail: judit.pbarna@balatonimuzeum.hu