

MIDDLE BRONZE AGE SETTLEMENT NETWORK IN THE NEIGHBOURHOOD OF POLGÁR

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Kivonat A Polgár mikrorégió ("Polgár Sziget") a Felső-Tisza-vidék azon geopolitikai szempontból kulcsfontosságú területére esik, amely nemcsak a neolitikum és a rézkor időszakában, de a középső bronzkor folyamán is összeköttetést biztosít az Alföld K-I területei és Erdély, valamint DK-Szlovákia és Kis-Lengyelország régiói között. A mikrorégió bronzkori telljeit kivétel nélkül Hatvan kerámiát készítő közösségek alapították, melyeket a Füzesabony stílusú kerámiával jellemezhető rétegek követnek és zárnak le. A telkekhez tartozó temetőket a települések közvetlen közelében sikerült azonosítani. A temetők gazdagsága (arany- és borostyánékszerek, bronzfegyverek és tárgyak), valamint a tellek központjában fémkereső műszerrel talált aranyékszerek egyértelműen utalnak az erődítésekkel övezett tellek kiemelt szerepére. Ez a kiemelt szerep a Tiszán átvezető gázlók felügyelete lehetett, melyeken keresztül az Erdély felől Kis-Lengyelország felé vezető kereskedelmi utak vezethettek. A kutatások jelenlegi állása alapján úgy tűnik, hogy a Polgár mikrorégió középső bronzkori települési rendszere egy jól átgondolt, a környezeti adottságokhoz maximálisan igazodó struktúra. A további - a korábbi és az újabb kutatások eredményeként előkerült - lelőhelyek (köztük a "kérdéses lelőhelyek" körébe tartozók) pontos értékelése és a bronzkori településhálózatban betöltött szerepük meghatározása további vizsgálatokat igényel.

Kulcsszavak középső bronzkor; településhálózat, településszerkezet, Polgár mikrorégió, Kárpát-medence ÉK-i rész

Keywords Middle Bronze Age; settlement network, settlement structure, Polgár microregion, NE part of the Carpathian Basin

Introduction

The first Bronze Age discoveries from the Polgár microregion are connected to famous archaeologists such as Ida B. Kutzián and Nándor Kalicz. They came to light during the 1950s at important sites such as the well-known Copper Age cemetery of Polgár, Basa-tanya and the Füzesabony cemetery from Tiszapalkonya, Power Station (B. Kutzián 1963; Kovács 1979: 57). Although some tell-settlements (Kiscsőszhalom, Borjúhalom and Bosnyákdomb) mentioned from this microregion were assigned to the Hatvan culture in the monograph of Nándor Kalicz (Kalicz 1968: 126–127; nr. 175, 176, 177; Abb.4.), the first sounding excavations started only at the end of the 1980s thanks to Márta Sz. Máthé. After the researches of Kalicz, Ibolya M. Nepper carried out

field surveys in 1971 in connection with the historical monograph of Polgár. In this study, she also mentioned these three larger sites of the Hatvan culture on the ground of Kalicz's site catalogue, but she did not know the Füzesabony sites from the vicinity of Polgár (M. Nepper 1974a: 18).

Between 1991 and 2004, the Polgár microregion was investigated within the framework of the Upper Tisza Project (UTP). This international project was an interdisciplinary Anglo-Hungarian landscape archaeology project, with the cooperation of the University of Durham/Dept. of Archaeology and Eötvös Loránd University/Institute of Archaeological Science, Budapest (UTP website). Between 1993 and 2003, preventive archaeological excavations took place in the Polgár microregion in connection to the M3

motorway project. It was the largest archaeological project ever in the microregion, which opened up new perspectives (both from a quantitative and a qualitative point of view) for the study of the Pre- and Protohistory of the Polgár region.

Ten years ago, András Füzesi carried out intensive field surveys between Polgár and Tiszacsege in order to examine the structure and development of the Neolithic settlement network of the microregion (Füzesi 2009). A little later Zsuzsa Siklósi launched a research project also affecting the Polgár microregion to investigate the landscape and sociocultural changes from the Late Neolithic to the Middle Copper Age (Raczky et al. 2014: 323–331, Fig. 3–4). After such inspiring precedents, in the spring of 2018 we have planned a new non-destructive research project on the already well-known and newly discovered Bronze Age settlements in the Polgár microregion. This research consists of field survey, geodesic survey and modelling, metal detector and geophysical surveys, and aerial photography, as well. The main goal of this project is to get a more precise picture of the Middle Bronze Age settlement network and layout of this microregion with new tools and methods and with collecting and using the earlier, retrospective data.

Polgár, Kenderföld-Kiscsöszhalom tell

The site also called "Szödhalom" on the map of First Habsburg military survey. After the first field surveys of József Petrőczy, and then the fieldwalking of Ibolya M. Nepper on this site (M. Nepper & Sz.Máthé 1973: 50; M. Nepper 1974a: 18; M. Nepper 1974b: 415, nr.13), the first excavations at this Bronze Age tell settlement were conducted between 1989 and 1995 by Márta Sz. Máthé and Magdolna Vicze (Fig. 1.1).

Two joining 5 x 10 m trenches were opened. The method of this research was almost identical with the tell excavations conducted in the Berettyó region. A small trench was cut into the southwestern part of the tell in order to clarify the stratigraphic sequence and chronological situation of the site. This research provided significantly more information neither about the inner structure of this tell settlement, nor about the location of the associated Bronze Age burial place(s). The material of this sounding excavation is yet unpublished. The first Early Bronze Age settlers on

this loessy elevation on the bank of the Hódos brook belonged to the Nyírség culture with some pits. The tell of Kiscsöszhalom was founded in the last phase of the EBA by a Hatvan community. After the Hatvan settling, already in the MBA there was a partial change in the ceramic style and an important change in the settlement structure: wide and deep ditch were charged and we could observe traces of new houses above it in the later phases of the tell, which connected to the appearance of Füzesabony style ceramics on the settlement (Fig. 2. 1). Meanwhile, the site was surveyed by the Upper Tisza Project in 1991 and 1996, where this site was named as "Polgár 001" (UTP e-book, database 1).

In connection with the sounding excavations at Kiscsöszhalom, Pál Sümegi carried out geological corings on the tell. He found that the Polgár microregion, the so-called "Polgár Island" has highly segregated, loess-covered lag-surfaces, which were ideal for human settling from the Neolithic during later Prehistory (Sümegi et al. 2005; Füzesi et al. 2016: 3–6). The higher surfaces are surrounded with lower-lying backswamp areas studded with infilled Pleistocene palaeochannels of the Tisza River. These must have been under at least temporary inundation when the floods turned the settlement site into a system of islands, as in the case of the Kiscsöszhalom and Ásott-halom tells as well. This island-like feature was even more accentuated by the preparation of a semi-circular ditch system surrounding the central core of the settlements and charging waters into the Tisza valley during the floods (Sümegi 2009; Sümegi 2013; Sümegi et al 2013). Highly similar economic strategies can be assumed for the numerous Middle Bronze Age tell settlement sites found on Pleistocene lag-surfaces, fossil alluvial fans in the Tisza, Sajó and Hernád valleys, as well as other parts of the Great Hungarian Plains (see e.g.: Sümegi et al. 1998; Tóth et al. 2005). This implies an intensive communication across and on the rivers by boats. Otherwise, thanks to the similar palaeoecological conditions, similar cultural and economic exploitation practices might have emerged as a result of a kind of environmental determination, as well. The watercourses must have been important water supplies, and the meadows were ideal for stock farming.

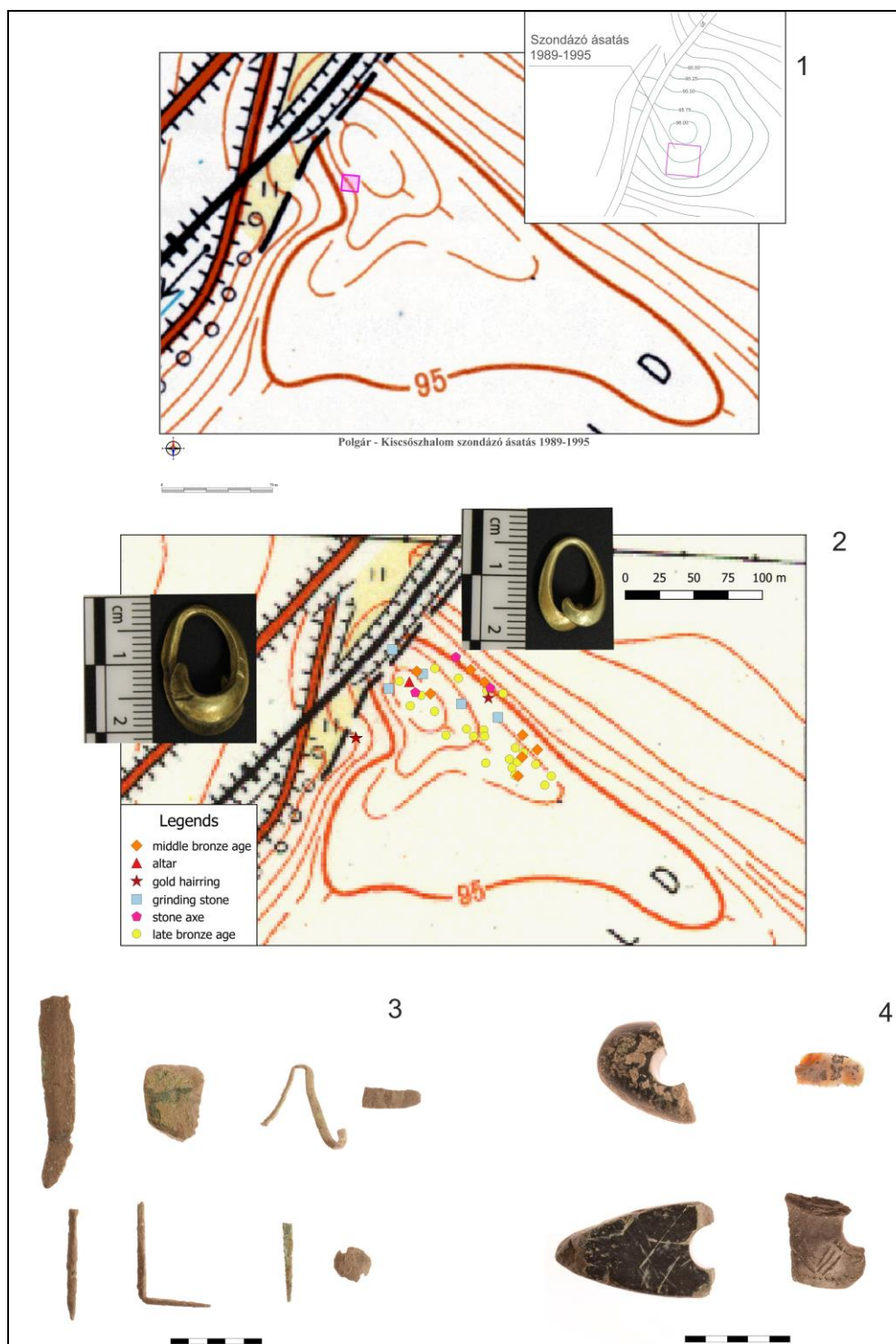


Figure 1. 1 – Detail of the EOV map with the contour of the sounding excavation on Polgár-Kenderfőldék, Kiscsőszhalom tell (1989-1995) (Map made by Róbert Ortutai, Déri Múzeum); 2 – Map (cut-out of EOV) of the surface collection with metal detector from Polgár-Kenderfőldék, Kiscsőszhalom tell (Map made by Marianna Bálint); 3 – Selected findmaterial from the surface collection (Photos made by Ákos Jurás, Déri Múzeum)

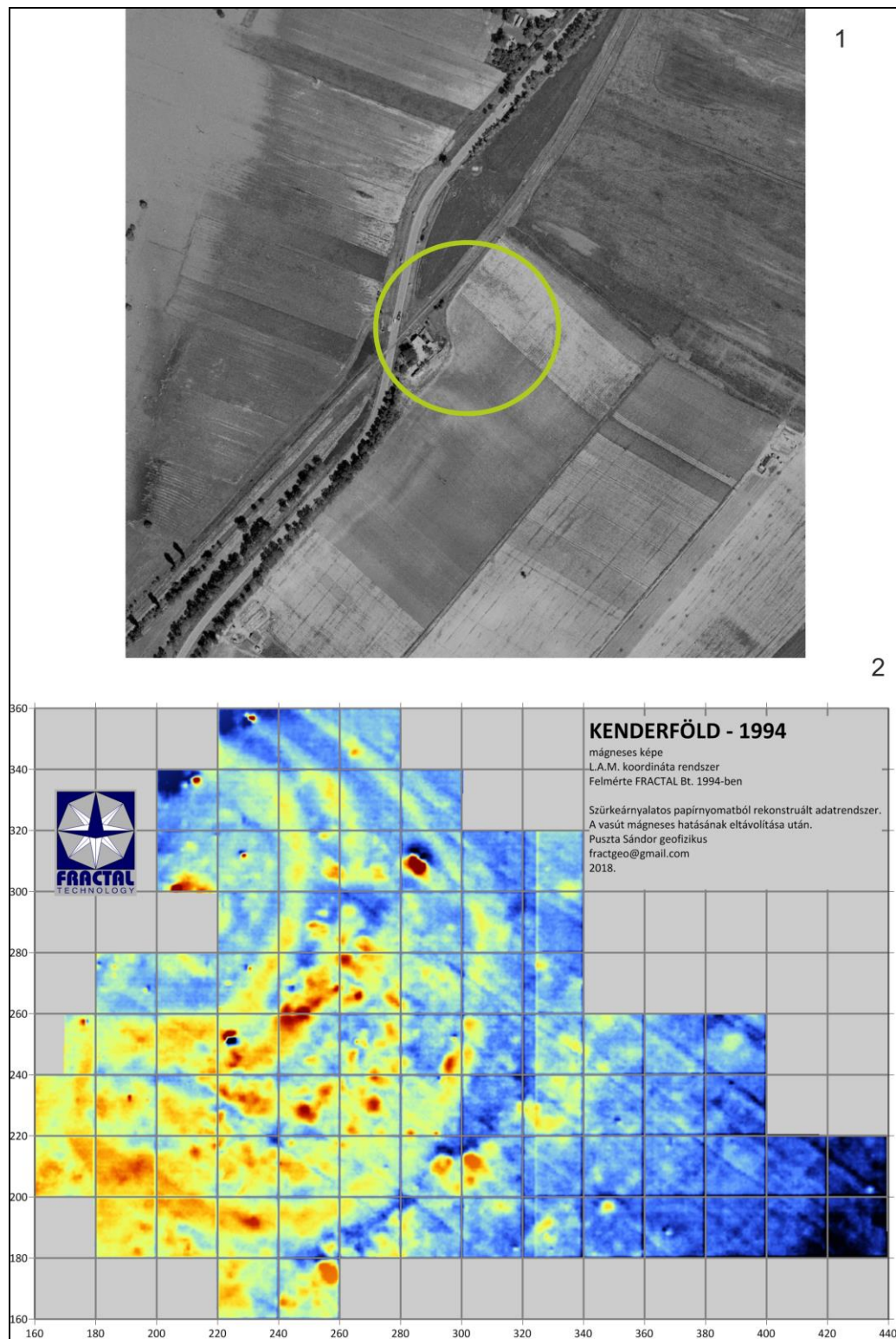


Figure 2. 1 – Detail of the B&W aerial photo of the Polgár-Kenderföldek, Kiscsöszhalom tell (source: FÖMI 1965_0414_4655); 2 – Magnetogramm of the Polgár-Kiscsöszhalom tell made by Sándor Pusztai (Fractal Bt.) in 1994

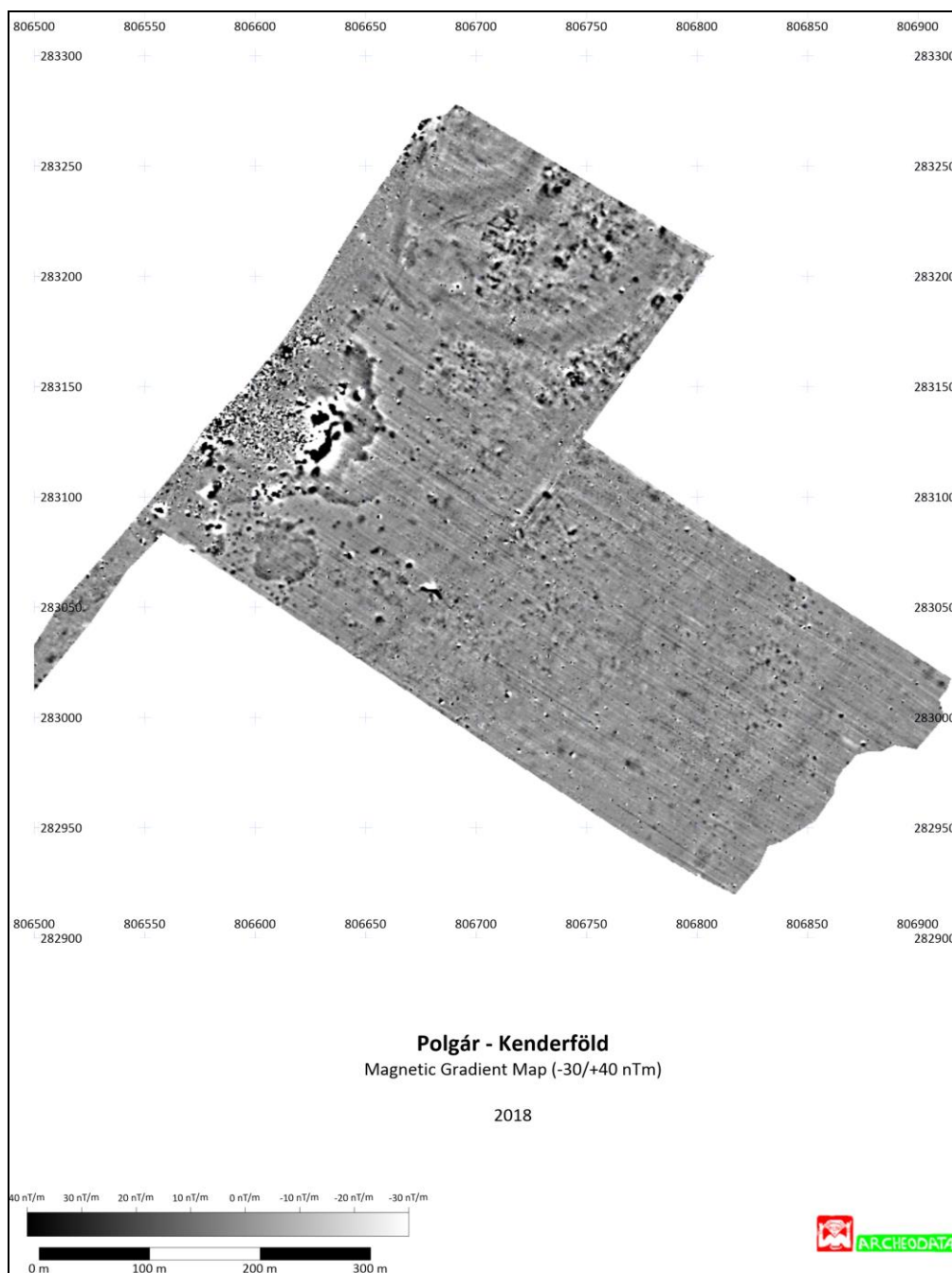


Figure 3. Magnetogramm of the southern part of Polgár-Kiscsözshalom tell made by Gábor Márkus (Archeodata 1998 Bt.) in 2018

The elevated high terraces and hills offered protection, while the gallery forests of the floodplain served as important wood resources. There seems to be an increase in the versatility of the vegetation around the Bronze Age settlements, including the tell settlements, compared to the

background areas, as a result of the newly appearing plant species connected to crop cultivation and stock farming (Sümegei 2009; Sümegei 2013). Before the final year of the excavation in 1994, Sándor Pusztai has made a geophysical survey, which shows us a multiple

fortification/ditch-system (Fig. 2.2). In 2018 Gábor Márkus has made a partial geophysical survey on the site, which shows more details: the burnt remains of the houses between the ditches, and further South the features of the outer settlement (Fig. 3).

Surprisingly or not this structure with the more and more expanding ditches is very similar to the geophysical picture of Carei-Bobald (Németi & Molnár 2012: Fig. 62–63). Of course, at this moment we are not able to date each separate ditches. We can summarize that the metall detector examination was very-very useful and it has given us brand new finds and information about the sites. In the case of the Kiscsőszhalom tell István Bacskai has found a new piece of golden Lockenring and some very important little bronze finds (buttons, fragments of sickle, awl, punches, dagger) (Fig. 1. 2–4). Between 1999–2001 connected to the M3 motorway construction-works some very rich Füzesabony cemeteries were discovered and partly excavated by Gábor V. Szabó and János Dani in the Polgár microregion. Firstly the cemetery of the Kiscsőszhalom tell-settlement from Kenderföldék was found, with some very rich graves (Dani et al. 2000; Dani et al. 2003; Dani & V.Szabó 2004) (Fig. 12. 1; Fig. 13)!

Polgár-Ásott-halom and Király-érpart (Site 29/M3)

The Ásott-halom tell is situated in the southwestern part of Polgár, right beside the Király Brook (an earlier Tisza channel) (Fig. 4. 1). The tell was surveyed by the Upper Tisza Project in 1991 under the name "Polgár 038" (UTP e-book, database 2), then geophysical survey was carried out in 1994 also by Sándor Pusztai (Fig. 6.1). The recent magnetometric prospection made by Gábor Márkus suggests a spatially well-structured fortified tell with a multiple ditch-system and an outer palisade. Next to the core area the burnt debris of rectangular houses are clearly visible (Fig. 6. 2). The inner core of the tell is clearly visible and it shows the same structure: circular, semi-circular wide ditch as in the case of Kiscsőszhalom, or at other tells from the Borsod Plain (Szakáld-Testhalom, Tard-Tatárdomb, Emőd-Nagyhalom etc.). The outer ditch was probably connected to the LBA Period, on the basis of evidence of a narrow cross-section cut through it in 1997 by Béla Kriveczky. Approx. 10 % of the find material from this cross-section and

some cremation graves next to the tell prove, that the tell-founder was also a Hatvan community, which was followed by Füzesabony layers (Fig. 5. 2–3). The very efficient metal detector survey of István Bacskai has resulted a golden Noppenring and some little fragmented bronze artefacts (Fig. 4. 2; Fig. 5. 1). The gold wire was found very close to the Noppenring approx. 10 years ago, and is kept in a private collection.

We have found two cemeteries belonging to the Ásott-halom tell: one is very close to the tell (Site 29/M3 motorway project) and the other was situated a little bit further to the East, on a sand dune (Homok-dűlő) (Dani 2004) (Fig. 12: 1; Fig. 13).

Polgár-Papp Tanya (Site 1/M3)

In the work of I. Nepper, an important Bronze Age site can be found, named after the owner of the farm and parcel as "Papp Vendel tanyája" (Fig. 12. 1; Fig. 13). She dated the finds from this site to the period of the Tumulus culture (M. Nepper 1974a: 19; Table 6/2-3; M. Nepper 1974b: 415, nr.15). From the same site Károly Mesterházy also published a cup and a bronze pin with twisted neck and rolled end as "originated probably from a cremation grave" (Mesterházy 1970: Table I/1, Fig. 21). Checked on the map it became obvious that this site is identical with Site 1 of the M3 motorway project, under the name "Király-érpart" (Hajdú & Nagy 1999: 144–146). On the ground of the published finds, we cannot exclude that at this huge site a MBA cemetery existed before the Tumulus culture.

Polgár-Downtown, Building of the secondary grammar school

In 1965, Károly Mesterházy received Bronze Age finds from the downtown of Polgár, which came to light during the construction works of the new secondary school (Fig. 12. 1; Fig. 13). Beyond a Medieval coin hoard, among the stray finds from this site a typical MBA decorated mug with a funnel-shaped neck and with vertical channels on its body can be found. Judging from the almost intact condition of the vessel, this could be a grave good, in this case we can reconstruct there a MBA burial place. (Mesterházy 1966: 52, Fig.8/1; Archaeological Collection of the Déri Museum; Inv.nr.: IV:66.1.14).

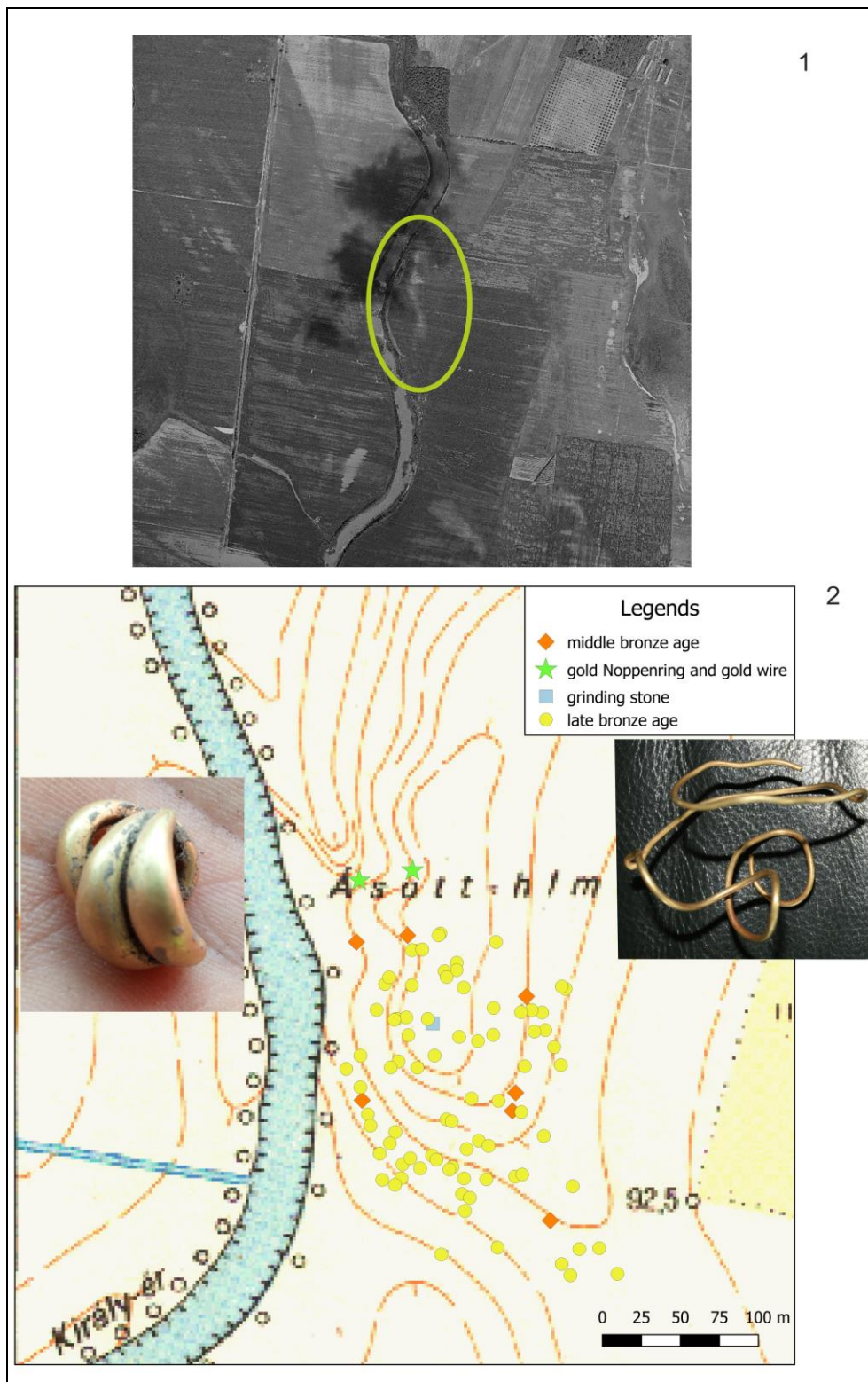


Figure 4. 1 – Detail of the B&W aerial photo of the Polgár-Ásott-halom tell (source: FÖMI 1965_0414_4680); 2 - Cut-out of EO map with the result of the metal detector survey (Map made by Marianna Bálint)

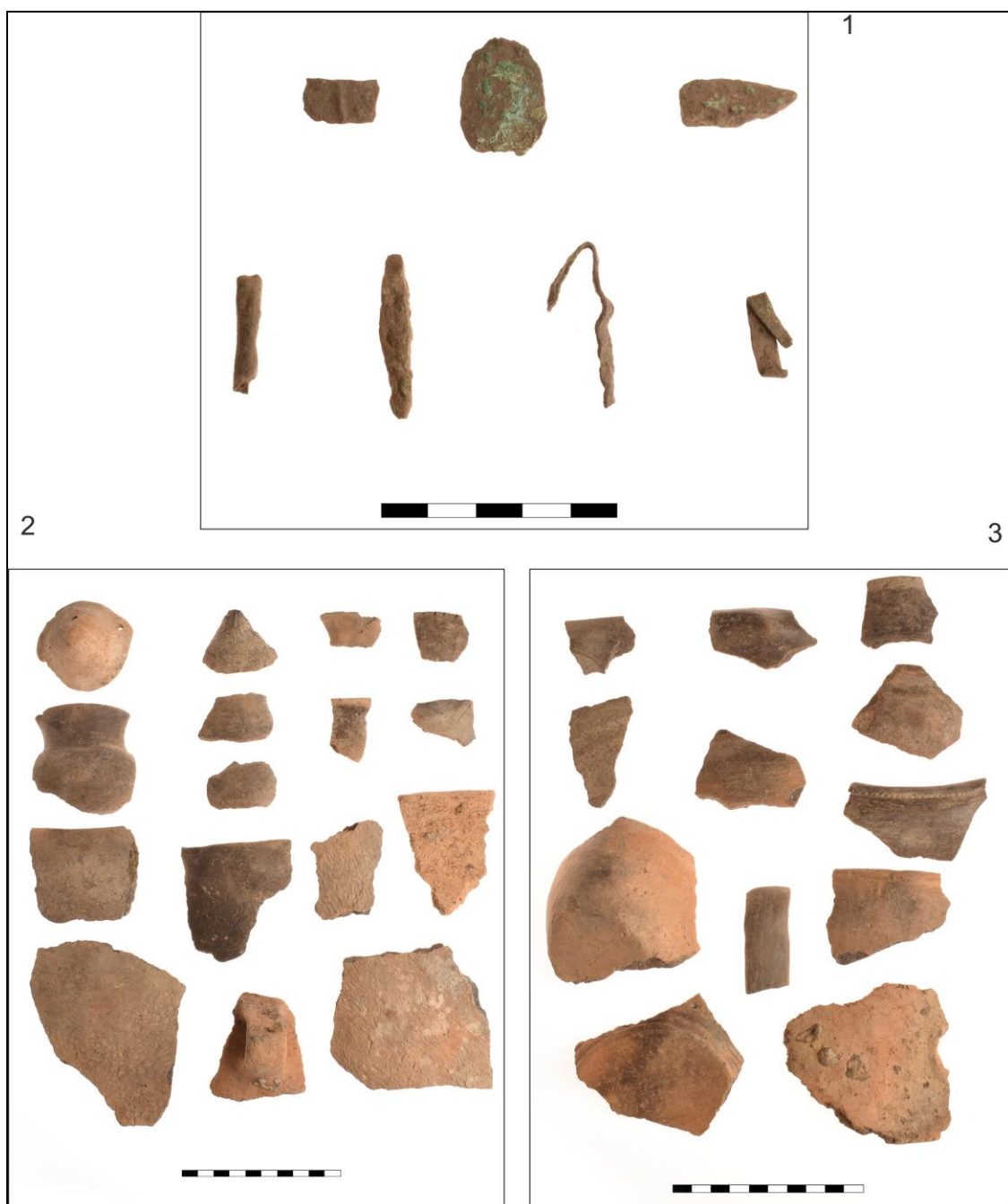


Figure 5. 1 – Selected findmaterial from the surface collection of Polgár-Ásott-halom tell; 2 – Hatvan style ceramic from the cross-section of the 2nd ditch of Polgár-Ásott-halom tell (1997; Courtesy of B. Kriveczky.); 3 – Classical MBA (Füzesabony) ceramic from the cross-section of the 2nd ditch of Polgár-Ásott-halom tell (1997; Courtesy of B. Kriveczky.) (Photos made by Ákos Jurás, Déri Múzeum)

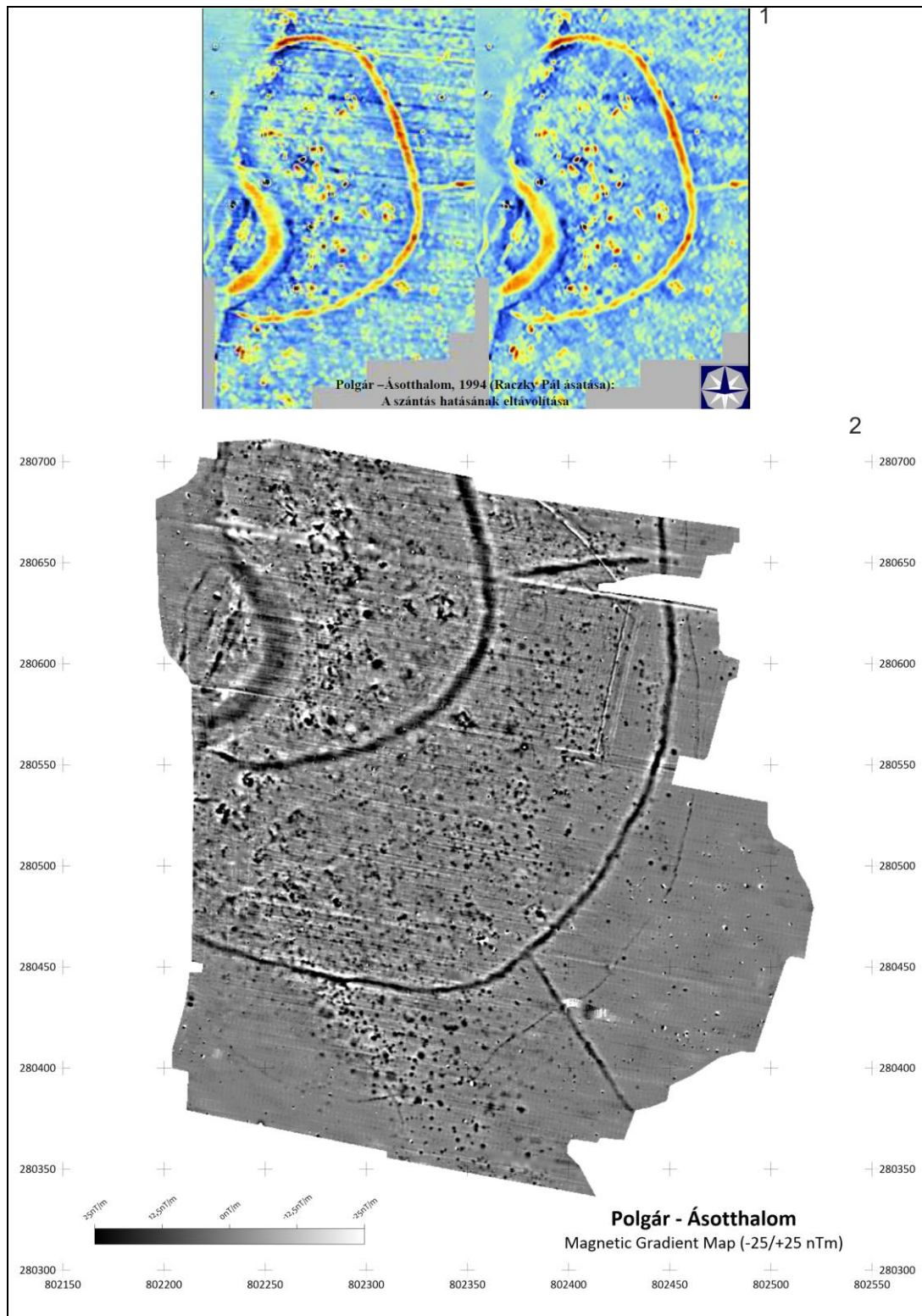


Figure 6. 1 – Magnetogramm of the Ásott-halom tell made by Sándor Pusztai (Fractal Bt.) in 1994; 2 – Magnetogramm of the Ásott-halom tell made by Gábor Márkus (Archeodata 1998 Bt.) in 2018

Polgár-Görbető-dűlő

In 2001, connecting to the motorway construction works, a clay extraction site was established North of the Polgár-Görbeháza road, on a shallow ridge at the eastern end of the Görbető paleochannel (Fig. 13). During the archaeological monitoring of the mining activity Gábor Márkus and János Dani have found so intact MBA finds (Füzesabony style) and human bones, from which we can assume here a burial place.

Folyás-Bivalyhalom

A few years ago, new Bronze Age settlements were found thanks to the intensive field surveys of Gábor Márkus and András Füzesi. To tell the truth, Bivalyhalom in the western part of Folyás was actually only rediscovered at this time, since it had already been identified and mentioned previously (M. Nepper & Sz. Máthé 1973 : 52; M. Nepper 1974b : 414, nr.8; M. Nepper et al. 1981: 47, note 13). This tell is situated next to the Farkas brook (Fig. 7. 2), which was also an earlier Tisza riverbed. On the aerial photo made in the 1960s the heart of the tell surrounded by a circular ditch is clearly visible (Fig. 7. 1). István Bacskai found here a few small bronze objects (fragments of pendants, sheet, bands) and two different types of gold Noppenrings (situated very close to each other) with a metal detector (Fig. 7. 2; Fig. 8. 1). We collected lots of grinding stones (Fig. 8. 2) and a human cranium from the surface of the tell and from animal nests, fox and badger holes. The sherds collected from the surface belong to the Hatvan and Füzesabony style (Fig. 9), clearly indicating for us the two main phases of the tell.

Újszentmargita-Tuka, Kunszög

Finally, even to the south, but along the left bank of the Tisza river, too, we have to call attention to a little tell-like settlement in the neighbourhood of Újszentmargita, next the road to Tuka. It is the mound of Kunszög, in the angle of the Árkus and Inta brooks (Fig. 10. 2). Probably Ibolya M. Nepper has found the same site during her field surveys in 1971 (M. Nepper 1974b: 416, nr.29). We found this embryonic settlement this spring, surrounded by water. But on the black-and-white aerial photo we can recognize a connected and also fortified outer settlement... (Fig. 10. 1) From this site we could collect only a few sherds, which can be dated to the end of the EBA (Hatvan and Otomani style material) (Fig. 11), and nothing else, with the

exception of the fragment of a beautiful ornamented gold sheet. It was probably a part of an oval disc, something similar to the well-known discs from Óbéba. The geophysical and geodesic surveys were a kind of 'mission impossible' on the last two sites, because the vegetation (forest with bushes) was so dense!

Questionable sites (Fig. 14)

Polgár-Bosnyákdomb

This site was mentioned by N. Kalicz as the findspot of the EBA Nyírség culture and the tell-settlement of the Hatvan culture (Kalicz 1968: 65, 127), and we can read practically the same in the UTP report (UTP e-book). Although, during the excavations of Pál Raczky and his team some Bronze Age finds came to light from the top of the site, the stratigraphy of this tell-like settlement does not support the previous idea (Anders et al. 2008: 261; Raczky & Anders 2009; Anders & Raczky 2009: 263).

Polgár-Kígyós-domb

The site is situated on the western periphery of Folyás (almost 5 km far from the centre of the village), next to the left bank of the Király brook. Now, the territory of the settlement is covered by forest. Not so far from the tell-site Ibolya M. Nepper has collected fragments of Neolithic coarse ware during her fieldwork in 1971 (M. Nepper & Sz. Máthé 1973: 52; Nepper 1974a: 15), this Middle Neolithic site was identified 35 years later by András Füzesi, too (Füzesi 2009: 379). Between 2002–2010 Gábor Márkus has conducted systematic field surveys for a better understanding of the Roman imperial settlement network on the left bank of the river Tisza from Tiszadob until Tiszacsege. He has discovered this fantastic huge Neolithic tell or tell-like settlement on the densely forested wide plateau (Raczky et al. 2014: 319, 323, note 2, Fig. 3; Füzesi et al. 2016: Fig. 4–5). We need further examinations in order to clarify whether there was a Bronze Age settlement on this site and its nature.

Polgár/Hajdúnánás-(Horti) Király-domb

In 1965, Károly Mesterházy collected Bronze Age finds (spindle whorl; clay wagon wheel; a flat, round lid and a fragmented stone axe) from the neighbourhood of the site, which show Middle Bronze Age character (Mesterházy 1966: 52, Fig. 35/5–7)

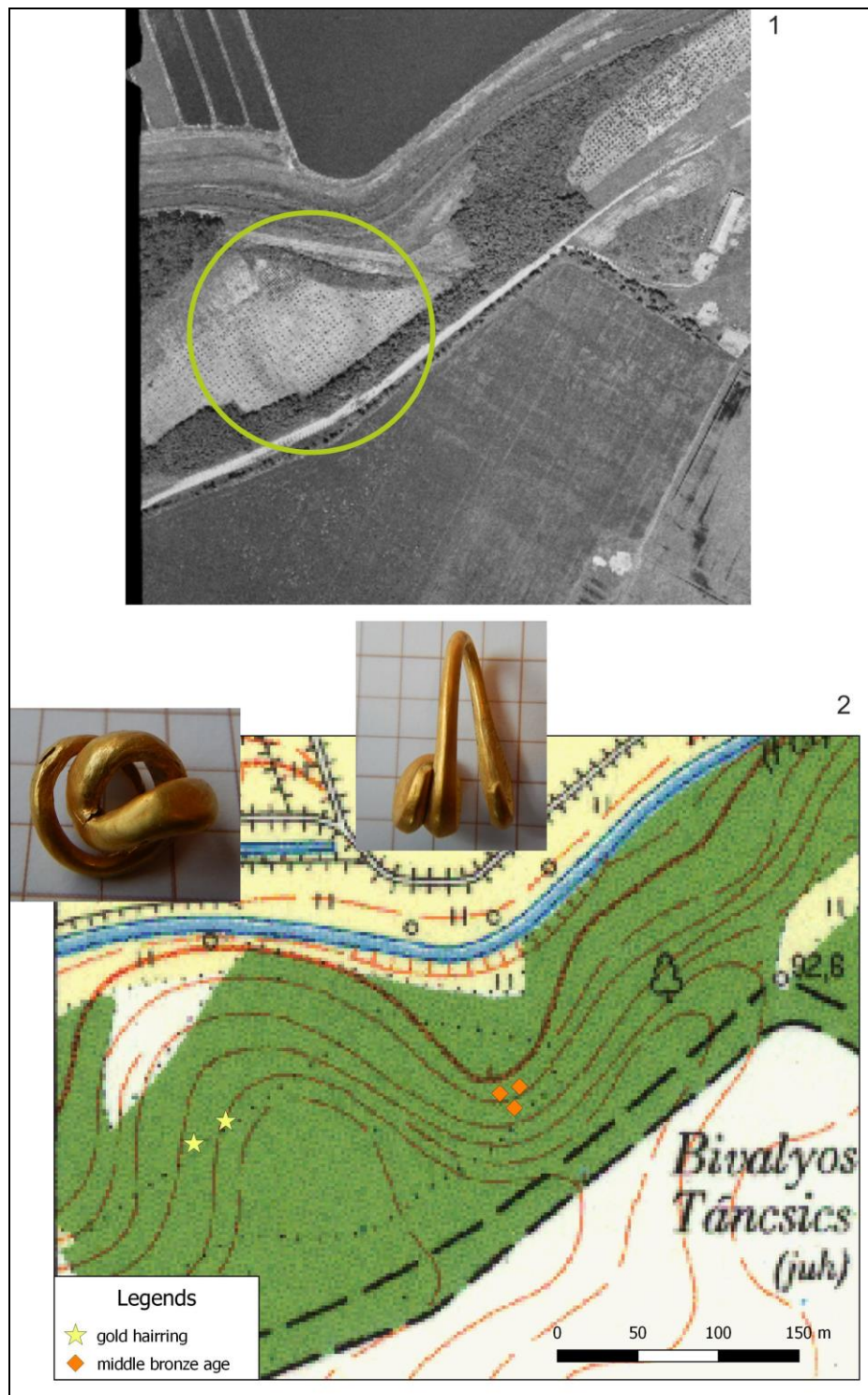


Figure 7. 1 – Detail of the B&W aerial photo of the Folyás-Bivalyhalom tell (source: FÖMI 1965_0414_4624); 2 – Cut-out of EO map with the Folyás-Bivalyhalom tell (Map made by: Marianna Bálint)



Figure 8. 1 – Selected bronze fragments from the surface collection of Folyás-Bivalyhalom; 2 – Grinding stones from the surface of the Bivalyhalom tell (Photos made by János Dani)

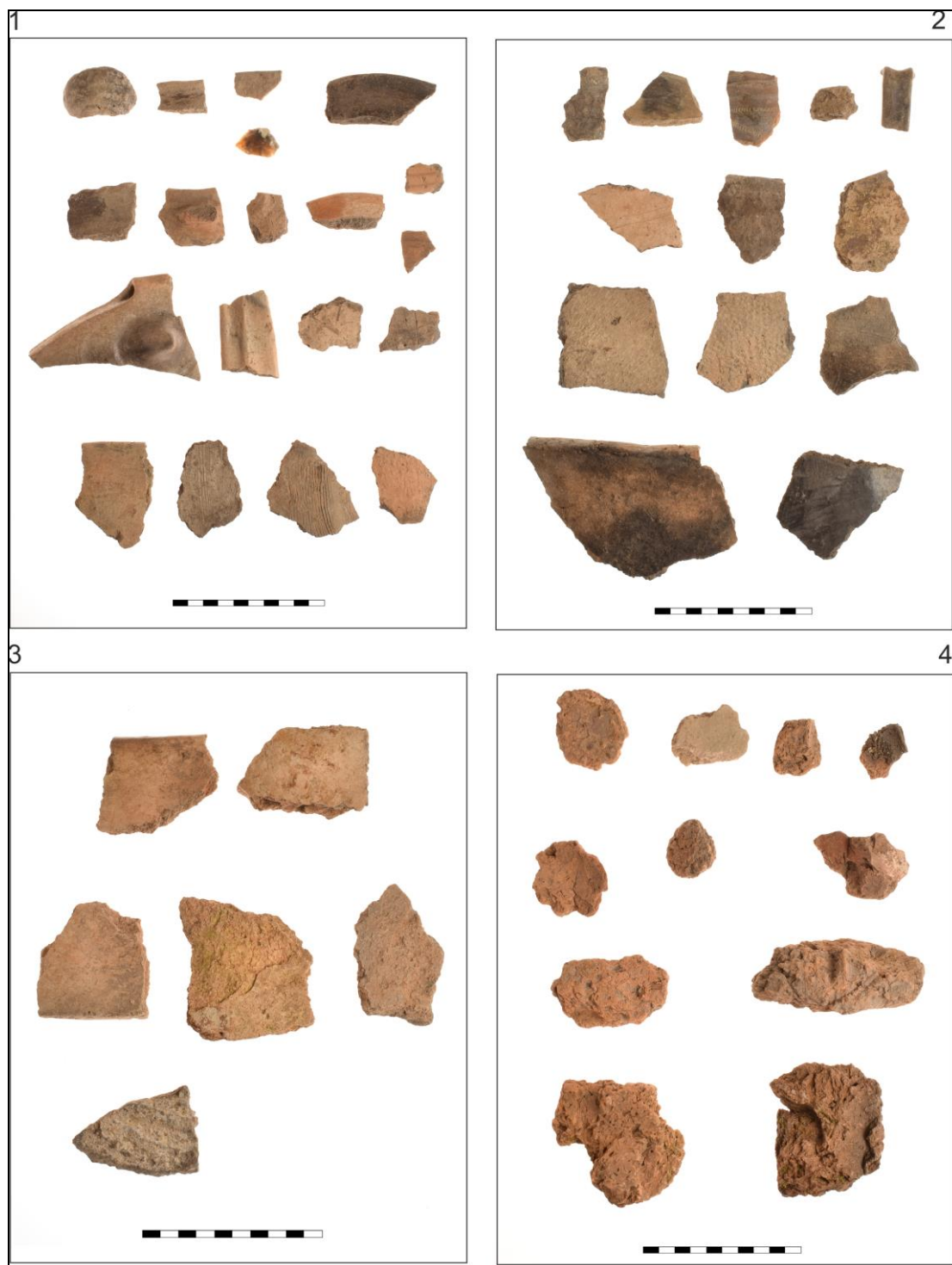


Figure 9. 1, 2 – Selected ceramic from the surface collection of the Folyás-Bivalyhalom tell; 3 – Fragments of a pyraunos; 4 - Wattle and daub fragments (Photos made by Ákos Jurás, Déri Múzeum)

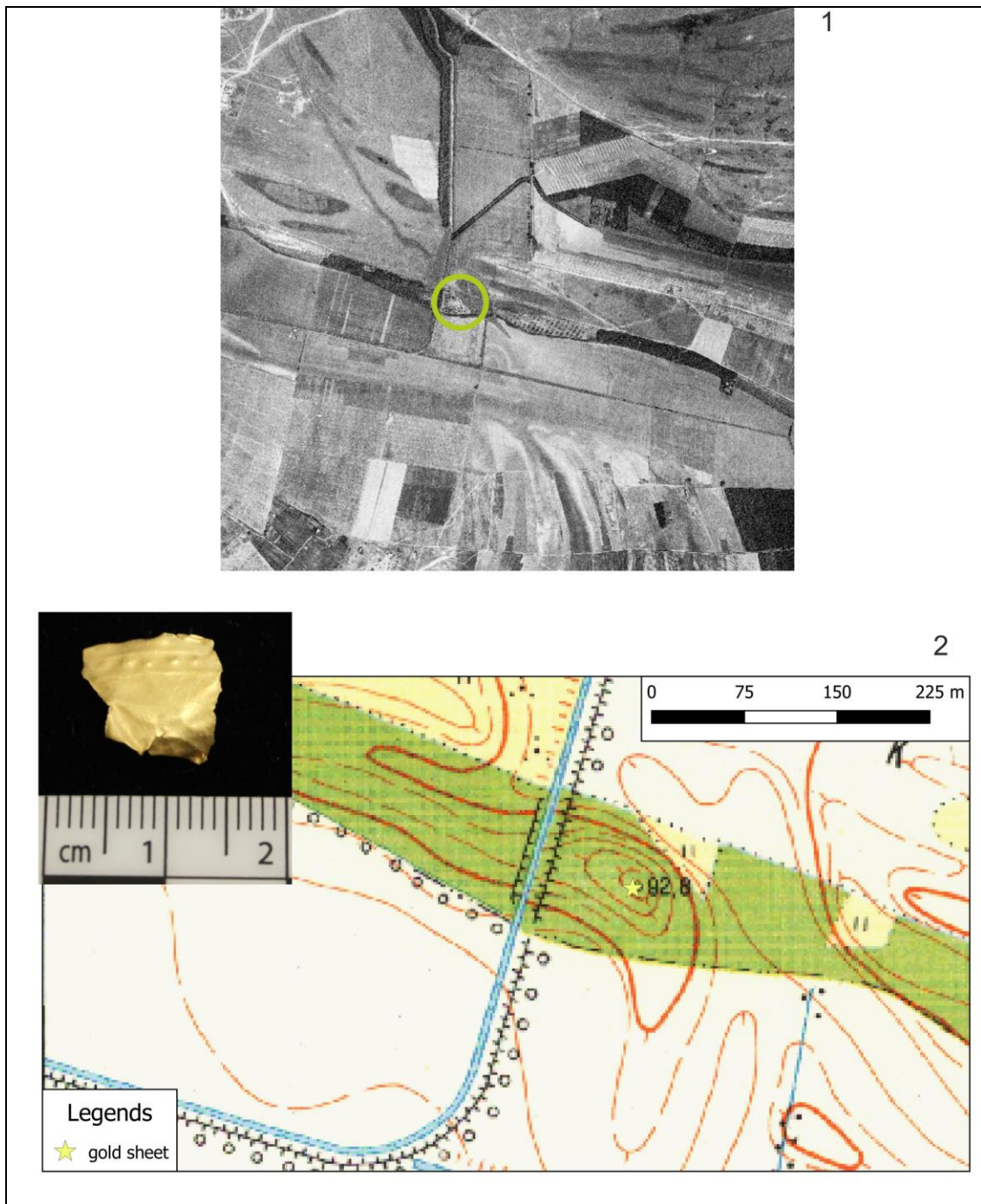


Figure 10. 1 – Detail of the B&W aerial photo of the Újszentmargita-Tuka, Kunszög tell-like settlement (source: FÖMI 1965_0458_5956); 2 – Cut-out of EO map with the result of the metal detector survey (Map made by: Marianna Bálint)

Archaeological Collection of the Déri Museum; Inv.nr.: IV:66.1.1–4). In fact, the Királydomb or Király-halom—situated on the borderline of Polgár and Hajdúnánás towns (some 11,3 km East from the centre of Polgár), on the South side of the road to Hajdúnánás—can be an EBA kurgan (M. Nepper et al. 1981: 41). Since then, there is no more exact information about this site.

Tiszadob-Reje Tanya

The site was also surveyed during the Upper Tisza Project under the name “Tiszadob 026”. The report of the UTP mentioned the following interesting things: „After medium-intensity discard of Middle Neolithic pottery and loss of a few Early Copper Age sherds, a Late Copper Age mortuary barrow was erected, followed by an Early Bronze Age flat site and a Middle – Late Bronze Age tell, with a possible Bronze Age flat cemetery on the edge of the flat site. This is the only place known in the whole of the Project study region in which a barrow precedes a tell on the same site.”(UTP e-book) Based on the description, the tell was surrounded by a circular ditch (UTP e-book, database 3). New field and magnetometric surveys are needed for the more exact description and characterisation of this site.

Újtikos-Tikos domb

Although the site itself has been known for decades (Kralovánszky 1965: 43; M. Nepper et al. 1981: 42), its exact chronological definition and interpretation is problematic and questionable. It was also surveyed during the Upper Tisza Project under the name “Újtikos 002” (UTP e-book, database 4). The UTP e-book reported about a certain debate on the chronology/emergence of this tell: „the mound of Újtikos 002 (Tikos Domb) – a low tell with a Medieval church on the top. In the absence of excavations at Tikos Domb, surface material can be used to date the mound, or part of the mound's occupations. Nepper (1970a: 415, site 21) records for the site of Tikos 33. Magassi Pont Szilmege, Bükk, Tiszapolgár and Roman Imperial pottery as well as an Arpadian village and church. However, in the UTP field survey, the main Medieval village site was at Újtikos 003, as defined by large quantities of Medieval ceramics. The UTP sherd collection from Tikos domb itself yielded no Bronze Age sherds but some Roman Imperial, Arpadian and Late Medieval sherds—

consistent with the Medieval church site—but the main bulk of material was dated to the Middle Neolithic. On this basis, the UTP interpretation is that Tikos Domb was a late Middle Neolithic tell (Chapman 1994: 1999). However, Raczký maintains that Tikos Domb is a Bronze Age tell on the grounds that (1) there is no Late Neolithic material there and (2) the only zone where Middle Neolithic tells can be expected is in the Southern Alföld. An additional point concerns the sherd collection in the Muzeul de Istorie, Cluj-Napoca, from an unknown place in the parish of Tikos, collected or excavated by an unknown person. In the absence of systematic fieldwalking, it may be supposed that the most likely Újtikos site from which this material could have derived would be Tikos Domb. The material is certainly Middle Neolithic in date, with the Bükk and Tiszadob styles of decoration, comparable to the UTP material collected from the tell. The question of the date of the emergence of this site as a tell can be settled only through excavations.”(UTP e-book).



Figure 11. Selected ceramic from the surface collection of the Újszentmargita-Tuka, Kunszög tell-like settlement (Photo made by Ákos Jurás, Déri Múzeum)

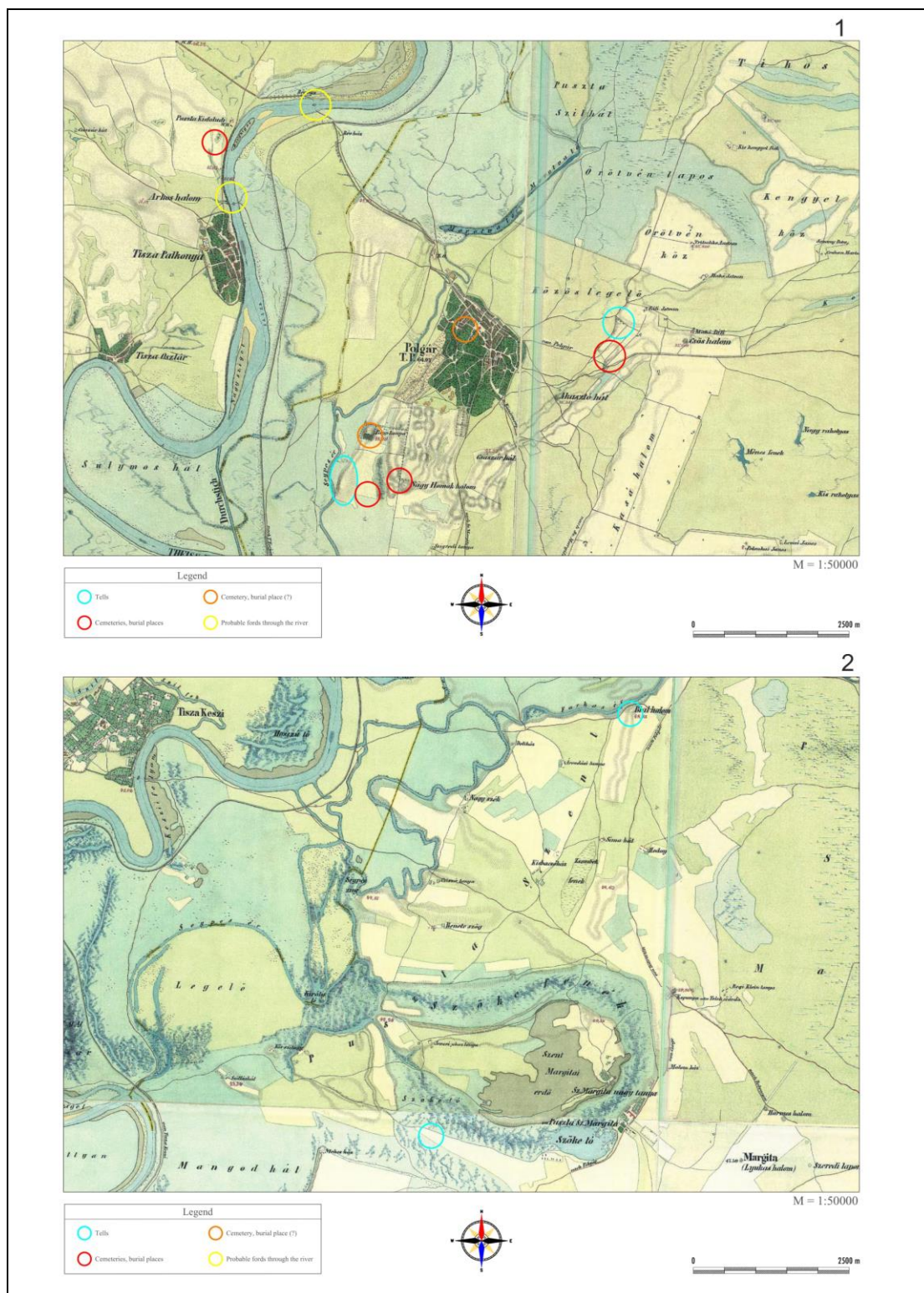


Figure 12. Details of the 2nd Habsburg military survey with the MBA sites in the Polgár microregion: 1– Polgár and its vicinity; 2 – Area between Folyás and Tiszacsege (Maps made by: Tímea Gulyás, Déri Múzeum)

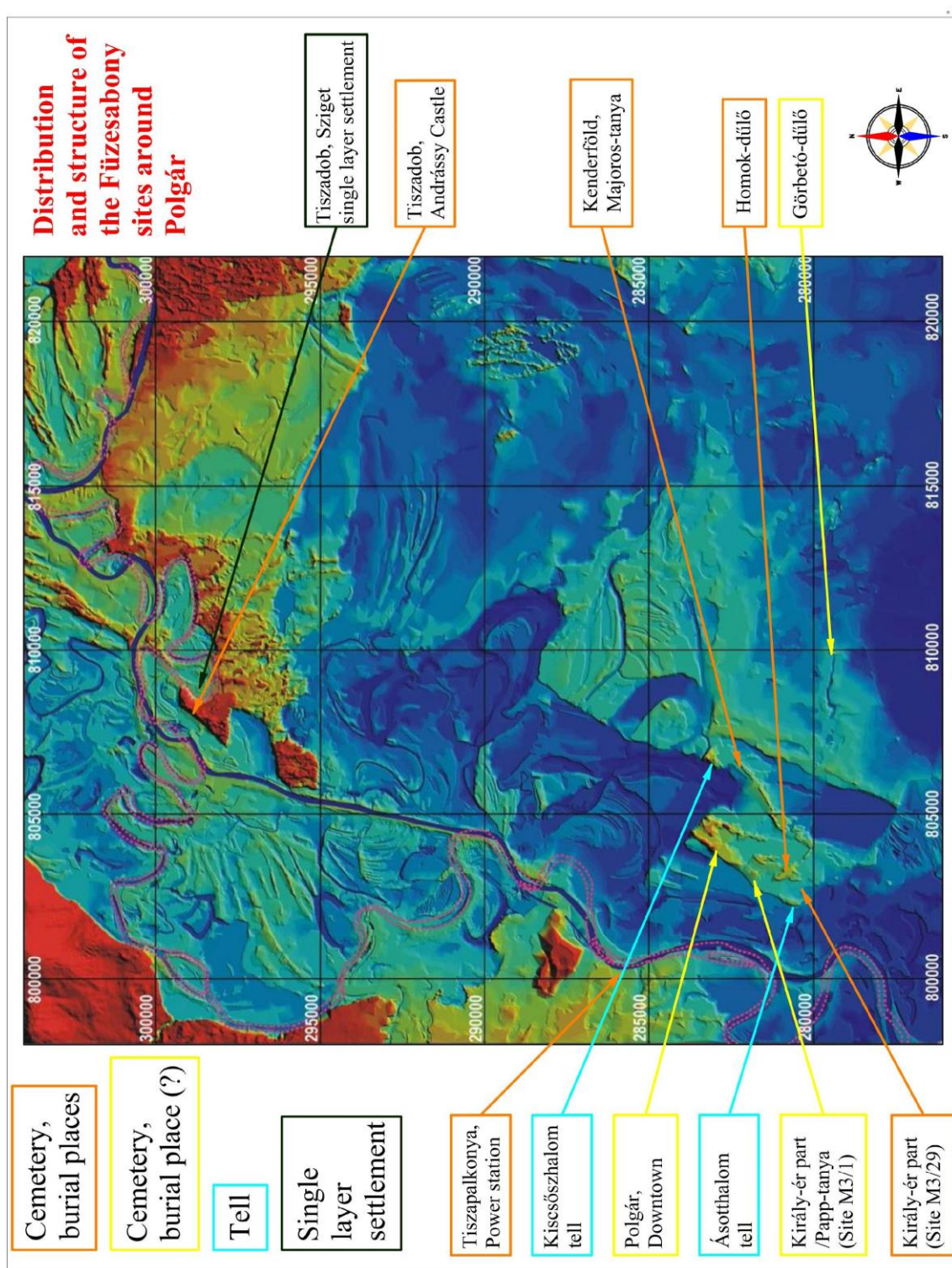


Figure. 13. DTM of the Tiszalök-Polgár area with MBA Füzesabony sites (Basic map after Tímár 2003; Map made by: Tímea Gulyás, Déri Múzeum)

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Polgár-Borjúhalom

Although this site was mentioned in the literature several times (Kalicz 1968: 126; nr. 176, Abb. 4; Nepper 1974a: 18; M. Nepper 1974b: 414, nr.4; M. Nepper et al. 1981: 47, note 11), we have not been able to identify this site among the toponymy originating from the historical maps of military surveys and from the cadastral map of the 19th century. Its exact location and identification not yet clear.

Summary

Summing up, the MBA settlement network of the Polgár microregion is an intentional, well-organized system. The settlements described here look very rich based on the collected stray finds (thinking, first of all, about gold jewellery) and the connected cemeteries. This cannot be a coincidence! Tells and their cemeteries are located on the very important trade-route from the direction of the Great Hungarian Plain and even further from Transylvania through the Košice Basin and Lesser Poland probably till the source of amber, the Baltic coastline. Therefore, the Bronze Age tells of the Polgár microregion could be not just centres of power, but controlling points of the river fords through the Tisza river; this could be one possible explanation for the richness of this particular microregion during the MBA.

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