ANTÆUS 38

ANTÆUS

Communicationes ex Instituto Archaeologico
38/2022

Sigel: Antaeus

ANTÆUS 38

Communicationes ex Instituto Archaeologico

Communicationes ex Instituto Archaeologico

Distribution of exchange copies by
the Library of the Institute of Archaeology, Research Centre for the Humanities
H–1097 Budapest, Tóth Kálmán utca 4.

HU ISSN 0238-0218

Desktop editing and layout by Archaeolingua
Printed in Hungary by the Prime Rate Kft.
Cover by H&H Design

INHALT – CONTENTS

LIST OF AUTHORS

BOZI, RÓBERT
Bozi Ars Med. Vet. Clinic
H–6200 Kiskőrös, Jókai Mór utca 5.
boziaodr@gmail.com

CZUKOR, PÉTER
Móra Ferenc Museum
H–6720 Szeged, Roosevelt tér 1–3.
peterczukor@gmail.com

EARLE, TIMOTHY K.
Northwestern University
Department of Anthropology
USA–1810 Hinman Av, Evanston, IL
tke299@northwestern.edu

FÁBIÁN, SZILVIA
Hungarian National Museum
H–1088 Budapest, Múzeum krt. 14–16.
fabian.szilvia@hnm.hu

GERBER, DÁNIEL
Institute of Archaeogenomics
Research Centre for the Humanities
H–1097 Budapest, Tóth Kálmán utca 4.
gerber.daniel@abtk.hu

HAJDU, TAMÁS
Eötvös Loránd University
Faculty of Science Institute of Biology
H–1117 Budapest, Pázmány Péter sétány 1/C
hajdut@elte.hu

ILON, GÁBOR
H–9662 Mesterháza, Kossuth Lajos utca 2.
ilon.gabor56@gmail.com

KISS, VIKTÓRIA
Institute of Archaeology
Research Centre for the Humanities
H–1097 Budapest, Tóth Kálmán utca 4.
kiss.viktoria@abtk.hu

KÖHLER, KITTI
Hungarian Natural History Museum
Department of Anthropology
H–1082 Budapest, Ludovika tér 2.
kohler.kitti@gmail.com

KULCSÁR, GABRIELLA
Institute of Archaeology
Research Centre for the Humanities
H–1097 Budapest, Tóth Kálmán utca 4.
kulcsar.gabriella@abtk.hu

KUSTÁR, ÁGNES
H–1028 Budapest, Máriaremetei út 54.
agnes.kustar@gmail.com

MELIS, ESZTER
Institute of Archaeology
Research Centre for the Humanities
H–1097 Budapest, Tóth Kálmán utca 4.
melis.eszter@abtk.hu

MENDE, BALÁZS GUSZTÁV
Institute of Archaeogenomics
Research Centre for the Humanities
H–1097 Budapest, Tóth Kálmán utca 4.
mende.balazs@abtk.hu

NYÍRI, BORBÁLA
University of Cambridge
UK–CB2 1TN, Cambridge, Trinity Lane
borinyiri@hotmail.co.uk

PRISKIN, ANNA
Déri Museum
H–4026 Debrecen, Déri tér 1.
Universitat Autònoma de Barcelona
Department d'Antropologia Social i Cultural
E–08193 Cerdanyola del Vallès, Barcelona
priskin.anna@derimuzeum.hu

SERLEGI, GÁBOR
Hungarian National Museum
National Institute of Archaeology
H–1113 Budapest, Daróczi út 3.
serlegi.gabor@hnm.hu

SZABÓ, GÉZA
Wosinsky Mór Museum
H–7100 Szekszárd, Szent István tér 26.
kaladea@gmail.com

SZALONTAI, CSABA
Hungarian National Museum
National Institute of Archaeology
H–1113 Budapest, Daróczi út 3.
szalontai.csaba@mnm.hu

SZÉCSÉNYI-NAGY, ANNA
Institute of Archaeogenomics
Research Centre for the Humanities
H–1097 Budapest, Tóth Kálmán utca 4.
szecsenyi-nagy.anna@abtk.hu

SZEVERÉNYI, VAJK
Déri Museum
H–4026 Debrecen, Déri tér 1.
szeverenyi.vajk@derimuzeum.hu

VÁGVÖLGYI, BENCE
Merton Council
UK–SM4 5DX, London Road, London
bence.vagvolgyi@gmail.com

ABBREVIATIONS

AAR	Analecta Archaeologica Ressoviensia (Rzeszów)
ActaArch	Acta Archaeologica (Leiden)
ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae (Budapest)
ActaMusPapensis	Acta Musei Papensis. A Pápai Múzeum Értesítője (Pápa)
Agria	Agria. Az Egri Múzeum Évkönyve (Eger)
AJPA	American Journal of Physical Anthropology (New York)
Alba Regia	Alba Regia. Annales Musei Stephani Regis (Székesfehérvár)
AnB	Analele Banatului. Buletinul Muzeului din Timişoara (Timişoara)
Antaeus	Antaeus. Communicationes ex Instituto Archaeologico (Budapest)
AnthrAnz	Anthropologischer Anzeiger (München)
AnthrK	Anthropológiai Közlemények (Budapest)
Antiquity	Antiquity. A Review of World Archaeology (Durham)
AÖ	Archäologie Österreichs (Wien)
Apulum	Apulum. Acta Musei Apulensis (Alba Iulia)
AR	Archeologické Rozhledy (Praha)
ArchA	Archaeologia Austriaca (Wien)
ArchBulg	Archaeologia Bulgarica (Sofia)
ArcheoSciences	ArcheoSciences. Revue d'Archéométrie (Rennes)
ArchÉrt	Archaeologiai Értesítő (Budapest)
ArchHung	Archaeologia Hungarica (Budapest)
Archiv für Anthropologie	Archiv für Anthropologie. Völkerforschung und kolonialen Kulturwandel (Braunschweig)
ArchKözl	Archaeologiai Közlemények (Budapest)
Arrabona	Arrabona. A Győri Xantus János Múzeum Évkönyve (Győr)
ASM	Archeologické Studijní Materiály (Praha)
AUB	Annales Universitatis Budapestinensis de Rolando Eötvös Nominatae (Budapest)
AVANS	Archeologické Výskumy a Nálezy na Slovensku (Nitra)
Balcanica	Balcanica. Annuaire du Comité Interacadémique de Balkanologie du Conseil des Académies des Sciences et des Arts de la R. S. F. Y. et de l'Institut des Etudes Balkaniques (Beograd)
BAR-IS	British Archaeological Reports – International Series (Supplementary) (Oxford)
BBV	Berliner Beiträge zur Vor- und Frühgeschichte (Berlin)
bioRxiv	bioRxiv. The Preprint Server for Biology
BRGK	Bericht der Römisch–Germanischen Kommission (Berlin)
BROB	Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek (Amersfoort)
BudRég	Budapest Régiségei (Budapest)
CommArchHung	Communicationes Archaeologicae Hungariae (Budapest)
Crisia	Crisia (Oradea)
CurrAnt	Current Anthropology (Chicago)

DissArch	Dissertationes Archaeologicae ex Instituto Archaeologico Universitatis de Rolando Eötvös nominatae (Budapest)
DMÉ	A Debreceni Déri Múzeum Évkönyve (Debrecen)
DocPraehist	Documenta Praehistorica (Ljubljana)
Dolg	Dolgozatok az Erdélyi Múzeum Érem- és Régiségtárából (Kolozsvár)
Dolgozatok	Dolgozatok a Magyar Királyi Ferencz József Tudományegyetem Archaeologiai Intézetéből (Szeged)
DuDolg	Dunántúli Dolgozatok (Pécs)
DuSz	Dunántúli Szemle (Szombathely)
EJA	European Journal of Archaeology (London)
Építés-Építészettudomány	Építés- Építészettudomány. A Magyar Tudományos Akadémia Műszaki Tudományok Osztályának Közleményei (Budapest)
EurAnt	Eurasia Antiqua. Zeitschrift für Archäologie Eurasiens (Bonn)
FAM	Fontes Archaeologiae Moravicae (Brno)
FolArch	Folia Archaeologica (Budapest)
FontArchHung	Fontes Archaeologici Hungariae (Budapest)
FrK	Földrajzi Közlemények (Budapest)
FSI	Forensic Science International. Genetics
FtK	Földtani Közlöny (Budapest)
GCBI	Godišnjak Centra za Balkanološka Ispitivanja Akademije Nauka i Umjetnosti Bosne i Hercegovine (Sarajevo)
Germania	Germania. Anzeiger der Röm.-Germ. Kommission des Deutschen Archäologischen Instituts (Mainz)
Gesta	Gesta. Historical Review (Miskolc)
HHR	The Hungarian Historical Review (Budapest)
HOMÉ	A Herman Ottó Múzeum Évkönyve (Miskolc)
HungArch	Hungarian Archaeology. E-Journal (Budapest)
JAA	Journal of Anthropological Archaeology (New York)
JAHA	Journal of Ancient History and Archaeology (Cluj-Napoca)
JAR	Journal of Archaeological Research (New York)
JAS	Journal of Archaeological Science (London)
JFA	Journal of Field Archaeology (Boston)
JFS	Journal of Forensic Sciences (Chicago)
JHE	Journal of Human Evolution (New York)
JIES	The Journal of Indo-European Studies (Washington, D. C.)
JLS	Journal of Lithic Studies (Edinburgh)
JPMÉ	A Janus Pannonius Múzeum Évkönyve (Pécs)
JWP	Journal of World Prehistory
KMK	A Komárom megyei Múzeumok Közleményei (Tata)
KMMK	Komárom-Esztergom Megyei Múzeumok Közleményei (Tata)
KRMK	A Kaposvári Rippl-Rónai Múzeum Közleményei (Kaposvár)
Marisia	Marisia. Studii şi Materiale. Muzeul Judeţean Tîrgu Mureş (Tîrgu Mureş)
MatArchSlov	Materialia Archaeologica Slovaca (Nitra)
MCA	Materiale şi Cercetări Archeologice (Bucureşti)
Menga	Menga. Revista de prehistoria de Andalucía. Journal of Andalusian Prehistory (Antequera)
MFMÉ	A Móra Ferenc Múzeum Évkönyve (Szeged)
MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve – Studia Archaeologica (Szeged)

MKCsM	Múzeumi Kutatások Csongrád Megyében (Szeged)
MRT	Magyarország Régészeti Topográfiája (Budapest)
Musaica	Musaica Archaeologica. Zborník Filozofickej Fakulty University Komenského (Bratislava)
Nartamongæ	Nartamongae. The Journal of Alano-Ossetic Studies. Epic, Mythology and Language (Vladikavkaz)
OA	Opuscula Archaeologica (Zagreb)
Ossa	Ossa. International Journal of Skeletal Research (Solna)
Ősrégészeti Levelek	Ősrégészeti Levelek. Prehistoric Newsletter (Budapest)
PBF	Prähistorische Bronzefunde (München)
PLoS One	PLoS One. E-Journal (San Francisco)
PNAS	Proceedings of the National Academy of Sciences (Washington, D. C.)
Pravěk	Pravěk (Brno)
Preistoria Alpina	Preistoria Alpina (Trento)
PZ	Praehistorische Zeitschrift (Berlin)
QuaternaryInt	Quaternary International. The Journal of the International Union for Quaternary Research (Oxford – New York)
Radiocarbon	Radiocarbon. An International Journal of Cosmogenic Isotope Research (Tucson)
RégFüz	Régészeti Füzetek (Budapest)
SA	Советская Археология (Moskva)
Satu Mare	Satu Mare. Studii şi comunicări. Seria Arheologie (Satu Mare)
Savaria	Savaria (Szombathely)
SbČSA	Sborník Československé Společnosti Archeologické (Brno)
SCIV	Studii şi Cercetări de Istorie Veche (Bucureşti)
SlA	Slovenská Archeológia (Bratislava)
SMK	Somogyi Múzeumok Közleményei (Kaposvár)
Specimina Nova	Specimina Nova. Dissertationum ex Instituto Historiae Antiquae et Archaeologiae Universitatis Quinqueecclesiensis (Pécs)
SSz	Soproni Szemle (Sopron)
StComit	Studia Comitatensia (Budapest)
SzIKMK	A Szent István Király Múzeum Közleményei (Székesfehérvár)
Terra Sebus	Terra Sebus. Acta Musei Sabesiensis (Sebes)
Tisicum	Tisicum. A Jász-Nagykun-Szolnok Megyei Múzeumok Évkönyve (Szolnok)
UF	Ugarit-Forschungen. Internationales Jahrbuch für die Altertumskunde Syrien-Palästinas (Kevelaer – Neukirchen– Vluyn)
UPA	Universitätsforschungen zur prähistorischen Archäologie (Bonn)
VAH	Varia Archaeologica Hungarica (Budapest)
VetZoot	Veterinarija ir Zootechnika. A scientific journal and the Official Organ of the Veterinary Academy, Lithuanian University of Health Sciences (Kaunas)
VKT	Várak, kastélyok, templomok. Történelmi és örökségturisztikai folyóirat (Pécs)
VMMK	A Veszprém Megyei Múzeumok Közleményei (Veszprém)
VýP	Východoslovenský Pravek (Košice)
WMMÉ	A Wosinsky Mór Múzeum Évkönyve (Szekszárd)
ZalaiMúz	Zalai Múzeum (Zalaegerszeg)
ZbSNM	Zborník Slovenského Národného Múzea. Archeológia (Bratislava)
Ziridava	Ziridava. Studia Archaeologica (Arad)
ZSNM	Zbornik Slovenského Národného Múzea (Ljubljana)

FOREWORD FROM THE EXECUTIVE EDITOR

As with the previous (37th) issue of the Antaeus (Yearbook of the Institute of Archaeology), the present volume brings together a selection of research papers addressing a certain time period; the Bronze Age on this occasion. The current volume, despite containing fewer studies than the previous issues, is in line with the editorial board's ambition to publish a new volume at regular – annual – intervals, even at the expense of the overall length of the publication. With the aim to assemble a broad spectrum of Bronze Age research studies from the territory of Hungary, the current issue touches upon a wide range of themes stretching across the many hundreds of years of the Bronze Age period: from the facial reconstruction of an Early Bronze Age woman, to the domestication of horses and Middle Bronze Age dress ornaments, to the study of the large, Late Bronze Age fortified settlements. These topics cover the key issues of current European Bronze Age research, including the archaeological application of DNA analyses, and the theoretical approaches of political economies, therefore the outcomes presented here will hopefully be of wide international interest. Some of the research was carried out within the framework of the Lendület/Momentum Mobility Research Group launched in 2015, supported by the Hungarian Academy of Sciences at the Institute of Archaeology, Research Centre for the Humanities.

The paper by Ágnes Kustár and her colleagues presents the facial reconstruction of an Early Bronze Age female burial. The work serves as the first facial reconstruction study where DNA data was also considered regarding the pigmentation (eye and hair colour, skin tone) of a Bronze Age individual from present-day Hungary.

The two studies put forward by Eszter Melis and Gabriella Kulcsár as main authors, both discuss the results of micro-regional settlement investigations aimed to explore Early and Middle Bronze Age settlement structures using non-destructive methods. The settlement investigations conducted by Eszter Melis and her team focussed on the region of Nagycenk, nearby Lake Neusiedl. The data published here represents a significant piece of archaeological research as information from the region occupied by the Gáta–Wieselburg culture has been lacking in the past three decades. Furthermore, the site of Nagycenk-Kövesmező is one of the few Gáta–Wieselburg settlements investigated by a modern archaeological excavation.

Gabriella Kulcsár and her team discuss the Middle Bronze Age pit burial of a mature adult female with evidence for multiple physical trauma, from Central Hungary. The study touches upon the interpretation of pit burials in the context of the settlements of Bronze Age communities who otherwise practiced inhumation and cremation as their nominal mortuary tradition.

Géza Szabó's paper examines the so-called Tolnanémedi-type hoard horizon comprised primarily of dress ornament assemblages across to the Middle Bronze Age along with a newly discovered hoard from Mucsi in Tolna county. The publication includes the reconstruction of a costume worn by high status female members of the Transdanubian Encrusted Pottery culture and provides an interpretation of the symbolism of such ornaments.

The study by Gábor Ilon provides an overview of Bronze Age moulds and their distribution in the Carpathian Basin. The paper considers the assemblage as important evidence for local metallurgy, and sheds new light on the organisation and specialisation of bronze production.

Róbert Bozi and Géza Szabó explore the question of horse domestication within the context of Bronze Age cultures in Central and Eastern Hungary, based on the evidence of horse gear made of antler appearing first during the 2nd millennium in the Carpathian Basin. The study relies on newly discovered horse remains and their associated absolute dates.

The paper by Vajk Szeverényi and his colleagues discusses the results of their most recent excavation programme conducted at Csanádpalota; a prime example of a so-called 'mega fort' or large-scale fortified settlement typical in the Late Bronze Age in Southeast Europe. Anna Priskin in her study gives a detailed insight into the production and use of grinding stones recovered at the site.

ANTAEUS 38 (2022) 81–106

GABRIELLA KULCSÁR – BORBÁLA NYÍRI – KITTI KÖHLER – TAMÁS HAJDU – VAJK SZEVERÉNYI – TIMOTHY K. EARLE – VIKTÓRIA KISS

MIDDLE BRONZE AGE BURIAL AT THE SETTLEMENT OF SÓSKÚT-BARÁTHÁZ, SITE 26/4 (CENTRAL HUNGARY)[1]

Zusammenfassung: In diesem Beitrag wird die Grabstätte der mittelbronzezeitlichen Siedlung von Sóskút-Baratház, Fundort Nr. 26/4, im Tal des Benta-Baches südlich von Budapest vorgestellt. Das Tal am rechten Donauufer bildet eine klar abgegrenzte naturgeographische Einheit, die mit der Tellsiedlung Százhalombatta-Földvár verbunden war. An der Fundstelle Sóskút-Baratház, neben der befestigten Siedlung Sóskút-Kálvária-hegy, wurde im Jahr 2012 auf der äußeren Ebene der befestigten Siedlung ein bronzezeitlicher Laufhorizont ausgegraben, die von mehreren Gruben und Pfostenlöchern umgeben war. Die Bewertung der Funde aus den Gruben und der Radiokohlenstoffproben legt nahe, dass die äußere einschichtige Siedlung während der Vatya-Kultur über einen längeren Zeitraum (1880–1560 v. Chr.) genutzt wurde. In einer der Gruben wurde ein weibliches Skelett in anatomischer Lage gefunden, das einen weiteren Beweis für einen von Brandbestattungen abweichenden Ritus innerhalb der Siedlung liefert und das Spektrum der Bestattungen innerhalb der Siedlung erweitert.

Keywords: pit burial, Vatya culture, Koszider period, Middle Bronze Age, Benta Valley

The Sóskút-Baratház 26/4 site[2] is located in the Benta Valley, halfway between the headwaters of the Benta Stream (at Lake Bia), and its confluence with the Danube just beyond Százhalombatta. The Benta Valley Project emerged as an offshoot of the Százhalombatta Archaeological Expedition

[1] This study presents the preliminary outcomes of the Benta Valley project, while the comprehensive publication of the investigation is ongoing. The paper was supported by the 'Landscapes of Complexity: The Politics of Social, Economic and Ritual Transformations in Bronze Age Hungary' research project, funded by the Wenner-Gren Foundation in 2012–2013. (PI: Timothy K. Earle, Gabriella Kulcsár), and furthermore by the Momentum Mobility Research Project hosted by the Institute of Archaeology, Research Centre for the Humanities, Hungarian Academy of Sciences (PI: Viktória Kiss). The research was supported by the Hungarian Scientific Research Fund (project id.: FK-128013), and by the Bolyai Scholarship of the Hungarian Academy of Sciences; by the New National Excellence Program of the Ministry for Innovation and Technology from the source of the National Research, Development and Innovation Fund (Tamás Hajdu). We would like to thank Magnus Artursson, Janusz Czebreszuk, Péter Czukor, Erika Gál, Mateusz Jaeger, Carla Klehm, Attila Kreiter, Tamás Polányi, Łukasz Pospieszny, Anna Priskin, Gábor Sánta, Gábor Serlegi, and Csaba Bodnár, Eszter Fejér, Eszter Melis, István Greman, the archaeology students of Pécs University and Péter Lakatos for their help and assistance ont he field and in the post excavation periode. Special thanks are due to Magdolna Vicze (former director of the Matrica Museum, Százhalombatta), members of the Directorate of Pest County Museums and the Sóskút local government for their support. The illustrations of vessels were carried out by László Gucsi, the layout by Zsolt Réti and László Gucsi. We are grateful for the help of László Gucsi and Gábor Sánta on the analyses of pottery.

[2] *MRT 7* Site 26/4, 223.

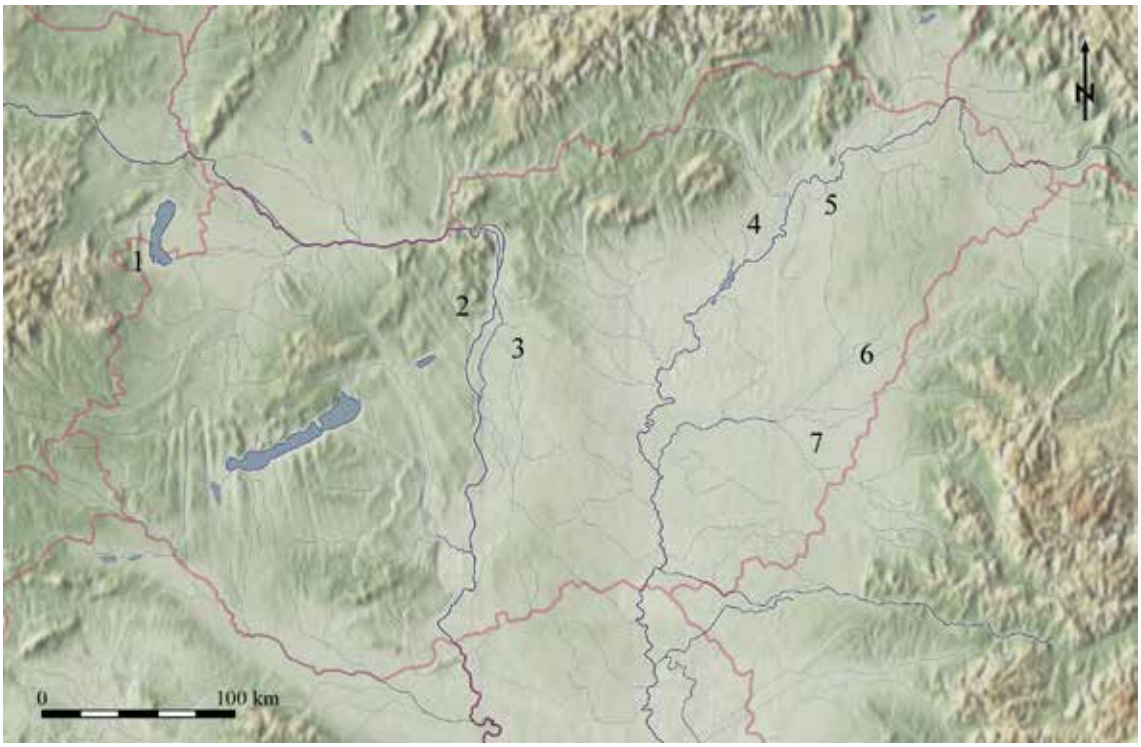

Fig. 1. Ongoing Middle Bronze Age microregional research projects in Hungary.
1. Nagycenk Region; 2. Benta Valley (SAX and Benta Valley Project); 3. Kakucs Region (KEX Project); 4. Borsod Plain (BORBAS Project); 5. Polgár Region; 6. Berettyó Valley; 7. Körös Valley (BAKOTA Project) (after *Dani et al. 2019* fig. 1)

(SAX) launched in 1997 *(figs. 1–2)*.[3] This Hungarian–Swedish–American and, later, Hungarian–Swedish–English collaborative research project focused on the detailed investigation of the tell settlement at Százhalombatta-Földvár, one of the key Bronze Age sites in the Central Danube Valley. The excavation of the tell site had been ongoing when it transpired that it would be equally important to study the Bronze Age settlement network in the surrounding microregion. Thus the Benta Valley Project was set up in order to shed more light on the broader archaeological context of the central tell site: the social, economic and political dimensions of the local Middle Bronze Age, and to identify the patterns of settlement hierarchies, their structure and variety along the Benta Valley.

For this microregional investigation a three-phase research plan was devised, following Charles L. Redman's proposal: 1) field survey – Phase I, 2) determination of site types – Phase II, 3) excavation – Phase III. During the first phase of the investigation, which built upon the results of *Archaeological Topography of Hungary* (initial data collection was carried out in the 1970s) – a total of 32 Bronze Age sites were identified in the Benta Valley by extensive field surveys.

The second phase (between 2003 and 2007) determined the variety of site types and methods of occupation. Each site was shovel-tested on a 50 m grid to establish its extent, before 1×1×0.3 m soundings were opened within the given locality to identify the time period and the type of activities that had been taken place at the site. Based on these shovel tests and the 1×1 m soundings, a tentative reconstruction of the Bronze Age settlement network was drawn up *(fig. 2)*.[4]

[3] *Poroszlai – Vicze 2000; Poroszlai – Vicze 2005; Earle – Kristiansen 2010; Czajlik 2017; Vicze – Sørensen in press.*

[4] *Earle – Kristiansen 2010; Earle et al. 2010; Earle et al. 2011; Earle et al. 2012a.*

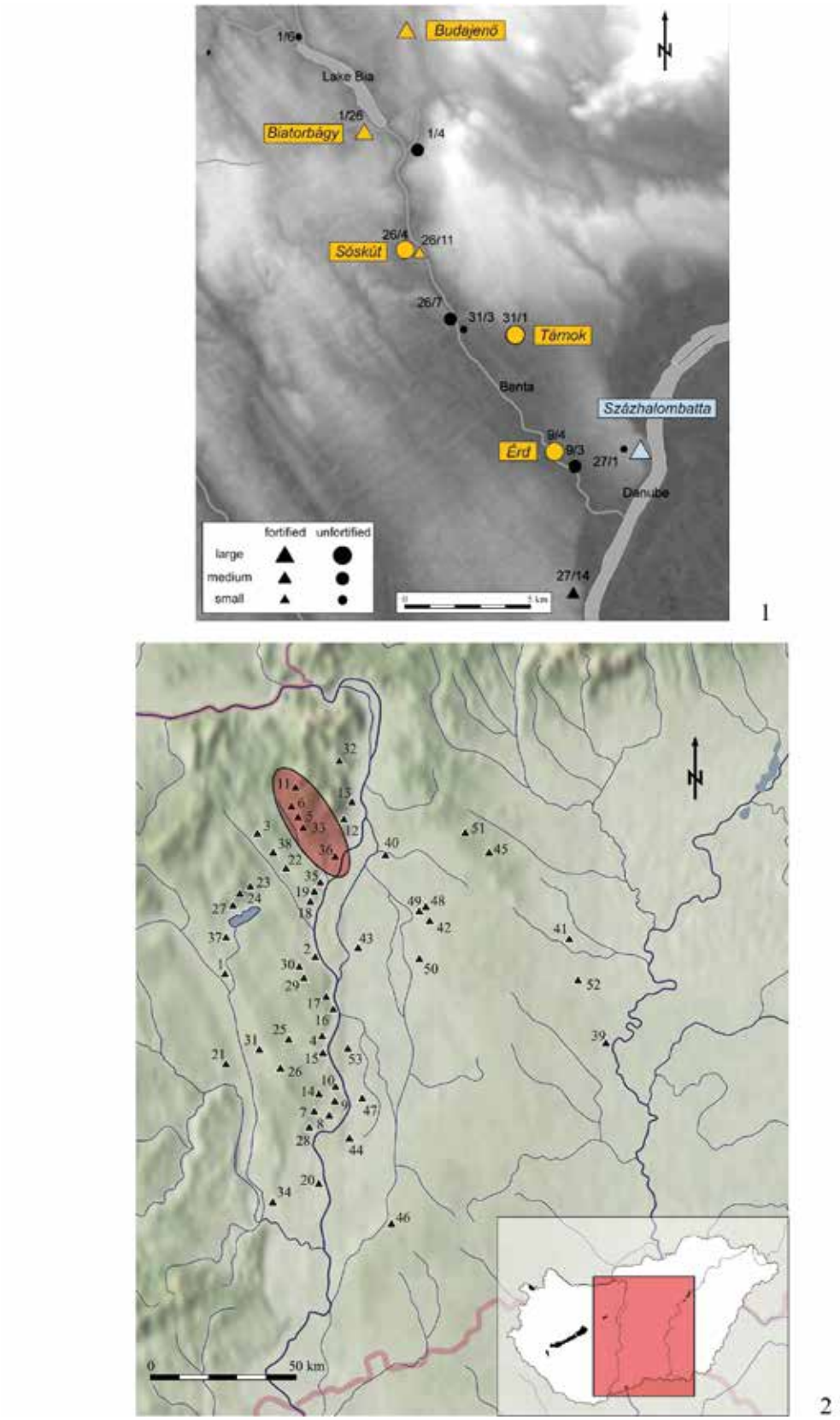

Fig. 2. 1. Middle Bronze Age settlements located in the Benta Valley; 2. Middle Bronze Age tells and fortified settlements in Central Hungary (11. Budajenő-Hegyi szántók, 33. Sóskút-Kálváriahegy/Baráthház, 36. Százhalombatta-Földvár) (after *Earle et al. 2011* fig. 1; *Szeverényi – Kulcsár 2012* fig. 1; *Dani et al.* 2019 fig. 2, fig. 4, with modifications)

The project Phase III, supported by the Wenner-Gren Foundation and the National Cultural Fund of Hungary, took place in 2012–2013.[5] Geophysical (magnetometer) surveys followed by excavations were conducted on the three different settlement types identified during Phase II at Tárnok (Site 31/1, open site), Bia (Site 1/26, a small fortified site), and Sóskút (Site 26/4, an external settlement adjacent to Sóskút-Kálvária-hegy Site 26/11), in order to compare the layout of the building structures at various settlement types and to identify similarities and differences between them.[6] This paper provides the first archaeological assessment of the Sóskút-Baratház excavations, with the detailed publication of a pit burial and its assemblage.

Sóskút-Baratház, Site 26/4 – Excavation results

Sóskút-Baratház, Site 26/4 is situated in the northern or Upper Middle Valley tract of the Benta Stream, characterised by pasture-covered limestone formations.[7] The site itself lies west of the slopes of the Kálvária Hill, on cultivated farmland. The *Archaeological Topography of Hungary* lists the presence of Middle Bronze Age (Vatya) and Late Bronze Age (Urnfield) habitation at the site which was later confirmed by reconnaissance field surveys carried out by the SAX project in 1999, and by the Benta project's Phase II between 2003 and 2007.[8] These recent investigations identified further components of the site (e.g. ceramics dating to the Early Bronze Age, Hallstatt and Roman period) and established that it was most intensively utilised during the Bronze Age as a single-layered settlement.[9]

In the spring of 2012, the remote sensing survey of the site was carried out followed by a systematic field surface collection in a 10×10 m grid (covering roughly 2.5 hectares) *(fig. 3. 1)*.[10] During the systematic collection of surface finds the distribution of daub and pottery was recorded (*fig. 3. 2–3* for MBA). Contrasting this data with the images generated by the geophysical surveys, there was no indication of timber-framed houses and neither were other anomalies present that could have signalled the remains of burnt buildings. Due to the lack of apparent building structures, areas of uniform signal that appeared as 'empty' spaces on the magnetometry images, but where the field survey documented larger find concentrations, were selected for closer examination by excavation (Benta Phase III). Four areas were targeted, out of which two were investigated in trenches (Trench 2 and 3) measuring 4×4 m *(fig. 3. 4)*. The trenches revealed Late Bronze Age assemblages, as well as deposits from the Middle Bronze Age occupation.

In Trench 2 a Bronze Age occupation layer, three domestic refuse pits and a number of post-holes were discovered *(fig. 3. 4, fig. 4)*. Although this occupation deposit may in fact represent the remains of a house, there is so far no conclusive evidence to support this, as the building was not destroyed by fire and thus its floor and upright walls had not been exposed to high temperatures that tend to preserve such features.

---

[5] Landscapes of Complexity: The Politics of Social, Economic and Ritual Transformations in Bronze Age Hungary project.

[6] *Earle et al. 2012a; Earle et al. 2014*. The initial assessment of the finds from Tárnok were completed by Nóra Szabó in her BA thesis *(Szabó 2015)*.

[7] *Earle et al. 2011; Klehm – Nyíri 2016*.

[8] *MRT 7* Site 26/4, 223; *Vicze – Earle – Artursson 2005*.

[9] *Klehm – Nyíri 2016*.

[10] *Earle et al. 2012b; Earle et al. 2014*.

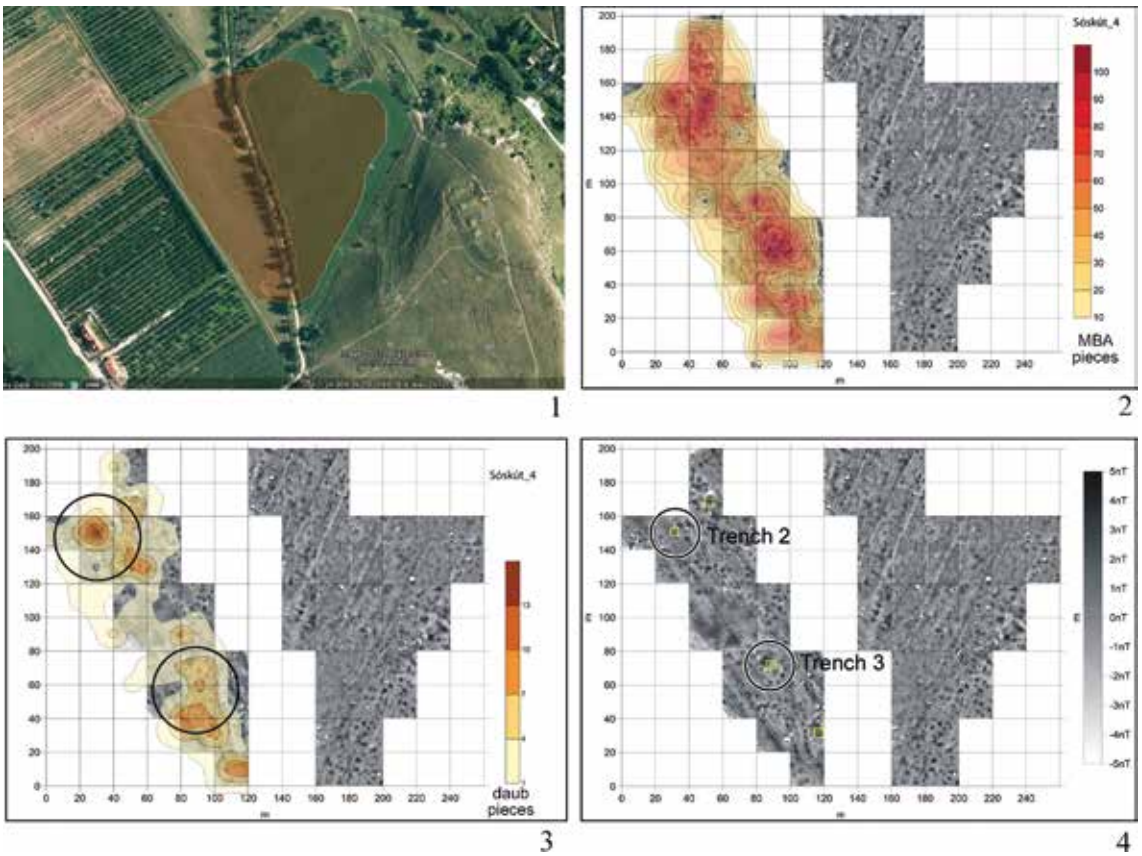

Fig. 3. Sóskút-Baráthéz (Site 26/4) archaeological investigation. 1. Study area marked in red on a Google Earth image. Magnetometer and field survey of the site; 2. The scatter of Middle Bronze Age sherds; 3. The scatter of daub finds; 4. Location of Trench 2 and 3 (©analysis by Péter Czukor and the authors)

The Middle Bronze Age occupation layer is associated with the Vatya culture, whose relative chronology was first outlined in the 1970s by István Bóna based primarily on cemetery data.[11] According to this periodisation the emergence of the Vatya culture (Vatya I) is linked to the onset of the MBA 1 in Hungary, Vatya II roughly corresponds to the MBA 2, while MBA 3 can be equated with the culture's later periods (Vatya–Koszider, Alpár, Rákospalota phase). The archaeological assemblages found in three domestic refuse pits and the radiocarbon dates from Trench 2 considered together suggest the presence of a single-layer settlement at Sóskút-Baráthéz 26/4, inhabited for an extended period of time.[12] The three refuse pits and their assemblages appear to be dating to three different phases of the Vatya chronology.[13] The typochronological and stratigraphic evidence indicates that the Sóskút horizontal settlement was occupied continuously, characterised by Vatya type material (1880–1560 BC), from the Late Nagyrév/Early Vatya transition to the Late Vatya (Vatya III and Vatya–Koszider) phase, from the Middle Bronze Age 1 until the Middle Bronze Age 3 period in the relative chronological framework.

[11] *Bóna 1975; Bóna 1992*. Further analyses *Vicze 2011; Reményi 2012; Szeverényi – Kulcsár 2012; Jaeger – Kulcsár 2013; Jaeger et al. 2018; Staniuk 2020; Staniuk 2021.*

[12] *Earle et al. 2012b; Earle et al. 2014.*

[13] For the associated radiocarbon dates, see *Jaeger – Kulcsár 2013; Kiss et al. 2019; Szeverényi et al. 2020.*

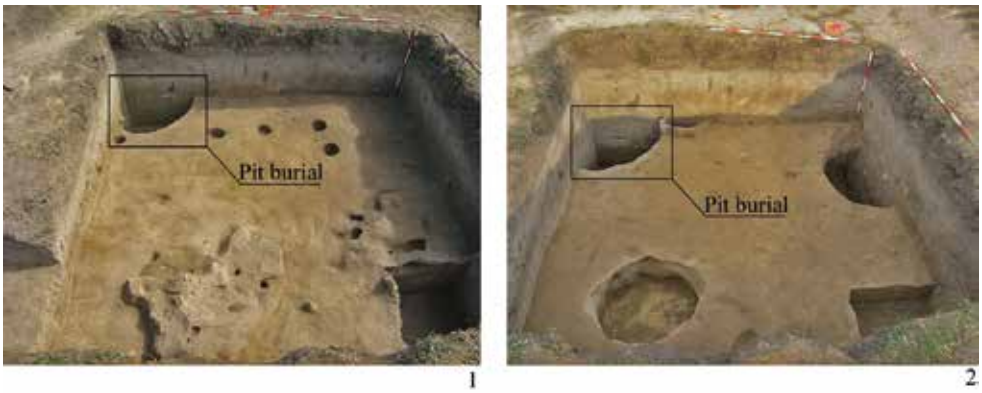

Fig. 4. Sóskút-Baratház (Site 26/4), Trench 2, the level of appearance of pit no. 261/314. 1. The Middle Bronze Age occupation layer and pit burial surrounded by post-holes; 2. The lowermost occupation with cuts of earlier pits present (©Gabriella Kulcsár and the authors)

Fig. 5. Sóskút-Baratház (Site 26/4), Trench 2, the different stratigraphic units (contexts) of pit no. 261/314. 1–2. S314; 3. S317; 4. S318 (©Gabriella Kulcsár and the authors)

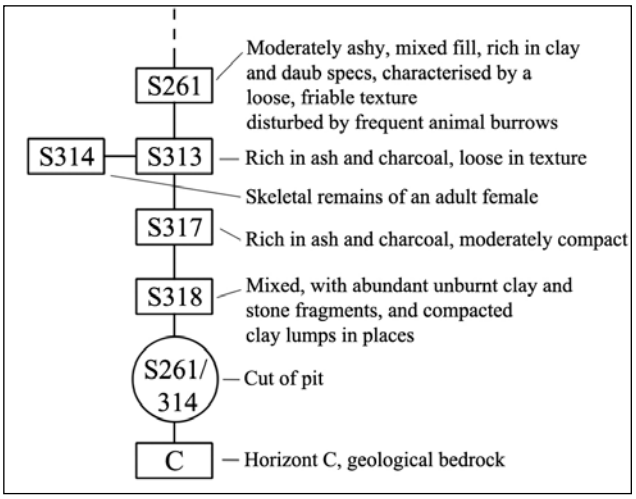

Fig. 6. Sóskút-Baráthéz (Site 26/4), Trench 2. The model of the stratigraphic units (contexts) of pit no. 261/314 (©László Gucsi)

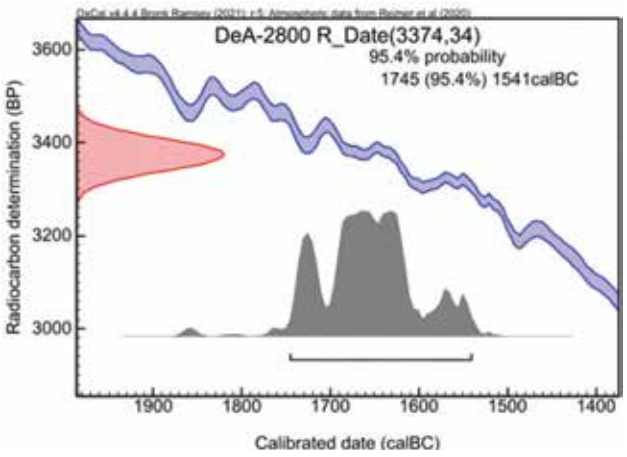

Fig. 7. Sóskút-Baráthéz (Site 26/4), Trench 2, pit no. 261/314. AMS radiocarbon dating of the inhumation burial (S314). The radiocarbon date was calibrated using OxCal v4.4 *Bronk Ramsey 2021* r:5; Atmospheric data from *Reimer et al. 2020*

Pit burial from the Late Vatya period

Pit no. 261/314 (S261/S313–314/S317–318), an approximately quarter section of a beehive-shaped pit (measuring ca. 140×130 cm) could only be partly excavated, due to its position in the NE corner of Trench 2 *(figs. 4–6).* The top of the pit was observed 60 cm below the present surface and its bottom was reached at the depth of 180 cm. The feature contained five deposits (five layers: S261, S313, S314, S317, S318) and the skeletal remains of an adult female (S314) *(figs. 5–6).* The top deposit (S261) was a moderately ashy, mixed fill, rich in clay and daub specs, characterised by a loose, friable texture disturbed by frequent animal burrows. The layer below (S313) was loose in texture, rich in ash and charcoal, as the deposit beneath (S314), in which the skeleton was discovered. The next fill in the sequence was slightly more compact, but still rich in ash and charcoal (S317). The bottom layer (S318) was mixed, with abundant unburnt clay and stone fragments, and compacted clay lumps in places. The feature dates to the Late Vatya–Koszider period (MBA 3).[14]

An inhumation burial of a female individual came to light from the stratigraphic unit S314, laid to rest in a crouched position on her left side, oriented SE–NW. Perforated beads of mollusc shells were found along one edge of the pit in an animal burrow, which is likely to have belonged to the burial. The radiocarbon date of the human remains was established to 1745 (95.4%) 1541 calBC (DeA-2800, 3374±34 BP) *(fig. 7).*

[14] *Vicze 2011; Jaeger – Kulcsár 2013; Kiss et al. 2019.*

Fig. 8. Sóskút-Baratház (Site 26/4), Trench 2, pit no. 261/314.
The cranium of the buried adult female (©Tamás Hajdu)

Fig. 9. Sóskút-Baratház (Site 26/4), Trench 2, pit no. 261/314.
The mandible of the buried adult female (©Tamás Hajdu)

Physical anthropological analysis of the pit burial

The pit contained the body of a mature adult female individual between 35 and 39 years of age. The anthropological analyses carried out on the remains established that the skull and post-cranial remains were relatively well-preserved but partially incomplete. The sex of the buried individual was determined on the basis of 16 features indexing sexual dimorphism.[15] The sexualisation ratio (-1.27) indicated feminine characteristics. The age at death estimation was carried out based on the degree of fusion (ossification) on the external and internal faces of the cranial sutures, the morphology of the *facies symphysialis ossis pubis* on the pelvis, and the age-related changes documented on the rib *extremitas sternalis.*[16] The skull is short and moderately wide based on

[15] *Éry – Kralovánszky – Nemeskéri 1963.*
[16] *Nemeskéri – Harsányi – Acsádi 1960; İşcan – Loth – Wright 1984; İşcan – Loth – Wright 1985; Brooks – Suchey 1990.*

Martin no.		Size (mm)
1.	Maximum cranial length	167
5.	Basion-Prosthion length	–
8.	Maximum cranial breadth	134
9.	Minimal frontal breadth	90
10.	Maximal frontal breadth	113
11.	Auricular breadth	–
12.	Occipital breadth	99
17.	Basion-bregma height	–
20.	Porion-bregma height	–
23.	Cranial circumference	–
40.	Nasion-Prosthion height	–
43.	Upper facial breadth	–
45.	Bizygomatic breadth	–
46.	Bimaxillary breadth	–
47.	Maxiumum frontal height	–
48.	Upper facial height	54
51.	Orbital breadth	40
52.	Orbital height	33
54.	Nasal breadth	24
55.	Nasal height	–
62.	Maxillo-Alveolar length	–
63.	Maxillo-Alveolar breadth	–
65.	Bicondylar breadth	–
66.	Bigonial breadth	–
69.	Chin height	–
70.	Height of ramus	–
71.	Minimum breadth of ramus	–
Index		
8:1	Cranial index	80.24
17:1	Height-length index	–
17:8	Cranial breadth index	–
20:1	Cranial length-height index	–
20:8	Cranial breadth-height index	–
9:8	Frontoparietal index	67.16
47:45	Facial index	–
48:45	Upper facial index	–
52:51	Orbital index	82.50
54:55	Nasal index	52.17
63:62	Maxillo-alveolar index	–

Table 1. Sóskút-Baráthá z (Site 26/4), Trench 2, S314. Metric dimensions and indexes of the cranium (©Kitti Köhler)

	Left	Right
Clavicula M1	–	–
Humerus M1	–	–
Ulna M1	(230) mm	230 mm
Radius M1	211 mm	213 mm
Femur M1	417 mm	–
Tibia M1	–	330 mm
Fibula M1	–	319 mm
after *Bernert 2005*	164.3 cm	
after *Sjøvold 1990*	152.9 cm	

Table 2. Sóskút-Baratház (Site 26/4), Trench 2, S314.
Dimensions of the long bones and the calculated stature (©Kitti Köhler)

the metric dimensions *(figs. 8–9; Table 1)*. The forehead is narrow. The upper facial structure is narrow.[17] The circumference of the eye socket is moderately wide. The upper cranium classifies as moderately broad *(mesocran)* according to the length-breadth index. The frontal bone is also moderately broad *(metriometop).* The orbits are moderately high relative to other facial features *(mesoconch)*. The nose can also be reconstructed as broad *(chamaerrhin)*.[18]

Morphologically, the skull is ovoid in superior view. The forehead and occipital are both curved in lateral view. No flattening of the lambdoid present. The orbits are round. The *apertura piriformis* is anthropoid, the *spina nasalis anterior* is of degree 5. The *fossa canina* is moderately deep.[19] The stature calculated by the size of the long bones classifies as medium according to Zsolt Bernert and small by Torstein Sjøvold *(Table 2)*.[20]

An anatomical variation of an independent suture bone *(ossa suturae lambdoidea)* is present on the right side of the skull.[21]

Pathological lesions include mild (grade 1) enthesopathy on the left patella and the heel bones. Such lesions, characterised by bone spikes, occur most commonly as result of overuse or repeated microtrauma. A sign of physical trauma (fracture) is present in the upper third of the diaphysis of the left humerus *(fig. 10. 1–2).* The woman survived the fracture indicated by the partial regeneration of the bone, but the fracture ends remained unfused at the time of her death. This is known as a non-union fracture, which occurs when the fractured bone ends have not been stabilised (i.e. by a cast or brace), or when the blood supply of the bone is insufficient, or when the limb becomes infected. In the present case, the remodelling of the bone had begun, closing the fracture ends, accompanied by inflammation, indicated by the deformation of the lower diaphysis and the significant bone loss. The woman did not die as the result of the fracture: she survived the trauma for at least 2-3 months (or more). However, her upper arm would have not regained its pre-fracture strength and load-bearing capacity in that time. Unfortunately, the *humerus* on the other side is fragmentary, so it is not possible to determine the extent of any shortening (if occurred) of the injured bone.

[17] *Martin – Saller 1957.*
[18] *Aleksejev – Debec 1964.*
[19] *Martin – Saller 1957; Aleksejev – Debec 1964.*
[20] *Sjøvold 1990; Bernert 2005.*
[21] *Hauser – De Stefano 1989.*

Fig. 10. Sóskút-Baráthá z (Site 26/4), Trench 2, pit no. 261/314.
1–2. Non-union fracture on the diaphysis of the left *humerus* of the female skeleton;
3. Porosity of the hard palate on the maxilla (©Tamás Hajdu)

Furthermore, prior to the woman's death, all the teeth in both the maxilla and the mandible had fallen out *(fig. 9)*. The *antemortem* tooth loss resulted in a complete loss of the teeth sockets and atrophy of the bone tissue. In addition, the porosity on the hard palate of the maxilla indicates the presence of inflammation probably due to an infection *(fig. 10. 3)*.[22]

Analyses of the ceramics associated with the pit burial

Methodology

The methodology used for the assessment of ceramics followed standard typological description practices employed by most Hungarian museums for accessioning, cataloguing archaeological material. In each feature, sherds were counted (referred to as Number of Sherds or *NoS* or simply as 'pieces' throughout the text and in charts) and grouped into 'vessel types', some of which were quite broad or overlapped with other types due to the ambiguity of diagnostic features and the considerable degree of fragmentation. These 'vessel types' formed the bases for ceramic units (referred to as 'Minimum Number of Items' or MNI – a standard statistical formula). Sherds lacking diagnostic features were clustered into three (proxy) groups: large, medium and small vessels; an assessment based on ceramic wall-thickness. This 'lumping' method is routinely employed by Hungarian archaeologists when dealing with large numbers of unassociated fragments recovered during excavation. During Phase II of Benta Valley Project, Carla Klehm and Borbála Nyíri extended the application of this method to material deriving from fieldwalk collections, shovel-scrapes and cubic soundings.[23] While the number of sherds is used to identify the location, extent and density archaeological sites (standard Cultural Resource Management [CRM] practice in Europe and North America), its application in tandem with the quick typological examination of the kinds of sherds, had the potential to reveal certain socio-economic activities taking place at the Benta sites during different time periods. The quick typological examination included the categories of 'cups' (wall-thickness: <3 mm, a category of vessels – including small bowls – used for serving drinks and small portions of food, or used for storing non-food related items), 'small pots' (wall-thickness: 3–6 mm, vessels used for serving, cooking, and possibly for short-term, temporary storage), and 'pots' (wall-thickness: >6 mm, vessels used for storage or cooking). During the establishment of the above categories – since the assemblage derived from surface-scrapes or cubics – the erosion of ceramic surfaces and the generic degradation of fragments were taken into account; a factor which featured less prominently during the present analysis given the material was excavated from deeper layers. Thus, small vessels' wall-thickness was set to be <5 mm, for medium vessels it generally ranged between 6 mm and 1 cm, and the wall-thickness for large vessels was over 1 cm.

The recorded typological features included interior and exterior colour, surface treatment and some aspects of the firing, temper and matrix, decoration, use, and respective measurements of the particular vessel part/fragment. Technological details, along with signs of manipulation before, during and after breakage/discard were also documented. During both the processes of pre-sorting and cataloguing the context of each sherd was noted, even in the case of vessels consisting of multiple fragments (sometimes recovered from different fills), highlighting the 'mixing' between layers; taphonomic or deliberate human activities which could not be observed while the feature was being excavated.

[22] *Steinbock 1976; Ortner – Putshar 1981; Ortner 2003.*

[23] *Earle et al. 2011; Klehm – Nyíri 2016.*

Pottery

Altogether 1138 pieces of sherds were counted from the fills which were distributed between 28 different ceramic types (NoS 269, MNI: 112 – *fig. 11; figs. 19–22*). Cups clearly dominate the assemblage (MNI 18, NoS 38) followed by pots or urns (MNI 10, NoS 33), and to a lesser degree bowls (MNI 9, NoS 12), pots (MNI 9, NoS 23) and cups or bowls (MNI 5, NoS 26). The highest sherd-count is attributed to urns (NoS 40) representing 8 ceramic units.

In terms of the ceramic content of the five deposits, the sherd-count in the top layer (S261) was the highest (NoS 551 – 120 identified, 431 undiagnostic). S313 contained 96 pieces (41 identified, 55 undiagnostic), while S314 below was the poorest in ceramic fragments, only 29 sherds (13 identified, 16 undiagnostic) were found here (along with the skeleton). In the fill beneath, in S317 the number of fragments is relatively high again in comparison to the previous deposit (NoS 312 – 62 identified, 260 undiagnostic), while in S318, the bottom layer, the sherd-count drops down to 150 pieces (33 identified, 117 undiagnostic). The distribution of ceramic types within each layer seems to reflect the overall trend outlined above; cups or small bowls being the leading vessel types, followed by urns, pots and bowls. The only exception is S314 within which only a pot or a pot or bowl was documented *(fig. 12)*. Mixing between the five layers was substantial, and although the majority of these were limited to ceramic units with fragments between 2–5 pieces (MNI 12), 25 fragments of an urn were recovered from 4 different contexts (*fig. 13;* especially see *fig. 22. 11*). This could suggest that the deposits were repeatedly disturbed, either by deliberate re-opening or re-use of the pit, or by higher than average animal activity.

Unidentified fragments formed the bulk of the ceramic material (869 pieces – 76%), with the highest number of unknown medium-sized vessels (476 pieces – 41.8%) followed by – interestingly – known vessel types (269 pieces – 24%) and unknown small-sized vessels (212 pieces – 18%, *fig. 14*). The ratio of unknown large- and large/medium-sized vessels was surprisingly low (7% – 80 pieces, 4% – 45 pieces), although this is balanced out by the high number of identified large vessels such as urns or large bowls.

The diagnostic vessel parts distributed according to expectations. The dominance of body sherds could be observed, followed by body and rim and rim, body and base – the latter attributed to the high number of cups (which had the tendency to remain fairly intact) especially visible in S317 *(fig. 15)*. The number of household ceramics appears to dominate the entire assemblage, primarily due to sherds from S261 (287 pieces), although from the other four contexts the number of household ceramics remain low (between 9–65 pieces). Tablewares reflect a slightly different picture: the ratio of tablewares in S261 is less than half of the household ceramics (126 pieces), whereas it is slightly higher in the case of S317 (101 pieces). The ambiguous household/tableware category was also led by sherds from S317 (179 pieces), followed by S261 (136 pieces), while in the case of the other three contexts the number of sherds belonging to this group was a little higher compared to the household ceramics *(fig. 16).*

The number of decorated and undecorated sherds was fairly equal (562 pieces – 576 pieces), and a similarly balanced picture is outlined by the treatment of interior and exterior surfaces (both ranging at 85–88%). This could be attributed to smaller, delicate vessels with wider orifice (cups and bowls) equalling the number of vessel with more restricted openings *(fig. 17),* but also perhaps indicating a trend during the Late Vatya–Koszider period whereby the interior surfaces (at least in the upper quarter) were burnished or lightly burnished even in the case of large storage vessels.

A small number of fragments exhibited a clay body structure involving a sandwich of dark grey core followed by a layer of bright red lamina sandwiched between a dark grey or black crust on the in/exterior. The structure could be the result of a particular firing technique: reduction firing at the beginning of the process, followed by the brief introduction of oxygen, before finishing the

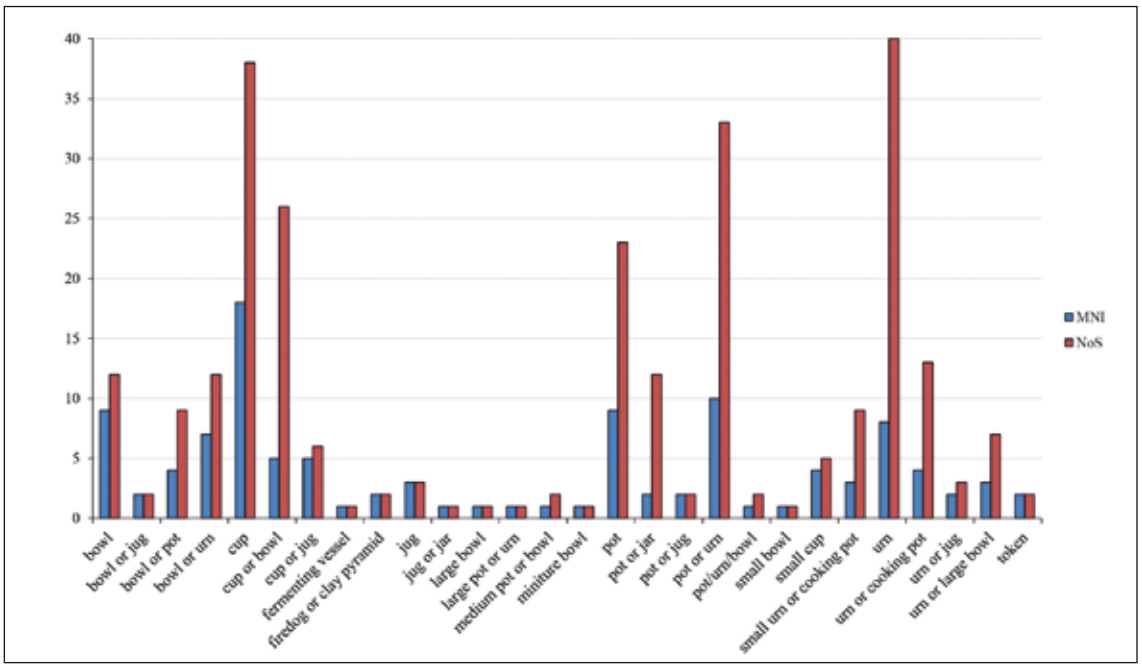

Fig. 11. Sóskút-Baratház (Site 26/4), Trench 2, pit no. 261/314.
Distribution of the 28 ceramic types (©Borbála Nyíri)

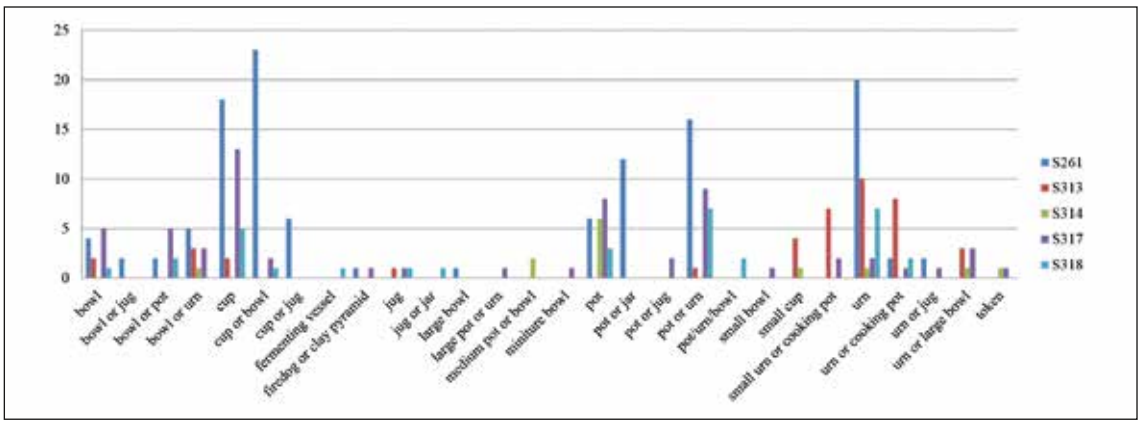

Fig. 12. Sóskút-Baratház (Site 26/4), Trench 2, pit no. 261/314.
Distribution of ceramic types within the five deposits in pit no. 261/314 (pieces) (©Borbála Nyíri)

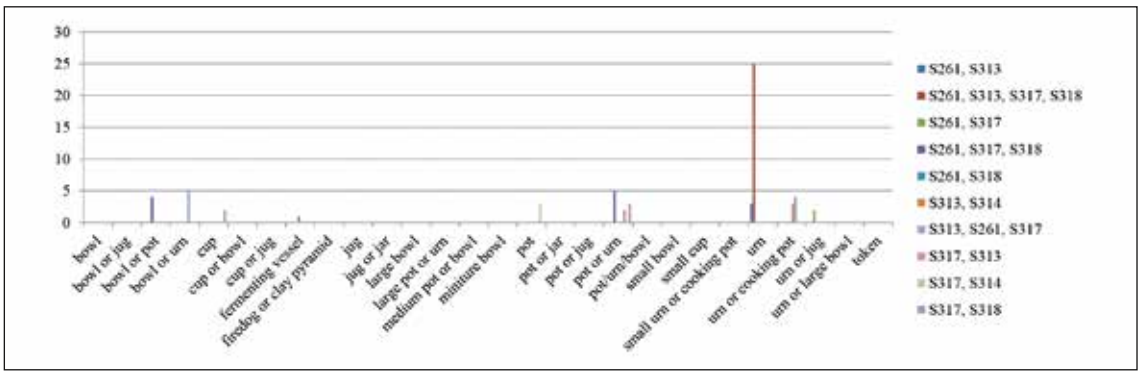

Fig. 13. Sóskút-Baratház (Site 26/4), Trench 2, pit no. 261/314.
Mixing' between the five deposits in pit no. 261/314 (pieces) (©Borbála Nyíri)

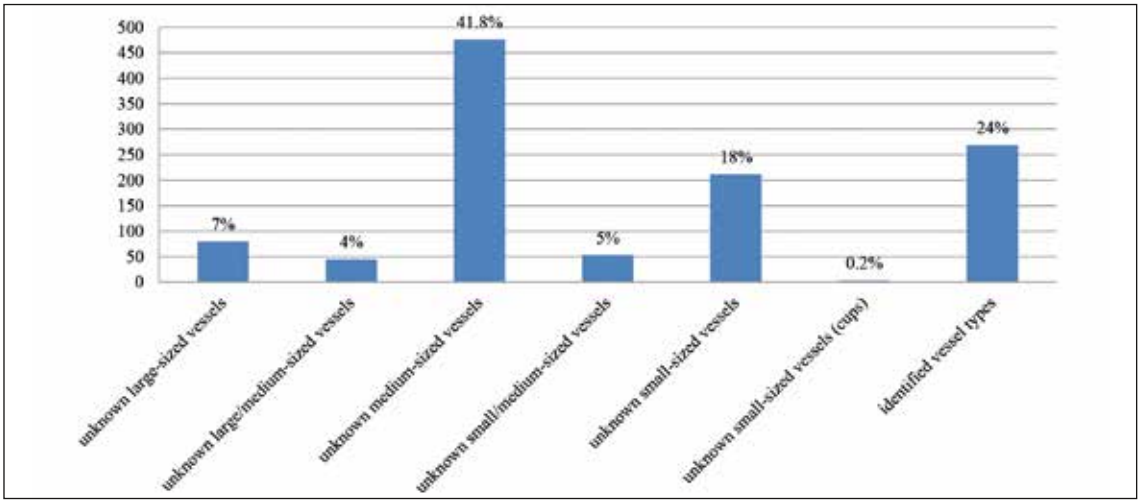

Fig. 14. Sóskút-Baráthá (Site 26/4), Trench 2, pit no. 261/314.
Percentage of unknown and identified vessel types (%) (©Borbála Nyíri)

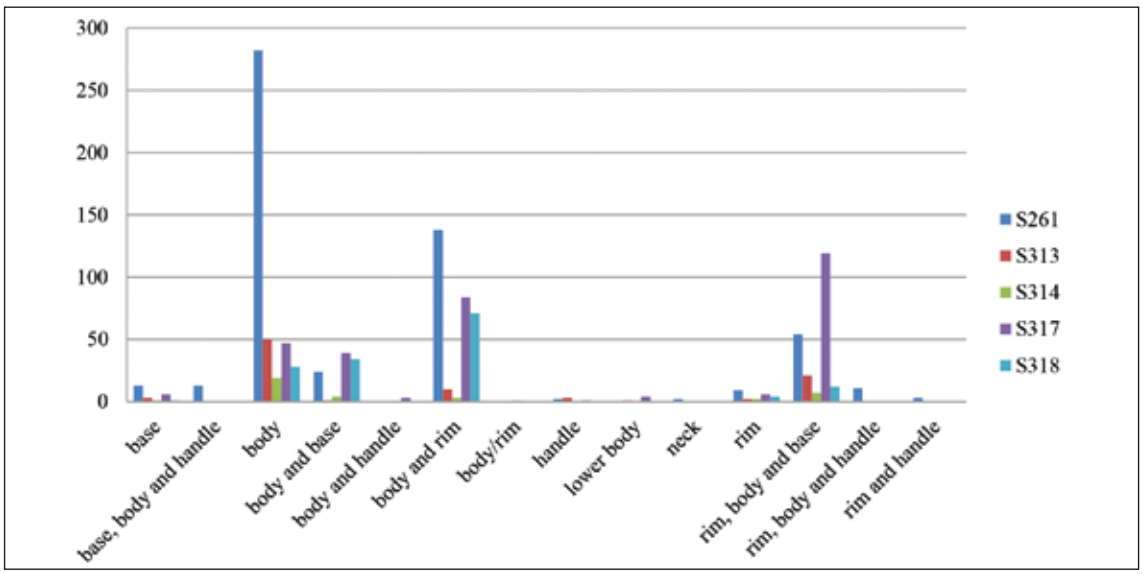

Fig. 15. Sóskút-Baráthá (Site 26/4), Trench 2, pit no. 261/314.
Distribution of diagnostic vessel parts (pieces) (©Borbála Nyíri)

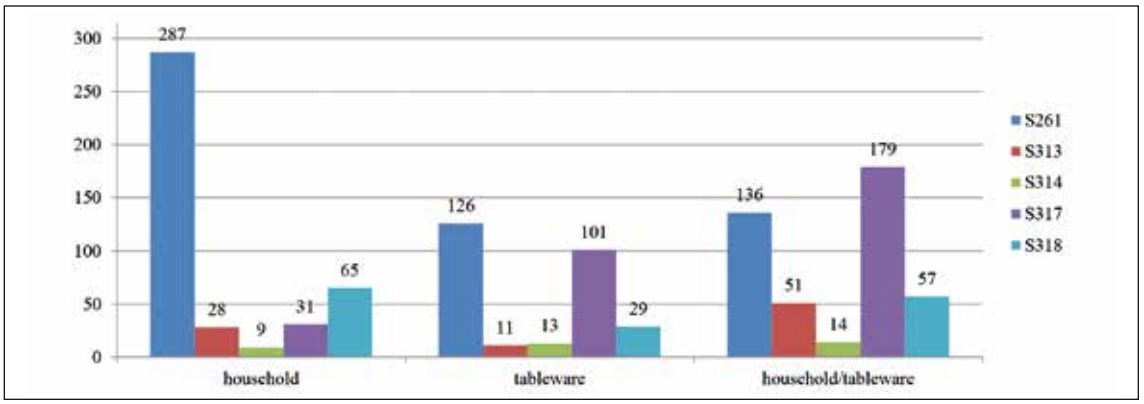

Fig. 16. Sóskút-Baráthá (Site 26/4), Trench 2, pit no. 261/314.
Distribution of household and tablewares in pit no. 261/314 (pieces) (©Borbála Nyíri)

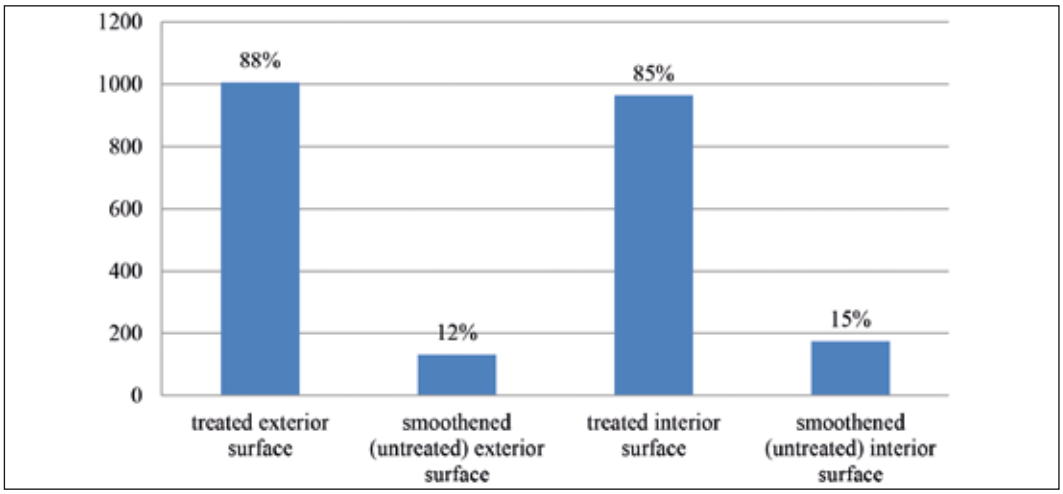

Fig. 17. Sóskút-Baratház (Site 26/4), Trench 2, pit no. 261/314.
Surface treatment of fragments (%) (©Borbála Nyíri)

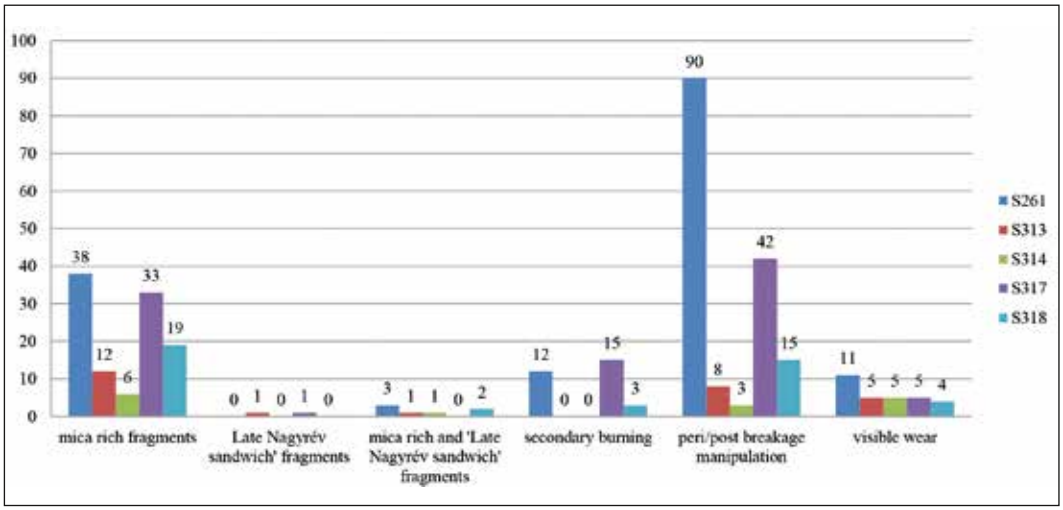

Fig. 18. Sóskút-Baratház (Site 26/4), Trench 2, pit no. 261/314.
Particular technological features and signs of manipulation (pieces) (©Borbála Nyíri)

pots again in a reduction atmosphere – however, there is more research necessary to reconstruct the exact procedure. This clay structure is most characteristic on Late Nagyrév sherds (therefore it is referred to as 'Late Nagyrév sandwich' in the text and figures) often accompanied by a mica rich clay body.[24] The amount of 'Late Nagyrév sandwich' fragments recovered from the pit is negligible (S313 – 1 piece, S317 – 1 piece) and the number of such sherds accompanied by mica rich clay body was also minimal (S261 – 3 pieces, S313 – 1 piece, S314 – 1 piece, S318 – 2 pieces) – a similar trend observed in the other two excavated pits. The number of secondarily burnt sherds, 25 fragments with visible signs of wear and manipulated sherds were also slightly higher than in the other two pits (given the higher overall sherd-count), but the ratio seems to correspond with values recorded there *(fig. 18).*

[24] This feature is particularly characteristic in Late Nagyrév assemblages further south along the Danube, e.g. at Dunaújváros-Duna-dűlő *(Vicze 2011)* and Rácdomb *(Nyíri 2013).*

[25] *Gucsi 2020.*

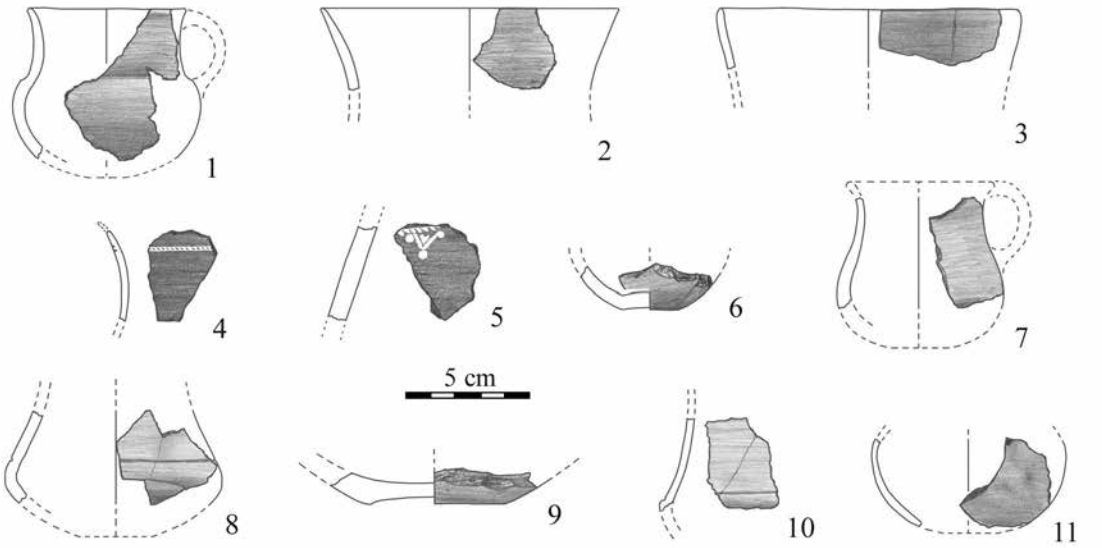

Fig. 19. Sóskút-Baratház (Site 26/4), Trench 2, ceramic fragments from pit no. 261/314; cups. 1–5. S261; 6. S313; 7–9. S317; 10. S317 and S318; 11. S318 (©László Gucsi, ©Zsolt Réti)

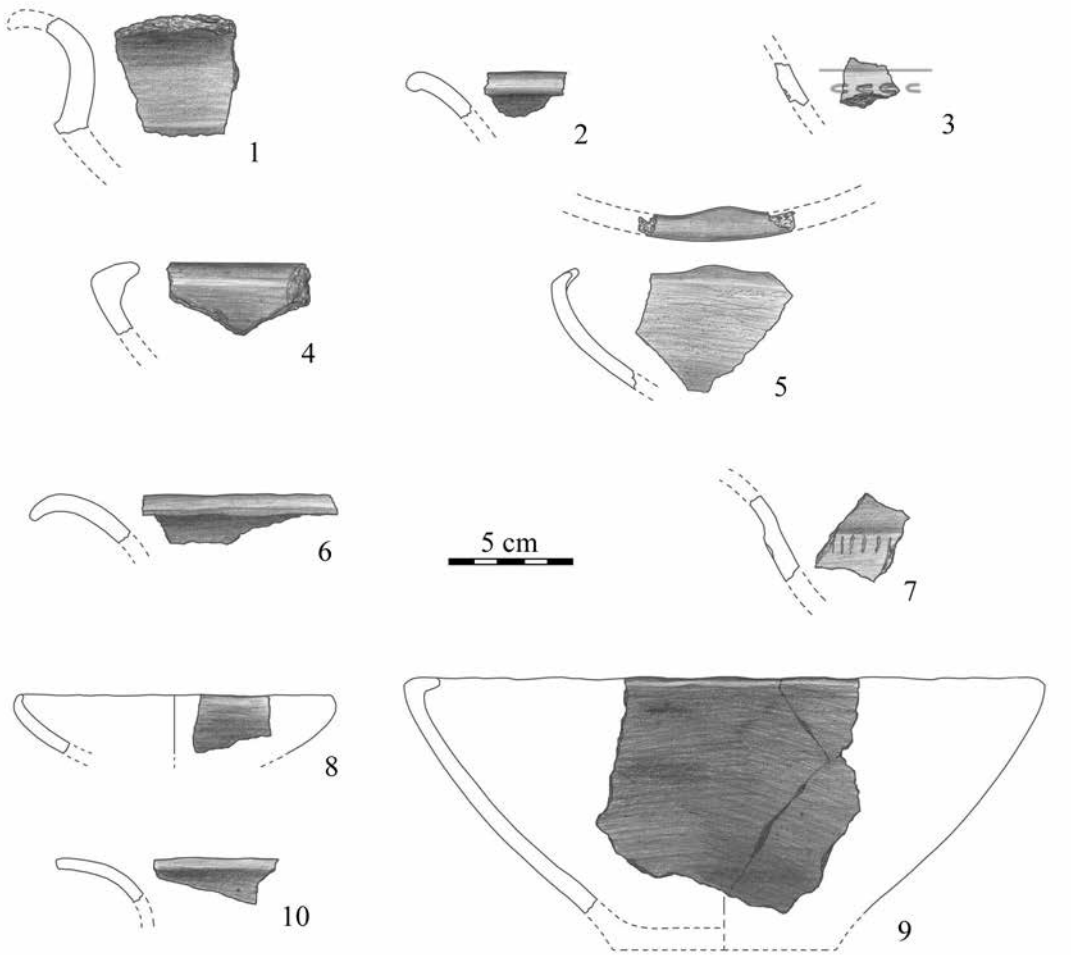

Fig. 20. Sóskút-Baratház (Site 26/4), Trench 2, ceramic fragments from pit no. 261/314; bowls. 1–5. S261; 6–9. S317 (©László Gucsi, ©Zsolt Réti)

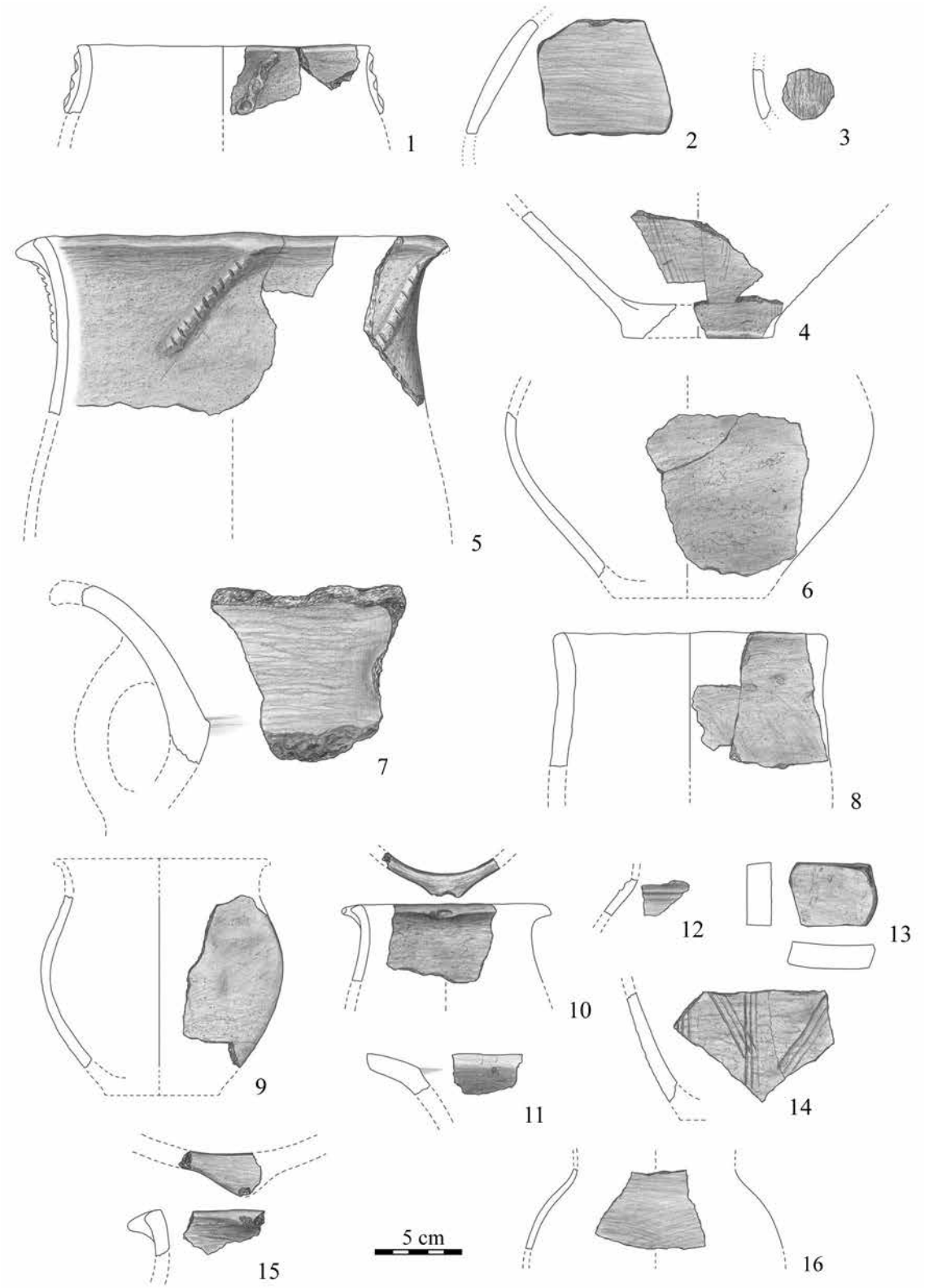

Fig. 21. Sóskút-Baratház (Site 26/4), Trench 2, ceramic fragments from pit no. 261/314; pots and urns. 1–3. S261; 4. S261 and S313; 5–6. S313 and S317; 7. S314; 8. S314 and S317; 9–14. S317; 15–16. S318 (©László Gucsi, ©Zsolt Réti)

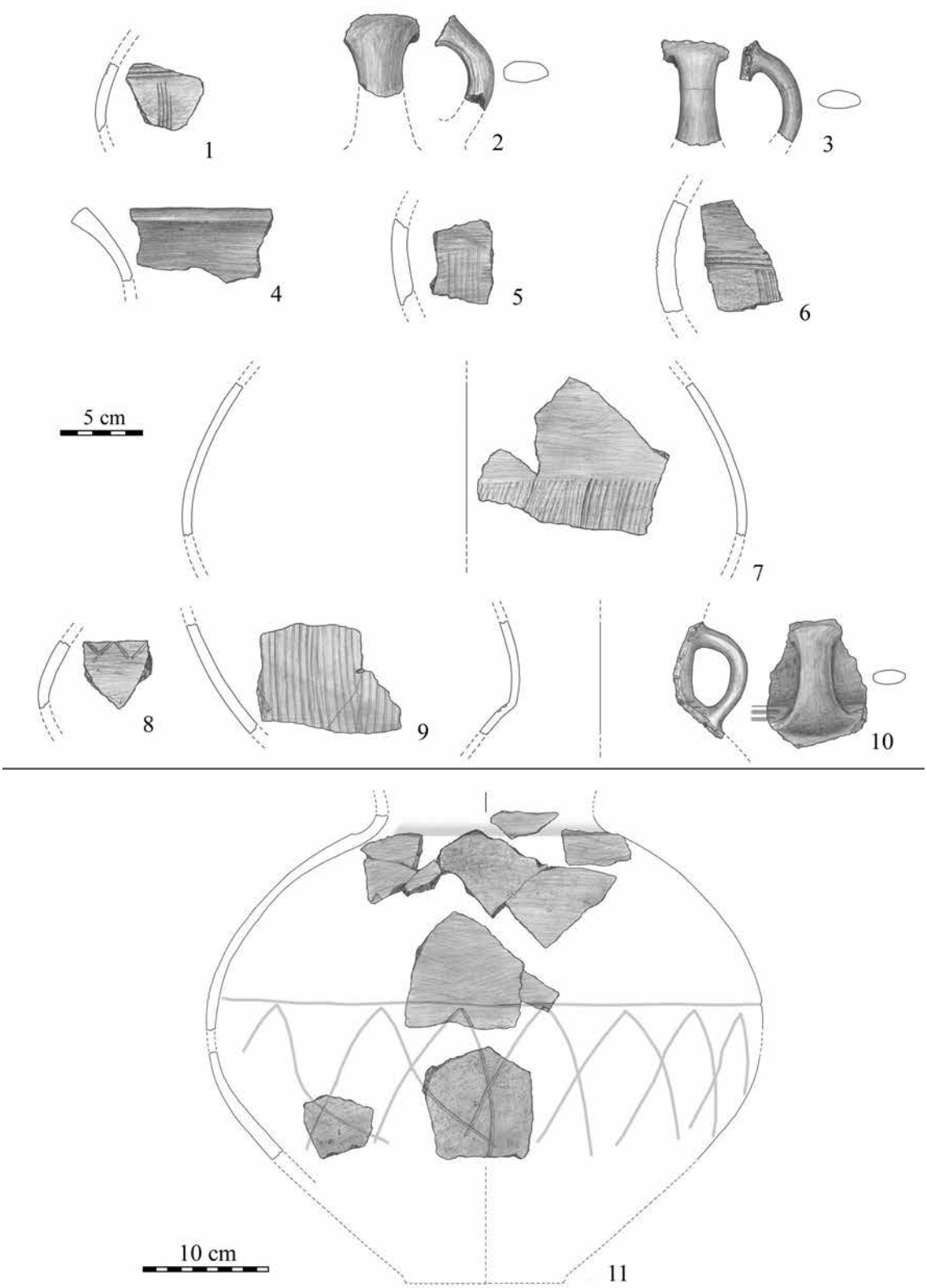

Fig. 22. Sóskút-Baráthá̧z (Site 26/4), Trench 2, ceramic fragments from pit no. 261/314; pots and urns. 1–2. S261; 3. S261 and S317; 4–6. S313; 7. S155 and S314; 8–9. S317; 10. S318; 11. S261, S313, S317 and S318 (©László Gucsi, ©Zsolt Réti)

Conclusions

Although the feature of a domestic refuse pit (no. 261/314) was only partially excavated due its position in the trench, it had the largest sherd-count (1138 pieces) out of the three pits, and contained the highest amount of deposits (5 layers: S261, S313, S314, S317, S318), including a human skeleton. Cups or small bowls were represented by the highest number of fragments *(fig. 19)* followed closely by urns, pots *(figs. 21–22)* and bowls *(fig. 20)*, a trend which is reflected in each layer to a certain degree, but also by the overall distribution of ceramic types. The majority of imports in the ceramic assemblage could have originated from the neighbouring Transdanubian Encrusted Pottery complex or were the local imitations of these (e.g. *fig. 19. 4–5*). Out of the three archaeological features the degree of mixing between deposits was the most substantial in the pit containing the burial which could imply that the fills were once (or multiple times?) disturbed, either by the deliberate re-opening (with the aim to manipulate the human remains perhaps?), or simply by the practical re-use of the pit. The intentional re-opening of the pit is supported by the fact that the skeleton was found incomplete and that particular bones were fragmented by both *post mortem* and post-depositional events. This aspect is particularly intriguing, since the skeletal remains were recovered from context S314; the deposit situated in the middle of the fill sequence, accompanied by ceramic material that shows a significant rate of fragmentation and wear, 12–15% of the sherds had evidence of secondary burning present. Therefore, it is likely that these ceramic pieces had longer and varied 'object biographies' as opposed to vessels made specifically for funerary purposes. The composition (i.e. the variety of household wares) and overall character (i.e. domestic refuse) of the assemblage further implies that the pit burial and its 'domestic' context could be understood as a non-normative mortuary deposition.[26] Although similar depositions of human remains are not unusual in the previous Nagyrév period,[27] from the later Vatya, Late Vatya–Koszider phase so far only one similar feature is known from Érd-Hosszúföldek, where scientific analysis showed the repeated interment of human remains throughout a long period of time.[28]

In sum, the archaeological assessment of pit no. 261/314 is challenging. Is the high sherd-count reflective of the intensive use of the settlement or the activities taking place there? Or, since the deposition of human remains, could it be that the pit assumed new roles beyond its domestic function (e.g. sacrificial pit, intramural grave, representation of taboos)? At the moment archaeological information is still too scarce to answer these questions. The generally poor physical condition of this individual must also be taken into account: her remains showed signs of infection, presence of disease, and extreme physical trauma which suggests that she was lacking resources and/or support during the final stages of her life. Examples from other contemporaneous sites (e.g. Érd) also indicate that at least some individuals deposited in pits were probably of low social status.[29]

Earlier archaeological theories proposed that in the so-called Bronze Age chiefdom societies, exclusive access to ritual knowledge may have been an important basis for elite power.[30] It is likely that this segment of the society could have been responsible for the regulation and the maintenance of ritual traditions reflected by the highly prescribed mortuary practice evident in Vatya cemeteries. The pit burials of Sóskút and Érd therefore stand out in the context of normative Vatya burials, and given the physical trauma and condition of the individuals interred in the pits, it

[26] *Balogh 1997; Poroszlai 2000; Gucsi – Szabó 2019.*

[27] *H. Hanny 1997; Keszi 2020.*

[28] *Earle et al. 2014; Szeverényi et al. 2020*. Pit burials also occur in settlements of contemporaneous communities (e.g. Transdanubian Encrusted Pottery and Maros culture; *Kiss et al. 2015; Szeverényi et al. 2020*) and later assemblages of the Tumulus culture *(Ilon 2014).*

[29] *Earle et al. 2014; Szeverényi et al. 2020.*

[30] *Earle 1987; Johnson – Earle 2000; Dani et al. 2016.*

is feasible to assume that they represent the outliers or low status members of local communities. Their low or peripheral social standing could have derived either from (or was enhanced by) being non-locals, or having had a long-term mental and/or physical illness, disobeying social traditions or committing a crime. It is also possible that they themselves (for similar reasons) became victims of violence and were deposited without the adherence to rules surrounding mortuary rituals. Therefore, this non-normative pit burial at Sóskút can be considered as a significant addition nuancing the hitherto assumed picture of chiefdoms and otherwise uniform burial practices in the Carpathian Basin in the middle of the 2nd millennium BC.

REFERENCES

Aleksejev – Debec 1964 В. П. Алексеев – Г. Ф. Дебец: Краниометрия. методика антропологических исследованиӱ. Москва 1964.

Balogh 1997 Cs. Balogh: Előzetes jelentés egy kora bronzkori település feltárásáról Kiskunfélegyháza-Izsáki út lelőhelyen. Régészeti problémák egy objektum értelmezése körül [Preliminary report on the excavation of an Early Bronze Age settlement at the Kiskunfélegyháza-Izsáki út site. Archaeological problems around the interpretation of an featuret]. MKCsM 1995–1996 (1997) 49–53.

Bernert 2005 Zs. Bernert: Kárpát-medencei történeti népességek végtagarányai és testmagassága [Proportions of limbs and height of historical populations in the Carpathian Basin], in: Z. Korsós (ed.): IV. Kárpát-medencei Biológiai Szimpózium, 2005. október 17–19. Budapest 2005, 35–43.

Bóna 1975 I. Bóna: Die mittlere Bronzezeit Ungarns und ihre südöstlichen Beziehungen. ArchHung 49. Budapest 1975.

Bóna 1992 I. Bóna: Bronzezeitliche Tell-Kulturen in Ungarn, in: W. Meier-Arendt (Hrsg.): Bronzezeit in Ungarn. Forschungen in Tell-Siedlungen an Donau und Theiss. Frankfurt am Main 1992, 9–41.

Bronk Ramsey 2021 C. Bronk Ramsey: OxCal 4.4 Manual. Analysis Operations and Models. Web interface Build No. 132.
https://c14.arch.ox.ac.uk/oxcalhelp/hlp_contents.html

Brooks – Suchey 1990 S. Brooks – J. Suchey: Skeletal age determination based on the os pubis. A comparison of the Acsádi–Nemeskéri and Suchey–Brooks methods. Human Evolution 5 (1990) 227–238.
https://doi.org/10.1007/BF02437238

Czajlik 2017 Z. Czajlik: Aerial archaeological research on Bronze Age fortified settlements in the Benta Valley and Zsámbék Basin, in: G. Kulcsár – G. V. Szabó (eds.): State of the Hungarian Bronze Age Research. Proceedings of the Conference Held between 17th and 18th of December 2014. Ősrégészeti Tanulmányok/Prehistoric Studies 2. Budapest 2017, 473–486.

Dani et al. 2016 J. Dani – K. P. Fischl – G. Kulcsár – V. Szeverényi – V. Kiss: Visible and invisible inequality. Changing patterns of wealth consumption in Early and Middle Bronze Age Hungary, in: H. Meller – H. P. Hahn – R. Jung –

R. Risch (Hrsg./eds.): Arm und Reich. Zur Ressourcenverteilung in Prähistorischen Gesellschaften / Rich and Poor. Competing for Resources in prehistoric Societies. Tagungen des Landesmuseums für Vorgeschichte Halle 14. Halle (Saale) 2016, 219–240.

Dani et al. 2019 J. Dani – K. P. Fischl – V. Kiss – G. Kulcsár – V. Szeverényi: Dividing space, dividing society. Fortified settlements in the Carpathian Basin (c. 2300–1500 BC), in: H. Meller – S. Friedrich – M. Küßner – H. Stäuble – R. Risch (Hrsg./eds.): Siedlungsarchäologie des Endneolithikums und der frühen Bronzezeit / Late Neolithic and Early Bronze Age Settlement Archaeology. Tagungen des Landesmuseums für Vorgeschichte Halle 20. Halle (Saale) 2019, 851–868.

Earle 1987 T. K. Earle: Chiefdoms in archaeological and ethnohistorical perspective. Annual Review of Anthropology 16 (1987) 279–308.

Earle – Kristiansen 2010 T. K. Earle – K. Kristiansen (eds.): Organizing Bronze Age Societies. The Mediterranean, Central Europe, and Scandinavia Compared. Cambridge 2010.
https://doi.org/10.1017/CBO9780511779282

Earle et al. 2010 T. K. Earle – M. Kolb – M. Artursson – J. Bech – M. Mikkelsen – M. Vicze: Regional settlement patterns, in: *Earle – Kristiansen 2010,* 57–86.
https://doi.org/10.1017/CBO9780511779282.004

Earle et al. 2011 T. Earle – A. Kreiter – C. Klehm – J. Ferguson – M. Vicze: Bronze Age ceramic economy. The Benta Valley, Hungary. EJA 14/3 (2011) 419–440.
https://doi.org/10.1179/146195711798356746

Earle et al. 2012a T. K. Earle – M. Artursson – T. Polányi – M. Vicze: Rapid assessment of Bronze Age settlement studies in the Benta Valley, Hungary. A micro-regional approach. Ősrégészeti Levelek 12 (2010) [2012] 84–93.

Earle et al. 2012b T. K. Earle – V. Kiss – G. Kulcsár – V. Szeverényi – T. Polányi – J. Czebreszuk – M. Jaeger – Ł. Pospieszny: Bronze Age landscapes in the Benta Valley. HungArch 2012/4, 1–4.
http://files.archaeolingua.hu/2014NY/Upload/cikk_Earle_EN.pdf

Earle et al. 2014 T. Earle – G. Kulcsár – V. Kiss – G. Serlegi – V. Szeverényi: Recent results from the Bronze Age research into the Benta Valley. HungArch 2014/2, 1–5. http://files.archaeolingua.hu › cikk_Earle_EN

Éry – Kralovánszky – Nemeskéri 1963 K. Éry – A. Kralovánszky – J. Nemeskéri: Történeti népességek rekonstrukciójának reprezentációja [A representative reconstruction of historic population]. AnthrK 7/1–2 (1963) 41–90.

Gucsi 2020 L. Gucsi: Methods of identification for ceramics with traces of secondary burning and their occurrences in mortuary and ritual-related assemblages, in: P. Csengeri – A. Kalli – Á. Király – J. Koós (eds.): ΜΩΜΟΣ 9. A rituálé régészete. Őskoros Kutatók IX. Összejövetelének konferenciakötete. DissArch. Supplementum 3. Budapest 2020, 215–240.
https://doi.org/10.17204/dissarch.suppl3.215

Gucsi – Szabó 2019 L. Gucsi – N. Szabó: Examination and possible interpretations of a Middle Bronze Age structured deposition. DissArch Ser 3. No. 6 (2018) 217–285. https://doi.org/10.17204/dissarch.2018.217

H. Hanny 1997 E. H. Hanny: A nagyrévi kultúra áldozati gödre a budai Várhegyen (Die Opfergrube der Nagyrév Kultur in der Budauer Burg). BudRég 31 (1997) 199–210.

Hauser – De Stefano 1989 G. Hauser – G. F. De Stefano: Epigenetic Variants of the Human Skull. Stuttgart 1989.

Ilon 2014 G. Ilon: Opfergrube der Hügelgräberkultur in der Gemarkung von Ménfőcsanak. Spiralornament auf einem Tonfries eines Gebäudes. ActaArchHung 65/1 (2014) 5–42. https://doi.org/10.1556/AArch.65.2014.1.1

İşcan – Loth – Wright 1984 M Y. İşcan – S. R. Loth – R. K. Wright: Age estimation from the rib by phase analysis. White males. JFS 29/4 (1984) 1094–1104. https://doi.org/10.1520/JFS11776J

İşcan – Loth – Wright 1985 M Y. İşcan – S. R. Loth – R. K. Wright: Age estimation from the rib by phase analysis. White females. JFS 30/3 (1985) 853–863. https://doi.org/10.1520/JFS11018J

Jaeger – Kulcsár 2013 M. Jaeger – G. Kulcsár: Kakucs-Balla domb. A case study in the absolute and relative chronology of the Vatya culture. ActaArchHung 64/2 (2013) 289–320. https://doi.org/10.1556/AArch.64.2013.2.2

Jaeger et al. 2018 M. Jaeger – G. Kulcsár – N. Taylor – R. Staniuk (eds.): Kakucs-Turján Middle Bronze Age Multi-layered Fortified Settlement in Central Hungary. Studien zur Archäologie in Ostmitteleuropa/Studia nad Pradziejami Europy Środkowej 18. Bonn 2018.

Johnson – Earle 2000 A. W. Johnson – T. Earle: The simple chiefdom, in: A. W. Johnson – T. Earle: Evolution of Human Societies. From Foraging Group to Agrarian State. Stanford 2000, 265–303. https://doi.org/10.1515/9780804764513-012

Keszi 2020 T. Keszi: A kora bronzkori makói és nagyrévi kultúra edénystílusainak változása. Az Iváncsa-laposi település [Changes in the ceramic styles of the Early Bronze Age Makó and Nagyrévi cultures. The settlement of Iváncsa-lapos]. PhD thesis at the Eötvös Loránd University, Budapest. Budapest 2020. https://edit.elte.hu/xmlui/handle/10831/58257

Kiss et al. 2015 V. Kiss – Sz. Fábián – T. Hajdu – K. Köhler – G. Kulcsár – I. Major – G. Szabó: Contributions to the relative and absolute chronology of the Early and Middle Bronze Age in Western Hungary based on the radiocarbon dating of human bone, in: R. E. Németh – B. Rezi (eds.): Bronze Age Chronology in the Carpathian Basin. Proceedings of the International Colloquium from Târgu Mureş, 2–4 October 2014. Bibliotheca Musei Marisiensis. Seria Archaeologica 8. Cluj-Napoca 2015, 23–36.

Kiss et al. 2019 V. Kiss – M. Csányi – J. Dani – K. P. Fischl – G. Kulcsár – I. Szathmári: Chronology of the Early and Middle Bronze Age in Hungary. New results. Studia Hercynia 23/2 (2019) 173–197.

Klehm – Nyíri 2016 C. E. Klehm – B. Nyíri: Exploring socioeconomic relationships from surface survey ceramics. New methodologies from Bronze-Age Benta Valley, Hungary. JFA 41/4 (2016) 486–499. https://doi.org/10.1080/00934690.2016.1199197

Martin – Saller 1957 R. Martin – K. Saller: Lehrbuch der Anthropologie. Bd. 1. Stuttgart 1957.

MRT 7 I. Dinnyés – K. Kővári – Zs. Lovag – S. Tettamanti – J. Topál – I. Torma: Pest megye régészeti topográfiája 13/1. A budai és a szentendrei járás [Archaeological topography of Pest county 13/1. The district of Buda and Szentendre]. MRT 7. Budapest 1986.

Nemeskéri – Harsányi – Acsádi 1960 J. Nemeskéri – L. Harsányi – Gy. Acsádi: Methoden zur Diagnose des Lebensalters von Skelettfunden. AnthrAnz 24/1 (1960) 103–115.

Nyíri 2013 B. Nyíri: Domb tetején kicsi ház. Egy kora bronzkori házbelső edénykészletének vizsgálata Dunaújváros-Rácdomb tell telepéről (Little house on the hill. Ceramic analysis of an Early Bronze Age household). ΜΩΜΟΣ 7. Őskoros Kutatók VII. Összejövetele, 2011. március 16–18, Százhalombatta, Matrica Múzeum. Ősrégészeti Levelek 13 (2011) [2013] 163–177.

Ortner 2003 D. J. Ortner: Identification of Pathological Conditions in Human Skeletal Remains. San Diego 2013.

Ortner – Putshar 1981 D. J. Ortner – W. G. J. Putshar: Identification of Pathological Conditions in Human Skeletal Remains. Smithsonian Contributions to Anthropology. Washington 1981.

Poroszlai 2000 I. Poroszlai: Excavation campaigns at the Bronze Age tell site at Százhalombatta-Földvár. 1. 1989–1991; 2. 1991–1993, in: *Poroszlai – Vicze 2000,* 13–73.

Poroszlai – Vicze 2000 I. Poroszlai – M. Vicze (eds.): SAX. Százhalombatta Archaeological Expedition. Annual Report 1. Field Season 1998. Százhalombatta 2000.

Poroszlai – Vicze 2005 I. Poroszlai – M. Vicze (eds.): Százhalombatta Archaeological Expedition. Report 2. Százhalombatta 2005.

Reimer et al. 2020 P. Reimer – W. E. N. Austin – E. Bard – A. Bayliss – P. G. Blackwel – C. Bronk Ramsey – M. Butzin – H. Cheng – R. Edwards – M. Friedrich – P. Grootes – T. Guilderson – I. Hajdas – T. Heaton – A. Hogg – K. Hughen – B. Kromer – S. Manning – R. Muscheler – J. Palmer – C. Pearson – J. van der Plicht – R. Reimer – D. Richards – E. Scott – J. Southon – C. Turney – L. Wacker – F. Adolphi – U. Büntgen – M. Capano – S. Fahrni – A. FogtmannSchulz – R. Friedrich – P. Köhler – S. Kudsk – F. Miyake – J. Olsen – F. Reinig – M. Sakamoto – A. Sookdeo – S. Talamo: The IntCal20 Northern Hemisphere radiocarbon age calibration curve (0–55 cal kBP). Radiocarbon 62/4 (2020) 725–757. https://doi.org/10.1017/RDC.2020.41

Reményi 2012 L. Reményi: The defensive settlements of the Vatya culture and the Central European Bronze Age exchange system, in: M. Jaeger – J. Czebreszuk – K. P. Fischl (eds.): Enclosed Space-Open Society. Contact an Exchange in the Context of Bronze Age Fortified Settlements in Central Europe. Studien zur Archäologie in Ostmitteleuropa/Studia nad Pradziejami Europy Środkowej 9. Poznań – Bonn 2012, 275–286.

Sjøvold 1990 T. Sjøvold: Estimation of stature from long bones utilizing the line of organic correlation. JHE 5 (1990) 431–444. https://doi.org/10.1007/BF02435593

Staniuk 2020 R. Staniuk: Kakucs-Turján. Tradition and Practice. Study on Pottery, Chronology and Social Dynamic of the Hungarian Bronze Age. Studien zur Archäologie in Ostmitteleuropa/Studia nad Pradziejami Europy Środkowej 19. Bonn 2020.

Staniuk 2021 R. Staniuk: Early and Middle Bronze Age chronology of the Carpathian Basin revisited. Questions answered or persistent challenges? Radiocarbon 63/5 (2021) 1525–1546. https://doi.org/10.1017/RDC.2021.83

Steinbock 1976 R. Steinbock: Paleopathological Diagnosis and Interpretation. Bone Disease in Ancient Human Populations. Springfield 1976.

Szabó 2015 N. Szabó: A Vatya időszak településszerkezete az Északkelet-Dunántúlon [The Settlement Structure of the Vatya Period in North-Eastern Transdanubia]. BA thesis at the Eötvös Loránd University, Budapest. Budapest 2015.

Szeverényi – Kulcsár 2012 V. Szeverényi – G. Kulcsár: Middle Bronze Age settlement and society in Central Hungary, in: M. Jaeger – J. Czebreszuk – K. P. Fischl (eds.): Enclosed Space-Open Society. Contact an Exchange in the Context of Bronze Age Fortified Settlements in Central Europe. Studien zur Archäologie in Ostmitteleuropa/Studia nad Pradziejami Europy Środkowej 9. Poznań – Bonn 2012, 287–351.

Szeverényi et al. 2020 V. Szeverényi – T. Hajdu – A. Marcsik – V. Kiss: Sacrifice, warfare, or burial? Middle Bronze Age "mass graves" from Érd and Makó, Hungary, in: H. Meller – R. Risch – K. W. Alt – F. Bertemes – R. Micó (Hrsg./eds.): Rituelle Gewalt – Rituale der Gewalt. 12. Mitteldeutscher Archäologentag vom 10. bis 12. Oktober 2019 in Halle (Saale) / Ritual Violence – Rituals of Violence. 12th Archaeological Conference of Central Germany, October 10–12, 2019 in Halle (Saale). Tagungen des Landesmuseums für Vorgeschichte Halle 22. Halle (Saale) 2020, 345–361.

Vicze 2011 M. Vicze: Bronze Age Cemetery at Dunaújváros-Duna-dűlő. DissPann Ser. 4 Vol. 1. Budapest 2011.

Vicze – Earle – Artursson 2005 M. Vicze – T. Earle – M. Artursson: Bronze Age site gazetteer. Benta Valley, Hungary, in: *Poroszlai – Vicze 2005,* 237–250.

Vicze – Sørensen in press M. Vicze – M. L. S. Sørensen: Living in a tell. Memory and Abandonment. Százhalombatta-Földvár Phase I (Late Koszider). Százhalombatta Archaeological Excavation 4. Archaeologica Hungarica 55. Budapest in press.

ANTÆUS