

LATE BRONZE AGE CREMATION BURIALS: A COMPLEX EVENT WITH FEW REMAINS

KRISTÓF FÜLÖP¹ – GÁBOR VÁCZI²

The process of Late Bronze Age cremation rite burials may appear at first glance – due to incineration – to be a type of find that is extremely short on data. However, an analysis of the cremated human remains and the small amount of ceramic and metal grave goods from the perspectives of the history of the event and object biography can contain enough information to provide a basis for determining the roles and functions of the objects found in the cremation/burial process.

The cremation ritual, in contrast to the inhumation burial method, is supplemented by the traces of the cremation event. The characteristic, tangible results of this supplementary phase leave special and clearly recognizable evidence on the human and animal bodies, as well as on the various objects. Due to this we are able to discover a few elements and related phenomena of the complex series of actions performed between the moment of death and the final closing of the grave, in other words between biological and social death, which in the case of inhumation rite burials for the most part cannot be observed.³

The incineration of the deceased on a funeral pyre is a fast and directed method for the decomposition of the body. The transformation of the body in this spectacular, interactive and emotionally focused manner can raise this entire process to a communal event or performance. Presumably the so-called cremation platforms at prominent locations, appearing in an attractive manner at the cemetery of Pitten in Lower Austria can be interpreted in this way.⁴ The entire process is radical in the sense that the powerful effect of heat transforms the physical characteristics of the deceased and the accompanying objects to a great extent. By the time the pyre burns out, the remains of the body – depending on the gender, age and health of the deceased – amount to a maximum of two and a half kilograms of burnt bone fragments.⁵ What remains are secondarily burnt, often deformed and damaged fragments of ceramic objects and burnt or melted amorphous bits of the metal

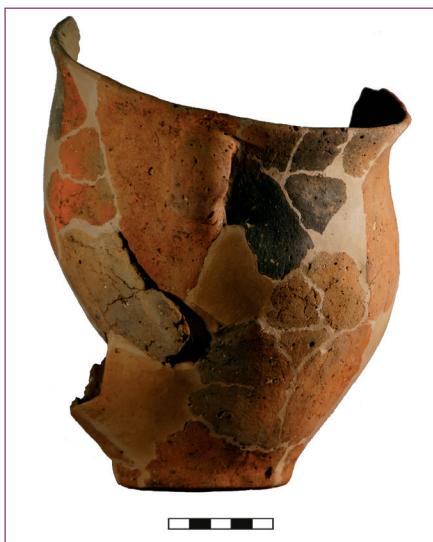


Fig. 1: Pot burnt and deformed on a funeral pyre

¹ Eötvös Loránd University, Faculty of the Humanities, Institute of Archaeological Sciences, Department of Pre- and Early History

² Eötvös Loránd University, Faculty of the Humanities, Institute of Archaeological Sciences, Department of Pre- and Early History. Research into this topic is supported by the Bolyai János Research Fellowship of the Hungarian Academy of Sciences.

³ A. van Gennep and V. W. Turner have dealt in detail with the processes that occur between death as an event from the biological and from the communal perspectives: van Gennep, Arnold: *Átmeneti rítusok* (Transitional Rites) (Budapest: L'Harmattan, 2007) and Witter Turner, Victor: *Betwixt and Between: The Liminal Period in Rites de Passage*. In: Witter Turner, Victor: *The Forest of Symbols: Aspects of Ndembu Ritual* (Ithaca, NY: Cornell University Press, 1967). J. Appleby analyzed in quite a bit of detail the complexity of the process and the connections between the series of many minor events from the perspective of the transformation of the body: Appleby, Jo: *Temporality and the Transition to Cremation in the Late Third Millennium to Mid Second Millennium BC in Britain*. *Cambridge Archaeological Journal* 23 (2013)/1, 83–97.

⁴ Sørensen, Marie Louise Stig – Rebay, Katharina Christina: *Interpreting the body. Burial practices at the Middle Bronze Age cemetery at Pitten, Austria*. *Archaeologia Austriaca* 89 (2005), 164–165.

⁵ McKinley, Jacqueline I.: *Bone Fragment Size and Weights of Bone from Modern British Cremations and the Implications for the Interpretation of Archaeological Cremations*. *International Journal of Osteoarchaeology* 3 (1993), 283–287.

objects (Fig. 1).⁶ This scanty amount of data makes it so the analysis of the cremation rite only extends to differentiating between the urn burial or scattered ash variants and the comparison of the types and numbers of grave goods perhaps in the light of other cemeteries.

The fundamental unit of investigation must be the creation of the individual graves as an event as opposed to the cemetery. However, for this to become something that can be examined it is necessary to supplement the important – but by no means full – general series of data (grave dimensions, orientation, the method of internment, the conditions of the body and the types and numbers of grave goods), which lead, even unintentionally, to the false approach in which the grave is considered a momentary event and the placement of the deceased and the objects in the grave are handled as an imprint. In contrast to this, numerous examples from ethnography and cultural anthropology show that burial is a wide ranging series of processes diversified through space and time with diverging actions and participants in varying numbers and roles.⁷ Precisely due to this there is a need to pose questions from a new perspective in the archaeological investigation of the entire series of rituals; the *micro-level analysis of the event history* must be placed within the context outlined by typochronology and cultural classification, with the goal of reconstructing to the greatest extent possible the burial rituals of the individual people taking into account the actions before, during and after cremation.⁸



Fig. 2: The lighting process of a funeral pyre from a present-day Indian example (Oestigaard 2005, 14. Fig. 1.5)

When examining cremation burials within the context of the series of funerary rituals, it is possible to determine that the actions occurring between the death of the individual and the covering of the grave can be interpreted as a succession of minor, divergent series of events and not as a linear process. From an archaeological perspective the events prior to the body being placed on the funeral pyre, for example the preparation of the body (washing, anointing, shaving, dressing, etc.), can only be examined rarely and under special circumstances,⁹ and the length of time of this phase is unfathomable without written sources. Therefore, for the most part it is only the weapons, jewelry and tools burnt on the pyre that

⁶ Amongst others, see: Jonuks, Tõnno – Kõnsa, Marge: The Revival of Prehistoric Burial Practices: Three Archaeological Experiments. *Folklore* 37 (2007), 91–110.

⁷ Amongst Hungarian examples it is important to point out the work of Ernő Kunt and Ágnes Hesz: Kunt, Ernő: *Az utolsó átváltozás. A magyar parasztság halálképe* (The Final Transition. The View of Death amongst the Hungarian Peasantry) (Budapest: Gondolat, 1987) and Hesz, Ágnes: *Élők, holtak és adósságok. A halottak szerepe egy erdélyi falu társadalmában* (The Living, the Dead and Debts, the Role of the Deceased in the Society of a Transylvanian Village) (Budapest: L'Harmattan, 2012).

⁸ Weekes, Jake: Classification and Analysis of Archaeological Contexts for the Reconstruction of Early Romano-British Cremation Funerals. *Britannia* 39 (2008), 145–160.

⁹ Gramsch, Alexander: Treating Bodies. Transformative and Communicative Practices. In: *The Oxford Handbook of the Archaeology of Death and Burial*, ed. Tarlow, Sarah – Nilsson Stutz, Liv. (Oxford: Oxford University Press, 2013), 462–463; Giles, Melanie: Preserving the Body. In: *The Oxford Handbook of the Archaeology of Death and Burial*, ed. Tarlow, Sarah – Nilsson Stutz, Liv. (Oxford: Oxford University Press, 2013), 475–496.

indicate the events related to caring for the deceased prior to cremation, while the condition of the body when placed upon the pyre remains unknown in most cases.¹⁰

From an archaeological perspective cremation is an event that is accompanied by clearly observable results, but whose process at the time is difficult to reconstruct (*Fig. 2*). The event of cremation can be dealt with as a fact, but where and how it occurs remains an open question. One or several cremation sites found in cemeteries excavated over a large area provide surprisingly little information. Their surfaces are burnt through to a depth of 10–20 cm and some charcoal, human remains and vessel fragments are found. However, we do not know whether in addition to the surviving platforms – most likely fashioned in shallow pits – surface pyre sites were also used, and if so, how many of these served one cemetery and how they kept these clean.¹¹ What we can be sure of is that cremation in the grave pit is not characteristic of Late Bronze Age cremation cemeteries in Hungary, or in other words following the cremation the collection of the remains and the “furnishing” of the grave was a secondary event.¹²

In research on cremation on funeral pyres within the context of experimental archaeology, the process of the transformation of the body has received great emphasis. Amongst other topics the experiments have dealt with the structure and color of bones following heat shock, which has helped in creating a color scale to determine the heat of combustion of the pyre.¹³ In fortunate cases the direction from which the pyre was lit and the time when it collapsed too early can also be reconstructed on the basis of the change in color of identifiable bones. The size of the pyre is an important and recurrent question, or rather the amount and quality of wood necessary for full cremation.¹⁴ In the experiments, in addition to the amount of wood, the use of catalyzing agents has also been investigated. In addition to all of these, the structure of the pyre and the rate of its burning and collapse are frequently recurring questions in determining the intentional or accidental occurrence partial cremations or those that only result in macrofragmentation.¹⁵

In relation to the cremation experiments we unfortunately have less information about the manner and extent to which the variable influences and circumstances that arise during cremation impact the objects

¹⁰ Generally we reconstruct a burial with the body in the first phase of decomposition, but we cannot discount other types of practices and customs prior to cremation or inhumation (for example: exposure, excarnation and exsiccation). E. Weiss-Krejci deals with the question in detail: Weiss-Krejci, Estella: The Formation of Mortuary Deposits. Implications for Understanding Mortuary Behavior of Past Populations. In: *Social Bioarchaeology*, ed. Agarwal, Sabrina C. – Glencross, Bonnie A. (Chichester: Blackwell Publishing Ltd., 2011).

¹¹ The possible identification of these is made quite difficult because they leave a smaller mark than pyres simply constructed on the surface, so depending on the soil conditions they either do not burn the ground or they only burn into it to a maximum depth of 2–10 cm and therefore the chance of finding them through archaeology is minimal. On this problem, see amongst others: McKinley, Jacquelin I.: Cremation: Excavation, Analysis, and Interpretation of Material from Cremation-Related Contexts. In: *The Oxford Handbook of the Archaeology of Death and Burial*, ed. Tarlow, Sarah – Nilsson Stutz, Liv. (Oxford: Oxford University Press, 2013), 152.

¹² B. Boulestin and H. Duday dealt with and compared the conceptual categories of primary and secondary burial: Boulestin, Bruno – Duday, Henri: Ethnology and archaeology of death: from the illusion of references to the use of a terminology. *Archaeologia Polona* 44 (2006), 149–169.

¹³ Wahl, Joachim: Leichenbranduntersuchungen. Ein Überblick über die Bearbeitungs- und Aussagemöglichkeiten von Brandgräbern. *Praehistorische Zeitschrift* 57 (1982)/1, 28–29, Tab. 1; Shipman, Pat – Foster, Giraud – Schoeninger, Margaret: Burnt Bones and Teeth: An Experimental Study of Color, Morphology, Crystal Structure and Shrinkage. *Journal of Archaeological Science* 11 (1984), 307–325.

¹⁴ M. Moskal-del Hoyo deals with the anthracological analysis of the wood remains from Bronze Age and Iron Age funeral pyres: Moskal-del Hoyo, Magdalena: The use of wood in funerary pyres: random gathering or special selection of species? Case study of three necropolises from Poland. *Journal of Archaeological Science* 39 (2012), 3386–3395.

¹⁵ In Hungary Géza Szabó has dealt in detail with the analysis of cremation from an experimental archaeology perspective: Szabó, Géza: Ásatási megfigyelések és kísérleti régészeti adatok a hamvasztásos temetkezésekhez (Excavation Observations and Experimental Archaeological Data for Cremation Burials). In: *MΩMOΣ III. – Őskoros Kutatók III. Összejövetele – Halottkultusz és temetkezés (MΩMOΣ III. 3rd Meeting of Researchers into Prehistory – Death Cults and Burial)*, ed. Ilon, Gábor (Szombathely: Vas Megyei Múzeumok Igazgatósága, 2004), 441–458. In an international respect, J. I. McKinley’s experiments are worth pointing out: McKinley, Jacqueline I.: In the Heat of the Pyre. In: *The Analysis of Burned Human Remains*, ed. Schmith, Christopher W. – Symes, Steven A. (London: Academic Press, 2015), 181–202.

of various materials placed on the pyre.¹⁶ The utilization of these results in archaeology is still insignificant, even though when examining the graves, the physical characteristics and changes that clearly indicate the use of the objects in the cremation ritual can be observed in many cases in the grave goods. We can even gain information by the detailed examination of marks clearly visible to the naked eye about the location of the objects on the pyre and their conditions, bringing us closer to understanding their former function and significance.

The secondarily burnt ceramics can be split into three major categories based on the strength of the heat effect on the vessel and the size of the affected surface. In the first case, a discoloration indicating a slight effect of heat can be observed only on part of the vessel, such as its side, rim or bottom. In this situation, the vessel may have stood immediately next to the pyre or have come into contact with its cooling remains later. In the second case, the entire surface of the vessel is slightly burnt, which may indicate that the vessel was on a section of the pyre where a lower level of heat affected it. The third type is a strong secondary burn, during which the surface was not only discolored, but melted or cracked in a net pattern and in rare cases the material is burnt through its entire cross-section and its form is distorted and deformed. This can only be imagined if the vessel was in the central section of the pyre and similarly to the bones was subject to steadily high heat even after the collapse of the structure (*Fig. 3*).¹⁷

The biography of individual ceramic objects and the reconstruction of their role in the ritual can be further detailed if we take into account the evidence of use found on the vessels. On the basis of the various types of damage, cracks and evidence of wear it is possible to differentiate between vessels that were new, hardly used or heavily used when they were placed in the grave (*Fig. 4*). In this way it can be seen whether the vessels used during burial can be interpreted as having been made as grave goods especially for the ritual or were pieces taken from everyday use or from the home for the burial.

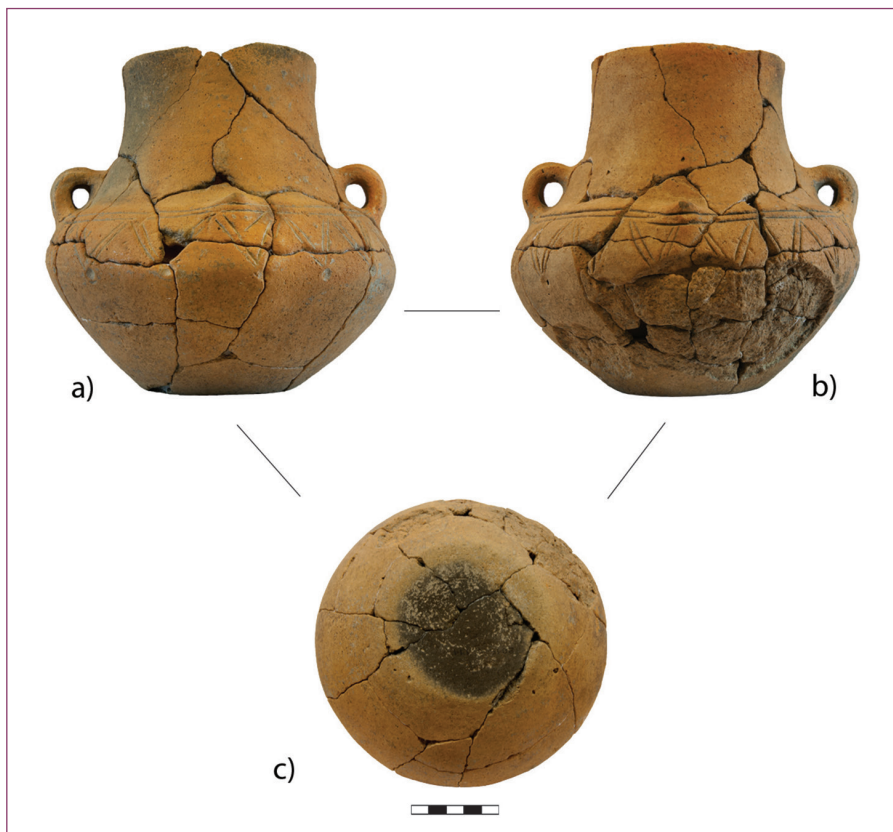


Fig. 3: Urn vessel from one of the graves at the Late Bronze Age tumulus cemetery of Jobbágyi-Hosszú-dűlő.

- a) The surface of the entire vessel is nearly uniformly moderately burned from a secondary fire.*
- b) As a result of the sudden heat of the secondary burning a section of the vessel's belly has partially broken down.*
- c) The round black mark that can be observed on the base indicates that the vessel was placed on the pyre in a standing position.*

¹⁶ Amongst others, the interdisciplinary experiments performed by M. Becker and his colleagues deal in detail with the transformation of grave goods placed on the pyre: Becker, Matthias – Döhle, Hans-Jürgen – Hellmund, Monika – Leineweber, Rosemarie – Schafberg, R.: *Nach dem großen Band. Verbrennung auf dem Scheiterhaufen – ein interdisziplinärer Ansatz. Bericht der Römisch-Germanischen Kommission* 86 (2005), 61–195.

¹⁷ Ceramic restoration expert László Gucsi is researching and documenting the effects of the heat of the pyre on vessels and the indications of this.

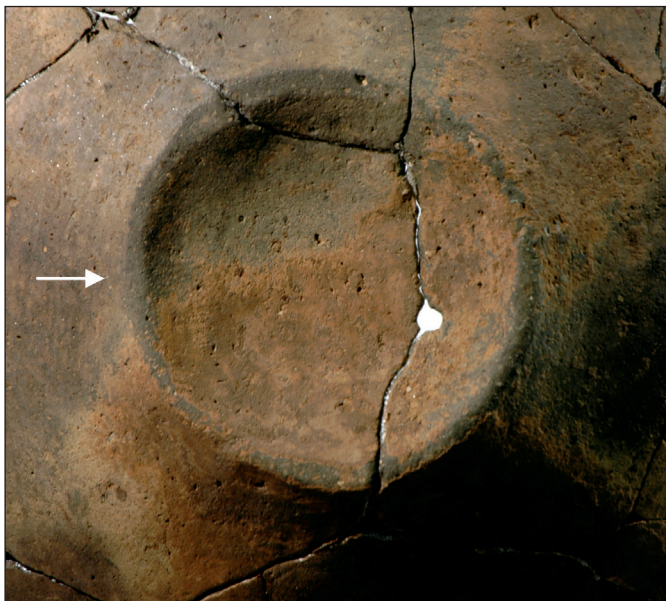


Fig. 4: Traces of wear on one of the urns from the Late Bronze Age cemetery at Balatonendréd (photograph: László Gucsi)



Fig. 5: Traces of burning and melting on a bronze bracelet from the Late Bronze Age cemetery of Újsolt



Fig. 6: In many cases it was possible to observe a close connection between secondarily burnt vessels and the human remains at the Jobbágyi-Hosszú-dűlő cemetery

Similarly to the ceramic objects, bronze objects can also be categorized according to their condition. In the first case traces of combustion or carbonized wood (embers) can be found (Fig. 5). These objects were placed on the pyre after it collapsed and so were only partially burnt/melted. The second category is made up of those bronze implements that became cracked or partially deformed due to the high heat. Their reconstructed location may have been the outer area of the pyre, where temperatures were not as high, or possibly due to the irregular direction of the collapse of the pyre they were only subjected to high temperatures for a short time. The third group in the case of bronze objects is made up of thoroughly burnt objects that melted entirely into liquid. These spent enough time in the hottest part of the pyre that they are put in the grave along with the ashes as melted blobs or drips. It is not uncommon that they have incorporated burnt bone fragments during cooling. Similar to the ceramics, the possibility and success of analyzing the traces of use on these objects strongly depends on the condition in which the objects are found and the method and extent of their restoration.



Fig. 7: Human remains scattered above a covered grave at the Jobbágyi-Hosszú-dűlő cemetery (Fülöp, Kristóf – Váczi, Gábor: Preliminary report on the excavation of a new Late Bronze Age cemetery from Jobbágyi (North Hungary). *Dissertationes Archaeologicae Ser. 3. No. 2.* (2014), Fig. 5.2)

The collection of the ashes can begin following the burning down of the pyre. The watering of the human remains and other ashes may have taken place to speed up the cooling of the remains, which may have also facilitated the cleaning of the bones and their meticulous, more complete collection. Arched cracks that split apart are the traces of this remaining on the bones that have fragmented into tiny pieces, and these are caused by a sudden change in temperature and the escaping steam.¹⁸ The amount of ashes placed in the grave as the final stage shows a quite varying profile throughout the entire Bronze Age, and on the basis of investigations up to this point this cannot be correlated with either the age of the deceased, the quality of the cremation or the size of the vessel used as the funerary urn. However, the varying amounts, which stretch from 5-10 grams to 2,000-2,500 grams, clearly draw attention to the conscious manipulation of the former physical body, which could be reconstructed in a few cases at the Late Bronze Age cemetery at Jobbágyi.¹⁹

The placement of the urn or the remains in a grave pit was accompanied by the “furnishing” of the grave and its provision with other grave goods.

It is at this point that the categorization of the objects described above becomes significant, because this is an important consideration for selection when reconstructing the series of events. It is possible to differentiate within the objects placed in the grave between the vessels and bronze jewelry, weapons and implements that were placed upon the funeral pyre, those that were placed next to the pyre and those that are a part of the grave furnishings. In this manner it is possible to outline the timing within the phases of the series of funerary events and the form of the roles played by the individual storage and cooking vessels, components of drinking and dining sets, as well as the various bronze objects. In addition, this makes it possible to reconstruct how these objects were placed in the grave – amongst the remains in the urn or “scattered” in the grave pit – within the fixed order of actions (Fig. 6).

The act of interment cannot be reconstructed in its entirety, but one or two details can be recorded during excavation. Vessels found around the urn in the fill of the grave pit and not at the bottom of the pit, as well as scattered amounts of burnt bones in the fill above the vessels indicate that the furnishing and covering of the grave may have been a process made up of several phases (Fig. 7). However, we cannot even come close to knowing the entire duration of this process or the length of time of the periods of filling the grave.

In many cases it is also difficult to provide a dependable answer to the fundamental question of where the grave was. Due to the agricultural cultivation characteristics of the majority of the land in Hungary, we only see the lower section of cremation burials that are located below the level of the tilled soil. In this way it is difficult to estimate what portion of the grave was below the ground, and whether there may have been some kind of grave marker or grave structure above the surface. The analyses of the previously mentioned

¹⁸ A detailed description of the physical and chemical reactions that take place during the heating of bone and its quick re-cooling can be read in Géza Szabó’s article from 2004 cited earlier.

¹⁹ Fülöp, Kristóf – Váczi, Gábor: Preliminary report on the excavation of a new Late Bronze Age cemetery from Jobbágyi (North Hungary). *Dissertationes Archaeologicae Ser. 3. No. 2.* (2014), 413–421.

cemetery at Pitten²⁰ or the structure of the tumulus graves excavated in the Bakony region²¹ indicate that Late Bronze Age graves did not necessarily end up in pits dug below the surface, and it is far from certain that we can find all of the graves that once existed even at a fully excavated cemetery.

The data that can be collected on the basis of the criteria listed above become indispensable when we want to process a cremation rite cemetery from the perspective of event archaeology and object biography. The combination of these two methods of analysis can provide a significant additional amount of information, which can allow us to go beyond the earlier methods of examination based on typology and quantity. With this knowledge we may be able to discover further details and elements of complex cremation burial rites that were comprised of a series of smaller events, which will provide greater distinction and vibrancy to the reconstructed image of a burial custom that has been characteristically considered to be lacking in data.

RECOMMENDED LITERATURE

BOULESTIN, BRUNO – DUDAY, HENRI

Ethnology and archaeology of death: from the illusion of references to the use of a terminology. *Archaeologia Polona* 44 (2006), 149–169.

DUDAY, HENRI

The Archaeology of the Dead: Lectures in Archaeoethnology. Oxford: Oxbow Books, 2009.

GRAMSCH, ALEXANDER

A microarchaeological approach to the social significance of Late Bronze Age burial practices. In: *Encounters, Materialities, Confrontations: Archaeologies of Social Spaces and Interaction*, ed. Cornell, Per – Fahlander, Fredrik, 86–103. Newcastle: Cambridge Scholars Press, 2007.

OESTIGAARD, TERJE

Death and Life-Giving Waters. Cremation, Caste, and Cosmogony in Karmic Traditions. BAR – International Series 1353, Oxford: Archaeopress, 2005.

SCHMITH, CHRISTOPHER W. – SYMES, STEVEN A. (EDS)

The Analysis of Burned Human Remains. London: Academic Press, 2015.

TARLOW, SARAH – NILSSON STUTZ, LIV (EDS)

The Oxford Handbook of the Archaeology of Death and Burial. Oxford: University Press, 2013.

THOMPSON, TIM (ED.)

The Archaeology of Cremation: Burned Human Remains in Funerary Studies. Oxford: Oxbow Books, 2015.

²⁰ Sørensen, Marie Louise Stig – Rebay, Katharina Christina: Interpreting the body. Burial practices at the Middle Bronze Age cemetery at Pitten, Austria. *Archaeologia Austriaca* 89 (2005), 153–175.

²¹ Jankovits, Katalin: Spätbronzezeitliche Hügelgräber in der Bakony-Gegend. *Acta Archaeologica Academiae Scientiarum Hungaricae* 44 (1992), 3–81.