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# ANTÆUS

*Communicationes ex Instituto Archaeologico*

39/2023

*Sigel: Antaeus*



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39

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## ABBREVIATIONS

AAC	Acta Archaeologica Carpathica (Kraków)
ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae (Budapest)
ActaMusPapensis	Acta Musei Papensis. A Pápai Múzeum Értesítője (Pápa)
Acta Botanica Hungarica	Acta Botanica Hungarica. A quarterly of the Hungarian Academy of Sciences (Budapest)
Aetas	Aetas. Történettudományi Folyóirat (Szeged)
Agria	Agria. Az Egri Múzeum Évkönyve (Eger)
AgrSz	Agrártörténeti Szemle (Budapest)
AKorr	Archäologisches Korrespondenzblatt (Mainz)
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Az István Király Múzeum Évkönyve (Székesfehérvár)
Antaeus	Antaeus. Communicationes ex Instituto Archaeologico (Budapest)
AÖ	Archäologie Österreichs (Wien)
AR	Archeologické Rozhledy (Praha)
ArchA	Archaeologia Austriaca (Wien)
Archaeometry	Archaeometry (London)
Archeometriai Műhely	Archeometriai Műhely. Elektronikus Folyóirat (Budapest)
ArchÉrt	Archaeologiai Értesítő (Budapest)
ArchHung	Archaeologia Hungarica (Budapest)
Arrabona	Arrabona. A Győri Xantus János Múzeum Évkönyve (Győr)
AV	Arheološki Vestnik (Ljubljana)
BAR-IS	British Archaeological Reports – International Series (Supplementary) (Oxford)
BudRég	Budapest Régiségei (Budapest)
Burgen und Schlösser	Burgen und Schlösser. Zeitschrift für Burgenforschung und Denkmalpflege (Heidelberg)
Cahiers LandArc	Les Cahiers LandArc (Fleurance)
Castrum	Castrum. A Castrum Bene Egyesület Hírlevele (Budapest)
CommArchHung	Communicationes Archaeologicae Hungariae (Budapest)
Cumania	Cumania. Bács-Kiskun Megyei Múzeumok Közleményei. Acta Museorum ex Comitatu Bács-Kiskun (Kecskemét)
Demográfia	Demográfia. Népeségtudományi Folyóirat (Budapest)
DissPann	Dissertationes Pannonicae (Budapest)
DuDolg	Dunántúli Dolgozatok (Pécs)

Építés- Építészettudomány	Építés- Építészettudomány. A Magyar Tudományos Akadémia Műszaki Tudományok Osztályának Közleményei (Budapest)
Érem	Az Érem (Budapest)
ÉT	Élet és Tudomány (Budapest)
Ethnographia	Ethnographia. A Magyar Néprajzi Társaság Folyóirata (Budapest)
FMTÉ	Fejér Megyei Történeti Évkönyv (Székesfehérvár)
FolArch	Folia Archaeologica (Budapest)
FontArchHung	Fontes Archaeologici Hungariae (Budapest)
FÖ	Fundberichte aus Österreich (Wien)
Föld és Ember	Föld és Ember. Negyedévenként Megjelenő Tudományos Szemle (Budapest)
FrK	Földrajzi Közlemények (Budapest)
Geomorphology	Journal of Geomorphology (New York)
Gesta	Gesta. Historical Review (Miskolc)
Gymnasium	Gymnasium. Zeitschrift für Kultur der Antike und humanistische Bildung (Heidelberg)
GySz	Győri Szemle (Győr)
Határtalan Régészet	Határtalan régészet. Archeológiai Magazin. A Móra Ferenc Múzeum Régészeti Magazinja. Régészeti Ismeretterjesztő Magazin (Szeged)
HungArch	Hungarian Archaeology. E-Journal (Budapest)
Hungarian Studies	Hungarian Studies. A Journal of the International Association for Hungarian Studies and Balassi Institute (Budapest)
Jahrbuch des RGZM	Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz (Mainz)
JAMÉ	A Nyíregyházi Jósza András Múzeum Évkönyve (Nyíregyháza)
JAS	Journal of Archaeological Science (London)
JCAA	The Journal of Computer Applications in Archaeology
KDMK	Kuny Domokos Múzeum Közleményei (Tata)
KMMK	Komárom-Esztergom Megyei Múzeumok Közleményei (Tata)
Korall	Korall. Társadalomtörténeti Folyóirat (Budapest)
KRMK	A Kaposvári Rippl-Rónai Múzeum Közleményei (Kaposvár)
LDMK	A Laczkó Dezső Múzeum Közleményei (Veszprém)
MatArchSlov	Materialia Archaeologica Slovaca (Nitra)
MFME StudArch	A Móra Ferenc Múzeum Évkönyve – Studia Archaeologica (Szeged)
MHKÁS	Magyarország honfoglalás kori és kora Árpád-kori sírleletei (Budapest)
MittArchInst	Mitteilungen des Archäologischen Instituts der Ungarischen Akademie der Wissenschaften (Budapest)
MNy	Magyar Nyelv (Budapest)
Múzeumcafé	Múzeumcafé. A Múzeumok Magazinja (Budapest)

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Múzeumi Hírlevél	Múzeumi Hírlevél. A Kalocsai Múzeumbarátok Köre Kiadványa (Kalocsa)
MRT	Magyarország Régészeti Topográfiája (Budapest)
Ókor	Ókor. Folyóirat az Antik Kultúrákról (Budapest)
Ősrégészeti Levelek	Ősrégészeti Levelek. Prehistoric Newsletter (Budapest)
PA	Památky Archeologické (Praha)
PBF	Prähistorische Bronzefunde (München)
PNAS	Proceedings of the National Academy of Sciences (Washington, D. C.)
Quaternary Int	Quaternary International. The Journal of the International Union for Quaternary Research (Oxford – New York)
RégFüz	Régészeti Füzetek (Budapest)
Remote Sens	Remote Sensing (Tulsa)
Savaria	Savaria. A Vas Megyei Múzeumok Értesítője (Szombathely)
SbNM	Sbornik Národního Muzea v Praze Ser. A. (Praha)
SlA	Slovenská Archeológia (Bratislava)
SMK	Somogyi Múzeumok Közleményei (Kaposvár)
SSz	Soproni Szemle (Sopron)
Studia Hercynia	Studia Hercynia. Journal of the Institute of Classical Archaeology (Praha)
ŠtZ	Študijné Zvesti Arheologického Ústavu Slovenskej Akadémie Vied (Nitra)
Századok	Századok. A Magyar Történelmi Társulat Közlönye (Budapest)
Turul	Turul. A Magyar Heraldikai és Genealogiai Társaság Közlönye (Budapest)
UPA	Universitätsforschungen zur prähistorischen Archäologie (Bonn)
VAH	Varia Archaeologica Hungarica (Budapest)
VMMK	A Veszprém Megyei Múzeumok Közleményei (Veszprém)
WMMÉ	A Wosinsky Mór Múzeum Évkönyve (Szekszárd)
ZalaiMúz	Zalai Múzeum (Zalaegerszeg)
ZbSNM	Zborník Slovenského Národného Muzea. Archeológia (Bratislava)
ZfAM	Zeitschrift für Archäologie des Mittelalters (Köln)



ESZTER MELIS

**OBSERVATIONS ABOUT THE SETTLEMENT NETWORK  
IN THE PERIOD BETWEEN THE END OF THE EARLY AND THE START  
OF THE LATE BRONZE AGE IN NORTHWESTERN HUNGARY  
(GYŐR-MOSON-SOPRON COUNTY, HUNGARY)**

**Zusammenfassung:** Die Untersuchung des bronzezeitlichen Siedlungsnetzwerks beinhaltet wichtige Merkmale der Sozialstruktur jener Periode und reflektiert auf Lage und Aufbau der Siedlungen, bzw. auf organisatorische Aspekte der Gemeinschaften. Die ungarische und internationale Forschung fokussiert sich auf die Analyse der Tells und ihrer Umgebungen auf dem mittleren und östlichen Gebiet des heutigen Ungarns, zwischen 2200/2100 und 1500/1400 BC. Das untersuchte Areal in Nordwest-Transdanubien liegt in der bislang nur wenig untersuchten Peripherie der Kultur der transdanubischen inkrustierten Keramik (DMKK) und der davor verbreiteten Kisapostag-Kultur (oder auch früheste inkrustierte Keramikultur genannt).

Im Rahmen der Recherche in Fachliteratur, Datenbank und Museen konnte ich 75 Siedlungsspuren aus dem heutigen Komitat Győr-Moson-Sopron auf die Periode zwischen dem Ende der ungarischen Frühbronzezeit und der ersten Hälfte der Spätbronzezeit datieren. Eines der Ziele der vorliegenden Studie war die Abgrenzung der Siedlungszonen der verschiedenen Sachkulturen im Zusammenhang mit den natürlichen Gegebenheiten. Dabei stellte sich unter anderem die Frage, ob sich zwischen den Siedlungen Unterschiede bemerkbar machen, bzw. ob bei den grundsätzlichen Siedlungstypen zeitliche Veränderungen nachvollziehbar sind. Abschließend gehe ich kurz auf die Position des untersuchten Gebiets ein, die es im spätbronzezeitlichen Siedlungsnetzwerk Transdanubiens eingenommen hatte.

**Keywords:** settlement network, density analysis, hilltop settlements, open settlements, territories, Middle Bronze Age, Transdanubian Encrusted Pottery culture, Gáta–Wieselburg culture, Northwestern Hungary

The research on Bronze Age settlement networks has revealed important characteristics of the organisation of the related communities, while the setting and composition of the settlements reflect essential aspects of the structure of society. Domestic and international settlement research on the central and eastern parts of today's Hungary in the period in the focus of this study, i.e., 2200/2100–1500/1400 BC,<sup>1</sup> has always concentrated on tell settlements and their surroundings in the first place, revealing heterarchical and multi-level settlement networks.<sup>2</sup> Early and Middle Bronze Age settlement research in Transdanubia has distinguished between hilltop and open settlements.<sup>3</sup>

<sup>1</sup> *Vicze – Earle – Artursson 2005; Earle et al. 2012; Earle et al. 2014; Dani et al. 2018; Jaeger et al. 2018; Szathmári et al. 2019; Vicze – Sørensen 2023* 35–51.

<sup>2</sup> *Kulcsár – Szeverényi 2012; Duffy 2014* 279–289; *Kienlin – P. Fischl – Pusztai 2018* 11–92; *Dani et al. 2019* 853–862; *Szabó 2023*.

<sup>3</sup> *Kiss 2012a* 205–224; *Dani et al. 2019* 862–864.

The study region in Northwestern Transdanubia represents the barely researched western periphery of the distribution areas of the Transdanubian Encrusted Pottery culture (TEPC) and the preceding Kisapostag culture (or the earliest phase of TEPC).<sup>4</sup> Positioned at the meeting of three macroregions of Hungary – the more-or-less plain Little Hungarian Plain (Kisalföld), the West Hungarian Border Region, i.e., the foothills of the Alps, and the Transdanubian Mountains –, the area of Győr-Moson-Sopron County counts as a border zone from a geographical point of view, too. The largest region of the Little Hungarian Plain is the Győri-medence [Basin], stretching from the estuary of the Rába River to Lake Fertő [Lake Neusiedl] in the north-west and from the county's to the country's border with Slovakia north-south.<sup>5</sup> This region comprises plain and hilly lands, while its western zone consists of the plain wetlands of the Rápce River, i.e., the Hanság microregion. Even today, when the marshes have been drained with channels, about a quarter of Hanság's surface is covered with water in periods of abundant precipitation.<sup>6</sup> The research area also includes the western parts of the Győr–Tatai-teraszvidék [Terraces] and the Igmánd–Kisbéri-medence up to the Cuhai-Bakony Stream,<sup>7</sup> as well as the northern part of the Pápa–Devecseri-sík [Plain] and the northernmost stretches of the Transdanubian Mountains (Pannonhalmi-dombság [Hills], part of the Öreg-Bakony [Old Bakony] Mountain Range, Pápai and Sári Bakonyalja).<sup>8</sup>

The latest overview targeting the Bronze Age record of Győr and its region was the *'Bronzkori kultúrák Győr környékén'* ['Bronze Age cultures in the area of Győr'] published by Sándor Mithay in 1941.<sup>9</sup> Even this early work, based mainly on stray finds, reflects how diverse the record of the first half of the Bronze Age is in the area: besides Kisapostag and TEPC findings, Mithay mentions finds assigned to the *Litzenkeramik*, the Mad'arovce group, and the Gáta and Únětice (Aunjetitz) cultures, respectively.<sup>10</sup> István Bóna believed that in the Middle Bronze Age, the border between TEPC and the 'Gáta group' (today: Gáta–Wieselburg culture) was in the Hanság, along the Rápce/Rábca rivers; a monograph by Viktória Kiss enlists six TEPC settlements from this area.<sup>11</sup> Based on Early Bronze Age sites, András Figler outlined dissimilar evolution in the areas east and west of Hanság:<sup>12</sup> in the east, the Somogyvár–Vinkovci culture was replaced by early Kisapostag communities, while in the west, i.e., the broader area of Lake Fertő, groups of Bell Beaker origin, the Oggau–Wipfing–Ragelsdorf phase or group and the Leithaprodersdorf group appeared,<sup>13</sup> followed by sites of the Gáta–Wieselburg culture.<sup>14</sup> Little is known of the settlements of the latter; only a few partially excavated settlements have been published in Slovakia and Hungary.<sup>15</sup>

<sup>4</sup> Bóna 1975 197, Verbreitungskarte I, II; Bóna 1992 15–16; Kiss 2012a 264.

<sup>5</sup> MKK 2010 295–318.

<sup>6</sup> MKK 2010 306–308.

<sup>7</sup> MKK 2010 330–338.

<sup>8</sup> MKK 2010 325–330, 582–585.

<sup>9</sup> Mithay 1941, often cited as 'Mithay 1942'. The related work was published first in 1941 as a separate study and in 1942 as a chapter of the monograph *Győr története a vaskorszakig* [The Prehistory of Győr until the Iron Age] by Sándor Gallus and Sándor Mithay (in the series *Győr szabad királyi város monográfiái* [Monographs of the Free Royal Town of Győr] edited by Elemér Lovas); this latter version became widely known later.

<sup>10</sup> Mithay 1941 3–16.

<sup>11</sup> Bóna 1975 235–236; Kiss 2012a: Bakonyszentlászló–Kesellőhegy I. (11), Dör (75), Győr–Ménfőcsanak–Bevásárlóközpont (115), Győr–Ménfőcsanak–Szeles-dűlő (116), Mosonszentmiklós–Akasztódomb (215), Románd–Pápai út (266).

<sup>12</sup> Figler 1994.

<sup>13</sup> Figler 1994; Neugebauer 1994 44–48; Kiss 2012b 321, fig. 3.

<sup>14</sup> Leeb 1987 Abb. 1; Nagy 2013; Melis et al. 2022.

<sup>15</sup> Károlyi 1984; Mellnerová Šuteková et al. 2015; Bartík et al. 2016; Melis et al. 2022.

In the north, along the Danube River, the study area borders some groups of the Únětice culture, a predominant cultural complex in the Early Bronze Age of Central Europe.<sup>16</sup> Its late period is represented by the Věteřov culture and its Böhheimkirchen group in Moravia and Lower Austria, the Mad'arovce culture in Slovakia, contemporary with the second half of the Middle Bronze Age in Hungary.<sup>17</sup> Lately, traits of the late Únětice and Věteřov cultures have been identified in the record of several Middle Bronze Age settlements in western Hungary, which indicate the spreading of the Mad'arovce–Věteřov–Böhheimkirchen complex in the area.<sup>18</sup> Vessels typical of the Mad'arovce culture appear in late TEPC find assemblages, including the settlement at Mosonszentmiklós-Akasztódomb.<sup>19</sup> Besides, *Litzenkeramik* (pseudo-corded ware) vessels can be observed in the Middle Bronze Age settlements in Northwestern Transdanubia, always accompanied by finds with other cultural connections.<sup>20</sup> Occasional *Litzenkeramik* vessels appear in the record of the sites from the Late Kisapostag–Early Encrusted Pottery phase, while their proportion in early Tumulus culture find assemblages is considerably higher.<sup>21</sup> The Tumulus culture gained ground in the territory of the county at the end of the Middle Bronze Age; several settlements are available in academic literature and enlisted in the Central Register of Archaeological Sites in Hungary (IVO), and information about some partially excavated settlements from the older phase of the culture has also been published.<sup>22</sup>

A complex research of the related literature, data archives, and museum collections<sup>23</sup> yielded information about 75 settlements altogether in the territory of Győr-Moson-Sopron County from the period between the end of the Early and the start of the Late Bronze Age (*Table 1*).<sup>24</sup> All data of the sites were mapped and analysed in QGIS; this phase included a kernel density

<sup>16</sup> *Bóna 1992* 16–17; *Neugebauer 1994* 101–118; *Furmánek – Veliačik – Vladár 1999* 33–40, Abb. 8; *Krenn-Leeb 2011* Abb. 1.

<sup>17</sup> *Bóna 1992* 16–17; *Neugebauer 1994* 119–140; *Furmánek – Veliačik – Vladár 1999* 47–49, Abb. 13.

<sup>18</sup> *Kvassay – Kiss – Bondár 2004* 126–139, figs. 11–19; *Békei 2007*; *Kiss 2012b*; *Ilon – Nagy 2013*; *Melis 2014*.

<sup>19</sup> *Torma 1976*; *Kiss 2002* 484–490, Abb. 5–7; *Melis 2023* 118–127.

<sup>20</sup> The field report mentions a *Litzenkeramik* settlement from Rábapatonna-Országúti-dűlő sites I and II; however, the object photos and drawings in the database of the Hungarian National Museum (HNM) reflect early Kisapostag-style fragments (HNM Archaeological Database, <https://archeodatabase.hnm.hu/hu/node/787>, and <https://archeodatabase.hnm.hu/hu/node/786>, both accessed on 18.05.2023).

<sup>21</sup> *Kovács 1997*; *Vékony 2000*; *Kiss 2013*; *Melis 2017*; *Ilon 2019*.

<sup>22</sup> As the dating of most sites known from reports and diverse site registers was given only as ‘Tumulus culture’, without further specification, there is no information about their age within the period. In some cases, the descriptions mention early Tumulus culture characteristics (*Figler 1993a*; *Figler 1997a*; *Egry 2002*; *Ilon 2019*). The list of sites behind this study does not include those from the transitive phase of the Tumulus and Urnfield cultures (e.g., Börcs-Paphomlok: *Figler 1996a*; Mosonmagyaróvár-Német-dűlő: *Figler 1997d*; Mosonszentmiklós-Gyepföldek-dűlő: *Aszt 2001*).

<sup>23</sup> In 2015, at the start of the related research, the remains of 21 settlements, mentioned in diverse publications, could be connected with this period (*Melis 2017* fig. 1, Appendix). This list was completed with sites via research in archives and museum collections, during which Judit Antoni, Ágnes Aszt, Szilvia Bíró, Dávid Czigány, Tamás Czuppon, Ildikó Egry, János Gömöri, András Hargitai, János Hatos, Róbert Herbály, Gábor Ilon, Attila Mrenka, Andrea Nagy, Veronika Németh, Krisztina Pesti, Péter Polgár, Bálint Savanyú, Péter Tomka, Ferenc Ujvári, and Júlia Zámbo helped me. I am grateful to them for the possibility to survey and process their find materials and the additional information about their observations in the excavations. I surveyed the excavated find material of the included the Early and Middle Bronze Age sites, where it was possible, and even processed some (*Table 1*, sites 25, 41, 45, and 49); as a result, their original field dating has been modified in more than one cases (e.g., *Table 1*, sites 4, 7, 15, 21, 25, and 48).

<sup>24</sup> *Melis 2023*. The study area covered the territory of Győr-Moson-Sopron County, the administrative areas of Fenyőfő, Bakonyszentlászló, Veszprémvarsány, Bakonygyirót, Románd, Sikátor, Bakonypéterd, and Lázi, which belonged to Veszprém County until 1999 and 2002 also included.

analysis of spatial data. This study aims to delineate distinct inhabitation zones of communities with dissimilar cultural ties in context with diverse natural settings. Besides, we seek to answer whether there are differences in the structure of the settlements of culturally distinct communities and whether main settlement types change over time. Finally, the place of the study area in the Middle Bronze Age settlement network of Transdanubia is evaluated.

### *Inhabitation zones*

The changes in the inhabitation zones of distinct cultural units were studied in three phases: the transitive phase of the Early and Middle Bronze Ages (2200/2100–1900/1800 BC), the Middle Bronze Age (1900/1800–1600/1500 BC), and the transition from the Middle to Late Bronze Ages and the early Late Bronze Age (1600/1500–1300/1200 BC), respectively. The first phase, i.e., the transitive phase of the Early and Middle Bronze Ages, includes the settlements of the Kisapostag and the Gáta–Wieselburg cultures, which appear clearly separately on the kernel density map even with a supposed 10-km-radius catchment area, as the nearest settlements are 30 km away (*Table 1*, sites 4 and 6). The westernmost site of the Kisapostag culture in the study area is Barbac-Lanizsaidúló (*Table 1*, site 4), the find material of which comprises pottery with wrapped stick<sup>25</sup> and pattern tool impressions filled with encrustation and miniature wagon wheels in pottery.<sup>26</sup>

While the settlements of the Kisapostag culture were concentrated in the central part of the Little Hungarian Plain and were scattered in the northern foothill region of the Transdanubian Mountains, communities of the Gáta–Wieselburg culture inhabited only the West Hungarian Border Region and the north-western corner of the Hungarian part of the Little Hungarian Plain. The biggest concentration of Kisapostag settlements was observed in the northern part of the Pápa–Devecseri-sík and the northern and central zones of the Csornai-sík (*fig. 1*). This concentration may partly be a result of research inhomogeneity and partly due to the Rába–Rábca–Danube and Marcal rivers joining in this land. It has remained a question whether the perimeter ditches engirding several settlements at a distance of only 5 km from each other (*Table 1*, sites 16, 57, and 59) are the marks of central settlements or enclosing the settlement this way was simply a custom in the region. Hilltop settlements of the culture have been discovered in the Pannonhalmi-dombság and the Pápai Bakonyalja in the south-east (Ravazd-Villibald-domb, Bakonyszentlászló-Kesellő-hegy I; *Table 1*, sites 3 and 64).

Currently, only a few Gáta–Wieselburg settlements have been identified in the territory of Hungary. Two settlements are known from the Leitha region in the northern part of the Mosoni-sík (*Table 1*, sites 25 and 62), and more, including two supposed hilltop settlements, in the one-time wetlands around Lake Fertő and the Fertő-medence (*Table 1*, sites 12, 14, and 49). Besides, Gáta–Wieselburg settlements were scattered on the Répce-sík, a lower plain region of the West Hungarian Border Region at the border of Győr-Moson-Sopron and Vas counties (*Table 1*, sites 6 and 73).

In the Middle Bronze Age (1900/1800–1600/1500 BC), numerous settlements of TEPC have been established in the central part of the Little Hungarian Plain and the northern stretches of

<sup>25</sup> V. Kiss refers to this technique as ‘reeled stick’ impression; see *Kiss 2012a* 18–19.

<sup>26</sup> *Nagy – Pesti 2019a*.



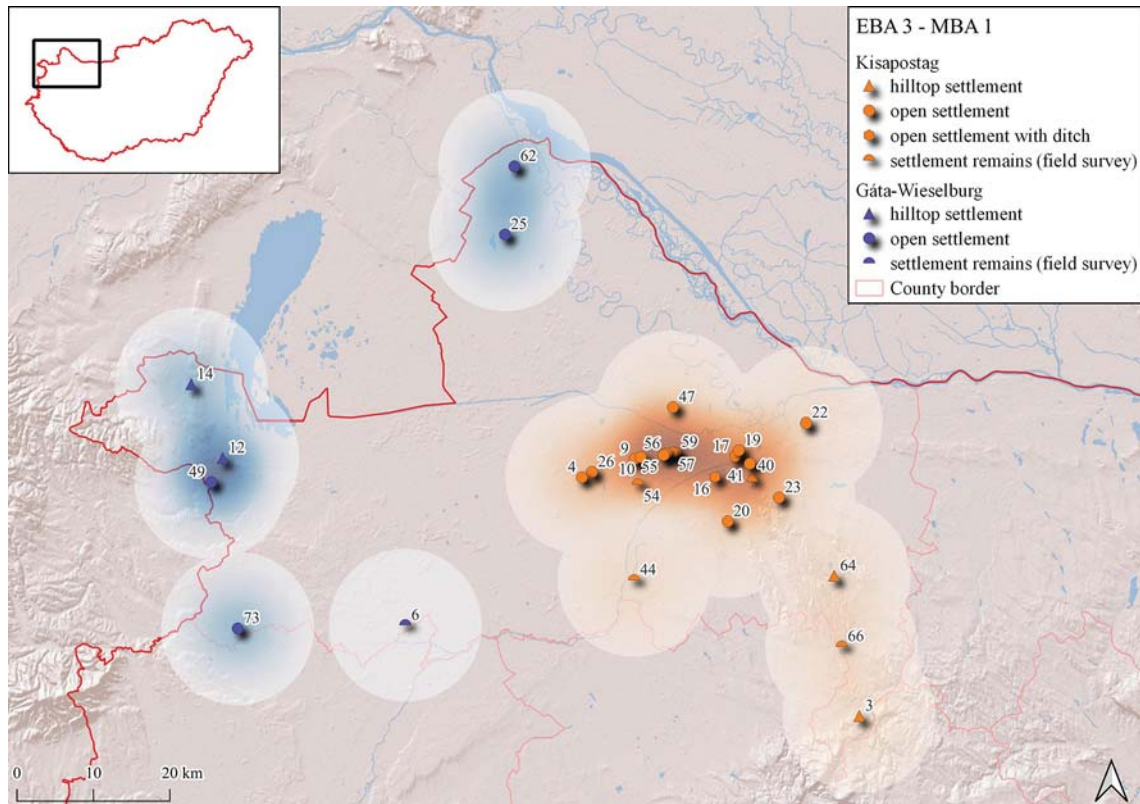


Fig. 1. Kernel density map with a 10-km catchment area of the settlements of communities with diverse cultural backgrounds (Gáta–Wieselburg, Kisapostag) in the transitive phase of the Early and Middle Bronze Ages in the area of Győr-Moson-Sopron County (site numbers are resolved in *Table 1*) (©Eszter Melis)

the Transdanubian Mountains (*fig. 2*).<sup>27</sup> The most intensive inhabitation covered the Csornai-sík, while the number of their settlements north of that, along the Danube, was considerably higher than in the previous (Kisapostag) phase; thus, the southern part of the Mosoni-sík was also inhabited densely by TEPC communities. In contrast, no TEPC settlements are known from the right bank of the Marcal River, i.e., the Pápa–Devecseri-sík. Another seeming settlement concentration is to be observed in the Pannonhalmi-dombság: the surface finds of the identified settlements were collected in extensive field walking surveys conducted as part of the preparation of Volume 4 of the *Archaeological Topography of Hungary* series,<sup>28</sup> as well as other projects in the area of Sokoró<sup>29</sup> (*Table 1*, sites 1, 2, 3, 67, 69, and 70).

<sup>27</sup> Gábor Bándi mentions several TEPC sites (stray finds and cemeteries) from the Kapuvár Plain (*Bándi 1972* 46–47, Map 2); however, Viktória Kiss does not consider some related to the culture (*Kiss 2012a* 64, footnote 246). The fragments of the urn with outward-bulging rim in the material of the 1958 excavation at Kisfalud-Kázmérdomb (*Nováki 1959* 8–9) point to the previous Early Bronze Age Phases 1 and 2. Páli-Kispáli-dűlő is mentioned as a ‘Bronze Age’ urn cemetery, the material of which has been lost since its discovery (*Nováki 1960b* 10). Besides, János Gömöri mentions Middle Bronze Age pits with encrusted pottery fragments from Sopron-Bécsi u., Határátkelő, excavated in 1993 (*Gömöri 1996*). I had no chance to examine this material until now, but, as I have found pottery with encrusted decoration both in late Únětice/Věteřov (*Melis 2014* 54–56) and Tumulus culture contexts (*Melis 2020* 357, note 32) in the territory of Győr-Moson-Sopron County, I believe currently there is no conclusive evidence of the settling of TEPC communities west of the Csornai-sík.

<sup>28</sup> *MRT* 4 26, site 3/3, 39, site 8/7, 51, site 12/11, 224, site 68/13.

<sup>29</sup> *Molnár 2009*.

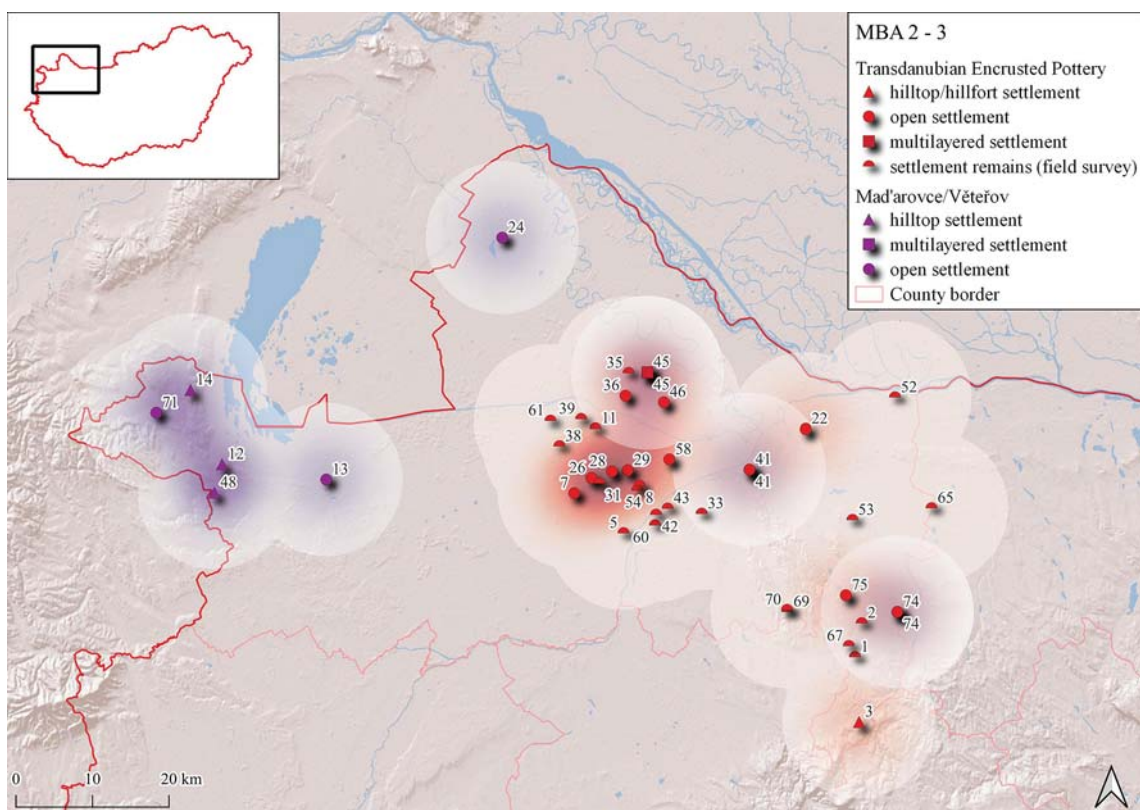


Fig. 2. Kernel density map with a 10-km catchment area of the settlements of communities with diverse cultural backgrounds (TEPC, Mad'arovce–Věteřov) in the Middle Bronze Age in the area of Győr-Moson-Sopron County (site numbers are resolved in *Table 1*) (©Eszter Melis)

Life in the Kisapostag and TEPC phases was continuous on several settlements on the Csornai-sík, the Győr–Tata Terraces, and in numerous microregions of the Transdanubian Mountains (*Table 1*, sites 3, 22, 26, 41, and 64); while some sites founded by TEPC communities also remained in use in the following Tumulus culture phase (*Table 1*, sites 7, 39, 41, and 61). Besides, artefacts in the style of the coeval Mad'arovce–Věteřov–Böheimkirchen complex and the *Litzenkeramik* appear in the find material of numerous TEPC settlements (*Table 1*, sites 41, 45, 54, and 74). The proportion of Mad'arovce- or Věteřov-style find material in the record of some TEPC settlements east of Hanság is higher (*Table 1*, sites 41, 45, and 74), based on which the settling of the related communities may be hypothesised in these cases. We have little information on how many settlements of the Gáta–Wieselburg culture survived into the younger and late phases of TEPC; the few encrusted pottery vessels recovered from Gáta–Wieselburg graves could be linked with the Late Kisapostag–Early Encrusted Pottery phase and the older phase of TEPC, while the graves themselves bear Únětice or Věteřov characteristics.<sup>30</sup>

The Late Kisapostag–Early Encrusted Pottery-style pottery found together with late Únětice/early Věteřov-style find material indicate that late Únětice/Věteřov communities settled in Transdanubia in the older phase of TEPC.<sup>31</sup> Based on these chronological anchors of contemporaneities, settlements with Mad'arovce- and Věteřov-style find material are presented here together with those of TEPC (*fig. 2*). Sites of primarily Mad'arovce and Věteřov character seem to have been frequent south of Lake Fertő in the West Hungarian Border Region, their

<sup>30</sup> Neugebauer 1994 Abb. 30. 3; Kiss 2000 28, Tab. 1, Tab. 2. 19–20; Kiss 2002 Abb. 1. 1, Abb. 2. 19–20; Melis 2015 349, Tab. II. 2.

<sup>31</sup> Békei 2007 53–54; Melis 2014 56.

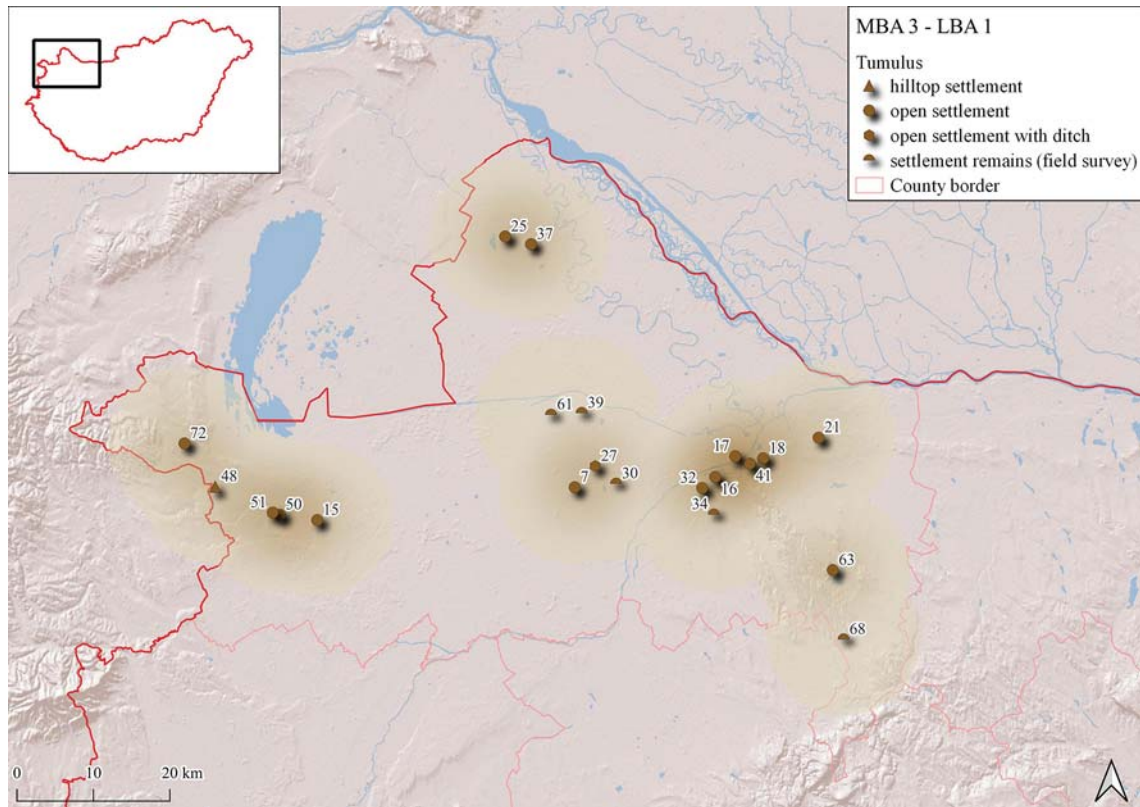


Fig. 3. Kernel density map of Tumuluss culture settlements in the transitive phase of the Middle and Late Bronze Ages in the area of Győr-Moson-Sopron County (site numbers are resolved in *Table 1*)  
(©Eszter Melis)

distribution overlapping the dwelling area of communities of the Gáta–Wieselburg culture (*Table 1*, sites 12, 13, 14, 48, and 71), while some were also identified in the northern and southern zones of the Moson Plain, at the estuary of the Rába River, and in the foothill region of the Transdanubian Mountains (*Table 1*, sites 24, 41, 45, and 74). Albeit there may be chronological differences between the sites (e.g., the settlement at Ménfőcsanak belongs to Phase 2, while Mosonszentmiklós to Phase 3 of the Middle Bronze Age), these ‘western’-style find assemblages east of Hanság seem to appear at strategic places (meeting zone of diverse regions and estuaries), indicating a patchwork of all cultures having inhabited the territory of Győr-Moson-Sopron County in Phases 2 and 3 of the Middle Bronze Age. Due to a lack of detailed information on the intensity and extent of most sites, only fortified and hilltop settlements were assigned to a higher category, and the multilayer settlement at Mosonszentmiklós-Akasztódomb can be interpreted as some kind of centre (*Table 1*, sites 3 and 45).

At the turn of the Middle and Late Bronze Ages and in the early Late Bronze Age (1600/1500–1300/1200 BC), settlements of the Tumuluss culture appeared in the region in focus. Based on a kernel density map of known settlements, where each site has been given a catchment area of 10 km in radius, the dwelling zone of the related communities stretched, with lesser gaps, northwest-southeast from the northern part of the Moson Plain to the feet of the Transdanubian Mountains (*fig. 3*). The disappearance of the patchwork of communities with diverse cultural backgrounds along the Moson Danube River is an important change compared to the previous phase; the most intensively settled area in this phase is along the Rába River. Available data suggest that the Hanság and Kapuvári-sík microregions were uninhabited in the early Late Bronze Age; the distance between the Tumuluss culture settlements at Dör and Fertőszentmiklós

is more than 30 km (*Table 1*, sites 7 and 15). The communities inhabiting the Ikva-sík south of Lake Fertő in the west had a cultural background similar to those in the Little Hungarian Plain at the time (*Table 1*, sites 15, 48, 50, 51, and 72).

While the available body of data on settlement networks depends heavily on how well-researched each included area is, it allows drawing some conclusions and outlining major tendencies. In the transitive phase of the Early and Middle Bronze Ages, communities of diverse cultural units inhabited spatially distinct zones in the western and eastern parts of the study area. During the Middle Bronze Age, the area occupied by TEPC communities was bigger than that of the Kisapostag culture in the previous period and included Mad'arovce–Věteřov elements, which appeared in the western zone in the late phase of the Gáta–Wieselburg culture; also, Mad'arovce–Věteřov communities probably established separate settlements in those parts. The cultural difference between the eastern and western halves of the study area disappeared at the transition of the Middle and Late Bronze Ages when Tumulus culture communities settled all over the region. Although the lands between the Csorna- and Ikva-sík have remained uninhabited throughout this period, too, Tumulus culture settlements appeared along the Rábca and Moson Danube rivers in the Mosoni-sík.

### *Settlement types*

The collected sites from the end of the Early and the Middle Bronze Age in Northwestern Transdanubia were classified as open and hilltop settlements based on their location. Settlements positioned on top of elevations at least 20 m above the surrounding area and with steep slopes on at least two sides were considered hilltop settlements. As the remains of earthworks are usually barely visible and their dating is problematic, the only certainly fortified settlement from the period in focus in the territory of Győr-Moson-Sopron County is Bakonyszentlászló-Kesellő-hegy I. (*Table 1*, site 3). The foundations of perimeter ditches have been identified on several hilltop and open settlements (*Table 1*, sites 16, 27, 40, 57, and 59), but interpreting them as the remains of fortifications is debated (see more about these features below). Most excavation data indicate single-layer open settlements; as even the excavated sites are only partially unearthed and the processing of the recovered find material and data of only a small proportion has been completed, little is known about their extent, and their structure could hardly be investigated either. We only know of a single multilayer settlement (*Table 1*, site 45). Besides, settlements identified exclusively from surface finds recovered in field walkings in the collection were handled separately (*fig. 4*).

#### *Open settlements*

In the collection, most settlements dated to 2200/2100–1500/1400 BC were positioned on low elevations of only a couple of metres above their environment. Previous overviews of the Gáta–Wieselburg culture mention two settlements in the territory of Győr-Moson-Sopron County, at Szakony-Kavicsbánya and on the outskirts of Fertőszéplak.<sup>32</sup> Most newly identified sites of the culture are also open and single-layer ones (*Table 1*, sites 6, 25, 49, and 62). Settlement pits and building-related features of the culture have been unearthed on top of a slight elevation north-west of the Arany Stream at Nagycenk-Kövesmező.<sup>33</sup> The identification of Gáta–Wieselburg settlements is problematic because they often appear together with the record of other Bronze

<sup>32</sup> *Leeb 1987* 236–237; *Nagy 2013* 79–80. As the context of the artefacts from Fertőszéplak is uncertain, they were classified as stray finds.

<sup>33</sup> *Melis et al. 2022* fig. 2.

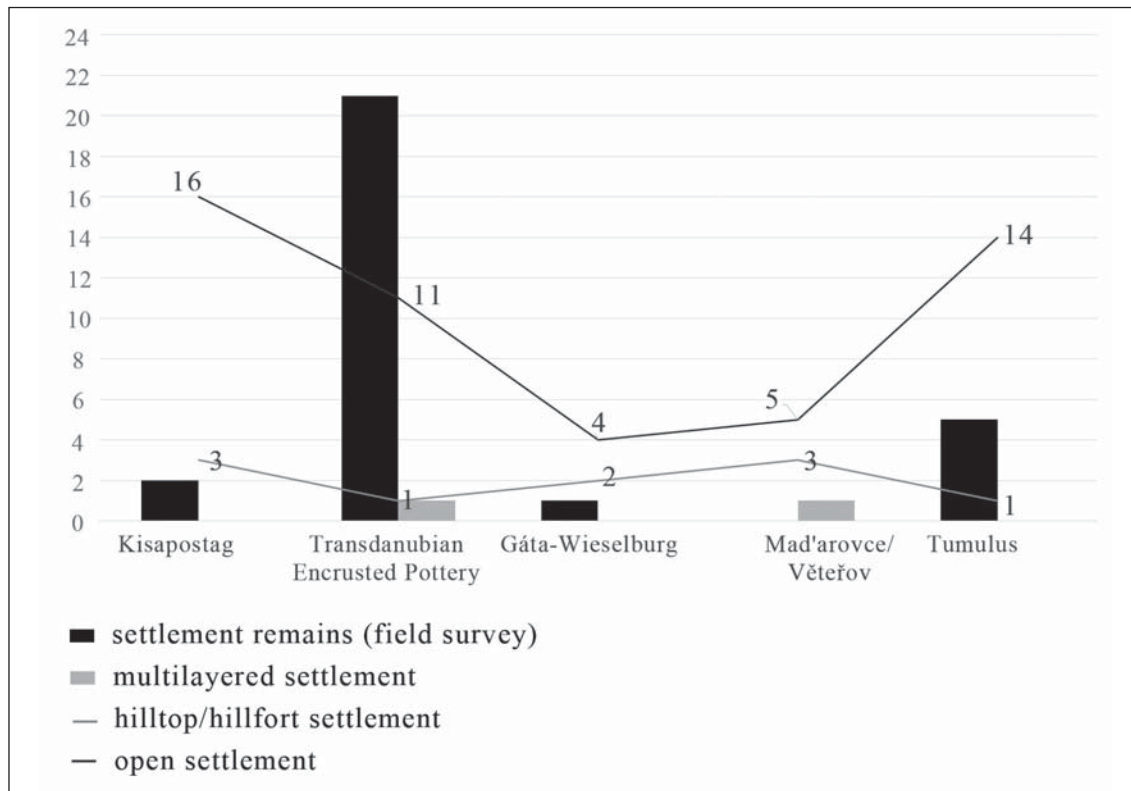


Fig. 4. Distribution of settlement types in diverse cultural units (©Eszter Melis)

Age cultures (Tumulus culture, *Litzenkeramik*, Mad'arovce–Věteřov–Böheimkirchen complex). For example, the building excavated at Hegyfalú (Vas County) contained a blend of Tumulus culture and Gáta–Wieselburg-style finds.<sup>34</sup>

The settlement at Nagycenk was probably continuously inhabited after Phase 2 of the Early Bronze Age. As the result of a systematic field walking survey of the site, a 40-hectare settlement was outlined on the eastern, southern, and western slopes of the low elevation (with its top at 169 m a.B.s.l.).<sup>35</sup> Tumulus culture settlement features were also unearthed at Hegyeshalom-Országúti-dűlő; the fifteen features (mostly pits) associated with the Gáta–Wieselburg culture were scattered in a slightly sloping 20-hectare area at 125 m a.B.s.l.<sup>36</sup> In summary, both Gáta–Wieselburg settlements in the territory of Győr-Moson-Sopron County are over 10 hectares in extent, situated on slightly sloping land, and seem to have a dispersed, loose structure. Besides, Gáta–Wieselburg settlement features and findings have been published from Oroszvár (Bratislava-Rusovce, Slovakia); albeit the diverse development-led excavations on the site only concerned small areas, the results have also outlined an open settlement with settlement features of the Věteřov culture nearby.<sup>37</sup> While according to observations of Gáta–Wieselburg sites in Austria, the culture's settlements were usually situated away from cemeteries,<sup>38</sup> the distance between them at Oroszvár (Bratislava-Rusovce, Slovakia), Nagycenk, Hegyeshalom, and Szakony was always less than a kilometre, sometimes no more than a few hundred metres.<sup>39</sup>

<sup>34</sup> Károlyi 1984 133–143.

<sup>35</sup> Melis et al. 2022; Melis et al. 2023.

<sup>36</sup> Aszt 2008; Melis 2023 figs. 24–25.

<sup>37</sup> Mellnerová Šuteková et al. 2015; Bartík et al. 2016.

<sup>38</sup> Krenn-Leeb 2011 19.

<sup>39</sup> Nováki 1960a; Nováki 1965a; Bartík et al. 2016; Gömöri – Melis – Kiss 2018 fig. 1; Melis 2023 fig. 16.

The settlements of the Kisapostag culture in the previous period were also situated on low elevations; however, perimeter ditches were discovered around several of them (*Table 1*, sites 16, 40, 57, and 59). Circular ditches were a characteristic of settlements in Transdanubia at the end of the Early Bronze Age. As settlement features are usually found both in and outside the enclosed area,<sup>40</sup> the function of these structures is a question: they could have a role in defence, a function related to subsistence (e.g., animal keeping), or could separate social or ritual spaces. Most known circular ditches of the Kisapostag culture are clustered in the western zone of Lake Balaton.<sup>41</sup> Amongst the Kisapostag settlements from Győr-Moson-Sopron County in the collection, perimeter ditches are especially frequent at the estuary of the Rába River, where they occur on both plainland and hilltop settlements (*Table 1*, sites 16, 40, 57, and 59). Based on preliminary reports on the research of settlements in Northwestern Hungary, Early Bronze Age settlement features were found exclusively within the enclosed area.<sup>42</sup> In context with the enclosed settlement concentration at the western (western zone of Lake Balaton) and northwestern (estuary of the Rába River) fringes of the distribution area of the Kisapostag culture, the possibility of their defensive role arose. However, it is difficult to see clearly in this question as considerably fewer Kisapostag settlements have been identified in the central zone of the culture's distribution area, and the material obtained from most still awaits processing.

A general structure of the Kisapostag culture's open settlements may be reconstructed from excavation material: settlement phenomena are usually scattered over large areas. For example, at Ménfőcsanak-Széles-földek (112–116 m a.B.s.l.), settlement features dating to the end of the Early and the start of the Middle Bronze Age were scattered over an area of 60 hectares, outlining several clusters.<sup>43</sup>

In contrast to the previous Kisapostag period, no limiter structure could be identified on TEPC settlements, while surface settlement traces were identified on field walks in Győr-Moson-Sopron County. Identified by their characteristic pottery record, a considerable part (21 sites) of TEPC sites is only known from field walk data (*fig. 4*).<sup>44</sup> Besides, sixteen sites are known from preliminary excavation reports, based on which the standard TEPC settlement in the territory of Northwestern Hungary was single-layer. An area of about three hectares in the higher zones of the horizontal settlement at Ménfőcsanak-Széles-földek, established by a community of the Kisapostag culture, remained in use in the early phase of TEPC. Based on the excavated find material, the settlement features assigned to the older phase of TEPC were concentrated in the eastern zone of the slight elevation at 116 m a.B.s.l.<sup>45</sup>

The site at Mosonszentmiklós-Akasztódomb is the single known multilayer TEPC settlement in the county. The two buildings on top of each other – or two phases of the same house – in a 1.20-1.40 m-thick Bronze Age layer indicate at least two occupation horizons. The upper horizon contained abundant and characteristic find material of younger and late TEPC, with some

<sup>40</sup> *Bondár 1989* Abb. 5; *Kiss 2003* fig. 10; *Kiss 2012a* 206–207, fig. 57.

<sup>41</sup> Balatongyörök: *Torma 1972a*; Balatonmagyaród: *Bondár 1989*; *Bondár – Honti – Kiss 2000*; Ordacsehi: *Kiss – Kulcsár 2007*; *Kiss 2007*; Vörs: *Honti 1996* 47–48.

<sup>42</sup> *Egry 2003a*; *Polgár 2018a*; *Polgár 2020*.

<sup>43</sup> *Melis 2014* fig. 2; *Tóth – Melis – Ilon 2016* fig. 2; *Melis 2023* fig. 40.

<sup>44</sup> It must be kept in mind that as in several cases the sites were surveyed by archaeologists specialised in periods other than the Bronze Age, the few encrusted fragmentary pottery finds were often identified as TEPC even if they belong actually to the Late Kisapostag–Early Encrusted Pottery phase or the Kisapostag culture. However, the data from the 1994 field walk survey led by Károly Takács can be considered more reliable as that project was coordinated by András Figler (*Table 1*, sites 8, 11, 30, 31, 38, 39, 54, and 61).

<sup>45</sup> *Tóth – Melis – Ilon 2016* fig. 2.

Mad'arovce-style artefacts.<sup>46</sup> Shared settlements of the Mad'arovce culture and TEPC are frequent in the neighbouring Komárom-Esztergom County, especially along the Danube River; two evaluations of a completely and a partially unearthened site have been published.<sup>47</sup> In Southwestern Slovakia, Mad'arovce culture settlements often include multiple occupation horizons<sup>48</sup> or were established on top of previous Únětice and/or Hatvan culture layers.<sup>49</sup> Such settlements are usually fortified there and in the Slovakian part of the Little Hungarian Plain, too.<sup>50</sup> Based on these analogies, the settlement at Mosonszentmiklós-Akasztódomb may be interpreted as a local centre in this period.

All known settlements of the Tumulus culture but Nagycenk-Alsó-domb-dűlő (*Table 1*, site 48) are positioned on top of low elevations and are single-layer, albeit the buildings renewed close to each other on the settlement of Kóny-Gázvezeték I., Babarcsi tópart (*Table 1*, site 27) attest to intensive settling.<sup>51</sup> The ditch section unearthened north-east of the post-framed buildings on this site may be the remains of the one-time perimeter ditch.<sup>52</sup>

### *Hilltop settlements*

The foregrounds of the Transdanubian Mountains are spotted with hilltop settlements of the Kisapostag culture (*Table 1*, sites 3, 40, and 64). The site at Ravazd-Villibald-domb, on top of a hill towering 163 m above the Pándzsa Stream, was described earlier by András Figler as the only 'Kisapostag' settlement of the county (*fig. 5. 2*).<sup>53</sup> An Early Bronze Age depot with bronze and gold items was found at the south-western rim of the hill in 1984;<sup>54</sup> the test excavation in the same area revealed eleven pits and a grave of the Kisapostag culture, while another pit contained late Kisapostag pottery with transitional TEPC stylistic traits.<sup>55</sup> Later summaries also mention a shaft-hole axe casting mould found together with a late Somogyvár–Vinkovci-style vessel.<sup>56</sup> Further research on the site focused on the medieval church;<sup>57</sup> Károly Takács carried out field walks on the hilltop and mentions fortifications on the northern side.<sup>58</sup> The higher proportion (compared to coeval sites) of wild game and small ungulates (sheep and goat) in the 1984 excavation record of the Somogyvár–Vinkovci and Kisapostag horizons of the site was explained by its relatively high location.<sup>59</sup> Ménfőcsanak-Csanak-hegy (Szamár-domb) is situated on the northern end of the same eastern range of hills of the Pannonhalmi-dombság as Ravazd-Villibald-domb (*fig. 1*, sites 40 and 64), on top of a marked elevation at 142 m a.B.s.l., with a good view to the north (*fig. 5. 1*). Péter Polgár has identified a wide and deep ditch of the Kisapostag culture high in the side of the hill, while a semi-sunken building of the same culture has been unearthened on the top.<sup>60</sup> The settlement at Bakonyszentlászló-Kesellő-hegy I., over 350 m a.B.s.l. in the High Bakony Mountains, included settlement features of the Kisapostag culture, the Late Kisapostag–Early

<sup>46</sup> *Uzsoki 1959 54–55; Melis 2023 118–127.*

<sup>47</sup> *Kovács 1988 120–121; Vadász 2001; Cseh 1999 29–30, 79.*

<sup>48</sup> *Točík 1964; Točík 1978–1981.*

<sup>49</sup> *Točík 1981; Batora et al. 2012.*

<sup>50</sup> *Furmánek – Veliačik – Vladár 1999 47–49; Batora 2018 fig. 87.*

<sup>51</sup> *Egry 2002 9–10, Map 3.*

<sup>52</sup> *Egry 2002 11, Map 3.*

<sup>53</sup> *Figler 1985.*

<sup>54</sup> *Figler 1985; Figler 1986.*

<sup>55</sup> *Figler 1985; Figler 1986.*

<sup>56</sup> *Figler 1994 fig. 2, 30; Kulcsár 2009 381, No. 177; Dani 2013 Appendix 6, fig. 6.*

<sup>57</sup> *Tomka 1997.*

<sup>58</sup> *Takács 2009 266.*

<sup>59</sup> *Bartosiewicz 1996 35, Table 2, figs. 2–3.*

<sup>60</sup> *Polgár 2018a.*

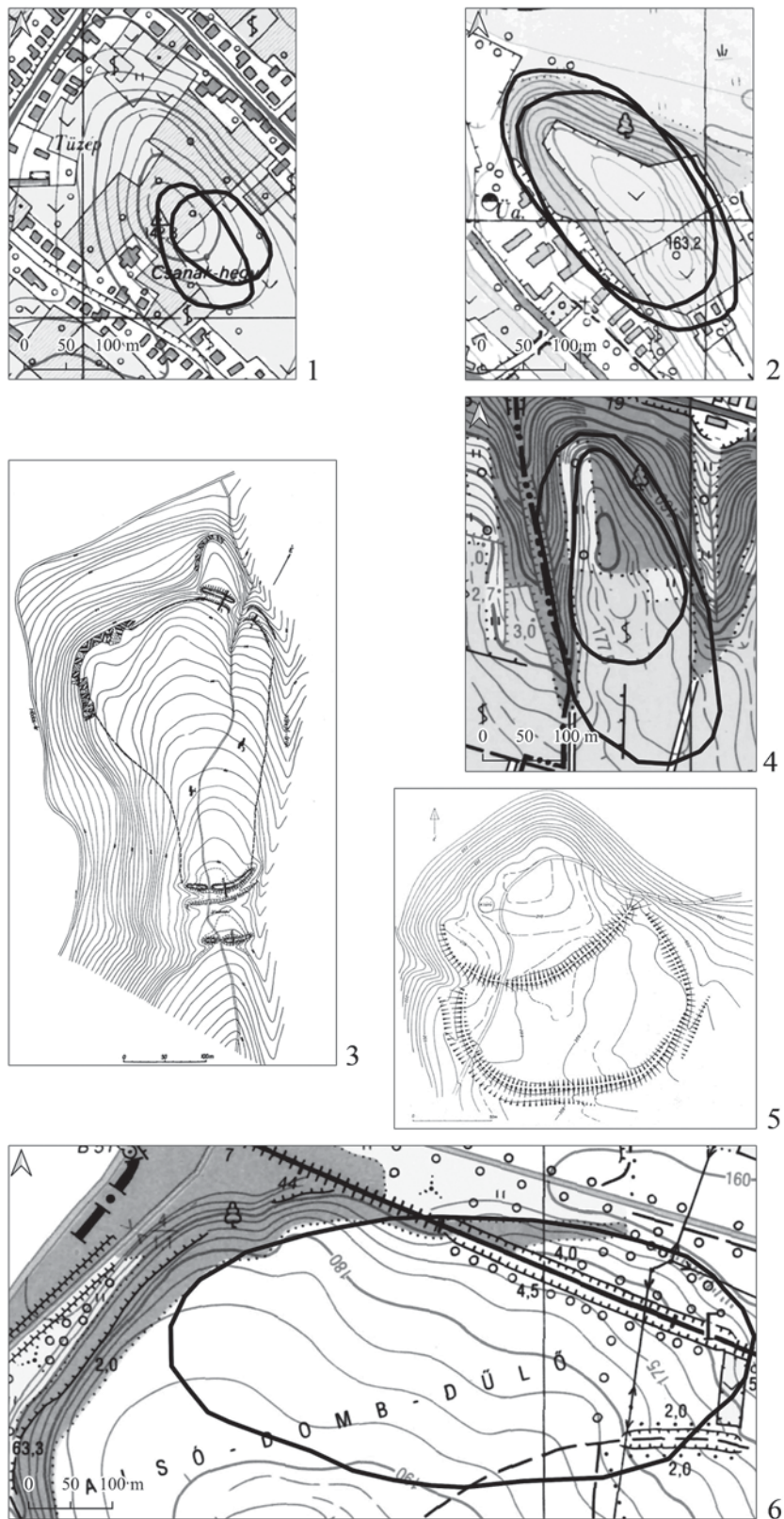


Fig. 5. Hilltop and hillfort settlements in the area of Győr-Moson-Sopron County at the end of the Early and in the Middle Bronze Age. 1. Ménfőcsanak-Csanak-hegy (Szamár-domb) (Győr); 2. Ravazd-Villibald-domb; 3. Bakonyszentlászló-Kesellő-hegy I. (after *Nováki 1979* Abb. 2); 4. Fertőboz-Gradinahegy; 5. Fertőrákos-Kecskehegy (after *Nováki 1997* 30); 6. Nagycenk-Alsó-domb-dűlő (©Eszter Melis)



Encrusted Pottery phase, and the older phase of TEPC (*fig. 5. 3*).<sup>61</sup> Gyula Nováki observed a more than 60 cm thick layer with Bronze Age material on the site and dated, based on pottery, the stone-covered earthen ramparts to the older phase of TEPC.<sup>62</sup>

In Lake Fertő's area, Gyula Nováki excavated two hilltop settlements, dating both to the first half of the Bronze Age.<sup>63</sup> Fertőboz-Gradinahegy (*fig. 5. 4*) is situated at 177.5 m a.B.s.l. on top of a narrowing hilltop at the southern rim of the Fertő Basin with three steep sides, while a double ditch-and-rampart complex closed down access on the southern side. Gyula Nováki cut through the outer rampart, erected between two palisade lines, and the ditch by its outer side in 1963.<sup>64</sup> In 1964, he also cut through the inner rampart and observed stones piled up at its outer palisade wall to support the earthen structure.<sup>65</sup> The find material is currently under evaluation; while the pottery raised the possibility of assigning the features to the Gáta–Wieselburg and/or late Únětice/Věteřov cultural complexes, a recent radiocarbon data from the remains of one of the wooden posts has questioned the Bronze Age origin of the fortifications.<sup>66</sup>

The other site is Fertőrákos-Kecskehegy in the western zone of the Fertő Basin, where Gyula Nováki investigated the fortifications of a settlement on top of a hill at 218 m a.B.s.l., towering above the valley of the Rákos Stream (*fig. 5. 5*). He opened a metre-wide exploratory trench cutting through the western end of the inner rampart in 1948, observing a similar sandwich structure with palisade walls on either side, as well as a 90 cm-wide dry stone wall between the inner edge of the ditch and the rampart.<sup>67</sup> The earthen body of the rampart comprised several Early and Middle Bronze Age pottery fragments, but Nováki also found Celtic or Roman wheel-thrown sherds close to the modern surface.<sup>68</sup> The arched outer rampart connected the two ends of the inner rampart; a ditch (a short section of which had been filled by today) run along its outer side.<sup>69</sup> A recent metal detector survey brought to light a bronze halberd of the Únětice culture from the area of the presumed hillfort.<sup>70</sup>

The settlement at Nagycenk-Alsó-domb-dűlő is situated at 180 m a.B.s.l. on top of a large plateau 20 m above the valley of the Arany Stream just before it flows into the Ikva River south of Lake Fertő (*fig. 5. 6*). Based on the pre-established criteria, this site classifies as a hilltop settlement. The two sides of the hill facing a curve of the stream are steep; the site was excavated preceding the construction of Motorway M85, but no phenomenon indicating a prehistoric fortification was unearthed.<sup>71</sup> The find material is characteristic of the transition of the Middle and Late Bronze Ages with Mad'arovce, early Tumulus culture, and abundant *Litzenkeramik*-style fragments.<sup>72</sup>

Based on the survey behind this study, hilltop settlements emerged in Northwestern Transdanubia with the Kisapostag culture; several settlements in this period – including plainland and hilltop ones – were engirded by perimeter ditches of unknown function. The clarification of the extent of the settlement at Ménfőcsanak-Csanak-hegy is problematic due partially to the area being built-up; based on its currently estimated size of 1 ha, it was a smaller one. Ravazd-

<sup>61</sup> Nováki 1979 78–84, Pl. 7–8; Kiss 2012a 270.

<sup>62</sup> Nováki 1979 78–84; Kiss 2012a 209, fig. 62, Pl. 1. 1–17.

<sup>63</sup> Nováki 1975 328, fig. 4.

<sup>64</sup> Nováki 1964a; Nováki 1964b; Nováki 1975 328.

<sup>65</sup> Nováki 1965b; Nováki 1965c.

<sup>66</sup> *Jankovits in print*. I thank Katalin Jankovits and Viktória Kiss for the information on the site.

<sup>67</sup> Nováki 1952; Nováki 1997 29–32.

<sup>68</sup> Nováki 1952; Nováki 1997 30.

<sup>69</sup> Nováki 1952; Nováki 1997 30, 32.

<sup>70</sup> Mrenka 2022 15–17, fig. 3, Tab. 3.

<sup>71</sup> Savanyú 2020c.

<sup>72</sup> I thank Attila Mrenka and Bárint Savanyú for the possibility to see the find material.

Villibald-domb (5 ha) was almost as big as the fortified area at Bakonyszentlászló-Kesellő-hegy I. (5.9 ha).<sup>73</sup> Several Middle Bronze Age hilltop settlements are known from the area of Lake Fertő; they have yet to be assigned to ceramic styles and linked with nearby settlements and cemeteries. Fertőrákos-Kecskehegy covers 3 ha,<sup>74</sup> while the plateau of Nagycenk-Alsó-domb-dűlő extends to 18 ha.

### *Outlook on the settlement networks of the surrounding areas*

Hilltop settlements probably formed the skeleton of the Middle Bronze Age TEPC settlement network.<sup>75</sup> The work summarising the data on over a hundred TEPC sites from Hungary describes fifteen as hilltop settlements.<sup>76</sup> The TEPC site register of Komárom-Esztergom County, neighbouring the study area from the east, includes four hilltop settlements of the Tokod group, a cultural unit coeval with the Late Kisapostag–Early Encrusted Pottery transitive phase and partially the older phase of TEPC.<sup>77</sup> Besides, two hilltop settlements<sup>78</sup> with the timber-supported rampart – 2 m high in the first phase and 2.5–3 m high in the second – and the related ditch surrounding the settlement at Süttő-Nagysánctető were assigned to TEPC.<sup>79</sup> In the last phase of the settlement, dating to the transition between the Middle and Late Bronze Ages (Rei Bz B), the fortification lost its function and the houses with TEPC–Mad'arovce-style find material were built on top of the ramparts.<sup>80</sup> The 1.5–1.6 m-thick layer related to multiple Bronze Age occupation horizons at Veszprém-Várhegy in Veszprém County contained material dating to the Late Kisapostag–Early Encrusted Pottery and younger TEPC phases, respectively.<sup>81</sup> Most younger TEPC hilltop settlements have been discovered in southern Transdanubia, completing previous research by Mór Wosinsky.<sup>82</sup>

Sites interpreted as central settlements in the transitive phase of the Early and Middle Bronze Ages and the Middle Bronze Age, respectively, are summarised in *Table 2* (based on literature and completing the list of data gleaned from Győr-Moson-Sopron County). These central settlements usually had more than one occupation horizon; upon mapping their supposed areas of influence,<sup>83</sup> the transitive phase of the Early and Middle Bronze Ages (2200/2100–1900/1800 BC, Kisapostag culture, Late Kisapostag–Early Encrusted Pottery transitive phase, Tokod group, Gáta–Wieselburg culture) and the Middle Bronze Age (1900/1800–1600/1500 BC, TEPC, Mad'arovce–Věteřov culture) were distinguished (*fig. 6*).

<sup>73</sup> Nováki 1979 78–79, fig. 2.

<sup>74</sup> Nováki 1997 30, 32–33.

<sup>75</sup> Dani et al. 2016 232.

<sup>76</sup> Kiss 2012a 211, 215. Bakonyszentlászló-Kesellőhegy I. (11), Szentkirályszabadja-Kőhegy II. (321), Dunaszekcső-Várhegy (83), Gyulaj-Pogányvár (122), Harc-Várhegy (127), Kölesd-Csonthegy (181), Mucsi-(Lengyel)-Sánc (220), Pécs-Mecsekszabolcs (253), Pécs-Nagyárpád (254), Simontornya-Mozsi-hegy (278), Somogyvár-Kupavárhegy (289), Süttő-Nagysánctető (292), Tihany-Óvár (350), Tolnanémedi-Nebojsza (356), Veszprém-Várhegy (386–387).

<sup>77</sup> Sárísáp-Quadriburg I, Süttő-Kissánc, Tokod-Leshegy, Tokod-Sáncok: Nováki 1975 327; Cseh 1999 28–29.

<sup>78</sup> Cseh 1999 51, site 22. 1, 52, site 24. 3.

<sup>79</sup> Vadász – Vékony 1982; Vékony 2000 178–179; Kiss 2012a 210, 297, fig. 62. 2.

<sup>80</sup> Vékony 2000 178–180.

<sup>81</sup> Csányi 1978.

<sup>82</sup> Kiss 2012a 215; Dani et al. 2019 figs. 14–15.

<sup>83</sup> The cells of the theoretical influence areas were generated in QGIS based on the central points of the sites. Their sides are determined by straight lines drawn at a right angle at the midpoint of the lines connecting neighbouring settlements. These cells are known as Thiessen (*Sánta 2010 31; Priskin et al. 2013 6*) or Voronoi polygons (*Puskás 2023 291–294, fig. 5*).

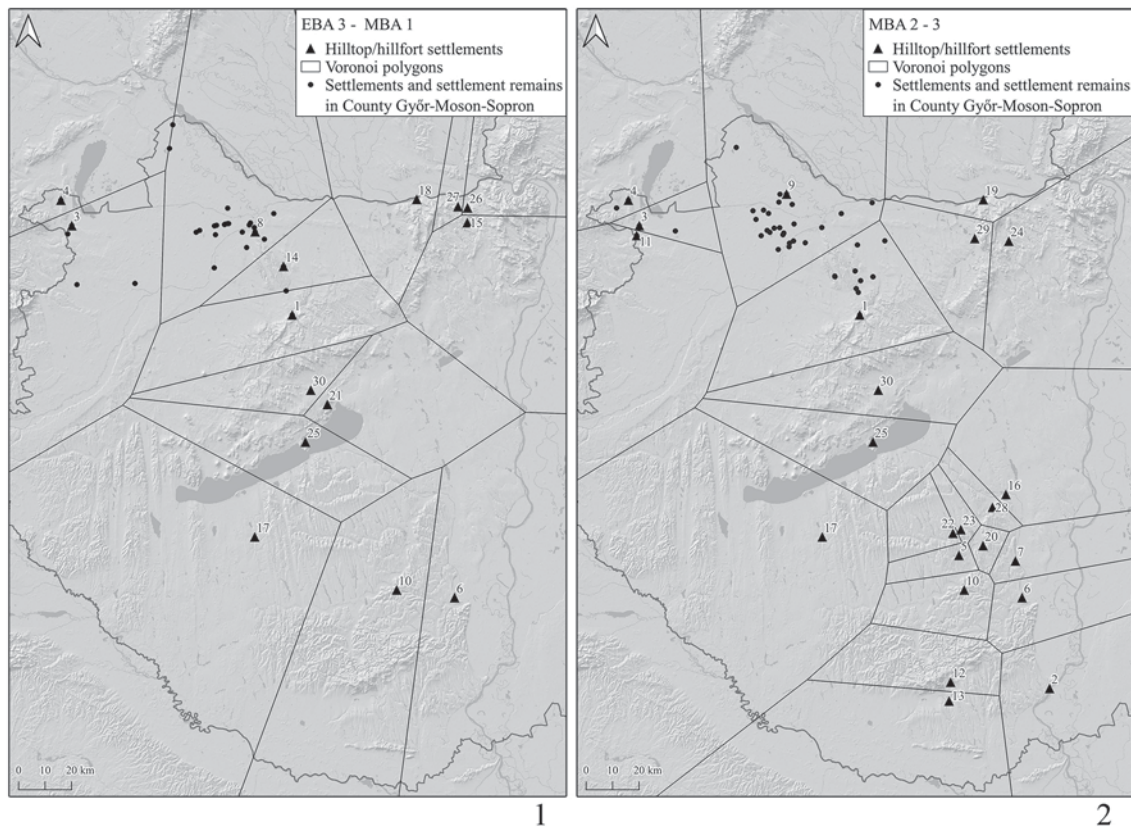


Fig. 6. 1. Hilltop and hillfort settlements and the Voronoi polygons representing their hypothesised influence areas in the transitive phase of the Early and Middle Bronze Ages in Transdanubia; 2. Hilltop and hillfort settlements and the Voronoi polygons representing their hypothesised influence areas in Transdanubia (site numbers are resolved in *Table 2*) (©Eszter Melis)

In the transitive phase of the Early and Middle Bronze Ages, more hilltop settlements seem to have been north of Lake Balaton than south of it (*fig. 6. 1*), mainly sites of the Tokod group along the Danube and other settlements in the southern and northern foregrounds of the Bakony Mountains. Most open Kisapostag sites in Győr-Moson-Sopron County lie in the supposed influence area of the northernmost central settlement, Ménfőcsanak-Csanak-hegy. The Gáta–Wieselburg settlements south of Lake Fertő lie in the influence areas of diverse central settlements.

Based on the available literature completed with data from research in Győr-Moson-Sopron and Komárom-Esztergom counties, fewer central settlements were in northern Transdanubia in the Middle Bronze Age than in the previous period (*fig. 6. 2*). Large cells (also known as Thiessen or Voronoi polygons) appear on the Voronoi diagram generated based on the central settlements, dividing the eastern part of Győr-Moson-Sopron County with open TEPC settlements into two zones, the foregrounds of the Transdanubian Mountains and the Little Hungarian Plain. The large cells – supposed influence areas – reflect, on the one hand, the state of research in the particular regions while, on the other hand, they might also indicate a social structure different than that of the communities residing in the territory of Central Hungary and the Great Hungarian Plain at the time.<sup>84</sup>

Considerably smaller influence areas were calculated for Fertőboz-Gradinahegy (*Table 2*, site 3) in the Lake Fertő area; however, the larger territories of Fertőrákos-Kecskehegy and

<sup>84</sup> Dani et al. 2019 863–864.

Nagyecenk-Alsó-domb-dűlő (*Table 2*, sites 4 and 11) could be connected with similar settlements in Burgenland, which distorts the model in the western areas. Collecting the settlements with similar dating in Austria and cross-border analysis are beyond the scope of this study; therefore, only a few sites well-known from archaeological literature are mentioned. Darufalva-Tábor (Drassburg-Tabovac, Austria), one of the eponymous sites of the Guntramsdorf–Drassburg group, the Austrian group of *Litzenkeramik*, lies at 234 m a.B.S.l., only 12 km away from the recent shore of Lake Fertő, on top of a plateau with three steep sides. The Bronze Age settlement at the site is only one in a row of occupations from the Neolithic to the Early Middle Ages, the fortifications belonging to the latter.<sup>85</sup> Based on the scatter of settlement features assigned to the *Litzenkeramik*, the entire plateau (save perhaps for the central zone) was inhabited in the period matching the Middle Bronze Age in Hungary, while there is no conclusive evidence of a fortification in this horizon.<sup>86</sup> Nagyhöflány-Föllik-hegy (Großhöflein-Föllik, Austria) is situated on a plateau of 4.5 ha, divided by a ditch into two unequal parts. The plateau rises 92 m above the valley of the Sulz Stream and flattens southwards. The steep sides were engirded by a dry stone wall fortifying a palisade wall, while the gently sloping southern side was also protected by a V-profile ditch. The site was first inhabited at the end of the Mesolithic, and the youngest findings dated to the Roman Period; however, based on the find material, the main occupation horizons are those of the Late Neolithic and the *Litzenkeramik* settlements.<sup>87</sup> A double *Litzenkeramik* burial was found on the site at 272 m a.B.s.l.; the grave cut through a pit of the Věteřov culture.<sup>88</sup>

In the Early Bronze Age of Central Europe (roughly coeval with the Middle Bronze Age in Hungary), hilltop and/or fortified settlements were established in a vast area from the territory of today's Switzerland to Eastern Slovakia.<sup>89</sup> While some regional differences are present, they all represent a similar lifestyle; their emergence was probably brought about by the formation of an active connection network involving the related communities (more specifically, their elite) aimed at an effective exploitation of available natural resources.<sup>90</sup> A major concentration of hilltop settlements was identified in Southwestern Slovakia, neighbouring the study area in the north; the emergence of this cluster is probably connected with the copper ore reserves of the Spiš-Gemer Ore Mountains.<sup>91</sup>

### Summary

The territory of Győr-Moson-Sopron County has been a little researched area; the recent survey has revealed a more dense settlement network there between the end of the Early Bronze Age and the start of the Late Bronze Age than hypothesized before. Based on the author's research, the wetlands of the Hanság and the Kapuvár Plain were mostly uninhabited for 800 years from 2200/2100 to 1500/1400 BC. West of that, settlements of the Gáta–Wieselburg culture were scattered in the transitive phase of the Early and Middle Bronze Ages, while communities of the coeval Kisapostag culture inhabited more intensively the eastern zone of the county, especially the lands between the Rába and Rábca rivers (*fig. 1*).

Considerably more TEPC settlements distributed in a significantly larger area have been identified in the county's territory; their elevated number suggests a population increase compared

<sup>85</sup> *Neugebauer 1994* 141–143; *Müller 2016* 6–7, Abb. 1–2.

<sup>86</sup> *Müller 2016* 50–52, Abb. 8.

<sup>87</sup> *Benkovsky-Pivovarová – Gömöri – Kaus 1988* 12, fig. 5.

<sup>88</sup> *Benkovsky-Pivovarová – Gömöri – Kaus 1988* 8–10, figs. 3–4; *Vékony 2000* 176–177.

<sup>89</sup> *Ettel 2010* 353–354, Abb. 1; *Jaeger 2016*.

<sup>90</sup> *Jaeger 2016* 139.

<sup>91</sup> *Ettel 2010* 354–355; *Duberow – Pernicka – Krenn-Leeb 2009* fig. 1.

to the previous period. The most intensively settled parts at the time of TEPC were those between the Rába and Moson Danube rivers, with another settlement concentration in the foregrounds of the Transdanubian Mountains (*fig. 2*). Settlements were sparse west of the Hanság in the Middle Bronze Age, while sites with similar find material, bearing the stylistic traits of the Mad'arovce–Věteřov–Böheimkirchen cultural complex, have also been discovered in the eastern parts of the county, indicating a patchwork of communities with diverse cultural background inhabiting these lands. This diversity had disappeared by the start of the Late Bronze Age, and settlements of the Tumulus culture emerged along the Rába River and in the area of Lake Fertő. While Tumulus culture settlements spread over an even bigger area than Kisapostag or TEPC in the previous periods, their count is significantly lower, indicating a population decrease.

Upon analysing the setting of the sites, a distinction was made between open and hilltop settlements; the former were preponderant in all three periods (*fig. 4*). Large-scale excavations have revealed extensive settlements, stretching tens of hectares of the Kisapostag and Gáta–Wieselburg cultures; however, all of them are non-intensive, consisting of scattered, loose clusters of settlement features. The higher intensity of TEPC settlements and the multilayer settlement of the culture at Mosonszentmiklós indicate prolonged settling. Completing the work of Gyula Nováki, a couple of hilltop settlements from the end of the Early and the Middle Bronze Ages were identified in the Pannonhalmi- and Fertőmelléki-dombság. The analysis of the newly identified sites with the coeval hilltop and hillfort settlements collected from literature outlined a relatively articulated settlement network in the transitive phase of the Early and Middle Bronze Ages. In the following Middle Bronze Age, the Voronoi cells of TEPC settlements match the settlement concentrations in the area between the Rába and Moson Danube rivers and the foregrounds of the Transdanubian Mountains. The assessment of the difference or hierarchy between the settlements requires significantly more excavations or non-destructive investigations, in order to determine their extent and intensity and reveal special features or items, as well as a comprehensive survey of their catchment areas, including the reconstruction of the water network and the identification of the possibly available natural resources.<sup>92</sup>

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<sup>92</sup> Duffy 2014; Kienlin – P. Fischl – Pusztai 2018.

Table 1. Identified settlements and settlement traces from the period between the end of the Early Bronze Age to the early Late Bronze Age in the area of Győr-Ménfőcsanak-Sopron County

No.	Site name	IVO ID No.	Settlement type	Archaeological culture	Archaeological investigation	References
1	Bakonygyirót-Felső-győri-föld	7150	settlement remains (field survey)	Transdanubian Encrusted Pottery	1967 field walking, István Torma	<i>MRT 4 26</i> , site 3/3, Pl. 4, 11; <i>Kiss 2012a 270</i> , site 9.
2	Bakonypéterd-Tő-réti-dűlő	7217	settlement remains (field survey)	Transdanubian Encrusted Pottery	1967 field walking, István Torma	<i>MRT 4 38–39</i> , site 8/7; <i>Kiss 2012a 270</i> , site 10.
3	Bakonyzentlászló-Kesellő-hegy I.	7271	hillfort settlement	Kisapostag, Transdanubian Encrusted Pottery	1962–1964 excavation, Gyula Nováki	<i>MRT 4 51</i> , 12/11; <i>Nováki 1979 75–123</i> ; <i>Kiss 2012a 270</i> , site 11.
4	Barbacs-Lanizsai-dűlő I./Dőr-Hegy-dűlő	70377/ 24124	open settlement	Kisapostag	2011–2012 excavation, Andrea Nagy and Krisztina Pesti	<i>Nagy – Pesti 2019a</i> ; Krisztina Pesti and Róbert Herbály pers. comm.
5	Bodonhely-Irtás-dűlő	78703	settlement remains (field survey)	Transdanubian Encrusted Pottery	2010 field walking, Károly Takács	<i>Takács 2012</i> .
6	Dénesfa-Szikes-dűlő	1678	settlement remains (field survey)	Gáta–Wieselburg	1975 field walking, Sándor Faragó	Central Register of Archaeological Sites in Hungary (IVO); <i>Egry 2003b</i> .
7	Dőr-Nagyágát eleje	24127	open settlement	Transdanubian Encrusted Pottery, Tumulus	1997 excavation, Péter Tomka	<i>Egry – Szőnyi – Tomka 1997a</i> ; <i>Tomka 2001</i> ; <i>Kiss 2012a 276</i> , site 75; Péter Tomka pers. comm.
8	Enese-Fudi-puszta	32266	settlement remains (field survey)	Transdanubian Encrusted Pottery	1994 field walking, Károly Takács	Central Register of Archaeological Sites in Hungary (IVO)
9	Enese-Pippani-dűlő	51434	open settlement	Kisapostag	2008–2009 excavation, Judit Antoni	<i>Antoni 2009</i> ; <i>Antoni 2010a</i> ; <i>Antoni 2010b</i> ; <i>Antoni – Csupor – Udvardi 2012</i> .
10	Enese-Szabadság u. 72.	1684	open settlement	Kisapostag	2002 excavation, Péter Langó	<i>Langó 2004</i> ; <i>Langó – Mende 2006 231</i> .
11	Féhértő-Tőszárszeg	31136	settlement remains (field survey)	Transdanubian Encrusted Pottery	1994 field walking, Károly Takács	Central Register of Archaeological Sites in Hungary (IVO)
12	Fertőboz-Gradinahegy	1704	hilltop settlement	Gáta–Wieselburg, Vétéřov, <i>Litzenkeramik</i>	1963–1964 excavation, Gyula Nováki	<i>Nováki 1964a</i> ; <i>Nováki 1964b</i> ; <i>Nováki 1965b</i> ; <i>Nováki 1965c</i> ; <i>Nováki 1975 323–329</i> .
13	Fertőd-Sportpálya	46339	open settlement	Vétéřov	2017 excavation, Ferenc Ujvári	Ferenc Ujvári pers. comm.
14	Fertőrákos-Kecskehegy	47593	hilltop settlement	Gáta–Wieselburg, Vétéřov	1948 excavation, Gyula Nováki	<i>Nováki 1952</i> ; <i>Nováki 1997 29–33</i> ; <i>Mrenka 2022 15–17</i> , fig. 3, Pl. 3.

No.	Site name	IVO ID No.	Settlement type	Archaeological culture	Archaeological investigation	References
15	Fertőszentmiklós-Ikva-part	90357	open settlement	Tumulus	2019 excavation, Bálint Savanyú	<i>Savanyú 2020a</i> 38–39; Bálint Savanyú pers. comm.
16	Györmöt-Borsó-dűlő (Győr)	21459	open settlement with ditch	Kisapostag, Tumulus	2001 excavation, Ildikó Egry	<i>Egry 2003a</i> .
17	Győr-Fővenyesdomb	45019	open settlement	Kisapostag, Tumulus	1991 excavation, András Figler	<i>Figler 1993a; Figler 1994</i> 23.
18	Győr-Pápai úti Állatvásártér	28829	open settlement	Tumulus	1999 excavation, Ildikó Egry	<i>Egry 2001</i> 57–58.
19	Győr-Szabadrét-domb	83843	open settlement	Kisapostag	1991 excavation, András Figler	<i>Figler 1993b</i> 15.
20	Győrszemere-Nagyszentpál- Kőrös	93235	open settlement	Kisapostag	2021 excavation, Dávid Czigány	Dávid Czigány pers. comm.
21	Győrszentiván-Révhegyíttag (Győr)	80787	open settlement	Tumulus	2015 excavation, Krisztina Pesti and Ferenc Ujvári	Ferenc Ujvári pers. comm.
22	Győrszentiván-Úszató-rét II. (Győr)	73109	open settlement	Kisapostag, Transdanubian Encrusted Pottery	2015 excavation, Dávid Czigány	Central Register of Archaeological Sites in Hungary (IVO); Dávid Czigány pers. comm.
23	Győrújbarát-Rákóczi TSZ-től északra	57232	open settlement	Kisapostag	2014 excavation, Andrea Nagy and Róbert Herbály	Róbert Herbály pers. comm.
24	Hegyeshalom-Ház-dűlő (Ház-dűlő II.)	52829/ 52831	open settlement	Věteřov	2022 archaeological observation, Tamás Czuppon and Veronika Németh	Veronika Németh pers. comm.
25	Hegyeshalom-Országúti-dűlő	53597	open settlement	Gáta–Wieselburg, Tumulus	2006–2007 test excavation, Ágnes Aszt, 2014–2015 archaeological observation and rescue excavation, Róbert Herbály and Krisztina Pesti, 2016 test excavation, András Hargítai	<i>Aszt 2008; Melis 2020</i> 357, footnote 32.
26	Köny-Döri határra dűlő	24326	open settlement	Kisapostag, Transdanubian Encrusted Pottery	2011, 2013 excavation, Andrea Nagy and Krisztina Pesti	<i>Nagy – Pesti 2019b</i> .
27	Köny-Gázvezeték I./Barbacs tópart	24322	open settlement with ditch	Tumulus	1997 excavation, Ildikó Egry	<i>Egry 2002</i> .
28	Köny-Káptalani-dűlő II.	77855	open settlement	Transdanubian Encrusted Pottery	2013 excavation, Dávid Czigány	<i>Czigány 2019</i> .

No.	Site name	IVO ID No.	Settlement type	Archaeological culture	Archaeological investigation	References
29	Kóny-Proletár-dűlő	51436	open settlement	Transdanubian Encrusted Pottery	2008–2009 excavation, Krisztina Varga	<i>Varga 2010.</i>
30	Kóny-Tökös-domb	24328	settlement remains (field survey)	Tumulus	1994 field walking, Károly Takács	Central Register of Archaeological Sites in Hungary (IVO).
31	Kóny-Várhely	32261	settlement remains (field survey)	Transdanubian Encrusted Pottery	1994 field walking, Károly Takács	Central Register of Archaeological Sites in Hungary (IVO).
32	Koronc-Bábota	24266	open settlement	Tumulus	1939–1941 excavation, Sándor Mithay, Árpád Botyán, Sándor Gallus, 2014 test excavation, Mária Zita Tokai, 2015 excavation, Dávid Czigány	<i>Mithay – Botyán 1940; Mithay 1941 7, Map 3, 2, Pl. III. 9–10, Pl. IV. 1; Bándi 1967 28; Bándi 1972 42; Kiss 2012a 286, site 176; Czigány – Molnár 2020; Tokai 2021 96–97.</i>
33	Koronc-Bösze-domb	24283	settlement remains (field survey)	Transdanubian Encrusted Pottery	1947 field walking, Béla Szőke and Sándor Mithay; 2002 field walking, Ildikó Egy	Central Register of Archaeological Sites in Hungary (IVO); <i>Bándi 1972 46, 2. Map 14.</i>
34	Koronc-Haraszti II.	24287	settlement remains (field survey)	Tumulus	2002 field walking, Ildikó Egy	Central Register of Archaeological Sites in Hungary (IVO)
35	Lébény-Kőlesszi-dűlő III.	74385	settlement remains (field survey)	Transdanubian Encrusted Pottery	2010 field walking, Máté Stibrányi	Central Register of Archaeological Sites in Hungary (IVO)
36	Lébény-Magasmart	24342	open settlement	Transdanubian Encrusted Pottery	1964 excavation, Rezső Pusztai	<i>Pusztai 1967 5.</i>
37	Levél-Borjülegelő (Gázvezeték 2/2 lh.)	24372	open settlement	Tumulus	1995 excavation, András Figler	<i>Figler 1997a.</i>
38	Maglóca-Hany	31213	settlement remains (field survey)	Transdanubian Encrusted Pottery	1994 field walking, Károly Takács	Central Register of Archaeological Sites in Hungary (IVO).
39	Markotabödöge-Vadlúd-sziget	31211	settlement remains (field survey)	Transdanubian Encrusted Pottery, Tumulus	1994 field walking, Károly Takács	Central Register of Archaeological Sites in Hungary (IVO).
40	Ménfőcsanak-Csanak-hegy (Szamár-domb) (Győr)	77285	hilltop settlement with ditch	Kisapostag	2011 excavation, Péter Polgár	<i>Polgár 2018a.</i>



No.	Site name	IVO ID No.	Settlement type	Archaeological culture	Archaeological investigation	References
41	Ménfőcsanak-Széles-földek (Győr)	34305	open settlement	Kisapostag, Transdanubian Encrusted Pottery, <i>Litzenkeramik</i> , Veteřov, Tumulus	1990–1991 excavation, Péter Tomka, 1993–1994 excavation, Andrea Vaday, 1995, 1996, 1998, 2004, 2005–2006 excavations, Ildikó Egry, 2009–2011 excavation, Gábor Ilon	<i>Mithay 1941</i> 6, Map 2, 4, Pl. III, 1–7; <i>Figler 1996a</i> ; <i>Vaday 1996–1997</i> ; <i>Vaday 1997</i> ; <i>Kovács 1997</i> ; <i>Egry – Szőnyi – Tomka 1997b</i> ; <i>Egry 2007</i> ; <i>Kiss – Vaday – Fábrián 2011</i> ; <i>Melis 2011</i> ; <i>Ilon 2012</i> ; <i>Ilon 2014</i> ; <i>Melis 2014</i> ; <i>Ilon 2015</i> ; <i>Toth – Melis – Ilon 2016</i> ; <i>Ilon 2019</i> .
42	Mérges-Homokos-domb	25612	settlement remains (field survey)	Transdanubian Encrusted Pottery	2006 field walking, Károly Takács	Central Register of Archaeological Sites in Hungary (IVO).
43	Mérges-Mérgesi-csatorna keleti oldala	68849	settlement remains (field survey)	Transdanubian Encrusted Pottery	2006. field walking Károly Takács	Central Register of Archaeological Sites in Hungary (IVO).
44	Mórichida-Dombföld, Faluhelyi-legelő	40999	settlement remains (field survey)	Kisapostag	collection, 2002 field walking, Péter Tomka	<i>Mithay 1941</i> 5, Map 2, 7; Pl. II, 5; Central Register of Archaeological Sites in Hungary (IVO).
45	Mosonszentmiklós-Akasztódomb	31088	multilayered settlement	Transdanubian Encrusted Pottery, Mad'arovec, <i>Litzenkeramik</i>	1957, 1966 excavation, András Uzsoki	<i>Uzsoki 1958</i> ; <i>Uzsoki 1959</i> ; <i>Uzsoki – Gabler 1967</i> ; <i>Kiss 2012a</i> 289, site 315.
46	Mosonszentmiklós-Horgas II.	31128	open settlement	Transdanubian Encrusted Pottery	1996 excavation, András Figler	Central Register of Archaeological Sites in Hungary (IVO).
47	Mosonszentmiklós-Pál major	31139	open settlement	Kisapostag	1993–1995 excavation, András Figler	<i>Figler 1996b</i> ; <i>Figler 1997b</i> ; <i>Figler 1997c</i> .
48	Nagyecenk-Alsó-domb-dűlő	63176	hilltop settlement	Mad'arovec, <i>Litzenkeramik</i> , Tumulus	2017 test excavation, Andrea Nagy and Attila Mrenka, 2018 excavation, Bálint Savanyú	<i>Savanyú 2020c</i> ; Central Register of Archaeological Sites in Hungary (IVO); Bálint Savanyú pers. comm.
49	Nagyecenk-Kövesmező	61358	open settlement	Gáta–Wieselburg	2005 excavation, János Gömöri, 2018 field walking, Eszter Melis	<i>Gömöri 2012</i> 12–13; <i>Gömöri – Melis – Kiss 2018</i> ; <i>Melis et al. 2022</i> .
50	Nagylózs-Baglya-szeg összevont lelőhely	89387	open settlement	Tumulus	2018 excavation, Andrea Cséki	<i>Cséki 2020</i> .
51	Nagylózs-Sós-rét	86045	open settlement	Tumulus	2018 excavation, Gábor Márkus	<i>Márkus 2020</i> .
52	Nagyosztályos-Gönyüi úti Alsó Táblák	93869	settlement remains (field survey)	Transdanubian Encrusted Pottery	2017 field walking, Eszter Melis	Central Register of Archaeological Sites in Hungary (IVO).

No.	Site name	IVO ID No.	Settlement type	Archaeological culture	Archaeological investigation	References
53	Pázmándfalu-Réti-földek II.	82391	settlement remains (field survey)	Transdanubian Encrusted Pottery	2012 field walking, Máté Losonczi	Central Register of Archaeological Sites in Hungary (IVO).
54	Rábacsésény-Fudi-pusztja II.	32267	settlement remains (field survey)	Kisapostag, Transdanubian Encrusted Pottery, <i>Litzenkeramik</i>	collection, 1994, 2006 field walking, Károly Takács	<i>Mithay 1941</i> 12–13, Pl. II, 3, Pl. IX, 3–5, Pl. X, 7; <i>Kiss 2012a</i> 294, site 261; <i>Takács 2007</i> .
55	Rábapatonna-Országúton feüli dűlő I.	67461	open settlement	Kisapostag/ <i>Litzenkeramik</i>	2008 excavation, Ildikó Egry	Central Register of Archaeological Sites in Hungary (IVO); Hungarian National Museum Archaeology Database <a href="https://arheodatabase.hnm.hu/en/node/787">https://arheodatabase.hnm.hu/en/node/787</a> , 01.06.2023.
56	Rábapatonna-Országúton feüli dűlő II.	67459	open settlement	Kisapostag/ <i>Litzenkeramik</i>	2008 excavation, Ildikó Egry	<i>Egry 2009</i> ; Central Register of Archaeological Sites in Hungary (IVO); Hungarian National Museum Archaeology Database, <a href="https://arheodatabase.hnm.hu/en/node/786">https://arheodatabase.hnm.hu/en/node/786</a> , 01.06.2023.
57	Rábapatonna-Országúton feüli dűlő III.	70195	open settlement with ditch	Kisapostag	2011 excavation, Péter Polgár, 2012–2014 excavation, Péter Polgár and Dávid Czígány	<i>Polgár 2018b</i> ; <i>Polgár 2021</i> ; <i>Polgár – Czígány 2021a</i> .
58	Rábapatonna-Országúton feüli dűlő V.	84815	open settlement	Transdanubian Encrusted Pottery	2013–2014 excavation, Dávid Czígány	<i>Czígány 2021</i> .
59	Rábapatonna-Poszogó-domb összevont lelőhely	33024	open settlement with ditch	Kisapostag	2011 excavation, Péter Polgár, 2012–2014 excavation, Péter Polgár and Dávid Czígány	<i>Polgár 2018b</i> ; <i>Polgár 2021</i> ; <i>Polgár – Czígány 2021b</i> .
60	Rábaszentmihály-Tajtó-domb	33152	settlement remains (field survey)	Transdanubian Encrusted Pottery	collection	Central Register of Archaeological Sites in Hungary (IVO).
61	Rábakapri-Jend-domb	31198	settlement remains (field survey)	Transdanubian Encrusted Pottery, Tumulus	1951 field walking, Sándor Mithay, 1994 field walking, Károly Takács	Central Register of Archaeological Sites in Hungary (IVO).
62	Rajka-Hosszú-szántók	54025	open settlement	Gáta–Wieselburg	1996 excavation, András Figler	Central Register of Archaeological Sites in Hungary (IVO).

No.	Site name	IVO ID No.	Settlement type	Archaeological culture	Archaeological investigation	References
63	Ravazd-Simahegy, Piskótagyár	32320	open settlement	Tumulus	1997 excavation, Eszter Szónyi and Péter Tomka	<i>Tomka – Szónyi 2001.</i>
64	Ravazd-Villibald-domb	32321	hilltop settlement	Kisapostag	1984–1985 excavation, András Figler, 1995 excavation, Péter Tomka	<i>Figler 1985; Figler 1986; Bartosiewicz 1996; Tomka 1997; Kulcsár 2009 381, site 177; Takács 2009.</i>
65	Rétalap-Gulyakút	24131	settlement remains (field survey)	Transdanubian Encrusted Pottery	1992 field walking, Péter Tomka	Central Register of Archaeological Sites in Hungary (IVO).
66	Románd-Erdő-földek (Waldackerl)	9113	settlement remains (field survey)	Kisapostag	1965, 1968 field walking, István Torma, 1967 field walking, Margit Dax and Szilvia Palágyi	<i>MRT 4 223, site 68/10, fig. 43; Bándi 1972 47.</i>
67	Románd-Pápai út	9116	settlement remains (field survey)	Transdanubian Encrusted Pottery	1965, 1967 field walking, István Torma	<i>MRT 4 224, site 68/13, Pl. 4, 12–14; Kiss 2012a 294, site 266.</i>
68	Románd-Romándi-major I.	9111	settlement remains (field survey)	Tumulus	1967 field walking, István Torma	<i>MRT 4 223, site 68/8, Pl. 5, 20–25.</i>
69	Sokorópátka-Faluhely alsó	33161	settlement remains (field survey)	Transdanubian Encrusted Pottery	collection, 2007–2008 field walking, Szilvia Bíró	Central Register of Archaeological Sites in Hungary (IVO); <i>Molnár 2009 94–95.</i>
70	Sokorópátka-Faluhely felső	33168	settlement remains (field survey)	Transdanubian Encrusted Pottery	2007–2008 field walking, Szilvia Bíró	Central Register of Archaeological Sites in Hungary (IVO); <i>Molnár 2009 94–95.</i>
71	Sopron-Krautacker	38636	open settlement	Věterov	1973–1987 excavation, Erzsébet Jerem	<i>Kiss in print 24, fig. 10, 71.</i>
72	Sopron-Lóverseny tér	88981	open settlement	<i>Litzenkeramik,</i> Tumulus	2018 excavation, Bálint Savanyú, 2021 excavation, Attila Mrenka	Central Register of Archaeological Sites in Hungary (IVO); <i>Savanyú 2020b;</i> Bálint Savanyú and Attila Mrenka pers. comm.
73	Szakony-Kavicsbánya	34028	open settlement	Gáta–Wieselburg	1964 excavation, Gyula Nováki	<i>Nováki 1965a; Leeb 1987 278; Ilon 1996.</i>
74	Tápszentmiklós-Zörögök-dűlő (Kavicsbánya)	34065	open settlement	Transdanubian Encrusted Pottery, Mad'arovec	1997 excavation, András Figler, 2007 excavation, Szilvia Bíró and Attila Molnár	<i>Bíró – Molnár 2008 290;</i> Central Register of Archaeological Sites in Hungary (IVO).
75	Tarjánpuszta-Vasasföld II./IR 105	32315/ 32316	open settlement	Transdanubian Encrusted Pottery	1979, 1981 excavation, János Gömöri	<i>Gömöri 1980 115; Gömöri 1982 73.</i>

Table 2. Hilltop, hillfort, and multilayer settlements in Transdanubia at the end of the Early Bronze Age and in the Middle Bronze Age

No.	Site name	IVO ID No.	County	Archaeological culture / phase	Settlement type	References
1	Bakonyzentlászló-Keselő-hegy I.	7271	Győr-Moson-Sopron	Late Kisapostag – Early Encrusted Pottery, older phase of Encrusted Pottery	hillfort settlement	<i>MRT 4 51, 12/11; Nováki 1979 75–123; Kiss 2012a 270, site 11.</i>
2	Dunaszekeső-Várhegy	24621	Baranya	older and younger phase of Encrusted Pottery	hilltop settlement	<i>Kiss 2012a 277, site 83; Dani et al. 2019 figs. 14–15.</i>
3	Fertőboz-Gradinahegy	1704	Győr-Moson-Sopron	Gáta-Wieselburg, Vétérov, <i>Litzengeramik</i>	hilltop settlement	<i>Nováki 1964a; Nováki 1964b; Nováki 1965b; Nováki 1965c; Nováki 1975 323–329.</i>
4	Fertőrákos-Kecskehegy	47593	Győr-Moson-Sopron	Gáta-Wieselburg, Vétérov	hilltop settlement	<i>Nováki 1952; Nováki 1997 29–33; Mrenka 2022 15–17, fig. 3, Pl. 3.</i>
5	Gyulaj-Pogányvár	23414	Tolna	older and younger phase of Encrusted Pottery	hilltop settlement	<i>Kiss 2012a 280, site 122; Dani et al. 2019 figs. 14–15.</i>
6	Hare-Várhegy	23063	Tolna	Late Kisapostag – Early Encrusted Pottery, younger phase of Encrusted Pottery	hilltop settlement	<i>Kiss 2012a 281, site 127; Dani et al. 2019 figs. 14–15.</i>
7	Kőlesd-Csonthegy	23057	Tolna	younger phase of Encrusted Pottery	hilltop settlement	<i>Kiss 2012a 286, site 181; Dani et al. 2019 figs. 14–15.</i>
8	Ménfőcsanak-Csanak-hegy (Szamár-domb) (Győr)	77285	Győr-Moson-Sopron	Kisapostag	hillfort settlement	<i>Polgár 2018a.</i>
9	Mosonszentmiklós-Akasztdomb	31088	Győr-Moson-Sopron	younger phase of Encrusted Pottery	multilayered settlements	<i>Uzsoki 1958; Uzsoki 1959; Uzsoki – Gabler 1967; Kiss 2012a 289, site 315.</i>
10	Muesi (Lengyel)-Sánc	23059	Tolna	Late Kisapostag – Early Encrusted Pottery, older and younger phase of Encrusted Pottery	hilltop settlement	<i>Kiss 2012a 290, site 220; Dani et al. 2019 figs. 14–15.</i>
11	Nagyecenk-Alsó-domb-dűlő	63176	Győr-Moson-Sopron	Mad'arovec, <i>Litzengeramik</i> , Tumulus	hilltop settlement	<i>Savanyú 2020c; Central Register of Archaeological Sites in Hungary (IVO); Bálint Savanyú pers.comm.</i>
12	Pécs-Mecsekszabolcs/Pécs-Szabolcs-Középhegy-dűlő	38076	Baranya	older and younger phase of Encrusted Pottery	hilltop settlement	<i>Kiss 2012a 293, site 254; Dani et al. 2019 figs. 14–15.</i>
13	Pécs-Nagyárpád	59397	Baranya	younger phase of Encrusted Pottery	hilltop settlement	<i>Kiss 2012a 293, site 253; Dani et al. 2019 figs. 14–15.</i>
14	Ravazd-Villibald-domb	32321	Győr-Moson-Sopron	Kisapostag, Late Kisapostag – Early Encrusted Pottery	hilltop settlement	<i>Figler 1985; Figler 1986; Bartosiewicz 1996; Tomka 1997; Kulcsár 2009 381, site 177.</i>
15	Sárisáp-Quadriburg I.	2558	Komárom-Esztergom	Tokod group	hillfort settlement	<i>Nováki 1975 327; Cseh 1999 66, site 34. 3.</i>

No.	Site name	IVO ID No.	County	Archaeological culture / phase	Settlement type	References
16	Simontornya-Mozsihegy	50756	Tolna	younger phase of Encrusted Pottery	hilltop settlement	<i>Kiss 2012a</i> 296, site 278; <i>Dani et al. 2019</i> figs. 14–15.
17	Somogyvár-Kupavárhegy	20405	Somogy	Late Kisapostag – Early Encrusted Pottery, younger phase of Encrusted Pottery	hilltop settlement	<i>Kiss 2012a</i> 297, site 289; <i>Dani et al. 2019</i> figs. 14–15.
18	Süttö-Kissánc	2586	Komárom-Esztergom	Tokod group	hillfort settlement	<i>Cseh 1999</i> 67, site 35. 3.
19	Süttö-Nagysánc-tető	2587	Komárom-Esztergom	older and younger phase of Encrusted Pottery	hillfort settlement	<i>Cseh 1999</i> 67–68, site 35. 4; <i>Kiss 2012a</i> 297, site 292; <i>Dani et al. 2019</i> figs. 14–15.
20	Szárazd-Vaskapu	23737	Tolna	younger phase of Encrusted Pottery	hilltop settlement	<i>Dani et al. 2019</i> figs. 14–15.
21	Szentkirályszabadja-Kőhegy II.	9322	Veszprém	Late Kisapostag – Early Encrusted Pottery	hilltop settlement	<i>Kiss 2012a</i> 300, site 321.
22	Tamási-Dorombos	40428	Tolna	younger phase of Encrusted Pottery	hilltop settlement	<i>Dani et al. 2019</i> figs. 14–15.
23	Tamási-Henye	40691	Tolna	younger phase of Encrusted Pottery	hilltop settlement	<i>Dani et al. 2019</i> figs. 14–15.
24	Tarján-Szalánkai-dűlő	56009	Komárom-Esztergom	Encrusted Pottery	hilltop settlement	<i>Cseh 1999</i> 51, site 22. 1.
25	Tihany-Óvár	9433	Veszprém	Late Kisapostag – Early Encrusted Pottery, younger phase of Encrusted Pottery	hilltop settlement	<i>Kiss 2012a</i> 304, site 350; <i>Dani et al. 2019</i> figs. 14–15.
26	Tokod-Leshegy	2655	Komárom-Esztergom	Tokod group	hillfort settlement	<i>Torma 1972b</i> ; <i>Nováki 1975</i> 327; <i>Cseh 1999</i> 71, site 37. 7.
27	Tokod-Sáncok	2640	Komárom-Esztergom	Tokod group	hillfort settlement	<i>Torma 1972b</i> ; <i>Nováki 1975</i> 327; <i>Cseh 1999</i> 71, site 37. 9.
28	Tolnanémedi-Nebojsza	23413	Tolna	younger phase of Encrusted Pottery	hilltop settlement	<i>Kiss 2012a</i> 305, site 356; <i>Dani et al. 2019</i> figs. 14–15.
29	Vértesszőlős-Magaslati telep	50538?	Komárom-Esztergom	Encrusted Pottery	hilltop settlement	<i>Cseh 1999</i> 52, site 24. 3.
30	Veszprém-Várhegy, Törvényszéki épület, Szt. György kápolna and Gizella-kápolna	9648, 9736	Veszprém	Late Kisapostag – Early Encrusted Pottery, younger phase of Encrusted Pottery	hilltop settlement	<i>Csányi 1978</i> ; <i>Kiss 2012a</i> 310, site 386, 387; <i>Dani et al. 2019</i> figs. 14–15.

## REFERENCES

- Antoni 2009* J. Antoni: Enese határa [The outskirts of Enese], in: J. Kisfaludi (ed.): Régészeti kutatások Magyarországon 2008 (Archaeological Investigations in Hungary 2008). Budapest 2009, 188.
- Antoni 2010a* J. Antoni: Enese-Pippani-dűlő, in: J. Kisfaludi (ed.): Régészeti kutatások Magyarországon 2009 (Archaeological Investigations in Hungary 2009). Budapest 2010, 204.
- Antoni 2010b* J. Antoni: Enese-Pippani-dűlő (Győr-Moson-Sopron megye 3. lelőhely) [Enese-Pippani-dűlő (Győr-Moson-Sopron county, site no. 3)], in: J. Kvassay (ed.): Évkönyv és jelentés a Kulturális Örökségvédelmi Szakszolgálat 2008. évi feltárásairól (Field Service for Cultural Heritage 2008 Yearbook and Review of Archaeological Investigations). Budapest 2010, 39–40.
- Antoni – Csupor – Udvardi 2012* J. Antoni – I. Csupor – B. Udvardi: Régi fazekasok öreg cserepei (Adalékok a kora bronzkori fazekassághoz) (Old sherds of ancient potters [Contributions to Early Bronze Age pottery]), in: J. Kvassay (ed.): Évkönyv és jelentés a Kulturális Örökségvédelmi Szakszolgálat 2009. évi feltárásairól (Field Service for Cultural Heritage 2009 Yearbook and Review of Archaeological Investigations). Budapest 2012, 137–161.
- Aszt 2001* Á. Aszt: Előzetes beszámoló a Mosonszentmiklós-Gyepföldek dűlő területén végzett régészeti kutatásokról (Preliminary report on the archaeological researches carried out at the area of Gyepföldek dűlő in Mosonszentmiklós). Arrabona 39 (2001) 213–248.
- Aszt 2008* Á. Aszt: Hegyeshalom-Országúti-dűlő, 1. lh., in: J. Kisfaludi (ed.): Régészeti kutatások Magyarországon 2007 (Archaeological Investigations in Hungary 2007). Budapest 2008, 223–224.
- Bánda 1967* G. Bánda: A dél-dunántúli mészbetétes edények népe kultúrájának elterjedése és eredete (The Extension and Origin of the Incrusted Pottery Culture in Southern Transdanubia). DuDolg 4. Pécs 1967.
- Bánda 1972* G. Bánda: A mészbetétes edények népe észak-dunántúli csoportjának kialakulása és elterjedése (Die Entstehung und Verbreitung der nord-transdanubische Gruppe des Volkes der inkrustierten Keramik). VMMK 11 (1972) 41–57.
- Bartík et al. 2016* J. Bartík – I. Bazovský – P. Jelínek – A. Šefčaková: Osídlenie Bratislavy-Rusovíc v staršej dobe bronzovej (Besiedlung von Bratislava-Rusovce während der älteren Bronzezeit), in: I. Bazovský (ed.): Zborník na pamiatku Magdy Pichlerovej štúdie. ZbSNM. Archeológia. Supplementum 11. Bratislava 2016, 45–74.
- Bartosiewicz 1996* L. Bartosiewicz: Bronze Age animal keeping in the Northwestern Transdanubia, Hungary. ActaMusPapensis 6 (1996) 31–42.
- Bátora 2018* J. Bátora: Slovensko v staršej dobe bronzovej (Slovakia in the Early Bronze Age). Bratislava 2018.

- Bátora et al. 2012* J. Bátora – A. Behrens – J. Gresky – M. Ivanova – K. Rassmann – P. Tóth – K. Winkelmann: The rise and decline of the Early Bronze Age settlement Fidvár near Vrábľa, Slovakia, in: J. Kneisel – W. Kirleis – M. Dal Corso – N. Taylor – V. Tiedtke (eds.): Collapse or Continuity? Environment and Development of Bronze Age Human Landscapes. Proceedings of the International Workshop “Socio-Environmental Dynamics over the Last 12,000 Years. The Creation of Landscapes II (14–18th March 2011)”. Bonn 2012, 111–119.
- Békei 2007* L. Békei: Adatok a Nyugat-Dunántúl középső bronzkori történetéhez. (Település Sárvár 84-es elkerülő 4. és 6/A lelőhelyén aunjetitzi, Věteřov, gátai és kelet-alpi elemekkel, valamint litzendíszes kerámiával) (Angaben zur mittelbronzezeitliche Geschichte Westtransdanubiens [Siedlung mit Aunjetitz-, Věteřov-, Gáta und ostalpinen Elementen und Litzenkeramik auf den Fundorten 4 und 6/A am Umleitungsweg 84 bei Sárvár]). Savaria 31/1 (2007) 7–140.
- Benkovsky-Pivovarová – Gömöri – Kaus 1988* Z. Benkovsky-Pivovarová – J. Gömöri – K. Kaus: Az álszinesgdíszes (Litzen-) kerámia kultúrájához tartozó sírleletek Nyugat-Magyarországon és Kelet-Ausztriában (Finds from burials belonging to the Litzenkeramik culture in Western Hungary and Eastern Austria). Arrabona 24–25 (1988) 4–19.
- Bíró – Molnár 2008* Sz. Bíró – A. Molnár: Tápszentmiklós, Zörögök-dűlő, in: J. Kisfaludi (ed.): Régészeti kutatások Magyarországon 2007 (Archaeological Investigations in Hungary 2007). Budapest 2008, 290.
- 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, 9–42.
- Bondár 1989* M. Bondár: Früh- und Mittelbronzezeit, in: R. Müller (Hrsg.): Sieben Jahrtausende am Balaton. Von der Ur- und Frühgeschichte bis zum Ende der Türkenkriege. (Sonderausstellung). Mannheim 1989, 30–36.
- Bondár – Honti – Kiss 2000* M. Bondár – Sz. Honti – V. Kiss: A tervezett M7-es autópálya Somogy megyei szakaszának megelőző régészeti feltárása (1992–1999). Előzetes jelentés I. (The preceding archaeological excavation of the planning M7 highway in county Somogy [1992–1999]. Preliminary report I.). SMK 14 (2000) 93–114.
- Csányi 1978* M. Csányi: Középső bronzkori telep a veszprémi Várhegyen (Siedlung aus der mittleren Bronzezeit auf dem Burgberg von Veszprém). VMMK 13 (1978) 29–50.
- Cseh 1999* J. K. Cseh: A mészbetétes edények kultúrája lelőhelyei Komárom-Esztergom megyében (Die Fundorte der inkrustierten Keramik in Komitat Komárom-Esztergom). KMMK 6 (1999) 23–88.

- Cséki 2020* A. Cséki: Nagylózs, Baglya-szeg lelőhely [Nagylózs, Baglya-szeg site], in: Rómer Flóris Történeti és Művészeti Múzeum (ed.): M85 6. rész – M85 autótút Csorna II. – Sopron kelet, I. szakasz, 54–57. <https://romer.hu/m85-autout-csorna-ii-sopron-kelet-i-szakasz-6-resz> [last accessed: 12.09.2022]
- Czigány 2019* D. Czigány: Kóny határa (Győr-Moson-Sopron megye) – Káptalani-dűlő II. (KÖH 77855) [The outskirts of Kóny (Győr-Moson-Sopron County) – Káptalani-dűlő II. (KÖH 77855)], in: J. Kvassay – A. Kreiter (eds.): Régészeti kutatások Magyarországon 2013 (Archaeological Investigations in Hungary 2013). Budapest 2019, 68.
- Czigány 2021* D. Czigány: Rábapatona határa (Győr-Moson-Sopron megye) – Országúton felüli-dűlő V. (KÖH 84815) [The outskirts of Rábapaton (Győr-Moson-Sopron County) – Országúton felüli-dűlő V. (KÖH 84815)], in: J. Kvassay – A. Kreiter – R. K. Péter (eds.): Régészeti kutatások Magyarországon 2014 (Archaeological Investigations in Hungary 2014). Budapest 2021, 140.
- Czigány – Molnár 2020* D. Czigány – A. Molnár: Késő Hallstatt-kori település Koroncó-Bábotán (Late Hallstatt Age settlement at Koroncó-Bábot), in: G. Nemes – D. Czigány – Zs. N. Matus (eds.): Tomka 80. Ünnepi tanulmányok Tomka Péter köszöntésére. Győr 2020, 87–118.
- Dani 2013* J. Dani: The significance of metallurgy at the beginning of the Third Millennium BC in the Carpathian Basin, in: V. Heyd – G. Kulcsár – V. Szeverényi (eds.): Transitions to the Bronze Age. Interregional Interaction and Socio-Cultural Change in the Third Millennium BC Carpathian Basin and Neighbouring Regions. Budapest 2013, 203–231.
- Dani et al. 2016* J. Dani – K. P. Fischl – V. Kiss – G. Kulcsár – V. Szeverényi: 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.): Arm und Reich. Zur Ressourcenverteilung in prähistorischen Gesellschaften. 8. Mitteldeutscher Archäologentag vom 22. bis 24. Oktober 2015 in Halle (Saale). Tagungen des Landesmuseums für Vorgeschichte Halle 14. 1. Halle 2016, 219–240.
- Dani et al. 2018* J. Dani – S. Pusztai – G. Márkus – M. Bálint – I. Bacskai: Middle Bronze Age settlement network in the neighbourhood of Polgár, in: K. P. Fischl (ed.): Proceedings of the settlement layouts, systems and structure of the Otomani-Füzesabony Cultural Complex. International Archaeological Conference, 7–9 June 2018, University of Miskolc. Gesta 17/2 (2018) 127–146.
- 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.): Siedlungsarchäologie des Endneolithikums und der frühen Bronzezeit – Late Neolithic and Early Bronze Age Settlement Archaeology. 11. Tagungen des Landesmuseums für Vorgeschichte Halle 20. Halle 2019, 851–868.



- Duberow – Pernicka – Krenn-Leeb 2009* E. Duberow – E. Pernicka – A. Krenn-Leeb: Eastern Alps or Western Carpathians. Early Bronze Age. Metal within the Wieselburg culture, in: T. L. Kienlin – B. Roberts (eds.): *Metals and Societies. Studies in Honour of Barbara S. Ottaway*. UPA 169. Bonn 2009, 336–349.
- Duffy 2014* P. Duffy: Complexity and Autonomy in Bronze Age Europe. Assessing Cultural Developments in Eastern Hungary. Prehistoric research in the Körös region 1. Budapest 2014.
- Earle et al. 2012* T. 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. 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. [https://files.archaeolingua.hu/2014NY/Upload/cikk\\_Earle\\_EN.pdf](https://files.archaeolingua.hu/2014NY/Upload/cikk_Earle_EN.pdf)
- Egry 2001* I. M. Egry: Beszámoló a Győr-Ménfőcsanak, Bevásárlóközpont területén végzett megelőző régészeti feltárásokról (Report on the preliminary exploration carried out on the area of Győr-Ménfőcsanak, Shopping Centre). *Arrabona* 39 (2001) 57–78.
- Egry 2002* I. M. Egry: Kora halomsíros nép települése a Kóny-Barbacsai tóparton (The settlement of a people characterised with early mound graves at the lake of Kóny-Barbacs). *Arrabona* 40 (2002) 9–32.
- Egry 2003a* I. M. Egry: Gyirmót, Borsó-dűlő, homokbánya, in: J. Kisfaludi (ed.): *Régészeti kutatások Magyarországon 2001 (Archaeological Investigations in Hungary 2001)*. Budapest 2003, 168.
- Egry 2003b* I. M. Egry: Dénesfa, Szikes-dűlő, in: J. Kisfaludi (ed.): *Régészeti kutatások Magyarországon 2001 (Archaeological Investigations in Hungary 2001)*. Budapest 2003, 125.
- Egry 2007* I. M. Egry: Előzetes beszámoló a Győr-Ménfőcsanak, Eperföldeken végzett megelőző feltárásokról (2005–2006) (Preliminary report on the investment-led excavation at Győr-Ménfőcsanak, Eperföldek [2005–2006]), in: J. Kisfaludi (ed.): *Régészeti kutatások Magyarországon 2006 (Archaeological Investigation in Hungary 2006)*. Budapest 2007, 27–52.
- Egry 2009* I. M. Egry: Rábapatonna-Országúton felüli dűlő II, in: J. Kisfaludi (ed.): *Régészeti kutatások Magyarországon 2008 (Archaeological Investigation in Hungary 2008)*. Budapest 2009, 266.
- Egry – Szőnyi – Tomka 1997a* I. M. Egry – E. Szőnyi – P. Tomka: Dör. *Múzeumi Hírlevél* 18 (1997) 318.
- Egry – Szőnyi – Tomka 1997b* I. M. Egry – E. Szőnyi – P. Tomka: Győr-Ménfőcsanak-Bevásárlóközpont. *RégFüz* Ser. 1. 49. (1997) 72–73.
- Ettel 2010* P. Ettel: Die frühbronzezeitlichen Höhensiedlungen in Mitteleuropa. Stand der Forschung, in: H. Meller – F. Bertemes (Hrsg.): *Der Griff nach den Sternen. Internationales Symposium in Halle (Saale) 16.–21. Februar 2005. Tagungen des Landesmuseums für Vorgeschichte Halle 5. Halle (Saale) 2010*, 351–380.

- Figler 1985* A. Figler: Ravazd-Villibald domb (Győr-Sopron C.) RégFüz Ser. 1. 38 (1985) 24.
- Figler 1986* A. Figler: Ravazd-Villibald domb (Győr-Sopron C.) RégFüz Ser. 1. 39 (1986) 25.
- Figler 1993a* A. Figler: Győr-Fövényesdomb. RégFüz Ser. 1. 45 (1993) 11–12.
- Figler 1993b* A. Figler: Győr-Szabadrét domb M1 (korábban: 546. tripód. Ikrény határa) (Győr-Moson-Sopron m.) [Győr-Szabadrét domb M1 {former: 546. tripód. Ikrény határa. Győr-Moson-Sopron m.}] RégFüz Ser. 1. 45 (1993) 14–15.
- Figler 1994* A. Figler: Die Fragen der Frühbronzezeit in Nordwest-Transdanubien. ZalaiMúz 5 (1994) 21–37.
- Figler 1996a* A. Figler: Adatok Győr környékének bronzkorához. Bronzkori kultúrák Győr környékén (Angaben zur Bronzezeit in der Umgebung von Győr. Bronzezeitliche Kulturen in der Umgebung von Győr). ActaMusPapensis 6 (1996) 7–29.
- Figler 1996b* A. Figler: Mosonszentmiklós-Pál major (Győr-Moson-Sopron m.). RégFüz Ser. 1. 47 (1996) 18–19.
- Figler 1997a* A. Figler: Levél-Borjúlegelő (Gázvezeték 2/2. lh.). RégFüz Ser. 1. 49 (1997) 18.
- Figler 1997b* A. Figler: Mosonszentmiklós-Pál major (Győr-Moson-Sopron m.). RégFüz Ser. 1. 48 (1997) 19–20.
- Figler 1997c* A. Figler: Mosonszentmiklós-Pál major (Győr-Moson-Sopron m.) RégFüz Ser. 1. 49 (1997) 19–20.
- Figler 1997d* A. Figler: Mosonmagyaróvár-Német dűlő (Gázvezeték 6. lh.) RégFüz Ser. 1. 49 (1997) 19.
- Furmánek – Veliačik – Vladár 1999* V. Furmánek – L. Veliačik – J. Vladár: Die Bronzezeit im slowakischen Raum. Prähistorische Archäologie in Südosteuropa 15. Rahden 1999.
- Gömöri 1980* J. Gömöri: Tarjánpuszta. Vasasföld II (Győr-Sopron m.). RégFüz Ser. 1. 33 (1980) 115–116.
- Gömöri 1982* J. Gömöri: Tarjánpuszta. Vasasföld II (Győr-Sopron m.). RégFüz Ser. 1. 35 (1982) 73–74.
- Gömöri 1996* J. Gömöri: Sopron-Bécsi u., Határátkelő (Győr-Moson-Sopron m.). RégFüz Ser. 1. 47 (1996) 26.
- Gömöri 2012* J. Gömöri: Fertő-Hanság Nemzeti Park, a Fertő D-i partszakaszának régészeti lelőhelyei (2012-ig) (Archäologische Fundstellen am Südufer der Neusiedler Sees, bis 2012), in: L. Kárpáti – J. Fally (Hrsg.): Fertő–Hanság – Neusiedler See–Seewinkel. Nemzeti Park. Monografikus tanulmányok a Fertő és a Hanság vidékéről. Budapest 2012, 258–270.
- Gömöri – Melis – Kiss 2018* J. Gömöri – E. Melis – V. Kiss: A cemetery of the Gáta–Wieselburg culture at Nagycenk (Western Hungary). ActaArchHung 69 (2018) 5–82.  
<https://doi.org/10.1556/072.2018.69.1.1>

- Honti 1996* Sz. Honti: A kisapostagi-kultúra. A mészbetétes edények népe kultúrája [Kisapostag culture. Encrusted Pottery culture.], in: L. Költő – L. Vándor (eds.): Évezredek üzenete a láp világából. Régészeti kutatások a Kis-Balaton területén 1979–1992. Kaposvár – Zalaegerszeg 1996, 47–56.
- Ilon 1996* G. Ilon: Régészeti adatok Csepreg és vidéke őstörténetéhez [Archaeological data regarding the prehistory of Csepreg and its region], in: J. Dénes (ed.): Tanulmányok Csepreg történetéből. Csepreg 1996, 6–43.
- Ilon 2012* G. Ilon: Brotlaibidol („kenyeridol”) Ménfőcsanakról (Ein Brotlaibidol aus Ménfőcsanak). *Ősrégészeti Levelek* 14 (2012) [2015] 13–18.
- Ilon 2014* G. Ilon: Opfergrube der Hügelgräberkultur in der Gemarkung von Ménfőcsanak. Spiralornament auf einem Tonfries eines Gebäudes. *ActaArchHung* 65 (2014) 5–42.  
<https://doi.org/10.1556/AArch.65.2014.1.1>
- Ilon 2015* G. Ilon: Ein spätbronzezeitliches Tracht-Depot aus der Gemarkung von Ménfőcsanak (Nordwest-Transdanubien), in: J. Bartík (Hrsg.): Gedenkschrift für Jozef Paulík Studien. Zborník na pamiatku Jozefa Paulíka stúdie. ZbSNM. Archeológia. Supplementum 9. Bratislava 2015, 139–154.
- Ilon 2019* G. Ilon: Die Entstehung und Zeitstellung der Hügelgräberkultur (1650/1600–1350/1300 BC) in Westtransdanubien. Der Versuch einer Stufengliederung mittels Typochronologie und Radiokarbonaten, in: J. P. Barna – E. Bánffy (Hrsg.): „Trans lacum Pelsonem”. Prähistorische Forschungen in Südwestungarn (5500–500 v. Chr.). Castellum Pannonicum Pelsonense 7. Keszthely 2019, 253–327.
- Ilon – Nagy 2013* G. Ilon – M. Nagy: Brotlaibidole aus Vép (Komitat Vas, Westtransdanubien, Ungarn). *ArchÉrt* 138 (2013) 293–303.  
<https://doi.org/10.1556/ArchErt.138.2013.12>
- Jaeger 2016* M. Jaeger: Bronze Age Fortified Settlements in Central Europe. Studien zur Archäologie in Ostmitteleuropa – Studia nad Pradziejami Europy Środkowej 17. Poznań 2016.
- Jaeger et al. 2018* M. Jaeger – G. Kulcsár – N. Taylor – R. Staniuk (eds.): Kakucs-Turján. A Middle Bronze Age Multi-Layered Fortified Settlement in Central Hungary. Studien zur Archäologie in Ostmitteleuropa – Studia nad Pradziejami Europy Środkowej 18. Bonn 2018.
- Jankovits in print* K. Jankovits: Középső bronzkori magaslati település Fertőboz-Gradina-hegyen (Ny-Magyarország) [Middle Bronze Age hilltop settlement in Fertőboz-Gradina-hegy]. *ActaArchHung in print*.
- Károlyi 1984* M. Károlyi: Későbronzkori településnyomok Hegyfalu határában. (Spätbronzezeitliche Siedlungsspuren in der Nähe von Hegyfalu. Neuere Funde der Hügelgräberkultur im Komitat Vas). *Savaria* 13–14 (1979–1980) [1984] 133–170.

- Kienlin – P. Fischl – Pusztai 2018* T. L. Kienlin – K. P. Fischl – T. Pusztai: Borsod Region Bronze Age Settlement (BORBAS). Catalogue of the Early to the Middle Bronze Age Tell Sites Covered by Magnetometry and Surface Survey. UPA 317. Bonn 2018.
- Kiss 2000* V. Kiss: A mészbetétes kerámia kultúrája kapcsolatai a Kárpát-medence nyugati területeivel és a közép-európai kultúrákkal a középső bronzkorban (Die Beziehungen der inkrustierten Keramik in den westlichen Gebieten des Karpatenbeckens und zur mitteleuropäischen Kultur in der mittleren Bronzezeit). KMMK 7 (2000) 15–55.
- Kiss 2002* V. Kiss: Anknüpfungspunkte zwischen Mitteleuropa und Transdanubien in der mittleren Bronzezeit. *Antaeus* 25 (2002) 477–511.
- Kiss 2003* V. Kiss: Central European Economies. Agriculturalists in Transdanubia, in: Zs. Visy (ed.): *Hungarian Archaeology at the Turn of the Millennium*. Budapest 2003, 148–149.
- Kiss 2007* V. Kiss: A Balaton déli partvidéke és a Dél-Dunántúl a bronzkorban [The southern shore of Lake Balaton and Southern Transdanubia in the Bronze Age], in: K. Belényesy – Sz. Honti – V. Kiss (eds.): *Gördülő idő. Régészeti feltárások az M7-es autópálya Somogy megyei szakaszán Zamárdi és Ordacsehi között* (Rolling Time. Excavations on the M7 Motorway in County Somogy between Zamárdi and Ordacsehi). Budapest 2007, 29–34.
- Kiss 2012a* V. Kiss: Middle Bronze Age Encrusted Pottery in Western Hungary. *VAH* 27. Budapest 2012.
- Kiss 2012b* V. Kiss: Central European and Southeastern Alpine influences upon Western Transdanubia's Early and Middle Bronze Age, in: P. Anreiter – E. Bánffy – L. Bartosiewicz – W. Meid – C. Metzner-Nebelsick (eds.): *Archaeological, Cultural and Linguistic Heritage. Festschrift for Erzsébet Jerem in Honour of Her 70th Birthday*. Budapest 2012, 321–335.
- Kiss 2013* V. Kiss: Problems of the Koszider period in Transdanubia, in: I. Poroszlai – M. Vicze – P. Sümegi (eds.): *Koszider. Hoard, Phase, Period? Round Table Conference on the Koszider Problem*. Százhalombatta 2013, 61–96.
- Kiss in print* V. Kiss: Sopron és a Fertő-medence a bronzkorban [Sopron and the Fertő Basin in the Bronze Age], in: E. Jerem (ed.): *Sopron és környéke az őskortól a római korig*. Sopron *in print*.
- Kiss – Kulcsár 2007* V. Kiss – G. Kulcsár: Bronze Age settlement patterns in the Balaton Uplands and the Little Balaton region, in: Cs. Zatykó – I. Juhász – P. Sümegi (eds.): *Environmental Archaeology in Transdanubia*. *VAH* 20. Budapest 2007, 75–84.
- Kiss – Vaday – Fábíán 2011* V. Kiss – A. Vaday – Sz. Fábíán: Ménfőcsanak-83. út sok-korszakos lelőhelyének feldolgozása (Analysis of the multi-period site of Ménfőcsanak road n. 83). OTKA report. [online] (Last updated: 03.31.2011) <http://nyilvanos.otka-palyazat.hu/index.php?menuid=930&num=47072>> [last accessed: 05.01.2013]

- Kovács 1988* T. Kovács: Die bronzezeitliche Siedlung von Süttő. Eine kurze Übersicht. *SIA* 36 (1988) 119–132.
- Kovács 1997* T. Kovács: Das Grab von Ménfőcsanak. Ein Beitrag zu transdanubischen Denkmälern der Vorhügelgräberzeit, in: C. Dobiat – K. Leidorf (Hrsg.): *Chronos. Festschrift für Bernhard Hänsel. Studia honoraria* 1. Espelkamp 1997, 297–301.
- Krenn-Leeb 2011* A. Krenn-Leeb: Zwischen Buckliger Welt und Kleinen Karpaten. Die Lebenswelt der Wieselburg-Kultur. *AÖ* 22/1 (2011) 11–26.
- Kulcsár 2009* G. Kulcsár: The Beginnings of the Bronze Age in the Carpathian Basin. The Makó–Kosihy–Čaka and the Somogyvár–Vinkovci Cultures in Hungary. *VAH* 23. Budapest 2009.
- Kulcsár – Szeverényi 2012* G. Kulcsár – V. Szeverényi: Middle Bronze Age settlement and society in Central Hungary, in: M. Jaeger – J. Czebreszuk – K. P. Fischl (eds.): *Enclosed Space – Open Society. Contact and Exchange in the Context of Bronze Age Fortified Settlements in Central Europe. Studien zur Archäologie in Ostmitteleuropa* 9. Poznań – Bonn 2012, 287–351.
- Kvassay – Kiss – Bondár 2004* J. Kvassay – V. Kiss – M. Bondár: Óskori és középkori település emlékei Zalaegerszeg-Ságod-Bekeháza lelőhelyen (Prähistorische und mittelalterliche Siedlungsreste von Zalaegerszeg-Ságod-Bekeháza). *ZalaiMúz* 13 (2004) 119–175.
- Langó 2004* P. Langó: Enese, Szabadság utca 72 (Győr-Moson-Sopron megye), in: J. Kisfaludi (ed.): *Régészeti kutatások Magyarországon 2002 (Archaeological Investigations in Hungary 2002)*. Budapest 2004, 207.
- Langó – Mende 2006* P. Langó – B. Mende: Honfoglalás kori sírok Enesén (Graves from the age of the Magyar Conquest in Enese) (Gräber aus der Zeit der Landnahme in Enese). *Arrabona* 44/1 (2006) 231–250.
- Leeb 1987* A. Leeb: Überblick über Chorologie, Typologie und Chronologie der Wieselburgerkultur. 100 Jahre Forschungsstand. *Wissenschaftliche Arbeiten aus dem Burgenland* 75. Eisenstadt 1987, 231–283.
- Márkus 2020* G. Márkus: Nagylózs, Sós-rét lelőhely, in: Rómer Flóris Történeti és Művészeti Múzeum (ed.): *M85 6. rész – M85 autótűt Csorna II. – Sopron kelet, I. szakasz*, 58–59. <https://romer.hu/m85-autout-csorna-ii-sopron-kelet-i-szakasz-6-resz> [last accessed: 12.09.2022]
- Melis 2011* E. Melis: Adatok a Tokod-csoport nyugati elterjedéséhez (Some comments on the western diffusion of the Tokod-Group). *Arrabona* 49 (2011) 179–200.
- Melis 2014* E. Melis: A ménfőcsanaki középső bronzkori település nyugati típusú leletegyüttese (The western-type assemblages from the Middle Bronze Age settlement at Ménfőcsanak). *CommArchHung* 2014, 37–70. <https://doi.org/10.54640/CAH.2014.37>
- Melis 2015* E. Melis: Inhumation burials from the Early Bronze Age in Győr-Ménfőcsanak, in: J. Batora – P. Tóth (eds.): *Keď bronz vystriedal meď. Zborník príspevkov z XXIII. medzinárodného symposia „Staršia doba bronzová v Čechách, na Morave a na Slovensku“* Levice 8.–11. októbra 2013. *Archae-*

- ologica Slovaca Monographiae. Communicationes 18. Bratislava – Nitra 2015, 339–354.
- Melis 2017* E. Melis: Research questions regarding the Early and Middle Bronze Age in North-Western Transdanubia (Hungary), in: G. Kulcsár – G. V. Szabó – V. Kiss – G. Váczi (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, 13–28.
- Melis 2020* E. Melis: Temetkezési szokások a Gáta–Wieselburg-kultúra hegyeshalmi temetőjében (Mortuary practices in the cemetery of Hegyeshalom from the Gáta–Wieselburg culture), in: G. Nemes – D. Czigány – Zs. N. Matus (eds.): Tomka 80. Ünnepi tanulmányok Tomka Péter köszöntésére. Győr 2020, 355–378.
- Melis 2023* E. Melis: Az Északnyugat-Dunántúl a kora bronzkor végétől a koszideri periódusig [North-Western Hungary from the End of the Early Bronze Age until the Koszider Period]. PhD dissertation at the Eötvös Loránd University, Budapest 2023.
- Melis et al. 2022* E. Melis – V. Kiss – G. Kulcsár – G. Serlegi – B. Vágvölgyi: Bronze Age microregional settlement investigations in the locality of Nagycenk (Northwest Hungary). *Antaeus* 38 (2022) 33–80.  
[https://doi.org/10.62149/Antaeus.38.2022\\_02](https://doi.org/10.62149/Antaeus.38.2022_02)
- Melis et al. 2023* E. Melis – V. Kiss – G. Kulcsár – G. Serlegi – B. Vágvölgyi: Előzetes jelentés a Nagycenk környékén végzett bronzkori mikroregionális kutatásokról (Preliminary report on the Bronze Age microregional study of the Nagycenk Region), in: G. Szilas – M. Tóth Farkas (eds.): ΜΩΜΟΣ 11. Környezet és ember. Őskoros Kutatók XI. Összejövedele konferenciakötete. 2019. április 10–12., BTM Aquincumi Múzeum. Ősrégészeti tanulmányok / Prehistoric studies 3. Budapest 2023, 77–86.  
<https://doi.org/10.21862/momosz11.06>
- Mellnerová Šuteková et al. 2015* J. Mellnerová Šuteková – P. Jelínek – J. Hlavatá – D. Kendrala: Sídlikový objekt wieselburskej kultúry v Bratislave-Rusovciach (Settlement feature of the Wieselburg culture in Bratislava-Rusovce). *ZbSNM. Archeológia* 25. Bratislava 2015, 19–29.
- Mithay 1941* S. Mithay: Bronzkori kultúrák Győr környékén [Bronze Age Cultures in the Vicinity of Győr]. Győr 1941.
- Mithay – Bottyán 1940* S. Mithay – Á. Bottyán: Első koroncói ásátás a Bábótán (1939) [The first Koroncó excavation in Bábota]. *GySz* 11 (1940) 174–183.
- MKK 2010* Z. Dövényi (ed.): Magyarország kistájainak katasztere [Inventory of Microregions in Hungary]. Budapest 2010.
- Molnár 2009* A. Molnár: Régészeti kutatások Sokorópátka Harangozó-hegyen (Archaeological investigations at Sokorópátka. Harangozó hill), in: J. Kisfaludi (ed.): Régészeti kutatások Magyarországon 2008 (Archaeological Investigations in Hungary 2008). Budapest 2009, 91–110.

- Mrenka 2022* A. Mrenka: Bronzkori leletek Sopron környéki terepbejárásokból (Bronze Age finds from field surveys around Sopron). *Arrabona* 60 (2022) 9–33.
- MRT 4* M. Dax – I. Éri – S. Mithay – Sz. Palágyi – I. Torma: Veszprém megye régészeti topográfiája. 4. A pápai és zirci járás [Archaeological Topography of Veszprém County 4. The Pápa and Zirc Districts]. MRT 4. Budapest 1972.
- Müller 2016* A. Müller: Das litzenkeramische Fundmaterial vom Taborac in Draßburg/Burgenland. Masterarbeit. Wien 2016.
- Nagy 2013* M. Nagy: Der südlichste Fundort der Gáta–Wieselburg-Kultur in Zsenye-Kavicsbánya/Schottergrube, Komitat Vas, Westungarn. *Savaria* 36 (2013) 75–173.
- Nagy – Pesti 2019a* A. Nagy – K. Pesti: Barbacs, Lanzasai-dűlő, in: J. Kvassay – A. Kreiter (eds.): Régészeti kutatások Magyarországon 2012 (Archaeological Investigations in Hungary 2012). Budapest 2019, 9–10.
- Nagy – Pesti 2019b* A. Nagy – K. Pesti: Kóny-Dőri határra dűlő, in: J. Kvassay – A. Kreiter (eds.): Régészeti kutatások Magyarországon 2012 (Archaeological Investigations in Hungary 2012). Budapest 2019, 68–69.
- Neugebauer 1994* J.-W. Neugebauer: Bronzezeit in Ostösterreich. St. Pölten – Wien 1994.
- Nováki 1952* Gy. Nováki: Sánctátság a sopronkőhidai Kecskehegyen [Excavation of the ramparts at the Kecskehegy in Sopronkőhida]. *ArchÉrt* 79/2 (1952) 94.
- Nováki 1959* Gy. Nováki: Kisfalud-Kázmérdomb (Győr-Sopron m., kapuvári j.) [Kisfalud-Kázmérdomb {Győr-Sopron County, Kapuvár District}]. *RégFüz Ser. 1.* 11 (1959) 8–9.
- Nováki 1960a* Gy. Nováki: Szakony (Győr-Sopron m., soproni j.) [Szakony {Győr-Sopron County, Sopron District}]. *RégFüz Ser. 1.* 14 (1960) 9.
- Nováki 1960b* Gy. Nováki: Páli-Kispáli dűlő (Győr-Sopron m., csornai j.) [Páli-Kispáli dűlő {Győr-Sopron County, Csorna District}]. *RégFüz Ser. 1.* 13 (1960) 10.
- Nováki 1964a* Gy. Nováki: Fertőboz-Gradinahegy (Győr-Sopron m., Soproni j.) [Fertőboz-Gradinahegy {Győr-Sopron County, Sopron District}]. *RégFüz Ser. 1.* 17 (1964) 6–7.
- Nováki 1964b* Gy. Nováki: Fertőboz-Gradinahegy (Kom. Győr-Sopron, Kr. Sopron). *ArchÉrt* 91/1–2 (1964) 250.
- Nováki 1965a* Gy. Nováki: Szakony (Kom. Győr-Sopron, Kr. Sopron). *ArchÉrt* 92/2 (1965) 233.
- Nováki 1965b* Gy. Nováki: Fertőboz-Gradinahegy (Győr-Sopron m., Soproni j.) [Fertőboz-Gradinahegy {Győr-Sopron County, Sopron District}]. *RégFüz Ser. 1.* 18 (1965) 9.
- Nováki 1965c* Gy. Nováki: Fertőboz-Gradinahegy (Kom. Győr-Sopron, Kr. Sopron). *ArchÉrt* 92/2 (1965) 231.

- Nováki 1975* Gy. Nováki: A magyarországi földvárak az őskortól a középkorig (Earthworks in Hungary from Prehistoric to Middle Ages). *Építés – Építészettudomány* 7/3–4 (1975) 323–329.
- Nováki 1979* Gy. Nováki: Őskori és középkori földvárak a bakonyi Kesellő- és Zörög-hegyen (Vorgeschichtliche und mittelalterliche Erdfesten im Cuha-Tal im Bakonywald). *VMMK* 14 (1979) 75–123.
- Nováki 1997* Gy. Nováki: Őskori földvárak Sopron mellett (Prähistorische Erdverschanzungen in der Gegend von Ödenburg). *SSz* 51/2 (1997) 118–134.
- Polgár 2018a* P. Polgár: Győr-Ménfőcsanak, Csanak-hegy, Szamár-domb (Népfőiskola utca) (KÖH 77285), in: J. Kvassay – A. Kreiter (eds.): *Régészeti kutatások Magyarországon 2011* (Archaeological Investigations in Hungary 2011). Budapest 2018, 59–60.
- Polgár 2018b* P. Polgár: Rábapatona határa (Győr-Moson-Sopron megye), in: J. Kvassay – A. Kreiter (eds.): *Régészeti kutatások Magyarországon 2011* (Archaeological Investigations in Hungary 2011). Budapest 2018, 149–150.
- Polgár 2020* P. Polgár: Régészeti feltárások Rábapatonánál és azok környezetregészeti vizsgálatának jelentősége a hazai kutatásban [Archaeological excavations at Rábapatona and the significance of their environmental archaeological analysis in Hungarian research], in: T. Töröcsik – S. Gulyás – D. Molnár – K. Náfrádi (eds.): *Környezettörténet. Tanulmányok Sümegi Pál professzor 60 éves születésnapjára*. Szeged 2020, 389–394.
- Polgár – Czigány 2021a* P. Polgár – D. Czigány: Rábapatona határa (Győr-Moson-Sopron megye) – Országúton felüli-dűlő III. (KÖH 70195), in: J. Kvassay – A. Kreiter – R. K. Péter (eds.): *Régészeti kutatások Magyarországon 2014* (Archaeological Investigations in Hungary 2014). Budapest 2021, 139.
- Polgár – Czigány 2021b* P. Polgár – D. Czigány: Rábapatona határa (Győr-Moson-Sopron megye) – Poszogó-domb (KÖH 33024), in: J. Kvassay – A. Kreiter – R. K. Péter (eds.): *Régészeti kutatások Magyarországon 2014* (Archaeological Investigations in Hungary 2014). Budapest 2021, 140–141.
- Priskin et al. 2013* A. Priskin – P. Czukor – Cs. Szalontai – V. Szeverényi: Research into the structure of Late Bronze Age settlements in the Southern Great Hungarian Plain. “Enclosed Space–Open Borders” Project. *HungArch* 2013/3, 1–6. [https://files.archaeolingua.hu/2013O/Upload/cikk\\_Priskin\\_EN.pdf](https://files.archaeolingua.hu/2013O/Upload/cikk_Priskin_EN.pdf)
- Puskás 2023* J. Puskás: Középső bronzkori települések és territóriumok a Felsőháromszéki-medencében (Kovácsna megye, Románia) (Middle Bronze Age settlements and territories in the Felsőháromszék Depression [Covasna County, Romania]), in: G. Szilas – M. Tóth Farkas (eds.): *ΜΩΜΟΣ 11. Környezet és ember. Őskoros Kutatók XI. Összejövetele konferenciakötete*. 2019. április 10–12., BTM Aquincumi Múzeum. *Őrégészeti tanulmányok / Prehistoric studies* 3. Budapest 2023, 285–296. <https://doi.org/10.21862/momosz11.21>
- Pusztai 1967* R. Pusztai: Késő-vaskori házak Lébényben (Späteisenzeitliche Häuser in Lébény). *Arrabona* 9 (1967) 5–11.



- Sánta 2010* G. Sánta: Settlements of the Tumulus culture in Hungary. *Antaeus* 31–32 (2010) [2011] 513–528.
- Savanyú 2020a* B. Savanyú: Fertőszentmiklós-Ikva-part lelőhely, in: Rómer Flóris Történeti és Művészeti Múzeum (ed.): M85 3. rész. M85 autóút Csorna II. – Sopron kelet, I. szakasz, 1–2.  
<https://romer.hu/m85-autout-csorna-ii-sopron-kelet-i-szakasz-3-resz> [last accessed: 11.09.2022]
- Savanyú 2020b* B. Savanyú: Sopron-Lóversenyter lelőhely, in: Rómer Flóris Történeti és Művészeti Múzeum (ed.): M85 9. rész. M85 autóút Csorna II. – Sopron kelet, I. szakasz, 1–2.  
<https://romer.hu/m85-autout-csorna-ii-sopron-kelet-i-szakasz-9-resz> [last accessed: 11.09.2022]
- Savanyú 2020c* B. Savanyú: Nagycenk-Alsó-domb-dűlő lelőhely, in: Rómer Flóris Történeti és Művészeti Múzeum (ed.): M85 8. rész. M85 autóút Csorna II. – Sopron kelet, I. szakasz, 12–13. <https://romer.hu/m85-autout-csorna-ii-sopron-kelet-i-szakasz-8-resz> [last accessed: 21.03.2022]
- Szabó 2023* N. Szabó: Pozíció és funkció. Egy középső bronzkori település külső és belső határainak vizsgálata (Position and function. Examination of the external and internal boundaries of a Middle Bronze Age settlement), in: G. Szilas – M. Tóth Farkas (eds.): ΜΩΜΟΣ 11. Környezet és ember. Óskoros Kutatók XI. Összejövedele konferenciakötete. 2019. április 10–12., BTM Aquincumi Múzeum. Ősrégészeti tanulmányok / Prehistoric studies 3. Budapest 2023, 93–104.  
<https://doi.org/10.21862/momosz11.08>
- Szathmári et al. 2019* I. Szathmári – Sz. Guba – G. Kulcsár – G. Serlegi – B. Vágvölgyi – V. Kiss: Füzesabony-Öregdomb Bronze Age tell settlement. New insights on the settlement structure, in: K. P. Fischl – T. L. Kienlin (eds.): *Beyond Divides. The Otomani–Füzesabony Phenomenon. Current Approaches to Settlement and Burial in the North-Eastern Carpathian Basin and Adjacent Areas.* Bonn 2019, 351–368.
- Takács 2007* K. Takács: Rábacsécsény határa (Győr-Moson-Sopron megye), in: J. Kisfaludi (ed.): *Régészeti kutatások Magyarországon 2006 (Archaeological Investigations in Hungary 2006).* Budapest 2007, 258–259.
- Takács 2009* K. Takács: Ravasz határa (Győr-Moson-Sopron megye), in: J. Kisfaludi (ed.): *Régészeti kutatások Magyarországon 2007 (Archaeological Investigations in Hungary 2007).* Budapest 2009, 265–266.
- Takács 2012* K. Takács: Bodonhely határa (Győr-Moson-Sopron megye), in: J. Kisfaludi (ed.): *Régészeti kutatások Magyarországon 2010 (Archaeological Investigations in Hungary 2010).* Budapest 2012, 180–181.
- Točík 1964* A. Točík: Opevnená osada z doby bronzovej vo Veselom. *Archaeologica Slovaca Fontes* 5. Bratislava 1964.
- Točík 1978–1981* A. Točík: Nitriansky Hrádok-Zameček. Bronzezeitliche befestigte Ansiedlung der Maďarovce Kultur. *MatArchSlov* 3. 1–3. Nitra 1978–1981.

- Točík 1981* A. Točík: Malé Kosihy, Osada zo strasej doby bronzovej. Malé Kosihy, altbronzezeitliche Siedlung. MatArchSlov 4. Nitra 1981.
- Tokai 2021* Z. M. Tokai: Koroncó, Bábota (KÖH 24266) (Győr-Moson-Sopron megye), in: J. Kvassay – A. Kreiter – R. K. Péter (eds.): Régészeti kutatások Magyarországon 2014 (Archaeological Investigations in Hungary 2014). Budapest 2021, 96–97.
- Tomka 1997* P. Tomka: Ravazd-Vilibáld-domb (Győr-Moson-Sopron megye). RégFüz Ser. 1. 49 (1997) 95.
- Tomka 2001* P. Tomka: Dör-Nagyát eleje (Győr-Moson-Sopron megye). RégFüz Ser. 1. 51 (2001) 28.
- Tomka – Szőnyi 2001* P. Tomka – E. Szőnyi: Ravazd-Simahegy, Piskótagyár (Győr-Moson-Sopron megye). RégFüz Ser. 1. 51 (2001) 43.
- Torma 1972a* I. Torma: A kisapostagi kultúra telepe Balatonyörökön (Eine Siedlung der Kisapostager-Kultur in Balatonyörök). VMMK 11 (1972) 15–34.
- Torma 1972b* I. Torma: Die frühbronzezeitliche befestigte Siedlung in Tokod-Leshegy. MittArchInst 3 (1972) 73–77.
- Torma 1976* I. Torma: Ein Grab der Transdanubischen inkrustierten Keramik aus Esztergom. MittArchInst 6 (1976) 25–37.
- Tóth – Melis – Ilon 2016* G. Tóth – E. Melis – G. Ilon: A ménfőcsanaki feltárás (2009–2011) bronzkori leletanyagának embertani és azokkal összefüggő régészeti eredményei (The anthropological and corresponding archaeological results of the Bronze Age material from the Ménfőcsanak excavation [2009–2011]), in: T. Csécs – M. Takács (eds.): Beatus homo qui invenit sapientiam. Ünnepi kötet Tomka Péter 75. születésnapjára. Győr 2016, 737–755.
- Uzsoki 1958* A. Uzsoki: Mosonszentmiklós-Akasztódomb (Győr-Sopron m., mosonmagyaróvári j.). RégFüz Ser. 1. 10 (1958) 5.
- Uzsoki 1959* A. Uzsoki: Előzetes jelentés a Mosonszentmiklós-jánosházapusztai bronzkori temető ásatásának eredményeiről (Vorbericht über die Ergebnisse der Ausgrabungen im bronzezeitlichen Gräberfeld von Mosonszentmiklós-Jánosházapuszta). Arrabona 1 (1959) 53–73.
- Uzsoki – Gabler 1967* A. Uzsoki – D. Gabler: Mosonszentmiklós-Akasztódomb (Győr-Sopron m., mosonmagyaróvári j.). RégFüz Ser. 1. 20 (1967) 20.
- Vadász 2001* É. Vadász: Az észak-dunántúli mészbetétes kerámia Esztergomi alcsoportjának települése Dunaalmás-Foktorokban (Die Siedlung der Esztergomer Untergruppe der inkrustierten Keramik von Nordtransdanubien in Dunaalmás-Foktorok). KMMK 8 (1963) 7–81.
- Vadász – Vékony 1982* É. Vadász É. – G. Vékony G.: Őskori sáncok és halmok Süttön (A Fortified Settlement and Cemeteries of the Early Iron Age at Süttő). Régészeti kutatások a Dunántúlon 2. Tata 1982.
- Vaday 1996–1997* A. Vaday: Ménfőcsanak-83-as út. ArchÉrt 123–124 (1996–1997) 222.
- Vaday 1997* A. Vaday: Győr-Ménfőcsanak. RégFüz Ser. 1. 48 (1997) 11.

- 
- Varga 2010* K. Varga: Kóny-Proletár-dűlő, in: J. Kisfaludi (ed.): Régészeti kutatások Magyarországon 2009 (Archaeological Investigations in Hungary 2009). Budapest 2010, 251–252.
- Vékony 2000* G. Vékony: A koszideri korszak a Dunántúlon (Die Koszider-Periode in Transdanubien). KMMK 7 (2000) 173–186.
- Vicze – Earle – Artursson 2005* M. Vicze – T. Earle – M. Artursson: Bronze Age site gazetteer, Benta Valley, Hungary, in: I. Poroszlai – M. Vicze (eds.): SAX. Százhalombatta Archaeological Expedition. Report 2. Field Seasons 2000–2003. Százhalombatta 2005, 237–250.
- Vicze – Sørensen 2023* M. Vicze – M. L. S. Sørensen: Living in a Tell. Memory and Abandonment, Százhalombatta-Földvár Phase 1 (Late Koszider). ArchHung 55. Budapest 2023.

