

SÁNDOR BERECKI

IDENTITY IN LANDSCAPE

CONNECTIVITY AND DIVERSITY
IN IRON AGE TRANSYLVANIA



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Connectivity and Diversity
in Iron Age Transylvania

Sándor Berecki

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Connectivity and Diversity in Iron Age Transylvania

Sándor Berecki

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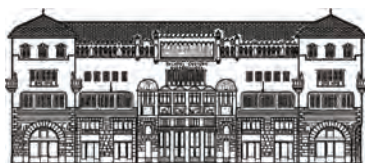
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They were the heroes of old, men of renown.

Genesis 6:4

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To **my family**.

Târgu Mureş
May 2021

FOREWORD

MODELLING LANDSCAPES, BUILDING GROUP IDENTITIES

Long time ago, Mircea Eliade noted that “the upright position [of the human beings] already signals the overcoming of the primates’ condition. We can only stand up when we are awake. Due to the upright position, the space is organized in a structure that is not accessible to the pre-hominids: in four horizontal directions starting from a central *up – down* axis. In other words, the space is organized around the human body, extending ahead, behind, to the right and the left, up and down. Beginning from this original experience – of being thrown into an environment whose expansion was apparently unlimited, unknown and threatening – various manners of *orientatio* emerged; we cannot live too long with the confusion generated by disorientation” (ELIADE 1991, 13). Thus, right from the beginning, the human beings invested the surrounding space with symbolical meanings and organized it according to well-defined principles. This organization of the man-made landscape was different from one community to another due to the different models of social and economic organization which they created or adopted at particular moments in time. Accordingly, landscape archaeology can offer a wealth of information regarding the cultural identity of various communities. As T. Greider and L. Garkovich noted nearly three decades ago, “our understanding of nature and of human relationships with the environment are really cultural expressions used to define who *we* were, who *we* are, and who *we* hope to be at this place and in this space. Landscapes are the reflections of these cultural identities, which are about *us*, rather than the natural environment” (GREIDER – GARKOVICH 1994, 2).

The manner in which the landscape in general, and the man-made space in particular, has been studied during the last decades is very diverse, especially due to the increasing attention paid to the importance of these aspects in the better understanding of the evolution of different communities from one region or another. One of the methods used in this kind of studies implies the evaluation of the transformations which occurred in the landscape organization through time and from one community to another based on aero-photographic surveys. The present book aims to bring into discussion the ways in which the Iron Age communities from Transylvania chose to model the landscape through time and from one micro-region to another, and the relationships between these choices and the construction of different group identities.

The interest of the author for these topics is not new. Well-known for using a multi-disciplinary approach in the investigation of Iron Age settlements and cemeteries, Sándor Berecki has already conducted many aero-photographic surveys to analyse various archaeological sites from Transylvania, either on his own or in collaboration with other reputed specialists (for example with Professor Zoltán Czajlik from the ELTE University of Budapest). The results of these investigations have been published in a series of syntheses (see, for example, BERECKI *ET AL.* 2012;

BERECKI 2015a) or in specialist studies (CZAJLIK *ET AL.* 2011; 2014 etc.). At the same time, S. Berecki has also studied the landscape organization during the Iron Age from the theoretical or symbolical perspective, publishing a number of articles that have focused on particular archaeological sites (BERECKI 2009; BERECKI – CIOATĂ 2010; RUSTOIU – BERECKI 2018 etc.). All of these preliminary studies have allowed the author to offer a comprehensive approach of the topic of landscape archaeology in this book.

The book begins with an introductory theoretical chapter, which provide the framework for the discussion regarding the ethnic and cultural transformations experienced by the communities from Transylvania during the Late Iron Age. From this perspective, human mobility played an important role in the ways in which collective identities were built and negotiated during the ‘Scythian’, ‘Celtic’ or ‘Dacian’ horizon. Among many other things, the strategies through which different communities chose to model the profane and the sacred landscape were also directly connected with the expression of collective identity constructs.

Starting from this theoretical and methodological chapter, the author guides us in the following chapters through the Transylvanian archaeological landscapes, this being a surprising and often charming journey through the villages, cemeteries and sacred places of the local Late Iron Age communities. The final stage of this period, belonging archaeologically to the ‘Dacian horizon’, was characterized by major transformations in the landscape organization, defined by the appearance of the fortresses and fortified settlements. Their presence indicates, on one hand, the appearance of a new model of social and economic organization which was different from the one characterizing the rural communities of the ‘Celtic horizon’, and on the other hand, the emergence of new collective identity constructs. In order to discuss the characteristics of the habitats from the period of the Dacian kingdom, S. Berecki has opted to compare the Transylvanian landscape organization with the one specific to the so-called horizon of the great urban centres (*oppida*) from the Celtic Central-Western Europe.

The last chapter comprises the concluding discussion regarding the impact of various models of social and economic organization and of the respective collective identity constructs on the transformation of the Transylvanian landscape during different chronological and cultural horizons of the Iron Age.

The book authored by Sándor Berecki, written in a rigorous but pleasant style, is representing an important contribution not only to the Romanian historiography but also to the European one dealing with the topics of landscape archaeology due to the innovative ways in which is discussing the relationship between landscape transformations and collective identity constructs. Thus, I am convinced that this contribution will open the way towards a series of innovative approaches in the landscape archaeology of Transylvanian and the areas outside the Carpathians.

Aurel Rustoiu

Cluj-Napoca
May 2021

1.

ARCHAEOLOGICAL LANDSCAPES. MOBILITY AND IDENTITY IN IRON AGE TRANSYLVANIA

The history of the Carpathian Basin of the last millennium BC was largely shaped by the movement of different groups of people. The mobility of the communities and individuals has taken significant proportions periodically, under the impact of various factors, and this mobility was followed by the spread of new technological developments, ideologies, and artistic manifestations. The general characteristic of the social groups shaping and influencing the cultural and religious manifestations of the Iron Age communities was that these frequently adapted the external effects to the local forms thus, integrating these into their culture. Despite the micro- and macro-regional contrasts, the culture of the Iron Age communities was determined by a number of homogenous, pan-regional characteristics, which mirrored the identity of the communities with their varied nuances at times, their functionality inside the communities, their mechanisms, rules and their self-definition towards neighbouring communities.

However, the social, economic, and identity changes that took place within the dynamically changing and renewing communities of the Carpathian Basin, were influenced by the differing geo-political and demographic factors of the various micro-regions. The geographic layout of the settlements and their regional location, their access to resources, and the benefits and disadvantages caused by these factors largely defined their socio-economic development and the social changes.

The mutual impact between the landscape and the human communities is twofold: conscious and random. Communities moving from their former inhabited space look for and choose the most satisfying place suitable for their lifestyle, they outline the sacral space and cemeteries consciously and along the lines of certain common rules. Yet, their lifestyle and the character of their settlement, the potential of development and social competition are all influenced by micro-regional environmental factors. Thus, some of the communities that settled near rivers, lakes or forests rich with wild animals enjoyed diversity in nutrition, while others through the closeness and availability of salt were more well-set in animal husbandry, others again in metallurgy through the possibilities offered by iron ore extraction or perhaps due to the strategic location of the settlement other communities could emerge in commerce. These local characteristics enforced the heterogeneous and individualized nature of the Iron Age cultures.

It can be concluded from all these that the relationship between the historic landscape and the people of the past formed a complex system in which human/cultural (individual and collective) and natural factors influenced mutually and continuously each other's evolution.

The present research tries to provide answers concerning the identity of various communities and their specific social rules as well as the changes caused by the mobility of certain groups of people in the landscape. Furthermore, how did some of the communities relate to the natural

environment and did the heterogeneous landscape of the Carpathian Basin influence the subsistence and the change of habits of the communities. Our outlook is based on the eastern part of the Carpathian Basin, on the realities of Transylvania, which in many ways is organically connected to the western part of the Carpathian Basin, especially to the middle Danube region. From a chronological point of view, in the centre of the research lie the 4th and 2nd centuries BC, the so-called 'Celtic period', the understanding of which is impossible without the 'Scythian period' preceding the 5th century BC or 'Dacian Iron Age' of the end of the last millennium BC and beginning of the next one.

By definition the cultural landscape has three types: the clearly defined (which can be easily defined, a landscape planned and shaped by humans), the organically evolved (which were originally created by economic, administrative and/or religious aspects) remnant (the process has ended) or the living landscape (where the process of development does not stop), and lastly the associative cultural (natural element). In the case of the latter, the cultural landscape does not necessarily mean a change in the environment influenced morphologically by humans, sometimes due to the cognitive re-interpretation of the landscape some of the landscape elements (rivers, lakes, groves, trees, caves etc.) can receive symbolic meaning. These become cultural landscapes for the given community but archaeologically because of the absence of researchable contexts they cannot be considered as such. Thus, from the point of view of the analysis of the Iron Age land use, first of all, one must rely on the research of the so-called remnant landscapes, which includes the settlements and cemeteries.

One of the keywords for understanding the Iron Age landscape and land use is mobility. In the middle and late Iron Age history of the Carpathian Basin the different regions were populated by communities periodically in motion, coming from and going to somewhere. In this respect, the development of the settlement network was a dynamic and random process which was equally influenced by the social and economic structure of the communities as well as the environmental resources of the territory taken into possession.

On the territory of the 5th century BC Carpathian Basin a number of communities existed, which were heterogeneous in themselves (RUSTOIU 2014, 145–147). In Transdanubia one can find the eastern groups of the Hallstatt culture, the Pannonians related to the Illyrians (JEREM 1981), in the Great Hungarian Plain the Vekerzug culture or the Alföld group, who were identified by the Syginnae (CHOCHOROWSKI 1985, karte 1; KEMENCZEI 2001, 14; SZABÓ 2005, 18; SZABÓ 2015, 13–14), the eastern Kushtanovica group with tumulus burials (POPOVICH 1997) and the Sanislău-Nir group with cremation burials (NÉMETI 1982, 132); in Transylvania the Transylvanian or Ciombrud/Csombord group, that is the population grouped around the Agathyrsi of Iranian origins (VASILIEV 1980, 10–18; KEMENCZEI 2001, 14).

On the territory of this 'native' population, on the cultural, economic, social, and subsistence strategy of these communities did the 'eastern Celts' arrive at the end of the 5th century BC (SZABÓ 2005, 21–23) from the territory of the western Celts, from the cradle of the La Tène civilization. The advancement towards east from the 4th century BC of the communities organized in various social structures was generally a peaceful process, this is indicated by the fact that the cemeteries opened in the Scythian period were used continuously in the Celtic period on sites such as the Tisza region, Kistokaj, Bodroghalom, Radostyán, Gyoma, and Békéssámson, while in other cases the common use of space of the two communities could be observed (ALMÁSSY 2010; SZABÓ 2015, 36).

The route of the newly arrived population is well indicated through mapping of the early characteristic finds. The earliest communities arrived in the Carpathian Basin through the Danube Valley, from the direction of the Vienna Basin, first to the Little Hungarian Plain, and

then from the middle of the 4th century BC to south Transdanubia, in today's south-western Slovakia, on the northern fringes of the Great Hungarian Plain and in Transylvania; further on along the Danube in Novi Sad and on the territory of Serbia (SZABÓ 2005, 23; RUSTOIU 2012a, 361–362, fig. 3; RUSTOIU 2014, 147; SZABÓ 2015, 19–20).

The phenomenon must have been the same on the territory of Transylvania however, here about the cohabitation of the groups of people only indirect evidence exists. Since, beginning with the middle of the 5th century BC the material and spiritual culture called 'Scythian' is no longer archaeologically documented – this is proven also by the yet unpublished radiocarbon dates, which indicate that the Early Iron Age Transylvanian group cannot be dated later than the middle of the 5th century BC –, while the first authentic La Tène discoveries date back as early as the mid-4th century BC. Even if several funerary discoveries were recently re-dated to the 5th–4th centuries BC (RUSTOIU – EGRI 2020, 453–454), Romanian archaeological research has not yet been able to outline convincingly the period following the pseudo-nomadic Scythians, known archaeologically only from cemeteries, and preceding the Celtic period of sedentary communities organized in farmsteads and hamlets (FERENCZ 2007, pl. CXII).

Therefore, the 'colonization' – defined as slow economic migratory movement (DEMOULE 2006, 17), which in the case of the early Late Iron Age Carpathian Basin was the movement of some groups in order to occupy a new territory outside the 'ancestral' space (RUSTOIU – EGRI 2020, 449) – of these eastern parts was carried out from the west to the east as it is shown by the typo-chronological observations (RUSTOIU 2008, 69, fig. 27). The two major routes towards Transylvania along the Someş (Szamos) and Mureş (Maros) River were maintained during the entire early and middle La Tène period, and soon after 'colonization' they started to function in two directions, complemented gradually by further connections towards east and south. The interconnection of these regions as well as their mediator role is documented by the multi-directional flow of goods, artistic styles, or technological accomplishments.

The reason for the migration of the communities from the western Celts is generally argued by the research as a consequence of a demographic boom mentioned in the sources (SZABÓ 1994, 40; SZABÓ 2005, 19–21; SZABÓ 2015, 21). Among the reasons for the integration of the eastern part of the Carpathian Basin one can enumerate the attainment of new territories suitable for agriculture and pasture as well as the obtaining of minerals, especially salt (RUSTOIU 2014, 145). The process of settlement in the Carpathian Basin and the character of the migration of the Celts already constitutes a complex set of questions. The model of interaction was not unique for the entire territory, yet the phenomenon of amalgamation was general (RUSTOIU 2014, 156).

The number of the earliest graves (LT B1) of the Late Iron Age cemeteries from the eastern part of the Carpathian Basin is low thus, obviously a smaller population and not a large block of people had migrated to the region. The migrating communities gathered from different groups of people (RUSTOIU 2014, 144), partly from common but to a certain degree with unique and specific identity. This is indicated by the development of groups of graves in some of the cemeteries starting already from the early La Tène period, to indicate the separate family units which formed the community. At the head of these units a new military aristocracy was placed. In order to acquire the new territories, the members of the Celtic warrior layer formed new groups above the tribes, just as the *Hetaireia* of the Celts living in Italy mentioned by Polybius. The material remains of this unit are represented by the swords and scabbards decorated with a pair of dragons which are spread on a large territory, from England to Romania (STÖLLNER 1998, 167–170, Liste 4, Beilage 3).

A large number of settlements and cemeteries testify that the native population and the newly arrived communities cohabited and mixed in the new home. This is especially highlighted by

the native pottery, which appears in the inventory of the graves (sometimes exclusively) and in the settlements, and indicates the continuation of the pottery production. In the same time, the phenomenon also reflects that the native population took over easily the customs of the newly arrived which lead to the cultural reconfiguration of the Carpathian Basin (RUSTOIU 2014, 152).

The material cultures of the populations mixed but the newly arrived communities did not break the ties with the western world (SZABÓ 2015, 18). The uniform character of the La Tène culture that spread around Europe and became general in the 4th century BC was provided first of all, by the common notes that manifested in the material and the spiritual culture. However, on a local, regional level of the everyday life and special days the identity of these communities shows various nuances. One of the reasons for this diversity can be credited to the substrata of the different populations of some of the regions, the traditions of the 'natives' and the intensity of the process of integration, which – as it will be shown – can be traced even in the landscape.

The society of the central European LT A and LT B1a (450–350 BC) was defined by the period of the 'princes', who manifested their identity through rich burials containing also luxury objects in tumuli, which dominated the landscape and the environment even visually. This type of social system seems to be disintegrating in the middle of the 4th century BC, and based on the funeral inventories the society shows a more unified picture, the 'democratization' of fashion had started (SZABÓ 2014, 77). The eastern expansion that took place in this period resulted in a new type of elite, the leaders of which were the warriors coming from large families. This is well reflected by the inner structure of a number of cemeteries from the Carpathian Basin, such as Vác, Ludas, Sajópetri, and Pişcolt (Piskolt).

The result of this process was the birth of a powerful heterarchical enclave in the Carpathian Basin formed around the new tribal units which became the centre and hinterland for the invasions against the Hellenistic world (SZABÓ 2005, 28; SZABÓ 2015, 51). In this framework the earlier migration was followed by a continuous two-way mobility the main driving force of which was the military elite. However, an important role was fulfilled also by the mutual 'cultural colonization' that manifested in various forms. Among the mechanisms of this, trading and diplomatic relations, gift exchanges, matrimonial alliances, and the mobility of craftsmen can be enumerated (ARNOLD 2005; RUSTOIU 2011a; 2011b; RUSTOIU – URŞUŢIU 2013; RUSTOIU 2014, 145).

The newly formed communities of the Carpathian Basin had other types of relations besides land acquisition and occupation. A different attitude can be observed towards the north, in the direction of the Maramureş Depression or towards east, to the Olt Valley from the mountainous depressions from eastern Transylvania. It is yet to be decided by research whether these arriving communities had settled an agreement with the local population in order to maintain a peaceful relationship, just as they did with Alexander the Great in 335 BC in the Lower Danube region, or both communities remained passive and uninterested in the other's living space, geographic environment, and territory.

In the first quarter of the 2nd century BC the changes that took place throughout Europe resulted in significant changes from a land use point of view as well. In the western and eastern parts of the Carpathian Basin different geo-political processes took place, where the settlement pattern and the funerary landscape of the Carpathian Basin from the western and eastern areas can be evaluated in different ways. In this time, in the middle Danube Basin and the western areas the *oppida* appear, while in the eastern parts, in Transylvania, the so-called *davae* are built in order to defend and symbolize the prestige of the Dacian elite.

The history of these communities is determined not only by a continuous population movement, but also by a permanent negotiation of social and political relations between the

newcomers and the indigenous communities. This cultural negotiation and hybridization makes the 'Celtic period' in the eastern Carpathian Basin a genuine cultural phenomenon, different from the one in the central Danube-area, and, in general, different from the one in the colonists' areas of origin.

The traces of all these population movements, social and cultural interactions, differing regional developments and transformations are hidden in the landscape of the archaeological sites, providing answers or raising new questions concerning how did the Iron Age communities reside, consecrate, revere or control the landscape.



RESIDING THE LANDSCAPE. SETTLEMENTS

Human communities experience their social existence on the level of the individual in a more-or-less conscious, loose-structured or complex sets of relationships. The basic condition for this is the definition of collective identity as well as its symbolic manifestation. In the same time, while the individuals feature a multi-levelled identity as members of their society (gender, age, religion, social status etc.), the communities also define themselves on a micro- and macro-regional level.

In this *us-and-others* relationship the regional, territorial identity played a crucial role. Probably the most extreme example to this in antiquity was the identity picture of the Greeks from the 5th century BC that can be traced along the paradox dichotomy of the Panhellenic alliance of the Persian wars and the battle between the city-states of the Peloponnesian War.

The precondition and consequence of the self-awareness connected to a territory is the outlining of physical and mental boundaries of collective identity. The communities perceived the territory of their settlements as geographically well-delimited units which indicated the basic level of the *us* concept. On a micro-regional level, the *us-and-others* relationship presumed to have existed with their neighbours was overwritten in the larger network of relationship by the collective identity. On a pan-regional level the identity of *us* integrated the former *others* identity and defined a new *us-and-others* relationship. In the history of the Late Iron Age the best example to this upper-level collective identity was the campaign against the Hellenistic word in the beginning of the 3rd century BC, the origin of which was the middle Danube region and its participants gathered from various groups of people living on the territory between the Atlantic Ocean and the Carpathians (SZABÓ 1994, 40).

At the end of the Early Iron Age and the beginning of the Late Iron Age of the Carpathian Basin the settlement system shows many similarities as well as differences. One of the most important regional difference can be observed in the settlement development in Transylvania at the end of the Early Iron Age. The climate and vegetation of the Great Hungarian Plain, a quarter of which was composed of floodplains, morasses, and marshes until the 19th century, was similar to the forest steppe and steppe zone of the middle basin of the Prut-Dniester-Dnieper region, located to the east from the Carpathians (KEMENCZEI 2001, 9). Due to this, and as a result of the population movement of the 7th century BC, on the territory of the newly formed Alföld group or the Vekerzug culture, in the period of the middle Iron Age, next to former villages new settlements appeared with population that practiced agriculture and animal husbandry. The house remains unearthed on the site excavations prove that the villages existed for a long time and that these were not temporary dwellings of shepherds (KEMENCZEI 2001, 19).

In the same time, in Transylvania, in the valley of the Mureş and Târnava (Küküllő) Rivers, in the beginning of the Ha D period (in the second half of the 7th century BC and the beginning

of the 6th century) the former Ha C settlements ceased to exist but next to the newly opened cemeteries new settlements did not appear. The scholarship, based on ancient sources, has connected this phenomenon with the semi-nomad lifestyle of the incoming population from the northern shores of the Black Sea (VASILIEV 1980, 32).

In the centre of the Carpathian Basin, in the 6th and 5th centuries BC, then in the early and middle Late Iron Age, most of the settlements were small, village-like manors, farmsteads or small villages, located on the rides and terraces of hills along rivers, on land optimal for agriculture and animal husbandry. As most of the researched settlement structures or perhaps most expressively the fragments of weapons from the settlement of Sajópetri indicate (SZABÓ 2005, 83), the leaders of this smallholder system were the horsemen from the military elite, that is free and armed aristocracy which shared the same rural living area with the farmers.

* * *

The main difficulties of studying the landscape, environment or network of relationships of these settlements are given by the state of research. Partly the number of settlements identified topographically varies, secondly, most of the settlements from the Carpathian Basin are only partly excavated or known only from field walking. Thus, the overall picture of a settlement, its micro-regional character, cannot be studied.

The situation of the regional studies is radically discrepant for the various regions of the Carpathian Basin. The settlement network and settlement structure of the Alföld group was barely known in the beginning of the 2000s (CSEH 2001, 81). Furthermore, while in Transylvania, along the valleys of the Someşul Mic (Kis-Szamos) and Someşul Mare (Nagy-Szamos), Mureş and the Târnava Rivers altogether 23 early and middle La Tène settlement fragments are known, for example, only in the northern part of the Békés County in Hungary 299 settlements are identified (BÓKA 2013, 270).

In the same time, most of the finds from the settlements can be dated to the entire Celtic period or only to one horizon, in the case of Transylvania mainly to the last LT C1 horizon based on few small finds (PUPEZĂ 2012a, 25; BERECKI 2015a, 44–45). Thus, a macro-regional comparison can also be only hypothetical. In this way, the progressive or conservative tendencies and regularities which emerged in time as a result of the change in generations or other demographic factors, as well as the micro- and macro-regional demographic development, can rarely be defined.

The intensive micro-regional settlement research has highlighted several characteristics of the different territories of the Carpathian Basin. The research of the approximately 36 km² territory located between the Sajó River and the foot of the Bükk Mountains allowed the geographic and geomorphological analysis of the settlements. In the same time, it shed light on the settlement topography of the region, in which the Late Iron Age settlement of Sajópetri–Hosszú-dűlő covering 2.5 hectares occupied a central place among the other settlements measuring 0.5 hectares and located at a distance of 2–3 kilometres from it (CZAJLIK – TANKÓ 2007, 324).

The intensive field walking around the Late Iron Age cemetery of Ludas, sited in the southern foreground of the Mátra Mountains, covered approximately 25 km². The identified 15 Late Iron Age settlements were discovered without exception along the Bene Creek, on the high floodplain areas (CZAJLIK ET AL. 2012, 176, 179, fig. 203).

The geological relief analysis conducted in the northern part of the Békés County indicated that the Vekerzug and La Tène settlements can generally be found on high floodplains, sand ridges, and loess ridges, and only rarely did they occupy low floodplains (BÓKA 2013, 285,

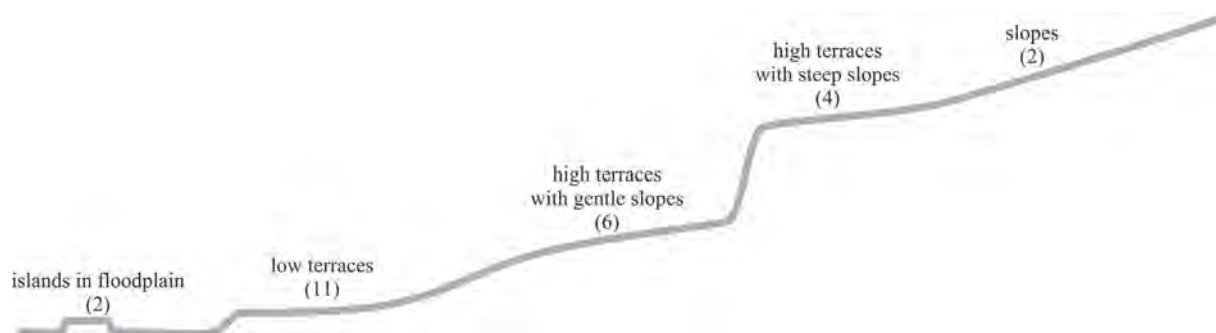


Fig. 1. Different landforms of La Tène settlements in central Transylvania.

fig. 6–7). The same could be noted in the upper and middle Tisza region, in Crișana and Banat, where the settlements can all be found in high floodplain alluvial and loess soils.

On the eastern territories of the Carpathian Basin, in Transylvania, the landscape, with varying forms of low and high relief, is much more diversified than in the Great Hungarian Plain. The early and middle La Tène sites from the eastern part of the Carpathian Basin are found in the valleys of the major rivers that dominate the hydrographic area – Mureș, Someș, and Târnava – and in the valleys of their tributaries. The settlements from this period are found on almost all types of relief, from the so-called ‘islands’ in floodplains to the high terraces below the steep slope of hills (Fig. 1).

The LT C1 Gligorești–*Holoame* (Sósszentmárton) site is situated on an ‘island’ in the floodplain of the lower course of the Arieș River at about 2 km from the estuary (Fig. 2). Inhabited from the Neolithic until the Roman period, the relief of the site is atypical for the Transylvanian La Tène settlements (BERECKI 2015a, 59). The settlement identified in 2009 through field walks at Țiptelnic (Száltelek), on the left bank of the Lechința (Komlód) River, close to the estuary of the stream (Fig. 3), not far from a salt spring is a good example for settlements found on low terraces in the hilly areas of the Transylvanian Plain (BERECKI 2015a, 69). Most of the Transylvanian Celtic settlements – Sebeș (Szászsebes), Mediaș (Medgyes), Bratei (Baráthely), Cluj-Napoca (Kolozsvár) etc. – can be found in similar topographic conditions. Several settlements, like the ones from Blandiana/Vințu de Jos (Maroskarna/Alvinc) or Sfântu Gheorghe–*Peșes* (Csapószygyörgy) are situated on the bank of the Mureș River (Fig. 4), while in other cases, like the settlement from Morești–*Podei* (Malomfalva) site from the wide sector of the Mureș River’s valley is situated on the right bank, on a high plateau with steep slopes (Fig. 5).

In the middle of the 4th century BC the ‘colonists’ had settled in the lowland areas partly in the habitation areas of the natives, where they brought with them their own settling tradition which was largely influenced by their everyday life and the practice of agriculture or animal husbandry. Similarities in the settling strategies of the Early Iron Age and Late Iron Age populations could be well identified in the case of the upper and middle Tisza region (BÓKA 2013, 285–286; KOVÁCS 2019, 145).

In the case of a longer sedentary life finding an optimal settlement place was influenced by the accumulated experience of the community regarding the natural environment: the overflow of waters, the direction of the winds, the state of the pastures and agricultural fields etc. To these, the proximity to communication routes can be added as well as the organization of the communities on a macro-social level, for example their appurtenance to an entity or other. These elements of collective identity together with the geo-politic factor will later influence, in the late La Tène, the location of the fortifications, monumental symbols of the social state.



Fig. 2. Gligorești–La Holoame (September 2014, S. Berecki).



Fig. 3. Țiptelnic (September 2014, S. Berecki).



Fig. 4. Sfântu Gheorghe-Pe Șes (September 2014, S. Berecki).



Fig. 5. Morești-Podei (September 2014, S. Berecki).

The development and transformation of the Late Iron Age settlement network was shaped also by geo-political conditions. While the populations living on the plateaus of the Carpathian Basin were integrated in some way and re-shaped by the new culture, the communities located on the fringes of the occupation could continue their development without interruption. The fortifications of the 4th and 3rd century BC from the upper Tisza region, in the isolated Maramureş Depression, testify to the continued existence of the Early Iron Age traditions, their uninterrupted development. These fortifications – Belaja Cerkov’ and Solotvino (Aknaszlatina) – show similarities with the communities living to the east and south of the Carpathians (RUSTOIU 2014, 154; RUSTOIU 2019a).

To the west from this region, on the eastern banks of the Tisa (Tisza) River, on the territory of the Kusthanovice group of the end of the Early Iron Age, some of the Early Iron Age sites survived until the middle of the 3rd century BC, while other Late Iron Age settlements and cemeteries were born. This can be connected to the dense settlement network of the Early Iron Age population, due to which the effective settling of the newly arriving communities could happen only in the second half of the 3rd century (ALMÁSSY 2010, 16).

The newly arrived communities did not show interest either in the Olt Valley from the mountainous depressions from eastern Transylvania, situated at the foot of the eastern Carpathians, a region otherwise rich in ores. Little is known about the populations living in this region in the 4th and 3rd centuries BC, only the finds from Olteni (Oltszem) offer a superficial insight. Concerning the settlement few details are known, altogether one house and three pits were identified on a high terrace near the Olt, in which besides the objects of everyday use a number of exclusively handmade pottery fragments were unearthed. In the neighbouring area seven cremation burials were excavated, a part of these were inhumations with coffins, and the pottery from the inventory was again exclusively handmade. The cemetery was dated to the 4th and 3rd century BC. One of the reasons for the Celts not to settle in this region could have been the presence of a population that showed similarities with the communities living to the east of the Carpathians (CAVRUC – BUZEA 2005, 126; SÎRBU *ET AL.* 2008, 207; PUPEZĂ 2012, 72–73), but much more likely the geographic resources and features of the territory did not meet the expectations of the economic system of the incoming communities.

The same can be identified for certain micro-regions of the Carpathian Basin, such as on the territory between the Someş Plateau, the Apuseni Mountains and the Eastern Carpathians. The spread of the Late Iron Age finds indicates that the valley of the Someş River was one of the main arteries of the Transylvanian settlement. Even so, the character of the Late Iron Age settlements and cemeteries on the territory located between the Someş Plain and the Transylvanian Plateau, called the Someş Plateau, indicates that during the early La Tène this region was at most a transit zone. Opposite to the presumed idea of the resistance of the local tribes it is more likely that the character of the landscape was the reason for which an enduring Celtic settling could not take place. Until now, Celtic burials dated exclusively to the LT B2 and C1 (that is the second generation of people after settling in Transylvania, and those buried in the same place a hundred years after the settlement) are known in this region altogether from three places: in Derşida (Kisderzsida), Zăuan (Szilágyzovány), and Zalău (Zilah) (see NÉMETI – LAKÓ 1993 and FERENCZ – POP 2018). Meanwhile, the local communities continued their development without any significant influence from the part of the newly arrived population (POP – PUPEZĂ 2006). The importance of the micro-region had increased during the 1st century BC, in the period of the Dacian Kingdom, when the second largest number of hoards were found in this area after the Dacian capital. The reason for such a high number of hoards can perhaps be explained with the political and military importance of the passes as the territory lacks mineral and ore deposits (PUPEZĂ 2012, 408–409).

The common use of space in the Early and Late Iron Age (HELLEBRANDT 1997, 155; CSEH 2001, 82–83, fig. 2; GYUCHA 2001, 126; ALMÁSSY 2010, 15; KOVÁCS 2019, 146) could be well-observed in the case of few settlements from the Hungarian Plain and the Tisza region. M. Szabó defined three types of common use of space: first, when a settlement ceased to exist and a new one was created on its place, second, when the old and new community lived in the same space, and third, when the two communities lived as neighbours, near each other (SZABÓ 2007a, 330–332).

In other instances, like around Tiszavasvári for example, just the opposite, a different use of space was observed: while the communities of the Scythian period used waterfront settlement levels of primary importance, the Celtic settlements were found further away from the waterfront, and merely one questionable settlement is known where finds were found from both periods. The phenomenon was explained by K. ALMÁSSY (2001, 134–136) with the demographic and hydrographic situation of the late arrival of the Celts, after the Balkan campaign. The result was a relationship between the two populations but at the level of the settlements it did not result in a common use of space.

Due to the lack of settlements from the end of the Early Iron Age, in the designation of the place of the Transylvanian Celtic farmsteads the communities could not rely on the traditions of the native settlements. However, these villages are frequently sited on such favourable locations: Sfântu Gheorghe–*Pe Șes*, Morești–*Podei*, Mediaș–*Baia de Nisip*, Cristuru Secuiesc–*Fenyőalja* (Székelykeresztúr), Lančräm–*Glod* (Lámkerék) and Gligorești–*Holoame*, where settlements could have been formed even in earlier periods (BERECKI 2015a, 45). Even though the social structure and the symbolism of the landscape in the early, middle and late La Tène period is quite different. Places where the LT B or C settlement was followed by a LT D one are frequent, but without showing any continuity. Along the Lower Mureș Valley almost all known LT B and C settlements can be included here: Blandiana/Vințu de Jos–*Lunca Fermei*, Oarda–*Cutină* (Alsóváradsja), Lančräm–*Glod*, Sebeș–*Podul Pripocului*, Tărtăria–*Pietroșița* (Tatárlaka) and Șeușa–*La Cărarea Morii* (Sóspatak). Additional sites of this type are known also from the Someș Valley and around Bistrița (Beszterce) (BERECKI 2015a, 45).

The site catchment analysis of certain regions shows that in the beginning of the Late Iron Age the location of the sites indicate preference for high quality agricultural land and the vicinity of pasture suitable for animal husbandry, and can be found more rarely in strategic points along the trade routes stretching in the river valleys (BÓKA 2013, 285–286). The secondary function of the trade routes could also be observed in Banat (GEORGESCU 2019, 170) and the same phenomenon can be concluded in few cases for the La Tène settlements in Transylvania based on their geographic spread (BERECKI 2015a, 47). This does not mean the lack of commerce or its minor importance since the finds from the settlements and cemeteries prove the existence of long-distance trade. The factors influencing the location of a settlement are perhaps better to be sought in the efficiency of various regions from a geographic and subsistence strategies point of view.

Behind the site selection of the settlements in low or high floodplain areas the general, characteristic climatic conditions of the time period and their environmental impact need to be considered. In the case of the Iron Age it seems that in central Europe in the beginning of the 4th century BC a cold and rainy period had started which was followed by, in the 3rd century BC, a smooth climatic phase with moderate temperatures and rain (JEREM ET AL. 1985, 20–21; NÁFRÁDI ET AL. 2014, 1570; VOLKMANN 2018, fig. 8). In the same time, the climatic conditions varied regionally, just as in the case of Switzerland, where based on the archaeozoological and botanical data probable catastrophic impacts of climate deterioration around 800 BC and 400

BC could be observed (TREBSCHÉ 2013, 220). The climate of the Carpathian Basin is characterized by a great variety of nuances determined by the complexity and fragmentation of the terrain. Among the regional characteristics one can mention the high precipitation and low average temperatures in the Maramureş Basin, the Apuseni Mountains as well as the Eastern or Southern Carpathians (BINDEA 2008, 16–17), where both factors could have played a crucial role in the settlement of the Celts. Despite these climatic observations, a few middle and late La Tène settlements appear in floodplains. This is the case, for example, in Blandiana, where settlements from the LT C, and then from LT D were discovered in the floodplain of the Mureş River. In the absence of comprehensive research on the site it can only be assumed that probably it is a local situation or these were seasonal settlements, however it cannot be excluded that in the 3rd–1st centuries BC, at least on the Transylvanian plateau there was a drier climate, with cold winters.

* * *

The subsistence strategies of the newcomers and the native communities at the turn of the Iron Ages, based on agriculture, small-scale craftsmanship and animal husbandry, together with the natural conditions of the regions had a major influence also on the character of the Transylvanian Late Iron Age settlement pattern (BERECKI 2015a, 32). Food was also a significant social determinant and played an important role in the creation of a group identity (BUJNA *ET AL.* 2019, 27).

The economic system of a community defines its social structure and the land use. The communities from the end of the Early Iron Age of the Carpathian Basin were engaged in animal husbandry and were in a constant move and change of pastures. Still, in the lifestyle of the communities in the Tisza region and in Transylvania the presence or the lack of settlements generated significant differences.

In Transylvania, the animal bones coming mainly from cemeteries, from funeral inventories, from the end of the Early Iron Age so far indicated the presence of three types of animals: cattle, sheep, and in one case hare (EL SUSSI 2018, 47). In the Alföld / Vekerzug cemeteries sheep/goat, swine, cattle and horse was identified (KOZUBOVÁ 2019, 250). The animal bones from the excavations of settlements from the Hungarian Plain contained in the largest number cattle and sheep/goat, and in smaller numbers swine, horse, dog, and hen (KOZUBOVÁ 2019, Tab. 2), illustrating the ‘steppe’ character of the Scythian culture and mobile pastoral patterning in the exploitation of domestic ungulates (BARTOSIEWICZ – GÁL 2010, 117–119, 124). The excavated bones testify to the consumption of horse (BARTOSIEWICZ – GÁL 2010, 124) but the prominent social role of this animal is well-reflected by the horse burials and the horses placed in graves, the trappings, and they are mentioned also in the written sources (KEMENCZEI 2001, 19). In contrast with the period’s artistic depictions wild animals can be barely found among the finds of the end of the Early Iron Age settlements. From the known Alföld / Vekerzug settlements more than 95% of the animal bones come from domestic animals, while the wild animals are entirely missing from the inventories of the cemeteries (BARTOSIEWICZ – GÁL 2010, 125; KOZUBOVÁ 2019, 250, Tab. 2).

The animal economy based on grazing also reflects the mobile or pseudo-sedentary lifestyle of the communities of the end of the Early Iron Age in Transylvania (EL SUSSI 2018), in contrast to the period of the Late Iron Age, when the finds from the settlements and cemeteries testify to fishing and hunting practices but mainly to the keeping of domestic animals (SZABÓ 2005, 88).

In the material culture of the Late Iron Age cemeteries of the Carpathian Basin the most frequent animal appears to have been the swine, then the sheep and hen, cattle, hare or fish

(Uzsoki 1970b; Hellebrandt 1999, 99, 251; Haimovici 2006; Meniel 2006; Vörös 1998; 2008; etc.), while the placement of horse trappings in graves, the burial of horses (Jerem 1968, 175–176) and their rare appearance as grave inventory indicates the prominent economic and social importance of the horse in the period. Occasionally, horse was also part of the diet as is clearly suggested by the horse bones with cut marks found in the 3rd century BC settlement in Dunaszentgyörgy (Tugya 2009, 200). The measurements conducted on the finds from Sajópetri supports that horses from the Celtic period were somewhat smaller (generally 1.23 m withers height) than the larger horses of the Scythian period (withers height: 1.25–1.45 m), which seems to contradict the written sources about the low wither height of the Early Iron Age horses (Bökönyi 1968, 41; Bartosiewicz – Gál 2010, 120, fig. 9.3).

Similar proportions can be found in the Late Iron Age settlements. Concerning the fauna of the eastern part of the Carpathian Basin data is scarce. In Biharia (Bihar), in Crişana, as well as in the settlement dated to LT C1 in Moreşti (from this latter site altogether 21 animal bones were analysed) from the Late Iron Age contexts swine, cattle, sheep, horse, and dog bones were excavated. The wild animals in Moreşti were represented by red deer and roe deer (Haimovici 1979; 1988).

In the western parts, in a LT B dwelling house from Sopron–*Krautacker* swine, sheep, cattle, horse, dog, hen, and ibex was identified along with wheat, little barley, peas, and cucumber. In a LT C dwelling house mainly cattle, sheep/goat, swine, red deer, horse, dog and from plants wheat, barley, flax, and wild fruits (dwarf cherry, dwarf elder, and *Lithospermum*) were unearthed. In the late La Tène house few animal bones (cattle and goose) and plants, like wheat, barley, lentil, sloe, shrubby and black elder was found (Jerem *et al.* 1985). In the settlement of Sajópetri besides domestic animals – in which the swine dominates – large game played an important role, and also fish bones were revealed (Bartosiewicz – Gál 2010, 119, 122). Fish bones were found in the cemetery in Mátraszőlős as well, where mainly swine, and in large quantities domestic hen, dog, and sheep was placed in the graves (Vörös 2012). At *Harc–Janyapuszta–Gulyajáró* most animal bones of the LT C settlement features originated from cattle, pig and small ruminants, and for the first time the occurrence of donkey was attested (Czajlik *et al.* 2010, 157–159). In the settlement of Dunaszentgyörgy from the 3rd century BC among the animal bones one could find cattle, small ruminants, pig, horse, cattle, red deer and roe deer (Tugya 2009, 201, 204). Game is quite frequent in the central European settlements from the end of the Early Iron Age and early LT, where frequently after cattle they appear in the second largest numbers, which also indicates that hunting was a regular activity even for agricultural settlements, supplementing the daily diet and enriching the menu, and it was not a privilege of certain social groups (Trebsche 2013, 227–228).

In the case of the settlements sometimes distinct proportions can also be found, for example in *Sé–Doberdó* where the sheep/goat bones dominate (almost half of the bones), followed by cattle and swine in smaller numbers, then few dogs, horse, and hen (Daróczy-Szabó 2004).

In the case of the Celtic cemetery in Dubník (Csúz) from the differences in nitrogen isotope values recovered from human bones and from the larger quantities of meat placed in the graves of men the researchers concluded that for certain social layers it was not only a specific feature of the burial rite but also reflected a different diet during their lifetime (Bujna *et al.* 2019). Analysis of dental calculus with ultramicro-chemical (UMC) procedure using renal reagents Harzolith I A reagent (sour solution) and B reagent (alkaline solution) undertaken by Sz.-S. Gál in a pilot project regarding the diet of the Early Iron Age and early and middle La Tène communities in Transylvania shows that in the period of the Early Iron Age meat consumption was more widespread since calcium-phosphate ration was higher, and in the Late

Iron Age the nutrition was made up of a grain-based diet, as shown by the higher carbonate-apatite ratio. This result is also supported by the still modest archaeobotanical analyses. In Topolovăţu Mare (Nagytopoly) and in Freidorf (Szabadfalu), in Banat millet was identified in the largest quantities, followed by club wheat and barley (CIUTĂ 2019). Millet was widespread also because they have short growing season, and they are highly tolerant of extreme weather conditions.

The animal bone assemblages unearthed from the fortifications and fortified settlements of the eastern part of the Carpathian Basin dated to the end of the Late Iron Age – Pecica–*Şanţul Mare* (Pécska), Şimleul Silvaniei–*Cetate* (Szilágysomlyó), Zalău–*Măgura Moigradului*, Sighişoara–*Wietenberg* (Segesvár), Craiva–*Piatra Craivii* (Királypataka), Mereşti (Homoródalmás), Racoş–*Piatra Detunată* (Alsórákos), Covasna–*Cetatea Zânelor* (Kovászna) etc. – offer a varied picture. From these sites mainly swine, cattle, sheep, horse, hen, dog, cat, and fish bones were identified; from wild animals – which appear almost in all of the sites – boar, roe deer, red deer, bear, aurochs, hare, and beaver appear (GUDEA – GUDEA 1999; BĂLĂŞESCU ET AL. 2003, 184–223; BINDEA 2008, 105; EL SUSI 2010; 2012). In Sarmizegetusa Regia from the analysed samples until now, it could be concluded that the diet in the capital of Dacia was based especially on few types of wheat, rye, barley, millet, and lentil. The appearance of poppy and camelina (this was identified in some of the contexts independently) indicate oil production (CÂRCIUMARU 1996, 149). The plant remains from the fortification of Craiva–*Piatra Craivii* are represented by rye, lentil, and barley (CIUTĂ – PLANTOS 2005, 84, with further bibliography), and the samples taken from Căpâlna (Sebeskápólna) are dominated by barley and millet (CÂRCIUMARU 1996, 149).

Due to the differences in lifestyle between the communities of the end of the Early Iron Age and Late Iron Age outlined by animal husbandry also contributed to the development of the Transylvanian Late Iron Age settlement system, which evolved around economic and subsistence issues, as the newly arrived Celtic communities did not rely on the experiences of the native populations in the establishment of their settlements. This is also supported by the observation according to which a high number of Celtic settlements can be found near salt springs or lakes highlighting the importance of animal husbandry in the economy of the period. Salt exploitation was surely performed at a smaller scale, only to cover the local demand. Data concerning large scale exploitation for the purpose of long-distance trade are entirely missing.

* * *

Neither the communities from the 6th and 5th centuries BC, nor the later ones from the 4th and 2nd centuries BC showed interest for mountain areas rich in minerals (precious metals and copper in the Apuseni Mountains or iron ore in the Eastern Carpathians), in contrast to the later LT D communities that built fortification systems in these regions to control access to these resources. The geographic spread of the finds (BERECKI 2015a, 39) as well as the earlier mentioned excavated settlement in Olteni and the inventory of the cemetery indicate that the Transylvanian Celtic settlements did not extend until the Eastern Carpathians thus, they could not reach the raw materials available in this area. In the same time, their settlement around the Apuseni Mountains can already be documented starting from the LT B period but the archaeological evidence for ore extraction or processing are missing. It can be presumed that ore was acquired through more simple techniques, mined rather opencast than underground and worked from bog iron and alluvial gold. It is somewhat surprising that in Transylvania the direct archaeological evidence of metalworking during the Ha D and LT B–C period is still missing, while the number and quality of the metal objects deposited as funeral inventories is

outstanding. However, it is characteristic to the whole territory of the Carpathian Basin that tools were interred in graves – tools for carpentry or leatherwork, metallurgical tools or medical instruments – which can indicate that in the funeral ceremony (or because of the afterlife beliefs) it was important for the community to denote the personal identity of the deceased, that of being a craftsman (RUSTOIU – FERENCZ 2019, 70, fig. 11).

On the lowlands of the Carpathian Basin, in the Little and Great Hungarian Plain as well as in the Banat smaller-larger quantities of iron slags were found in certain contexts (workshops?) which suggests that in few settlements household-level metalworking activities took place (CZAJLIK 2000; VADAY 2003, 202; CZAJLIK – MOLNÁR 2007, carte 3; TANKÓ – CZAJLIK 2007; SZABÓ *ET AL.* 2008, 196; SZABÓ 2015, 24; GEORGESCU 2019, 170; KOVÁCS 2019, 146; CZAJLIK 2020; TANKÓ 2020a, 189–194 etc.). The tuyere fragments found in Pásztó–*Csontfalva* (TANKÓ 2006) dated to LT B2–C1 as well as the slag nugget, semi-finished iron product, fragment of iron slag, crucible, fragment of a clay bellows, and remains of furnaces from the LT B2–C settlement in Szilvásvár–*Lovaspálya* all supply a good example for cases when these objects appear they can be connected to metal (especially iron) working (TANKÓ *ET AL.* 2019, 385; FARKAS *ET AL.* 2019, 120–122).

The pottery and ironworking workshops enclosed with a ditch in Sajópetri were all found separated from the settlement, somewhat projecting from a spatial planning point of view the specialized districts of the period of the *oppida* (SZABÓ 2005, 84; CZAJLIK 2020, 246–247, fig. 1). Most of the workshops responded only to the regular needs of the local community (RUSTOIU 2015a, 352), and the workshops of regional importance can only be presumed but not proven through archaeology.

One of the characteristics of the *oppida* period was the appearance of industrial quarters. Many pottery or metalworking workshops have been discovered in the fortified and open settlements along the middle Danube region which sometimes grouped in quarters or neighbourhoods. These frequently specialized craft workshops played an essential role also on the territory of the later Dacian Kingdom. Besides the documented crafts in open settlements, on the territory of a significant number of Dacian fortifications through direct and indirect evidence (for non-ferrous metals see: RUSTOIU 1996, 185, fig. 30) the existence of craft workshops is attested. Craftsmen, especially the metallurgists fulfilled an important role for the military power centres of the period, just as the archaeological finds and as the location of these workshops outline. For example, the metal and bone working workshop excavated in Ardeu (Erdőfalva), was located in the aristocracy's space, on one of the artificial terraces of the fortification and not in the open settlement at the foot of the hill (FERENCZ 2014, 122, fig. 9). In Tilișca (Tilicske) the finds from the house-workshop dated to the first phase (middle of the 2nd century BC), located on the 3rd terrace resembles in many ways to the material culture of the elite that lived in residential towers (LUPU 1989, 106) thus, reflecting the emphasized social status of the craftsmen.

Pottery production was among the most widespread crafts of the period which was less conditioned from the point of view of raw materials by the location of the settlement. According to the present state of research it seems that from the territory of Transylvania only two pottery kilns and their adherent workshops are known from Orosia (Marosoroszi) (URÁK 2018, 198) while in the neighbouring lowlands their numbers are much higher (for a detailed discussion about the pottery kilns in the Carpathian Basin, see: TIMÁR 2007, fig. 42; NÉMETHI 2014; RUSTOIU – BERECKI 2019). In the upper Tisza region, on the site of Nyíregyháza–Oros–*Úr-Csere* an important context was excavated that provided rich structural and functional details based on which an attempt to reconstruct a pottery workshop could be pursued (ALMÁSSY – POP 2014).

The mineralogical and petrographic analysis of a group of 35 pottery fragments worked on a wheel, from the Celtic cemeteries from Fântânele–*Dâmbul Popii* (Újös) and Fântânele–*Dealul*

Iuşului indicate the use of local Miocene illitic mudstones as raw materials. The petrographic studies of the pottery from the cemetery in Ludas showed similar data. However, here, pottery produced from raw materials from more distant regions could also be identified (GHERDÁN *ET AL.* 2012, 277). The petrographic analysis for the cemetery and settlement in Sajópetri similarly indicated that the potters used local raw materials (clay and the additional materials). The analyses showed that the pottery from the settlement and the cemetery from a technological and raw materials point of view are the same and might even come from the same pottery workshop (GHERDÁN *ET AL.* 2018, 370). Thus, it seems that in the case of pottery production the communities were largely self-supporting from the point of view of raw materials. In the same time, to the east from the Carpathians, in Negreni, Bacău County, 31 iron bars, 22 sword blade-shaped bars, and 16 elements of sword-chains of LT C1 type were found, and in Oniceşti, Neamţ County, 19 flattened iron bars were unearthed. These finds appear in the Carpathian Basin but are not characteristic for the discussed territories yet they indicate that the craftsmen or merchants from the Carpathian Basin maintained contact with the territories to the east of the Carpathians (RUSTOIU – BERECKI 2014, 252).

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The shaping of the living space and network of relationships of a given community, after the subsistence strategies, was defined by the site selection of the settlements. As components of a wider landscape mosaic their location conditioned the intensity of the community's communication system.

This phenomenon can be well-observed in the middle of the Mureş, on its southern section from Alba Iulia (Gyulafehérvár), where the river approaches the south-eastern foot of the Transylvanian Metaliferi Mountains. In this section the valley suddenly narrows, the river continues on the right side of the valley, at the foot of abrupt mountains, while the streams flowing in from southeast form varied declivous side valleys. The Late Iron Age settlements can be found in these valleys, only the settlement of Blandiana is located on the banks of the Mureş river which frequently changes its riverbed on this section.

The sites in this micro-region (Fig. 6) clearly point out to what degree did the hydrography fragment the settlement systems, which probably marked the boundaries of the territories in the possession of a community, comprised from one or more rural settlements. Every settlement larger than a farmstead, from the point of view of its structure was a coherent social group, while its existence was defined by its wider social network. Settlement systems, clusters, units – usually modelled with algorithms based on the distribution of the sites.

Besides subsistence strategies and relief, the internal structure of a settlement was shaped also by the structure of the society. The combination of the two determinant factors resulted in the use of space and the mosaic of the settlement units specific for the settlements of the end of the Early Iron Age and Late Iron Age.

Based on the archaeological observations the interior structure of the Celtic settlements from the Carpathian Basin were generally unbound and consisted from smaller houses located scattered around, mainly in a loose system. In some cases, it could be observed that the pit-houses and other sunken features were located in patches, surrounding smaller empty territories (TANKÓ 2010, 249; GALLINA – TIMÁR 2017, 40, fig. 3). However, one must be careful with the reconstruction of the settlement structures since without archaeological data concerning the surface buildings the reconstructed picture might be false.

The best example today for the structure of a Late Iron Age village from the Carpathian Basin is provided by the ground plan of the excavated settlement from Sajópetri (Fig. 7/1). The spatial

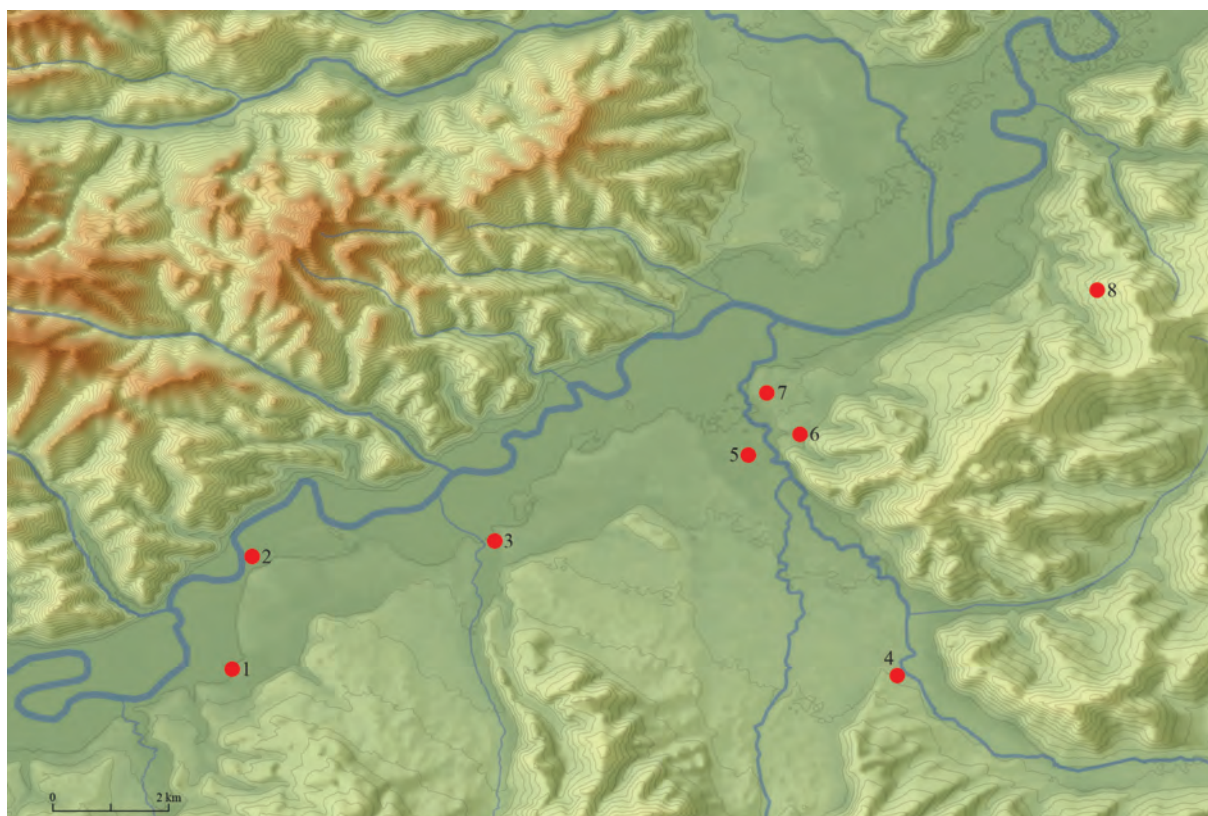


Fig. 6. La Tène settlements in the middle course of the Mureș River: 1. Tărtăria; 2. Blandiana; 3. Vințul de Jos; 4. Sebeș; 5. Lancrăm; 6. Oarda–Cutină; 7. Oarda–Bulza; 8. Șeușa.

development of the village, along one of the backwaters of the Sajó, and its triple articulation (north, south, and central) was greatly influenced by the features of the relief. The individual and grouped dwellings and household annexes are dispersed over a vast area. The southern part of the village, where in the same time was the area of the craftsmen and possibly the place for cult activities, was presumably enclosed and the entrance was possible through a gate. Workshops were unearthed in the northern part of the village as well but here these were not enclosed. The excavated wells of the settlement were identified mainly in the central, on a lower spatial level, and less populated area (TIMÁR 2007, 201). Based on the material finds of the features, dated from the beginning of the LT B2 until the end of the LT C1 (SZABÓ 2007b), from the superposition and the distances between the features the researchers could observe the chronological dynamics between certain settlement features, which affected to a small degree the structure of the settlement (TIMÁR 2007, 203).

Based on the well-researched sites, where a more detailed settlement topography is available, like in Ordacsehi (GALLINA – TIMÁR 2017), Sajópetri (SZABÓ 2007c, carte 2), Szilvásvár (FARKAS ET AL. 2019, 2–3. kép) or the late Celtic Nagytétény (SZILAS 2002, 127), concerning the location of the houses it could be noted that whether one looks at the more intensive or at scarcely built-in areas the buildings, workshops, pits or wells, these mainly form ‘districts’ but are not situated according to any special system. In the case of Sajópetri, it could be well-observed that the workshops were located at the periphery of the settlement or ‘districts’ further away from the dwelling houses (Fig. 7/1). Ethnographic parallels also indicate that the workshops and the dwelling houses in their immediate vicinity formed one economic unit (RUSTOIU – FERENCZ 2019, 74–76).

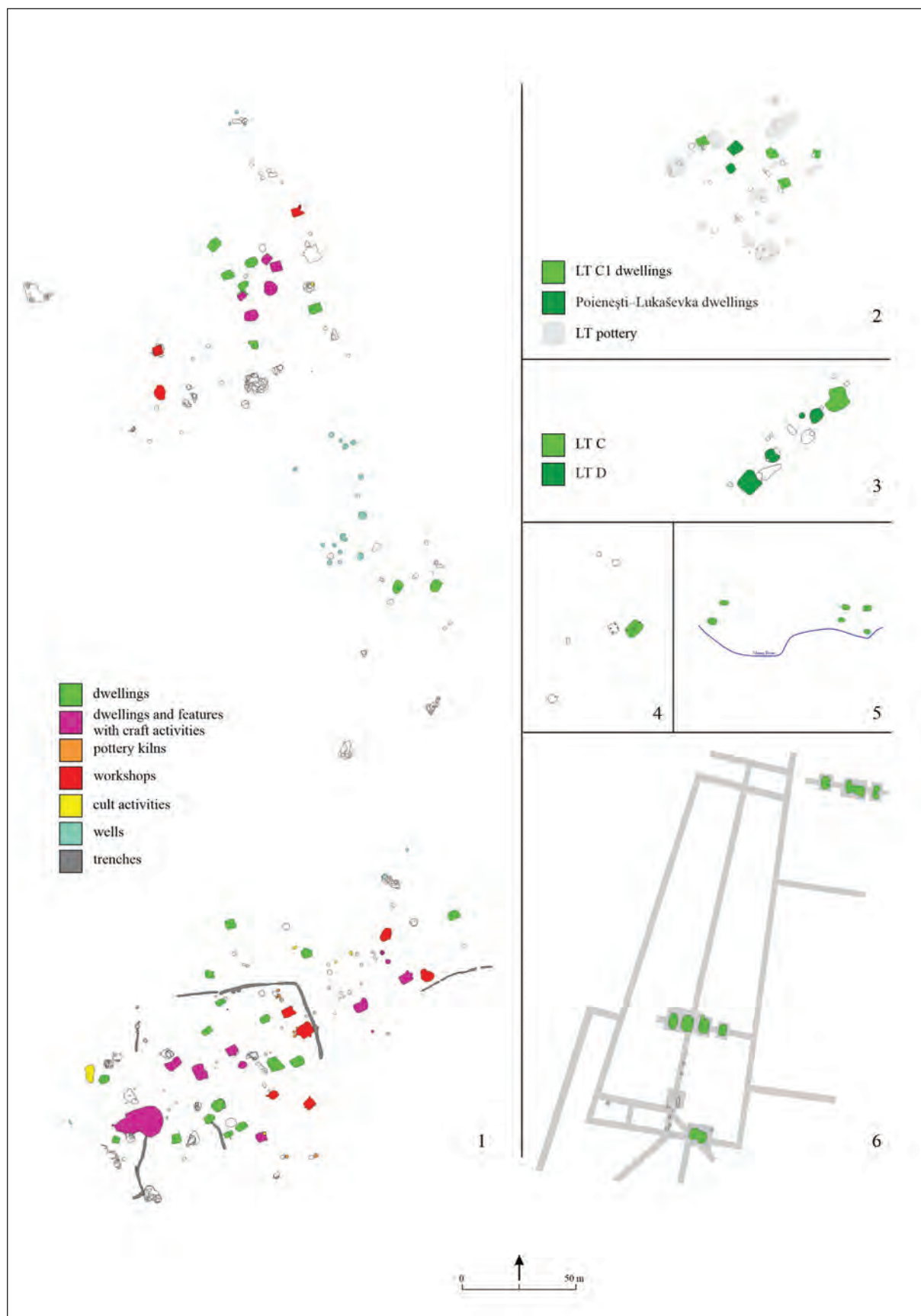


Fig. 7. 1. Sajópetri-Hosszú-dűlő (after SZABÓ 2007c); 2. Morești-Podei (after BERECKI 2008); 3. Tărtăria-Pietroșița (after FERENCZ – ROMAN 2016) 4. Freidorf (after GEORGESCU 2019); 5. Cicir-La Gropi (after RUSTOIU 2013); 6. Ciumești-Bostănărie (after ZIRRA 1980).

These units were sometimes separated from the rest of the settlement by ditches or possibly hedges. On the late Celtic settlement of Nagytétény from the many identified ditches one enclosed a kiln (fencing ditch), in other cases it was a ditch for water (SZILAS 2002, 126–127). In the settlement of Ménfőcsanak a peripheral, extended territory (70 × 150 m) was enclosed with a ditch which had an entrance and inside of it only two wells were found. This might have been a pen for animals. Another double-articulated feature enclosed with a ditch might have served as a deposit (VADAY 2003, 201–202; TANKÓ 2010, 249, fig. 2–3; TANKÓ 2020a, 200–203, fig. 84).

The interpretation of the settlement structures and the understanding of the settlement systems relies partly in the recognition of the building types and partly on the identification of settlement features. In the case of the settlement in Morești K. HOREDŢ (1954, 207) defined six Late Iron Age sunken houses and presumed several surface structures. Superposition does not exist between the features thus; it is likely that they functioned in the same time. However, based on the analysis of the material finds and their positioning on the map we could point out that from the six sunken features two can be clearly connected to the Poieniști–Lukaševka culture. These two features form a separate unit within the settlement and the spread of the characteristic finds it can be concluded that these were not the same age as the other characteristic LT C1 features (BERECKI 2008, 68–70, pl. 5; BERECKI 2014, 16). It is important to note that even though a – probably funerary – feature from Iernuț–Sit 3 (Radnót) enriched the finds of the Poieniști–Lukaševka culture in Transylvania (URSUȚIU – URÁK 2019), the reduced number and the character of the contexts or features does not allow a more exact relative or absolute dating. Nonetheless, it can still be said that in the case of Morești and probably also Iernuț the Poieniști–Lukaševka features are of a later date than the LT C1 ‘Celtic’ features.

Concerning the LT C1 features from Morești it can be observed (Fig. 7/2) that the lands use of the two groups which seem to form two relatively separate units resembles in many ways the layout of the lowland settlements: near the features interpreted as dwelling houses smaller or larger pits but empty territories (squares, possibly agricultural land plots) can also be found. In the same way, pits and agricultural buildings flanked the dwelling houses in the excavated part of the middle La Tène settlement in Freidorf, in Banat (GEORGESCU 2019, fig. 1/2) (Fig. 7/4).

In southern Crișana, the LT C1 settlement from Cicir–*La Gropi* (Maroscicsér) is located on the first terrace of the right bank of the Mureș River. Unfortunately, the archaeological investigations from the 1960s remained unpublished, yet a sketch of the main La Tène buildings from the site were reproduced by A. RUSTOIU (2013, fig. 4), where six buildings grouped into two units can be seen (Fig. 7/5). The settlement in Ciumești–*Bostănărie* (Csomaköz) researched through dispersed archaeological ditches (ZIRRA 1980, 69, pl. VI) is not suitable for far-reaching conclusions on land use but in this case it was also possible to observe that the excavated dwelling houses were situated scattered around, grouped in smaller units of two-three houses (Fig. 7/6). Similar settlement structure was discovered in Florești (Szászfenes) as well (Pupeză 2012a, 249).

The same scattered, loosely connected groups of houses type of settlement structures can be observed in Transdanubia (GALLINA – TIMÁR 2017, 41–42) or in the middle Tisza region (KOVÁCS 2019, 146, fig. 3). In the case of Jászberény–*Almásitanya* for example the eleven houses of the Alföld / Vekerzug settlement from the end of the Early Iron Age show a slightly more ordered layout, grouped in two units located on half the size of the territory of the later La Tène settlement part’s significantly less buildings (KOVÁCS 2019, 146, fig. 3/1). Therefore, it seems probable that the segmented pattern and the delimitation of the communal space of the early and middle La Tène settlements, beside the subsistence strategies of the communities was influenced also by the social structure based on families or clans (RUSTOIU 2013, 4).

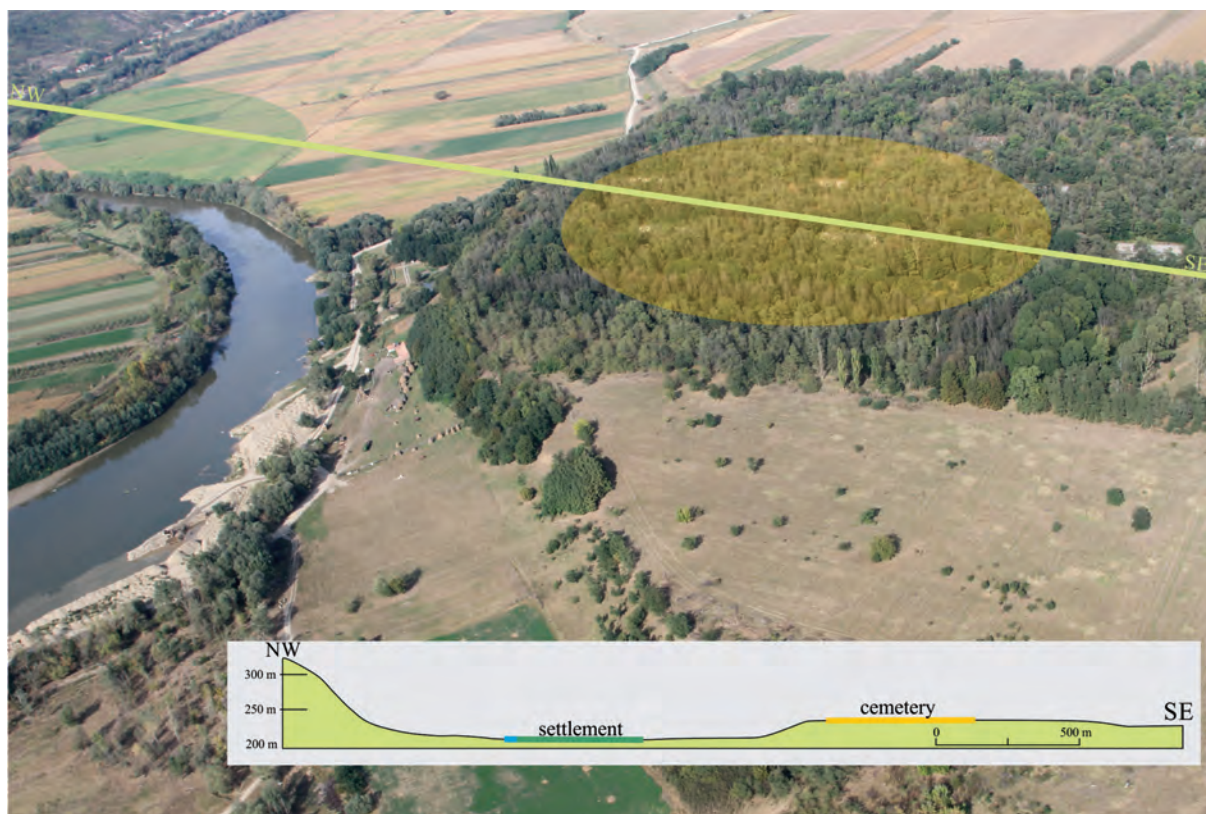


Fig. 8. The settlement and cemetery at Blandiana (September 2014, S. Berecki).

From a landscape archaeological point of view, the analysis of the settlements and cemeteries unveiled several regularities. Even though the number of settlements in the eastern part of the Carpathian Basin, where the adherent cemetery could also be identified is quite low. Yet, in those parts where this was possible it could be noted that the cemetery was always located on a higher terrain compared to the settlement. These differences in altitude of the used space are not so pronounced in the Hungarian Plain, but are more obvious in the Mureș Valley.

In Blandiana–*Lunca Fermei*, other times mentioned in *Vințul de Jos*, the distance between the settlement and the cemetery is approximately 1 km (Fig. 8). The settlement can be found on the left bank of the river Mureș – in a very similar relief as the settlement from Sfântu Gheorghe – on a meander with low visibility that is closely bordered to the east by a low terrace; across the river to the west are the piedmont hills of the Apuseni Mountains. The site is known only partially since it was identified through field walking, when fragmentary wheel-made (bowls, pots, cups, and graphite situlae) and handmade ware (storage vessels, pots, and bowls) dated to the LT C (PLANTOS 2000) were collected. The contemporary cemetery (for a detailed discussion about the cemetery, see: RUSTOIU – EGRI 2011) can be found to the south from the settlement, on the first terrace of the river.

Also in the Mureș Valley, on the territory of Aiud (Nagyenyed) and in its immediate surroundings two settlements and two cemeteries are known. The exact location of the Aiud–*Sub Pădure* settlement is not identified, it is only known that it lay on the northern part of the city, to the north of the cemetery in the Aiud–*Örhegy*. For this reason, its landscape archaeological connection with the Aiud–*Microraion III* settlement or with the cemetery in the *Örhegy* cannot be investigated. On the *Örhegy* the graves were identified on several occasions between 1894 and 1912 and were found in various places. The exact identification of these points on the field

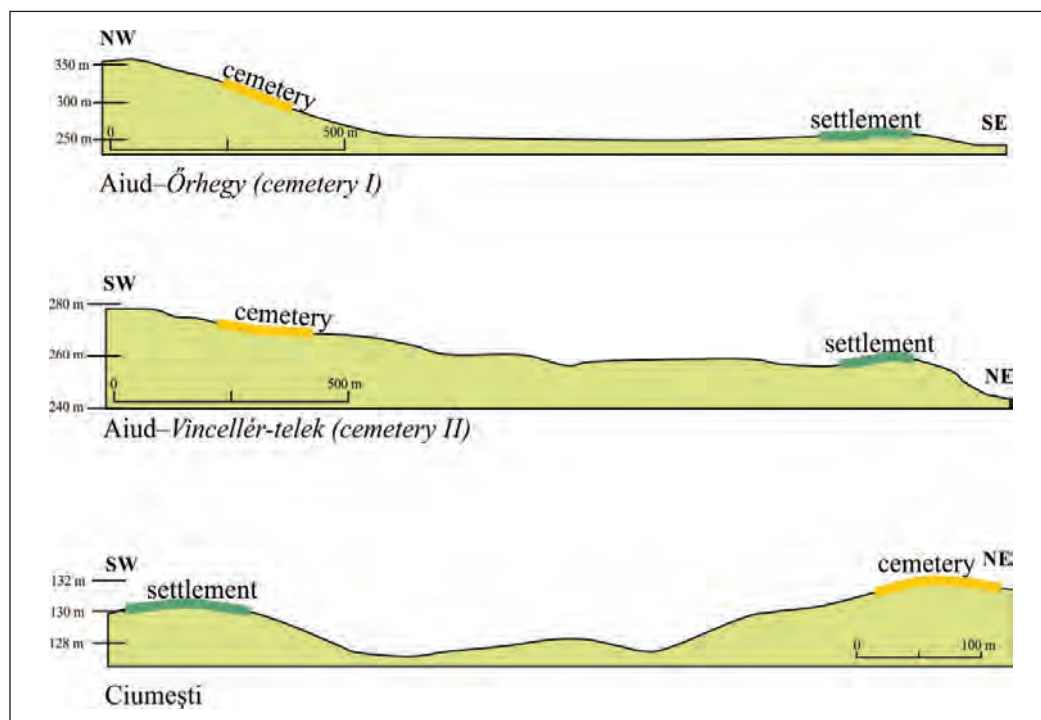


Fig. 9. Topographic profile of the Aiud and Ciumești settlements and cemeteries.

was attempted by I. H. Crișan in the 1970s albeit unsuccessfully (CRIȘAN 1974a). However, he managed to determine that the 1st cemetery needs to be looked for on the slopes of the Őrhegy, from where the view on the Mureș Valley is exceptional as well as on the settlement located at a distance of approximately 1.5 km. The graves from the Vincellér-telek were identified on both sides of the road leading from Aiud to Alba Iulia. This cemetery can be found almost at the same distance from the settlement in the Microraion III city quarter just as the one in the Őrhegy. Thus, it is hard to decipher which cemetery belonged to the settlement sited on the first terrace of the Mureș River.

In Blandiana the level differences between the two sites is around 20 m. In Aiud between the Őrhegy and the settlement the elevation difference is 60 m while between the Vincellér-telek and settlement is merely 10 m. In the case of the lowland Ciumești the elevation difference between the settlement and cemetery is only 2 m (Fig. 9).

Therefore, the choice of landscape for the founding of a cemetery seems to have been a complex phenomenon, organically connected to the land use of the settlements, a planned act that was subject to widespread social standards, all at a time before the centralized societies.



CONSECRATING THE LANDSCAPE. CEMETERIES

From a landscape archaeological perspective, the cemeteries are anthropogenic landscapes which resulted from the common will of a group of people placed in a natural environment, then were shaped by social regulations thus, reflecting a part of the given community's identity. While in the case of the settlements the geomorphological, geographical, and social factors played a crucial role in designating their location, in the case of the cemeteries different sets of rules shaped the assignment and change of the sacred space. In this chapter we shall attempt to analyse those factors which influenced the choice of place of a cemetery, governed by certain conditions followed by all communities in a region.

The dominant position of the Late Iron Age cemeteries is a general characteristic for the entire eastern part of the Carpathian Basin. In the valley of the Târnava Mare (Nagyküüllő) River, in Cristuru Secuiesc, the easternmost burial in the Carpathian Basin known until now was found on the left bank of the valley of the Goagiu (Gagy) Stream, at 2 km north from its estuary (Fig. 10). The desolate cremation burial found in 1902 in *Csürösoldal* and dated to the LT C1 was the inhumation place of a warrior with a chariot (BERECKI 2015a, 91; BERECKI 2018, 146, with additional bibliography). In Cristuru Secuiesc, at a distance of 2.5 km from the place of the burial a contemporary settlement is also documented. However, the connection between the two sites is less probable since they are located on the two different banks of the Târnava River.

The hill on which the Celtic chariot burial was identified is highly important if one looks at the elevation of the Târnava River's valley in this section. Starting from the estuary of the Feernic (Fehér-Nyikó) Stream the Târnava Mare River's 200–400 m valley gradually widens. Similarly, the widening estuary of the Goagiu Stream at Cristuru Secuiesc forms a 2–3 km wide basin flanked with forested high hills with pastures and extended panorama which gently emerge from the flood plain of the Târnava River. The elevation on which the burial was unearthed is located in the northeastern part of this basin. The grave was found on the western high slopes, which can be clearly seen from the valley of the Târnava River and Goagiu Stream. The elevation difference between the hillside and the valley of the stream is approximately 50 m.

Late Iron Age cemeteries sited on similar dominant heights and on the edge of widening valleys can be met in the central area of the Mureş Valley, on the natural boundaries of the Târnava Valley, and the Western Apuseni Mountains. The earlier discussed cemeteries from Aiud are located in two different terrains and the elevation difference between the two is around 50 m. From these, the cemetery in Órhegy (Cinegetelek, Park, Levélszín, Straub vineyard, Ungar vineyard, and Herepey vineyard) lies on the right side of the Mureş River and to the north from the Aiud (Enyed) Stream, on the highest altitude of the widening valley on this section right next to the city (Fig. 11). In the case of Aiud the elevation difference between the cemetery in Órhegy and the valley of the Mureş River is 70 m.



Fig. 10. Cristuru Secuiesc–*Csürösoldal*, where a LT CI isolated warrior grave was discovered during sand quarrying (September 2014, S. Berecki).



Fig. 11. The Early Iron Age and Late Iron Age cemetery at Aiud–*Órhegy* (September 2014, S. Berecki).



Fig. 12. The Late Iron Age cemetery on the high plateau at Viștea–Gerecse during the archaeological research in 2014 (September 2014, S. Berecki).



Fig. 13. The Late Iron Age cemetery on the high plateau at Orosfaia–Dealul Gropilor (September 2014, S. Berecki).

Opposite to Aiud, on the left bank of the Mureş at a distance of 400 m from the river, on a 25 m level difference from the river's surface and at the foot of the Măguricea Mountain on a gently sloping terrace lies the cemetery of Gâmbaş (Marosgombás) (BĂLAN *ET AL.* 2015, 134).

Another example of cemeteries situated on dominant heights can be found in one of the side valleys of the Someş River, in a narrow valley of the Nadăş (Nádas) River flanked by high and steep hills. On the boundary of Viştea (Magyarvista), to the south and east from the Nadăş Stream on the 430 m high plateau of a hill, a still unpublished important Celtic cemetery was identified in 2010 and then excavated in 2014 (Fig. 12). The hill lies in the barely 450–500 m wide, narrow valley of the Nadăş, where the elevation difference between the cemetery and the river valley is approximately 50 m.

In the northeastern part of the Transylvanian Basin, in the upper course of the Lechinţa River which crosses the Transylvanian Plain in a north-south direction in 1998 the Celtic cemetery in Orosfaia (Oroszfája) was unearthed (Fig. 13). The relief in this part of the Transylvanian Plain is characterized by high hills which enclose narrow stream valleys. The 460 m high and narrow hill is located between the valleys of two streams and can be approached only from the north because on the other three sides is surrounded by steep slopes. The elevation difference between the plateau and the stream valleys is 70 m.

In the above discussed examples one could see that the elevation difference between the cemeteries and river or stream valleys frequently reaches or even exceeds 50 m. In Aiud this difference between the presumed cemetery and settlement is 60 m, while between the cemetery and the Mureş valley is 70 m. In both cases, in Aiud and Blandiana, it was noted that the distance between the settlement and cemetery exceeds 1 km. Thus, it can be presumed that it was highly important for the communities not only to place the cemeteries on a higher altitude than the settlements but also their clear visibility from the territory of the whole cultural landscape (in the case of the Iron Age this incorporated also the pastures and agricultural lands) was essential.

In connection to a high number of cemeteries in Transylvania, another frequently met principle seems to highlight connected to the designation of the place of the cemeteries correlated to the geographic environment. It can be observed that the cemeteries can be found in the side valleys and not in the valleys of the larger or main rivers. They appear frequently located on the last hill in the vicinity of a side valley's estuary, on the slopes or terraces of the hill from the side of the estuary with an exceptional view on the river valleys, where the sometimes confirmed, in other cases only presumed settlements can be found. Cristuru Secuiesc–*Csürösoldal* is located at a distance of 1.8 km from the estuary of the Goagiu Stream (Târnava Mare River) and Aiud–*Őrhegy* at 2.2 km from the estuary of the Aiud Stream (Mureş River), both cemeteries are situated on the slopes of the hills on the side of the estuary. Also in the valley of the Târnava Mare the cremation grave from Dârlos (Darlac) was found on the southeastern slope of the hill which rises above the village at approx. 800 m from the confluence of the Curciu (Körös) Stream with the Târnava Mare River, while the LT B2 grave from Şeica Mică–*La Troci* (Kisselyk) site is located close to the confluence of the Şeica (Selyk) Stream with the Târnava Mare River. From the cemetery in Viştea–*Gerecse* the estuary of two streams can be seen, at 850 m Hidegkút and at 1.1 km the Nădăşel (Nádas) Stream flows into the Nadăş. Further to the east, on the left bank of the Someşul Mic, lies the cemetery from Apahida–*Râtul Satului* on a terrace, where the numerous side branches of the Someşul Mic and its right-side streams meet. Even further to the east, among the fragmented hills by lower water yielding valleys of the Transylvanian Plain the cemetery in Țiptelnic can be found at a distance of half km from the estuary of the stream which flows into the Lechinţa, while the cremation burial from Band–*Omláshegy* dated to LT C1 lies on a high terrace with steep slopes near the Adăuş (Adós) Stream at 650 m from its inflow into

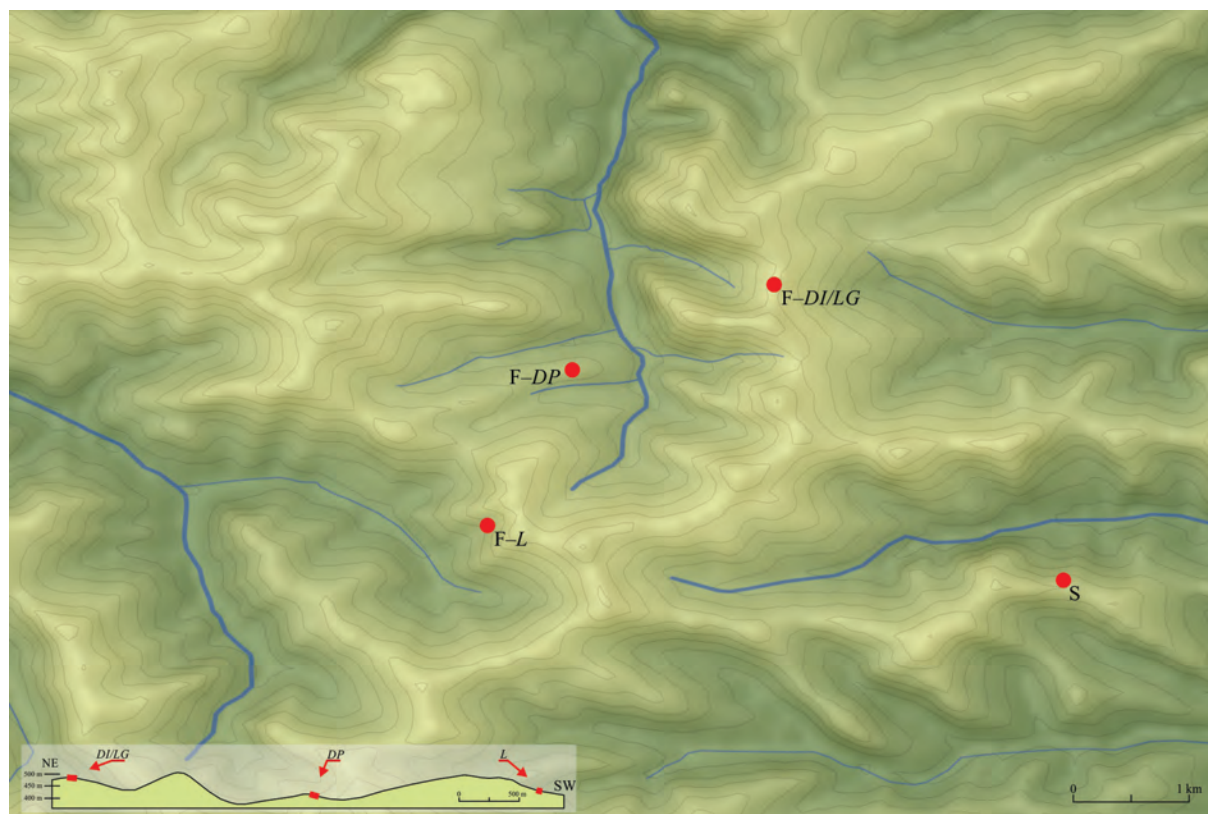


Fig. 14. The micro region of the Fântânele cemeteries (F-DI/LG: Fântânele-Dealul Iușului; F-DP: Fântânele-Dâmbu Popii, F-L: Fântânele-Livadă; S: Sălcuța).

the Lechința River. In the northeastern part of the Transylvanian Plain, on the highest plateau of a hill which stretches between the valley of two streams the cemetery from Orosfaia-Dealul Gropilor can be found, from where the estuary of the river located at 1.5 km, flowing on the south, can be well-seen.

Even though it is valid for all the known cases that the cemetery occupies a more dominant position than the settlement, still their location is quite varied. This variety is well illustrated around Fântânele, where on a territory of 4 km² a number of three cemeteries were identified (Fig. 14): the first one on a small hill in the valley, near the present village (*Dâmbu Popii*), another one on a terrace with gentle slopes (*Livadă*) and a third, at the top of the highest hill, on the eastern edge of the village (*Dealul Iușului / La Gâța*). A similar variety of land use can be seen around Aiud, in the cases of the cemeteries in *Örhegy* and *Vincellér-telek*, and in *Gâmbaș* (Fig. 15).

The analysis of the relationship between the contemporary cemeteries shows different types by regions. In the northern part of the Transylvanian Plain, the three cemeteries in the surroundings of the aforementioned Fântânele and the one at Sălcuța (*Fűzkút*) can be found at different altitudes and environments. The known four cemeteries are located in four different valleys, without any visual contact, influenced also by the characteristic hilly environment of the Transylvanian Plain (Fig. 14).

However, the situation of the three contemporary cemeteries around Aiud is different, here the cemeteries had visual contact with at least another contemporary cemetery, while from the *Örhegy* all the other cemeteries were visible. The visibility of the cemetery in *Sâncrai* (*Enyedszentkirály*), dated to the LT C2 (RUSTOIU 2020, 28), of a later date than the other La

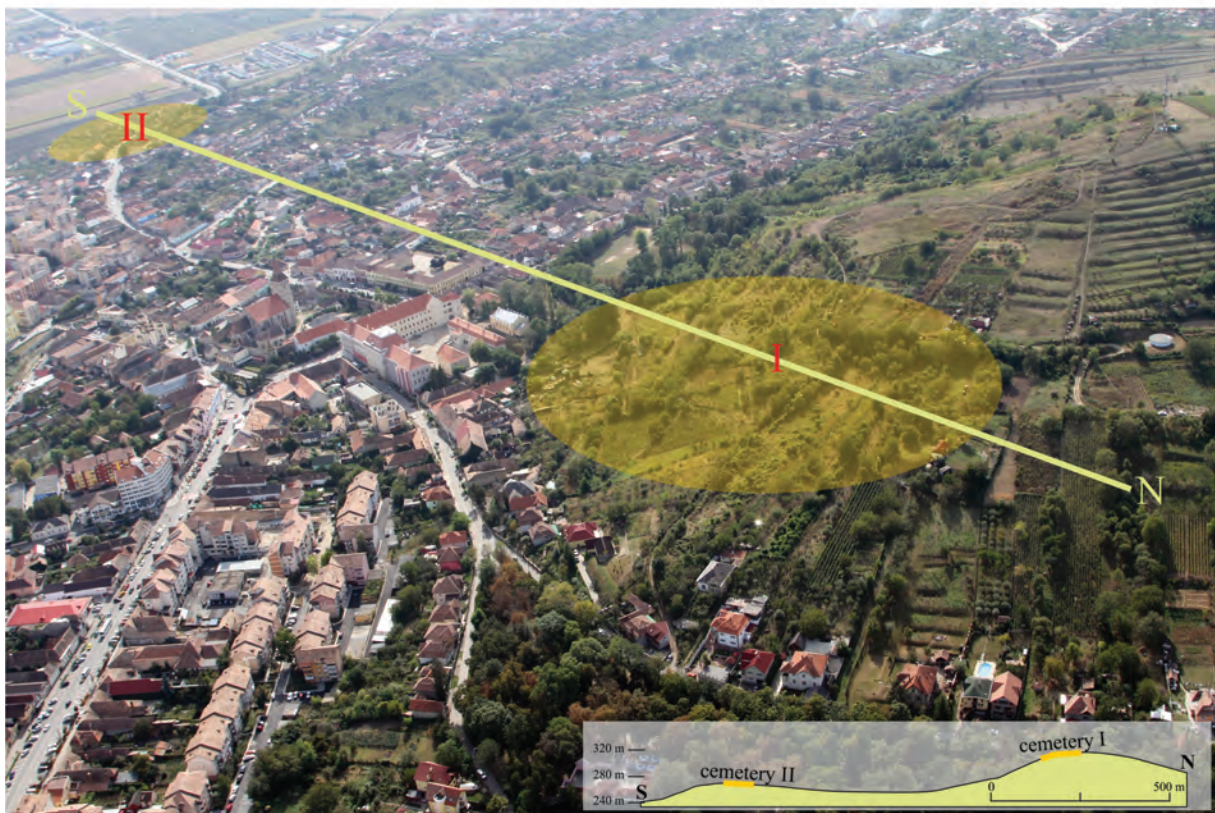
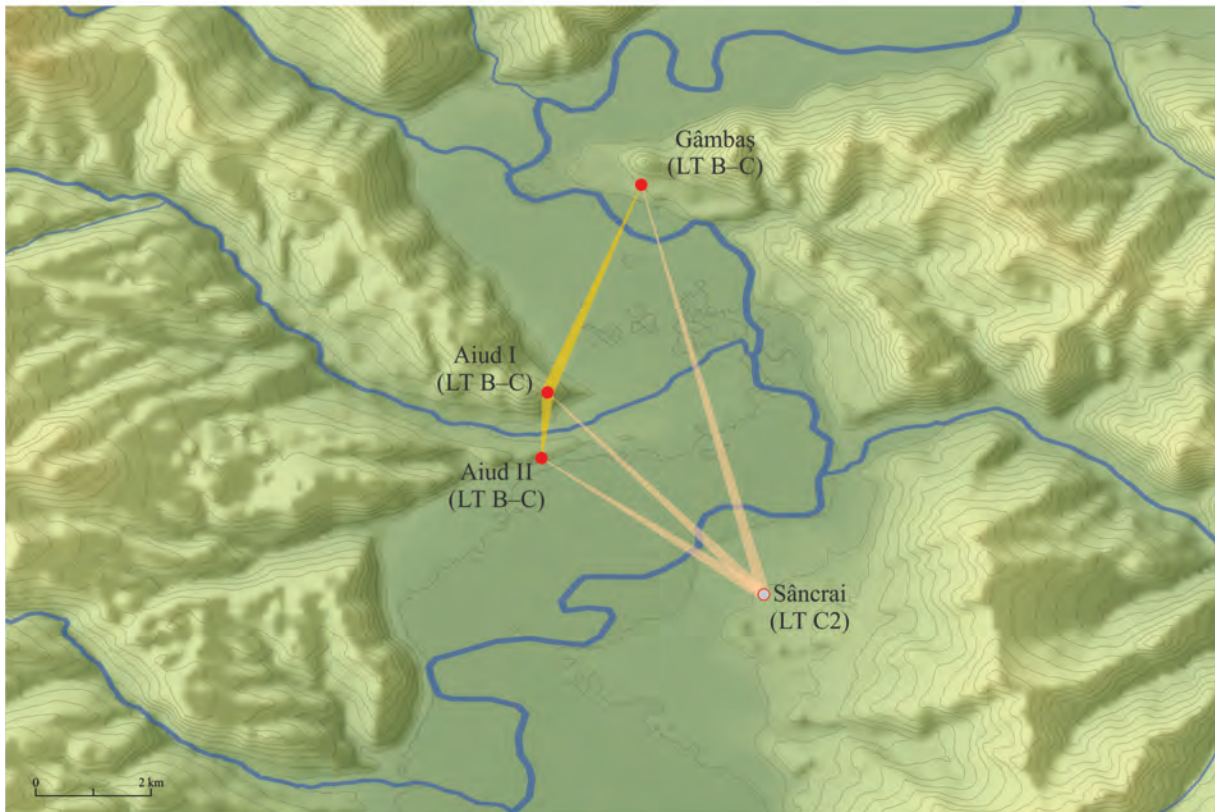


Fig. 15. Relief and visibility of the Late Iron Age cemeteries in the area of Aiud (September 2014, S. Berecki).

Tène cemeteries in the region is integrally connected to the landscape. Therefore, even though some communities were on the opposite bank of the river, they were part of a complex system of connections and communication, the sacred landscape thus fulfilling a special role in defining identity on a larger, collective scale.

* * *

As it was mentioned earlier, contrary to the lowlands, in Transylvania the settlements from the end of the Early Iron Age are missing thus, these could not influence the site selection of the newly arrived communities from the beginning of the Late Iron Age. In contrast, even though not one Scythian period cemetery exists which continued without an interruption until the Celtic period (MARÁZ 1982, 98), in few Iron Age cemeteries from the Carpathian Basin the common use of space of the Early and Late Iron Age communities could be observed.

In the various regions of the Carpathian Basin, however, the processes are different mainly due to the population substrata (SZABÓ 2015, fig. 10). In the west, in eastern Austria or south-western Slovakia – e.g. Bučany (Bucsány) – the late Hallstatt cemetery functioned without interruption in the early La Tène period, yet these ceased to exist before the middle of the 4th century BC (SZABÓ 2015, 20). In the same time, in the southern part of the Danube in Sopron–Krautacker and Pilismarót–Basaharc in the LT A period, after the middle of the 5th century BC, new cemeteries appeared which apparently were not affected negatively by the massive population movement of the 4th century BC, since they remained in constant use until the LT C (SZABÓ 2015, 17).

In the central, lowland region of the Carpathian Basin the first Late Iron Age settlements can be dated to the middle of the 4th century BC. In this area besides the interactions detectable in the funerary rites and inventories (MARÁZ 1977, 55; MARÁZ 1982), in the case of a number of cemeteries one or two burials were found which could indicate the common use of space in both late Early Iron Age and early Late Iron Age periods (PATAY 1955, 62, 66; MARÁZ 1982; HELLEBRANDT 1997, 141, 155; GYUCHA 2001, 122; ALMÁSSY 2010, App. 1, fig. 1). Well-dated Late Iron Age grave inventories from the cemeteries in Hódmezővásárhely–Solt Palé and Muhi indicates that the two populations shared the sacred space already in the second half of the 4th century, from the time of the first Celtic settlers (ALMÁSSY 2010, 13).

Characteristic examples for the shared use of space are the cemeteries from Hódmezővásárhely, Orosháza or Muhi. The site of the cemetery in Muhi–Kocsmadomb, located on a terrace in the floodplain of the Sajó River, dated to the end of the Early Iron Age and Late Iron Age, was excavated in the 1930s (LESZIH 1939) than between 1972 and 1974, and in 1977 (HELLEBRANDT 1997). Based on the integrated ground plan (Fig. 16) compiled from the two publications it is visible how the two cemeteries partially overlap but graves that converge are not mentioned (HELLEBRANDT 1997; 1999, 235; SZABÓ 2015, 36). A similar situation can be seen also in the case of the Orosháza–Gyopáros cemetery dated to the end of the Early Iron Age and the beginning of the Late Iron Age, where the later burials are located among the earlier ones but they do not disturb these (JUHÁSZ 1972, 222; ALMÁSSY 2010, 11–12, fig. 2). Both in Orosháza and Muhi cemeteries it can be noted that the new graveyards do not overlap entirely the earlier sacred space but only a part of it.

Further to the east, in the Ierului (Ér) Plain, in Curtuiușeni (Érkörtvélyes), from the place called *Égetőhegy* a Celtic cemetery containing 22 burials (and few destroyed burials) dated to the LT B2–C1 was unearthed and in its vicinity three Scythian burials were identified. Unfortunately, additional data concerning the location of the burials from the two periods were not preserved,

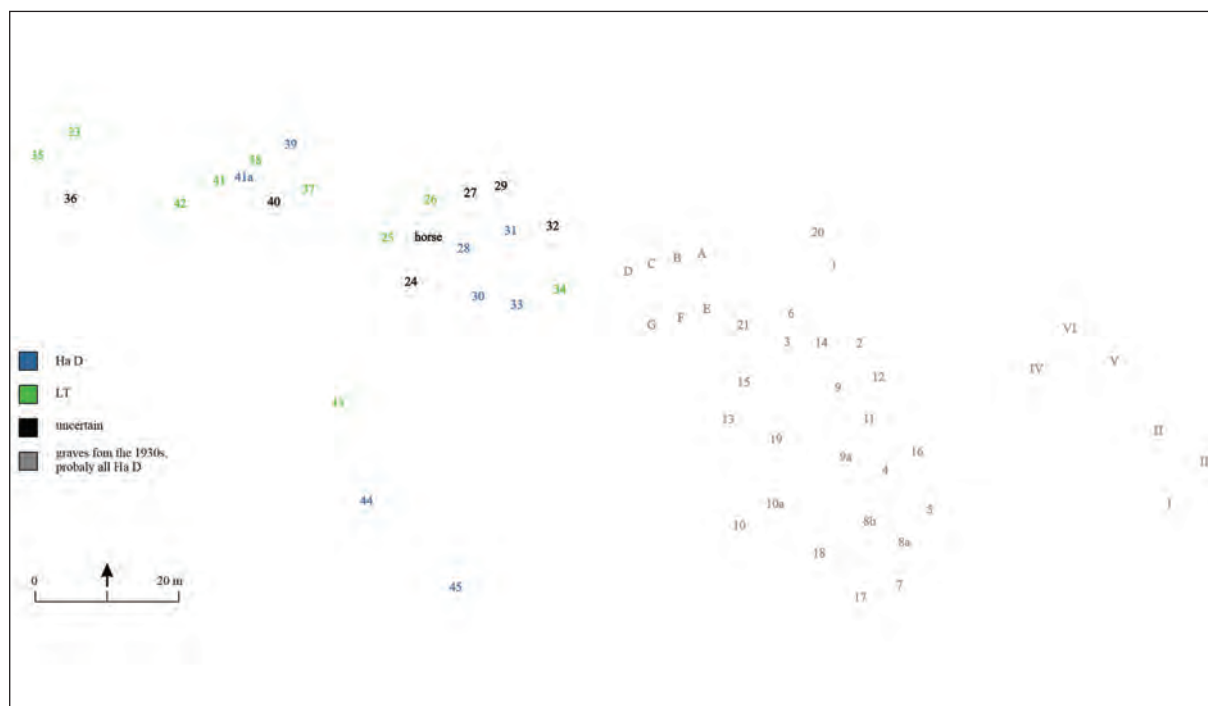


Fig. 16. Muhi–Kocsmadomb. Plan of the Early and Late Iron Age cemeteries (re-drawn after LESZIH 1939 and HELLEBRANDT 1997).

but from the descriptions one can conclude that the two cemeteries located on the same hill next to each other did not overlap (NÁNÁSI 1969, 85).

In Transylvania, in the valley of the Mureş River in Aiud both La Tène period cemeteries were opened on the site of former Early Iron Age cemeteries. The landscape archaeological observations are further complicated by the fact that in the case of both cemeteries almost all the burials were found randomly. This is the reason why some of the researchers, comparing the cemeteries to the ones located in the lowlands, presumed as early as the first finds were published that in the case of Aiud–*Őrhegy* the two communities used the cemetery in the same time, at the beginning of the Late Iron Age (ROSKA 1915, 41; NESTOR 1941, 159–182; ROSKA 1944, 73). Unfortunately, the topographic data of all the finds and groups of burials from this site are blurry and scanty (CRIŞAN 1974a, 71). Most probably the two communities did not cohabit the place (CRIŞAN 1971, 158–159; ZIRRA 1975, 55; WOŹNIAK 1975, 36, 60.) but used the same location in successive periods. The topographic connection between the two cemeteries cannot be determined.

Similar conclusions can be put forward for the second (*Vincellér telek*) cemetery in Aiud, which was identified by I. H. Crişan on both sides of the road leading to Alba Iulia (CRIŞAN 1974a, 72). If the topographic location identified by the archaeologist from Cluj-Napoca is correct then the two separate cemeteries were located next to each other, the Scythian to the east and the Celtic to the west.

In the vicinity of the Celtic cemetery from Gâmbaş investigated in 2014 earlier, in the beginning of the 20th century eight burials from the end of the Early Iron Age – end of the 6th and the beginning of the 5th century BC – were excavated (MOGA – CIUGUDEAN 1995, 100–101). Although the exact location of the Early Iron Age cemetery could not be identified, the recent excavations clearly proved that the territory of the two cemeteries did not overlap.



Fig. 17. Fântânele–Dâmbu Popii. Plan of the Early and Late Iron Age cemeteries.

The shared use of space in the Early Iron Age and the Late Iron Age could be observed also in the two cemeteries in the northeastern hilly region of the Transylvanian Plain. The cemetery from Fântânele–Dâmbu Popii lies on a low hill, the La Tène cemetery on the western, highest plateau of the hill, and the Ha D cemetery to the east from it (Fig. 17). A historical landscape curiosity in the Fântânele cemetery is that in the middle of the first millennium AD a Gepidic community had chosen the same place for burying its dead, their necropolis partially overlapped the Ha D cemeteries. Nowadays, a part of the archaeological site became the cemetery of the present village.

Even though the excavations are still ongoing, a similar form of shared use of space can be noted in the case of Fântânele–Dealul Iușului / La Gâța. The site is situated to the east from the village on high ground, which is delimited by a narrow valley in which a dirt road (based on the Military Surveys an old road) passes through. It would be hard to reconstruct the way how the hilltop was reached 2400 years ago, especially so that the contemporary settlement's location is still unknown. However, it can be observed that the burials occupy both sides of the valley, well-separated. Based on the investigations so far, it seems that the Early Iron Age and early La Tène (end of the 4th century and middle of the 3rd century BC) burials are located in the southern part

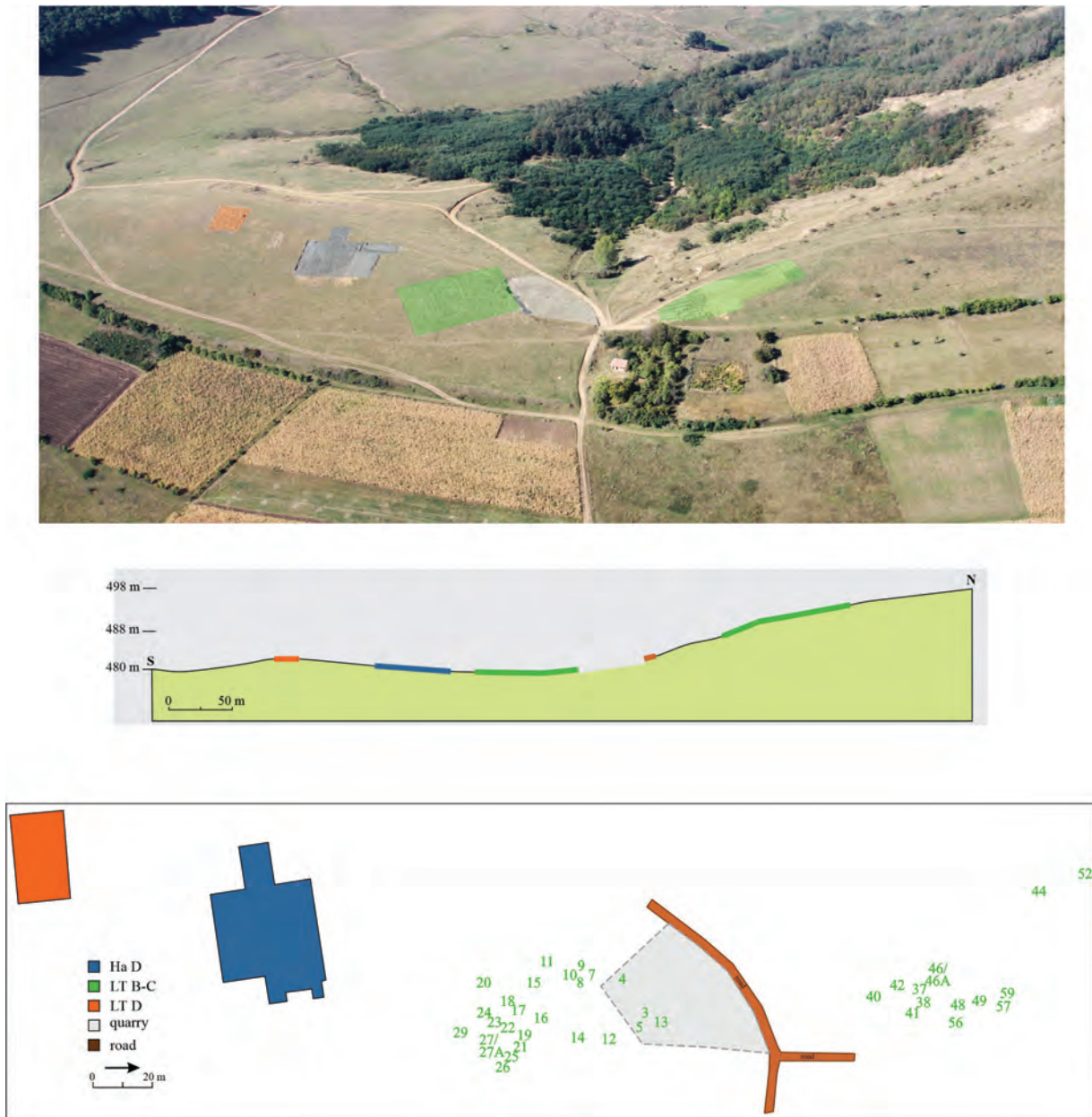


Fig. 18. Fântânele–Dealul Iușului / La Gâța. Plan of the Early and Late Iron Age sites.

of the cemetery, while on the northern side the later LT C1 burials, from the second half of the 3rd century until the beginning of the 2nd century, were unearthed. Similarly to Fântânele–Dealul Iușului / La Gâța, in Ménfőcsanak the LT B and LT C cemeteries were also sited on separate territories, next to each other, later cemetery part was situated to the east from the earlier graves (Uzsóki 1970a, 98).

In the case of the cemetery from Fântânele–Dealul Iușului / La Gâța a curiosity was that in the end of the Late Iron Age, 1st century BC and 1st century AD, the territory was also used by the Dacians for ritual purposes. In the pits discovered on the highest point of the southern hill traces of rituals characteristic for the late La Tène were unearthed: pits with burnt walls that contained burnt animal bones and pottery (Fig. 18).

In the cemetery unearthed on the track of the Transylvanian highway in Sâncrai the common use of space could also be noted in certain sectors. The Early Iron Age cemetery containing

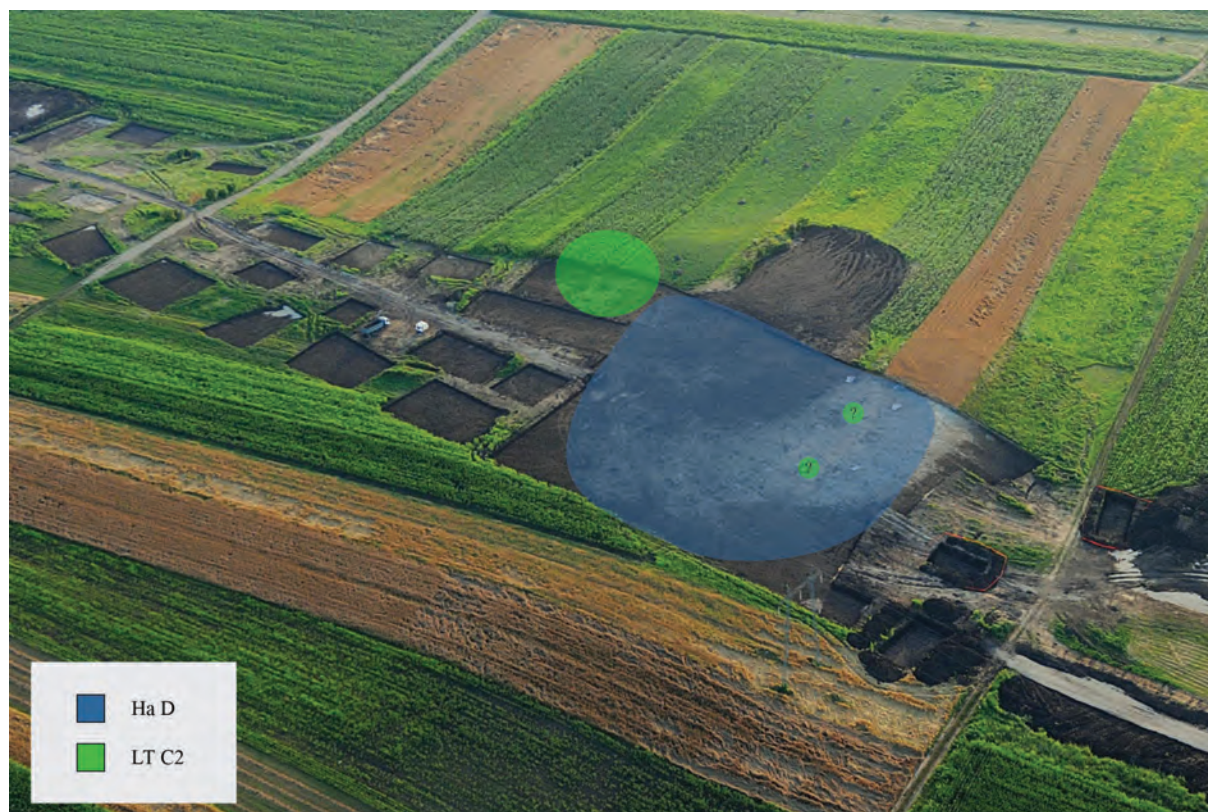


Fig. 19. Sâncrai. Early and Late Iron Age graves (July 2016, Z. Czajlik).

more than 90 burials was sited to the north, on the fringes of the upper terrace of the hill and the upper part of the northern slope, while the LT C2 graves attributed to the Padea–Panagjurski Kolonii group were found to the southwest from these (Fig. 19).

Therefore, one can note that although the Late Iron Age communities arrived a century later in the eastern regions of the Carpathian Basin, as in the case of the cemeteries from the Great Hungarian Plain and the piedmont of the North Hungarian Mountains, sometimes they chose for their new cemeteries the same sites as the previous communities. In the case of the two cemeteries in Fântânele, despite the significant time gap, the newcomers paid special attention not to disturb the old graves, moreover, they did not bury their dead in the earlier, Early Iron Age sacred areas. It can be assumed that the anthropogenic elements which existed in the funerary landscape were taken into account not only at the opening of a Late Iron Age cemetery but they have been respected throughout its 200-year evolution.

* * *

From the point of view of spatial planning, the cemeteries do not reflect a pre-planned structure for the use of space. The locations of the cemeteries rather follow the realities of the terrain while their chronological and spatial transformations mirror the changes that took place within the communities as well as their social structure.

In Pișcolt–Nisipărie, from the perspective of the groups of graves the cemetery can be divided into three larger groups (Fig. 20): a northern, where the graves were spread around in a loose manner, a crowded central and a similarly crowded southern group. The burials were dated by the head researcher through typo-chronological methods, seriation, and with the help

of analogies (NÉMETI 1988; 1989; 1992; 1993). His results were monitored with computational methods by V. V. ZIRRA (1997), which in the case of a large number of burials supported the dating put forward by Néméti, and in other however, resulted in a significant chronological discrepancy. In the landscape archaeological interpretation of the cemetery we tried to look at the results of both methods.

Accordingly, the 'founder' burials, dated to the first horizon, can be found only in the central and northern part of the cemetery. Only two warrior graves are in this horizon, one-one scattered ash burial in both parts of the cemetery: the burial found in the northern sector (grave no. 36) contained a sword, spear, and a shield, and the warrior in the central sector (grave no. 142) was buried with two spears. A demographic growth can be observed in the second horizon, the number of the graves increased significantly and this was probably the time when the southern part of the cemetery was sited, which was well separated territorially from the northern burial zones. In this horizon, in the central sector the number of warrior graves rises significantly, while in the newly assigned southern sector no warrior graves could be identified even though jewellery was unearthed in the inventory of each grave.

In the third horizon, the northern and central parts of the cemetery remained in use but the number of graves indicates that the part of the community which used these sectors diminished demographically or in the best case stagnated, while the families who buried in the southern part of the cemetery grew in numbers. In this horizon a demographic decrease could be observed together with which the number of warrior graves essentially decreased. This demographic process in the case of Pişcolt can be connected with the Balkan campaigns.

The last horizon is barely represented in the northern sector, only three graves can be safely dated to this phase. However, all three burials can be connected to warriors: in two graves spear was found (graves no. 8 and 10), and in one grave a sword and shield (grave no. 40). In the central sector the burials were constant and contained graves with weapons. Meanwhile in the southern sector the number of burials raised substantially but none of the graves could be connected to warriors (Néméti enlists the large knives in the category of weapons but these can be connected rather to food sacrifice and the rituals associated with it). In the same time, in the expanding southern sector a number of graves can be enlisted which did not contain any inventory or they had only pottery fragments or few insignificant metal objects. Connected to the number of graves dated to the fourth horizon it is important to keep in mind that while the first three horizons would correspond to one generation (approximately 30 years) the absolute chronological framework of the last horizon is much wider and incorporate the burials of at least two generations. From this perspective the number of burials in the fourth horizon indicate the dynamic and natural, but not an explosive growth of the community.

From the point of view of ritual, starting with the third horizon a large number of mostly inhumation burials appear in the southern part of the cemetery, while cremation predominates in the older part of the burial ground (RUSTOIU 2015b, fig. 18). The pattern indicates the dividing of the consecrated area between two different groups, documenting the religious (based on the different funerary rites) and/or social (lack of warrior graves in the southern area) restructuration of the community.

From a landscape archaeological perspective, the location of the grave no. 36 of the warrior dated to the first horizon is interesting. Within a 20 m area of the cremation burial of the warrior with sword, shield, and spear only one single inhumation grave was found dated also to the first horizon. Even though a sand-pit destroyed the part of the cemetery stretching to the east, it seems that this grave together with its 'pair', the burial no. 34 were situated in a free space, in a kind of grove. In contrast, the other warrior burials dated to the later horizons are all grouped

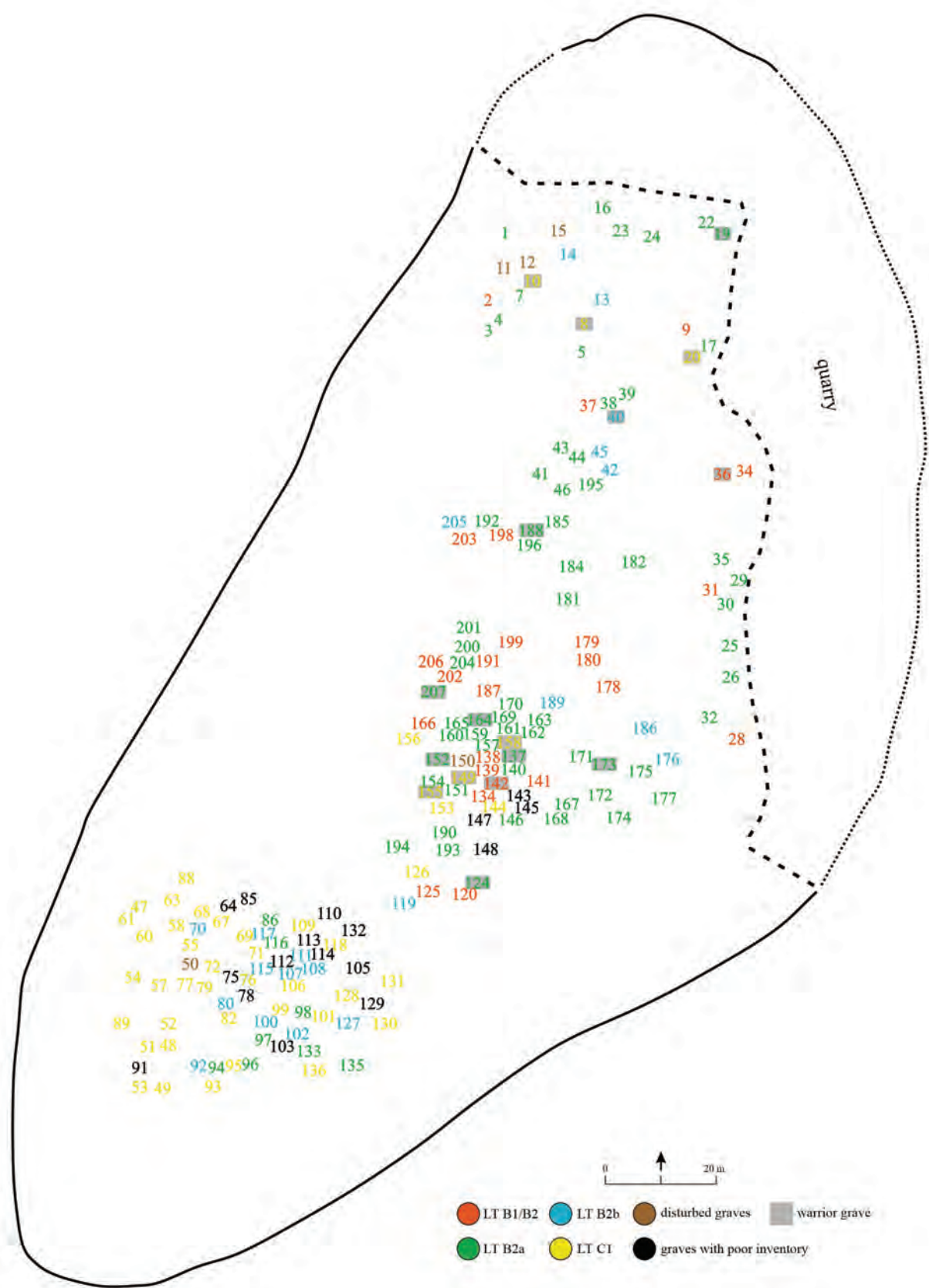


Fig. 20. Chronological distribution of the graves at Pişcolt–Nisipărie (after NÉMETI 1993, fig. 8, and ZIRRA 1997).

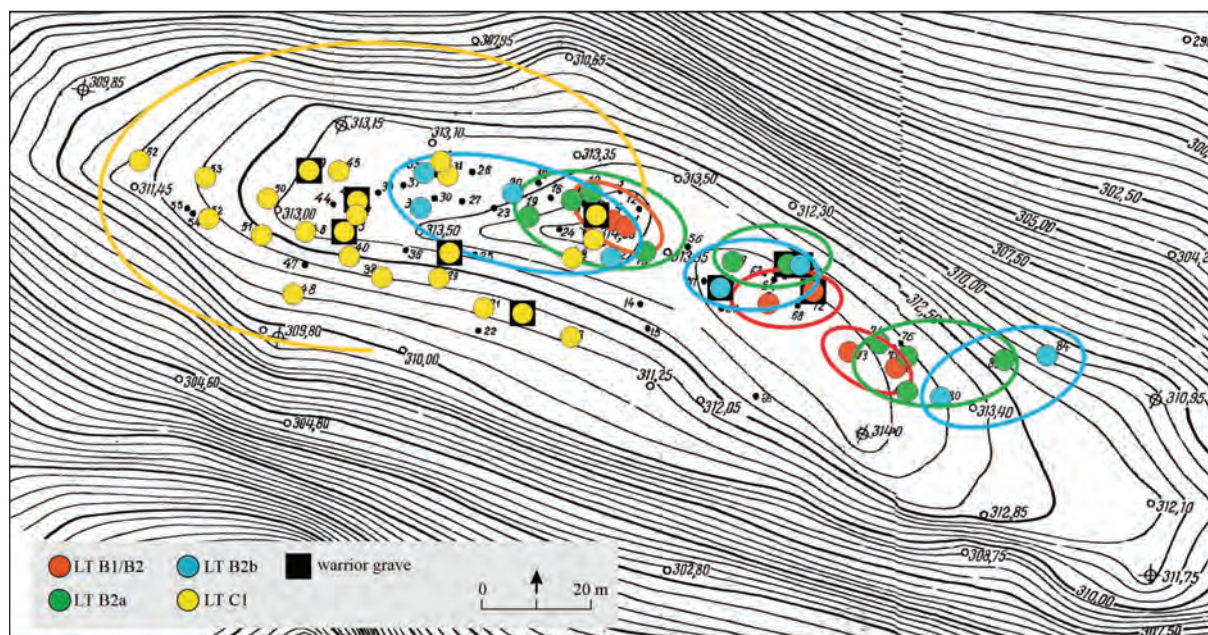


Fig. 21. Groups of graves at Fântânele–Dâmbu Popii (after RUSTOIU 2015a).

around the burial no. 142 with spear. From this perspective, it seems that the warrior in grave no. 36 might have been the ‘hero founder’ of the community.

It is also important that the graves with swords from the second horizon can be found in the central, crowded sector while in the northern sector only two warrior graves with spears can be found dated to the second horizon. Thus, it can be concluded that in the case of the burial ground in Pişcolt in the first two horizons the warrior graves defined the evolution of the cemetery.

The development of the cemetery took a new turn in the third horizon. The earlier proportionally represented numbers of warrior burials, probably as an outcome of the Balkan campaign, had drastically decreased. In the parts of the cemetery assigned earlier by the warriors this generation of graves can mainly be located scattered around and in the periphery. In the same time, in the southern sector, in the immediate vicinity of the graves from the earlier horizon new burials appeared, and then in the course of the fourth horizon the new graves grouped around these. According to Némethi the burials from the southern sector can be dated to the last two horizons, which generally did not contain any inventory or the inventory was so poor that a more exact chronological dating could not be undertaken. This also alludes to the fact that during the third and the fourth horizon in Pişcolt one can recognize a significant social and ideological change, which greatly affected the burial traditions.

Another good example for the reflection of social changes in the land use of the cemeteries is provided by the Late Iron Age cemetery from Fântânele–Dâmbu Popii (Fig. 21), where on the basis of the typo-chronological analysis of the funeral inventory it was found that in the first stage three groups of graves existed at a certain distance from one another, all three on the top of the hill. After a period of relatively uniform evolution during the early La Tène of the three groups, during the middle La Tène only the western part of the cemetery remained in use (RUSTOIU 2015b, fig. 19).

From all the three groups only the central one contains warrior graves from the LT B1b–B2b, the eastern and western groups did not supply graves with weapons from these periods. In the LT C1, when only the western group of the cemetery was in use, on the territory of the earlier weaponless ‘founder’ graves a new burial with spear took place while the centre of the other

LT C1 graves with weapons, among them burials with swords (nos. 17, 28, and 41) which were unearthed on a NW–SE axis, shifted to the west from the ‘founder’ graves.

The ensemble of the graves discovered in Orosfaia–*Dealul Gropilor* (Fig. 22/1) can be regarded a family burial ground, which can be dated to the last Transylvanian Celtic horizon, to the period of the middle La Tène, starting from the middle of the 3rd century (VAIDA 2000). The magnetometer surveys from 2013 indicated less than a dozen magnetic features that can also be likely archaeological contexts thus confirming that it was a family cemetery. Altogether two graves were found containing weapons. Among the two randomly found funerary inventories from 1964 a spear head could be identified. Due to shortage of data their location cannot be mapped. In the central place of the excavated cemetery, well-separated from the rest of the burials, grave no. 2 dug more attentively with a rich inventory contained a sword, spear and shield. The rich inventory of the grave, the triple combination of panoply as well as its central but isolated place inside the cemetery well-defines the status and role of a warrior in a family.

In the cemetery from Jászberény–*Cserőhalom* (Fig. 22/2) the groups of burials were organized according to families and within the families according to the social positions of the individuals. From 50 excavated Celtic burials only three contained weapons, from which in two cases, grave nos. 29 and 57, only a spear head, and in one case, in grave no. 49 sword, spear and shield was found (KAPOSVÁRI 1969, fig. 17). In grave no. 49 human bones were not identified nor were any other objects besides the weapons. The isolated and peripheral place of this feature within the burial ground as well as the lack of other objects, besides the interpretation as being a cenotaph, lets one presume a sacrificial or other cultic role for the pit. In the Vác–*Gravel pit* Late Iron Age cemetery territorially six family group burials could be defined (Fig. 22/3), four groups of which were organized around the grave of a warrior, which had as inventory a sword (HELLEBRANDT 1999, 99, 102, fig. 99).

There are however, cemeteries which were organized in a different manner, like the LT B1 period Paks-Gyapa–*Vöröshalom* cemetery with 25 burials, where the 19 inhumation and the 6 cremation graves formed separate sectors based on the ritual. Moreover, the inhumation graves were shallower than the cremation burials (TANKÓ 2012, 102–104). The graves from Rezi–*Rezicséri* formed a row cemetery. The regular lines run east to west, the ones extending from north to south were somewhat more irregular (HORVÁTH 1987, 99, 125). In the northern part of the Balkans, in the lower Danube region, in the cemetery in Pećine near Kostolac three large groups of graves were observed, which were located at a distance of 25–30 m from each other. Based on the distance between these and the closest burials, the first group can be divided into six, the second into three, and the fourth into four smaller sub-groups. In groups II and III the graves were disposed in parallel serpentine rows with space between them (JOVANOVIĆ 2018, 15, 22–23).

In the case of the Ludas and Sajópetri cemeteries in northeastern Hungary a cluster around the warrior graves was presumed (Fig. 23). In Ludas a horizontal evolution could also be noted: the earliest, LT B2a graves were situated in the northeast, the LT B2b burials in the central part of the cemetery, and the latest graves in the southwest. In the case of this cemetery six groups were separated, out of which four were grouped around the graves of warriors (SZABÓ – TANKÓ 2012, 147, fig. 188; SZABÓ 2014, 81, fig. 4). Looking at the structure of the cemetery the earliest graves (A, B, and F sectors) were found scattered around and partly grouped according to gender: the A sector encompassed exclusively male warrior graves, women and children were buried in the B sector. From a social perspective these three sectors can most likely be regarded as one unit. Somewhat denser was the burial in the C, D, and E sectors, especially in the case of the LT C1 graves. In this area, in the C sector, the warrior graves dated to LT B2b and LT C1 surround in

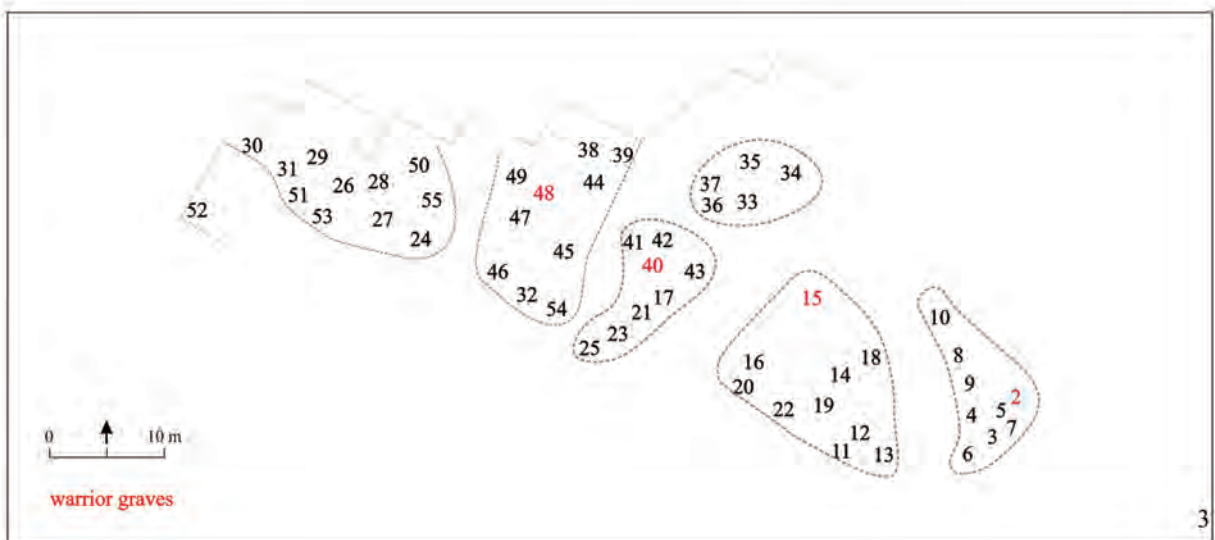
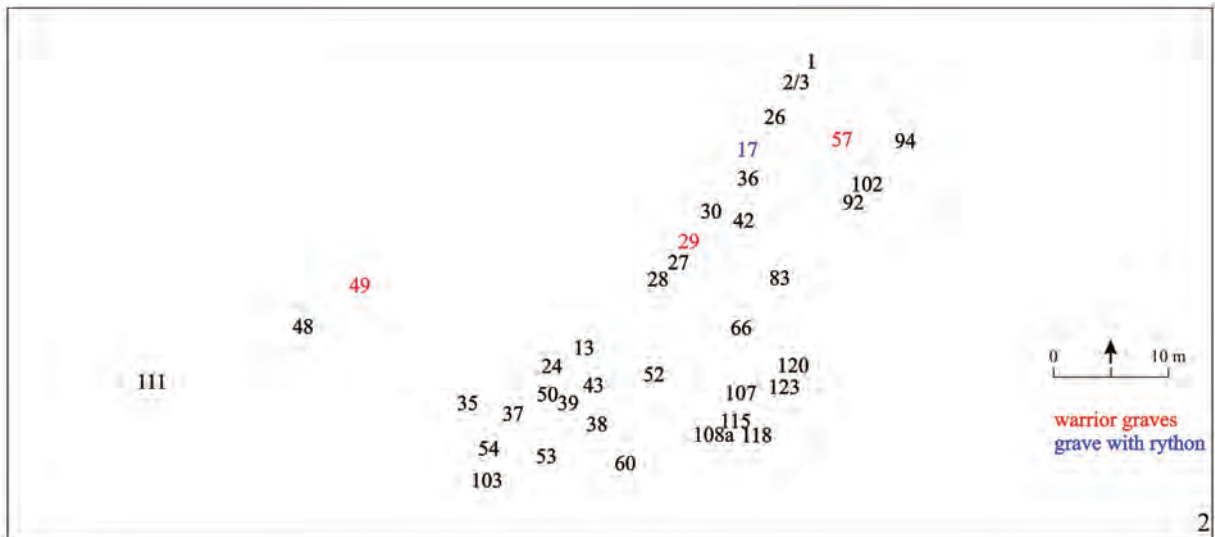
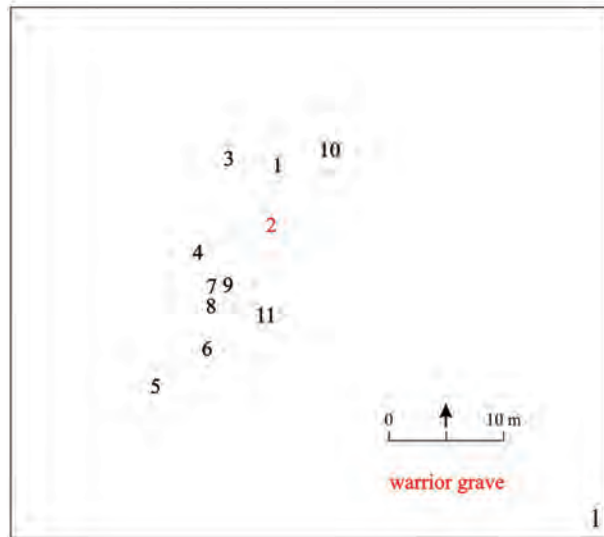


Fig. 22. 1. Orosfaia–Dealul Gropilor (after VAIDA 2000); 2. Jászberény–Cserőhalom (after KAPOSVÁRI 1969); 3. Vác–Gravel pit (after HELLEBRANDT 1997).

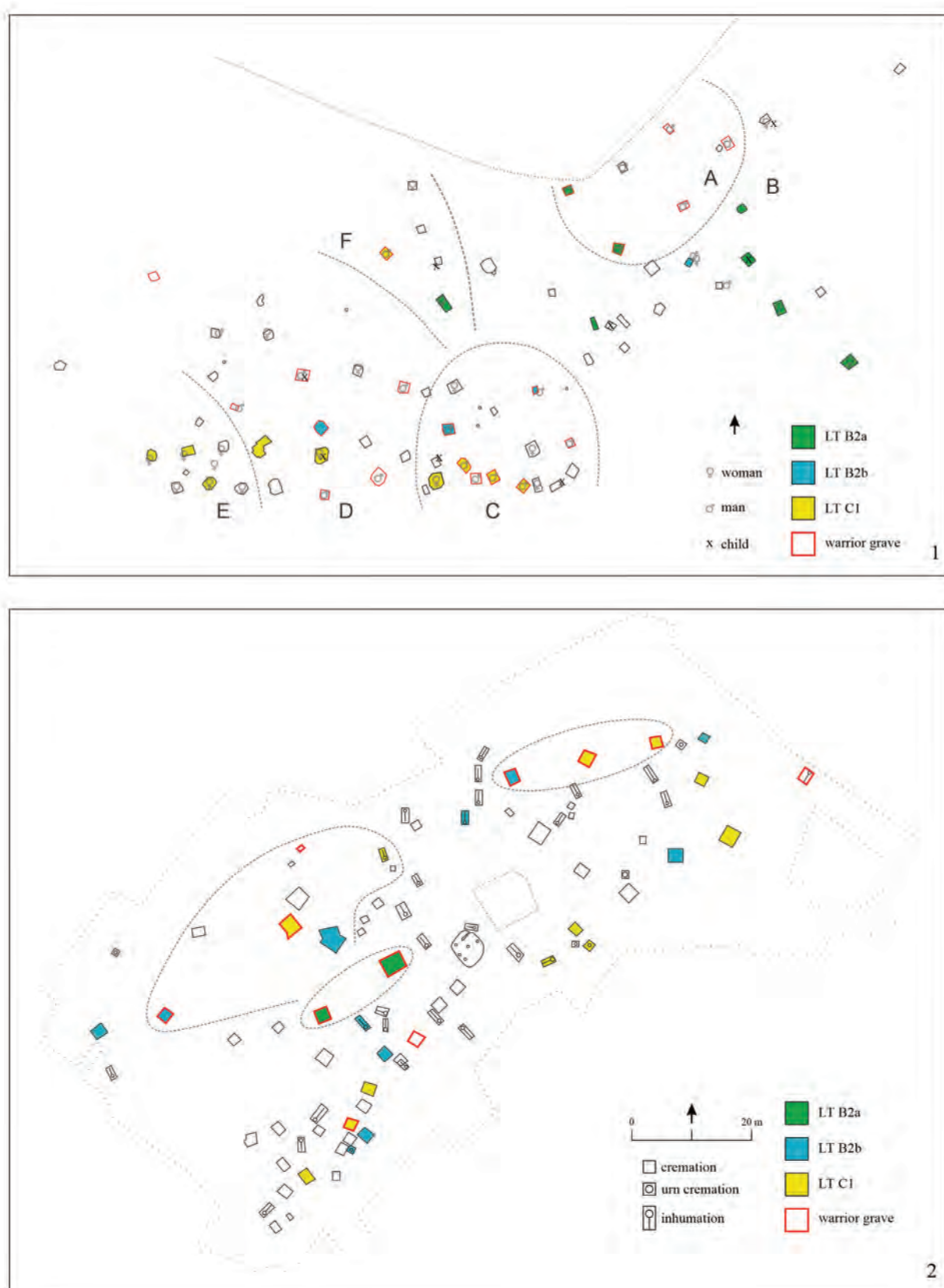


Fig. 23. 1. Groups of graves at Ludas-Varjú-dűlő (after SZABÓ – TANKÓ 2012);
 2. Groups of graves at Sajópetri-Homoki-szőlőkerlek (after SZABÓ – TANKÓ 2018).

a semicircle the richest leader's grave no. 686 of the cemetery dated to the LT B2b (SZABÓ 2015, 42). To the east from these the graves of warriors with spears and women were unearthed, and lastly on the western edge of the cemetery, in the E sector exclusively women graves were identified. From the point of view of the community the C, D, and E sectors also reflect a threefold division of the social structure. It can be observed that as early as the opening of the cemetery the burials grouped according gender was maintained all along the functioning of the burial ground. In conclusion it can be highlighted that in the shaping of the cemetery in Ludas the chronological, the more-or-less linear evolution, the emphasized social position of the warriors as well as the territorial separation of burials based on gender prevailed in the same time (Fig. 23/1).

Similarly, in Sajópetri the warrior graves defined the place of the other burials. Here the earliest dated LT B2a (founder) warrior graves can be found in central places (SZABÓ 2014, 96, fig. 12; SZABÓ – TANKÓ 2018, fig. 173). In the next period, during the LT B2b two new territories were formed assigned by the warriors which in the coming LT C1 period were also used by the military elite (Fig. 23/2).

Similar clusters were presumed also for Muhi–*Kocsmadomb*, where the graves of the leaders of the groups would be the burials with sword nos. 23, 38, and 43 (HELLEBRANDT 1997, 155; HELLEBRANDT 1999, 235). Yet based on the ground plan of the cemetery such clusters are not evident, in the eastern part, in the part of the cemetery excavated in the 1930s at least four graves are from the Late Iron Age (see Fig. 16). In the cemetery from Magyarszerdahely family clusters of graves were also presumed (HORVÁTH 1979, 64, 15. kép) but the definition of the groups of burials is not clear, and the interpretation was largely influenced by the functioning of a sand-pit in one part of the cemetery from where data does not exist (see: HORVÁTH 2005).

Based on the above presented examples one can assume that even though their position in the landscape does not indicate, the internal structure of a cemetery was not shaped randomly, but it was the result of different social phenomena present in the community, which delimited from the beginning the burial space for the different groups, most probably families.

B. Maráz thought that in the LT C1 (for which the absolute chronology was set erroneously by her to 280/279 BC) a new wave of settlement took place, as a result of which the LT B cemeteries in southeastern Hungary ceased to exist and new ones were opened (MARÁZ 1977, 56). As the above discussed cases show, at this chronological moment the ending and the opening of new cemeteries did not take place, however, starting with the LT C1 period several important phenomena can be pinpointed. One of these concerns the social restructuring of the communities located in the eastern part of the Carpathian Basin which is reflected also by the creation of the cemeteries: in Pişcolt two significant parts of the cemetery were abandoned and a third sector was opened, containing much poorer funerary inventories. In Fântânele–*Dâmbu Popii* from the three territories, starting with the LT C1, burials continued only in one part of the cemetery, and in contrast to the case of Pişcolt, where the designation of the burial places for the military elite from the LT C1 was bound to the burial groups from the earlier periods, in Fântânele–*Dâmbu Popii* a new elite appeared, which assigned the places for new burials in areas previously unused inside the cemetery. Since, the excavation and analysis of the cemetery is still ongoing the conclusion cannot be considered final, but it seems that in the case of the Fântânele–*Dealul Iuşului / La Gâta* cemetery certain changes took place within the use of space starting with the LT C1 period, and the graves that can be dated to this period can be mainly found in the northern part of the cemetery.

From the point view of the use of space, the radical changes that took place in the development of the cemeteries in Fântânele–*Dealul Iuşului / La Gâta* and Fântânele–*Dâmbu Popii*, Pişcolt or Ménfőcsanak at the beginning of the LT C1 period reflect the social changes and their expression in the transformations that occurred in the traditions of cemetery use.

* * *

Sometimes the landscape of the cemeteries is 'fragmented' by outstanding structures, like the graves with square- or circular-ditched enclosures. This types of precincts are specific to western and central Europe, but they are also widespread in the early La Tène cemeteries from the western part of the Carpathian Basin and only rarely documented in the central and eastern areas. They also appear in this period in the neighbouring cultural environments north of the Carpathian Basin (GEDL 1978, Abb. 2; RUDNICKI 2009, Abb. 3).

In Transylvania, such precincts have been found lately at Viştea and Gâmbaş. In the cremation cemetery in Viştea 60 graves were unearthed in 2014 (COCIŞ 2015, 581). Inside the burial ground two square-ditched enclosures were identified, a grave garden and a grove. The three sides of the grave garden measured each 7 m, and the fourth side 7.5 m. Inside two aligned burials were discovered, a smaller grave of a warrior with a sword was located in the centre of the enclosure, while a larger grave was found to the south from it. The grove enclosed with a ditch was surrounded from three sides, it was opened on its western side, and encompassed a territory of approximately 170 m² (Fig. 24). The graves of the warriors were situated to the west and east from the grove (information from S. Cociş).

In the mainly cremation cemetery from Gâmbaş altogether 89 graves were excavated (with only one inhumation burial), from which graves no. 14 and 31 were surrounded by circular ditches and another, grave no. 23 with a square-shaped ditch (Fig. 25). Inside the fourth ditch, next to the warrior grave no. 54, no archaeological material, features or other graves were identified. The width of the ditches was not larger than 0.50 m and narrowed towards its bottom. Graves nos. 14, 31 and 23 were located in the centre of the enclosed territories (BĂLAN *ET AL.* 2015, pl. 3).

In the case of the graves from Gâmbaş the ditches and stone covers surrounding the graves also played a decisive role from the point of view of the different groups within the cemetery. According to the researchers, the burial ground was initially concentrated around the burials Cx. 84a and Cx. 35. The second phase was characterized by a circular and in the same time a linear distribution of graves. Burials dated to the LT B2a appeared around the first graves but spread also to the southern part of the cemetery and concentrated around grave M. 31, which was enclosed by a circular ditch. In the third phase (LT B2b) the graves were located around the two large groups, while in the last phase (LT C1a) most of the burials were concentrated towards the northeastern limit of the cemetery, around the burials with stone structures (Cx. 59–60) (BĂLAN *ET AL.* 2015, 140, 144). The ground plan of the cemetery illustrates that the circular and square-shaped ditched graves form two, well-defined separate units.

In the central part of the cemetery an empty, ditched grove could be observed, and close to its entrance a warrior burial with significant funerary inventory was excavated, dated to the LT B2a. The researchers assumed the ditch to belong to this warrior burial (BĂLAN *ET AL.* 2015, 140) and a connection can indeed be presumed, but obviously it resulted a different relation between the ditched territory and the warrior grave than the rest of the enclosed graves. Altogether in the case of this cemetery the graves enclosed with a ditch cannot be connected to the military elite, since the warriors buried with sword or sword chains were all located outside the ditches, even though in a few instances quite close to the ditched graves.

Concerning the ditched burials, the early La Tène cemetery in Szeged–Kiskundorozsma (Fig. 26/1), in the southern part of the Hungarian Plain, displays a number of similarities with the cemetery in Gâmbaş. In Szeged the graves form three territorially well-defined groups, out of which the graves surrounded by circular- and square-shaped ditches can be found in the eastern group. Just as in Gâmbaş, the burials with a circular-shaped ditch was identified on the

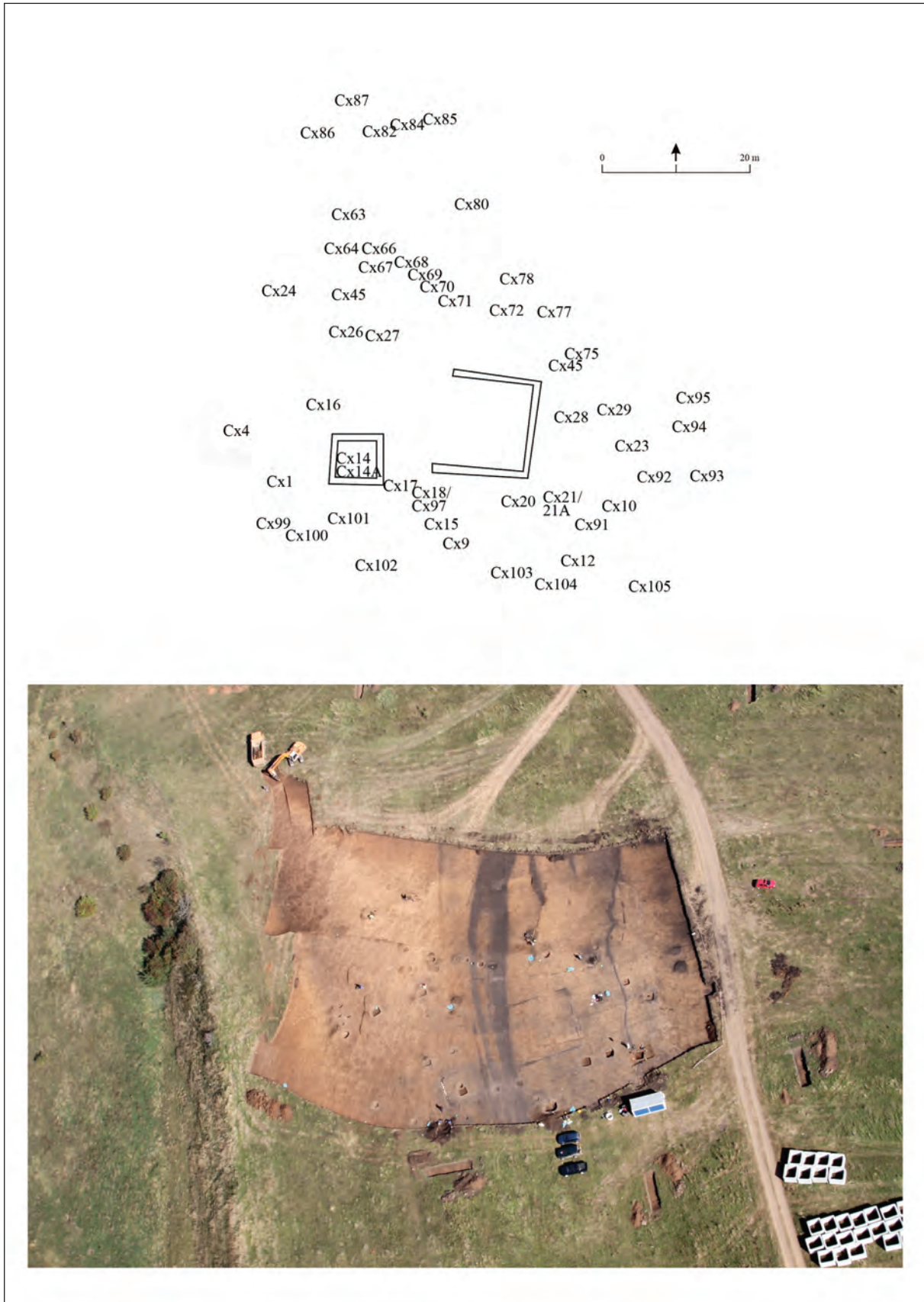


Fig. 24. The plan and aerial view of the cemetery at Viștea (plan after Cociș 2015; aerial photo: September 2014, S. Berecki).

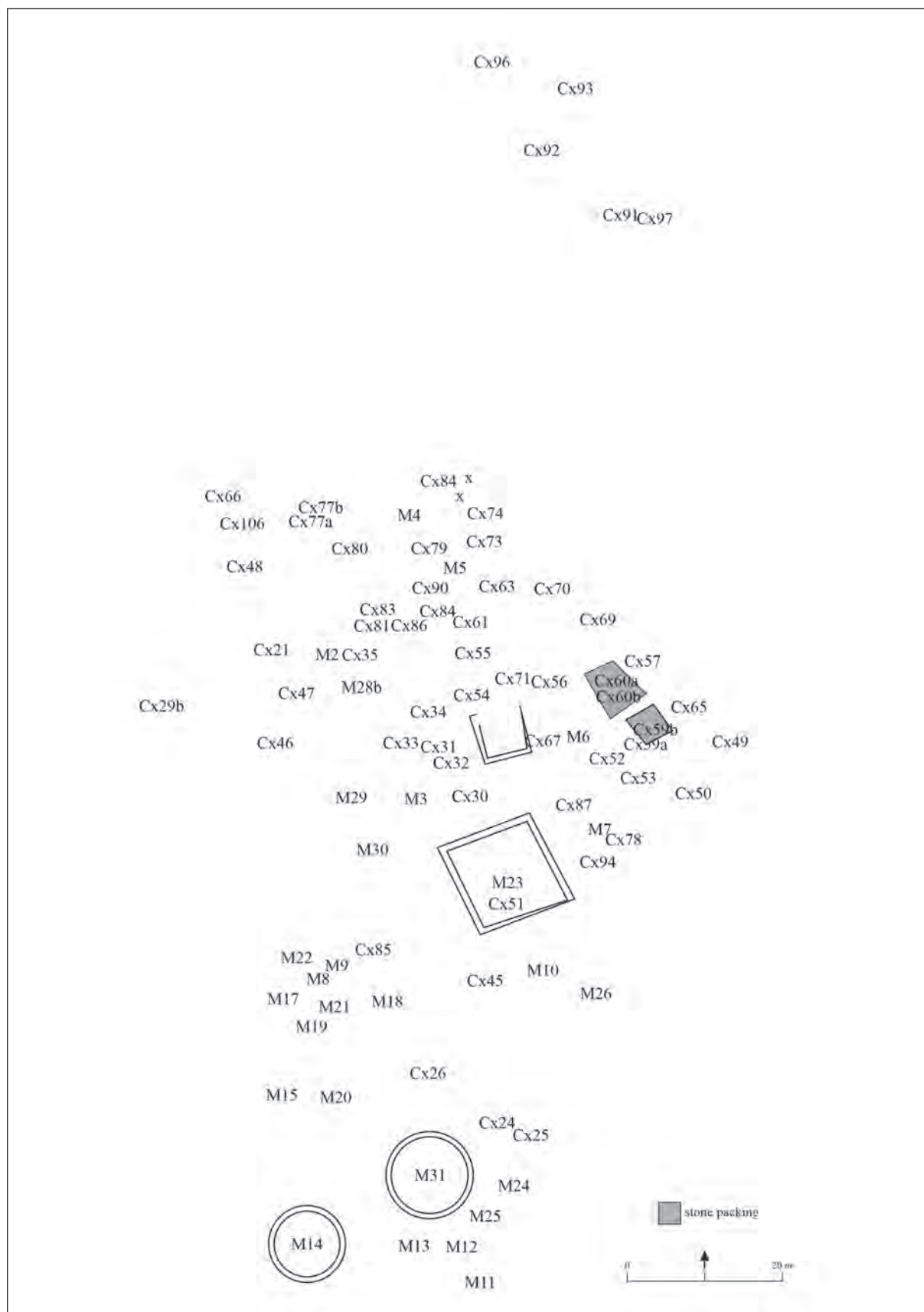


Fig. 25. The plan of the cemetery at Gâmbaș
(after BĂLAN ET AL. 2015).

edge of the cemetery, and the two types of graves enclosed with a ditch were also separated territorially and belonged to another unit. Differences can also be noted: in most of the cases the graves were dug not in the centre of the ditched area but in one of its edges. The warrior grave no. 27 was surrounded by a rectangular ditch open on one side. The double warrior graves nos. 48/70 were discovered to the east from the burial garden. The territory located further to the east and surrounded by a ditch could have had a cultic function. In the graves enclosed by a circular-shaped ditch two separate burials were found, in both graves women were interred, one of them with a child (PILLING – UJVÁRI 2012, 222–248, fig. 2). Similarly, to the cemetery in Gâmbaş, the ditched graves from Szeged–Kiskundorozsma did not create any special burial pattern. Additional graves enclosed with circular- and square-shaped ditch were also identified in the still unpublished site of Szentes–*Berekhát*. These contained rich funerary inventories and can be dated to the middle of the 4th century BC.

The cemetery in Gyöngyös–*Külső-Mérges-patak* (Fig. 26/3), at the foot of the Mátra Mountains in north-east Hungary, dated to the LT B2a–C1, with a number of 154 graves, among them ditched burials as well, shows numerous similarities with the above discussed cemeteries. In Gyöngyös one of the ditches of two enclosed graves with quadrangular ditches was common but the entrances were oriented differently: the entrance of grave no. 37 to the north-west, and the entrance of grave no. 137 to the north-east (TANKÓ *ET AL.* 2016, fig. 1). These plundered burials were situated in the centre of the enclosed areas. The importance of grave no. 137 for the entire community that used the cemetery is highlighted by the fact, that even though both enclosed burials can be found close to the southwestern edge of the cemetery, in front of the burial garden, which opens to the north-east, a passageway-like area can be identified, on both sides of which all the other graves are located.

In the Little Hungarian Plain, in the north-western part of the Carpathian Basin, and within it in the Danubian Lowland, to the north from the Danube, a number of cemeteries are known which contain graves surrounded by ditches.

In the bi-ritual cemetery in Alsónyék–*Bátaszék* (Fig. 26/2) dated to the LT B2–C during two excavation campaigns 35 graves were excavated (a map was published only with the northern part of the cemetery). The graves of the burial ground were aligned in rows and its southern edge was closed by an east–west oriented ditch. The warrior grave no. 111 with a sword was enclosed by a narrow circular ditch which was partly destroyed by a later context (GALLINA *ET AL.* 2010, 31–34; GELENCSÉR 2010).

In the western part of the cemetery containing 102 graves in Malé Kosihy (Ipolykiskeszi) (Fig. 26/4) a well-preserved enclosed burial and two partially preserved ditch enclosures were excavated (BUJNA 1995, Abb. 2). The grave no. 31 of a warrior stood in the centre of a 10 × 10 × 9 m wide area surrounded by a ditch. From the point of view of the structure of the cemetery grave no. 31 resembles the grave from Gyöngyös enclosed with a ditch because the entrance of the grave was also oriented towards the densest part of graves.

In the cemetery from Dubník the enclosed graves formed a coherent structure, out of the eight warrior graves with swords four – graves nos. 17, 18, 19, and 27 – were situated in such burial gardens. In the excavated part of the cemetery, inside a ditched territory two burials were identified, graves nos. 18 and 27, both belonged to warriors with swords. The graves were located in the centre of the ditched areas, but the axis of the graves and ditches were mainly different. In the case of two enclosed burials placed next to each other, one of the ditches was common (BUJNA 1989, 286, Abb. 4).

In the bi-ritual burial ground with 68 graves in Bajč–*Vlkanovo* (Bajcs–*Farkasd*) (Fig. 26/5) two square-shaped ditched areas were identified and around both graves a high number of

additional burials were grouped (BENADÍK 1960, Obr. 2; REPKA 2020, 135, fig. 6). Grave no. 22 contained the rich burial of a woman and grave no. 65 was plundered. This was located close to the eastern side ditch (depth of 15 cm) of the grave garden with a 6 × 6 m wide enclosed area.

In the bi-ritual cemetery of Palárikovo (Tótmegyer) (Fig. 27/1) containing 95 graves and dated to the LT B2–C the six ditched burials were situated on two edges of the burial ground: three interconnected graves, nos. 84, 86, and 88, with square-shaped ditch with 6–7 m long sides, the circular ditched grave no. 75 on the western side, and in the eastern edge two graves, nos. 44 and 46, with circular ditch of 6.5 m diameter. In the circular enclosed graves in the eastern part and in the rectangular enclosed burial no. 84 in the western part warriors were buried, while in the no. 86 grave garden connected to grave no. 84 a woman's grave was found (BENADÍK 1975, 97–98, Abb. 1; 5).

The square-shaped ditch enclosures of the graves nos. 233 ad 362 in Trnovec nad Váhom–Horný Jatov (Tornóc) (Fig. 27/2), were completely closed, the grave pits were situated in the centre of the approx. 10 × 10 m enclosures. Most of the graves from the cemetery containing 40 graves were located to the northeast from the burial gardens; to the southwest from these an empty area was observed. The ditch of the rich inhumation no. 233 measured 11 × 10 m with a depth of 1.45 m and width of 1.38 m. Outside the grave garden to the west the graves of two warriors were discovered. The ditch of the inhumed warrior no. 362 measured 10 × 10 m (BENADÍK ET AL. 1957, Abb. 3, 6–7).

In Holiare (Gellér) (Fig. 27/3) the warrior grave no. 29 with sword and grave no. 186 were surrounded by a circular ditch of 10 m diameter and the graves were located approximately in the centre of the territory (BENADÍK ET AL. 1957, Abb. 24–26). In the case of this cemetery with 25 graves it could be noted that the burials were generally situated at a significant distance from each other and formed a loose structure, the circular ditched graves were found isolated and on the western edge of the unearthed cemetery.

The cemeteries from Transdanubia containing ditched burials resemble the funerary traditions from Lower Austria. One inhumation grave with a 1–1.30 m wide and 0.50–0.60 m deep rectangular ditch enclosing a 13 × 13 m area was discovered recently in Bratislava-Jarovce–Trávniky (Horvátjársfalva) (REPKA 2020, 128–129, Tab. 1). In the cemetery from Ménfőcsanak the number of graves enclosed with a ditch is higher than the number of graves without a ditch. The excavation lead by Uzsoki unearthed the graves of two warriors, grave nos. 14 and 18, surrounded by ditches. In the case of grave no. 14 of a warrior: the grave pit measured 2.90 × 1.25 m and was found inside an enclosed area of 9.5 × 8.5 × 9.5 × 9 m, oriented north–south. The width of the trough-shaped ditch varied between 0.60–0.90 m with a depth of 0.90 m (UZSOKI 1970a, 97; UZSOKI 1970b, 41). The grave no. 18 of the warrior was surrounded by a ditch measuring 7 × 6.5 × 7.5 × 7 m (UZSOKI 1970a, 97; UZSOKI 1970b, 50, 26. ábra). Some of the enclosed graves had common parts of the ditches (UZSOKI 1970a; UZSOKI 1970b; VADAY 2006, 4. ábra).

The ditched burials from the part of the cemetery excavated in 1993–1994 dated to the LT B1–B2 are quite varied: besides the single or double graves surrounded by ditches, additional ditched empty areas were identified as well as ditched territories, where no graves were found but only other finds (VADAY 2006, 597–598). The territories enclosed by a ditch were between 14.11 and 48.91 m² (VADAY – TANKÓ 2020, 500–501). The ditched graves appeared already at the beginning of the cemetery, when enclosed exclusively skeletal burials, yet in the same time burials without ditches were also present. None of the ditches could be dated to the latest horizon (LT B2) which is separated also territorially (VADAY 2006, 599). In contrast to the other La Tène cemeteries from the Carpathian Basin the number of the graves in superposition is more numerous in the case of the enclosed graves as well as in the ones without ditches. It could be

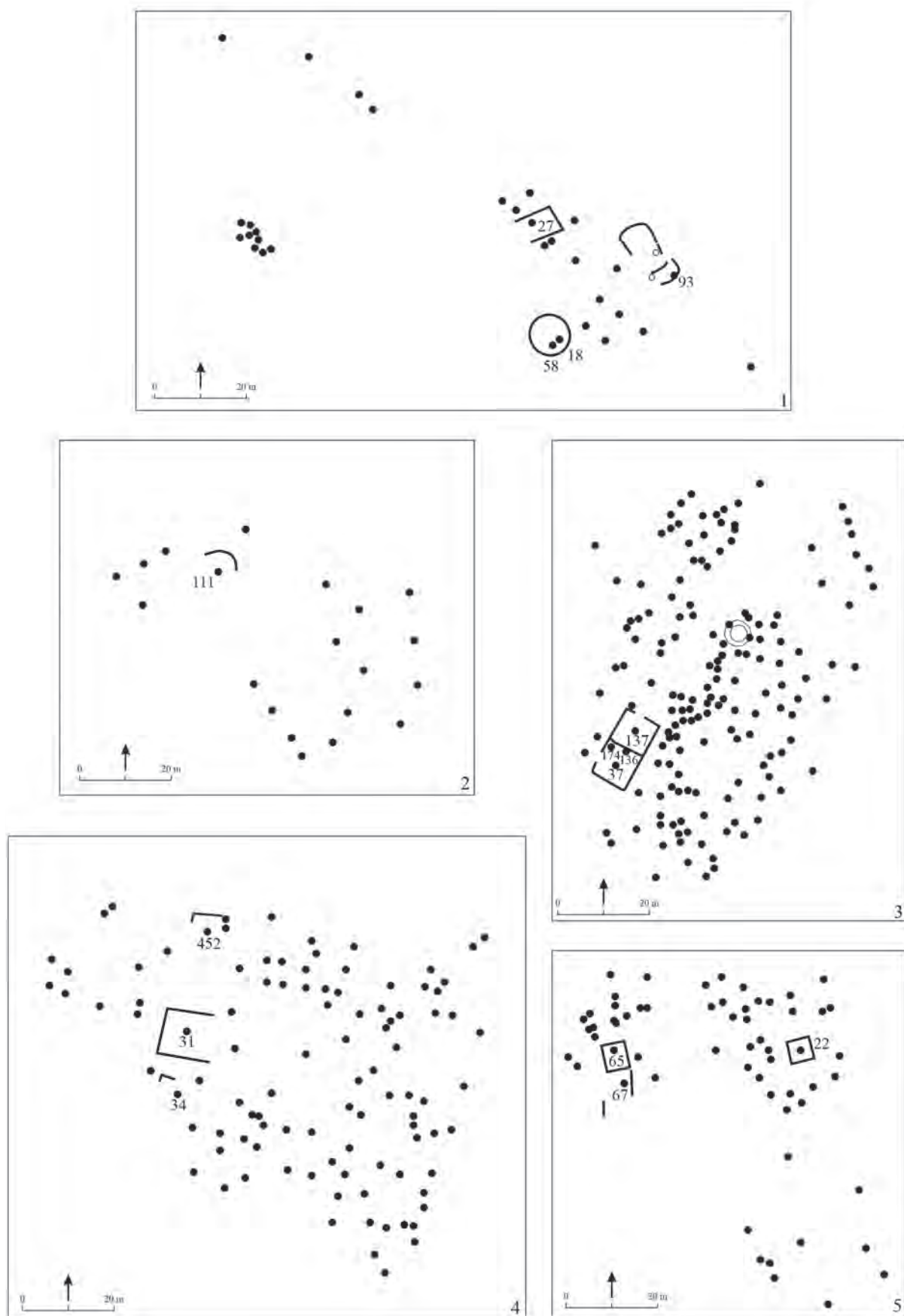


Fig. 26. Cemeteries with square- or circular-ditched graves. 1. Szeged–Kiskundorozsma; 2. Alsónyék–Bátaszék; 3. Gyöngyös; 4. Malé Kosihy; 5. Bajč–Vlkanovo.

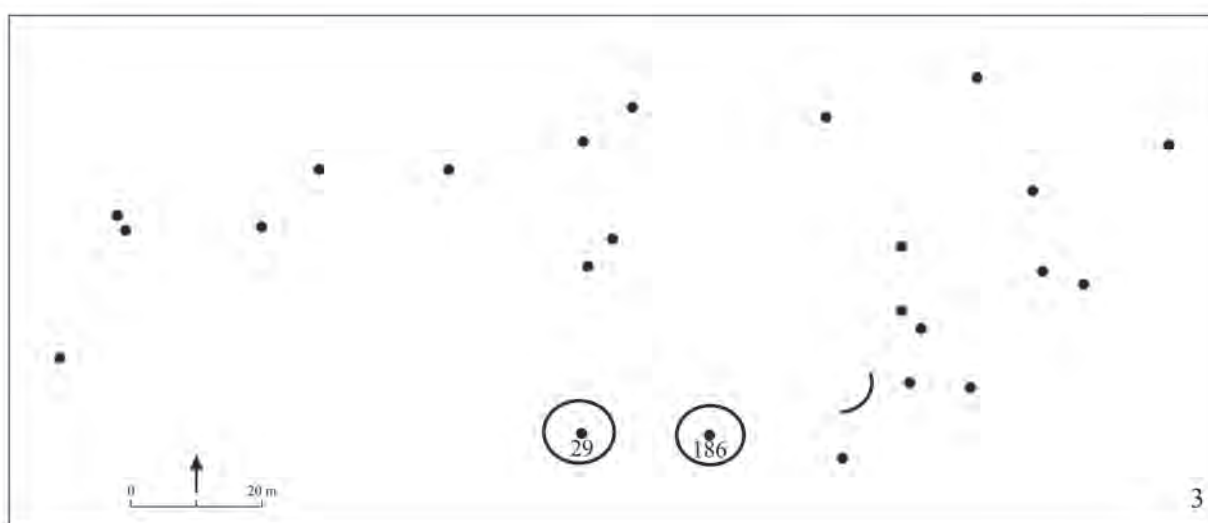
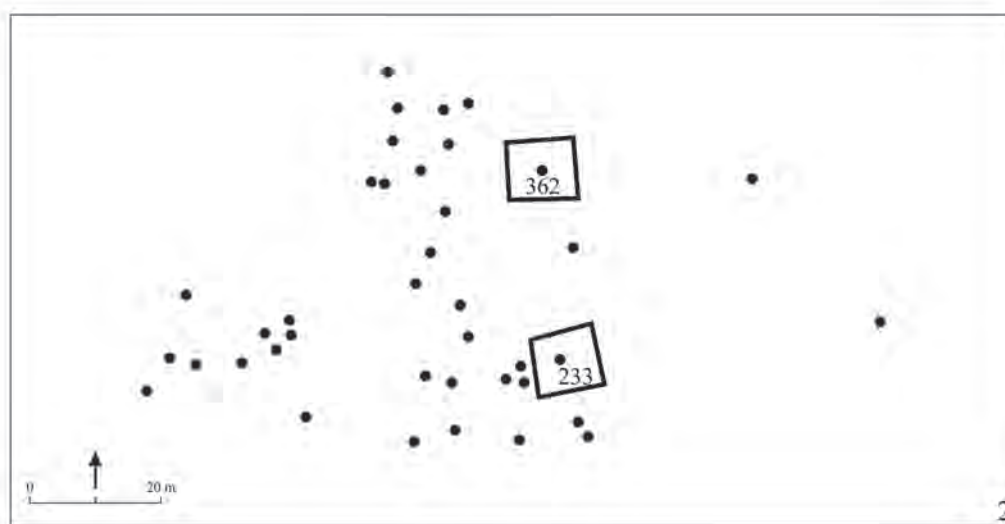
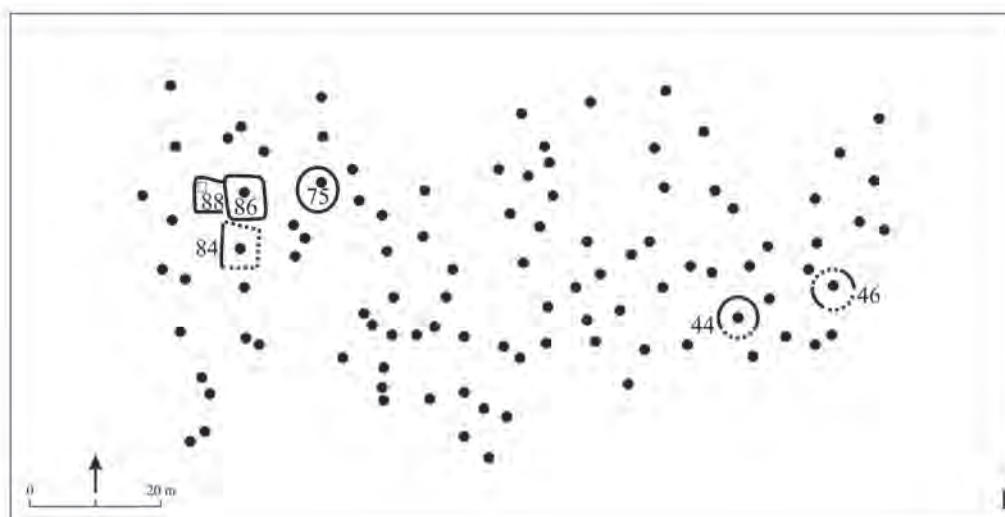


Fig. 27. Cemeteries with square- or circular-ditched graves. 1. Palárikovo;
2. Trnovec nad Váhom–Horný Jatov; 3. Holiare.

noted that during a second burial in one of the ditched graves the ditch was hollowed out again (VADAY 2006, 604, n.10). In the landscape structure of the cemetery a linear system could be observed, which was sometimes interrupted and disarticulated by the graves without a ditch.

In the Gerecse mountains, in Szomód grave no. 5 was an early La Tène plundered skeletal burial surrounded by a circular ditch. The diameter of the ditch was 9.4–10.5 m with a width of 0.45–0.90 m and a depth of 0.50–0.70 m. Grave no. 3 was partially dug on the ditch (VADÁSZ 1987, 233, pl. IV). In the cemetery used for several generations from Bezi–*Faluhely dűlő* the ditches enclosing the Late Iron Age rich graves adjusted to the Early Iron Age (Ha C) barrows (BÍRÓ – MOLNÁR 2011, 178).

In the cemetery of Hegyfalva–*Berek-alja* dated to the LT B–C 18 square-shaped ditched graves were discovered, which in a number of cases were in contact with each other. Several burials were not placed in the centre of the closed area. The reasons behind this can be accounted for by the actual high groundwater level and the topography of the region. On the highest part of the plateau, in two pits human remains were not found but the finds scattered around the territory indicate rather shallow, destroyed cremation burials. The length of the sides of the ditches varied between 7 and 17 m. In the case of a child burial these measured only 4 m each. Their width was between 0.70 and 1 m and their depth was 0.30–0.40 m. Inside the ditched territories, generally in one of the corners shallow pits with a diameter of 0.50–0.70 m were also identified (HORNOK – TÓTH 2016, 121, fig. 1). Similar pits were noted in one of the burial groups in the cemetery from Mannersdorf and in Pottenbrunn, in the Treisen Valley (RAMSL 2002; 2010; 2011).

The general use of grave districts similar to those in Transdanubia can also be found in the Vienna Basin in the cemeteries in Katzelsdorf (URBAN *ET AL.* 1985), Au am Leithagebirge (NEBEHAY 1973) or Mannersdorf (RAMSL 2011). The ditched grave cemeteries are known in large numbers from a shorter section of the Traisen River Valley. The spread of these graveyards in the Carpathian Basin can most likely be linked to the traditions stemming from this territory.

In the same time, the tradition to surround graves with a ditch can also be seen in the late Early Iron Age. In Algyő–*Barakktábor* an inhumation burial was surrounded by a circular ditch; in Sándorfalva–*Eperjes* grave no. 145, initially a large cremation burial with rich funerary inventory, was enclosed with a circular ditch with an entrance on its northwestern and southeastern side. Furthermore, ditched graveyards were also excavated in the cemeteries from Tiszavasvár, Tarnaméra, Tarnabod–*Téglás* and Chotín I-B cemetery (Hetény) (SZABÓ 1969, 78–79; GALÁNTA 1982, 61; GALÁNTA 1985, 120–121, 5. kép; SCHOLTZ 2001, 107).

The ditched cemeteries known from the Vienna Basin and Transdanubia, as well as the ones to the north from the Danube, in the Danubian Lowland and to the east from the Danube show numerous differences in their structure and from a land use point of view. While in the case of the cemeteries in Transdanubia the ditched graves are key elements in the funeral landscape and define the orientation of the other graves around them, in the cemeteries from the Danubian Lowland – with the exception of Dubník – and in the central and eastern part of the Carpathian Basin such regional elements of the funeral landscape can be identified only occasionally and usually they are underrepresented within the cemeteries.

The graves from the Danubian Lowland and those found to the east from the Danube show certain similarities. In Gâmbaş, Szeged, Szentes, and Palárikovo the square-shaped and circular ditches occur together in the same cemetery, in all three cases forming an independent unit on the southern or southeastern part of the burial ground. In the case of Palárikovo this observation is valid only for the graves nos. 44 and 46, while grave no. 75 with a circular ditch was situated in the vicinity of the territories enclosed with a square-shaped ditch, located to the east from these. Despite the fact that in the latter territories, these graves defined to a certain extent the structure

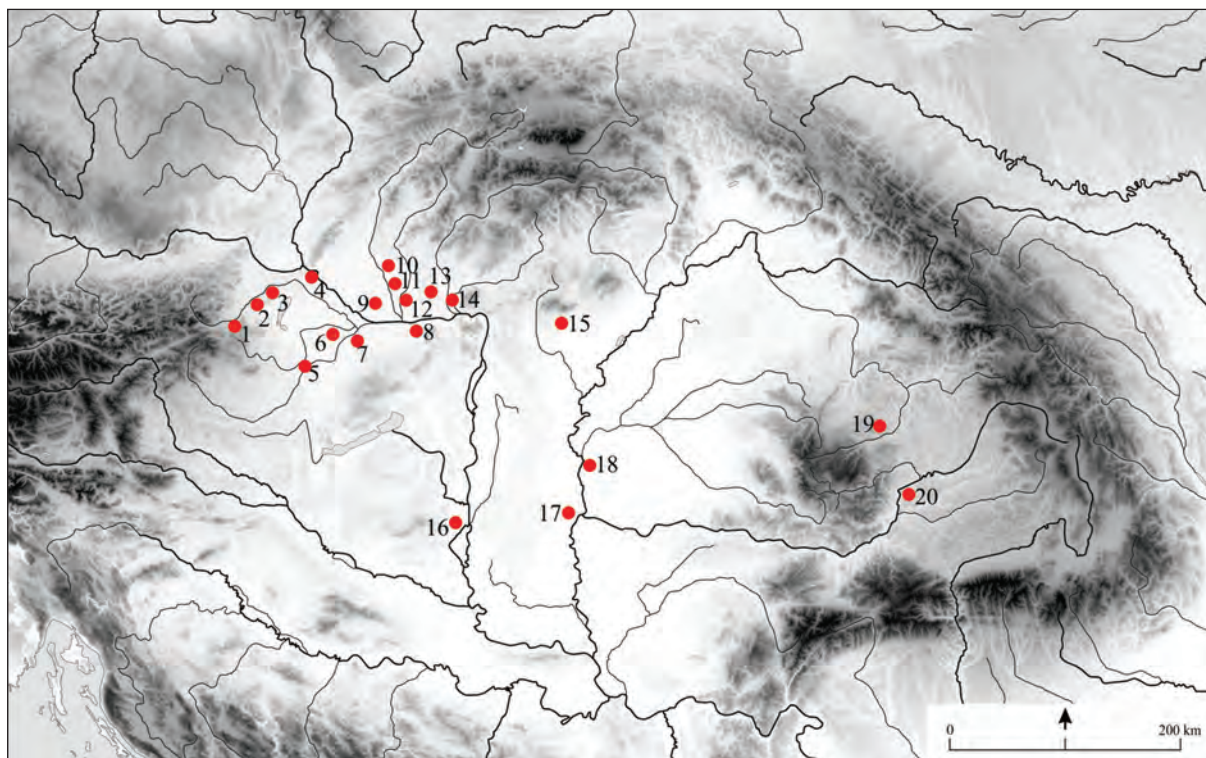


Fig. 28. Cemeteries with ditched graves from the Carpathian Basin mentioned in the text. 1. Katzelsdorf; 2. Au am Leithagebirge; 3. Mannersdorf; 4. Bratislava-Jarovce; 5. Hegyfalú; 6. Bezi; 7. Ménfőcsanak; 8. Szomód; 9. Holiare; 10. Trnovec nad Váhom–Horný Jatov; 11. Palárikovo; 12. Bajč–Vlkanovo; 13. Dubník; 14. Malé Kosihy; 15. Gyöngyös; 16. Bátaszék; 17. Szeged; 18. Szentés; 19. Viştea; 20. Gâmbaş.

of a cemetery and in many cases, they can be connected to the leading layer of the society, these were located at the edges of the cemetery and not in a central position, occurring as an isolated anthropic landscape element. In Bajč–Vlkanovo the graves 65 and 67 were situated on a slight elevation (REPKA 2020, 134). From Holiare only circular ditched graves and from Trnovec nad Váhom–Horný Jatov, Bajč–Vlkanovo, Malé Kosihy, Gyöngyös and Viştea only square-shaped ditched graves are known.

The circular ditched graves excavated in Viştea, Szeged, Palárikovo (grave no. 75) and Holiare were completely closed. In the case of the square-shaped ditches the picture is more nuanced: in the case of the two cemeteries from Transylvania the graves were entirely enclosed by the surrounding ditch; in Szeged, Gyöngyös and Malé Kosihy were opened on only one side, in Bajč–Vlkanovo and Trnovec nad Váhom–Horný Jatov also entirely closed while in the cemetery from Palárikovo to a completely closed ditch a partially opened one was connected. In Gyöngyös and Malé Kosihy the opened part of the grave gardens looked towards the crowded part of the cemetery and in both cases in front of the graveyards spacious free-left spaces could be observed.

Regardless of the shape of the grave enclosure, the number of burials and their location within the grave garden is very diverse also within the cemetery. There are grave gardens with one burial but the double or triple burials are also quite frequent. Sometimes these are situated in the centre of the graveyard, but frequently the burials were placed near one of the edges of the grave gardens. The various archaeological phenomena observed within the grave gardens in Hegyfalú, Mannersdorf or Pottenbrunn indicate that in the ditched territory different rituals took place. It is possible that due to the character of these rituals were the graves placed on the edges of the burial gardens.

Even though these graves can be mainly linked to the military elite (NEUGEBEUER 1996, 130) the ditched graves were not exclusively used only by the warrior aristocracy. Thus, it can be presumed that in the Late Iron Age societies besides the military elite another well-defined group existed, which not necessarily excluded the warrior aristocracy, but it cannot be associated with any funerary inventory. It can be hypothesized that this group was involved in the ideological, religious or jurisdictional matters of the community.

In the cemeteries from Gâmbaş and Viştea territories enclosed with a ditch were identified, where no burials took place, yet in their vicinity warrior graves with important funerary inventories were discovered. In both cases the grove was enclosed from three sides by a ditch and the part left opened looked towards the grave of the warrior, while in these two cemeteries both the square-shaped as well as the circular types of enclosed graves were completely surrounded by the ditches.

The best example for the cultic or ceremonial function of such gardens and groves, surrounded by a ditch without any burials, identified on the territory of the cemeteries is provided by the feature from Szeged–Kiskundorozsma. Here, from one of the edges of the enclosed territory with a square-shaped ditch that was doubled on one of its sides and cut in a number of places, a pit, 'grave no. 93', was unearthed, that contained the remains of a turtle. From the territory of the cemetery in Kiskundorozsma altogether six pits were researched, which contained the carapace of turtles. Since, the feature no. 93 was dug into the ditch system, it is probable that the pit needs to be dated to a later time period and it is unlikely that it is connected to the functioning of the ditch system. In one of the edges of the enclosed area mildly-burnt wattle-and-daub plates were found placed in layers into the pit, on the other side a 2 m deep pit or a well was discovered (PILLING – UJVÁRI 2012, 231, fig. 10). In Sárosd, close to the cemetery a circular ditch of 20 m diameters was excavated, in the centre of which a burnt patch was observed. The feature was interpreted as a sanctuary or a cultic place for the dead and the heroic ancestors (SZABÓ 2005, 103).

Another relatively rare phenomena that shaped the landscape of the cemeteries were the stone-packed graves visible also on the surface. In Transylvania this type of burial is known only from Gâmbaş, where the graves were filled with earth until the surface then covered with river stones (BĂLAN *ET AL.* 2015, 140, 145). In the case of the graves nos. Cx. 59 (a and b) and Cx. 60 (a and b) a complicated situation can be noted. Initially the graves Cx. 59b and Cx. 60b were covered with stones just as in the case of grave no. Cx. 45. Next to the two graves, later, other two funerary features were arranged, Cx. 59a and Cx. 60a, which were covered with stone in such way as to include also the older graves (BĂLAN *ET AL.* 2015, 141, pl. 11/3). Thus, these graves resulted in two large structures made from river stones, located next to each other.

In the cemetery of Sopron–*Bécsidomb*, in grave no. 9 of a warrior with spear, under the head of the deceased a stone slab was placed, then the dead was buried and the grave was covered with stone slabs on the surface. In this cemetery two other cremation burials of warriors were covered with stones or stone slabs (MÁRTON 1934, 108, Taf. XXXVII/1–2; XLI; XLIII).

In the cemetery of Rezi–*Rezicseri* stone-packing is mentioned in the case of seven scattered cremation burials. At the bottom of grave no. 7 and in the fill of grave no. 12 worked and unworked sandstones were retrieved (HORVÁTH 1987, 101–102, fig. 36–37). The pit of grave no. 40 contained a lining of limestone from the depth of 1.10 m, then was filled with earth and covered by a 0.15 m thick stone layer (HORVÁTH 1987, 114, fig. 47).

In the bi-ritual cemetery in Bernecebaráti from the seven LT C graves the cremation burial no. 1 was covered with stone, and in two additional cases stone-packing was observed on the surface (HELLEBRANDT 1999, 13–14). Stone-packing was found also in Vác in grave no. 40 (HELLEBRANDT 1994a, 19.29).

Graves with stone-packing also have late Early Iron Age traditions. In Eger–Nagy Eged a high number of graves, both cremation and inhumation, were covered with stone. However, sometimes the piles of stones did not cover finds (FODOR 2001, 5. kép). In Alsótelekes 10% of the graves were marked with stone-stacking, and except for a newborn burial all graves were cremations (PATAY – B. KISS 2002, 102). In Preseľany nad Ipľom (Pereszlény) one part of the cremation burials were covered by stone, in Vámosmikola–István-major both the cremation and the inhumation burials were mainly found under stone-packing, and in Gyöngyöspüspöki only one grave was indicated with a stone pile (SZABÓ 1969, 78). In the cemetery from Szentlőrinc the nine stone-packed graves marked mainly the graves of eminent members of the community, from which with the exception of three (two child burials and a cenotaph) all were later plundered. In some of the graves large size stone slabs were arranged in a semicircle at the feet, other times these covered the entire burial; in one case it covered the burial of three horses, while in the case of grave no. 69 there was no inventory or human bones below the approximately oval stone slab (JEREM 1968, 175). Therefore, the stone-packing of Late Iron Age graves in the Carpathian Basin continues local traditions, but its origins can be looked for also in the Celtic ancestral homeland in the structure of the burials of the aristocracy, such as the well-known burial mound no. 1 in Glauberg (FREY – HERRMANN 1997, 465, Abb. 5–6).

* * *

After the LT C1 period the number of cemeteries and burials decreased. Recently, the excavated graves of the Padea–Panagjurski Kolonii group from Sâncrai form the latest middle La Tène cemetery in Transylvania known until today. After this period, from the late La Tène period, due to the ideological and social restructuring that occurred around the middle of the 2nd century BC much fewer burials are known. It was the period when the place of the large, community cemeteries was replaced by the small, family graveyards.

In this period, due to the population movements in the eastern part of the Carpathian Basin – namely the expansion of the Padea–Panagjurski Kolonii group – new archaeological features appeared in the landscape, the fortifications and near these the burial mounds with cremation graves, which resulted from the intensification of the social differences and the changes that happened in religion. The burial mounds dated to the second half of the 2nd century BC in Transylvania were located next to the fortifications, near the road leading to the fortification. These striking landscape elements had a significant visual message, which provided a support for the power of the leading layer, and their ‘engraving into the memory’ of the larger community (RUSTOIU 2015a, 361).

In essence the burials of this group to the north of the Danube are quite rare, between the second half of the 2nd century BC and first half of the 1st century BC only 100 graves are known, many of these were cremation burials. The number of known graves dated to the 1st century AD is only 20 (SÎRBU 1993, 3–40). The late La Tène graves in Transylvania seem to belong exclusively to certain social groups (RUSTOIU 2017, 326). On the central, approximately 200 km² territory of the Dacian Kingdom only a few graves are documented (or presumed), near the fortifications of Costesti–Cetățuie (FLOREA 2006, 7) and Tilișca (LUPU 1989, 33–35).

Almost simultaneously with the disappearance of graves, the significance of sanctuaries, located especially inside fortifications, increased. These appeared in the Carpatho-Danubian area by the end of the 2nd century BC or in the early 1st century BC and disappeared by the early 2nd century AD, when such constructions ceased to exist even in the Dacian territories outside

the Roman province, and this change seems to correspond also to the moment, when cremation burials reappeared in all areas populated by Dacians (PUPEZĂ 2014, 65).

The location of the cemeteries in the landscape and their relationship to the settlements and to each other as well as to the earlier cemeteries bear witness to general rules that were followed, when assigning the place for burial grounds. These were supplemented by the landscape elements, grave groups, ditched graves, groves, and stone-packing of the graves present in the structure of the cemeteries which reflect the particular identity and traditions of certain communities. For the Late Iron Age communities, it was important to mark and to articulate the landscape of the cemetery. The cemetery was one of their symbolic landscape elements that reflected their micro and macro regional identity, which at a first glance perhaps suggests irregularity in their territorial organization but the analysis of the funerary inventories and the interior structures sheds light on the social structures and their projection into the landscape.

IV.

REVERING THE LANDSCAPE. RITUAL SITES

One of the significances of ritual actions, which encompass the sequence of symbolic events, lies in the strengthening of collective identity. Ritual actions are most often religious, connected to the super or supra-natural forces (atonement, request, strengthening of loyalty etc.). The ceremonies with a defined sequence of events had social aspects. Ceremonies marked certain stations, milestones of a person's life, such as birth or death but also important events that happened in-between. In the same time, a community has collective feasts which can be seasonal (connected to agriculture, cosmology, religious events or occasions associated to the cyclicity of social life etc.) or casual (atoning sacrifice etc.).

Ritual actions can be reconstructed only partially, based on the archaeological data which deals only with the end product of the ritual. Yet, depending on their place of occurrence it can be presumed that some of them would have involved gatherings of people at special locations and certain periods or days of the year, other times the connection between human and supra-natural was intermediated by initiated person(s). The following examples indicate that in the Celtic society both phenomena occurred generally but their character cannot be defined with full certainty. In the light of this, in the case of the sites, where traces of ritual actions can be assumed instead of places of worship (strongly connected to divinity and religion) or sanctuary / shrine (a secret, closed and protected place devoted to the practice of a religion) the more neutral term ritual site will be used (KAURIN *ET AL.* 2015, 21–22).

The ancient literary sources describing Celtic religious practices refer to the use of different landscape elements for cultic purposes. Thus, Pliny (*Natural History*, XVI.95), Lucan (*Pharsalia* III.412), Dio Cassius (*Roman History*, LXII.7) or Tacitus (*Annals*, XIV.30) write about *nemeta* (sing. *nemeton*), sacred grooves, identified in the toponymy and rarely archaeologically in Western Europe, especially in the British Islands (CUNLIFFE 1997, 198; ERSKINE 2010). Nevertheless, probably the most famous sacred place of the period is the Swiss Lake Neuchâtel near La Tène, where besides weapons, jewelry, and objects of use, human and animal bones were discovered as well (VOUGA 1923).

The interpretation of watery depositions is quite manifold and probably each interpretation might be true depending on the find circumstances and the period (SCHÖNFELDER 2007; DRNIĆ 2014). The weapons thrown into the water along the fords could have represented the accessories of apotropaic rites or sacrifice offered to the gods of the rivers. In other instances, weapons were 'sacrificed' in the boundary rivers of the inhabited areas in order to request the protection of the territory from supernatural entities.

Perhaps, the sword in its scabbard found in the riverbed of the Danube at Visegrád, one of the earliest such finds in the Carpathian Basin, dated to the end of the LT A period or the beginning

of LT B, was an offering intentionally thrown into the river as a sacrificial object (SZABÓ 1996). From a land use point of view, in the case of the Carpathian Basin the cemetery uncovered in the northern corner of the Csepel Island in Budapest is quite exceptional, as it was situated on a high floodplain terrace of the island (HORVÁTH 2019, 15) and the dominant environmental element was without a doubt the water.

Other times, the landscape was shaped in order to transform it into a cultic place, like in Western Europe at Gournay-sur-Aronde and Ribemont-sur-Ancre (BRUNAUX 1988). In both sites human and animal sacrifices together with weapon offerings were found in an area delimited by a system of ditches and pits. At Gournay-sur-Aronde the bent and broken weaponry were displayed in the open air then incorporated into the ditch and pit fills, sometimes together with human and animal offerings, while close to the entrance cranial fragments were found. At Ribemont-sur-Ancre empty square ditched enclosures were interpreted as sacred groves of trees. Inside the enclosures, in the corners, ossuaries were found together with iron weaponry and horse bones, which seemingly could have been the war prisoners offered to the gods, and in another circular ditched area marked with stelae the remains of 60 warriors with their weapons were unearthed. This sector was interpreted as a memorial place.

In the Carpathian Basin, only indirect evidence exists for the ritual or cultic use of the landscape, but probably some of the finds from the mountainous areas and caves, atypical natural environments for the eastern European Celtic sites, fall into this category.

If one looks at the map of the spread of the Celtic finds from the Transylvanian Late Iron Age, it can be noted that, except the settlements from the large river valleys and their immediate side valleys, mostly stray finds are known from the periphery. The character of some of these objects is outstanding, and also from a land use point of view some of these finds were identified in exceptional places.

In northeastern Transylvania, in the Bârgău Valley (Borgói-völgy) that separates the Bârgău Mountains (Borgói-hegység) on the north from the Călimani Mountains (Kelemen-havasok) in the south, in a large depression with a general altitude of 550 m with low mountains, on the territory of the village Prundu Bârgăului (Borgópund) a head of a man with moustache carved from volcanic tuff was discovered (Fig. 29/5). The shape of the head is oval, the eyes, nose and moustache were formed through engraving. The ears are asymmetric. Even though the find circumstances do not provide data for a more exact dating, the find was evaluated by V. Vasiliev at the end of the 1960s and based on stylistic analysis and analogies he dated the head to the middle part of the Late Iron Age (VASILIEV 1969; SIEVERS *ET AL.* 2012, 1537). On the map of the spread of Celtic finds in the Carpathian Basin the stone head from Prundu Bârgăului is the northeasternmost point, and the closest known cemetery lies at a distance of 26 km in Cepari (Csépán). The landscape is completely different than the characteristic Late Iron Age settlement pattern in Transylvania and the Carpathian Basin, this also indicates the particularity of the site.

The size of the stone head is close to the natural proportions with a height of 195 mm and a diameter of 170 × 188 mm. On the upper part of the stone head a 145 mm deep and 110 mm diameter wide carved hollow can be seen, and on its lower part, under the left ear a small-size spout hole is visible. Therefore, one can infer that the object most likely played a central role in libation rituals. The representation and execution of the head is disproportionate, rudimentary, and robust.

The large sculptures of the Carpathian Basin traditionally were connected to the late La Tène oppida period and the sanctuaries that functioned inside or close to these central settlements (SZABÓ 2005, 168; SZABÓ 2015, 66–67). Stone heads were found until today in the region of the middle Danube and in Transdanubia. The janiform double head from Badacsony–Lábdihely is a



Fig. 29. Late Iron Age stone statues from 1. Glauberg (after FREY – HERRMANN 1997); 2. Heidelberg (after MEGAW – MEGAW 2001); 3. Pfalzfeld (after JACOBSTHAL 1944); 4. Százhalombatta (after SZABÓ 2005); 5. Prundu Bârgăului (photo: G. Marinescu); 6. Sutherlandshire (after MEGAW – MEGAW 2001); 7. Badacsony (after SZABÓ 2005); 8. Mšecké Žehrovice (after MEGAW 2003). Different scales.

stray find. The robust portrait with oval-shaped face made from sandstone was probably carved after a wooden model. In the case of this sculpture the torques visible around the neck and the braid between the two heads facilitates the cultural classification of the object. Its dating was based on the date of the known finds from the surrounding area, that is the end of the 2nd century BC and the 1st century AD (SZABÓ 1963; SZABÓ 2005, 169; SZABÓ 2015, 66, 91. kép). The origins of the triangular-shaped sandstone object from Százhalombatta that reflects an expressive sculptural concept were connected to the near-by oppidum, and was dated to the 1st century BC. Even though technically it is much different than the head from Prundu Bârgăului, its design and sculptural techniques such as the lentoid eyes and the deep carved part of the face around the triangular nose makes the find from Százhalombatta resemble the head from Transylvania.

From the point of view of functional and certain stylistic elements (eyes, moustache and mouth) the closest parallel to the stone head from Prundu Bârgăului can be found in

Sutherlandshire, in Scotland, which also had a hollow on the top and indicated the object's use in libation. The dating of the sculpture from Scotland, also based on stylistic elements can be set to the 1st century AD (MEGAW – MEGAW 2001, 227–228, fig. 382).

However, stone sculptures did not appear in the late La Tène period; a high number of central and western European sculptures come from the early and middle La Tène as well, even though their dating relies only on stylistic grounds (MEGAW – MEGAW 2001, 74). Plastic representations display the human face and body in a number of ways but two basic types can still be defined: the bearded and the clean-shaved, sometimes with moustache (MEGAW – MEGAW 2001, 70). All the three examples found in the Carpathian Basin belong to the last type.

Among the well-known statues from the early La Tène one can find the sculptures from Glauberg (FREY – HERMANN 1997, 485) dated to the 5th century BC; the statue from Heidelberg from the end of the 5th century and beginning of the 4th century (MEGAW – MEGAW 2001, 74, fig. 82), or the pillar from Pfalzfeld also from the end of the 5th and beginning of the 4th century (JOACHIM 1989). These early statues share certain similarities with the stone heads from Százhalombatta and Prundu Bârgăului in the elaboration of the face and the carving of the eyes, nose and moustache, while they differ in every detail from the marlstone carved head from Mšecké Žehrovice dated to the 2nd and 1st century BC, and the head from Badacsony, a janiform head dated probably to the oppidum period.

Based on the stylistic elements the Celtic head from Prundu Bârgăului can be considered a product of the La Tène culture just as the stone head from Százhalombatta or the one from Scotland, which in its functionality provides a parallel as well. Additionally, the stone head cannot be regarded a Celtic product of the entire late La Tène period because after the first third of the 2nd century AD the Celtic culture ceased to exist all around Transylvania. Thus, the stone head from Prundu Bârgăului could have been produced sometime between the end of the 4th and the beginning of the 2nd century. Otherwise, this statue is not the only Transylvanian Celtic stone art product. Recently a stele fragment was discovered which hopefully will soon be published. Even though the stele fragment is entirely different in style, character and functionality, by its more accurate dating proves that during the 3rd century BC stone carving was practiced by the Celts in Transylvania. Taking into account the similarity of technical implementations, it can be argued that even though the statues from Százhalombatta, Prundu Bârgăului and Sutherlandshire come from significantly distant places, they were close in time. Esthetically these three works are inferior to their predecessors from the 5th and 4th centuries BC, but the sculptural technical attempts can be projected to this period. The *oppida* and sanctuaries which appeared at the end of the Late Iron Age and the additional cultural contacts provided by the 'globalization' of the period meant a new age also for the sculpture workshops.

The environment of the finds from Gălăoia–Ciortos Peak (Galonya), in northeastern Transylvania, located on a high plateau in the uplands of the Mureş Valley, on the left bank of the river, in the piedmonts of the Călimani Mountains, in the mountain–plain transition zone is also outstanding. The discoveries were made on the slope of the peak with exposure towards southeast, on the last low elevation along the Mureş, at the entrance of the Călimani Mountains. In 2013, at a superficial depth, a 125 mm long iron linchpin with a plastic style bronze ornament, and somewhat further from this a 320 mm long twisted chain formed by ring assemblies were found during metal detecting by I. C. Pop (BERECKI 2018, 146, pl. VI/4–5). From the same site three iron spearheads, one of them bent and broken, came to light.

The linchpin was buried as a single object (the metal detectorist excavated the find in a relatively systematic manner), which indicates a conscious and in the same time isolated burial of the find. The symbolic placement of linchpins in graves is a common phenomenon in the Late Iron

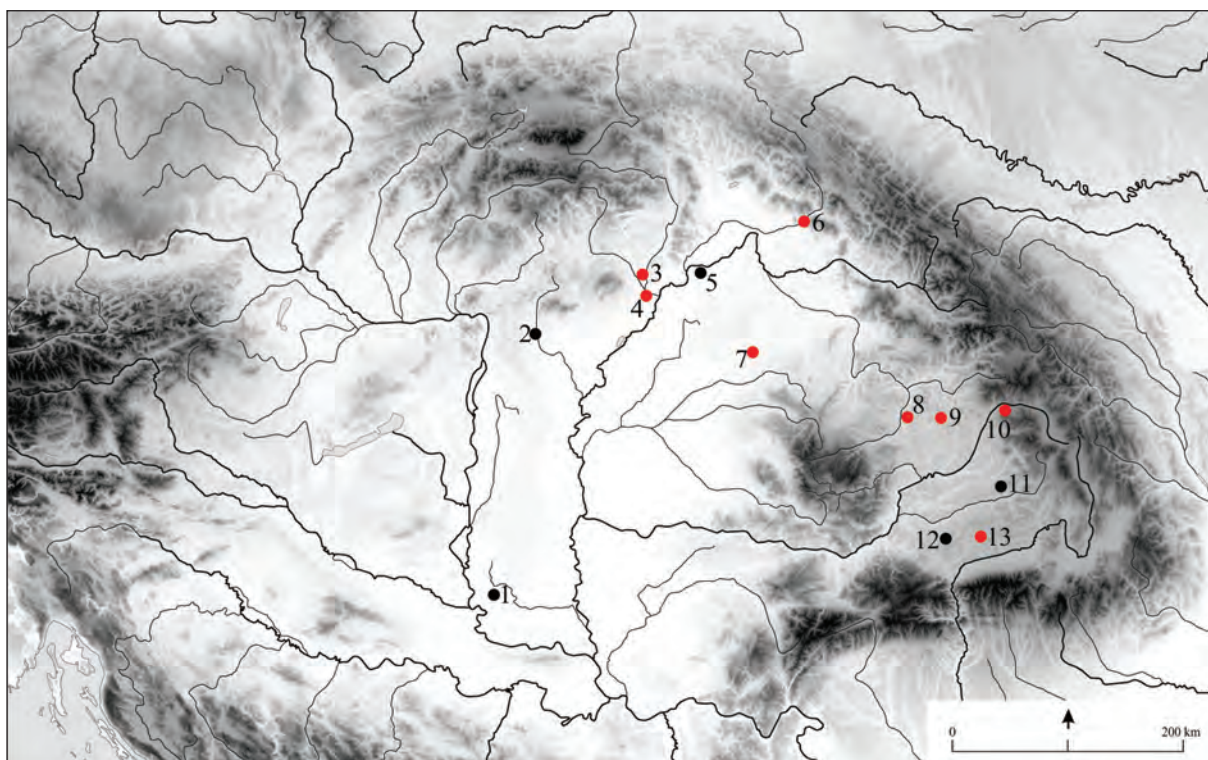


Fig. 30. Chariots east of the Danube: 1. Odžaci; 2. Hatvan–Boldog; 3. Arnót; 4. Sajópetri; 5. Balsa; 6. Mukachevo; 7. Curtuiuşeni; 8. Apahida; 9. Fântânele; 10. Gălăoaia; 11. Cristuru Secuiesc; 12. Vurpăr; 13. Toarcla (red dots: linchpins).

Age cemeteries (Fig. 30). The iron linchpins from Mukachevo (Munkács) are the only ones east of the Danube that come from a settlement feature. From a land use point of view Mukachevo and Gălăoaia are quite similar: both are situated at the entrance of mountain passes, in a very different environment than the traditional settlements. Due to the lack of details concerning the features from Mukachevo it is hard to interpret the presence of linchpins and iron loops in the settlement features, yet based on the combination of the artefacts from the three features (horse-bit, bracelets, chains, casting mold, utensils, spindle whorl, miniature clay wheel, and pottery), their connection to workshops or deliberate hoarding can be also presumed (BERECKI 2018, 149).

From the Late Iron Age chariot burials located to the east from the Danube linchpins were unearthed in Sajópetri, Arnót, Curtuiuşeni, Apahida, Fântânele–*Dâmbu Popii* and Toarcla (Prázsmár) (BERECKI 2018; TANKÓ 2020b, 167). No entire chariot was documented east of the Danube for this period. Moreover, the archaeological context can be reconstructed, when based on descriptions or illustrations it is obvious that the elements of the chariots were first dismantled and then placed in the graves. It was observed that for the LT B–C periods the *pars pro toto* concept was applied. This was a symbolic action, where in the case of the chariot graves, a few, usually small pieces stood for and represented the entire vehicle.

From the systematically excavated graves in Fântânele only the linchpin ended up in the burial from the whole chariot. The inventory of the middle La Tène grave no. 49 was carefully arranged in the pit: the human bones, clothing accessories, and animal offerings were placed in one side of the grave, while the weapons and the linchpin in the opposite side. Based on the placement and combination of the grave inventory it was presumed that the linchpin had a magical role involved in particular rituals during the funeral ceremony rather than an object

placed *pars pro toto* (RUSTOIU 2015c, 75–76; RUSTOIU 2019b, 188–204), although the two types of actions or manipulations do not exclude each other. Furthermore, theoretically any object placed in a grave could be part of an ‘archaeologically invisible’ magical ritual.

The character of the site at Gălăoia situated on a high terrace above the Mureş River can be vaguely defined in this state of the research; most probably it was a hoarding place but the object might indicate the presence of a warrior who took part in a war or a hunting expedition (BERECKI 2015a, 152). The particularity of the find from Gălăoia is provided not only by the fact that it was discovered in an atypical landscape from the point of view of the Late Iron Age settlement pattern of the Carpathian Basin but also by the character of the find. The particular character and importance of the find is highlighted also by the decoration visible on the tip of the linchpin. On the flat head of the linchpin simple or complex decorations could be observed and quite frequently a knob was also used on the tip of the linchpin (SCHÖNFELDER 2002, Abb. 102). The plastic decoration on the knob of the linchpin from Gălăoia is unique for the middle La Tène period in the Carpathian Basin. Somewhat similar plastic spirals on terminal knobs are known from Trier in Germany (JACOBSTHAL 1944, pl. 102/161).

A bent spearhead from the same site but from another area indicates that this could also have been a deposition. The bent spearhead indicates deliberate damage, bending is less likely to happen during a hunt or a fight, more probably it was placed into the ground in a preceding or following ceremony. The deliberate damage of weapons means the conscious termination of the functionality of the object, while its interment alludes to the separation of the owner and the object. This symbolic activity practiced since Prehistory had the character of a pledge and carried the value of a message towards the community or the transcendental. In the case of the damaged weapons deposited in graves the exact ideological background of the tradition cannot be interpreted convincingly. Undoubtedly it was a Pan-Celtic tradition but did not extend to the whole society. It cannot be excluded either that the weapon damaging could have been connected to the death of the buried person or some kind of act which he had performed during his lifetime.

In the Celtic cemeteries excavated in the eastern part of the Carpathian Basin the bending of the swords was much more popular than the bending of the spearheads (concerning weapon damaging in Transylvania, see: MĂNDESCU 2012). Bent spearheads were unearthed in this area in Aradu Nou (CRIŞAN 1974b, 41–42) but damaged spears occur in a number of cases in the cemeteries of the Carpathian Basin (MÁRTON 1934, 95, Taf. XXIV/8–10; HUNYADY 1942, Taf. LI/5; HUNYADY 1944, 17. kép; SZABÓ 2012, pl. XXXII/2, etc.). Most frequently among the deposited weapons in a grave only type of weapon was damaged. Burials are also known, where both the sword and the spearhead were bent: in grave no. 34 in Tărian (Köröstarján) (CHIDIOŞAN – IGNAT 1972, 565, pl. 7/3, 7–8), Sărbogárd–Szecsődi homokos (PETRES 1971, 141, 5. kép), Magyarszerdahely (HORVÁTH 2005, fig. 3–4), grave no. 21 in Kistokaj–Kültelek (HELLEBRANDT 1994b), graves nos. 879, 1005 and 1140 in Ludas–Hosszú-dűlő (SZABÓ 2012, pl. XXI–XXII; XXXIII; XLVII), grave no. 76/150 in Sajópetri–Homoki-szőlőskert (SZABÓ 2018, pl. XLVI–XLVIII) etc. In the grave no. I from Rozvány two swords, two spears, and two knives were bent (HUNYADY 1942, Taf. IV). However, not only the weapons ended up in graves in a damaged state but also other objects such as shears (HUNYADY 1944, 20/5; HORVÁTH – NÉMETH 2009, 146, 9. kép / 6) or knives (MARÁZ 2008, Abb. 10).

While in the Celtic world the most widespread act was the bending of swords, in the Lower Danube region, in the Thracian burials from the end of the Early Iron Age and during the Late Iron Age a high number of bent iron spearheads were found and the bent swords were quite rare (MĂNDESCU 2012, 347–348).

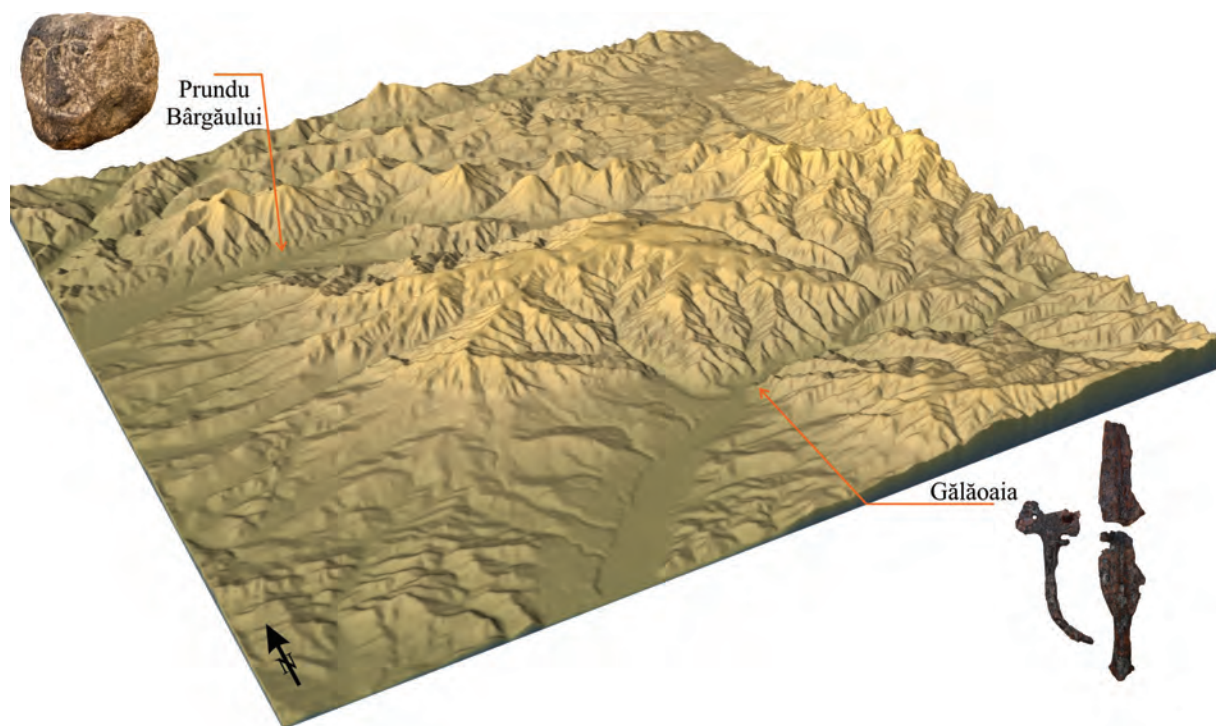


Fig. 31. Topographical relief of the Prundu Bârgăului and Gălăoia sites.

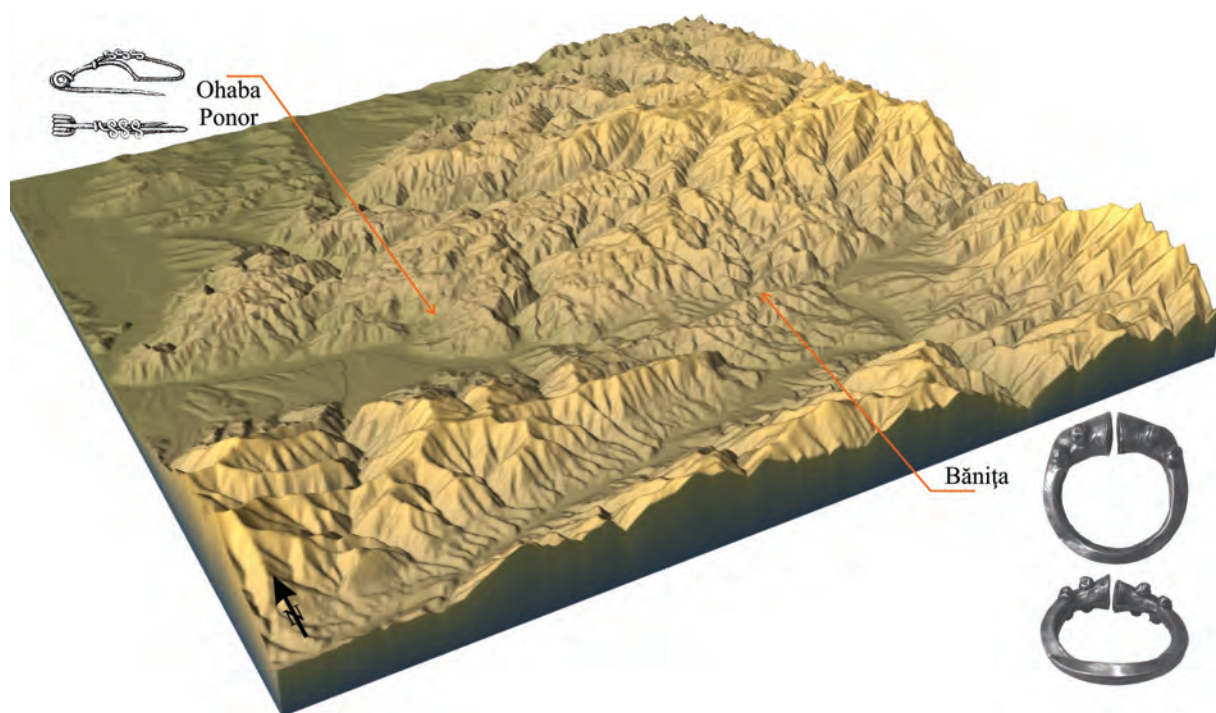


Fig. 32. Topographical relief of the Ohaba Ponor and Bănița sites.

The bent spearheads discovered in the eastern part of the Carpathian Basin illustrate that the point of the spearhead was bent to the meeting point of the blade and the shaft. As a result of this procedure the examples from Arad and Gălăoaia broke. Bent swords and spears in graves probably symbolized the individual character of these weapons, the fact that they were not hereditary or they reflected a superstition about the return of the dead (PETRES 1971, 141). It could also have mystical and religious motivations, the investing of the weapon with supernatural and magical powers (MĂNDESCU 2012, 347). Some of the mutilated weapons could represent loot and may have been part of victory-related rituals performed in sanctuaries and other ritual places (DRNIĆ 2015, 122).

The identification of ritual actions based on archaeological features is an endeavor that brings only approximate results. Yet, in the case of the finds from Gălăoaia unearthed in a landscape foreign for the Celts, the contemporary symbolic importance and meaning of the linchpin as well as the presence in the close-by area of three spear heads from one of which was bent lets one conclude that these finds were buried with the occasion of special events.

In southwestern Transylvania, in the southeastern corner of the Hațeg Basin (Hátszegi-medence), in the Valley of the Ponor Stream flowing into the Strei River (Sztrigy), to 40 km south from the valley of the Mureș, an area intensely inhabited by the Celts, and to 20 km to south-east from Hațeg (Hátszeg) known for its LT B1 period stray finds, in the Bordu Mare cave dug into a limestone ledge of the Șureanu Mountains (Kudzsiri-havasok) from Ohaba Ponor (Ohábaponor) a LT C1 silver brooch known as *Fibeln mit Achterschleifen* or *fibule a brandebourgs* was found in 1955 (NICOLĂESCU-PLOȘOR ET AL. 1957, 46–47, fig. 5/6). The object was discovered above the Paleolithic stratum, in an 80–100 mm thick layer, in which also Prehistoric and Late Iron Age finds were identified. Other contemporary finds with the brooch were not discovered. Although the brooches were frequently used objects, they were found across Europe in a number of contexts connected to ritual and witchcraft (for further discussion, see: RUSTOIU – FERENCZ 2017, 352, fig. 10; RUSTOIU – FERENCZ 2018, 40–42).

The importance of caves as social historical landscapes is well-known. In Hungary altogether half a dozen caves were identified, where Celtic finds were unearthed, especially pottery fragments, rarely metal objects for example spearheads: in the North Hungarian Central Mountains at Aggtelek–*Baradla cave*, and in the Pilis Mountains, at Esztergom–*Legény cave*, Budakalász–*Zöld cave*, Nagykovács–*Remete cave* and Diósd–*Kaptárkői cave* (<https://archeodatabase.hnm.hu/hu/s/st:389-a3:472?v=list>), but an exact dating of the finds is not known for any of these caves.

In the eastern part of the Carpathian Basin the finds from caves are much more frequent at the end of the Late Iron Age, in the LT D period. Regardless of the historical period or region, the caves were permanent, seasonal, periodic or strategic settlements, workshops, cultic or hoarding places or funerary sites (PETRESCU 2000, 78–83, 88). There are examples throughout Europe for sheltering in caves of the individuals displaced or discriminated by the society, in other cases the caverns were the habitat of persons or families of low social status. Usually caves used as shelters or settlement are easily accessible, while the funerary or fortified sites are harder to reach. The ritual use of these caves can also be presumed, since the few existing written sources that refer to the Late Iron Age religion of the region report about the caves, too.

On the territory of Transylvania, for the Late Iron Age most caves yielded only pottery fragments and traces of short term settling, serving as a temporary shelter of a small community. Other times the possibility of their use as observation posts during the Dacian wars was also presumed. There are also caves with thermal and medicinal waters, other times cultic features or blacksmiths' workshops were documented (for detailed discussion, see: BERECKI 2015b).



Fig. 33. Aerial view of the entrance in the Bordu Mare cave (March 2018, S. Berecki).



Fig. 34. Aerial view of the Dacian fortress at Bănița and Peștera Bolii hill with the quarry (March 2018, S. Berecki).

Another unique isolated find, the silver bracelet from Bănița (Banica) was found on the Peștera Bolii Hill, in an old limestone quarry on the left bank of the Bănița River (Banica), at the confluence with the Jigoreasa Stream, on a steep slope above the Bolii cave. Based on the close analogy from a cremation grave in Vrșac-At (Versec), in the Serbian Banat the bracelet was dated to the LT C1 (RUSTOIU – FERENCZ 2017; RUSTOIU – FERENCZ 2018, 35).

Starting from the fact that in the above discussed four cases the closest finds, more intensive settlement traces or burials are located at a distance of more than 20 km, it is probable that these objects were not discarded or lost, but rather represent the result of intentional human actions, most probably votive offerings for supernatural beings (for a theoretical approach, see: RUSTOIU – FERENCZ 2018). In each case, the positioning of the object in the landscape goes through a metamorphosis, its earlier profane function is lost and receives a new symbolic character. This is indicated by their burial, concealment, their placement in locations hard to reach, a kind of destruction also.

The brooch from Augustin / Racoș–*Tipia Ormenișului* (Ágostonfalva / Alsórákos) can also be considered part of such a sacred landscape (RUSTOIU – FERENCZ 2018, 36). However, since the majority of the finds from the Olt Valley in south-east Transylvania can be dated to the early phase of the Celtic settlement – *Steckverschluss* type bracelet from Vurpăr (Vurpód) and Brașov (Brassó), *Münsingen* type LT B1 bronze fibula from Râșnov (Rozsnyó) and probably also the *Hiebmesser* from Rupea (Kőhalom) – it is more likely that these objects testify scouting expeditions or territorial negotiations through gifts of the newcomers with the communities from the East-Carpathian piedmont regions, which already in this early period extended outside the Carpathians just as it is shown but the finds from Moldavia (HONCU – MUNTEANU 2018, with the earlier bibliography).

Sometimes in the Late Iron Age settlements the ritualization of domestic life could also be noted. In such cases the metamorphosis of everyday life and everyday objects was observed. In Sajópetri in a context dated to the 3rd century BC on a grindstone two scissors, a knife, a chain and an axe were placed, the assemblage can be interpreted as an agrarian cult (SZABÓ 2005, 102; SZABÓ 2007d, 226, fig. 44; TANKÓ – V. SZABÓ 2018, 154–155).

In a LT C2 dwelling from Tiszafüred–*Morotvapart* a pseudo-kernos with anthropomorphic decoration was discovered together with several agricultural tools: three coulter and three sickles, indicating a ritual context connected with agricultural beliefs (KULL 1997, 358–359, fig. 76/1–2).

In Cluj-Napoca–*Câmpului Street*, in a still unpublished Late Iron Age settlement, next to a dwelling house, near animal bones a *Hiebmesser* was unearthed (DIMA 2008). This type of assemblage can be frequently seen in the funerary inventories of burials but their appearance in a settlement is outstanding and alludes to the fact that certain rituals were performed both in a domestic and in a consecrated landscape.

Similarly, the context no. 10 from Teiuș–*Site 5* (Tövis), a pit dwelling dated to the LT B1–B2 belongs to the group of domestic rituals. Here ceramic fragments, unburnt brick, animal bones, river stone, a grinding stone, a spindle, and a wheel-thrown vessel with four bunches of dwarf elder seeds were found. This species, due to the chemical composition of the berry could be used both for medicinal purposes and for hallucinogenic effects (CIUTĂ 2019, 649, 651; RUSTOIU 2019b, 134–142), which were well known in ancient times (see: Pliny the Elder, *Nat. Hist.*, XXIV, 51–53).

In few settlements buried red deer or roebuck were found, which can be defined as traces of rituals. In Dunaszentgyörgy, in pit no. 8/15 dated to the 3rd century BC three whole roebucks were interred. Based on the presence of their antlers and their maturity it could be ascertained that the bucks were placed in the pit during the summer months (TUGYA 2009, 204–205,

fig. 4–5). The red deer from the LT D feature in Keszthely–*Fenekpuszta* was found at the bottom of a large grain storage pit, sacrificed probably at the end of the summer or the beginning of autumn, while the one from the LT D ‘collective grave’ no. 118 at Sopron–*Krautacker* at the end of autumn or in the winter period (JEREM 2003, 544–545, fig. 2–3). In other settlements like in Csepel–Szigetszentmiklós (information: A. Horváth M.), Sajópetri, Szakály and Tihany–*Óvár* the red deer antlers were the accessories of a ceremony (JEREM 2003, 544; SZABÓ 2005, 98; SZABÓ 2007d, 226–227). In Sé a beheaded pig and a pair of cattle mandibles suggest the traces of a sacrificial ritual, in Sopron–*Krautacker* cattle skulls were also found in several structures (JEREM 2003, 544, 554), in Sajópetri a sheep was placed in a pit (SZABÓ 2007d, 226, fig. 45).

Red deer burials were found on the territory of cemeteries as well not only in settlements: in Mátraszőlős, in the bottom of a 2.10 m deep beehive-shaped pit the antler with the skull of a red deer was discovered (VÖRÖS 2012, 226), in Novajdrány in graves nos. 7, 12 and 13 deer antlers occurred (JEREM 2003, 544).

In Sopron–*Krautacker*, in the settlement, in ‘grave’ no. 118 the complete skeletons of three women and parts of a fourth woman’s skeleton were identified. Before the interment of the human bodies the pit and its contents (vessels, animal bones) were presumably combusted in the framework of a ritual (JEREM 2003, 549, fig. 3). The cemetery near the settlement was not in use already from the end of the LT C period thus, besides the character of this context, in the light of this it can be assumed that the pit containing the four female skeletons was part of a ritual act. Based on the discovery of a human skull in a pit, feature 03.B.59 from Sajópetri was considered evidence of the Celtic cult of the head (SZABÓ 2007d, 226).

The particular manipulation of the human body can be observed in the Dacian settlements from the Late Iron Age. In the Târnava Valley, near Sighișoara, on the territory of the settlement on the *Wietenberg* and in its immediate vicinity, on a height located to the north-east, where the presence of a ritual or sacred area has been presumed fragmented or complete child and adult skeletons were unearthed in pits with different functions (RUSTOIU 1997, 71–76; RUSTOIU 2017).

Even though in western Europe built sanctuaries are known already from the 4th century BC, such as the well-known site of Gournay-sur-Aronde in France, dated to the 4th and 2nd century BC (LEJARS 2012, 680), in the western part of the Carpathian Basin the existence of built sanctuaries can only be presumed and dated to the last period of the Late Iron Age. These generally outdoor sanctuaries were situated frequently on the edge of a settlement, on the boundary of the inhabited space marking the limit between the two worlds. These were frequently separated from the ‘everyday’ landscape by a ditch.

In themselves the ditches located inside the settlements or on their borders could delimit numerous landscape elements or various living spaces: these could separate the fields from the arable lands, the limits of properties, agricultural units or pens; they could serve as boundary signs between the sacral and the profane space; or represent a symbolic landscape element between the world of the dead and the living; an element signaling the place of banquets etc. (BUCHSENSCHUTZ 2000, 7). On the territory of the cemeteries (Viștea, Gâmbaș and Szeged) the closed or partially opened ditch systems lets one conclude that certain communities considered important to define a sacred space, which even though was connected to the world of the dead still needed to be separated, assigned and delimited.

The spring-sanctuary from Pákozd, in the vicinity of the Velence Lake, near a streamlet, was located at a distance of 20 m from the source and it was formed by a system of stake holes, pits and ditches (PETRES 1972, 365–366, fig. 1–2). The sanctuary used for the presentation of sacrifices can be dated to the 1st century BC and resembles in a number of elements the early La Tène sanctuary from Libenice, in the Czech Republic (RYBOVÁ – SOUDSKÝ 1962). The importance of



Fig. 35. The sacred area on terrace X and XI at Sarmizegetusa (March 2018, S. Berecki).

rivers and estuaries was already highlighted when discussing the siting of cemeteries. The pits that contained the human and animal bones were located inside as well as outside an enclosed area, resembling the ditched graves but smaller in size. The feature with a ditch system from Pilismarót–Basarharc (SZABÓ 2005, 102; SZABÓ 2015, 67) and the complex ditch systems from Alsónyék–Bátaszék (GALLINA ET AL. 2010, 35–41) can be explained according to one of the interpretations with the interior space being a sanctuary that was formed mainly from areas without buildings and pits.

The double head from Badacsony–Lábdi, the statue from Százhalombatta or the stone carving from Prundu Bârgăului used for libation could also have been parts of sanctuaries. Based on the Roman inscription on the Gellért Hill a sanctuary area, and the weapon deposition from Velem-Szentvid indicates as well that in that place a sanctuary or a cultic-ceremonial place could have functioned. In a swampy territory near the oppidum in Szárazd-Regöly a hoard was found which testifies that a holy grove or a spring-sanctuary functioned in that place. In Sárosd, in the vicinity of the cemetery a circular ditch with 20 m diameter was excavated, in its center a burned patch signaled the probable place of a sanctuary (SZABÓ 2005, 102–103).

In conclusion it can be summed up that the reading of the archaeological data reveals in a number of instances details connected to the Late Iron Age rituals, ceremonies, just as the location of these events in the landscape. Based on these it can be concluded that in the belief system of the Celts, in addition to the subjects of the rituals, such as food and drink offerings, human sacrifice, the offering of weapons and other objects, the landscape played an essential, sometimes a mediating role in the act.

The Late Iron Age sacred landscape has two characteristics. One is connected to hiding, concealment, explicit isolation from the everyday routine, characterized by otherness. These places

were situated far away from the settlements, in forests, heights or caves. The other was the sacred space combined in harmony with the everyday space structures which were located inside the settlements or in their vicinity. Their sacred character is highlighted by the actions or the objects connected to it.

The eastern part of the Carpathian Basin at the end of the Late Iron Age shows a very different picture. On the territory of the fortifications and fortified settlements that appeared on the territory of the Dacian Kingdom the temples and sanctuaries played a key place and role. The temples and altars with square or circular ground plan were generally constructed under the fortifications on an artificially created high terrace, sometimes also supported by a stone wall (CRIȘAN 1986, 170–215). The most complex system of these built structures can be seen in Grădiștea de Munte (Gredistye), in the capital, on the terraces X and XI, where a sanctuary was formed from several temples.

Sanctuaries, ceremonial places also functioned on the territory or vicinity of the neighboring fortifications which protected the capital, in Costești–*Cetățuie* and *Blidaru* (Kosztcsd), *Alun–Piatra Roșie*, Căpâlna and Bănița. However, in the case of the more distant centers like in *Craiva–Piatra Craivii* and *Covasna–Cetatea Zânelor* temples were unearthed with similar structure as the ones known from the neighboring areas of the capital (RUSU-PESCARU 2005). This type of monumental architecture is the characteristic of a new period, in which the symbolic use of the landscape with its social role was significantly reinterpreted.

V.

CONTROLLING THE LANDSCAPE. FORTIFIED SETTLEMENTS AND HILLFORTS

In the beginning of the Late Iron Age the economic system of the societies from the end of the Early Iron Age was amended in its content by the newly arrived populations from central Europe – just as the changes that took place in agriculture and animal husbandry both indicate – yet their character remained the same. During the early and middle part of the Late Iron Age, along the middle Danube region and in the Great Hungarian Plain the landscape of the settlements and cemeteries show only small-scale changes, while in the eastern part of the Carpathian Basin the first villages, farmsteads, and farms of the newcomers appeared. The evolution continued undisturbed until the 2nd century BC, when due to several factors different processes occurred in the eastern and western parts of the Carpathian Basin, which from a landscape archaeological point of view resulted in the same: the appearance of fortifications.

In the beginning of the 2nd century BC in the Carpathian Basin (and in the same time in numerous regions of Europe) all the earlier used cemeteries, most probably as a result of ideological changes, were abandoned. At the same time, some of the important centres, like those from Polgár (SZABÓ *ET AL.* 2008) and Sajópetri (SZABÓ 2015, 36) allude to the fact that in the beginning of the 2nd century BC the inhabitants abandoned these settlements in peaceful circumstances.

A consequence of the economic changes and globalization of the 2nd century BC in western and central Europe was the deliberate foundation of fortified settlements, the *oppida* (FICHTL 2000; SZABÓ 2005, 59). In the background of the process, which was earlier attributed to the Cimbri migration and the Roman expansion, actually the influence of the Italo-Celtic environment and the connections with the Hellenistic world can be seen. Urbanization however, was the radical result of the economic and social development that underwent within the communities in various regions (FICHTL 2000, 30–31).

For this period, mainly in southern Transylvania, but sporadically also documented in the Upper Tisza region, a new type of funerary and settlement landscape is documented, which can be connected to the migration from the Balkans of the warrior elite known as the Padea–Panagjurski kolonii group (RUSTOIU 2015b, 27–28). Thus, in the two territories – i.e. the western and eastern part of the Carpathian Basin – different geo-political processes took place. While the transformation in one region ensued as a natural process of economic and social change of the development of the local inhabitants, in the eastern part the fate of the communities was shaped by the new population movements.

From a territorial point of view, the boundary between the two processes can be detected in the Great Hungarian Plain but it does not appear as a strikingly marked line but can be rather approached regionally. In this respect, different types of relationship systems can be inferred in the upper part or in the estuary of the Tisza (ALMÁSSY 2006). According to Strabo (V.5.2) the

eastern boundary of the Boii, who started their migration in the 2nd century BC, was the Tisza. The *oppida* appeared mainly along the line of the Danube while the Dacian fortifications and fortified settlements (*davae*) from Transylvania in the valleys and heights of the Southern and Eastern Carpathians as well as the Apuseni Mountains. In this period, between the two territories only few LT D character settlements are known; these are mostly a reminiscent of an earlier economic system. The relationship between the two territorial units with different systems, most likely formed from tribal alliances, can only be presumed based on the economic connections. The presence of various commodities around the area of the Iron Gates prove that the communities situated along the Danube, neighbouring areas as well as more distant places, were in a strong connection with each other (DRĂGAN 2018, 215).

The transition processes on both territories of the Carpathian Basin, in the cases of the *oppida* and the *davae* can also be hardly defined and outlined. In Transylvania the settlement network of the 2nd century BC is barely known. It can only be estimated that continuity did not exist on any of the settlements (RUSTOIU 2020, 26–28, fig. 8), meaning that all the settlements from the end of the 3rd century and beginning of the 2nd century BC ceased to exist, even those which already in this period could not be specifically connected to the Celts (Pecica, Zalău–Dealul Lupului etc.). The earliest settlements are known from the middle of the 2nd century, the foundation of the settlements in Panic (Szilágypanit) (PUPEZĂ 2012a, 78, 94) or in Sighișoara–Wietenberg (RUSTOIU 1997) can be dated to this period. The first fortifications and *davae*, permanently inhabited by a military and a political leader with a garrison, with a civil settlement nearby (GLODARIU 1983, 72; FLOREA 2011, 16–18), are documented also from this period.

After the middle of the 2nd century BC and especially in the course of the 1st century BC the fortifications and fortified settlements appeared in the earlier uninhabited Orăștie Mountains, Șimleu or Târgu Secuiesc Depressions (in the Olt Valley). In the same time, a significant restructuring took place outside the Carpathian Mountains also detectable in the land use (PUPEZĂ 2012a, 241). The settlement network became denser in the valleys, a process that culminated in the 1st century BC (PUPEZĂ 2012a, 264).

The driving force behind these processes was the mobility of the 2nd century BC, when in the Lower Danube region, the Padea–Panagjurski kolonii group appeared. It was an equestrian warrior population with a heterogeneous culture, whose panoply consisted of sword, spear, shield and curved dagger. On the territory of today's Bulgaria this population buried its dead under burial mounds; to the north from Danube, around the Iron Gates, on the entire territory of Oltenia and a part of Muntenia the deceased were laid to rest in cremation graves in pits or urns. The northernmost finds that can be linked to this population in southwestern Transylvania, in the central part of the Mureș River were unearthed in Mediaș, Craiva–Piatra Craivii, Teleac (Újcsongvaitelep), Blandiana, Tărtăria, Deva (Déva), Hunedoara (Vajdahunyad) and the barrows from Cugir (Kudzsir) and Călan (Kalán), and can be dated earliest to the LT C2 but more to the LT D1 period, to the end of the 2nd century and the beginning of the 1st century BC (RUSTOIU 2015a, 352). The appearance of this ethnically heterogeneous group, which combined mainly Thracian and Celtic cultural elements (SZABÓ 2005, 51) could have meant the end of the Celtic presence in Transylvania and the formation of the Dacian Kingdom (RUSTOIU 2012b, 171–178), and in the same time with this the emergence of the earliest fortifications like Cugir, Costești, Craiva and Tilișca (RUSTOIU 2015a, 352).

Concerning the appearance of the Late Iron Age fortifications, in Transylvania several factors that influenced their formation were presumed, such as: the settlement of the Bastarnae, the expansion of the Roman Empire, the consolidation of the Celts in the middle Danube region, conflicts with the Greek cities near the Black Sea or internal military threat. However, exactly in

the case of Transylvania, in the middle of the 2nd century BC, none of these external or internal military tensions can be detected. That is why it is more probable that the appearance of the fortifications in the hilly and mountain areas was the result of social change (PUPEZĂ 2012a, 255–258), and as such it does not indicate a period of unrest, but rather a symbol of individual or joint prestige. In the light of the archaeological and written sources the Dacian tribes or tribal alliances show a dynamic social picture with moments of expansion and institutionalization, in which the military and sacerdotal layer played a determinant role (FLOREA 2006, 4). As an expression of the hierarchical society, in order to communicate the power ‘horizontally’ and ‘vertically’ as well as to indicate the centre of a controlled tribal area, as a kind of symbolic landscape element did the Dacian fortifications with military character appear.

In the territories outside the Carpathians the fortifications had an earlier tradition, because after the Early Iron Age, in the 4th and 3rd centuries BC, larger (around 50 ha) and smaller fortified settlements and fortifications existed. Generally, in their vicinity open settlements were situated, and the fortifications most probably served as refuge places, since the archaeological layer is thin and the finds are not significant. The majority of these ceased to exist at the middle of the 3rd century BC or the settlement continued without the fortification (MĂNDESCU 2010, 103, 110; PUPEZĂ 2012a, 251). In contrast, in Transylvania starting from the Scythian period fortifications are not known (PUPEZĂ 2012a, 254).

In the Upper Tisza region, in Maramureş (Máramaros) the population movements of the 4th century BC were not that significant. Here the 4th and 2nd century BC fortifications (Belaja Cerkov', Solotvino) continued without interruption even in the last centuries BC, the elements of the former fortifications were rebuilt and in the same time new ones resurfaced, such as the fortification in Onceşti (Váncsfalva). In essence the number of fortifications and settlements was constant and a linear evolution of the communities can be observed without any special demographic changes, i.e. settling or relocation (RUSTOIU 2019a, 424–425).

In the Tisza Valley the pass between the Maramureş Basin and the Great Hungarian Plain from the 1st century BC was controlled by the fortification of Malaya Kopanya (one of the goods was probably the salt from the salt mine near Solotvino). In this place more than 130 coin finds and numerous imported goods were unearthed which suggest long-distance trade. Moreover, workshops functioned here as well masters from the Danube region or ‘trained’ in that area produced ‘Celtic’ and ‘Roman’ types of objects (RUSTOIU 2019a, 427).

In terms of their character, the fortifications from the end of the Transylvanian Late Iron Age can be listed in two groups: fortified hilltop settlements and hillforts. The two types can be found in different places in the landscape and their character also differs, thereby presumably their function and land use are also different (FLOREA 2006, 7). However, in both cases the characteristics of the rugged terrain were fully exploited and the spatial planning necessary for the construction of the fortification system was wisely adapted to it. The character of the fortifications and their technical implementation is significantly distinct. While around the capital the defence works were built mainly from stone, in the other areas the fortifications consisted especially from a ditch, rampart and palisade (PUPEZĂ 2011, 150).

Concerning their origins, they show similarities to the 4th century BC fortifications located to the south from the Balkan Mountains. These aristocratic and royal residences, which encompassed a stone-built residential tower, walls and towers built in a Greek style, had in their vicinity burial mounds and in their extended environment rural settlements (RUSTOIU 2015a, 354). The introduction of this aristocratic landscape in Transylvania can be connected to the Padea–Panagjurski-kolonii group which migrated from the territories south of the Danube towards the north.

Hillforts had fortified acropoleis generally built from worked or bulk stone around the capital or with ditch, rampart and palisade in other areas. Under these residential terraces were arranged. Such fortifications were identified in the surroundings of the Dacian capital – Grădiştea de Munte, Băniţa, Costeşti–*Cetăţuie*, Costeşti–*Blidaru* and Piatra Roşie –, on the boundary of its surroundings – Ardeu, Cucuiş, Cugir, Căpâlna, Tilişca etc. – or in other geographical regions – Covasna, Craiva, Lunca (Lunkány), Marca (Márkaszék), Sărăţel (Szeretfalva) and Şimleu Silvaniei–*Cetate* (PUPEZĂ 2012a, 255). Among these some were noble residences or warrior garrisons which assured the protection of the larger neighbouring centres. The hillforts housed permanent troops and judging from their size and structure they were not refuge forts which served for defence (GLODARIU 1983, 118–119) but the landscape expression of a hierarchical society.

In the same time, the fortified hilltop settlements, where permanent population and multi-layered activities took place, the entire or almost the entire inhabited part was surrounded by rampart, ditch and palisade (POP 2006a, 52; PUPEZĂ 2012a, 256). In the vicinity of the central fortified settlements open districts existed without any defensive structures but where frequently intensive craft activity took place. The following sites can be enlisted here: in the lower Mureş region Pecica–*Şanţul Mare* and Săvârşin (Soborsin), in central Transylvania Arpaşu (Árpás), Bernadea (Bernád) and Sighişoara, in the Körös region Tăşad (Tasádfő) or in the Şimleului Depression Moigrad–*Măgură* (Mojgrád) and Şimleul Silvaniei–*Observator* (POP 2006a, 46–47; POP 2009, 26–33; PUPEZĂ 2012a, 255).

The difference of these ‘Zemplín type agglomerations’ (COLLIS 1972, 314) can be traced back to the different structure of the social and power system (FLOREA 2006, 7) as well as military strategy. In fact, contrary to the previous assumption, the phenomenon is not connected to the western type of settlement structures but rather to the Lower Danube Basin and especially the Eastern Carpathians, where these type of agglomerations are common (Gomolava, Židovar, Socol, Răcăţau, Brad, Cărlomăneşti, Solotvino, etc.).

Concerning their geographical location, the Late Iron Age hillforts were located on a height in a hilly or a mountainous region, but in a number of cases it could be noted that these were situated not necessarily on the highest point. One of their general characteristics was that visibility and access to a lowland was more important, which in the same time quite frequently resulted in a vulnerable position from a tactical point of view, for example as in the case of Sarmizegetusa Regia (PUPEZĂ 2012a, 256, 258). These hillforts were established in places which had strategic significance from an economic and military perspective and these characteristics were similarly recognized in earlier and later periods as well, since a high number of Late Iron Age hillforts have Early Iron Age antecedents but not continuous use, and the fortifications from the end of the Iron Age encompass a much smaller territory (POP 2009, 31; PUPEZĂ 2012a, 258). As also inferred from their location, their military character is unquestionable (PUPEZĂ 2012a, 256), but their further role is quite varied; some were involved in intensive commerce and others had numerous documented temples and altars, but these constructions were found in almost every hillfort or right in their vicinity.

In terms of territorial distribution, compared to the earlier periods the Transylvanian Late Iron Age fortifications are located in a totally different landscape, in mountain areas and pre-montane depressions, almost surrounding the whole Transylvanian Basin, while on the central plateau areas only few hillforts and fortified hilltop settlements are known.

In the northern part of the Dacian Kingdom, in the Şimleu Depression, in the basin of the Crasna (Kraszna) and Barcău (Berettyó) Rivers a tribal alliance had functioned with a defensive microsystem on the Măgura Şimleului Hill with eight hillforts and three fortified hilltop settlements (POP 2006b, 69; elsewhere seven hillforts and two fortified settlements: POP 2006a,

13, 53) with a centre in Șimleul Silvaniei–*Observator* at the end of the 2nd century and 1st century BC (POP 2009, 31), and later possibly in Șimleul Silvaniei–*Cetate* (POP 2006b, 87, pl. 7; FLOREA 2011, 103–106). This hillfort, sited on a 597 m height had a complex defensive system and structure, it was defended by multiple, contemporary defences. The defensive system of the acropolis can be considered of military character but the various parts of the town and districts all possessed a separate fortification system (POP 2006a, 51). A significant number of Early Iron Age fortification elements were reused during the restructuring and construction of the Late Iron Age hillfort (POP 2006b, 86). Even though buildings similar to the sanctuaries and temples that functioned near the hillforts in the close-by area of the kingdom's capital are not known from this region the various ritual manifestations, the traces of which (i.e. ritual deposits) were observed in Moigrad–*Măgura* and dated to the 2nd and 1st century BC (POP 2006a, 48; POP 2009, 28, 49) provide insight into the religious life of the community that used this space.

The region had a geo-political and military strategic importance since the passes provided entrance to northern Transylvania even though the territory was quite modest in minerals. The economic and political power of the tribal alliance is also represented by the fact that after the surrounding area of the capital, this is the second territory from where the highest number of hoards come from (POP – PUPEZĂ 2006, 192). In Șimleu Silvaniei–*Cetate* a mint functioned as well, where Roman Republican counterfeits were minted (POP 2006a, 55). The hillforts around Șimleul Silvaniei most certainly protected the territory of Transylvania against possible attacks coming from the Barcău Valley (POP 2006a, 66). A hillfort with exclusively military character is known only from Marca (POP 2009, 49).

Another micro-region with specific circumstances was the Olt Valley (CRIȘAN 2000; FLOREA 2011, 99–102), the Țara Bârsei (Barcaság): Augustin–*Tipia Ormenișului*, Racoș–*Piatra Detunată*; the Trei Scaune Basin: Covasna–*Cetatea Zânelor* and the Ciuc Basin: Jigodin I–IV (Zsögöd), Racu–*Cetatea Păgânilor* (Csíkrákos), Racu–*Dealul Bogat*. Despite the harsh climate and the difficult terrain in these intramountain depressions, similarly to the earlier and later periods, the mountain road system stretching beyond the Carpathians had a significant role, and thus to ensure the economic and military strategic points. Therefore, it is not surprising that on the place of the Late Iron Age hillforts in the Copper Age or Bronze Age similarly fortifications were erected and a number of medieval fortifications were also raised on these strategic points.

In this region, probably one of the most important hillforts of the Early Iron Age as well as in the Middle Ages was the Covasna–*Cetatea Zânelor* hillfort, situated at a height of 960 m. The walls, generally constructed from unworked or barely worked stones surrounded the territory of six terraces and a triangular-shaped, artificially flattened acropolis, where workshops and temples functioned. At the meeting point of the protection walls of the II and III terraces a tower was erected, and two additional ones are presumed. The Late Iron Age hillfort was probably constructed at the end of the 2nd century BC but was destroyed in the 1st century BC and later it was again rebuilt (CRIȘAN ET AL. 2016).

Slightly to the north, in the Ciuc Basin surrounded by mountains, along the Olt River on the border of Jigodin three Late Iron Age fortification with stone walls, and a fourth with ditch and a rampart is documented, which during the 1st century BC and 1st century AD functioned in the same time: Jigodin–*Câmpul Morii* (I), Jigodin–*Dealul Cetății* (II), Jigodin–*Dealul Cetății Mici* (III), and Jigodin IV. On the other side, on the left bank of the Olt, a fifth hillfort was situated in the Leliceni–*Muntele de Piatră* (Csíkszentlélek) peak. Contrary to the earlier presumptions, which suggested that Jigodin I was the most important however, it seems that the central fort was Jigodin III (Fig. 36), while based on the dimensions Jigodin II and IV had a predominantly military function, probably to guard the residential centres (ȘTEFAN ET AL. 2015).



Fig. 36. Jigodin–Dealul Cetății Mici (June 2010, Z. Czajlik)

The privileged status of the regional power centres which formed in the Șimleu Depression and the Olt Valley as well as their certain degree of autonomy were triggered by long-distance trade, the military protection of import and the communication routes. Due to these they could become micro-regional production, manufacturing and commercial centres, almost like the capital (FLOREA 2006, 7; PUPEZĂ 2012a, 60).

The most well-known hillfort from the Transylvanian Basin can be found in the south-east of the Apuseni Mountains, in the Trascău Mountains (Torockói-hegység) at an altitude of 1083 m, at Craiva–*Piatra Craivii* (MOGA 1981), which presumably was one of the most prestigious and powerful centres in the region after the capital (Fig. 37). On this limestone massif already in the Copper and Bronze Age, then after the Iron Age also in the Middle Ages fortifications were successively raised. Its importance in the Iron Age is also suggested by the construction technique similar to the *opus Africanum* used for the walls of the fortification measuring only 67 × 36 m, which even though resembles the techniques and materials used in the surrounding region of the Dacian capital, it still represents a unique solution. The settlement situated at the foot of the cliff and the earliest phase of the family burial place can both be dated to the 2nd century BC (RUSTOIU 2015a, 360), but the hillfort itself was erected most likely during the 1st century BC (FLOREA 2011, 90). The prominent role and economy of the fortification can probably be connected to the availability of raw materials from the Apuseni Mountains and the function of the Mureș River as a commercial and communication route, which can be found at a distance of 15 km from the hillfort and which can be well-seen from it. The finds discovered in the fortified area and the terraces prove that long-distance trade was practiced.

The most well-researched fortified settlement in the Transylvanian Basin can be found in Sighișoara–*Wietenberg* (Fig. 38). The Dacian settlement located on a high promontory at



Fig. 37. Craiva–Piatra Craivii, hillfort (March 2018, S. Berecki).



Fig. 38. Sighișoara–Wietenberg, fortified settlement (July 2016, Z. Czalik).



Fig. 39. The hillforts around the Dacian capital.

approximately 30 m above the valley of the Târnava Mare River extended on the upper plateau of the hill as well as on an artificially arranged terrace on the western slope. The rugged terrain and the meanders of the river do not provide a long-distance visibility as in the case of other fortified settlements from the late La Tène, still, the position of the hill provides control over the traffic on the Târnava Mare River. The upper plateau was fortified with a ditch, rampart and palisade, and on three sides was also assured by the steep slopes offering natural defence. Certain archaeological features, observed in almost every Late Iron Age fort that indicate various rituals were identified in the settlement but also outside of it (RUSTOIU 1997).

The capital of the Dacian Kingdom and its vicinity was formed from a well-built fort system, which today rightfully is part of the world heritage (Fig. 39). This hillfort system located in the Orăștiei Mountains had a key strategic and military role, since they safeguarded Sarmizegetusa Regia, the capital also mentioned in the Geography of Ptolemy (GLODARIU 1983, 118; FLOREA 2011, 153–159). Fortresses were part of a coherent system meant to organize and control the communities and the surrounding landscape (EGRI 2019, 122). The territory and the possibilities to camp soldiers in these hillforts were quite limited, most of them allude to centres which housed the leading aristocracy, the role of which was reevaluated especially in the middle of the 1st century BC, when the capital was moved to Sarmizegetusa Regia. In this period, it was observed that in a number of cases the hillforts that formed a protection ring, were fortified, rebuilt, extended, provided with terraces, and the residential towers specific to aristocracy also appeared. These are all the traces of the social and political rearrangements that took place in the middle of the 1st century BC (FLOREA 2011, 109–113) and are also detectable in the landscape, most probably linked to the reign of Burebista, and were the results of a new political order and social restructuring.

The hillforts located at a larger distance but still in a strong connection with the capital and its immediate surroundings were mainly built in the 1st century BC. The hillfort from Tilișca-Cățănaș (Fig. 40) situated at a height of 712 m and at a distance of 45 km to the north-east from the capital can be regarded an exception (LUPU 1989). The hillfort was raised on the place of an Early Iron Age fortification. The Late Iron Age hillfort was most likely a centre of a tribe from the middle/end of the 2nd century BC, where different workshops and even a mint had functioned. The hillfort lost its autonomy during the 1st century BC (LUPU 1989, 104; FLOREA 2011, 91). In this period the hillfort went through several important changes, two quasi-concentric defence works were erected which separated the inner space into a lower and upper fort. In the upper part, in the residence of the aristocracy, the residential towers with a worked stone foundation and raw brick walls were constructed based on the examples from around the capital. Since stone was a shortage in this region it seems likely that the material was transported from other areas. The function of the natural and artificially created terraces situated under the fort is varied just as their dating. Some of these were inhabited already in the Early Iron Age. From the 23 terraces some were neighbourhoods, others served as a support for the road leading to the hillfort, and some of the terraces were left empty. The 1st and 2nd terraces can be linked to the quarrying of the materials which were needed for the defence works of the fort. These terraces were uninhabited, though on the 2nd terrace a 1 m deep and 5.5 m diameter cistern was discovered (LUPU 1989, 27–33).

Somewhat closer, at a distance of 30 km to the north-east from the capital, in the valley of the Sebeș River, at a height of 610 m the fort of Căpâlna-Dealul Cetății (Fig. 41) can be found, with a defensive system consisting of a ditch and two earthen ramparts. In the upper fort a residential tower was discovered, the lowest level of which was made of carved stones and the upper floor from bricks. The main gate of the fortress, a tower built from stones, was on the south-eastern side of the enclosure, while a second entrance was on the north-eastern side. On the southern edge of the plateau the foundation of a wooden watchtower was cut into the rocks (GLODARIU – MOGA 1989).

Perhaps the archaeologically least known hillfort from the surrounding areas of the capital is the fort from Bănița-Dealul Bolii (Fig. 42) located at a distance of 20 km to the south from Sarmizegetusa Regia, at a height of 904 m, on a high cliff top. The fortification can be dated largely to the 1st century BC, while the settlement situated on the two terraces at the foot of the cliff can be perhaps slightly earlier (FLOREA 2011, 91–92). The fort can be found along the communication artery in the Jiu (Zsil) Valley between the Petroșani (Petrozsény) and Hațeg Basins. Given the small size of the fort it probably had a commercial role than a military function but its strategic importance was recognized also in the Middle Ages. The fort was constructed on top of the steep cliffs from worked stone in the *murus dacicus* technique and it could be approached only from the north. A monumental gate can be found on the north-eastern part of the walls which could be reached on limestone steps and bordered by andesite railings. The upper plateau is formed from three terraces in steps supported by walls and on the northern slope two other terraces were located. Passing through the gate one would arrive on the first, uninhabited terrace, then on the next, central terrace a wooden residential tower was unearthed with a rectangular ground plan surrounded by a stone wall. Above this the man-made terrace of the acropolis can be found, which was again enclosed by a wall. At the foot of the hill a barely researched settlement was also identified (FLOCA 1966).

The hillfort of Ardeu-Cetățuie (Fig. 43) built in the 1st century BC can be found at a distance of 45 km to the north-northeast from the capital and at 17 km from the Mureș Valley, on a limestone hill, in the Ardeu Valley which connects the Apuseni Mountains to the Mureș Valley



Fig. 40. Tilișca (March 2018, S. Berecki).



Fig. 41. Căpâlna (March 2018, S. Berecki).



Fig. 42. Bănița (March 2018, S. Berecki).

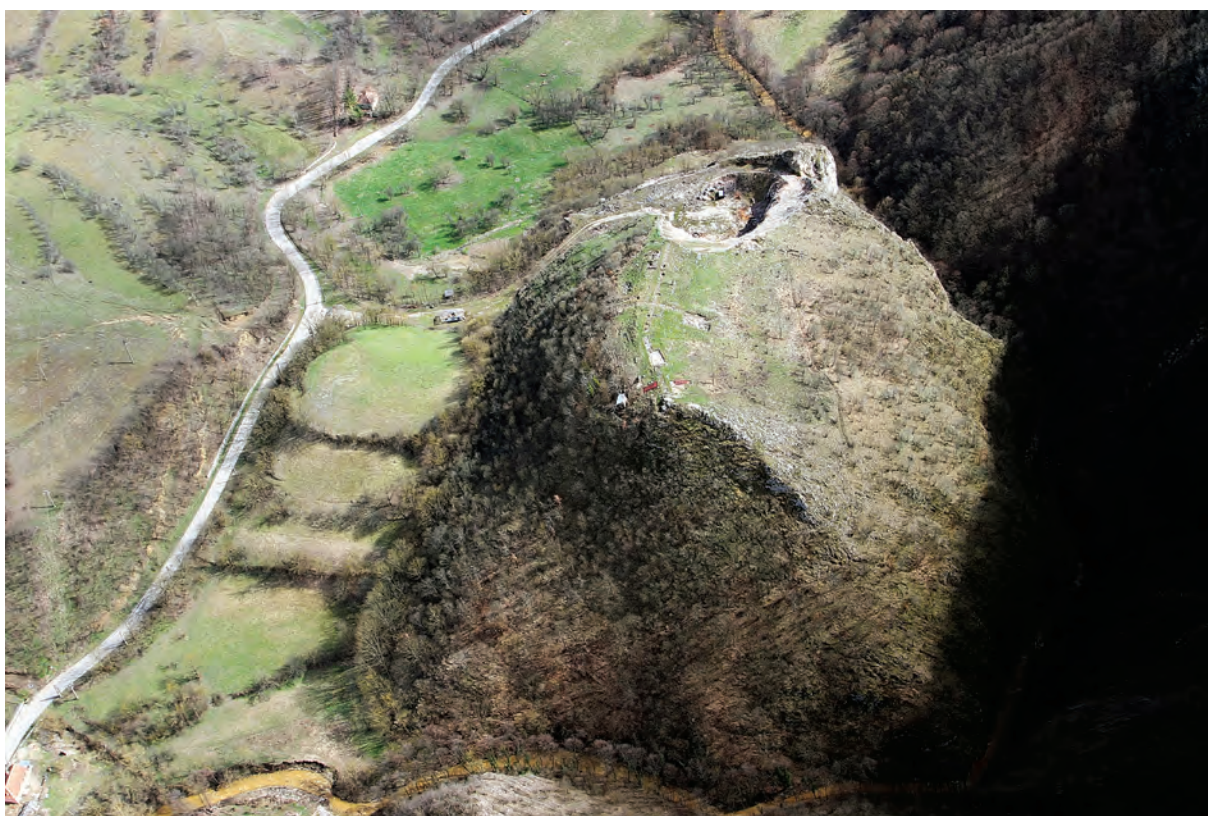


Fig. 43. Ardeu (March 2018, S. Berecki).

and then to the Dacian capital. The walls of the hillfort were constructed from local bulk stone, earth and palisade. In the most dominant position in the upper plateau, in the northern part of the upper ridge, on an artificially levelled platform the residential tower, the noble residence was erected. The lower level walls were built from worked stone similar to those used at the forts in the Orăştie Mountains. Opposite to this, in the other part of the plateau further buildings that can be connected to the entourage of the nobles were discovered. The civilian settlement can be found at the foot of the hill, to the south. In the vicinity of the hillfort, on a low plateau right under the enclosure wall a workshop had functioned which produced metal (iron and bronze) and bone objects (FERENCZ 2014; FERENCZ – CĂSTĂIAN 2019). The construction of the fort can be most probably connected to the extraction and transport of the metal deposits from the Apuseni Mountains, since the control of the access to metal ores was necessary for establishing regional power, like in the case of the hillforts from the Olt River's Valley, or a supra regional central authority, like the one from the Orăştie Mountains.

The hillfort from Cugir–*Dealul Cetăţii* (Fig. 44) is located at a distance of 20 km to the north from the Dacian capital and to 14 km from the Mureş Valley, in the Cugir Valley, on the place of a former Bronze Age fortification at a height of 495 m. Its fortification elements consist of a rampart and a palisade which surrounded a levelled artificial plateau. The hillfort had good visibility until the Mureş Valley and from the south it was protected by the heights of the Şureanu Mountains. Under the fortification, on the lower terraces and further away in the valley traces of settlements and living quarters were documented. On the relatively steep western slope, close to the precinct of the fortress and the access road, four cremation graves were investigated (RUSTOIU 2015a; RUSTOIU – BERECKI 2018, fig. 9–10).

The archaeologically barely researched hillfort of Cucuiş–*Dealul Golu* (Kukuis) can be found at a distance of 15 km NW from Sarmizegetusa, in the Cucuiş Valley, tributary of the Sibişel River, on a 441 m high hill. The dimensions of the upper plateau are 94 × 25 m. As in the case of Cugir, the fortification elements consists of an approx. 90 m long rampart with palisade (IAROSLAUSCHI – ROŞU 1977, 84).

The core of the Dacian Kingdom was formed by the capital and three hillforts located in its close proximity. The territory now covered by forest at the turn of our period, in the second half of the 1st century BC and the 1st century AD, had an entirely different demographic landscape, since on the territory between Costeşti–*Cetăţuie*, Costeşti–*Blidaru*, and Alun–*Piatra Roşie* almost every hill was inhabited (MATEESCU 2012, 19).

The fort from Alun–*Piatra Roşie* (Fig. 45) can be found at a distance of 13 km to the west from the capital at an altitude of 831 m on a reddish rocky massive, which was artificially levelled. The fort protected naturally by steep abyss on its western and southern side was enclosed by two walls, one of which was constructed with the *murus dacicus* technique, and the other from plain bulk stone. The upper rectangular-shaped wall connected five (but maybe only four) towers. In a later period one part of the northern wall was dismantled and in the southern part a longer part of the wall was possibly never built or perhaps it was demolished. The entrance was through the north-eastern tower to which a 2.50 m wide limestone staircase with railing led the way, and in the upper plateau branched and continued to an apsidal building. The hillfort also had a 2 m diameter wide cistern cut into the stone. To the north from the upper fort the cylindrical limestone plinths were found from a temple with rectangular ground plan, and the apsidal plan building on the 1st terrace probably functioned as a temple or a cultic place (PEŢAN 2019; PEŢAN – SÎRBU 2020).

The hillfort in Costeşti–*Cetăţuie* (Fig. 46) can be found at an altitude of 561 m, at a distance of 13 km to the north-west from the capital, with good visibility down to the Mureş Valley.

The upper terrace is 160 m long and it can be accessed from the southern and eastern slopes. Historiography credits the fort to the seat of Burebista's reign, and it cannot be excluded that the neighbouring forts were modelled after it. In the first fortification phase a rampart surrounded the fort, and in the same period the lower terrace was also enclosed with a rampart and a palisade. In the second phase two residential towers were erected in the upper terrace, the lower level of which were made from worked stone and the upper level from raw bricks, with a roof made of tiles. A monumental stair led up to one of the residential towers. In the same timeframe on the lower terraces guard towers were built and on the four man-made terraces four temples with rectangular ground plan were also constructed. In the same phase the hillfort was enclosed with a stone wall section by section. The third rampart fortification could have been built in the time of the first Dacian wars (BODÓ 2012, 98).

The fort in Costești–Blidaru (Fig. 47) can be found at an altitude of 705 m, at a distance of just 1 km from the fortress in Costești–Dealul Cetățuie, with good visibility to the Mureș Valley and Sarmizegetusa Regia. It was probably built after the reign of Burebista. In order to erect the fortification, the top of the projection was levelled and extended. In the first phase, on the eastern part of the plateau a quadrangular precinct was built with four rectangular towers situated in each corner. A rectangular residential tower with sides measuring 7.60 m and 2 m thick walls was raised in the centre of the precinct. Another rectangular tower was constructed isolated in the south-western part during the same phase. A new precinct, which incorporated the older fortification and the isolated tower, was built in the second phase (RUSTOIU 2012c). The barracks of the garrison were made of wood. In the close-by area of the hillfort two temples with rectangular ground plan had functioned.

The capital of the Dacian Kingdom built in the 1st century BC which gained more significance and became the capital in the second half of the same century was Sarmizegetusa Regia (Fig. 48). The settlement lies at an altitude of 1000 m, in a remote place, far away from the Mureș Valley, in a region with unfriendly climate, where earlier communities did not venture, but in the Dacian period was densely populated. The isolated and remote location of the settlement as well as its structure indicates that the religious character of the place played an important role right from its foundation (FLOREA 2006, 7; FLOREA 2011, 149–151; MATEESCU 2012, 17). The heyday of the town can be dated to the second half of the 1st century AD. The 4.5 km long town of Sarmizegetusa Regia which extends onto 260 terraces is composed from three large districts. Some of the inhabited sectors were connected by stone paved main roads and paths. The approximately 10.000 m² area fort was enclosed by a worked limestone wall, which in the early years after the Roman conquest was partially restructured by the Romans. The interior structure of the Dacian period fort cannot be reconstructed because of the later Roman interventions. To the east from the fort, a road paved with limestone slabs leads to the artificially created, huge terraces on which two circular- and five rectangular-shaped temples built from limestone and andesite formed the sanctuary district. To the west from the fort and to the east from the sanctuaries, on additional artificially created terraces the western and eastern civilian settlement can be found with houses of complex ground plan and rich inventory, some of them were even storey houses. Besides these, manufacturing workshops and mints also functioned in this area.

In contrast to the scattered villages and farmstead-like settlements of the earlier period the inner structure of the Late Iron Age Dacian hillforts became more organized (PUPEZĂ 2012a, 249), even though their degree and character cannot be defined (POP 2006a, 48). On the place of the hillforts and fortified settlements founded in the Iron Age significant landscaping works were done. The environment was intensively shaped by the communities according to their needs through constructing terraces, roads and fortifications. In those places, where earlier



Fig. 44. Cugir (March 2018, S. Berecki).



Fig. 45. Alun-Piatra Roșie (March 2018, S. Berecki).



Fig. 46. Costești–Cetățuie (March 2018, S. Berecki).



Fig. 47. Costești–Blidaru (March 2018, S. Berecki).



Fig. 48. Sarmizegetusa Regia (March 2018, S. Berecki).

fortifications stood their construction elements were frequently reused, shaping and supplementing those according to the needs of the new community. In the case of the hillfort in Șimleu Silvaniei–*Cetate* on one of the terraces altogether seven landscaping works were observed; here the goal was to shape the territory according to the new function of the place (POP 2006a, 55).

One of the large-scale landscaping interventions were the development of the defence works. These mainly consisted of a ditch, a rampart and a palisade (POP 2006a, 62–63; POP 2009, 30); stone walls were used especially in the case of the forts situated around the capital for parts of the fortification system, buildings or even for the reinforcement of the terraces (PUPEZĂ 2011).

In the fortified settlement in Sighișoara it was observed that the ditch was formed from three different clay layers. During the second fortification phase the different types of earth which resulted from the landscaping activities done on the plateau of the settlement and from the excavation of the defensive ditch was used to elevate the rampart. Due to the landscaping activities both the Bronze Age and the first Dacian settlement can be reconstructed based only on finds unearthed in secondary position. The height between the base of the ditch and the top of the rampart was 8.5 m. In places, where the construction of a ditch was not necessary because the slope was enough the palisade was built on the edge of the plateau (RUSTOIU 1997, 62–64, 122).

A common characteristic of the hillforts raised around the capital was the application of the construction technique for the defensive walls called *murus dacicus* which was a combination of Hellenistic and local methods. Thus, two outer walls were raised from rectangular limestone blocks and connected with transversal wood beams, fixed at their end in special recesses. The space between the two outer walls was filled with a mixture of gravel and stones, and rammed earth. In Sarmizegetusa Regia similar walls were used to fortify the dominant area as well as the terraces of the sanctuaries. Also in Fețele Albe such walls enforced the inhabited terraces, while in Costești–*Cetățuie* only parts of the enclosure wall were built with this technique. In Tilișca–*Dealul Cățanaș* the tower next to the access gate was constructed in this way. Further other elements of the hillforts from Alun–*Piatra Roșie*, Bănița, Căpâlna, or from Costești–*Blidaru* as well as certain buildings from the civilian settlements from around the forts were constructed with this technique (PUPEZĂ 2011, 148–150, with further bibliography).

While the fort from Craiva–*Piatra Craivii* was raised from limestone quarried from the site *Cubelcărie* located only at 6–7 km from the hillfort (IAROSLAVSCHI 1997, 32), in the case of the forts near the capital the necessary building materials, the stone was transported from the fossiliferous calcareous conglomerate from the Călan–*Măgura Călanului* (Fig. 49) just as the petrographic analysis indicated (MÂRZA 1995). This surface quarry of 1 km length, where the quarrying was done along the natural fissures, can be found at a distance of 20 km from Costești and 40 km from Sarmizegetusa Regia, which means that besides quarrying activity the transportation also required significant organization (PUPEZĂ 2012a, 260). According to the petrographic analysis, the andesite used to build the temples in Sarmizegetusa Regia was quarried from the Pietroasa, near Deva (MÂRZA 1997, 822).

While the hillforts represented a community symbol and the joint efforts of the community organized around a fort lord, the residential towers by their nature with one or two storey, in the case of the fort from around the capital with a stone lower level and a raw brick wall upper level or with a wood upper level were the individual, private symbols of well-being of the people exercising power and their entourage. The ground plan of the residential towers was rectangular and their size exceeded that of the dwelling houses, and the finds unearthed in these clearly indicate the prominent social position of their residents (FERENCZ – CĂSTĂIAN 2019, 411). Towers were built inside as well as outside the hillforts and in a number of instances they were connected by walls. Some of the towers had military functions while others served as residential places. The



Fig. 49. The limestone quarry at Măgura Călanului (March 2018, S. Berecki).

towers situated outside the forts were important for observation or signalling, most probably functioned as watch towers, and did not play important role in battle (OLTEAN 2007, 79–80). However, the most important residential towers were erected on the territory of the forts, generally on their highest point, through the levelling of the terrain, frequently by cutting the rock or levelling with stone and clay. In the case of the fortified settlements wealthier buildings were observed which can be considered more like palaces (GLODARIU 1983, 25–29), while the dwelling towers are specific exclusively to the aristocracy from the hillforts around the Dacian capital.

One of the most important coagulation factors within a community is religion and the periodic rituals connected to it. Their prominent role in the Dacian society is reflected by the presence of sanctuaries located near the forts. Their place in the landscape structure of the capital as well as in the shaping of the territory alludes to the close connection between the religious life and the central power. Based on the accounts of the ancient authors the Dacian society was formed from two layers, the aristocracy (*tarabostesei*, *pilleati*, *pilophoroi*) and the common folk (*comati*, *capillati*). The clerics belonged to the first social class (FLOREA 2006, 2, 4–5). A number of indications exist according to which one can presume that the lay and religious power was concentrated in one group from time to time or at least in one centre. In the same time, it can be concluded without a doubt that at the end of the Late Iron Age the two social layers, the military and religious, exercised the power jointly, complementing and supporting each other.

In Sarmizegetusa Regia, on the artificial terraces no. X and XI at the same time several temples and a 7 m diameter altar had functioned (CRIȘAN 1986, 172–196; FLOREA 2011, 117–122; 141–147; MATEESCU 2012, fig. 31; APOSTOL – MATEESCU 2020, fig. 1). The terraces were fortified with walls built with the *murus dacicus* technique and towers. The two terraces were separated by an incredibly high, at least 8 m, double wall. The elevation difference between the approximately

2000 m² wide no. X terrace and the 8000 m² wide no. XI terrace was 7.5 m. The terrace no. XI first was composed of two separate terraces divided by a wall, but with time this was filled up to one level (MATEESCU 2012, 88–89). From the fort on the no. IV terrace to the sanctuary a 4 m wide road paved with limestone led. This road branched near the sanctuary and continued to the large-size temple with a rectangular ground plan on the no. X terrace as well as to the free space covered with limestone slabs on the no. XI terrace, thus covering an elevation difference of 24 m. The XIth terrace was crossed by a drainage channel built from limestone, which at the edge of the terrace opened into the depths. On the same terrace a spring can also be found. In the early phase limestone was used for the construction of the temples, and later andesite. Situated on the XIth terrace the large *tholos*-like round temple is one of the most impressive cultic building complexes of the Late Iron Age Barbarian Europe, consisting of andesite, wood pillars and clay walled buildings (CRIȘAN 1986, 175–176; MATEESCU 2012, 129).

In the immediate vicinity of the Dacian capital, in the settlement situated on a number of terraces in Fețele Albe–Șesul cu Brânză altogether five terraces were built artificially and fortified with the *murus dacicus* technique. On these similar temples as the ones found in Sarmizegetusa Regia were discovered, mainly with circular ground plan, built from limestone and andesite (CRIȘAN 1986, 211; BODÓ 2012, 113). Most of the temples are indicated by various structural elements, usually recovered from secondary position, with the exception of a circular temple with 10.80 m diameter located on terrace no. III. For this building limestone pillars and wooden structure was used, and it was destroyed by a fire. The uniqueness of the Fețele Albe site lies in the fact that it is the only known settlement until today where a sanctuary had functioned, since these are known mainly from the vicinity of forts (PEȚAN – SÎRBU 2020, 150–152).

In the hillfort in Pecica, a 7 m diameter circular temple built on wood pillars, with clay plastered walls and clay floor was located in a central position. Just as on the circular andesite altar from Sarmizegetusa Regia, in the centre of the temple from Pécska a fireplace was identified (CRIȘAN 1986, 212).

Few finds, which were uncovered near Costești–Blidaru on the hill called *Pietroasa lui Solomon* indicate that near this fort at least one rectangular column temple had functioned. The circular limestone column bases found in Alun–Piatra Roșie, Bănița, and Costești–Cetate all suggest that sanctuaries probably functioned in these places as well (CRIȘAN 1986, 196; PEȚAN – SÎRBU 2020). On the terrace no. I in Alun–Piatra Roșie an apsidal building was discovered, which possibly functioned as a religious space (PEȚAN – SÎRBU 2020, 148).

Sanctuaries and temples functioned not only in the capital and its surroundings but also near farther located forts in Transylvania, and even in territories outside the Carpathians (CRIȘAN 1986, 198–200). An important religious centre in south-eastern Transylvania was probably in Augustin (or Racoș) *Tipia Ormenișului*, where outside the walls, on the terraces II, III and V developed in steps due to the slope a temple with a semi-circular apse divided into two spaces was discovered, surrounded by two circular rings. Under the walls of the terrace no. I on an artificially created plateau a rectangular plan temple with column bases built from volcanic tuff, and near this, in the direction of the gate another column temple was raised on limestone base columns. On the upper plateau another temple with a fireplace in its centre was identified with three circular rings (GLODARIU – COSTEA 1991; COSTEA ET AL. 2004; COSTEA 2006, 175–199).

On the middle course of the Mureș River, in Craiva–Piatra Craivii (BERCIU ET AL. 1965; CRIȘAN 1986, 197; PLANTOS 2006) on the 11 mainly semi-circular terraces, measuring from 8 × 20 m to 20 × 115 m, partly living quarters and workshops were excavated, and on three terraces temples (Fig. 50). The Balcony terrace measuring 14 × 60 m cut into the stone had a semi-circular plan. On this terrace a temple functioned which measured 17 × 8 m with a rectangular

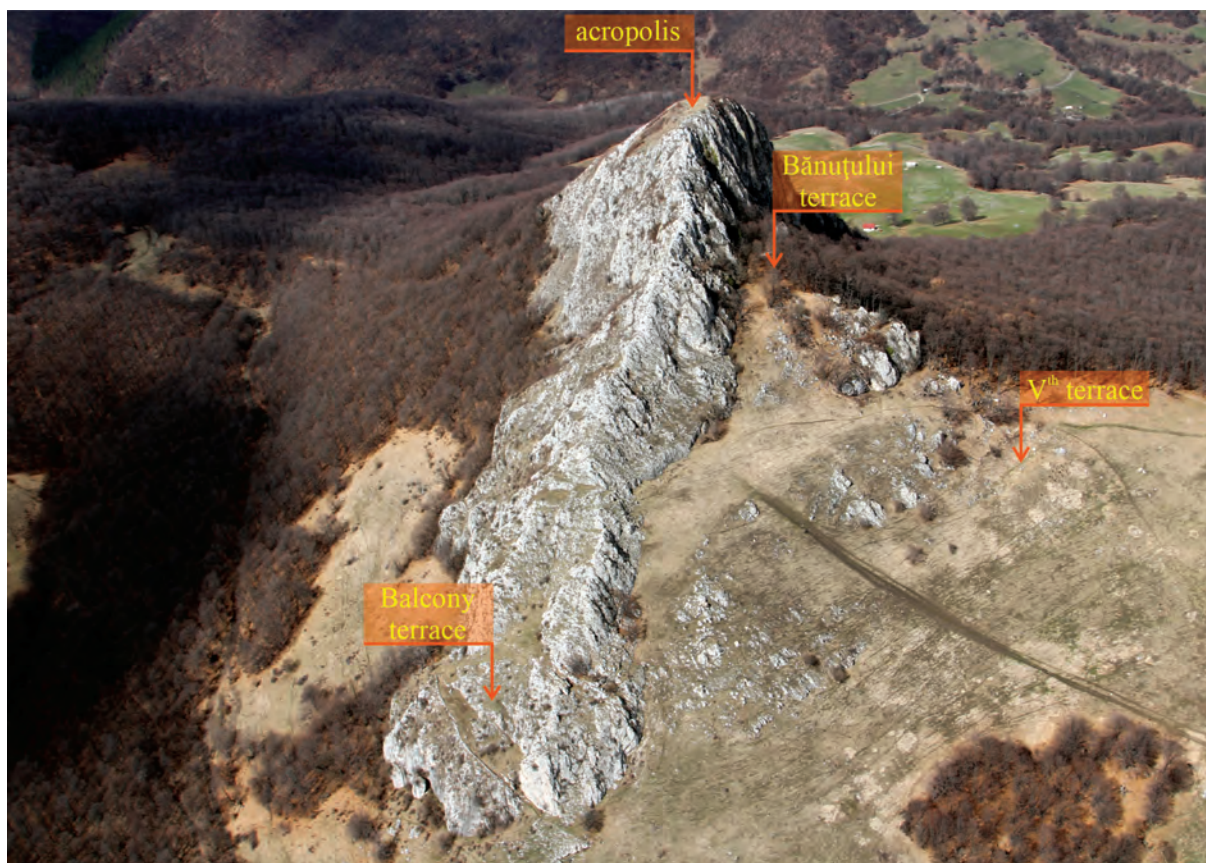


Fig. 50. Terraces with sanctuaries at the Craiva–*Piatra Craivii* hillfort (March 2018, S. Berecki).

ground plan and ten columns placed in four rows. From the similarly rectangular plan temple with wood columns on stone bases located on the Bănuțului terrace pottery, metal objects, and faunal remains were unearthed. The Vth terrace probably had a more complex purpose, here on a surface of 31.5×11.5 m, one rectangular plan ensemble with seven rows of columns and two circular plan buildings from unworked stone were discovered, these were the annexes of a rectangular sanctuary. On this plateau numerous 'cultic' pits as well as the remains of a smelting blast furnace for iron ore and a stone workshop were found (CIUTĂ – PLANTOS 2005, 83). Although their chronological relationship cannot be firmly determined from the mixed nature of these features one can conclude that in this fort the religious and economic character of the terraces changed in time according to factors which for now are archaeologically elusive.

It seems that besides the elite, who possessed and sustained the fort, as well as the clergy responsible for religion, a prominent social role was played by craftsmen. The location of the workshops in the landscape, near the forts, in most of the cases on terraces specially built for this purpose lets one believe that the upkeep of at least one workshop had important prestige value for the fort lord. These 'attached' or 'dependent' craftsmen, also mentioned by the antique authors, served the aristocratic leader of the fort (RUSTOIU – BERECKI 2014, 250; RUSTOIU – BERECKI 2019, 132; RUSTOIU – FERENCZ 2019, 67). This is also illustrated by the location of a diversely specialized workshop discovered in Ardeu, right under the fort on an artificial plateau (FERENCZ 2014, fig. 9) or a dwelling house-workshop excavated in Tilișca, situated also on a high terrace with rich inventory similar to the lifestyle of the fort lord (LUPU 1989, 42).

In the capital, besides the everyday necessities of the community the workshops also served the needs of the elite who represented the central power, the presence of mints, goldsmith and

glass workshops etc. all allude to this (FLOREA 2011, 135–139). Among the forts from the vicinity of the capital in Tilișca intensive craftsmanship was documented. The 14 dies found on the terrace no. XX suggest that before the middle of the 1st century BC, before the tribal unification and moving the capital to the Orăștie Mountain, an important tribal centre had functioned in this place (LUPU 1989, 32, 80–85), where a high number of workshops operated. On terrace no. III in the two-room workshops-dwelling house traces of iron processing were identified, and on the terrace no. IV a blacksmith's workshop was found, which was dated to the first phase but was destroyed by the landscaping works from the second phase. On terrace no. V a blacksmith's workshop and a carpenter operated, and on terrace no. VII specific tools allude to the existence of another blacksmith's workshop. The high number of grinders discovered on the terrace no. VI attest workshops or rooms used for the grinding of grains. On the same plateau the existence of a bakery is also presumed (LUPU 1989, 42–43, 49–53, 105). The clay and sandstone moulds found in Bănița prove that a bronze casting workshop also operated in this fort (RUSTOIU 1992; RUSTOIU 1996, 47).

Intensive craftsmanship was also attested around the Dacian centre in north-western Transylvania. In Șimleu Silvaniei–*Cetate* on the prehistoric T2 terrace (rearranged by the Dacians), between the end of the 1st century BC and the beginning of the 2nd century AD, an 18 m long and 5–6 m wide workshop functioned with three reconstruction phases. Inside the workshop three fireplaces, three furnaces and ten pits were excavated. The second phase encompassed also a hoard of 54 Roman denarii. At the end of the second phase the workshop burned down, and a new workshop was constructed with almost similar ground plan as the earlier. This new workshop ended up inside the walls since the newly built fortifications were extended (POP 2006a, 55; POP 2009, 57–58, pl. 10). Workshops operated also in the closely located Șimleul Silvaniei–*Observator*. The curiosity of this site is that the places of craftsmen, the refuse and storage pits were all situated in another sector (POP 2006a, 51–52; POP 2006b, 87).

The hillforts of the Dacian Kingdom are first of all an individual identity symbol: they are the residence of the elite, for their own benefit or as the agents of a higher authority. They are the manifestations of prestige and the status of a social layer, the materialization of the elite's ideology and the imposition of their political, economic, religious and military power (PUPEZĂ 2012a, 258, 423).

The hillforts occupy relatively small territories, they were not built for a numerous army and could not accommodate the inhabitants of the neighbouring settlements. This also indicates that for a society in its largest sense the fort was first of all a symbol of power reflected in the landscape and to a lesser degree a combat element developed by a tribal alliance or a kingdom for protection against an external enemy. This is also indicated by the water management of the forts. Drainage channels built or cut into the stone are quite rare, they are known for example in Sarmizegetusa Regia and in the fortified settlement in Sighișoara, in Augustin–*Tîpia Ormenișului* or in the hillfort in Bănița. In addition to providing drinking water, they also had the role of stabilizing the artificial terraces (PEȚAN 2020, 113). Larger cisterns which were essential during a siege are known from Bănița, Costești–*Cetățuie* (GLODARIU 1983, 37–38; DAICOVICIU ET AL. 1989, 179–180, 182–183), Sarmizegetusa (PEȚAN 2020), Alun–*Piatra Roșie* (BODÓ 2012, 101; PEȚAN – SÎRBU 2020, 147) and Tilișca (LUPU 1989, 27). In Costești–*Blidaru*, because the place where the fortification was located was higher than the spring, the 4 m deep cistern was built outside the walls (GLODARIU 1983, 37).

Thus, the hillforts do not seem to be accessible to the common folk, due to their functionality and function the fort lord did not use these together with them but all that a hillfort assured and represented as a lifestyle was available as a symbol only for a smaller group of people, few privileged could identify directly themselves with it.

Despite of this or perhaps even with all this combined the hillforts constituted also a collective symbol, being assumed as a manifestation of identity by the whole community subordinated to the elite in their relationship to the neighbouring communities. Accordingly, in addition to the fact that their strategic function demanded to visually dominate and oversee a given territory, it was equally important for the hillforts to be visible for those living in the valley or those passing through a valley, since their identity, even though as subjects, was connected to that space and landscape element.

Hence, the Dacian hillforts also constitute an ideological message as a means of definition of power. The fort, as a landscape element and as the sum of architectural and technical solutions defined itself towards other power centres as well and not only towards its subjects. The most demanding architectural executions can be found in the neighbouring area of the Dacian capital, combining also Greek and Roman elements (PUPEZĂ 2011, 152; PUPEZĂ 2012b, 83–84). In the case of those located at the periphery, their symbolic presence in the landscape was similarly important but in their execution functionality received more attention than monumentality.

Since even the highest social strata, the elite was heterogeneous and multipolar the aristocracy was in a permanent competition. A good example for this is the political situation which occurred after the dissolution of the unitary kingdom or tribal alliance created by Burebista, in the circumstances of which a few fortifications were built or rebuilt right in this period of conflicts, after the middle of the 1st century BC (FLOREA 2006, 8).

In a hierarchical society the landscape was vertically organized: those parts of the settlement which were located closer to the acropolis were more important than those situated in the valley. On a macro-regional level, the lords of those hillforts which were located closer to the capital were more influential than those in further situated places (PUPEZĂ 2012a, 260). Perhaps the fragmentation within a community is marked by the double defence system of some of the fortifications, where the upper space belonged to aristocracy and the lower space could have belonged to lesser nobility and other social layers (FLOREA 2011, 91).

The power fragmentation among the elite in the centre and the periphery is reflected not only by the architecture of the forts but also in the use of metals, which was perhaps regulated. It was considered, that gold was the privilege of the supreme social layer, the jewellery and objects made from silver were the attribute of the nobles and clergy, while bronze and especially iron were the metals of the lesser nobility or the common folk (GŁODARIU 2001, 772–773). On the other hand, gold jewellery is known only in the area of the kingdom's capital, arguing for the existence of certain restrictive norms, which governed the use of precious metals (RUSTOIU 2016, 354). In the 1st century BC – 1st century AD Dacian settlement from the Siret valley, east of the Carpathians the ratio between the silver jewellery and the bronze ones is around 1:4, while gold is scarce, reflecting the tendency to imitate the body ornaments of the elites by regular members of the communities (RUSTOIU 2016, 354).

Furthermore, the forts and their immediate vicinity sited on prominent heights and the settlements located on the high plateau formed the centre of the network, while the settlements in the surrounding valleys played the role of a hinterland, these supplied the centres (FLOREA 2011, 162; RUSTOIU 2015a, 361, fig. 9; RUSTOIU – BERECKI 2018, 75, fig. 10). The possession of agricultural lands was a key element in power and status therefore the insurance of security was in the interest of the forts. This interdependence between the various layers of society, generally the aristocracy and the common folk, ensured the functioning of the operating mechanism of the society.

* * *

In central Europe, the settlement structures already went through changes in the 3rd century BC. During the 2nd century BC these changes became radical and general but did not displace the earlier settlement types (FICHTL 2012; SALÁČ 2014, 299). This is also well-described by Cesar, when he separated the three types of settlements of the Gauls: the *oppidum* (town), *vicus* (village), and *aedificium* (farmstead). These processes reached the central part of the Carpathian Basin in the beginning of the 2nd century BC, this was the period when all the LT C cemeteries and most of the settlements were abandoned (SZABÓ 2015, 36). A good example for this is the settlement from Sajópetri, the inhabitants of which probably relocated in the direction of the just developing Bükkszentlászló–Nagysánc (SZABÓ 2015, 60–61).

The birth of the fortified settlements or *oppida* in the Carpathian Basin was also regarded as an indirect effect of the offensive politics of Rome, as a result of which in the beginning of the 2nd century BC the Boii from Cisalpine Gaul, migrated to the territory of later Pannonia (DRDA – RYBOVÁ 1995, 121–123; SZABÓ 2005, 47; SZABÓ 2015, 63).

But certainly the most important factor in the emergence of *oppida* was the internal evolution of the Celtic world (FICHTL 2000, 30–31). Due to this new situation the existing contact network and the political, religious and economic importance of the new centres was reevaluated (FICHTL 2012, 1417). These fortified settlements, agglomeration of settlements with urban character (FICHTL 2012), and concentration of different crafts and workshops in time developed into the administrative economic policy and strategic centre of larger territories (SZABÓ 2015, 63). This is why the macro-regional spatial location of the *oppida* in Transdanubia indicate rather an economic strategic foundation and not exactly a military strategic one (see: CZAJLIK 2018, fig. 12). In the same time, because of their extent the exact spatial structure of the *oppida* is almost impossible to decipher.

The new settlement structure cannot be regarded bipolar, that is the agricultural lands/agrarian villages and the industrialized, urban centres cannot be unequivocally separated, since the *oppida* also incorporated agricultural lands and pastures, and workshops functioned also in villages in order to meet the local needs (DANIELISOVÁ – HAJNALOVÁ 2014; COWLEY ET AL. 2019, 11). However, the workshops which functioned in the *oppida* in the Carpathian Basin supplied large territories. In the production process specialization can be observed, in some towns besides the residential quarters the craftsmen grouped into districts or neighbourhoods, sometimes even in settlements. Yet, the appearance of *oppida* did not bring huge changes in the material culture but brought change especially in the immaterial culture, in the structure between the individuals and the communities. This is why for this period instead of *oppida* culture the designation *oppida* civilization is perhaps more appropriate (SALÁČ 2014).

The vicinity of today's Budapest in this period was densely populated, the Eravisci lived on the right bank of the Danube (MARÁZ 2005, 39). The territory of the Eravisci tribal center in Budapest–Gellérthegy (Fig. 51) was almost entirely incorporated in the 19th and 20th century therefore research could be undertaken only on small, mosaic-like surfaces. The *oppidum* functioned between the second half of the 1st century BC and the middle of the 1st century AD. Its strategic place was given by the high-visibility conditions and the narrowing of the Danube and the potential to create fords. The eastern edge of the *oppidum* was flanked by a steep cliff, and on the northern slope a rampart was constructed, the structure of which is similar to those generally known from late Celtic fortifications. The southern boundary of the settlement could not be identified. In the northern part of the settlement the remains of metal casting workshops were excavated and on the southern slopes besides dwelling houses pottery kilns, storage pits and refuse pits were identified (MARÁZ 2006; 2011, 246–247).



Fig. 51. Budapest–Gellérthegy (after oppida.org, Z. Czajlik).



Fig. 52. Esztergom–Várhegy (after oppida.org, Z. Czajlik).



Fig. 53. Bratislava–*Old Town* (after oppida.org).



Fig. 54. Velem–*Szent Vid* (after oppida.org, Z. Czajlik).

Under the Gellérthegy, in various parts of the modern town traces alluding to the existence of smaller settlements were found, which were situated outside the walls but were under the influence of the *oppidum*. Almost all the large village-like settlements are situated along the Danube (MARÁZ 2011, 246). The most important from these, spread on both sides of the Ördög-árok Stream is the settlement in Budapest–*Tabán*, which functioned in the same time as the *oppidum* in the Gellérthegy (BÓNIS 1969; BARRAL 2000; MARÁZ 2009, 118). This was a real craftsmen colony, numerous pottery workshops (pottery kilns), clay extraction pits, storage pits, and finds indicating metalwork were unearthed (MARÁZ 2005, 40–41, 44). In the same timeframe with the settlement in *Tabán* another pottery production centre functioned further to the north, on the right bank of the Danube in Békásmegyér. The products of this centre show numerous similarities to the *Tabán* products (MARÁZ 2009, 117). To the south from Budapest, the site from Százhalombatta is also considered an *oppidum*-like settlement, but due to the restricted researched surfaces even though certain Late Iron Age contexts were discovered (dwelling house, pit, kiln) the fortified nature of the settlement from this period could not be proven.

In Transdanubia, at the foot of the Visegrád Mountains, on the fringes of the Boii territory, on the bank of the Danube, in Esztergom–*Várhegy* an *oppidum* situated on a height of 156 m was largely destroyed by later landscaping works and constructions (Fig. 52). In the settlements under the fort, on the banks of the Danube, in *Szentgyörgymező–Dunapart*, *Örmény*, and *Széchenyi tér* pottery workshops were discovered (KELEMEN 2012, 517).

After the decline of the centres in Bohemia, the power centre of the Boii tribe shifted to the foreground of the Small Carpathians at *Porta Hungarica*, in the meeting point of the Amber Road and the Danube in the *oppidum* of Bratislava–*Old Town* (Fig. 53), enforced by two further fortifications in Devín (*Dévény*) and on the Braunsberg. The settlement in Bratislava founded in the LT C2 period, at an altitude of 212 m and 76 m above the Danube gained importance at the end of the LT D1b period and the beginning of the LT D2a period, that is approximately in 70 BC. The almost 100 ha wide settlement had a 20 ha acropolis fortified with wood and earth rampart and a stone-faced wall, the suburbs were divided from each other by an unoccupied corridor. It also encompassed satellite settlements, in its districts pottery-making, metallurgy and minting took place. Traces for the processing of precious metals were unearthed in the acropolis. Around the *oppidum*, especially in the marshy areas a number of non-fortified lowland settlements were situated, where craftsman, mainly potters and metallurgists produced goods (VRTEL 2016; ČAMBAL 2019).

In western Transdanubia, on the southern fringe of the Kőszeg–Rohonci Mountains as the eastern foothills of the Alps the *oppidum* of Velem–*Szent Vid* can be found (Fig. 54). The fortified settlement extends on 30 ha and was built on the place of former Neolithic, Copper Age, Bronze Age and Early Iron Age settlements as well as Bronze and Early Iron Age cemeteries. The mountain was used for collecting water in the Roman period, the Huns buried their dead here, and in the Middle Ages it served as a church place, cemetery and earth-and-timber castle. The Late Iron Age town, situated at an altitude of 582 m today is entirely covered by forest. It was built in the first half of the 1st century BC and consisted of three large districts: a suburb, a lower town and an acropolis. The artificial terraces were created in the Late Bronze Age in the period of the Urnfield culture, and two terraces under the acropolis were united in the Late Iron Age. The hillfort and the dwelling terraces were protected by a ditch and rampart constructed from earth and timber, and fortified with stone. Traces indicating the practice of various crafts were also identified, such as metalworking or glass production (GUILLAUMET 2000; ILON 2006; SZABÓ 2015, 65; CZAJLIK 2018, 94).



Fig. 55. Regöly-Sánc (after oppida.org, Z. Czajlik).



Fig. 56. Pécs-Jakabhegy (after GÁTI 2017).



Fig. 57. Bükkszentlászló–Nagysánc (after oppida.org, Z. Czajlik).

Another tribal centre, probably of the Hercuniates, was formed in southern Transdanubia, around Regöly and Szalacska at the end of the 2nd century BC. The existence of this centre is attested by the mint and foundry discovered in Nagyberki–Szalacska, where the equipment of a workshop (six coin dies, fibula and bronze ring moulds, iron tongs, three anvils, numerous hammers, chisels, punches, saws, vessels etc.) and the objects produced there (coins, bronze cauldron, cauldron support chain, iron knife, scythe, iron and bronze brooches and bracelets) were also unearthed (HUNYADY 1957, 48–53). In the close-by area, near the Bronze and Early Iron Age hillforts of Regöly–Sánc (Fig. 55) in the Late Iron Age on the Kapos River probably a port functioned as well (CZAJLIK 2018, 99).

In the Mecsek region, in Pécs–Jakabhegy (Fig. 56) in the Late Iron Age the elements of the Early Iron Age fortification were reused: the rampart was raised with stone and the earth from the landscaping works and on its top a palisade was built. The fragmentary hoard found in the *oppidum* comes from the end of the 2nd century BC and the first third of the next century, and contained coins from Apollonia, Dyrrachium and the Roman Republic. The late phase of the *oppidum* is dated to the end of the 1st century BC by several characteristic objects and jewellery (MARÁZ 2013, 87–88).

Further to the east, on the bank of the Danube, in Bába–Öreghegy a 70 ha, large even in a European context, fortified settlement was identified, which was protected by a double rampart and ditch system. The territory was largely shaped by the terracing of the continuous vine production. The new investigations on the site discovered traces of metalworking (CZAJLIK 2018, 99).

On the territories situated to the east from the line of the Danube an *oppidum* is known near Miskolc on the edge of the Bükk Mountains, at its meeting point with the lowlands, in the region

of the upper Tisza. The elements of the landscaping works and fortifications of the Late Bronze Age and Early Iron Age hillfort in Bükkszentlászló–Nagysánc (Fig. 57) were reused and fortified in the Late Iron Age. The hillfort sited at a height of 450 m could be approached through three gates, from the west, north-west and north-east. The Celtic finds were discovered mainly on the northern and southern terraces, and under the Late Iron Age houses the remains of earlier constructions were frequently identified. These suggest that the Celts reused territories levelled in earlier periods. Numerous characteristic Late Iron Age millstones were uncovered on the site. A hoard found in the 19th century and dated to the period between 110 and 50 BC which consists from 376 pieces of silver coins illustrate the importance of the hillfort. The intensive agricultural works from the modern period heavily disturbed the thin cultural layer (HELLEBRANDT 1992, 37–49).

A different Late Iron Age settlement type is Muchacevo–Galliš-Lovačka site in Zakarpattia Oblast, Ukraine, dated from the LTB2/C1 phase until LT D1 (MIROŠŠAYOVÁ 2012, 1331–1333). The 15 ha site from the 204 m high Galliš and 306 m high Lovačka site was mostly un-systematically researched and severely damaged by ploughing. The question as to whether Galliš-Lovačka should be considered as an oppidum remains debatable (KAZAKEVICH 2015, 25), since most of the finds and features date from the LT B–C period and only a small number of objects can be dated to the LT D. Certainly it was a peripheral production center, coagulation in a single center of ‘industrial’ craft activities in a contact area between the ‘La Tène’ cultural space and the local ‘Thracian’ one, that worked both for the Celtic communities in the plain and for the Dacians in the region. It is important to note that the iron production of the workshops from Mukačevo consists of weapons and elements of military equipment, and also agricultural tools and domestic implements, so the craftsmen supplied consumers belonging to a wider social range (RUSTOIU – BERECKI 2019, 140–141). However, at the end of the middle La Tène period, the evolution of the communities from the eastern Carpathian Basin witnessed a different historical destiny, which did not lead to the development of oppida, like in Transdanubia or Lower Austria.

Near the *oppida* smaller fortified settlements and fortified high points were also situated, the nature of which was entirely different from that of the *oppida*. On the territory of these sites, traces did not reveal any crafts nor long-distance trade or the presence of the elite. Among these one can find Buda–Várhegy, Sopron–Sánchegy or Pomáz–Nagycsikóvár. Given their position in the landscape a military strategic, guard-post role can be presumed, or in other cases it seems that these were agricultural settlements, or perhaps protected the access to raw materials (CZAJLIK 2018, 101).

In the vicinity of the *oppida* in the middle Danube region presumably sanctuaries, cultic places had also functioned (SZABÓ 2005, 84) yet, archaeological excavations unearthed only indirect evidence concerning their existence. The agricultural and woodworking tool hoard from Velem–Szent Vid testify that the place was used to present sacrifice or perhaps as a place for rituals or even sanctuaries (TANKÓ – V. SZABÓ 2018). The sandstone double head from Badacsony–Lábdai and the statue from Százhalombatta were possible parts of a sanctuary. A hoard found in a marshy area somewhere near Százard and Regöly also testifies that in this place a holy grove or a spring sanctuary existed. In the same time, the spring sanctuary from Pákozd dated to the same period could not be connected to any fortified settlement (PETRES 1972, 365–366). In the highest central point of the *oppidum* on the Budapest–Gellérthegy a sanctuary was hypothesized but the archaeological excavations could not prove its existence (MARÁZ 2011, 247).

A common trait of several *oppida* from the Carpathian Basin was a continuous intensive land use (CZAJLIK 2018). The *oppida* from Budapest, Esztergom and Bratislava and their surrounding

territories were constantly used already from the Neolithic, and today almost their entire territory was built-in. In Velem the Late Iron Age hillfort was disturbed by Roman and medieval interventions and constructions, the site of which was later covered by forest. In Báta and Bükkszentlászló the hillfort was irreversibly damaged by the intensive agricultural works.

The *oppidum* characteristic for the western part of the Carpathian Basin and the *davae* from the eastern parts both allude to varying settlement structures in placement, topography, and elements of fortification, as well as through their role played in the environment (FLOREA 2011, 18, 173–175). From a social view point in the case of the *oppida* the driving force lies in the economic development of the communities, while in the case of the appearance of the *davae* the society's leading layer, the military aristocracy and possibly the clergy prevailed. To illustrate this with an example from geometry, while the society of the *oppida* from the point of view of the elite and the common folk was a rectangular or trapezoidal society (FERNÁNDEZ-GÖTZ – LICERRAS-GARRIDO 2019, 195–196, fig. 11.1), the society of the Dacian fortifications was closer to a triangular model of social organization, involving a series of leaders controlling communities and territories of various sizes, some of the visual markers of their authority being the fortresses built on hilltops (EGRI 2019, 121).

From the perspective of the communities that belonged to a fort another decisive difference was, just as it becomes clear from Cesar's description, that in case of danger the *oppidum* could provide safety also for the inhabitants of the close-by, smaller settlements but the Dacian forts could not accommodate the population of the surrounding villages given their reduced dimensions.

Despite the differences the two settlement structures also show some similarities. Although on a different scale, but the involvement of the community in the manipulation of the landscape was approached somewhat similarly. In both fortification types the defence works partly take advantage of the natural topographic locations of the heights, but where it was needed large-scale landscaping works were elaborated through levelling the terrain and building terraces. In the both cases of settlement types, near the hillforts open settlements existed, which were mainly the satellite settlements of the centres but the economic relationship between the centre and periphery was different in the two regions.

The Late Iron Age fortified settlements along the Danube and the hillforts and hillfort settlements in the Carpathians were the results of the radical changes that took place in different areas of the society and in the same time, in both regions happened under peaceful circumstances, through the emergence of certain segments of the society (*oppidum*) or a smaller group/individuals (*dava*). Both carried a strong symbolic character. Through their symbolic nature they also played an important role in the definition of collective identity (FERNÁNDEZ-GÖTZ – LICERRAS-GARRIDO 2019, 204). All this took place in a timeframe, when throughout Europe an exceptional ideological shift and evolution of identity occurred, due to which in a number of regions the burials ended and built sanctuaries, temples and cultic places were raised.

VI.

IMPACT OF IDENTITIES ON THE LANDSCAPE

Any archaeological phenomenon, slow or fast cultural processes or historic events leaves an imprint in the landscape. The traces of everyday activities or ritual actions performed by the communities consciously or randomly shape their environment. In fact, every action of a human life leaves smaller or larger imprints in the surrounding landscape. In the same time, the landscape also has an important role in the evolution and development of a community. This interaction between individuals or communities and the nature is the manifestation of identity in the landscape.

It can be observed that the same community's attitude towards the landscape, over an extended territory, was unitary in many ways, sometimes this relationship was transmitted through generations and guided by sets of rules. This is valid for the assignment of the place of the settlements or cemeteries, the shaping of their structure but also for many aspects of religious life and rituals. The periods of the Early and Late Iron Age were characterized by mobility still, in every aspect of life the presence of the local identity of each community can be noted.

Besides cultural, linguistic, affiliation identities the communities and individuals also possessed place identity, which defined their emotional or functional relation with the environment. The lack of settlement network from the end of the Transylvanian Early Iron Age would indicate that these pseudo-nomadic communities did not possess place identity, but their large number cemeteries suggest the opposite, moreover they established an emotional and cognitive bond with the place, where their dead were buried.

One of the main factors of change in the anthropic landscape was the maximal comfort necessary for everyday life that could be created. For the construction of houses and for the production of tools needed for everyday life wood, clay, stone, iron etc. was needed. To supply the basic needs of the people and for animal husbandry water, pastures, forage and salt was required. Thus, the economic structure of the society and its historic traditions influenced to a large extent the selection and shaping of the living space, while the presence or lack of certain natural sources resulted in the formation of economic relations between communities or their interdependence.

The geographic endowments of a micro-regions could provide advantage in their development towards other surrounding settlements depending on the settlement's economic or military organization. In other cases, the micro-regions could influence the mobility of the communities and thus, could provide continuous opportunities with new communities or perhaps induce barriers. For all these social processes an important and defining medium was the landscape and the environment.

Concerning the land use of the Iron Age communities it was noted that the artificial landscaping works besides practical reasons (proximity to water, proper conditions for agriculture and animal husbandry, defensive factors, such as the peripheral place of workshops compared

to the settlements etc.) was also shaped by the structure of the society and its religious ideology. The societies from the end of the Early Iron Age in the Carpathian Basin followed different organization types according to regions. In the beginning of the Late Iron Age with the spread of the La Tène culture the segmented settlement network based on the system of large families generalized all over the territory of the basin. The internal settlement structure of this network was entirely subordinated the settlement's economic role. The farms located in each other's vicinity formed loose systems and their land use was defined mainly by intensive farming without major pressure on the natural landscape or resources.

A community's identity was mainly defined by its social stratification. While at the end of the Early Iron Age and the early and middle part of the Late Iron Age the elite, the lay or religious aristocracy placed more emphasis on the individual means of visual representation of power (clothing, jewellery and weapons), in the eastern part of the Carpathian Basin, at the end of the Late Iron Age, the symbolic domination of the landscape associated to the earlier ways of representation. As a consequence of social segmentation, it became important for the new leading layer to establish power centres, through which they symbolically also emphasized their rule over the territories. Thus, the fort and the dominions attached to it became the symbol of their identity, that is the anthropic landscape in contrast with earlier periods became the instrument of the expression of power.

At the end of the Late Iron Age, as a result of different development processes the settlement system in the western part of the Carpathian Basin evolved in a different way. In this way, in the same period, under the influence of a number of factors the concept of common identity strengthened in Transdanubia, the symbolic manifestation of which was the appearance of urban-like settlement enclosed with walls, which can be regarded a symbol of the common efforts of a prosperous society, the social cohesion reflected in the landscape.

In the beginning of the Late Iron Age the spatial location of the cemeteries was also regulated by social rules. In places, where this could be researched, it could be observed that the location of the cemeteries follows conscious site selection, the first and most important viewpoint of which was to place the cemeteries at a higher altitude than the settlements. In the same time, the place of the dead and the world of the living was sharply separated in the landscape, since the cemeteries can be found at a significant distance from the settlements.

The sacred character of the cemeteries from the end of the Early Iron Age was passed down in a number of cases to the Late Iron Age. The communities that settled in the Late Iron Age either incorporated the sacred nature of the places assigned in earlier periods or they appointed the location of a sacred space along the lines similar to the communities of the earlier periods. However, the attitude towards a burial place varied according to regions. In the central part of the Carpathian Basin the burial grounds of the new communities encompassed most frequently parts or the entire territory of the cemeteries of earlier communities. In Transylvania in the known cases until today the Celtic cemeteries appeared in the vicinity of the Early Iron Age burial grounds, as a spatial continuation of these. This two-folded attitude towards the land use lies in the direct, personal relationships between the communities (the 'Scythian and Celtic cohabitation' in the Great Hungarian Plain) and in the confrontation of the new communities with the remains of the earlier land use (in Transylvania the direct connection between the two populations is not proven).

The joint analysis of the settlement and cemeteries also sheds light on the fact that the free and armed warriors, the aristocracy of the Late Iron Age society lived in the same settlements with the smallholder peasants. The individual identity of the Iron Age can be deciphered based especially on the funerary inventory of the burials. It is already well-known that the burial

ceremony was organized by the community and not by the deceased. Therefore, the funerary inventory reflects first of all the social opinion of the individual, on which to a certain degree also the deceased had a direct (bequest) or indirect (determined by the lifestyle of the deceased) influence. However, a number of individual elements which were important from a social point of view remain 'hidden', since most of them (craftsmen, merchants, clergy etc.) archaeologically can only rarely or not at all be identified. This is why the funerary inventories provide a picture on certain well-defined layers of the society, determined also from the point of view of the belief system of the afterlife, but cannot shed light on the entire cross-section of the society.

The analysis of the construction of the cemeteries aids the understanding of the social structures. A cemetery is a dynamically shaped social map, the directions of which at the level of the communities are guided by generally accepted sets of rules set forth already at the point of the foundation. To this basis the individual preferences of the given community were also added but the evolution of a cemetery was influenced by the social changes which took place in time. Such a norm was for example the respect of the founding ancestors, the resting place of whom had a well-defined place in the cemetery. The military elite, who defined the life of the communities, also had a role in the cohesion in the structure of the cemeteries, in a number of burial grounds around the graves with weapon inventory the burials of the extended family members were concentrated. In other instances, artificially raised landscape elements defined the graves of certain individuals from the burials of the other members of the community. Such were the ditched and stone-piled graves from the early and middle Late Iron Age across the Carpathian Basin or the burial mounds in Transylvania from the last phase of the Late Iron Age.

At the same time, the landscape played an important role also in the case of the places consecrated to religious life. Besides the written accounts the archaeological find also testify that religious rituals took place in demarcated and individualized (in groves enclosed with ditch or around rivers etc.) open spaces. In the early period of the Late Iron Age the connection with the transcendent, the summoning and influencing of the natural forces, ancestors or gods was not within the reach of all, this is point out by the location of these place in the landscape. However, it was observed that in the early period the landscape invested with sacred attributes was shaped to a small degree or wasn't shaped at all by the communities or by the initiated persons in the rituals connected to the transcendent. Other types of phenomenon took place in the last phase of the Late Iron Age, when in the western and eastern parts of the Carpathian Basin, each part with different developments, the built sanctuaries, altar and temples appeared, also inducing changes to the landscape.

The Iron Age settlements, cemeteries, sacred areas and fortified settlements all carry the traits of the period's identity. The analysis of the relationship between the cultural identity and the archaeological landscape still preserved a number of possibilities. In each period and for every community the definition of the individual and community identity was and is determinative: how do they define themselves and how others see them. Based on the Early and Late Iron Age the chronological development of the land use of the communities shed light on the mobility of populations, the differences and similarities between lifestyle and economic organization, demographic change, geo-political affairs as well as the changes in religious ideology. Overall, the analysis of the identity from a landscape point of view suggests that the apparently homogeneous European Late Iron Age was in many respects heterogeneous, and the remains and traces of this diversity can still be found in the archaeological landscape.

GEOGRAPHICAL AND SETTLEMENT NAMES IN HUNGARIAN

Adăuș Stream (Romania): Adós-patak	Curtuiușeni (Romania): Érkörtvélyes
Aiud (Romania): Nagyenyed	Dârlos (Romania): Darlac
Aiud Stream (Romania): Enyed-patak	Derșida (Romania): Kisderzsida
Alba Iulia (Romania): Gyulafehérvár	Deva (Romania): Déva
Alun (Romania): Alun	Dubník (Slovakia): Csúz
Apahida (Romania): Apahida	Fântânele (Romania): Újós
Ardeu (Romania): Erdőfalva	Feernic Stream (Romania): Fehér-Nyikó-patak
Arpașu (Romania): Árpás	Florești (Romania): Szászfenes
Augustin (Romania): Ágostonfalva	Freidorf (Romania): Szabadfalu
Bajč (Slovakia): Bajcs	Gălăoia (Romania): Galonya
Band (Romania): Mezőbánd	Gâmbaș (Romania): Marosgombás
Barcău River (Romania): Berettyó	Gligorești (Romania): Sósszentmárton
Bănița (Romania): Banica	Goagiu Stream (Romania): Gagy-patak
Bârgău Valley (Romania): Borgói-völgy	Grădiștea de Munte (Romania): Gredistye
Bârgău Mountains (Romania): Borgói-hegység	Hațeg Basin (Romania): Hátszegi-medence
Bernadea (Romania): Bernád	Hațeg (Romania): Hátszeg
Biharia (Romania): Bihar	Holiare (Slovakia): Gellér
Bistrița (Romania): Beszterce	Hunedoara (Romania): Vajdahunyad
Blandiana (Romania): Maroskarna	Ierului Plain (Romania): Érmellék
Brașov (Romania): Brassó	Iernut (Romania): Radnót
Bratei (Romania): Baráthely	Jigodin (Romania): Zsögöd
Bučany (Slovakia): Bucsány	Jiu Valley (Romania): Zsil völgye
Călan (Romania): Kalán	Lancrăm (Romania): Lámkerék
Călimani Mountains (Romania): Kelemen-havasok	Lechința River (Romania): Komlód-patak
Căpâlna (Romania): Sebeskápolna	Leliceni (Romania): Csíkszentlélek
Cepari (Romania): Csépán	Luncani (Romania): Lunkány
Chotín (Slovakia): Hétény	Malé Kosihy (Slovakia): Ipolykiskeszi
Cicir (Romania): Maroscicsér	Maramureș (Romania): Máramaros
Ciuc Basin (Romania): Csíki-medence	Marca (Romania): Márkaszék
Ciumești (Romania): Csomaköz	Mediaș (Romania): Medgyes
Cluj-Napoca (Romania): Kolozsvár	Merești (Romania): Homoródalmás
Costești (Romania): Kosztesd	Moigrad (Romania): Mojgrád
Covasna (Romania): Kovászna	Morești (Romania): Malomfalva
Craiva (Romania): Királypataka	Mukachevo (Ukraine): Munkács
Crasna River (Romania): Kraszna	Mureș River: Maros
Cristuru Secuiesc (Romania): Székelykeresztúr	Nadăș River (Romania): Nádas
Cugir (Romania): Kudzsir	Oarda (Romania): Alsóváradja
Curciu Stream (Romania): Körös-patak	Ohaba Ponor (Romania): Ohábaponor

Olteni (Romania): Oltszem	Șeica Creek (Romania): Selyk-patak
Oncești (Romania): Vánocsfalva	Șeica Mică (Romania): Kisselyk
Orosfaia (Romania): Oroszfája	Șeușa (Romania): Sospatak
Orosia (Romania): Marosoroszi	Șimleul Silvaniei (Romania): Szilágysomlyó
Osijek (Croatia): Eszék	Șureanu Mountains (Romania): Kudzsiri-havasok
Palárikovo (Slovakia): Tótmegyer	Tărian (Romania): Köröstarján
Panic (Romania): Szilágypanit	Tărtăria (Romania): Tatárlaka
Pecica (Romania): Pécska	Tășad (Romania): Tasádfő
Petroșani (Romania): Petrozsény	Târgu Secuiesc (Romania): Kézdivásárhely
Pișcolt (Romania): Piskolt	Târnava River (Romania): Küküllő
Preseľany nad Ipľom (Slovakia): Pereszlény	Târnava Mare River (Romania): Nagyküküllő
Prundu Bârgăului (Romania): Borgópund	Teiuș (Romania): Tövis
Racoș (Romania): Alsórákos	Teleac (Romania): Újcsongvaitelep
Racu (Romania): Csíkrákos	Tilișca (Romania): Tilicske
Râșnov (Romania): Rozsnyó	Tisa River: Tisza
Rupea (Romania): Kőhalom	Toarcla (Romania): Prázsmár
Sălcuța (Romania): Fűzkút	Topolovățu Mare (Romania): Nagytopoly
Sărățel (Romania): Szeretfalva	Trascău Mountains (Romania): Torockói-hegység
Săvârșin (Romania): Soborsin	Trei Scaune Basin (Romania): Háromszék
Sâncrai (Romania): Enyedszentkirály	Trnovec nad Váhom (Slovakia): Tornóc
Sebeș (Romania): Szászsebes	Țara Bârsei (Romania): Barcaság
Sebeș River (Romania): Sebes	Țiptelnic (Romania): Száltelek
Sighișoara (Romania): Segesvár	Vințu de Jos (Romania): Alvinc
Soltvino (Ukraine): Aknaszlatina	Viștea (Romania): Magyarvista
Someș River: Szamos	Vlkanovo (Slovakia): Farkasd
Someșul Mare River (Romania): Nagy-Szamos	Vrșac (Sebia): Versec
Someșul Mic River (Romania): Kis-Szamos	Vurpăr (Romania): Vurpód
Sfântu Gheorghe (Romania): Csapószentgyörgy	Zalău (Romania): Zilah
Strei River (Romania): Sztrigy	Zăuan (Romania): Szilágyzovány

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ABBREVIATIONS

<i>ActaArchHung</i>	Acta Archaeologica Academiae Scientiarum Hungaricae, Budapest
<i>ActaAC</i>	Acta Archaeologica Carpathica, Academia Scientiarum Polona Collegium Cracoviense, Kraków
<i>ActaMB</i>	Acta Musei Brukenthal, Sibiu
<i>ActaMN</i>	Acta Musei Napocensis, Cluj-Napoca
<i>ActaMP</i>	Acta Musei Porolissensis, Zalău
<i>Agria</i>	Agria, Annales Musei Agriensis / Az Egri Múzeum Évkönyve (1982), Eger
<i>AIH</i>	Régészeti Kutatások Magyarországon / Archaeological Investigation in Hungary, Budapest
<i>Alba Regia</i>	Alba Regia, Annales Musei Stephani Regis, Székesfehérvár
<i>AnnalesUV</i>	Annales d'Université "Valahia" Târgoviște. Section d'Archéologie et d'Histoire
<i>Angustia</i>	Angustia, Muzeul Carpaților Răsăriteni, Sfântu Gheorghe
<i>Apulum</i>	Apulum, Acta Musei Apulensis, Alba Iulia
<i>ArchAustr</i>	Archaeologia Austriaca, Wien
<i>ArchBulg</i>	Archaeologia Bulgarica, Sofia
<i>ArchÉrt</i>	Archaeologiai Értesítő, Budapest
<i>ArchKorr</i>	Archäologisches Korrespondenzblatt, Römisch-Germanischen Zentralmuseum Mainz
<i>ArchRoz</i>	Archeologické Rozhledy, Prague
<i>Arrabona</i>	Arrabona, a Győri Múzeum Évkönyve
<i>BB</i>	Bibliotheca Brukenthal, Sibiu
<i>BCȘS</i>	Buletinul Cercurilor Științifice Studentești, Alba Iulia
<i>BerichtRGK</i>	Bericht der Römisch-Germanischen Kommission
<i>BJ</i>	Bonner Jahrbücher
<i>BMM sa</i>	Bibliotheca Musei Marisiensis, series archaeologica, Târgu Mureș / Cluj-Napoca
<i>BudRég</i>	Budapest Régiségei, Budapest
<i>BUFM</i>	Beiträge zur Ur- und Frühgeschichte Mitteleuropas
<i>CMM sa</i>	Catalogi Musei Marisiensis, series archaeologica, Târgu Mureș / Budapest / Cluj-Napoca
<i>ComArchHung</i>	Communicationes Archaeologicae Hungariae, Budapest
<i>Crisia</i>	Crisia, Muzeul Țării Crișurilor, Oradea
<i>Dacia (N. S.)</i>	Dacia, Recherches et découvertes archéologiques en Roumanie, I–XII (1924–1948), București; Nouvelle série (N. S.), Dacia. Revue d'archéologie et d'histoire ancienne, București
<i>DissArch</i>	Dissertationes Archaeologicae, Budapest
<i>DolgKolozsvar (Ú. S.)</i>	Dolgozatok az Erdélyi Nemzeti Múzeum Érem- és Régiségtárából, (új sorozat, 2006–), Kolozsvár
<i>DolgSzeged</i>	Dolgozatok, Szeged
<i>EphemNap</i>	Ephemeris Napocensis, Cluj-Napoca

<i>FolArch</i>	Folia Archeologica, a Magyar Nemzeti Múzeum Évkönyve, Budapest
<i>FÖ</i>	Fundberichte aus Österreich, Wien
<i>Germania</i>	Germania, Frankfurt am Main
<i>HOMÉ</i>	A Herman Ottó Múzeum Évkönyve, Miskolc
<i>JAMÉ</i>	A Nyíregyházi Jósa András Múzeum Évkönyve, Nyíregyháza
<i>JPMÉ</i>	A Janus Pannonius Múzeum Évkönyve, Pécs
<i>Közl Kolozsvár</i>	Közlemények az Erdélyi Nemzeti Múzeum Érem- és Régiségtárából, Cluj
<i>Lucus</i>	Lucus, Acta Centri Lucusiensis, Timișoara
<i>Marisia</i>	Marisia (V-), Studii și Materiale, Târgu Mureș
<i>MCA</i>	Materiale și Cercetări Arheologice, București
<i>MFMÉ</i>	A Móra Ferenc Múzeum Évkönyve, Szeged
<i>MittPK</i>	Mitteilungen der Prähistorischen Kommission, Vienna
<i>ΜΟΜΟΣ</i>	ΜΟΜΟΣ, Őskoros Kutatók Összejövetelének konferenciakötete
<i>RAP</i>	Revue archéologique de Picardie, Amiens
<i>RégFüz</i>	Régészeti Füzetek, Budapest
<i>RevBis</i>	Revista Bistriței, Complexul Județean Muzeal Bistrița-Năsăud
<i>RGZM</i>	Römisch-Germanisches Zentralmuseum, Monographien, Bonn / Mainz
<i>Savaria</i>	Savaria, a Vas Megyei Múzeumok Értesítője, Szombathely
<i>SCIV(A)</i>	Studii și Cercetări de Istorie Veche (și Arheologie 1974-), București
<i>SlovArch</i>	Slovenská Archeológia, Nitra
<i>SSCS</i>	Sydney Series in Celtic Studies, Sydney
<i>StCom Sibiu</i>	Studii și Comunicări, Muzeul Brukenthal, Sibiu
<i>StComSM</i>	Studii și Comunicări Satu Mare
<i>Studia UBB</i>	Studia Universitatis Babeș-Bolyai, series Historia, Cluj-Napoca
<i>Študijné zvesti</i>	Študijné zvesti, Archeologického Ústavu Slovenskej Akadémie Vied, Nitra
<i>Terra Sebus</i>	Terra Sebus, Acta Musei Sabesiensis, Sebeș
<i>Thrac-Dacica</i>	Thrac-Dacica, Institutul de Tracologie, București
<i>UPA</i>	Universitätsforschungen zur prähistorischen Archäologie, Bonn
<i>WMMÉ</i>	Wosinsky Mór Múzeum Évkönyve, Szekszárd
<i>Zalai Múzeum</i>	Zalai Múzeum, Közlemények Zala megye múzeumaiból, Zalaegerszeg
<i>Ziridava</i>	Ziridava, Muzeul Arad

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