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DISCOVERING MORTUARY PRACTICES IN THE KÖRÖS RIVER BASIN, HUNGARY

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As archaeologists, we are interested in understanding the major social and economic transformations that took place across Europe during the earlier second millennium BC. During this period social inequality can be regularly documented in cemeteries for the first time. Body treatments change as well, with predominately inhumation burial shifting to body cremation in funerary rituals from Scandinavia to the Balkans. On the Great Hungarian Plain, changes in burial customs occur alongside increasing participation in long distance trade networks, and the movement of bronze and gold.[1] New symbols and artefact types link the Baltic Sea to the Mediterranean, and many scholars believe that an emerging warrior aristocracy began to control trade and metallurgy.[2] Recent research at a cemetery in Eastern Hungary is documenting the funerary customs of people at this time, and trying to understand their role in inter-regional trade networks and social change.

In 2006, new research in the Körös region of Eastern Hungary looked to see if small Middle Bronze Age (2100–1400 BC) hamlets were being dominated by an elite social class based at tell settlements. With funding from the National Science Foundation (Award Number BCS-0620151), the Bronze Age Körös Off-Tell Archaeology (BAKOTA) project carried out surface collection and excavation in Békés County to document whether certain villages controlled the production, distribution, and consumption of metals and other sumptuary goods.[3] This work attempted to identify metalworking outside of the well known tell settlements of Békés-Várdomb and Sarkad-Peckes and reconstruct the social relationships between larger and smaller sites (*Fig. 1*).

Rather than supporting a control-based model, the data suggest that villages were autonomous, but grew in size, number, and complexity over the course of the Middle Bronze Age. Examining the settlement evidence suggests that people in smaller villages produced their own metals, had similar diets, and built houses comparable to those found on tell settlements up the river. Most importantly, few social inequalities were detectable between settlements in the Körös region.

Beginning in 2011, the BAKOTA project, again funded by the National Science Foundation (Award Number BSC-1226439), began investigating a Middle Bronze Age cemetery and settlement to gauge the relevance of travel and trade networks on the emergence of social inequalities not far from the settlement networks previously studied. Mortuary contexts are rich indicators of intra-community variation, and we hoped the Békés 103 (Jégvermi-kert Lipcsei tanya) site – located close to the confluence of the Fekete- and Fehér-Körös rivers – would provide important information that could not be obtained from settlement data alone (*Fig. 1*). Though social inequalities were few between settlements of the region, it was unknown

[1] Bóna, István: La Métallurgie Du Bronze Et Le Travail Des Métaux Jusqu'a La Fin Du Bronze Moyen. In: *Le Bel Age Du Bronze En Hongrie*, ed. Bóna, István – Raczky, Pál (Mont Beuvray: Centre Européen d'Archéologie du Mont-Beuvray, 1994), 48–65.

[2] Banner, János – Bóna, István: *Mittelbronzezeitliche Tell-Siedlung bei Békés*. Fontes Archaeologici Hungariae (Budapest: Akadémiai Kiadó, 1974); Earle, Timothy K. – Kristiansen, Kristian: *Organizing Bronze Age Societies: The Mediterranean, Central Europe, and Scandinavia Compared* (New York: Cambridge University Press, 2010); Kristiansen, Kristian – Larsson, Thomas B.: *The Rise of Bronze Age Society: Travels, Transmissions and Transformations* (New York: Cambridge University Press, 2005).

[3] Duffy, Paul R. *Complexity and Autonomy in Bronze Age Europe: Assessing Cultural Developments in Eastern Hungary* (Budapest: Archaeolingua, 2014).

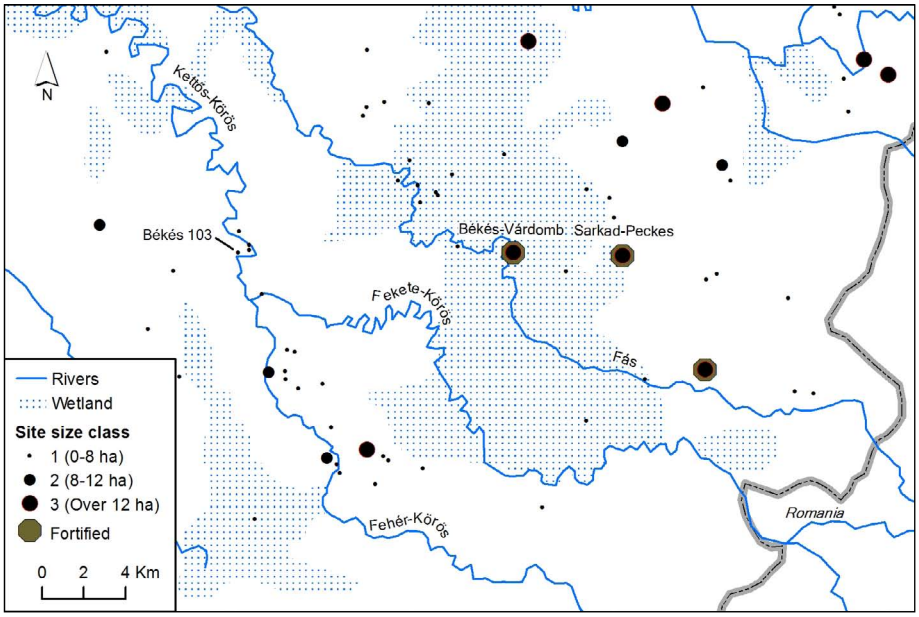

Fig. 1: Location of sites mentioned in the text (Gyulavarsánd period)

whether inequalities manifested in funerary displays. Moreover, it was unclear how the Körös region was attached to the trade networks of the Great Hungarian Plain during the Bronze Age. It was even unknown whether the inhabitants of the area would follow cremation or inhumation practices for the body's final rites. The funerary program of people in the Körös region during the Middle Bronze Age was entirely unmapped, with the nearest known cemetery – Battonya-Vörös Október – over 80 km away.[4]

The Békés 103 site is situated on small plots of agricultural land at the edge of the modern town of Békés, and we began research there by first confirming the presence of a Bronze Age cemetery. Field walking at the site in the early 2000s revealed burned bone and Bronze Age urn fragments brought to the surface by ploughing. Our first task was to make sure that the burned bone on the surface actually came from Bronze Age deposits.

We surface collected the site with collection squares in 2011 and 2013. Collection squares as small as four by four meters were used to capture the small nature of the archaeological features we were tracking – human burials, cremation pyres, and settlement debris from a small village. To our surprise, the first pattern was relatively clear. Household ceramics, animal bone, and daub were restricted to the eastern part of the site, while burned human bone and Bronze Age urn fragments were found only in the western part (*Fig. 2*).

In addition to collecting human remains and artefacts from the surface, we carried out several kinds of geophysical survey. We used magnetometer, electromagnetic conductivity, ground penetrating radar and soil resistivity to identify anomalies below the surface that might be prehistoric.[5] While these remote sensing data helped us avoid several intrusive modern features, they were not always good predictors of Bronze Age features because deep ploughing and other modern practices strongly disturbed the site.

We also conducted a series of soil probes to characterize the subsurface layers and collect soil samples for geochemical analysis. Surface collection and soil probes have been useful for estimating the extent of the Bronze Age site, and so far reveal discrete burial clusters.[6] Soil samples with high phosphate values

[4] Gazdapusztai, Gyula: Das Bronzezeitliche Gräberfeld von Battonya. *Acta Antiqua et Archaeologica* 12 (1968), 5–37; Szabó, János József: *Früh- und Mittelbronzezeitliche Gräberfelder von Battonya*. Inventaria Praehistorica Hungariae. Vol. 8 (Budapest: Hungarian National Museum, 1999).

[5] Sarris, Apostolos: *Technical Report: Bronze Age Körös Off-Tell Archaeology (BAKOTA): Geophysical Investigations at Békés Koldus-Zug, Hungary (Phase II:2013).* (Rethymno, Crete, Greece: Laboratory of Geophysical-Satellite Remote Sensing and Archaeo-Environment. Institute for Mediterranean Studies. Foundation of Research and Technology, Hellas [FORTH.], 2013).

[6] Duffy, Paul R. – Sarris, Apostolos – Salisbury, Roderick B. – Paja, László – Parditka, Györgyi – Giblin, Julia I. – Fuller, Natale: Remote Sensing, Soil Cores and Systematic Survey in Mortuary Landscape Analysis. Paper presented at the annual *Society for American Archaeology* meeting in Austin, USA, April 26, 2014.

Fig. 2: The extent of burned human bone on the surface of the site

provide evidence for enriched soil, which often corresponds to ancient human activity.[7] At Békés 103, cores with enriched phosphate values correspond well to different parts of the site with abundant surface material. The distribution of surface collected ceramics and burned bone suggests discrete clusters of burials, perhaps indicating meaningful social segregation. The clusters seem to be about 100-150 meters across, not unlike at the well-known cemetery of Dunaújváros-Duna-Dűlő, a Vatya culture site on the Danube.[8]

Remote sensing, surface collection and cores provide the extent and general layout of the site, but only excavation can offer the details. Since 2011, excavation has identified 61 human burials, often placed in close proximity (*Fig. 3*).

Almost 90 percent of burials were cremations in ceramic urns. A small minority were cremations scattered in the grave, and an equally small minority were inhumations. By binding them up in the field and transporting them to the lab, we try to recover whole cremation urns for micro-excavation. We also experiment with computed tomographic imaging (CT scans) of urns to help identify bone fragments and delicate artefacts before sediment is removed from the urns (*Fig. 4*). Our layer-by-layer excavations are already showing us patterns in the skeletal placement within the urns.[9] The human remains are presently being analyzed to describe the sex, age structure, health and nutrition of the cemetery population.

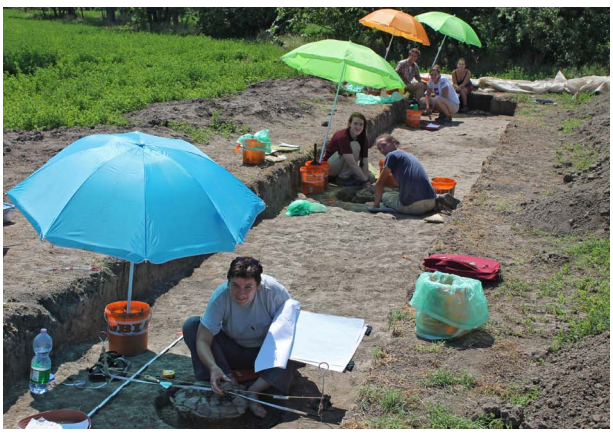

Fig. 3: Documenting cremation urn burials with a mostly Hungarian-Canadian-American crew

[7] Salisbury, Roderick B.: Soilscapes and Settlements: Remote Mapping Activity Areas in Unexcavated Small Farmsteads. *Antiquity* 86 (2012), 178–190.

[8] Vicze, Magdolna: *Bronze Age Cemetery at Dunaújváros-Duna-Dűlő*. Dissertationes Pannonicae (Budapest: Eötvös Loránd University, Institute of Archaeological Sciences, 2011).

[9] Paja, László – Giblin, Julia I. – Parditka, Györgyi – Duffy, Paul R.: Cremations in Contexts: The Micro-Stratigraphic Investigation of Population and Practice at the Middle Bronze Age Cemetery of Békés Jégvermi-Kert, Hungary. Paper presented at the annual *Society for American Archaeology* meeting in Austin, USA, April 26, 2014.

Fig. 4: Computed tomography (CT) of the burial urn from Human Burial 6

Fig. 5: The "Swedish Helmet" bowl covering a disturbed urn burial

The extent to which the cemetery members travelled and participated in the trade networks of the time is another important focus of our research. The ceramics buried with the dead are often forms known from other parts of the Great Hungarian Plain, such as the "Swedish Helmet" bowl, and many forms and decorations at the cemetery also occur in the Maros area to the south (*Fig. 5*).

Yet preliminary radiogenic strontium isotope results from skeletal remains suggest that the people buried in the cemetery were local, rather than from abroad.[10] Chemical analysis of the ceramic pastes from this site (and several others from the region) indicates that pottery made from clays near the Kettős Körös confluence

[10] Giblin, Julia I. – Duffy, Paul R. – Paja, László – Parditka, Györgyi: Social Variability During the European Bronze Age: Isotope Results from Cremains and Inhumations from Békés Jégvermi-Kert, a Middle Bronze Age Cemetery in Eastern Hungary. Paper presented at the annual *Society for American Archaeology* meeting in Austin, USA, April 26, 2014.

can be found at sites on the Berettyó River, indicating trade from south to north.[11] We hope our petrographic work describing the potting practices of those furnishing grave goods will highlight differences in practices relevant to understanding the origin of the potters.

During the summer 2014 season, in an attempt to understand the spatial patterning at the site, we excavated graves from the northern burial cluster for the first time. The density of graves was lower than it was in the southern area, but there were no obvious signs why these burials might be set apart from the main burial group. Upon first inspection, the urns are stylistically comparable to those in the main area, although all vessels have to be restored before a proper comparison can be made. A cup was included in an urn interior in one northern burial though, signalling a clear practice not found in the southern group. Radiocarbon dating will help establish whether the northern group was a population who arrived slightly later to join an existing community.

In trying to understand the Körös region's association with the wider ideological and social changes of continental Europe during the Bronze Age, we draw from many different kinds of evidence, and most of our analyses are still ongoing. So far, it appears as though only minor funerary differences outside of body treatment distinguished individuals in the burial program. The current picture therefore is consistent with the settlement data, and suggests a community with few social inequalities, though most individuals were tied to the greater region through trade. The surface distribution of burned bone at the site is immense and the density of burials from excavation trenches intense, however, suggesting that Békés 103 is the resting place of a large burial population still awaiting discovery.

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