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Mounds in the Drifting of Centuries

Mounds, Hills, Fortresses in the Danube-Tisza Interfluve
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2015.
The Danube-Tisza Interfluve preserves several natural and cultural values. It is a diverse lowland habitat with many different features, dotted with the former floodplains, marshes, swamps, sand dunes blown by the wind and with saline plains and lakes. In the past few thousand years the dimensions of natural habitats, cultivated areas under arable farming and human settlements have significantly transformed and changed in space and time.

When we started to survey the forts, mounds in this region, their diversity was the most conspicuous for us. They are such parts of the landscape that in some places can hardly be noticed even by the specialist, elsewhere they markedly stand out of the surface, yet they preserve lots of secrets of human history and land development.

Generally, they are the outstanding examples of the cooperation between man and nature, based on traditional and nature friendly agriculture, and therefore, it immediately becomes obvious how little we know about them. We do feel the importance of their preservation in our accelerated world but as the novice who is trying to dance the first time, we are only milling around, trying to find the right direction and rhythm...

The areas which provided a good view to great distances, such as the flood free high-lying banks, ‘remnant hills’ on the flood plains, alluvial cones, had been important and central sites of settlements since the Prehistoric Age. People on the Great Plain also named these objects as mounds or hills if they were more extensive and as forts if they attributed some functions to them. The people who are dealing with the issue are looking for artificial ditches and ramparts, and on some of them they presume to find the fading traces of hillforts. The multi-layered dwelling hills, the ‘tell’ settlements, evolved on the flood free ridges and elevations.

The mounds, dwelling hills and hillforts are the monuments of cultures through thousands of years. They provide information about the connection of the disappearing man of the past ages to nature and the landscape, giving evidence of former hydrographical and ecological conditions, and preserve the cultural values, legacy and a part of bygone days. They carry several cultural, historical, ethnographic, archaeological, geomorphological, landscape and botanical values.

Historic legends, folklore and beliefs are connected to them. Their slopes are the habitat of valuable plant communities and they are along former wetlands and roads, hiding ancient settlements and medieval churches...

This time our research is restricted to the Danube-Tisza Interfluve, the area between the two rivers, which belongs to the operational area of the Kiskunság National Park Directorate (hereinafter KNPD). This is happening because it is a barely researched area with varied conditions and which poses lots of questions. The mapping of the forts and mounds, constructed by man is not an easy task, because through time lots of them disappeared and ‘transformed’ together with their environments. Systematic research has only seldom been carried out in the area. The demand for their complex excavation and assessment from an archaeological, land and nature conservation point of view is just beginning to appear these days. To avoid their further destruction, it is absolutely necessary to take practical steps. In order to take specific measures, however, we need precise and reliable data and a database.

In the region, the recording and cataloguing of the mounds, hillforts and the remains of former settlements have been going on for years as a part of nature conservation activities, but nothing has been published yet related to the subject. As a result of ten years of collection, there has been considerable progress as a lot of data and information have been collected. Therefore we feel it is necessary...
to create this long-needed awareness-raising publication.

The purpose of our publication is educational. Its aim is complex. The general presentation of the mounds and hillforts in the operational area of the Kiskunság National Park, the introduction of those mounds and hillforts which were registered and listed in the Nature Conservation Act of 1996 Act LIII, (hereinafter NCA) till 31 May 2015 fulfilling the accepted definition of tumulus (Cumanian Barrow, kunhalom) and hillforts, the description of some mounds and hillforts which have outstanding cultural history and natural importance, highlighting some of the results and questions of their research, and the formulation of proposals for their preservation in the future and their restoration to near natural conditions, and the elimination of the factors which contribute to their destruction, in the hope of further research.

The publication is partly based on the poster exhibition which has drawn attention to the preservation of our treasures, in several national parks, museums and universities since the autumn of 2009.
A landscape with a myriad of features

...The hill is still standing and I am standing over it.
Magical imagination plays tricks with me.
The hill is tiny, slightly rising.
On its top only grass, not the pines of the peaks grows...
(János Arany: On the mound of Tétélen)

The significant, landscape shaping, surviving mementoes of the people who once lived here, the mounds, the dwelling hills and hillforts can only really be made to tell their stories by learning about their former environment. During the course of time the environment has been continuously changing everywhere, due to climate changes, natural forces and later to the conscious intervention of man. In the last 30,000 years the Carpathian Basin consisted of fluctuating mosaics in time and space, in terms of flora and fauna movement, which reflected the diversity of the climate. (Sümegi-Kertész, 1998)

Significant differences can be observed even in the soil as well – affected by the different base rocks – which developed on loose deposits (sandy, loess, alluvial soils).

In terms of physical geography, the Danube-Tisza Interfluve is not a homogenous area, because it is made up of four topographical regions with different characteristics. In the west, there is the Danube Plain which is connected to the Sand Plateau of the Danube-Tisza Interfluve, in the south the Bácska Plateau and the narrow strip of the Lower Tisza Region divide the area. (Marosi-Somogyi, 1990) The micromorphology of the landscape is varied and because of the different natural conditions and environmental factors, the area has been inhabited with different intensity since the settlement of the first ploughmen. Generally, the cultural orientation of the areas was different as well.

If we mention some human factors as headwords we can realize how difficult the work of the researchers is who deal with landscape history: oxbow lake fish management (which includes traditional technologies for diverting water, temporarily retaining water for agriculture and fisheries, and growing fruit, especially at the Tisza River), the regulation of surface waters, the extent of saline areas, fixing of shifting sands, the disappearance of flood plain forests...

I. Danube Plain

It is a nearly 240 km long and 20-30 km wide area, a so-called 'topographical region' along the River Danube stretching to the border of Hungary, divided into the higher natural levee and the lower flood plain. During the Pleistocene the Danube was flowing through the region of the Danube-Tisza Interfluve in different branches. The development of the landscape and today's flood plain surface forms started with the appearance of the North-South direction of the Danube River (about 600 thousand years ago) and the river regulations in the 19-20th centuries had a further transforming effect on the landscape.

An elevated natural levee stretches along the east side of the Danube following its entire lowland section, giving place for a range of settlements. The 15-25 km wide low flood plain zone is situated between this elevated natural levee and the Sand Ridge. It is the region of the former wetlands, the former areas of the 'Turján' and the 'Őrjeg' (Old Holocene Danube channel), the region of saline wetlands, alkaline pusztá, peat bog sand marsh meadows. (Iványosi, 2010)

This topographical region can be divided into three micro-regions. In the north is the Plain of Csepel, further south is the Plain of Solt and the Kalocsa Sárköz. The surface of the Plain of Csepel and the Plain of Solt is covered in a rich web of abandoned meanders and river branches. The features of the terrain are diverse because of the row of Riverside dunes between Dunavecse and Solt, of the depressions formed by the meandering of Nagy-ér (a former river branch) and of the two eroded remnant hills, Solti-halom and Tétel-halom cut off the edge of Mezőföld by the Danube. (Pécsi, 1967)

The Kalocsa Sárköz is a well-defined micro-region in terms of geography, which is bordered by the Danube in the west and by the edge of the flatland of the Danube-Tisza Interfluve in the east (Sand Plateau). In the north the meandering bed of Nagy-ér separates it from the Plain of Solt, while in the south it lies in the spindle-shaped bottleneck of Tőlnai-Sárköz and the loess ridge of Bácska.
II. Flatland between the Danube and Tisza rivers (Sand plateau)

It is the largest topographical region of the Great Hungarian Plain towering above the floodplain of the Danube and Tisza rivers with an area of 7,400 square km. It is a remnant of an alluvial cone. Its western boundary, the same way as the eastern one, is partly marked by eroded high banks (high banks of Ócsa-Ujhartyán, Kecel-Baja and Alpár). Based on taxonomic categories of our natural landscapes, the studied area is located in the northern part of the topographical region of the Flatland of the Danube-Tisza Interfluve, which is the southern stretch of the Pilis-Alpár sand ridge.

The micro-region of the sand ridge of Kiskunság and the sand ridge of Bugac cover a larger part on its western side, while on the eastern side, the loess ridge of Kiskunság can be found. In the south the topographical region is closed by the micro-region of the sand ridge of Dorozsma-Majsa.

The larger part of the surface is covered by shifting sands originating from the ice age, blown by the northerly, north-easterly winds out of the former alluvial cone of the Danube and out of the locally shifted sediment. The larger part of the surface is well levelled but at the same time in several strips of land we can encounter extensive, strongly dissected ridges of sand dunes running in the direction of northwest-southeast (8-15 km long and 2-3 km wide). (Iványosi, 2010)

The characteristic forms of the region are the shallow depressions among the sand dunes (so-called 'semlyék'), where dolomite banks (freshwater limestone) could develop between their subsurface layers as the only type of natural solid rock on the Great Plain. During the past centuries, this stone was quarried in many parts of the region, and for example, it was used for building the foundations and walls of churches in the Middle Ages. (Kustár-Balázs, 2013)

III. The Bácska flatland

It is situated south of the mainly sand covered alluvial cone of Kiskunság in the south-west of the Danube-Tisza Interfluve. The smaller part of this mostly loess and sandy loess soil covered area is situated in Hungary, but this deposit continues beyond the border on the Telecskai-Loess Plateau. The development of this alluvial cone flatland is partly explained by the streams coming from the East-Mecsek Mountains, while others attribute it to the (glacial spillway) Ós- Sárviz. (Mezősi, 2011)

Here the edge of the surface relief has an abrupt erosional scarp on the flood plain of the River Danube, the parts of which are the high bank of Kecel, Császártöltés, Hajós, Nemesnádudvar and Baja. Its micro-region in the north is Illancs, which is an alluvial cone plain covered by shifting sands, and loess covered surfaces extend over its southern part. The Bácska loess plain as a micro-region is situated on the southern part of the topographical region separated by a terrace in the west from the Transdanubian areas since the Danube started to flow from north to south.

IV. The lower Tisza region

It is located in the east of the Danube-Tisza Interfluve. This region is a depression carved and filled up by the meandering River Tisza during the Holocene era which reached and washed out the edge of the Sand Plateau at several places, thus the western part of the landscape is markedly separated from it (high bank at Tiszaalpár). The characteristics of the landscape are given by the few loess elevations and riverside dunes of the low and high flood zones which were important scenes of human settlement as well. Its micro-region that is relevant to the operational area of the KNPD is the South Tisza Valley whose surface is densely covered with a network of river beds and oxbows. Before the water regulation, some lower-lying parts of it were periodically covered by water.
The specific cultural development of the areas always unfolded depending on the local conditions. Until the 19th century the opportunities of agricultural activities and settling down in the Danube Plain and the Tisza Valley were determined by the regular annual flooding of the main rivers. The cultivation of land occupied smaller areas on the flood plains, while animal husbandry and the utilisation of flood plain forests had a great role in farming. The shifting surface of the Sand Plateau provided a habitat mainly for livestock keeping peoples. On the other hand, the Bácska loess plain was excellent for agriculture and it became one of the important melting-pots of the cultural influences arriving from the Balkans.

The roads and boundary zones between certain areas had significant strategic importance. Such important areas were the temporary watercourses, shallows and ferry crossing points of the Danube River, the meeting point of the higher and lower flood plain zones, the edge of the Flatland of the Danube-Tisza, Interfluvie and particularly the high bank on the eastern side of the Örjeg, at some places towering over twenty metres above the micro-region of Kalocsa Sárköz south of Kecel.

Understanding the former transport routes and economic connections to Transdanubia has a significant importance because the archaeological finds beside the Danube River show a more intensive connection with the finds of Transdanubia than those of the Sand Plateau. Since the first ploughmen settled here 7,500 years ago, western and north-southerly connections dominated at crossing places on the Danube and along the Danube. The different cultural orientation is not only notable during the Neolithic Age, but in later periods as well, e.g. in the Bronze Age (the people of Transdanubian Incrusted Ware and Vajna culture, the spreading of tumulus and urnfield culture).

However, it is a fact that the environment of the flood plain wasn’t much different on the other side of the Danube (periodic flooding, types of meadow soil, etc.) either.

The influences arriving from the south, from the Balkans (e.g. the spreading borders of the first ploughman cultures), usually reached the line of Kalocsa-Kunhegyes-Berettyóújfalu. Generally, the Sand Plateau and the Tisza Valley were partly reached by the western influences through the Bácska loess plain and the area of Vajdaság (Vojvodina), but here far more cultural connections with Transylvania and the North Great Hungarian Plain are observable sustained by the routes along the Tisza and its tributaries. The steppe people from the east settled and utilised the land in different ways and built mounds (kurgan) for their leaders as an eternal resting place.
The Hungarian vernacular applies the name mound for several natural and artificial landscape elements. When we are taking stock of them, the primary task is to clarify their origins.

The expression of Cumanian barrow was coined as a result of the 19th century language reform. It is an artificial compound word deriving from linguist-historian István Horváth (1784–1846). What does this phrase mean? The word he created ‘Kunhalom’ (Cumanian barrow), came from the idea that these manmade mounds were created by the Cumanians who settled here. (Tóth, 2004)

This idea ruled for a long time and the quotation below from 1935 is proof of it:

‘Between the fields of Fülöpszállás and Majsa, Kunjákabkorhán (korhán is mound) rises (this area presumably was named after the burial mound of Jakab (James) son of Buthemer). Korhánhegy (Korhán hill) was mentioned in a document issued in 1409. ...An alkali flat whose name is Korhándűlő and Korhánszék can be found on the outskirts of Kunszentmiklós, Szabadszállás and Fülöpszállás. From these data we can come to the conclusion that the origins of the mounds which were called Cumanian barrows, Tartar and Turkish mounds, peaking mounds, guard mounds or as they were called in the past ‘korhány or kurgán’ - and were often located in a spatially planned way - derive from the barrows of the tribes of Cumanians and Pochenoge (Besenyő),’(Scheftsik, 1935).

The word Cumanian barrow wasn’t known among the ordinary people, nor was it used as a geographical name as we can never encounter names such as ‘Templom-kunhalom’ (Church Cumanian barrow) or ‘Oltó-kunhalom’ (Curdling Cumanian barrow). It has become naturalized in our language as a technical expression but it is a general and well known term in the everyday language these days as well. In Nagykunság the term oltumulus or mound refers in the vernacular to objects which rise 5–10 metres above the landscape and it is a fairly common name in the Jászság (Jazygia) region as well, but in Kiskunság, its frequency doesn’t reach that of hill. (Tóth, 2002)

The mounds can be found almost everywhere in Hungary, not exclusively in the area of the Cumanian settlements. Many of them can be found in the Great Plain: in Nagykunság, in the Jászság, in the Danube and Tisza Interfluve, in Bácika (Bacha) and on the territory east of the river Tisza (Tiszántúl) to the river Maros.

The people of the tumulus culture built the first mounds in Transdanubia in the Bronze Age, creating extensive fields of burial mounds e.g. in the Bakony mountains. (Kustár, 2000)

From the Late Bronze Age, the separated, larger tumuli of the community’s outstanding members appeared, competing in size and appearance with the mounds of the Great Plain. From the Early Iron Age, burial chambers appeared with inner timber frames adorned with rich artefacts, and often strengthened with stone constructions in addition to the earth, almost in the entire area of Transdanubia (we mention, only as a sample, some find-spots of international importance like Sopron-Várhegy, Fehérvárzsürgő). We shall not forget that Százhalombatta got its name after ‘the hundred mounds’ on its boundary, some of which were excavated, and the reconstruction of one of these is the main attraction of the Sticker Museum and the Archaeology Park of Százhalombatta. The habit of tumulus burial revived during the Roman Empire in Transdanubia, which became the province of Pannonia, and many of these mounds reached monumental dimensions (Inota, Baláca). (Palágyi, 1990: Palágyi-Nagy, 2000)

In our cultural history the Transdanubian mounds are as significant as the tumuli on the Great Plain, which are also heterogeneous in origin. Therefore such a broad and general usage of the expression of Cumanian barrow is misleading.

All of the artificially built tumuli in Hungary are considered areas of archaeological interest by the National Office of Cultural Heritage (hereinafter Foster), and most of them are recorded in the central register of archaeological sites. The definitions of ‘Cumanian barrows’ and ‘hillforts’ (quoting the word usage of the Act), protected since the Nature Conservation Act came into force, were included in the wording of the Act only with the modification of the Nature Conservation Act in 2003.
The term Cumanian barrow is not relevant to the lack of the resolution of the Nature Conservation Act was formulated. The concept of 'Cumanian barrow' used by specialists of nature conservation and cultural heritage protection.

We make a proposal on the basis of several years of our research to name the mounds erected by humans in historic times simply as 'mounds.' The changing and systematic usage of the term mound instead of Cumanian barrow, could be most desirable in professional circles because as a collective term it is far more suitable to get the same importance in surveying, recording and thereby placing under protection the mounds and groups of mounds that were erected in different periods in Hungary. The greatest group in this category are the burial mounds which are completed by other mounds established for other purposes (e.g. frontier hills and chapel hills). The dwelling hills (tell), which previously were classified in this group by the practise of nature conservation, have their independent category, and they can be listed neither in the tumulus nor the hillfort group, though they could be the most vulnerable of all three groups because of their vast archaeological heritage. (Anders et al. 2010) During identification the original function should always be taken into account since it can be somewhat contradictory when we recall that we have data about the dwelling hill of Kovács-halom at Fajsz as a frontier hill from the 16th century. (Csorba, 2000)

The concept of 'Cumanian barrow' used by the Nature Conservation Act was formulated in a broad framework, which may have been contributed to the lack of the resolution of cultural heritage protection. The usage of the term Cumanian barrow is not relevant in the case of the mounds of the Great Plain either, because it is generally accepted and proved that they came into being in different periods and under different circumstances. Therefore, based on the above, it seems important to specify the object of protection and the unification and integration of databases created by the joint work of specialists of nature conservation and cultural heritage protection.

Questions of identification

In history mounds and hillforts have been connected by the nature of their artificial structure erected by humans, their earthworks once determined the landscape. The definition of hillfort is not uniform in the professional literature either: Based on the provisions of the Nature Conservation Act, the hillfort is such a linear or closed-shaped earthwork established for defence, which has remained an identifiable element of the terrain, representing historical, cultural legacy, surface morphological and landscape value. Archaeologist Zoltán Czajlik defined hillforts as the following: "Such archaeological sites which are fortified and the fortifications include ramparts, made from piled up earth and/or a ditch, cut into the surface. As these fortifications most often utilise the inherent possibilities of the terrain, it occurs that in areas with precipices or naturally inaccessible surfaces, ramparts or ditches weren't built." (Czajlik, 2004)

The Hungarian word for hillfort is an artificially created word just like Cumanian barrow, though it has appeared in historical sources and in the name of settlements since the Middle Ages (Dunaföldvár, Tiszaföldvár). In the Middle Ages, regardless of their building materials, these strongholds frequently functioning as the centres of power – were identified by the Latin words civitas in the 9-12th centuries, and castrum from the 13th century. They were mentioned sporadically by the Hungarian term fort. (Wolf, 2010)

The identification of the hillforts in the Danube-Tisza Interfluve is a difficult task by a simple field survey. Of course, the remaining surface forms can refer to former strongholds but as they are almost exclusively situated in areas under intensive agricultural activities, the former ditches have been filled up and the ramparts have gradually crumbled away onto the level of the surrounding terrain. Several built elements of the relief (former ditches, ramparts) now can only be identified by aerial photography, geophysics, but being identifiable is one of the criteria of protection in nature conservation. Whilst the definition of nature conservation only deals with fortifications and the concept of hillfort, it exclusively considers terrain elements as such that appear as elements of the relief, in archaeological research the dwelling hills (Tell), the systems of concentric ditches from the Neolithic, the fortified settlements from the Bronze and Iron Age, the systems of counter fortresses from the Roman Age, the manors houses from the Middle Ages, or the system of palisades from the Turkish Occupation are separated. But first of all, we can get reliable data about the function and age of these fortifications by excavations. The more precise definition of the cultural monuments that could be classified in this group can only be solved on the base of unification and cultural heritage protection. Till then perhaps it could be more advantageous to use fortifications instead of hillforts on the Great Plain, though in this case the question of the protection of linear ditches and systems of ramparts could be raised as well (e.g. the protection of the ditch of Császár or the bank of Császártöltés). (Wicker-Knijfl, 2005)

The determination of the age of the identified fortifications generally is an easier task than in the case of mounds, because the domestic waste of the residential buildings that were built here could be classified into periods by a simple field survey.
The issues of legal protection

So it is a patriotic obligation and the highest priority of the protection of the Homeland to furnish with proper natural ornaments, to care for and maintain the garnished natural ornaments of the exquisitely creations of human knowledge and the places which became notable by cultural history or the human bravery of heroism, historical events, and some memorials related to famous persons, etc. and the places that became famous in the history of the nation. During the course of time these natural ornaments will become – if they are not yet – natural monuments. (Kain, 1931)

In Hungary local historians, archaeologists and conservationists have explicitly tried to draw attention to the importance of the protection of mounds and hillforts since the end of the 19th century. It was a great step forward when the protection of these cultural historical monuments was assigned to nature conservation as an important task by the historical monuments was assigned to nature conservation by force of law (ex lege - by force of law) – mound and hillfort has been considered – by force of law (ex lege - by force of law) – a protected natural area of national significance. Their special conservation is in point (2) of § 23 of the Nature Conservation Act. Within the protected natural areas, the mounds and hillforts are listed under the category of natural monuments by the Nature Conservation Act.

Act CXL of 1997 about museological institutions, public library services and general public education first dealt with the concept of archaeological heritage. The aim of the acceptance by Parliament of Act LXIV of 2001 about the protection of cultural heritage was to create the legal conditions for the exploration, scientific processing, saving, protection, sustainable utilization, and classification as public property of cultural heritage accumulated during the course of national and universal history. The Act determines – if it is possible – that the elements of archaeological heritage shall be preserved at their original find-spots, in their original condition, in their original connections or rather they are under general protection by force of law based on §11. The law provides that the authority shall keep a central register of archaeological sites and shall fulfil tasks related to archaeological heritage protection with the assistance of the park ranger service. This statutory provision generally deals with archaeological find-spots, it doesn't highlight either the group of mounds, or the group of hillforts.

Sites with exceptional historical and cultural importance could be declared protected or strictly protected archaeological find-spots as well by the provision of a special regulation, as it happened in the case of Lebő-halom (mound) (Szeged-Tápé), the mounds of Vaskút or Kovács-halom of Fajsz.

The compilation of the tumuli’s cadastre and the building of its continuously widening database started after the Nature Conservation Act came into force. The leader of this work is Albert Tóth who recently has dealt the most with the interpretation of the ‘concept of Cumanian barrow’, applied in the regulation of nature conservation.

He interprets the Cumanian barrow as a collective term referring to burial mounds (kurgan), dwelling hills (Tell), sentry or guard hills and frontier hills, while his surveys have concentrated on the regions of the Great Plain. (Tóth, 1999; Tóth, 2004)

The registration of mounds in the operational area of the Kiskunság National Park Directorate has been going on these days on the basis of this definition, wherein under Cumanian barrow as a generic term, burial mounds and settlement hills and frontier hills appear as well. (Balázs, 2006)

Once the number of mounds could have been several thousand in the surveyed area, but today only a fraction of them can be identified. In accordance with our present knowledge, as a result of the continuous authentication and assessment from an archaeological and nature conservation point of view, the number of the mounds which can be placed under nature conservation – appearing as characteristic formations on the surface – is 125, but their number is continuously growing. The registered mounds can be assessed on the basis of the individual geomorphological character of the body of the mound, the branch of cultivation, the surface covering, and by the extent of its vulnerability and condition. The construction of a similar database started in relation to hillforts, but in this case far more data are yet to be authenticated, which defers the implementation of their protection.
The register includes the following data for each mound:
1. FÖMI code (The identification number of the mound, generated by the Institute of Geodesy, Cartography and Remote Sensing) (FÖMI for short in Hungarian, hence the abbreviation)
2. EOV (Uniform National Projection system) co-ordinate of the highest central point of the mound
3. The radius of the mound (m)
4. The topographical lot numbers of the areas where the mound is situated
5. The name of the mound
6. The description of the condition of the mound
7. The category of protection of the mound (beyond the ex-lege Cumanian barrow protection any other nature conservation or cultural heritage protection)
8. The protected natural value found on the mound
9. The endangering factors of the mound

The registered mounds meet the requirements of the criteria of the Nature Conservation Act, but their assessment is difficult from several aspects. The Nature Conservation Act is based on the aesthetic appearance of the mound; that is it protects an existing surface form and does not deal with the formerly eroded mounds, which are no longer identifiable with the naked eye today. Thus the statements concerning the mounds’ intactness and extent or dimensions are apparently distorted. Practical experience has shown it is difficult to clearly determine the origin of the formation of the mounds, especially in an environment in which there are natural remnant surfaces or material re-depositions as well. It is especially difficult, because we know that for the construction of these artificial mounds, the people often chose higher elevated surfaces free from watercourses.

The fifth thematic action programme of Parliamentary resolution 96/2009 (XII.9.) for the period of 2009-2014 about the National Environmental Programme provides the protection of mounds and hillforts:

Among the endangering factors human intervention is in the first place, but it is also necessary to protect against natural impacts. According to the current register, 1,732 mounds and 378 hillforts (which are also part of cultural heritage) are mostly endangered by intensive agricultural activities, illegal excavations for materials, the spreading of weeds and infection by non-native invasive species.

Targets:
- To review the survey and registration of ex-lege areas and to increase their efficiency.
- To complete the designation of ex-lege areas by official decision and to complete their land registry records.

The necessary measures to fulfil the targets:

Government:
- The issue of individual official decisions about the determination of the extent of the mounds and hillforts, and the registration of the nature of their legal protection in the land registry entry (providing the necessary documents e.g. land registry compliant plan of change).
- Introduction and application of modernized survey methodology and the processing of surveyed data.
- Providing the necessary resources for the change of land use, division of property, for the more effective protection of ex-lege mounds and hillforts.

In accordance with the EU requirements, the protection and preservation of the characteristic elements of the landscape is a high priority. In Hungary, according to the EU Community obligations, mounds were included in the category of protected landscape elements in 2010, however hillforts have not been included in the absence of detailed processing.

The aims of FVM decree 50/2008 (IV.24.) (FVM is the abbreviation in Hungarian for Ministry of Agriculture and Rural Development) about the necessary conditionality system to maintain ‘Good Agricultural and Environmental Conditions’, to be fulfilled when claiming single area payment and certain grants for rural development, and the determination of the exchange ratio of livestock into livestock units, ‘is to ensure the good agricultural and ecological condition of agricultural lands by the direct adaptation of acts of legislation of general force of the EU about the minimal requirements of agriculture and environmental protection and by the determination of the cases of violation of the requirements, furthermore, to determine the exchange ratios of livestock into livestock units. All of the requirements are to serve the maintenance of ‘Good Agricultural and Environmental Conditions’ and are necessary when claiming single area payment and certain grants for rural development.’ Pursuant to point
of §2 of the decree, the ‘Cumanian barrow’ is a determined and indicated object with a territorial extension in the Agricultural Parcel Identification System (MePAR in Hungarian) according to the definition under point f) of section (3) of §23 of Act LIII of 1996 about nature conservation.

According to provisions number 1 ‘Good Agricultural and Environmental Condition’ of the decree, the preservation of the landscape elements registered in the Agricultural Parcel Identification System (MePAR) is compulsory. Therefore any field cultivation (tilage) is forbidden in the area of the mound, except for the preparatory actions to restore the grass cover of the land. During logging in the area of the mound, the disturbance of the ground is prohibited. The development of cooperation and mutual harmony between cultural heritage protection, nature conservation and the people who live and cultivate land in the area is necessary to protect our values and the good condition of agriculture and the environment.

The first steps of the practical implementation are being carried out nowadays (withdrawal of the protected mounds from arable cultivation and re-grassing). The legal obligation can be more effective if the owners of the mounds and the farmers in the area are continuously informed about the importance of the protection of the mounds, the changes of the provisions of law, the possibilities of calls for proposals and the forms of grants and subsidies.

The means of forward-thinking protection forms of grants and subsidies.

The mounds between the Danube and Tisza Rivers are situated on the banks of former flood plains, on the highest points of alluvial cones and fans. They were characteristically raised near former watercourses on the tops of pre-existent natural hills, sometimes at the boundary of different types of landscapes. We know of fewer mounds in the area of the Homokhátság (Sand Plateau), perhaps the reason is that they blend into the landscape (e.g. Fülöpszállás: Sátán-halma (Devil Mound), region of Szabadszállás: Hintók-halma (Coaches Mound) and there is a similar problem in the Bácska-plain to identify the real mounds (e.g. the region of Vaskút). Here is an example to prove it: studying the boundaries of Kiskőrös, the image of the first military map indicates several regular elevations, which can be regarded as artificial mounds but are not characteristic today because of agricultural activities and erosion; however, using archaeological methods evidence may be obtained of them. On the basis of former cartographic symbols e.g. Hegyes-halom (Sharp Mound), Első domb (First hill) and Kanász domb (Swineherd hill) can be mentioned. In the region several artificial mounds are known. Among them, one of the most distinctive is the Kosztolik of Cebe (Templomdomb /Church hill/).

The oral tradition and the names of the old dűlő (margins, headlands) refer to the old mounds at several places around the boundaries of Kiskőrös. Their artificial origin is not confirmed in all cases but because of their good situation they preserve the mark of settlements and (or) burial as for example Pandúrhalom (Gendarme Mound), Csonthalom (Bone Mound), Rákóczi dűlő (Serbian balk) or Ráchalom (Serbian Mound), Fekete-halom (Black Mound), Kosztolínyik, Agárhalom (Greyhound Mound), Meleghalom (Warm Mound). Artefacts of similar nature are expected to turn up from the area of place-names whose suffix is mound (halom in Hungarian) e.g. Kesehalom (Pale/Fallow Mound), Zöldhalom (Green Mound). (Meskó, 1989)

Of the above mentioned mounds only the following got into the nature conservation mounds register: Csont-halom (Bone Mound), Agár-halom (Greyhound Mound), Fekete-halom (Black Mound) and Meleg-halom (Warm Mound). The homes of the dead and the living have been separated from each other for thousands of years. Though there were exceptions, generally graveyards, solitary graves have preserved the ashes of our ancestors. During the funeral they invariably followed the norms and expectations of the community, which were rooted in their faith. Besides the notion of death of the community, the former relationship of the dead and the living could be reflected in the rite of the funeral (the social position, relations to relatives, profession, wealth, perhaps the exclusion from the community, sacrificial role of the dead). The skeletal or cremation nature of the graves, their orientation and artefacts are the guiding
or dwelling places as well by the people who floods were later often used as burial grounds The mounds as elevated places free from burials on them. Earlier than the secondary settlements or because the building of the mounds occurred earlier than the secondary settlements or burial grounds on them. It is presumable that some of the tumuli can be dated back earlier than the Bronze Age e.g. Szima-halom (Szima Mound) (Solt) can be dated back earlier than the Bronze Age. Many medieval boundary litigations could be decided by the solitary or double or triple built frontier hills, which designated the boundary of a settlement, district or county. ‘That boundary, which can be seen even now, on ‘Szamár-orrú nevezetű hegy’ (the so-called Donkey-nosed Hill), was said to be the boundary between the lands of the Archbishopric in Hajás and the lands in Kélos.’ (Báth,1983)

Before Christianity, these hills could be the places of pagan rituals (observing celestial signs, divination, healing, etc.). It is mentioned in one of our folk-tales from the South Great Plain: ‘Some of the many beautiful young are dancing so fervently on the top of the hill that the buns of some young maidens are flying in the air. The others are lying around everywhere, eating-drinking in the lush ankle-deep grass.’ (Az éjjelfő tánca ‘The Midnight Dance’) (Tóth, 1984)

Later chapels, small churches, crucifixes were erected on the top of several mounds to reinforce the surviving sacral space. ‘If a crucifix is raised, it must remain in its place. No one can buy the place where the crucifix stands, no one can get it and it couldn’t belong to anyone. The crucifix of the Beck family was standing in the Hambár (granary). How difficult it was for them till they got an official paper to carry it into the cemetery! The crucifix has to remain in its original place because it is a pledge. And the wayside shrine too.’ (Schön, 2005)

Bakó-halom (Headsman Mound) in Újsolt could have been a place for executions based on the origin myth of its name. ‘At Solt, according to the oral tradition, the lieutenants were called ‘puszta’ rangers if they served on horseback. Their duty was to apprehend the outlaws. One of the corporals was the executioner whose task was to tie the villain on to the whipping-post and carry out the flogging. Bakó-halom (Headsman Mound) belonged to the settlement of Mária háza.’ (Nagy, 1990)

The mounds, standing out of the flatland of the Great Plain, served as a great landmark to the contemporary cartographer, the army marching through, and for travellers even a century ago. They are often the point of reference for land surveys today as well.
The mounds were always named as they were points of particular importance of the boundaries. The etymology of their names implies a lot about their past. It happens very often that a mound has different names in the popular remembrance and on various maps (e.g. at Dunatetéten, the names of the same mound are: Likas-halom (Holed Mound), Templom-halom (Church Mound) and Csárda-halom (Inn Mound). An interesting example of giving more names to the same mound is in a story related to the floods of Kunszentmiklós. During the floods sometimes it happened that 'The people from the town of Keckemét were eager to help, bringing bread, bacon, etc. for the flood victims. As they couldn't get into the town because of the water, they passed the food to the people concerned at the Kenyér váró hegy (Bread-waiting Hill), that is, at Keselyes, by its other name.' (Gy. Illés citizen from the diary of Földváry from 1850) (1984)

In the meantime we know when the times were more peaceful, the herdsmen and shepherds were waiting for their weekly food supply from the village on the Kenyérváró/Kenyérleső hegy (Bread-waiting/Bread-watching Hill), a high point in midway. The names can be interpreted easily that the cluster of mounds is quantified by the name: Kettőshalom (Double Mound) (Baks, Csongrád), Óthalom (Five Mound) (Szeged), Klienc-domb (Nine Hill) (Hajós). The names of mounds can reveal the former vegetation of their environment: Fűz-halom (Willow Mound) at Solt, Vesszős-halom (Wicker Mound) at Pusztaaszer, Tűskő-halom (Thorn Mound) at Palincenostora or their agricultural usage such as the name of Zöld-halom (Green Mound) which could be pasture land at the settlements of Újsolt, Kiskunfélegyháza, Ópusztaaszer and Csanytelek. Pig pasture land can be thought behind the expression of Disznó-halom (Pig Mound) at Baks and Szőlő-halom (Vine Mound) is known here as well. The name of Ottó/Ottil–halom (Curdilling Mound) (Dunatetéten) may ring in our ears as a personal name referring to animal keeping. Here we have certain data about sheep-farming since the early 20th century where sheep milk was curdled. A similar sheep-farming place could have been Szárnyék-halom (Wind-shelter Mound) at Pusztaszer.

The names of some mounds evoke the animals that once lived here as the Ló-halom (Horse Mound) of Tömörkény or the Daru-halom (Daru Mound) of Tömörkény. The name of the hill of the cemetery around the disturbed church became known as Csont-halom (Bone Mound) (Kecskës-Kiskorós) because of the emerging bones or it was simply named as Temető-halom (Cemetery Mound) (Szatymaz). A crucifix was often placed on the top of them: such as Névtelen-halom (Anonymous Mound) – (Temető-halom (Cemetery Mound), Kiskunfélegyháza), Névtelenhalom (Anonymous Mound) – Kereszt domb (Cross hill, Harrakötény) or Névtelenhalom (Anonymous Mound) – (Feszület halma (Mound of the Crucifix), Keresztes halom (Cross Mound, Tömörkény).

Perhaps the former owners of Soós Pálhalom (mound) in Balátsyá could have been the name-givers. Often the once lived real or fictitious heroes, herdsmen, outlaws, chiefs, princes and the events related to them or the names of the former settlements are reflected in their names. Here are just a few examples without explanation and systematization because their investigation would deserve a separate study: e.g. Nagycsászárhalom (Great Empress Mound) (Tömörkény), Kártýás halom (Card player Mound) (Ópusztaaszer), Csárda-halom (Inn Mound) (Dunatetéten), Vásár-halom (Market Mound) (Újsolt), Téves halom (Louse Mound) (Tiszalpár), Geda halom (Geda Mound), Pitrnik-halom (Pitrnik Mound) (Felgyő), Kurva domb (Bitch hill) (Ásotthalom), Remetés halom (Hermit Mound) (Dunatetéten), Egyed-halom (Egyed Mound) (Dunavecse), Agár halom (Greyhound Mound), Meleg-halom (Warm Mound) (Kiskoróros), Árta-halom (Árta Mound) (Church Mound), Geda halom (Geda Mound) (Dunatetéten), Egyházas-domb (Church Hill) (Ópusztaszer), Csárda-halom (Inn Mound) (Tömörkény), Kártyás halom (Card player Mound) (Tömörkény), Keresztes halom (Cross Mound, Tömörkény), Zsuzsa-halom (Susan Mound) (Ópusztaaszer) etc. During the centuries many mounds were dug up and burgled. The names of the looted mounds often became Lukas-halom (Holed Mound) (e.g. Tömörkény) or Ásotthalom (Dug Mound) (Ásotthalom).

Lots of mounds have anonymously been registered in the database of nature and heritage conservation. It’s sad if you think about it that due to the effects of civilisation, our geographical names are disappearing the same way as a number of our mounds and hillforts! We believe that research into geographical names can help in the documentation of several mounds which haven’t been surveyed yet.
The secondary disturbance of the mounds could have begun shortly after they were constructed. Grave robbers, treasure hunters dug into the mound or later it was chosen as a cemetery while the graves were cut deeply into its body. Therefore it is not rare for a single mound to preserve the relics of several communities and settlements.

At the end of the 19th century their continuous destruction was already clear for those who were dealing with the mounds. 'In our country Cumanian barrows occur in a great number on the Great Plain, along the Danube and Tisza rivers and almost in every flatland of the country where the hoe and the plough haven't swept them away from the surface of the earth.' (Cséplő, 1896)

Of course, the mounds were also disturbed earlier by illegal treasure hunters, and grazing poached their surface affecting also their vegetation, their bodies were repeatedly disrupted by quarry pits. But today the vulnerability of the mounds has intensified and their destruction has accelerated. A major cause of the reduction in height of the mounds is the continuous and intensive cultivation, and deep-ploughing by heavy and large machinery. On the one hand, the tilling of arable land also causes degradation processes, on the other hand, the top soil is loosened due to the yearly cultivating activities, and therefore it is less resistant to the erosion processes of the wind and rain. The loosened mass of soil gradually moves down to the foot of the mound and the result is the development of a flattening, often elongated form.

The mounds with land surveying points of reference are only partially ploughed. In many cases, because of many years of ploughing, the tops of the mounds stand out of their direct surroundings as remnant hills.

During reforestation or spontaneous afforestation, the vegetation of the mound experiences major changes, and the roots of the trees disturb deeply the cultural layer. The name of Fűz-halom (Willow Mound) (Solt) can refer to the former vegetation environment whose large part was carried away – together with the finds of the Bronze Age cemetery – for the building of roads and barracks in the 1970s. In many cases the asymmetry of the mounds was caused by the extraction of their land mass for different purposes. Their material was used mostly for foundations, road building and filling by the residents nearby. The mining and extraction of the materials of the mound’s body can bring about the disturbance of archaeological finds and sometimes their total destruction as well. Because of the modernisation of plant cultivation, some mounds were levelled for the installation of self-propelled irrigation devices. Several mounds were cut into two by dirt roads or roads, significantly modifying their morphology.

The illegal bicycle, motocross and quad races could accelerate the process of erosion and contribute to the appearance of weeds.

Illegal metal seekers cause such huge damage that cannot be compensated for from a cultural historical point of view. Therefore it is a major question how large these mounds were before, which now are hardly

...A grave holds their traits.
For a thousand years or more. –
They thought: until the world’s end.
But rain and wind wear it off.
Snow-sweltering heat, summers-winters.
One day it will disappear completely.
No trace or name will remain.
The fiercest Tartar overcomes,
The Khan of Khans, Death...
(József Erdélyi: Cumanian barrow)
prominent from their surroundings (what was their relative height and extent). Their assessment could be done through the individual examination of the position of different layers inside the mounds but unfortunately such research data are not available in our region either.

The number of the once raised mounds in the operational area of the Kiskunság National Park Directorate could have been several hundred. We have collected data about three hundred mounds from different sources but at present the number of those which are known as relief topographical features and where nature conservation requirements can be applied is only 125.

20% of the registered 125 mounds are disturbed and a further 36% are damaged, thus more than half of the registered mounds have been considerably disturbed. The surveyed mounds are used as arable land in a significant rate (48%). Generally, the direct surroundings of the land surveying points of reference were left out of ploughing. The ratio of forested mounds is 22%, but smaller groups of trees have appeared – generally consisting of non-native species – on a further 27%, which together with the forested areas have considerable landscape and mound damaging effects.

A small ratio - approximately 7% - of the mounds are seemingly not in danger today so their surface is not disturbed by arable farming, material excavation, illegal waste dumping and roads or railway tracks do not pass through them. But during scientific research, however, it could be revealed that once they were the targets of treasure hunters.

27% of the registered mounds are situated, in part or in full, in the protected natural areas (national parks, protected landscape reserves, nature reserves, ex lege protected natural areas) and 45% of their surface is covered by grassy vegetation of different conditions. In our region, in terms of botanical value, the areas of Lyukas-halom (Holed Mound) (Kisszállás) and the mounds around Vaskút are outstanding.

We hope as a result of legal regulation, all the mounds will be taken out of arable land cultivation.
The fauna of the mounds is not the same on the arable farming land and on the grass covered mounds. On the ploughed up mounds the same fauna develops as the characteristic fauna of cultivated crops, where the same insect pests, rodents and their predators appear as on the surrounding area of the mound. The situation is different on the uncultivated, possibly grazed mounds covered with natural vegetation. The dry grassy areas with a warm micro-climate, separated like islands create the conditions of habitat for a number of animal species from the insect to the vertebrate fauna. The structures of the mounds are often disturbed by the burrows of foxes and badgers, and archaeological artefacts could also be found in the dug-out soil. The mounds are very good look-out points; therefore they particularly attract birds. Birds of prey hunting over the surrounding fields often rest on top of the mounds. Their popular landing sites are the land surveying points of reference erected from stones on top of the mounds.

Treasures in the depths of the mounds

In our region mound excavation has scarcely happened, therefore one question yet to be answered is whether some mounds could be linked to the mounds from the Late Copper Age, which are characteristic of other parts of the Great Plain. Sometimes even when on the surface nothing indicates it in the present day, the researcher presumes a ‘Totenhaus’ or ‘mortuary’ towering above the ground, based on the traces of wooden structures uncovered in the grave as it is likely that the burial vault was propped up with earth. (Kustár-Wicker, 2004)

Elsewhere the concentric ditches which surround the mounds indicate their once exact extent. Certain groups of the Sarmatians on the Great Plain also raised round mounds ‘with an entrance’ over their dead (e.g. on the boundary of Madaras).

‘Underneath it there is enormous treasure of all kinds of gold and silver...’ many believed in many places. Sometimes reality provided the true basis for a story as it was told in Hajós: ‘The first village was up on the Homok-hegy (Sand hill). The church was situated in a smaller depression and it was called Templomföldeske (the small plot of the church). When I was a herdsman, I dug out clay plates, fired plates, six-seven of them. ’ (Schön, 2005)

It is believed about Gerezsdi hegy (hill) of Solt that a loyal soldier of Ferenc Rákóczi II buried treasures here. (Nagy, 1990)

A less plausible instruction for treasure hunting is:

‘The place where someone stumbles is where the gold is in the ground. It is said we should go back and try to find the gold.’ (Schön, 2005)

The following stories give more mysterious guidance:

‘It was believed that at night flames burst out of the depths of the earth on Vira hegy (hill) at Dávód and around Földvár (Hillfort), because there is a hidden treasure there, so it cleans itself this way, then this treasure can be found.’ (Zalotay, 1957)

But let’s not forget that illegal treasure hunting brings its own punishment (today we hope it from the legal regulation of using a metal detector).
The research methods of mounds and hillforts

The cultural and historical importance of archaeological finds goes well beyond the value of silver or gold artefacts which only in rare cases come to light from the depth of mounds in Hungary. The finds testify the most about their former functions, usage and importance, in the place and environment where they were found. Only a holistic analysis can provide information about the past. There is not a more harrowing sight when bones, stones and potsherds are dug up from the disturbed soil by the forces of nature or the powers of human foolishness. The primary aspect of archaeology is the elimination of the vulnerability of archaeological find-spots, such as mounds and hillforts and their preservation for future generations. Looking back over the last hundred years of the history of archaeological research, the refinement of methods, our aim can be self-destructive research on mounds (demolishing the body of the mound). Of course, many times and in many places rescue excavations are inevitable because it is the only way to avoid the total destruction of the finds. Many questions can be answered after the due preparation of the authentication excavations. Nevertheless, we believe we have to focus on the complex research of sample areas in cooperation with nature conservation and the natural sciences, often satisfied with geo-archaeological research with little disruption, and an example can be the Oltó-halom (Curdling Mound) research project, started in 2007. Every activity of humans has an effect on their environment. Their connection is complex. It creates a continuously changing system with different time scales as the communities of people and the environment are constantly changing, transforming and influencing each other. After thousands of years of natural landscape transformation of the Great Plain, a significant part of our former mounds and hillforts underwent transformation. Under field conditions, looking at them from the earth's surface, now they are almost unnoticeable. These days, instead of the former expensive archaeological excavations when huge masses of earth were shifted, or rather as their preparation, the complex research methods of the natural sciences help to learn about them. The application of computer technology and particularly the geographical information system (GIS) facilitate the comparison and analysis of data obtained during different research works.

It not only helps in the visualization of multiphasic analysis, but it helps in the modelling and verification of hypotheses as well. Preparatory research itself could bring several new results and it reveals, in a relatively non-destructive way, relics from the past of the human being. The formation of all archaeological find-spots can be related to surface form, thus during their study we examine the relationship of the people who lived in the former environment with nature. Its means can be research into the geomorphology and hydrography of the relevant area (field surveys, landscape historical investigations, prepared predictive models based on the already known archaeological sites). Remote-sensing for archaeological purposes (aerial photographing, satellite photos) is based on the fact that human society has left certain signs and traces on its environment. (Czajlik, 2006)

In the case of several mounds and hillforts - during nature geographic research - the analysis of aerial photographs helped to reveal the characteristics of the emerging ditch - running through the hilltop in a cambered form - and its surroundings. The former ditch is not indicated by any form of relief on today's completely levelled surface and it can only be observed if the proper mosaic of aerial
The stratification of the mound, the existence of the soil’s surface, and the characteristics of its mixture – the former structure of the mound – can be studied from the appearance of its surface. The methods which can help in the chronological attribution of a given object on the basis of small amounts of samples are more refined (chronological attribution by potassium-argon, dendrochronology, C14). The macro (seeds and nuts) and micro-botanical (pollen, spores, phytoliths) finds are very important in the reconstruction of former vegetation. They can be studied from different samples and aspects – e.g. charred seeds, imprints of plants, mud-flakes, charcoal –, and they can also be used for chronological attribution. We can draw conclusions from them about the cultivation of plants, nutrition, thus about changes in lifestyle and also about the climate as indirect data. (Visy, 2003)

Important information can be obtained about the former environment from unearthed snail shells. In the management of mounds and hillforts as natural values, the continuous observation of the present day’s flora and fauna of these archaeological sites has primary importance.

The importance of sedimentary geology and archaeological soil testing is growing because physical and geochemical techniques enable the recording of natural and anthropogenic occurrences in the development of soils. Soil testing has particular importance in the case of mounds where in a lucky case scenario data can be obtained about the buried soil surface or we can follow the soil formation process of the accumulated land mass.

On the outskirts of Dunatetélen, Bődı-szék (Böddi-lake) is the south-western member of the chain of saline lakes of Upper Kiskunság, protected by the Ramsar Treaty, and it is a part of the Natura 2000 network. Ottó or better known as Oltó-halom (Curdling Mound) which is still a determinant element of the landscape is located on the edge of the alkaline pusztas, close to the Kigyós-ér (brook).

In 2007 research was carried out here, initiated and supported by the Dunatáj Nature and Environmental Public Foundation. Led by archaeologist Rozália Kustár and geo-archaeologist Pál Sümegi, applied ecological research was conducted with the purpose of reconstructing the changes of the former environmental quality, territorial and land use. (Kustár et. kol., 2014)

The completed paleo-ecological evaluation shows the temporal changes of the landscape. The purpose of the study was to obtain data for researchers from the sedimentary body of the mound developed by human intervention without archaeological excavation and exploration. The geological sampling covered the mound’s internal sedimentological relationship, the deposition of individual layers on each other, and their spatial and temporal development, and it concentrated on the excavation and determination of the permanent layer of soil under the mound on the original surface, which soil didn’t develop further after the formation of the mound.

The formation of the body of the mound might have been done by the utilization of the sediment and soil on the surface in the immediate vicinity of the mound so after the analysis a conclusion could be drawn about the quality and type of soil that had been on the surface in the Prehistoric Age. The part of the mound close to the surface, getting into an elevated position after the erection of the mound, underwent new soil formation in the continuously dry environment, and a typical grass land soil level developed on the mixed materials of the soil surface. In addition to soil formation, the erosion processes also played a significant role in the shaping of the surface of the mound.

The mound had significant human impacts in later periods. Besides thousands of years of grazing and trampling, in the 19th...
A century a farmstead and a sheep barn were built at the foot of it and a well was bored for watering the livestock. During the construction, a part of the mound was carried away or levelled. Today illegal motocross races destroy the surface of the mound so its original form has been strongly transformed and altered due to post-genetic human impacts.

The drilling started from the surface of the mound with a 5 cm scaled motorized auger, to an average depth of 6 metres. As the layers of the mound and the soil covering the original surface at the bottom of the mound could have dried up several times, pollen analysis was not possible due to the destruction and selective preservation of pollen. However, snail shells occurred in a few layers during drilling, therefore the sedimentological analyses were complemented with the analysis of these finds as well.

With this research a basic project was carried out on a small budget, which gives the possibility to continue on a larger scale, based on its natural scientific knowledge-material (as well as it can be incorporated into a larger project). A lot of hypotheses were raised which could be authenticated with further far-reaching research backed up by new chronological methods of the natural sciences. The results, obtained in this way, are comparable to the former paleo-ecological tumulus research along the River Tisza, and they could serve as a basis of tumulus research to be launched along the Danube.

We can come across mounds on the Bácskai-síkvidék (Bácska Flatland) too. Among them the most distinguished are the mounds at Vaskút and Madaras and close to the former one an artificial rampart stands as well. We could say they are known the best as several excavations have taken place here. Unfortunately, it is not the case as the research was carried out in the ‘heroic age’ of archaeology. Since 1941 there haven’t been further excavations, only research history reviews have been produced. (Zalotay 1957; Kulcsár 1989; Köhegyi-Vörös 1999; Masek 2014)

The first trace of the mounds of Vaskút in modern historical sources is in the so-called military survey map of Joseph II, First Military Survey of the Habsburg Empire. 6 mounds were delineated in the northern group and 9 in the southern one, around the rampart. Florish Rómer excavated 4 mounds in three days in 1868:

‘The first day we started the excavation with sixteen people but as the work was progressing slowly, the next day more than a hundred people were set to work. But the number of spectators was also growing, thus on the third day, the resourceful innkeepers set up tents for the curious people arriving from a distance.’

Ferenc Czirfusz reminisces about the excavations the following way:

‘Two mounds were opened on the northern side and two near the ring fort where five fathom deep, the mouth of a hollow opened, in
Rómer's records and drawings can help in the reconstruction of the excavation of the mounds of Vaskút, but plenty of open questions remain. In all likelihood, the finds from mounds number 4 and 8 refer to the Sarmatian Age (S-shaped iron clamps, nails, iron bands, fragments of swords, daggers and chisels), but at present without a more thorough excavation it seems premature to place the mounds of Vaskút among narrow chronological limits.

Gyula Dudás had a look at the mounds in 1900 and wrote the following: ‘The average heights of the mounds vary between 20-30 metres, they are strikingly steep, thus they can only be climbed on certain sides. The average size of them is over 2-300 square metres. Their shapes are very particular and similar ones can only be found on the outskirts of the neighbouring village of Regőce. As I see, Rómer and Csifrusz didn’t excavate the larger mounds, but the smaller ones.’ (Zalotay, 1957)

Where Flóris Rómer, Gyula Csifrusz and later Ferenc Tompa excavated, today only 3 kurgans rise as members of the northern group (they are 2, 3 and 4 as numbered). The outline of the southern group of mounds is more and more indistinct and they slowly blend into their surroundings.

A far more extensive field of mounds can be found on the outskirts of Madaras, where the first excavation was carried out in 1903. In 1935 István Burányi delineated 117 mounds. In 1952 Elemér Zalotay excavated in the area and then from 1957 the excavations were continued by Mihály Köhegyi up to 1975. Altogether 666 graves were described. Based on the excavation it became apparent that the mounds were parts of a larger Sarmatian cemetery, where at the same time graves, surrounded with circular ditches and simple skeleton burials also occurred. The cemetery dated between the 2nd and 5th centuries is the Sarmatian cemetery of the settlements of the Great Plain with the largest number of graves and it was excavated in the largest area. There was a sea of grave goods to be found. (Kőhegyi-Vörös, 2011)

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In 1999 the first grave of a notable Cumanian warrior was found in Cseenge in Csongrád County, which was documented by professional archaeologist Ferenc Horváth. (Horváth, 2001)

Beside the meticulous observation, recognition and documentation of phenomena, the application of the modern methods of the natural sciences got a significant role as well.
In 2001 in the Kalocsa Sárköz the Institute of Archaeology of the Hungarian Academy of Sciences and the University of Tübingen started a comprehensive micro-regional research under the leadership of Eszter Bánffy and Jörg Petrasch. Its aim was the reconstruction of the formation and development of Neolithic productive farming in the Danube valley. The two main archaeological sites of the research area were Fajsz-Garadomb (hill) and Fajsz-Kovács-Kovás-halom (Mound).

The archaeological sites of Fajsz can be found in the area of alluvial sediment of the Danube River, covered by loess and loess mixed sand on the chess-board patterned surface, fragmented by the former waterways and abandoned Danube beds. The silting up of the abandoned Danube beds and the river branches along the main branch started with the settlement of Neolithic communities who engaged in a settled lifestyle and productive farming (cultivation of plants, animal husbandry).

The Geological and Palaeontological Department of the University of Szeged surveyed Kovács-halom at Fajsz – which once was circled by Sártű-fok (rivulet) – with a series of drilling along its north-south axis. The Tell of Kovács-halom was formed on such an alluvial island where the streams and abandoned beds surround the archaeological find-spot like a ditch. In the area of the dwelling hill three distinct decaying layers can be separated by drilling, based on different levels of burning and loess sediment. Moreover, various archaeological objects could be revealed (pits, foundations of houses). During the past 7,000 years, a 2.5-3 metre thick sediment layer accumulated on the dwelling hill - being inhabited in several periods, which is being intensively destroyed these days. The stone tools which were found in huge quantities in the area prove its importance in the trade and processing of stone materials. In addition to the Neolithic settlement, archaeological finds from the Copper Age, Bronze Age, Sarmatian Age and the Middle Ages were taken to the museums of County Bács-Kiskun.

Presumably, most of the accumulation of the erosive sediment of lake, marsh and bog in the surroundings of Kovács-halom occurred in the 20th century when people converted to large-scale agricultural production and tried to equalize the existing level differences between the silting up river beds and alluvial islands by grading.

The Turkish record of Sanjak census from the year 1570 of the Nahiyahs of Kalocsa and Solt can serve as an interesting addition to learning about the site when we read the following at the description of Fajsz: 'The boundary of the afore-named town according to the document in their hand, given by the Muslim tribunal, is situated - since bygone days - from the place named Kovács-halma to the fish pond of Kis and Nagyhely (Small and Large place) and from there to Istvánága and from there to a place named Sesztok and from there to the water, named Kisvajos.' (Csorba, 2000)

In the second half of the 19th century, the aldermen of Fajsz recorded the following on the questionnaire of Frigyes Pesti, about the dwelling hill which was known at that time as a frontier hill: ‘Kovács-halom is a round hill, from where burned coal was dug out as well by the inhabitants.’ (Pesty, 1984)

South of the line of Kalocsa-Szakmár we expect that additional multi-layered dwelling hills will be found.
According to our knowledge, there are 23 hillforts in the operational area of the Kiskunság National Park Directorate. However, there is little data about the individual hillforts, and because of the lack of complex research, we don't know much about them. Inside the ramparts – according to landscapes and periods – several types of materials were used for strengthening the construction, but in our region we hardly find a trace of these. Later generations often carried away the stone materials which may have been used once, because the Great Plain was poor in stone, and during cultivation the ditches and fortifications were levelled.

The number of areas where archaeological excavations were carried out is insignificant. The determination of the time of their existence, based on field surveys, is often uncertain. It has been known many times, that beyond the historical and cartographic sources, the local oral tradition was based on real data; therefore, these data can't be ignored either. Today newer and newer archaeological sites – which could be listed here – are revealed by the intensification of aerial archaeological research and during systematic collection and field surveys.

In the Danube-Tisza Interfluve, on the basis of field conditions, it is likely that there are a number of areas which could have been favourable for the construction of fortifications. Previous field survey experiences and archaeological data show that ancient hillforts are most likely to be found on residual surfaces along the Danube River and on the edges of Homokhátság (Sand Plateau). On the flood plain of the unregulated Danube, the large river could destroy the surface several times a year through more branches as well but some fragmented surfaces between these branches remained intact like islands, e.g. Tétélyhögy (Tétély Hill) or Meleg-hegy (Warm Hill) in the area of Solt, but a similar residual surface and strategic point could have been the plateau of Halomi-högy (Halomi Hill) on the boundary of Homoméggy, all of which rise 10-15 metres above the plain of the Danube valley. The identification of hillforts is the most difficult on the high flood plain of the Danube where intensive agricultural activities have worn down strong terrain shapes thus only aerial archaeological research could reveal the ditch systems of the former hillforts e.g. in the area of Harta-Bojár. (Goguiey-Czajlik-Bödőcs, 2003)

The least data referring to fortifications is in the flatland of the Danube-Tisza Interfluve. However, a number of names occurring in the area as Strázsahegy (Guard hill) may indicate the existence of former reinforced watch-posts. Beside the field conditions, communication routes and boundary zones between various areas and regions had a great importance as early as the Prehistoric Age but especially in later periods. Today in many places afforestation also makes it difficult to get to know them (Roman forts and watch-posts along the Danube River).

We have more data about the existence of hillforts on the Bácska Plateau – Sarmatian ramparts and palisades from the Turkish Occupation-, but their archaeological research is also very incomplete.

The uncertain data suggests that it is expedient to prepare the description of the former significant fortifications in the Danube-Tisza Interfluve going forward in time, through some selected examples. We leave the description of the hillforts inhabited in several periods last. In our region we can take the earliest reinforced, elevated sites into account from the Copper Age. A settlement surrounded by a ditch and rampart was assumed to have existed on Meleg-hegy (Warm Hill) at Solt by Attila Horváth and Elvira H. Tóth. (H Tóth, 1990)

Hillforts in the Bronze age

We know of several hillforts, established in the Bronze Age particularly during the Vatya culture, or we presume by secondary data, from Dunavecse across Tétélyhögy (Tétély Hill) of Solt and some find-spots of Harta to the southern edge of the border (to the line of Szeremle-Dávod-Hercegszántó). In the same period, the hillfort of Tiszaalpár could have guarded the trade route, running through a ford of the Tisza River. The areas of these hillforts are various. Their size varies from approximately 1.5 hectares (3.7 acres) to 30 hectares of fortified area (74 acres).
Érsekhalma-Hildpuszta

One of our most important hillforts from the Bronze Age is situated on the outskirts of Érsekhalma on a steep loess bank, 20-25 metres above the former flood plain of the Danube River. Among the ethnic Germans of Hajós, the place is known as Vawantschana Bearg (its pronunciation: fävancsánh beacon, and its original meaning: Élátkozott hegy (Accursed Hill) or Elvarázsolt hegy (Enchanted Hill)) and gruesome stories are told about it: 'Somewhere between Hajós and Nádudvar on the road to Baja there is a valley and the hill toward Hajós is the Élátkozott hegy (Accursed Hill). The old men in the past called it Elátkozott hegy (Accursed Hill). It was said when the full moon shines in the night and the moonbeam just illuminates the hill, the sluggish hill makes a move and at midnight sharp opens its gigantic gates and makes the innumerable treasures gleam, hidden deep inside, but once a month and only for a few minutes. Because when the moonbeam passes, the hill closes again. This hill has a secret gate but neither the hand of a man nor a magic word can open it. Only the peaked out eyes of a six-year-old child thrown through the keyhole can open it. Then the lock unsnaps, opening the gate and the hill shows its treasure hidden deep inside.

Who should go down there can grab all kinds of treasure. But woe betide him if he ever forgets about the time in his greediness and doesn’t leave in time with the treasure because if the moon’s light fades away from the gate, the hill will trap him forever. But that gate has never opened yet because there hasn’t been anyone who could have sacrificed the eyes of his child for the treasure. ('collected by Mária Schön) (1919/ from Mrs. Ferenc Mendler)"

The entrances of the caves/cellars on the side of the hill further strengthened the numerous popular beliefs. It is believed that: 'There, behind the Talla a huge hole gapes wide open, it is a cave on the other side of the story road. There was a cave in the hill. It was told the Turks shot down I don’t know how many people, and when they were shot, the hill caved in and they were all buried, the Turks as well. So it was told always. The hole was so large there as it was in our cellars. All were buried under the hill. That’s the reason why it is called the Accursed Hill. or 'Some caves are traversable, on this side was the entrance, on the other side the exit. But there were ones also without an exit. It is unimaginable that water could have made them because water does not come up there, as they are up on the hill. Maybe they weren’t used as a dwelling place but surely they were used for something. Perhaps they were hiding from the enemy or something like that.’ ('collected by Mária Schön)

Mihály Köhegyi wrote the following in his report about these: 'Elderly people say that 80-100 years ago the people of Hajós and Nemesnádudvar brought here the wine tithe during the administration of the tithes, as they were manorial cellars. Of course, this doesn’t preclude the possibility that the cellars with other functions may also date earlier."

From the area of the hillfort from the Middle Bronze Age, finds also came to light earlier but for the real discovery we can thank teacher Ferenc Deli, who established an exemplary connection with Mihály Köhegyi, archaeologist of the museum of Baja, and continuously collected data relating to the area, urging smaller rescue excavations at the surroundings of Érsekhalma, most of which still haven’t been processed unfortunately.

Let’s quote from the report of Mihály Köhegyi from the documentation department: 'On 26 May in 1959 I inspected the earthwork reported by Ferenc Deli teacher of Érsekhalma and delivered the finds to the museum. The handed over materials were the following: two cups and a pail from the Vatya culture. Deli took me out to the place where he had found them.

On the left side of the Nádudvar-Hajós road north of it there is a deep ravine and the road leads through it to the State Farm of Hild. On the east side of the dirt road the loess breaks off in blocks weighing a ton. On the top of the 15-20 metres high loess wall four dugs can be seen. They are on average 2-3 metres deep and 1-1.5 metres in diameter. There is crockery, mud-flakes, animal bones and at the bottom of the pit scattered potsherds of Vatya culture..."
South of the ditch of the hillfort...there is a cremation cemetery from the Bronze Age. The bowls that Deli handed over were found here while digging a potato pit. On the surface there are potsherds. Accordingly, a cemetery with hundreds of graves can be at this location.

In 1978 Gyula Novák and Attila Horváth surveyed the hillfort. At the beginning of the 1990s a new survey was carried out. From north and north-west it is bordered by a steep bank, it is connected with a plateau of the same height only from the east and south-east, protected from this side by a 30-40 metre wide and 3-4 metre deep ditch. During forest management the rampart was cut through and the site of the cut-off ditch was filled. (Bóna-Nováki, 1982)

The next culture, devoting energy to building fortifications, lived in the late Bronze Age, during the so-called urnfield culture, from which period data are available about settlements surrounded by a ditch and rampart, from Dunapataj, Szakmár and from Halomi-hegy (Halomi Hill) of Homokmégy.

In 1966 Éva Vadász accomplished a land surveying around Dunapataj. On the basis of her descriptions – published in her thesis – she assumes the existence of a large Early Iron Age settlement in the area of Böddpuszta in Dunapataj. (Vadász, 1967)

Based on the changing soil colour, she described the structure of the settlement as follows: A semi-circular 50-metre long ditch connected to the southern part of the bed (its width is 2.5-4 metres). On the west side, she observed the starting point of another ditch in a several metre long section, about 110 metres from the starting point of the inner ditch. She didn’t observe site phenomena besides a larger rectangle-shaped patch of discolouration within the inner ditch, directly connected to it. Between the inner and the outer ditches she saw a patch of pits of about 5 metres in diameter. On the outskirts of Kiszultés in Szakmár it was also Éva Vadász who made the field survey in the 1960s. Here she described a hillfort protected by a 2-metre wide rampart, bordered by a gentle slope on the western and a moat on the northern side.

Map: Palisade from the Turkish Occupation in Szentkirály (Dunapataj) in the First Military Survey - Source: Kiskunság National Park Directorate

Photo: Érsekhalma-Hildpuszta. Loess valley next to the hill fort in 2015 – Réka Balázs

Map: Palisade from the Turkish Occupation in Szentkirály (Dunapataj) in an aerial photograph from 2005 – Source: Kiskunság National Park Directorate

Photo: Palisade from the Turkish Occupation in Szentkirály (Dunapataj) in the First Military Survey - Source: Kiskunság National Park Directorate
Hillforts, fortifications in the Danube-Tisza interfluve

Forts and road-posts of the Roman age

The established trade routes – e.g. salt route – followed the conditions of the terrain; therefore, their trails had not been changed for a long time such as the crossings of the Danube and the Orje (Old Holocene Danube channel). These served as the basis for building the Roman counter-fortress systems in the 4th century.

In the operational area of the Kiskunság National Park Directorate, the remains of a counter-fortress were found in the vicinity of Kalimajor, Solt. This building, together with the excavated fortress on the right bank of the Danube at Bölcske, watched over the navigable Danube branch. The ground-plans of the two Roman forts were similar. There was a larger tower in the middle, with four smaller corner turrets which surrounded the closed inner bay. The length of the counter fortress was 74 metres but the width of it couldn’t be accurately measured because the Danube washed away its western part.

Sarmatian ramparts

Popular legends also preserve places related to the Romans from the inner parts of the Great Plain, for example Tételhegy (Tetel Hill) of Solt or the Csonkatorony (Truncated Tower) at Soltszentimre, which could have been fortified places indeed, but according to the present state of research, we can speak about the secondary use of the stones of buildings of the Roman Age, rather than the evidence of the former presence of the Romans. The dating and assessment of those Sarmatian relics which were found on the Bácska Flatland is an interesting question.

The rampart to the south-east of the inner part of Vaskút – which was ascribed to the Turks in folk memory – shows up as a definite terrain form on the map sheets of the First and Second Military Surveys. The first research in this area started in the second half of the 19th century, though at that time the nearby towering mounds were in the centre of attention.

The fortresses, which were situated 200 metres apart, were open towards each other. The depth data of the opening of the wall facing the river, and the phenomena observed in the foundations here show that at this section watercraft could also enter the enclosed bay which was protected by the walls and towers.

According to archaeologist Géza Szabó, leading the excavation (1994) ‘theoretically the crossing of lesser or greater military units between the two buildings could be achieved by a permanently or temporarily set up pontoon or floating device along a tightrope. In my opinion, based on observation made during the excavations, the suspected inner protected bay tends to suggest - as in the recent past it was common practice in some places - that in front of the middle tower the people crossing could get on and off the vessel which was moved along the tightrope between the two banks of the river.’

We know of several counter fortresses in the Danube bed between Dunasszentenedek and Foktő and in Dunafalva.

Ferenc Tompa carried out excavations on the site between 15-20th September in 1941, and during that time he conducted research in the hillfort and in mound No.12. From the excavation diary it comes to light that the research started with a 10-metre long and 5-metre wide ditch which was perpendicular to the rampart. The location of the excavation was marked out at the entrance of the hillfort.

The first potsherds appeared in a depth of 50-60 cm from the contemporary surface. According to the description, they were from the ‘period of the emperor’, that is to say they can be connected to the Sarmatian people. Further fragments were mentioned to a depth of one metre. It is to be noted that in a depth of 70-80 centimetres animal bones together with coins and an iron knife from the Middle Ages were found.

Gyula Dudás also studied the hillfort in 1990, where he found a 20-30-metre-high earth-wall. Its base width is 40-50 metres and at the top it is 15-20 metres wide, ring shaped. The fort has an area of 0.8 hectare (2.1 acres). The entrance is in the north-west. He believed it was built against the enemy coming from the east and south. (Zalotay, 1957)

The slots of posts strengthening or renovating the entrance were found 120-130 centimetres from the surface. On the basis of the pairs of...
post-slots situated in a semi-circular position or the distance measured from each other, it was supposed that originally a watch-tower or a watch-post was here. There were also four pits in the trial trenches. According to the description and photos, they were close to each other, relatively not too deep - 30-60 centimetres - in the subsoil. Fire marks, a shield boss and a glass bottle were also mentioned from the filling of one of the pits. Mihály Kőhegyi and Gabriella Vörös consider the hillfort from the Sarmatian Age, and they assume its construction was in connection with the supervision of the road running on the line of Contra Florentiam-Bátmonostor-Szeged.

We have had data about the two other, presumably Sarmatic ramparts at Érsekhalma for only a few years.

The double road-post, surrounded by a rampart and ditch on either side of the deep ravine, was built for the surveillance of the road through the Örjeg. During the preliminary field surveys only some pieces of mud-flakes could be collected on the area of the ramparts, therefore in 2009 a trial trench was built for the surveillance of the road running on the line of Contra Florentiam-Bátmonostor-Szeged.

The materials of later periods didn't appear; the brown, compact, homogeneous patch in the loose sandy soil layer, the grey, ashy layer occurred which could be well separated from the filling of the rampart. This grey, ashy layer is 90 to 100-centimetre wide pit, and in its upper part – as well as in the filling material of the rampart – we mostly found Sarmatian potsherds (and some from the Bronze Age). The materials of later periods didn't appear; therefore, the age of the ramparts was presumably Sarmatic.

Centres from the Arpadian age and the Middle ages

Since the time of the Hungarian conquest, dwelling centres and monorial centres developed and we know of the places of several similar centres from historical sources. (e.g. Halom hill of Homokmégy or Hantoka of Miske).

Manor houses appeared within settlements, which is proof of the separated husbandry of some families (e.g. at the archaeological sites of Harta-Freifelt). Kalocsa was one of the significant medieval centres of the region because of its archbishopric. Tradition has it that Astrik had the first wooden archbishop’s residence built, which stood on the highest point of the town. In the 13th century the fortress – specifically for the function of defence – was built on the same place of the island, which was surrounded by water and directly navigable from the Danube.

In 1665, during his second tour of Hungary, the famous Turkish traveller Evliya Çelebi visited Kalocsa and wrote the following about the town: 'The fortress of Kalocsa. King Lewis had the fortress built which was conquered by Suleiman.'

The fortress is an hour away from the Danube River. When the Danube is flooding, the fortress becomes an island in the middle. Its surroundings are a marshy place. Opposite its harbour, on the other side of the Danube River, on the road to Buda is the fortress of Paks. Actually, its fortress is in the area of the Sanjak of Szeged and its tax is the income of the castle-guard of the town of Eger. It is a fortress surrounded with a double loam-wall. Within it has a new, strongly built, nice, quadrangular fortress which is really strong. It has only one gate, facing south-east, with a wooden bridge which can be lifted with pulleys. The guards hoist it every evening as well. Deep water is under this bridge. There is a mosque in front of the gate, three shops and a small inn.' (Çelebi, 1908).

In the Middle Ages the function of defence could also be fulfilled by churches. It is enough to mention the Csongorotony (Truncated Tower) at Soltszentimre. Here, on the western frontage, the torso of the former tower of the polygonal, chancel-ended church has remained which originally was four storeys high. On the basis of its loophole-like window openings, the church, built in 14th century could also be used as a fortress as well, which is confirmed by the presence of an encircling moat around it too. (Pammer, 1962)
In the summer of 1999 when the excavation of the church from the Arpad Age on Szent Tamás-domb (Saint Thomas Hill) was going on, old people said that Szent Tamás-domb and Vár-domb (Hillfort) of Szelid were connected by a tunnel which once someone had fallen into while ploughing, together with the horse and plough. A similar legend was published up László Szabó in the issue of July of Pataji Hírlap (News of Pataj) in 1995.

Going towards the south along the Danube we have to mention Baja of the Turkish Occupation, which was the centre of the Nahiyah of Baja. At this time it was a major fortification and port with hundreds of houses, a mosque and a public bath.

We have data about the existence of a Turkish fortress on the outskirts of Katymár (Turski grad), which is described in the words of Mihály Kőhegyi and Mrs. Solymos Márta Gölder:

‘Where did the palisade fortress of Madaras stand? Its former place has been retained for us by the name of Turski grad on the outskirts of Katymár. The Swabians who moved in later also called the area in the language of the Bunjevci as it was before, and it has been called the same up to this day. All sides of the small hill south-west of Madaras and south-east of Katymár in the Roglatica area are surrounded by water. The marsh is fed by the Kigyós patak (brook) flowing north of the hill. The hill, which is about 200-300 metres long, 100-150 metres wide and 2-4 metres high, stands well out of its surroundings. The palisade, which was made from rammed earth between parallel lines of thick beams and posts, stood on the south side of the hill. But inside, there had to be brick masonry buildings as well because their traces were found during archaeological field surveys. The stones and the white marble fragments certainly originated from the mosque. We don’t have data about the building of the palisade but it couldn’t have been built in the early age because its name must have been mentioned in the soldier’s pay-book of the years 1565 and 1568 together with the surrounding fortresses.’

(Kőhegyi- Solymosné, 1975)
Hillforts populated over several periods

Solt-Tételhegy (Tétel Hill)

The significant river erosion on the former flood plain spared the remnant hill of Tételhegy (Tétel Hill) with its highest point towering about 17 metres above the plain, which left its relics to posterity from the Copper Age to the Late Middle Ages. The sporadic finds which were collected on the surface, the series of photographs made for military and later for archaeological purposes prove the intensity of settlement.

In 2005 research work started under the leadership of József Szentpéteri in the area of the 100-hectare (247 acres) remnant hill east of Solt. On the basis of about 2000m² where the planned excavations have been done so far (it is only 0.2% of the total area of the find-spot), the settlement history of Tételhegy (Tétel Hill) can be described only schematically today. A lot of food stores and refuse pits as well as ditches – among them a part of a long water-trench – of the settlement in the Middle Bronze Age were excavated, which could be dated easily.

In 2007 at least one hundred graves of the rowed cemetery from the 11-12th centuries were excavated and the remains of a roughly twenty-metre long sacral building were found in the centre of the so-called Templomdomb (Church Hill) surrounded by an oval (about 200 metres long) ditch. (Szentpéteri, 2014)

Map: Tételhegy (Tétel Hill, Solt) in the First Military Survey
Source: Kiskunság National Park Directorate

Homokmégy – Halomi hegy
(Halomi Hill)

The highest point of the Kalocsa Sárköz is the Halom-högy (Halomi Hill) (106 metres) within the administrative area of Homokmégy. It is the remnant of the Old Holocene terrace of the Danube River (its remnant hill), which is the highest elevation of the surrounding area, beside which the highway to the ridge of the Danube-Tisza Interfluve runs. Since the Prehistoric Age its central role could have been marked out by its excellent environmental and strategic situation. It towers 10-15 metres above its surroundings and the Archaeological remains can be found in its whole area (about 500x600 metres, roughly 30 hectares /75 acres/). Éva Vadász collected potsherds from the Neolithic, and a lot of it from the Iron and Middle Ages. She found that the west and south-west sides of the hill were surrounded by a moat which joined the Malomér (Mill Brook) in the east. The new field surveys confirmed that intensive settlement in the Late Bronze Age and Early Iron Age has to be reckoned with (indented rimmed, flattened and turban coiled bowl fragments, knob-decorated and faceted fluting side fragments, etc.). On the basis of the mould of a dagger with a tang and the sporadic potsherds, a craft centre could already have been here in the Middle Bronze Age. Based on our knowledge so far the system of ditch and rampart of the hillfort was built in the Bronze Age, and the existing features of the terrain were utilised by the subsequent settlers. The Malomér (Mill Brook) that once drove the watermills flows at the foot of it. Its origin is connected to historical times in folk memory: ‘When Attila the Hun was marching in our region with his army, he was looking for higher ground where he could set up his tent and thence could keep an eye on his camp. Not having found a place like this, he commanded his sea of soldiers to shake the mud, of which there was plenty here, from the heels of their boots into one mound. So this is how Halomi-högy (Halomi Hill) was created, where Attila also set up his tent.’ (collected by Imre Romsics) In the 11th century a royal manor house (curtis) was established on it which was given - together with its demesne - to the Abbey of Szekszárd by Béla I in 1061. (Győrffy, 1987)

Tiszaalpár – Várdomb
(Hillfort)

The village of Tiszaalpár is located on the right bank of the middle section of the Tisza River, on the eastern edge of the Danube-Tisza Interfluve. The Tisza River played the primary role in the development of the area. About 15,000 years ago, during its meandering - as a result of its destructive and building work - the river created a 5-10 km wide area. Because of the lateral movement of the river, it reached the edge of the Ridge of the Danube-Tisza Interfluve at several places, thus it washed away the material of the loess at Tiszaalpár. At these places the fluvial deposit and the layers of aeolian deposits of the Ridge meet with a steep river bank. At present the Tisza River flows at a distance of about 4 kilometres but it is the result of the mid-19th century water regulation, and up to that time it had flown directly next to the village, at the bottom of the high hill.

At several places the high bank is fragmented by deep gullies of natural origin. On the north-east edge of the village, a hill is separated by one of the gullies, which is the highest area of the neighbourhood, bordered by steep sides all around. The hill which widens into a flat plateau is divided into two parts. Templomdomb (Church Hill) (its other name is ‘Kisvár’ (‘Small Fort’)) is the larger part of it, and close to its western edge the Roman Catholic Church stands. The other, smaller part of the hill to the east is Várdomb (Hillfort) (its other name is ‘Nagyvár’ (‘Large Fort’)), and its area is much smaller than the previous one. The two parts are separated by an average of 8-metre deep ditch.

The Bronze Age hillfort occupies the area of Várdomb (Hillfort) forming a separate hill, with steep sides all around it. Its west and south sides are undamaged and the bottom of the north side is a little bit incomplete but the upper part of the hill is still intact. We don't know the exact beginning of the conscious archaeological research of the hillfort. In the literature we read about the first authentic archaeological find of Várdomb (Hillfort) in 1869 when László Madarassy sent an intact earthen vessel to the Hungarian National Museum which was dug out of the side of Várdomb (Hillfort) at Alpár.

On the area of the fortress, during his first excavation between 1900 and 1905, Elek Kada found Bronze Age finds and two graves from the Avar Age. In 1949 Pál Patay, between 1974-75 István Bóna and in 1977 Gyula Novák carried out excavations on the north-east and south part of the hillfort’s plateau and in the area of the western rampart. During the excavation, houses from Middle Bronze Age settlements were found. The rampart transections in 1949 and in 1977 showed that the hillfort, which originally had a wooden structure, and the settlement were built in the third period of the Vatya culture of the Middle Bronze Age. The houses of the settlement in the first residential period were adjusted to the rampart but as the layers were depositing, the walking level was continuously rising as well (Two Vatya III and two Vatya-Koszider period dwelling levels) and the settlement gradually settled on the rampart or rather some houses were built into it, cut into its side as well.

Thus the hillfort had lost its importance by the beginning of the Late Bronze Age and soon after this the settlement was completely abandoned and the find material of the next period, the so-called tumulus culture, couldn't be found on the area of Várdomb (Hillfort).

After the destruction of the Bronze Age settlement, there isn't any sign of human settlement on Várdomb (Hillfort) nearly for two thousand years. During the migration period, presumably an Avar extended family, who occupied Templomdomb (Church Hill), used Várdomb (Hillfort) as a burial place.

The upper, well-separable part of the rampart is certainly datable to the Middle Ages because of the iron-plate fragment and iron loop in it. István Bóna dealt with the few Medieval finds of the inner part of the rampart and the medieval significance of the fortress.
The earliest archaeological find is datable to the beginning of the 12th century and the latest to the 15th century. The fortress scarcely appears in historical sources, only Anonymous mentioned it around 1200. István Bóna assumes the Kalán family (clan) could be the owner of the fortress which had been the proprietor of the area since the end of the 10th century, but he doesn’t consider its construction earlier than the 12th century, and its importance was finally lost in the 13th century, obviously during the Tartar Invasion (the Mongol Invasion of Hungary in 1241-42). The external appearance of the fortress is very similar to the majority of the Hungarian reeve fortresses of the 10-11th centuries such as the fortress of Bihar, Szabolcs, Zemplén, Abaúj-vár and Hont although it is smaller. The main features in this respect: it is on a low but steep hill, the defence relies solely on the rampart features in this respect: it is on a low but steep hill, the defence relies solely on the rampart

Ramparts also used in Modern Times

Once the area in the south, which closed the marshland of the Danube River splitting into several branches, starting at Bölcske, belonged to the left bank of the Danube, providing an excellent passage through the great river. Roman bricks give evidence of the construction of a Roman counter fortress in the 4th century, later the local oral tradition and Mór Jókai remind us of its medieval importance: ‘...Under Páks there is no sign of the famous fortress which was given to a valiant soldier Zemplén Apostogi by our King Louis I, who saved his life during his battle against the Tartars. And no sign of the Abbey, whose deed of foundation is preserved in the archives of the Vatican. Above the fortress and Abbey the sturgeon catcher reed fences can be seen today. The boatmen avoid the dangerous place. On the outskirts of Szent-Benedek and Uszód there are two large hills. They were fortresses. The Danube pulled them down covering them with silt. The houses of the two villages are built on piles. The Danube sweeps along them every year. At such times they run up to these two hills and shout tauntingly to each other:

-You are swimming, people of Uszód! You are diving, people of Benedek! ’ (Jókai, 1928).

The historical research mentioned a number of ramparts about this area. Gyula Nováki dealt with the field identification of the fortresses linked to the events of the Kuruc period around the areas of Dunaföldvár - Solt - Dunakömlőd. Prince Ferenc Rákóczi appointed János Bottyán as commander of the campaign in Transdanubia, who started the construction of the ramparts system along the Danube. Between the beginning of 1704 and the spring of 1707 a number of ramparts, fortresses, sentry posts, and bridges were built or restored by the Kuruc, most of which are yet to be authenticated. (Nováki, 2004)

Accurate reconstruction is not possible on the basis of structural marks and timber remnants found in the rampart, but definitely we should see in them the marks of trelliswork which was characteristic of the early centuries of the Middle Ages. There weren’t any weapons and spurs from the 14-15th centuries found on Várdomb (Hillfort). On the basis of the found late potsherds and a stove’s eye, the hillfort had been inhabited till the 15-16th centuries. Várdomb (Hillfort) no longer served as residence during the Turkish Occupation and it hasn’t been inhabited since.

As the north-eastern half of Várdomb (Hillfort) was already missing during the First Military Survey of the Habsburg Empire at the end of the 18th century, its ruination and breaking off can be dated to the 16-17th centuries. (Bóna-Nováki, 1982)

In conclusion

The distinctive landscape shaping, surviving mementoes of the people who once lived here, the mounds and hillforts can only reveal their stories if we learn about their former environment. Their survival could be achieved by their legal protection. However, it is essential to take more practical steps in order to prevent their further destruction. Research on and awareness-raising about all of them has to continue. We believe that anyone participating in the exploratory research of the secrets of the mounds and hillforts, protects them as well. The protection of our common heritage is the responsibility of all of us!

‘The research objective is given and known. And it is obvious this work can only be achieved with the integrated intellectual power of [...] research. If archaeologists, surveyors, ethnographers, botanists, zoologists help each other. We have to act, not to cry, but bang our fists on the table! But beforehand we have to recover the data and justify our arguments.’ (Csizmazia, 1982)

Acknowledgements

The preservation of natural values and our cultural heritage can be exclusively achieved with the cooperation of several fields of science and this publication with its complex approach is the result of that as well. The researchers who shared their partly unpublished research results or who helped our work with their on-going professional consultations played a significant role in the implementation:

Eszter Bánffy
Gábor Ilona
Gergely Folberth
Mária Kardos
Imre Romics
Pál Sümeği
József Szentpéteri
Gábor Wilhelm

Acknowledgements are due to the enthusiastic local patriots who have been dealing with local

history and selflessly helped our field investigations:
† Ferenc Deli
István Pázmándi
Tamás Schill
Mária Schőn

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