HUNGARIAN ARCHAEOLOGY



E-JOURNAL • 2022 SPRING

www.hungarianarchaeology.hi

TÁLLYA-ÓVÁR. NEW PATHS IN THE RESEARCH OF HILLFORTS IN THE NORTH HUNGARIAN MOUNTAINS

MARCELL BARCSI¹ – PÉTER BÍRÓ² – GÁBOR BAKOS³ – GÁBOR V. SZABÓ⁴

Hungarian Archaeology Vol. 11 (2022), Issue 1, pp. 16–28. https://doi.org/10.36338/ha2022.1.4

Altogether 44 Late Bronze and Early Iron Age hillforts have been identified in the territory of Hungary thus far. The since-legendary topographic work by Gyula Nováki, in which he has discovered, surveyed, and described sites that were already known during the 19th century and new ones, represented a massive leap forward in their research. The systematic survey programme started in 2006 by a dedicated team of the Institute of Archaeological Sciences of the Eötvös Loránd University (ELU, Budapest) resulted in another major expansion of the available body of information. The research team used metal detectors to survey the hillfort settlements in the region (V. Szabó 2017).

Though some archaeological investigation has been carried out on every fortified settlement in the region by today, comprehensive complex evaluation was only attempted in two cases (Szilvásvárad-Kelemenszéke, V. Szabó & Bíró 2018; V. Szabó 2019, 213–224 and Tállya-Óvár). The present study surveys the methodology and current results of the investigations on the hillfort at Tállya-Óvár. ⁵

Keywords: hillfort, Late Bronze Age, Early Iron Age, Late Iron Age, Zemplén Mountain Range, metal detector survey

RESEARCH HISTORY OF THE HILLFORT SETTLEMENT

Óvár (*Old Fort*), also called Patkány-tető (*Rat top*), is a 583 m aBsl high elevation in the southern part of the Zemplén Mountain Range, at a distance of five kilometres from Tállya, surrounded by other mountains. Óvár is the second highest elevation in the area, with a south-western plateau on its flat top, which was almost entirely occupied in the Bronze Age. The site covers 14 hectares; it is surrounded by earthworks incorporating natural rock outcrops (*Figs 1*, 2a–b).

The site first appeared in archaeological literature during the 19th century, but the early reports (mistakenly) described it as a Mediaeval refuge established originally by Avars or at the time of the Hungarian Conquest (Nováky & Sárközy 2004, 214). The first survey and detailed description of the fortified settlement were carried out by Gyula Nováki, who already dated the site to the Late Bronze Age (Matuz & Nováki 2002, 8; Nováki & Sárközy 2004, 214–217; Nováky, Sárközy & Feld 2007, 123). As a part of ELU's Bronze Depot Project, led by Gábor V. Szabó, metal detector surveys have been carried out on the site since 2009. During the first campaign, the team discovered a 33-piece Late Bronze- and Early Iron-age depot (V. Szabó)

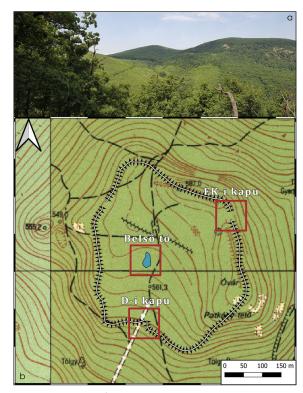


Fig. 1. Tállya-Óvár, a: the view of the hillfort from Mekecs-vár, b: the earthworks on the new survey map

- Institute of Archaeological Sciences, Eötvös Loránd University, e-mail: bmarcell602@gmail.com
- ² National Archaeological Institute, Hungarian National Museum, e-mail: biro72@gmail.com
- ³ Herman Ottó Museum, Miskolc, e-mail: <u>bg.gp.ko@gmail.com</u>
- ⁴ Institute of Archaeological Sciences, Eötvös Loránd University, e-mail: <u>vasagab@gmail.com</u>
- ⁵ The research was subsidised by a grant from the National Research, Innovation and Development Office, ID: NRDI 138768.



Fig. 2. Tállya-Óvár, a: the north-eastern gate, b: ramparts on the northern side, c: the inner lake in winter

2010, 27–28; 2017, 119; 2019, 129–131). Next, between 2011 and 2013, a minor excavation was carried out in the immediate surroundings of the depot's findspot to learn about the context of its internment (V. Szabó 2019, 133–135).

NEW PATHS OF HILLFORT RESEARCH

Fortified settlements with spectacular earthworks and moats are the most characteristic and spectacular site type of the Central European Late Bronze and Early Iron Ages. During the past decades, several projects have been launched throughout Europe⁶ with a goal to provide a more complex picture about the reasons behind the establishment of these often multi-period settlements, determine their place in settlement hierarchy, and learn about their possible roles in regional history through interdisciplinary research.

Bullenheimer Berg in Bavaria, Germany (Falkenstein & Schussmann 2016; Schussmann 2018) and Teleac (Romania; Uhnér et al. 2018; 2019) are exemplary case studies of the related research concerning the research methodology of fortified settlements. The investigations on both sites comprised various methods to reveal the settlements' inner structures, including LiDAR and geophysical surveys and examining large areas using traditional archaeological methods. The magnetometer survey at Teleac made it possible to determine residential areas and those of economic activity within the settlement, while the commendable excavation methods yielded fundamentally new information about the houses and the fortification system protecting the settlement. At Bullheimer Berg, systematic shovel testing and find collecting were designed based on a magnetometer map of the site; the investigations resulted in the identification and exploration of an Urnfield-period household. The evaluation of the palaeobotanical samples collected in the course of the excavation made it possible to determine which plants were cultivated during the era (Herbig 2016).

Although there are numerous hillforts in a similar geographical context in the ranges of the North Hungarian Mountains (Matuz & Nováki 2002), only seven of the 44 surveyed sites were investigated, usually by small-scale and poorly documented excavations, before the 00s. Information on house types and the settlement's inner structure were only obtained in one case, by the excavation at Felsőtárkány-Várhegy, where the houses along the inner side of the earthwork were aligned in streets (Matuz 1992, 5). Metal detector surveys conveyed new information on the hillfort settlements of the region, specifying their dating and yielding additional data on the degree of inhabitation and the possible function of a settlement by the distribution of metal finds (V. Szabó 2017, 130–132; 2019).

NEW RESEARCH, NEW RESULTS

Since 2009, the research of the Tállya hillfort has gradually evolved into a complex project aiming at learning about both the site and its surroundings. A systematic metal detector surveying of the area represented

⁶ For example, a project by Zoltán Czajlik aimed at evaluating Early Iron-age sites in Transdanubia from a novel approach, focusing primarily on the comprehensive investigation of Süttő-Nagysánc (Czajlik et al. 2019): "Kora vaskori tájhasználat az Alpok és a Duna között; a süttői és a poštelai lelőhely-komplexumok összehasonlító tájrégészeti elemzése / Early Iron Age Land Use between the Alps and the Danube; comparative landscape archaeological analyses of Süttő and Poštela site-complexes"



Fig. 3. Tállya-Óvár. Stray bronze finds from the site

the backbone of the applied methodology, which became completed by repeated geodetic surveying of the earthworks, traditional archaeological excavation, shovel testing, and discovery and surveying of coeval settlements in the region.

The investigation of Tállya-Óvár started in 2009 with a metal detector survey aimed at finding closed (intact) depots. The endeavour got steam again in 2019 when Gábor Bakos and the volunteers of the Herman Ottó Museum, Miskolc, joined the project. In that phase, previously neglected iron artefacts were also collected, and the dozens of recovered iron brooches, tools, and weapons revealed the presence of a marked Late Iron Age Celtic occupation horizon on the site.

The metal detector survey campaigns on the site have provided altogether 219 stray metal finds and a 33-piece bronze depot thus far (Fig. 11.c). The finds may be classified into two historical periods: the Late Bronze (99 bronze and iron objects) and Late Iron Ages (103). Most Bronze-age objects are bronze nuggets and casting sprues, while the rest comprises the fragments of sickles, socketed axes, and a socketed hammer but no intact tools (Figs. 3–4). Bronze-age items were scattered randomly on the surface without significant concentration, but we have also observed parts - 100-by-100-metre areas in the south-western and north-western corners – that were completely empty of metal finds (Fig. 11.c). Compared to similar (based on ceramic findings) intensively inhabited settlements like, e.g.,



Fig. 4. Tállya-Óvár, a: socketed hammer, b: socketed axe fragment

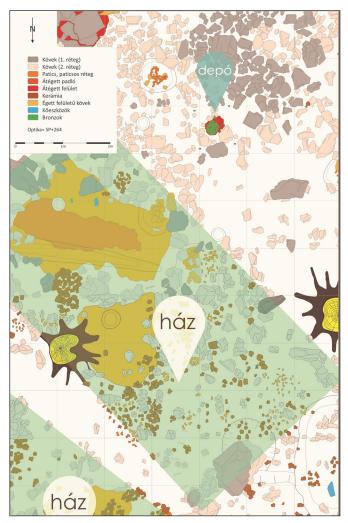


Fig. 5. Tállya-Óvár. Survey map of the excavations (V. Sz4Bó 2019, 134, Fig. 108)



Fig. 6. Tállya-Óvár, excavation trenches of various campaigns. A: 2013, b: 2012, c: 2011

Szilvásvárad-Kelemenszéke and Telkibánya-Cserhegy (V. Szabó 2019, 178, 217–219), the number and variety of Bronze-age metal objects in Tállya is relatively low. The causes behind it might involve illegal metal detecting on the site, but it is also possible that the phenomenon is due to different handling of metals by the local community.

To clarify the context of the bronze depot recovered in 2009, the findspot's surroundings were excavated between 2011 and 2013 (*Figs. 5–6*). Based on the plastered floor and wall remains unearthed in the 79 m²–large section (*Fig. 7*), one or two surface buildings (houses) colud be reconstructed in the immediate surroundings of the depot (V. Szabó 2019, 133).

In 2019, the team carried out repeated geodetic surveying of the earthworks of the settlement as their lines are indicated imprecisely by previous maps. As a result, it became possible to determine the exact size of the settlement area enclosed by walls (14 instead of 27 hectares) and identify a complex gate structure

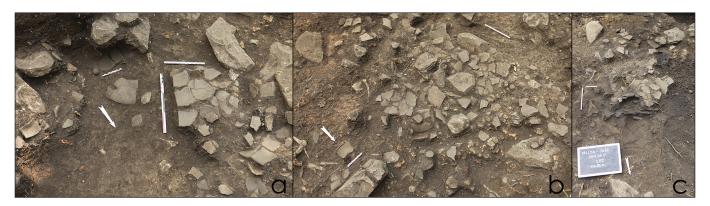


Fig. 7. Tállya-Óvár, a-c: sherds and debris in the 2012 trench

with elongated ramparts stretching towards the inside of the settlement (*Fig. 1b, Fig. 8*). Similar gates are known from the hillforts of, e.g., Kemence-Magosfa (Matuz & Nováki 2002, 112, Abb. 36), Teleac (Vasiliev, Aldea & Ciugudean 1991, Pl. I), Călinești-Oaș (Marta 2020, 12–13), and Subcetate (Vasiliev 1995, Pl. I). We do not have a clear understanding of the rampart structure yet but based on coeval analogies from the Carpathian Basin, that was probably built of compacted soil on a timber frame fortified with stones (Zanoci 2015b).



Fig. 8. Tállya-Óvár, a: southern gate, b: interpretation of the gate structure

Water supply was a key factor in settlement designs in the period. As there are no natural water resources at the Tállya hillfort, and the nearest streams, lakes, and springs are 1–2 km away, the lake in the central part of the settlement must have been essential (*Fig. 2c*). The 40 by 20 m-large lake is probably an artificial water reservoir (Matuz & Nováki 2002, 8) created by building a small dam in the Bronze Age. Water supply was of utmost importance for the builders of fortified settlements: in many cases, the ramparts surrounded areas with a lake or spring. Such sites are known from Northern Hungary (Mátraszőlős-Kerekbükk: Matuz & Nováki 2002, 108, Szanda-Várhegy: Matuz & Nováki 2002, 109), Transdanubia (Várvölgy-Nagyláz-hegy: Müller 2006, 228), and other regions (Ostermaier 2012, 119–120; Hansen & Pare 2008, 73–80).

The 2020 campaign was aimed at gathering data on settlement structure by analysing the distribution pattern of ceramic surface finds. To outline a statistically relevant picture, the study area was covered by a 50m grid, and 1x1 m large, 10-15 cm deep trenches were opened at the interceptions (*Figs.* 9-10). The primary goal was to examine the topmost soil layer (already disturbed by the forest), which, based on excavation observations, meant the uppermost 20 cm. We have recorded the

For further analogies, see Zanoci 2015a, 14–16. The gate structure identified at Tállya may be classified into type Ib2 in Aurel Zanoci's system of prehistoric gates.

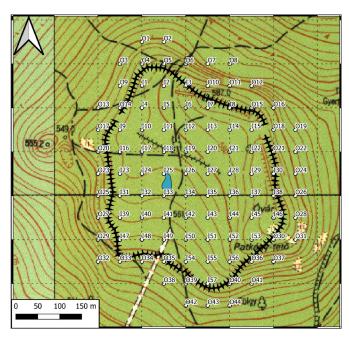


Fig. 9. Tállya-Óvár. Probing trench positions. Inside the fortifications: no. 101–157; outside: no. 001–044

number and total weight of the sherds, daub fragments, and chipped stone tools recovered from the trenches and displayed their distribution on heat maps (Fig. 11a-b). Altogether 57 trenches have been opened on the territory surrounded by ramparts and six more outside. The distribution pattern of the sherds revealed that such finds were scattered all over the settlement except for the zone of the southeastern ramparts, where the terrain was rocky and unsuitable for house building. Most ceramic fragments showed no distinct feature, but their material and elaboration suggest Late Bronze Age origin. Only two Celtic-style graphite-tempered wheel-turned sherds have been identified. The largest concentration of ceramic finds was observed in the north-eastern and central parts of the settlement (Fig. 11a). We have recovered daub fragments in quantities; their distribution showed two major concentrations in the north-eastern and central parts of the settlement (Fig. 11b). The relative scarcity of animal bones compared to the intensity of the settlement surprised us during both the probing and the excavation earlier; it is possible that the taphonomic conditions provided by the soil of the oaken forest have accelerated their decay. Chipped stone artefacts have been recovered from several trenches, especially those on Patkány-tető (Fig. 11d). These finds might suggest the previous presence of Neo-



Fig. 10. Tállya-Óvár. Trench no. 118 in summer 2020

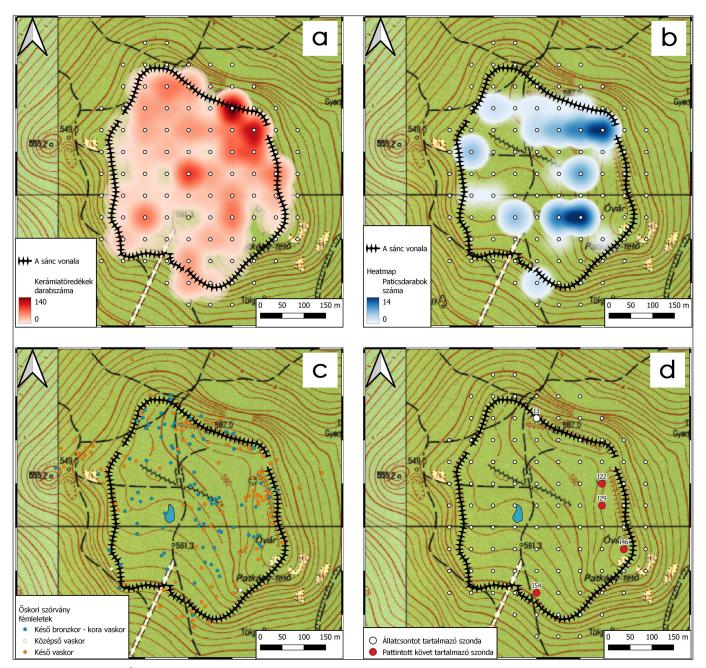


Fig. 11. Tállya-Óvár. Heat map of a: the distribution of ceramic sherds, b: the distribution of wall plaster fragments; c: distribution of Bronze and Iron-age stray metal finds, d: trenches containing chipped stones and animal bones

lithic people in the area, which would not be surprising considering that the region is rich in good quality raw materials for knapping.

Parallel with the investigation of the hillfort, we have carried out a fieldwalking campaign in a circle of a 10-metre radius around Tállya-Óvár to map every coeval, possibly connected site. The investigation revealed the existence of lesser, farmstead-like settlements, established at the time of Tállya-Óvár's emergence, on Szár-hill, the col of Bánya-hill, Bába-field, and Aszas-top (*Fig. 12*). The most intensively inhabited settlement on the list was the one at the col of Bánya-hill north-west of Óvár, where four bronze artefacts, an animal figurine, and large amounts of Late Bronze-age ceramic fragments were collected.

Furthermore, a lesser hillfort of only 1.1 hectares, protected by stone ramparts, was established south-east of Óvár, at Tállya-Mekecsvár (*Fig. 13a*, Matuz & Nováki 2002, 8). That site offers a good view of Óvár (*Fig. 1a*) and, based on a few characteristic Late Bronze/Early Iron-age sherds

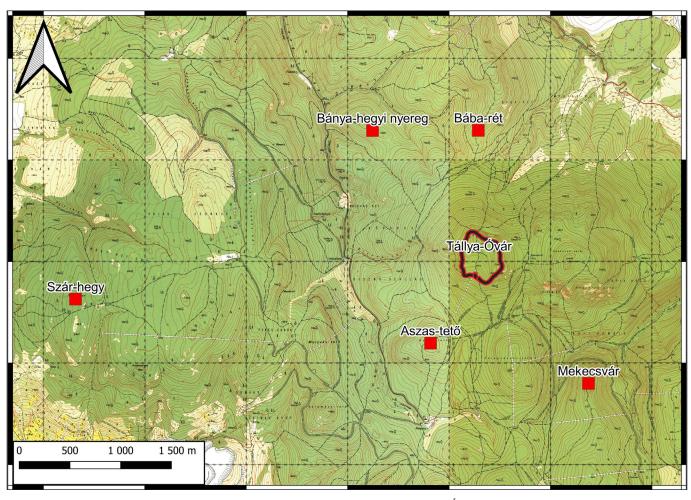


Fig. 12. Coeval settlements around Tállya-Óvár

with channelled decoration, they even could have been coeval. However, the large amounts of stray chipped stone finds scattered in the area (Fig. 13c), and the dozens of also uncontexted Celtic metal items (iron tools, brooches, arrowheads, Fig. 13c) suggest that the site was intensively occupied mainly during the Middle Neolithic and the Late Iron Age (La Tène D phase). The Late Ironage arrowheads concentrated around the ramparts indicate an attack against the settlement at that time.



Fig. 13. Tállya-Mekecsvár, a: view of the site from north-west, b: Late Iron-age axes from the site, c: Neolithic stone tools from the site

FROM THE LATE BRONZE AGE TO THE CELTS: THE HISTORY OF THE HILLFORT IN A NEW LIGHT

Based on the ceramic record, the first major occupation of the site took up around the end of the Late Bronze/start of the Early Iron Age, in the HaB period. The sherds, both surface finds and recovered in the excavation, bear characteristic traits of the classical Gáva ceramic style: many are bicolour, with a black outer and brown, yellowish, or brick-red inner surface, frequently decorated by channelled and incised line bundles. Several specimens of the style's flagship type have also been discovered: analogies to the deep bowls with lobed rims, curved bodies, and incised line bundles around the bellyline (Fig. 14.1) are known from the record of practically every major Gáva settlement (Kósa 2021, 23). The vessels of types akin to ones known from burials of the Early Iron-age Mezőcsát group have also been recovered from the trench opened in the immediate surroundings of the depot to refine the site's dating; for example, a dark grey container with a light brown inner surface, of compressed globular body, with a belly decorated with applied vertical ribs and somewhat oblique vertical channelling between them (Fig. 14.3). Although similar applied ribs also appear on Kyjatice- and Gáva-style vessels, the best analogies to the specimen from Tállya can be found in Graves 11 and 79 at Mezőcsát-Hörcsögös (PATEK 1993, 39, Abb. 26/7 and 43, Abb. 30/6) and the record of a coeval, HaB2-period settlement at Hódmezővásárhely-Solt-Palé, Égető-tanya (V. Szabó 1996, 98, 43. kép 4; 99, 44. kép 1). Analogies to the black vessel with a yellow-brown inner surface, large hollow bulges on the belly with vertical channelling between them, and horizontal channelled line bundles around the neck (Fig. 14.2) are known from Ároktő-Dongóhalom

(Patek 1982, 31, Fig. 16.3; Kemenczei 1988, 99), Füzesabony-Öregdomb (Kemenczei 1989, 61, 4. ábra 7), and Mezőcsát-Hörcsögös (Patek 1993, 42, Abb. 29/12; 45, Abb. 32/28). These vessel types suggest that the community of the settlement (or at least the members of the excavated wealthy household) maintained contacts with Prescythian groups appearing at the feet of the mountain range in the northern fringes of the Great Hungarian Plain during the 8–9th century BC. The axe types in the unearthed bronze depot and the recovered oval bronze ring (the best analogies to which have been found on sites in Poland and Ukraine) support both the dating and the presumed connection (V. Szabó 2019, 132).

At the time of the spread of the Gáva and Kyjatice ceramic styles, fortified settlements were widespread in the eastern half of the Carpathian Basin. Such settlements were established in diverse sizes and degrees of complexity practically on every suitable terrain in North-east Hungary (Matuz & Nováki 2002), Eastern Slovakia (Furmánek, Velacik & Vladár 1999, 120–124), Subcarpathia (Mojžes 2011, 237, Puc. 1), and Transylvania (Vasiliev 1995; Marta 2020, 117, Fig. 1). More and more settlements in the North Hungarian Mountains are confirmed to be inhabited up to (like Tállya-Óvár) or established in the HaB2–3 periods (V. Szabó 2017, 108, Fig. 1; V. Szabó 2022, 22–25,

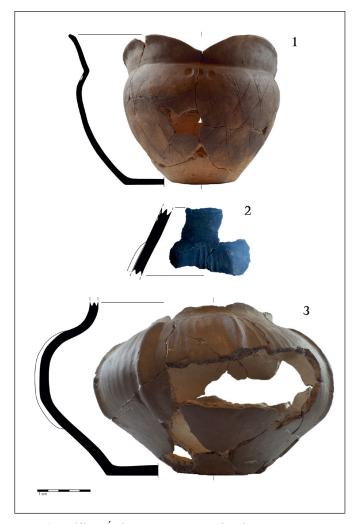


Fig. 14. Tállya-Óvár. Late Bronze and Ealy Iron-age pottery from the excavations 2011–2013

3. kép). Also, there's a constantly growing body of evidence suggesting that these settlements remained in use until the HaC period in the 7th century BC (e.g., Dédestapolcsány–Verebce-bérc: V. Szabó, Czajlik & Reményi 2014; Tóth 2012; 2017; Cserépfalu-Mésztető, Felsőtárkány-Várhegy, Mátraszentimre-Ágasvár: Metzner-Nebelsick 2012; V. Szabó 2022).

Only two finds hint at early Scythian-period presence in the archaeological record of Tállya-Óvár: a bronze wire electrum-covered braid ring with a conical and a butt end and a trilobate bronze arrowhead.

In the Late Iron Age (early and classical La Tène period), Celts have occupied the site's area as testified by a few Celtic-style sherds and large amounts of iron weapons, including swords, spearheads, shield fittings, a socketed iron axe, bronze, and iron brooches, and bronze plate belt fragments (*Fig. 15*) recovered since 2019. Celtic metal finds concen-



Fig. 15. Tállya-Óvár. Late Iron-age bronze and iron artefacts from the site (above) and a folded iron sword in find position in the foreground of the north-eastern gate (below)

trated in the gate zones by the ramparts suggest a lesser siege or a *tropaion*, a monument erected to commemorate a victory over one's foes.⁸

FUTURE GOALS AND POSSIBILITIES

The renewed investigations, including fieldwalking campaigns, excavations, systematic probing, and the identification of coeval settlements in the microregion, carried out since 2009, made Tállya-Óvár one of the best-researched hillforts in Hungary. The next step in the topographic evaluation of the site should be a LiDAR survey of the fortified settlement and its surroundings that would hopefully allow for refining the positions of the fortification system's elements and enable us to identify previously invisible parts as well as unseeable burial mounds. The project's research plan also includes the opening of a trench cutting through the rampart to clarify its structure, the time of its establishment (at the end of the Late Bronze Age or during the Early or perhaps the Late Iron Age), and whether it was renewed during the Late Iron Age. Furthermore, it is also important to investigate the area of the southern gate to confirm and describe the complex gate structure. Another focus point is the intensively inhabited inner part of the settlement; the complete excavation of a house there would probably yield samples for archaeobotanical reconstruction. A correct interpretation of Celtic find concentrations comprising weapons and clothing accessories also requires further research.

Besides archaeological evaluation, it is essential to preserve the site in its current condition. That work includes protecting it from illegal treasure hunters equipped with metal detectors and organising the preservation of the ramparts that were cut through and seriously damaged by forestry works in the past decades.

REFERENCES

Czajlik Z., Fejér E., Novinszki-Groma K., Jáky A., Rupnik L., Sörös F. Zs., Bödőcs A., Csippán P., Darabos G., Gergácz R., Györkös D., Holl B., Király G., Kürthy D., Maróti B., Merczi M., Mervel M., Nagy B., Puszta S., B. Szöllősi Sz., Vass B. & Czifra Sz. (2019). Traces of prehistoric land use on the Süttő plateau. In Črešnar, M. & Mele, M. (eds.). *Early Iron Age Landscapes of the Danube Region*, 185–220. Graz, Budapest: Archaeolingua Alapítvány.

⁸ The Celtic find material is planned to be published in a joint study with Károly Tankó.

Falkenstein, F. & Schußmann, M. (2016). Forschungen am Bullenheimer Berg 2011–2015. *Bericht der Bayerischen Bodenkmalpflage* 57, 101–182.

Furmánek, V., Veliačik, L. & Vladár, J. (1999). *Die Bronzezeit im Slowakischen Raum*. Prähistorische Archäologie in Südosteuropa, PAS 15. Rahden/Westfalen: Verlag Marie Leidorf GmbH.

Hansen, L. & Pare, C. (2008). Der Glauberg in seinem mikro- und makroregionalen Kontext. In D. Krausse (Hrsg.) *Frühe Zentralisierungs- und Urbanisierungsprozesse. Zur genese und Entwicklung frühkeltischer Fürstensitze und ihre territorialen Umländes*. Kolloquium des DFG-Schwerpunktprogramms 1171 in Blaubeuern, 9–11. Oktober 2006 (57–96). Stuttgart: Kommissionsverlag, Konrad Theiss Verlag.

Herbig, C. (2016). Archäobotanische Unterschungen auf dem Bullenheimer Berg – die Proben von der Terrassengrabung 2012–2013. *Bericht der Bayerischen Bodenkmalpflage* 57, 130–132.

Kemenczei T. (1984). *Die Spätbronzezeit Nordostungarns*. Archaeologia Hungarica 51. Budapest: Akadémiai Kiadó.

Kemenczei T. (1988). Kora vaskori leletek Dél-Borsodban. A Herman Ottó Múzeum Évkönyvei 25-26, 91–106.

Kemenczei T. (1989). Koravaskori sírleletek az Alföldről az őskori gyűjteményben. *Folia Archaeologica* 40, 55–74.

Kósa P. (2021). Baks-Temetőpart. Analysis of a Gáva-ceramic style Mega-settlement. *Communicationes Archaeologicae Hungariae* 2018, 5–87. https://doi.org/10.54640/CAH.2018.5

Marta, L. (2020). *Gáva culture in the Somes Plain. The Settlement of Călinești-Oaș and Lazuri*. Nyíregyháza: Jósa András Múzeum.

Matuz D. E. (1992). A Kyjatice kultúra földvára Felsőtárkány-Várhegyen. Agria 27-28, 5-84.

Matuz D. E. & Nováki, Gy. (2002). *Spätbronzezeitliche, früheisenzeitliche erdwälle in Nordungarn*. Inventaria Praehistorica Hungariae 10. Budapest: Magyar Nemzeti Múzeum.

Metzner-Nebelsick, C. (2012). Social Transition and Spatial Organisation: The Problem of the Early Iron Age Occupation of the Stronghold in Northeast Hungary. In: Anreiter, P., Bánffy E., Bartosiewicz L., Meid, W. & Metzner-Nebelsick, C. (eds.). *Arhaeological, Cultural and Linguistic Heritage*. Festschrift for Erzsébet Jerem in Honour of her 70th Birthday (425–448). Budapest: Archaeolingua Alapítvány.

Mojžes, V. (Мойжес, В.) (2011). Ardanovskoe Gorodiŝe (Ардановское Городисе). *Tyragetia* V(XX)/1, 237–246.

Müller R. (2006). Várvölgy-Nagy-Lázhegy késő bronzkori földvár kutatása. In: Kovács Gy. & Miklós Zs. (eds.): "*Gondolják, látják az várnak nagy voltát...*" Tanulmányok a 80 éves Nováki Gyula tiszteletére. (Burgenkundliche Studien zum 80. Geburstag von Gyula Nováki (227–236). Budapest: Csatrum Bene Egyesület, Históriaantik Könyvesház Kiadó.

Nováki Gy. & Sárközy S. (2004). Várak a történeti Zemplén megyében I. *A Herman Ottó Múzeum Évkönyvei* 43, 199–230.

Nováki Gy., Sárközy S. & Feld I. (2007). *Borsod-Abaúj-Zemplén megye várai az őskortól a kuruc korig*. Magyarország várainak topográfiája. Borsod-Abaúj-Zemplén megye régészeti emlékei 5. Budapest, Miskolc: Castrum Bene Egyesület, Herman Ottó Múzeum.

Ostermaier, N. (2012). Urnenfelderzeitliche Höhensiedlungen in Bayern nördlich der Donau. Topographische, chronologische und funktionale Aspekte. Universitätsforschungen zur Prähistorischen Archäologie, UPA 214. Bonn: Verlag Dr. Rudolf Habelt GmbH.

Patek E. (1982). Recent excavations at the Hallstatt and La Tène hill-fort of Sopron-Várhely (Burgstall) and the predecessors of the Hallstatt culture in Hungary. In: Gabler D., Patek E. & Vörös I. *Studies in the Iron Age of Hungary*. BAR International Series 144, 1–56.

Patek E. (1993). Westungarn in der Hallstattzeit. Quellen und Forschungen zur prähistorischen und provinzialrömischen Archäologie 7. Weinheim: VCH, Acta Humaniora.

Schußmann, M. (2018). Forschungen am Bullenheimer Berg 2015–2018. Bericht der Bayerischen Bodenkmalpflege 59, 29–54.

V. Szabó G. (1996). A Csorva-csoport és a Gáva-kultúra kutatásának problémái néhány Csongrád megyei leletegyüttes alapján. *A Móra Ferenc Múzeum Évkönyvei: Studia Archaeologica* 2, 9–110.

V. Szabó G. (2010). Fémkereső műszeres kutatások kelet-magyarországi késő bronzkori és kora vaskori lelőhelyeken. Beszámoló az ELTE Régészettudományi Intézete által indított bronzkincskutató program 2009. évi eredményeiről. *Régészeti Kutatások Magyarországon* 2009, 19–38.

V. Szabó G. (2017). Hoards and Fortifications: new observations on the structure and function of Eastern Hungarian Late Bronze Age and Early Iron Age high-altitude fortified settlements. In: Heeb, B. S., Szentmiklosi A., Krause, R. & Wemhoff, M. (eds.). *Fortifications: The Rise and Fall Of Defended Sites In Late Bronze And Early Iron Age of South-East Europe*. International Conference in Timisoara, Romania from November 11th to 13th, 2015 (107–134). Berlin: Staatliche Museum zu Berlin.

V. Szabó G. (2019). Bronzkori kincsek Magyarországon. Földbe rejtett fegyverek, eszközök, ékszerek nyomában. Hereditas Archaeologica Hungariae 3. Budapest: Archaeolingua Alapítvány, MTA BTK Régészeti Intézet.

V. Szabó G. (2022). "A krízisek évszázada." Háborús fenyegetettség és az első lovasnomádok érkezése a Kárpát-medencébe a Kr. e. 9–7. század közötti időszakban. *Korok, kultúrák, lelőhelyek 2022*. A Tornyai János Múzeum 2021/2022. évi régészeti előadásainak kiadványa, 19–41.

V. Szabó G. & Bíró P. (2018). Szilvásvárad-Kelemenszéke. Egy monumentális őskori erődített település a Bükk szívében. *Határtalan Régészet* III. évfolyam 4. szám, 20–26.

V. Szabó G., Czajlik Z. & Reményi L. (2014). Egy vaskori fegyveres konfliktus nyomában. Új topográfiai eredmények a dédestapolcsányi Verebce-tető kutatásában I. *Magyar Régészet*. Online Magazin, 2014. tavasz. http://files.archaeolingua.hu/2014TA/Upload/Szabo_14TA.pdf

Tóth F. M. (2012). Korai szkítakori sírok Dédestapolcsány–Verebce-tető lelőhelyen. *A Herman Ottó Múzeum Évkönyve* 51, 63–91.

Tóth F. M. (2017). A Cemetery of the Early Scythian Age in Dédestapolcsány – Verebce-tető. The research of a new site complex in Northern Hungary and its cultural connections. In: Miroššayová, E., Pare, C. & Stegmann-Rajtár, S. (Hrsg.). Das Nördliche Karpatenbecken in der Hallstattzeit. Wirtschaft, Handel und Kommunikation in früheisenzeitlichen Gesellschaften zwischen Ostalpen und Westpannonien (pp. 421–432). Budapest: Archaeolingua Alapítvány.

Uhnér, C., Ciugudean, H., Bălan G., Burlacu-Timofte, R., Hansen, S. & Rustoiu, G. (2018). Settlement structure and demography in Teleac: A Late Bronze Age – Early Iron Age hillfort in Transylvania. In: Hansen, S. & Krause, R. (Hrsg.). *Bronzezeitliche Burgen zwischen Taunus und Karpaten = Bronze age hillforts between Taunus and Carpathian Mountains* (371–394). Beiträge der Ersten Internationalen LOEWE-Konferenz vom 7. bis 9. Dezember 2016 in Frankfurt/M. Universitätsforschungen zur prähistorischen Archäologie UPA Prähistorische Konfliktforschung 319/2. Bonn: Verlag Dr. Rudolf Habelt GmbH.

Uhnér, C., Ciugudean, H., Hansen, S., Becker, F., Bălan, G. & Burlacu-Timofte, R. (2019). The Teleac Hillfort in Southwester Transylvania: the Role of the Settlement, War and the Destruction of the Fortification System. In: Hansen, S. & Krause, R. (eds.). *Bronze Age Fortresses in Europe* (177–200). LOEWE-Schwerpunkt Prähistorische Konfliktforschung Universität Frankfurt/M. Römisch-Germanische Kommission Franfurt/M. Universitätsforschungen zur prähistorischen Archäologie UPA Prähistorische Konfliktforschung 335. Bonn: Verlag Dr. Rudolf Habelt GmbH.

Vasiliev, V. (1995). Fortifications de refuge et étabilissements fortifiés du premier Age du Fer en Transylvanie. Bibliotheca Thracologica 12. Bucuresti: Institut roumain de thracologie.

Vasiliev, V., Aldea, I. A. & Ciugudean, H. (1991). *Civilizația dacică timpurie în aria intracarpatică a României*. *Contributi arheologice: așezarea fortificată de la Teleac*. Cluj-Napoca: Editura Dacia.

Zanoci, A. (2015a). Typology and Evolution of Gates and Access into Early Hallstattian Fortresses in Tisa-Dniester Space. *Tyragetia* IX (XXIV)/1, 7–27.

Zanoci, A. (2015b). Tipologia și evoluția zidurilor din piatră ale fortificațiilor hallstattiene târzii din spațiul tiso-nistrean. *Revista Archeologica*, Seria Noua, X XI/1-2, 68–81.