THE CHIPPED STONE TOOLS PRODUCTION ACTIVITY OF THE LATE NEOLITHIC LENGYEL CULTURE'S SOUTH-EASTERN TRANSDANUBIAN GROUP•

A KÉSŐ NEOLITIKUS LENGYELI KULTÚRA DÉLKELET-DUNÁNTÚLI CSOPORTJÁNAK PATTINTOTT KŐESZKÖZKÉSZÍTŐ TEVÉKENYSÉGE

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Abstract

This article summarizes the dissertation which was defended in 2019. The basis of this doctoral thesis is the nearly 6200 pieces of chipped stone material from the site Alsónyék-Bátaszék, Hungary, and compares them with a similar quantity of lithic materials from the assemblages of the other published Late Neolithic sites from south-eastern Transdanubia. The first topic presented is a characterization of the local lithic raw materials usage in the different lithic assemblages. This has been assessed through field surveys to locate the primary raw material sources and reconstruct the method of the procurement activity. The second topic is an analysis of the stone tool making procedure and artefacts usage patterns. Upon this basis, a view at the entire chaîne opératoire of the lithic assemblages is taken focusing on the operational sequence of lithics production involving processes beginning from the finding of the original lithic raw material sources in their specific environmental setting, the selection of preparing and tool making procedure taking place within the settlement, and it lasts until it is deposited in the graves. This gives us a better understanding of the significance of the environmental surroundings, the knowledge of the raw material and the lithic procurement methods based on the raw material selection strategy of the particular communities, in this case the South-eastern Transdanubian Late Neolithic Lengyel culture. In the settlement, the technological system of the community, the possible activity zones and patterns of tool-use can be reconstructed by studying the lithic artefacts. In the case of those stone tools deposited in burials, a transformation from an average utilitarian/everyday stone tool into a definite symbol with in the burial context takes place, which can again be related back to the environmental surroundings ("the physical world").

Kivonat

A cikk a 2019-ben megvédett doktori disszertációm összefoglalása. A doktori dolgozat alapját az Alsónyék-Bátaszék lelőhelyről előkerült közel 6200 darabos pattintott kőeszköz leletegyüttes képezi, amely eddig publikált délkelet-dunántúli késő neolitikus lelőhelyek közel azonos mennyiségű kőeszköz leletanyagával került összehasonlításra. A kőanyagokra elsősorban a helyi nyersanyag felhasználása jellemző, így a nyersanyagforrások felkutatása mellett, a begyűjtés módja jelenti az egyik elsődleges kutatási témát. Emellett a kőeszközkészítő tevékenység és az eszközhasználat képezte a vizsgálat tárgyát, – jelen esetben a délkelet-dunántúli késő újkőkori közösség – nyersanyag-kiválasztási stratégiáján keresztül a környezettel történő kapcsolat, a nyersanyagismeret és a kőzet beszerzésének módja ismerhető meg, a környezet-közösség relációjában. A településen belül a kőeszközkészítési tevékenység rekonstrukciójával a közösség technológiai rendszere, esetlegesen a tevékenységi zónák és a használati mód válik megismerhetővé. Amennyiben a sírba helyezték a kőeszközöket, fény derülhet arra, hogyan válik az egyszerű használati/hétköznapi kőeszköz jelentésen túl a sír kontextusában egy határozott jellé, amely a környezetet szimbolizálja (a „fizikai" világot).

KEYWORDS: KÉSŐ NEOLITIKUM, LENGYELI KULTÚRA, DÉLKELET-DUNÁNTÚL, PATTINTOTT KŐESZKÖZÖK, NYERSANYAGKUTATÁS, KŐESZKÖZKÉSZÍTŐ TEVÉKENYSÉG

KULCSSZAVAK: LATE NEOLITHIC, LENGYEL CULTURE, SOUTH-EASTERN TRANSDANUBIA, CHIPPED STONE TOOLS, RAW MATERIAL PROVENANCE ANALYSIS, STONE TOOLS PRODUCTION ACTIVITY

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Introduction: the aims of the dissertation summarized in this paper

The Late Neolithic Lengyel culture can be localized in the territory of recent Hungary, Austria, Slovakia, the Czech Republic, Poland, Slovenia, and Croatia. Considering the enormous geographical extension of the culture, many regional sub-groups have been defined by the archaeological research of Hungary and the neighboring countries. The Lengyel culture was divided into several groups not only on a territorial basis but on a chronological basis also, which caused many terminological difficulties in the research (Bánffy 1991, 1994, 1995, 2007; Regenye 2000, 2011; Zalai-Gaál 1980, 1993; Raczky 1974, 1998, 2002).

The South-eastern Transdanubian group may be considered to be the most "classical" unit in the research of our country because Mór Wosinsky determined the Lengyel culture as an independent archaeological unit on the basis of the Neolithic settlement which was discovered on the border of the Lengyel settlement in Tolna county between 1882–1886. The next hallmark was János Dombay's excavation at Zengővárkony, followed by the publication of the site and the whole archaeological material, which shed a completely new light on how the culture was viewed (Dombay 1939, 1958, 1960). Later, István Zalai-Gaál, whose professional work in particular concentrated on the burial activities of this Late Neolithic community, was dealing with the South-eastern Transdanubian group of the Lengyel culture (Zalai-Gaál 1982, 1986, 1988). The site Mórágy–Tűzkődomb, excavated by István Zalai-Gaál, constituted a large impulse for the research of this culture, as the hundreds of burials found there provided a breakthrough not only in quantity but also concerning the quality of information (Zalai-Gaál 2002). In the 2000s, the large-scale archaeological excavations related to the highway construction also affected the territory of Southern-Transdanubia, which led to the discovery of the site Alsónyék-Bátaszék (Zalai-Gaál & Osztás 2009, 245)The excavation was made necessary by the motorway construction that initiated a large-scale surface investigation activity, opening the possibility to investigate an area of 25 hectares exhibiting one of the largest Neolithic sites in Central Europe (Serlegi et al. 2013, 5; Osztás et al. 2012, 377–378). Thanks to the large excavation area, a big number of buildings and burials could be added to what was known so far. This means that, in relation to the research history of the Lengyel culture, we are now able to open upa new dimension of empirical knowledge (Osztás et al. 2013a, Osztás et al. 2013b)(**Fig. 1**.).

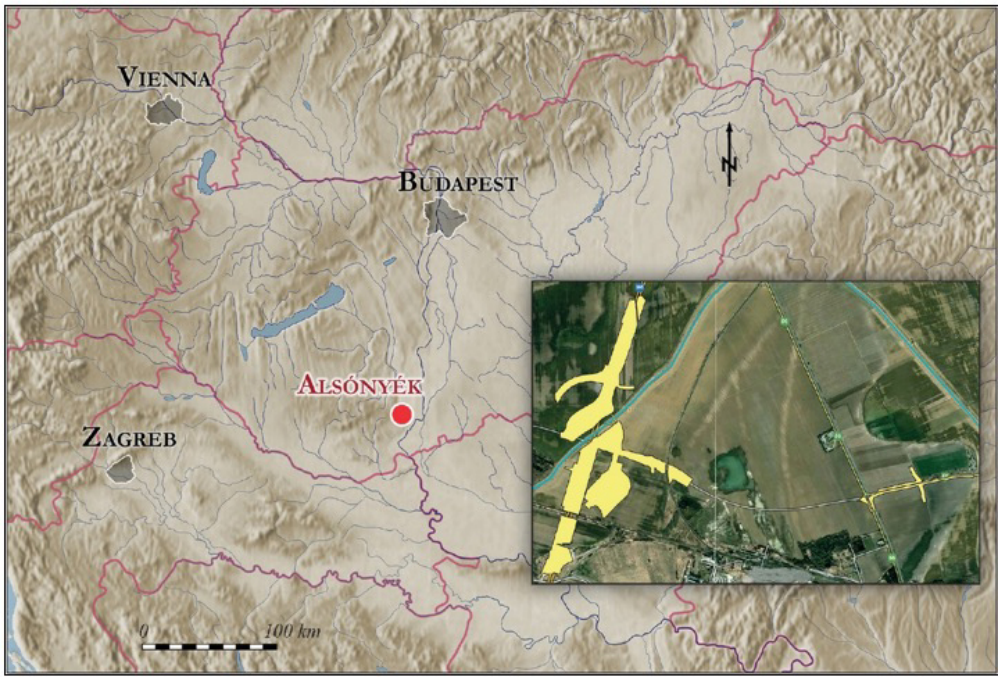

Fig. 1.: Location of the Alsónyék–Bátaszék site and outline plan of the excavation (Osztás et al., 2013a, 9, Fig. 1.).

1. ábra: Alsónyék–Bátaszék lelőhely elhelyezkedése és az ásatás átnézeti térképe (Osztás et al., 2013a, 9, Fig. 1.).

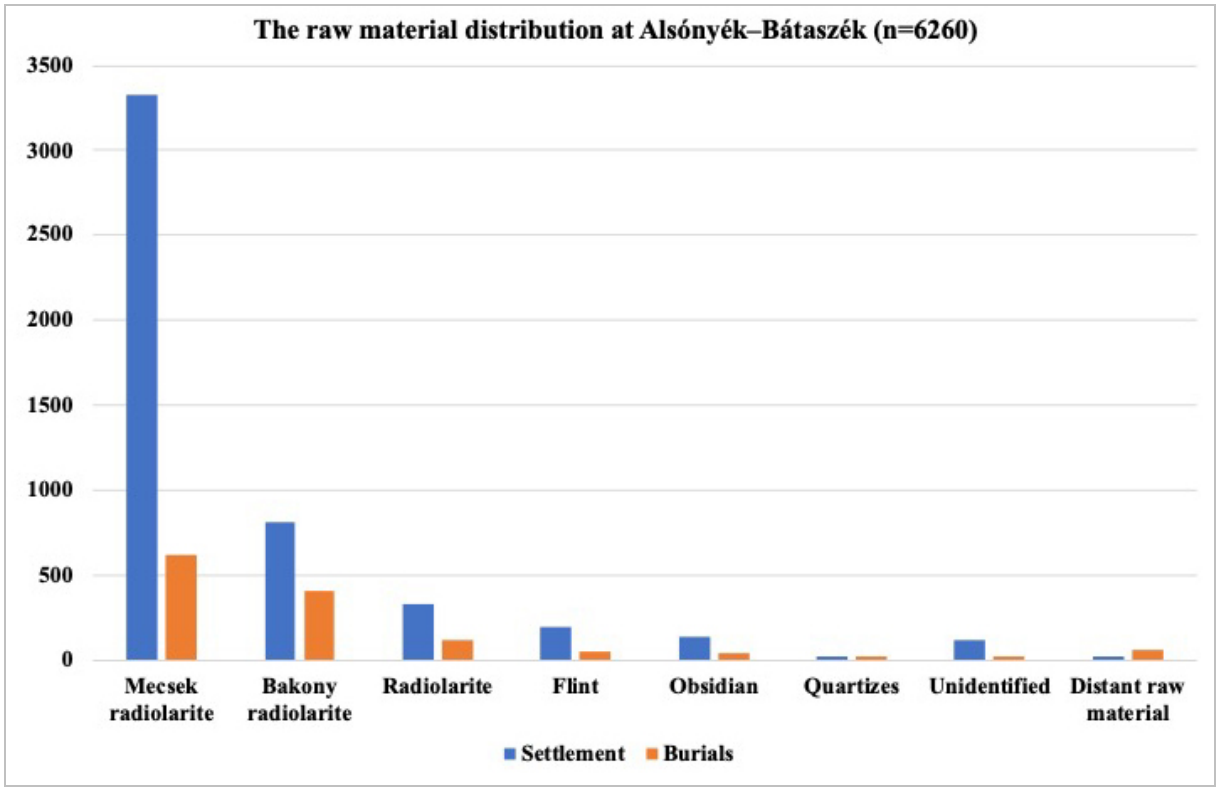

Fig. 2.: Raw material distribution in the settlement and burial's assemblages at Alsónyék-Bátaszék.

2. ábra: A nyersanyag megoszlása Alsónyék-Bátaszék település- és síranyagában.

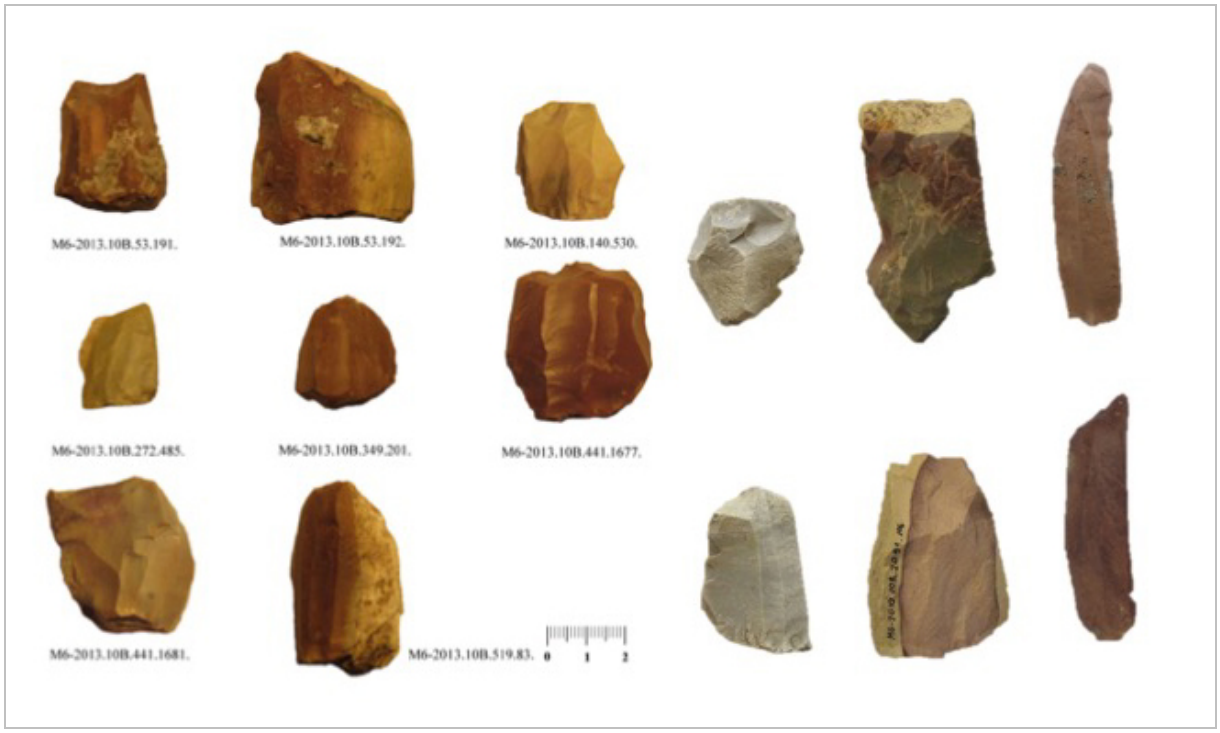

Fig. 3.: Stone tools from Mecsek radiolarite (Alsónyék-Bátaszék).

3. ábra: Mecseki radiolaritból készült kőeszközök (Alsónyék-Bátaszék).

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The basis of this doctoral thesis is the nearly 6200 pieces of chipped stone material from the site Alsónyék-Bátaszék. In the dissertation, the examination of the stone tools is restricted to the artefacts deriving from the settlement objects and burials of the Late Neolithic Lengyel culture (**Fig. 2.**). Specifically, the process of chipped stone tools production, a technological approach plays a decisive role, as it is becoming more common today also for other types of artifacts: "chaîne opératoire"is used as the suitable method for reconstructing the process of production (Inizan et al. 1999, 13–17; Odell 2006, 1–12; Andrefsky 2008, 3–13). The stages of the raw material procurement, production, and use can be distinguished in the stone tool making activity, followed by its disposal or deposition – all of these stages belong to the biography of artefacts (Andrefsky 2009, 66–70; Holló et al. 2001, 2002, 2004). The basic structure of the dissertation reflects this approach.

One of the pillars of my research was to clarify the location and position of raw material sources, which was carried out using a geoarchaeological approach (Szilágyi 2018a, 1–9). The primary goal was to detect and document the spectrum of the knappable raw material in the territory of the East-Mecsek Mountain. Moreover, I aimed to create a collection of the available geological samples, which enables a comparison between the archaeological stone tools and the geological samples. The Mecsek radiolarite is dominant in the Alsónyék lithic material, its geological source located 30–50 km far from the site in the territory of the East-Mecsek (**Fig. 3**.). I investigated the topic of raw material procurement more precisely through a field survey. The goal was to understand the raw material selection strategy, the collecting and/or exploitation activity of the Late Neolithic communities (Szilágyi 2018b, 130–132).

Next, my approach is to examine the whole process of lithic material production, all phases of stone tool preparation and production activity that is the practical process of stone tool making – made up of small gestures. The primary analytical and comparative units were applied to the lithic materials from the settlement objects and burials. I compared the primary features – the raw materials, technological characteristics of artefacts and their spatial distribution – to create the comprehensive overview over the whole lithic material. Using this method, it is possible to reconstruct the tool making activity inside the settlement, revealing the intensive nature of stone production in the Late Neolithic settlement (Szilágyi 2017b).

Approaching smaller-scaled analytical units of the lithic materials of the settlement and the burials required a different methodological approach: here the investigation focused on the spatial distribution of quantities of artefacts in relation to the original archaeological features connected to buildings in the settlement. This refers to household archaeology, and the basic point was to understand and identify the pits that belonged to one or more houses forming a household unit (Szilágyi 2017a). Where and how did tool production take place? In summary, this is a complex question which guided and constituted the research and the processing and interpretation of the lithic assemblage from the settlement.

As the stone tools which appeared as grave goods represent an intentionally selected sample, governed by systems of values and meaning, we have to research and interpret these assemblages with a different method than those from settlements. At the site Alsónyék, the main part of the excavated 2236 burials belonged to specific grave groups, which represent a transformation of the social and cognitive systems in the Late Neolithic period, because in the previous period the burials were located haphazardly and sporadically between houses and different places in the settlement (Zalai-Gaál et al. 2012). We can understand the grave groups at Alsónyék, as representing pattern of converging burial practice, because we can find a more regular pattern in the orientation of the graves, the position of the buried individuals and the features of the grave goods. In this light, the main question is to understand how the lithic materials are significant as a grave good and what they mean within the burial context. The raw material, artefact type, and the exact position are concrete signs, which represent symbols beyond the mere materiality of the artefacts. I tried to uncover the possible interpretions by drawing in the available anthropological data, and to look for correlation of object patterns in relation to biological sex and age of death (Köhler 2012, 2013) (**Fig. 4.**).

Finally, in a wider perspective, I compared the stone chipped material of Alsónyék with the published and unpublished lithic assemblages of the South-eastern Transdanubian group of the Lengyel culture (Zengővárkony, Mórágy-Tűzkődomb, Pécsvárad-Aranyhegy, Lengyel-Sánc, Villánykövesd) (Biró & Bácskay 1984, Bácskay 1989, 1990; Biró 1989, 1990). My goal was to understand and interpret the Late Neolithic community's stone tool making activity, because the mentioned sites' lithic assemblages are very similar in raw materials and technological categories. For this reason, I would like to investigate the tool making strategies, the overall technological systems and the value and significance of the local raw material in the wider Lengyel cultural unit.

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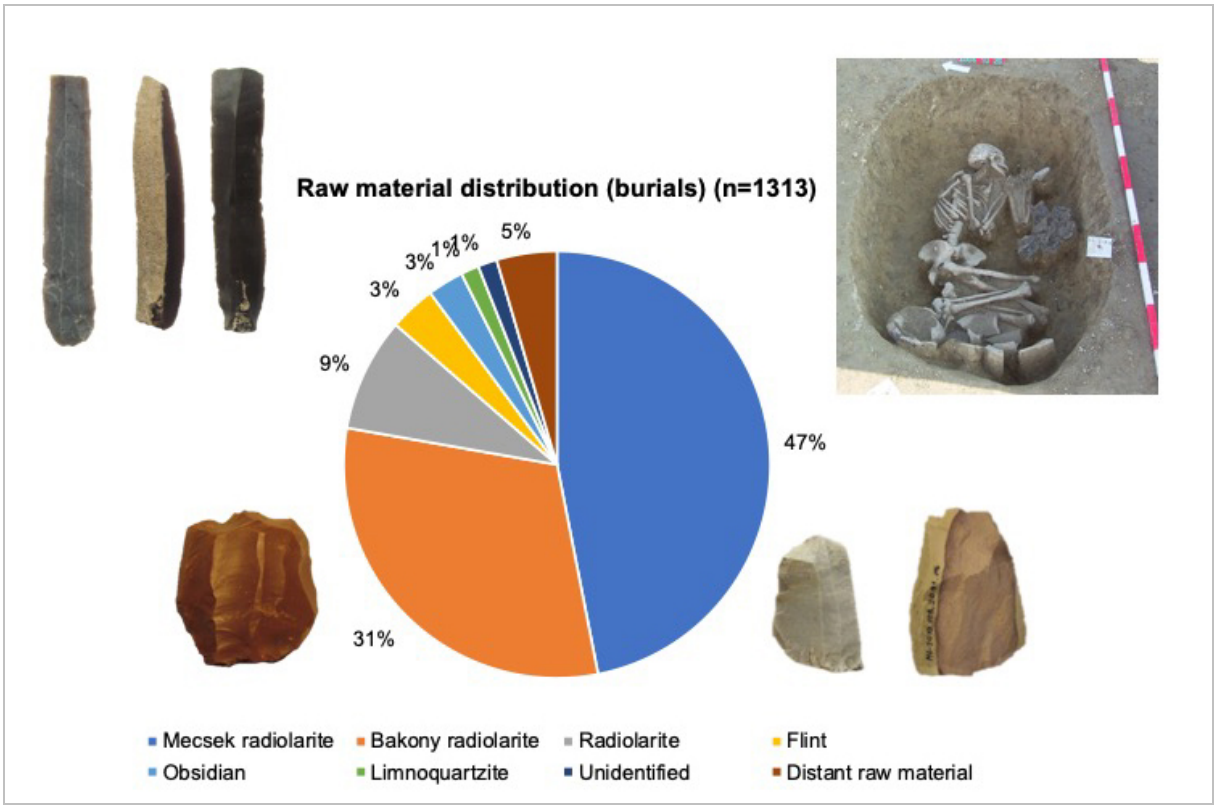

Fig. 4.: Raw material distribution in the burial assemblage.

4. ábra: A síranyag nyersanyag megoszlása.

In summary, three basic, yet all in all very complex points summarize the topics of the dissertation:

- What kinds of tool making procedure and production activity were specifically used at Alsónyék and in the South-eastern Transdanubian group of the Lengyel culture?

- What kind of significance and symbolic value did – especially local – raw materials represent in the life of this Late Neolithic community?

- How can we understand the new burials practices which were observed at Alsónyék? What did the location, the raw material and technological / typological features of the stone tools symbolize in the burial context?

The methods and the sources of the research

Since the 1970s, the technological approach became more and more important in the Hungarian/interior prehistoric research, a fact that is particularly noticeable in the research of chipped stone tools. The French prehistoric research has a long and important tradition using the technological approach and understanding, which is very well visible in the exact terminological definitions and systematic dealings with the tool making procedure known from the French tradition (Inizan et al. 1999). The technological point of view and the processing method crystallized mainly with a focus on the Palaeolithic lithic materials. Yet the overall success of this method clearly shows that this is a commonly applicable method, which is now widely used in almost all archaeological periods. The technological approach to the study of the different periods and types of artefactsenabled continuous methodological developments, that lead to a new perspective not only on new materials but also on the already published find materials. This can fuel a new discussion, which offers an opportunity to see these new findings in new ways.

The recently published site of Alsónyék,provides the possibility to gain completely new insights by using this technological approach, not only regarding the South-eastern Transdanubian group of the Lengyel culture, but also relating to the whole Late Neolithic period. This is the case because the quantity of the chipped stone tools and the archaeological features in Alsónyékheavily outnumber those previously known from all other Lengyel culture sites. At Alsónyék alone more stone tools were found than in all the other published lithic assemblages from South-eastern Transdanubia combined.

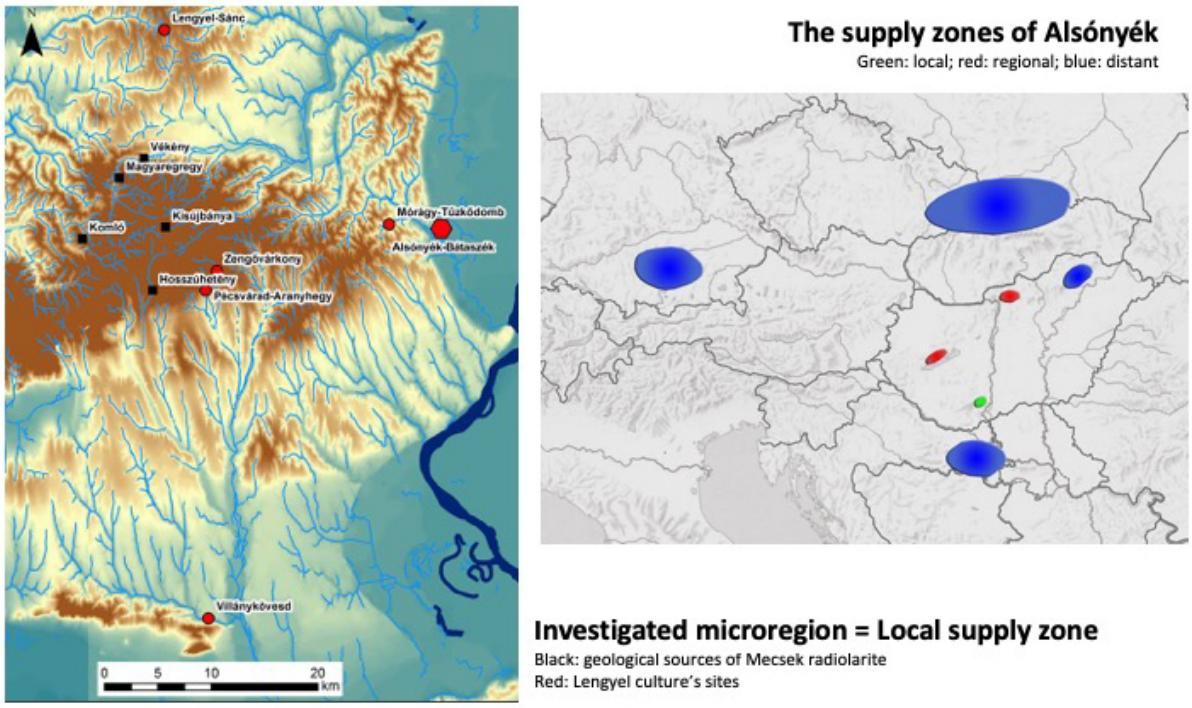

Fig. 5.: The raw material supply zones of Alsónyék and the map of the investigated local microregion

5. ábra: Alsónyék nyersanyagbeszerzési zónái és a helyi mikrorégiós kutatás térképe

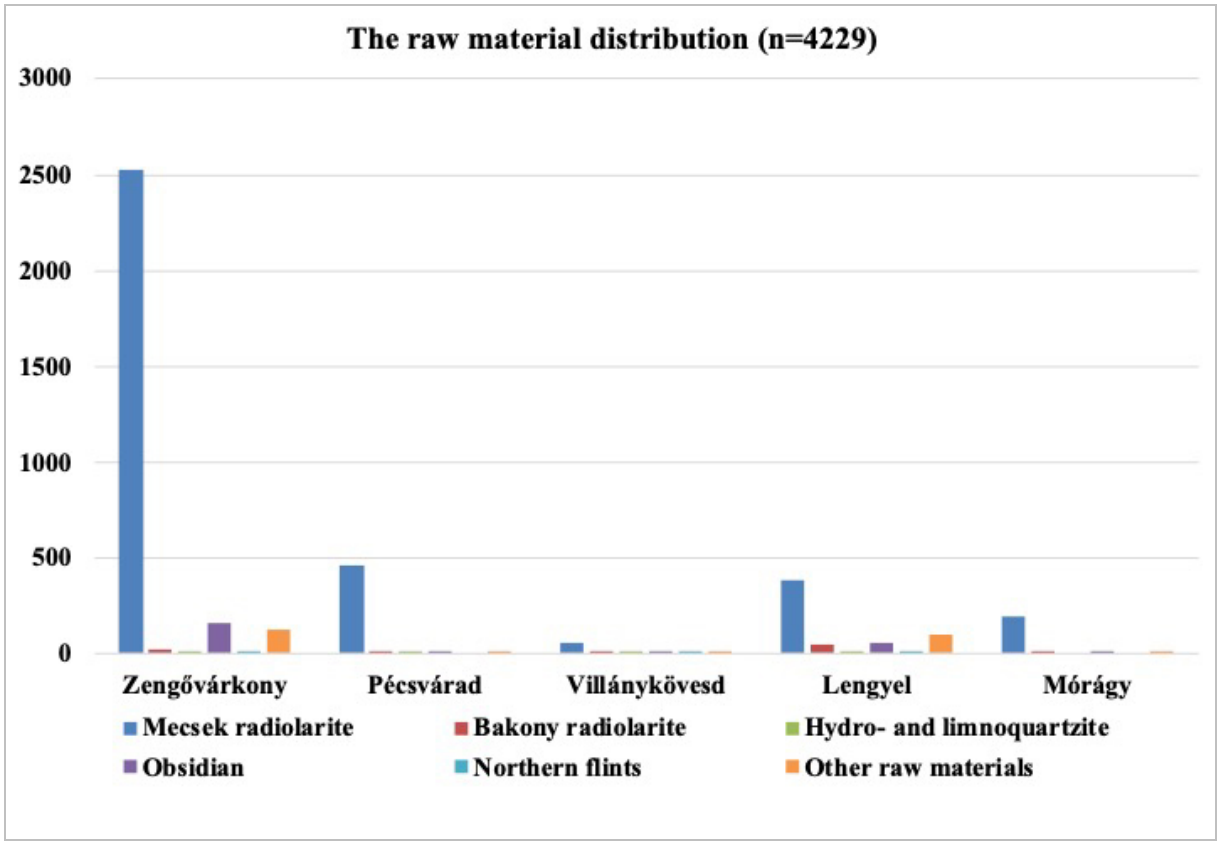

Fig. 6.: The raw material distribution of the compared South-eastern Transdanubian sites' lithic assemlages

6. ábra: Az összehasonlított délkelet-dunántúli lelőhelyek kőanyagainak nyersanyag megoszlása

Since the archaeological context is well-known at Alsónyék, this provides a fundamentally improved opportunity to shed new light Late Neolithic tool making activities (**Fig. 5.**).

Most of the previously known lithic assemblages have been studied and published by Erzsébet Bácskay and Katalin T. Biró, from whose works we know many details of these Late Neolithic communities raw material procurement and production activity (Bácskay & Biró 1984; Bácskay 1989, 1990; Biró 1989a, 1990). On this basis, we know that the local Mecsek radiolarite was the most important raw material. Yet although being spatially close to this type of radiolarite, people also used other knappable radiolarite and flint varieties (Biró 1984, 1988, 1998). Blades and retouched tools on blades dominate the lithic assemblages, based on this the Lengyel culture was determined as a "blade-culture" (**Fig. 6.**).

The Alsónyék lithic assemblage provides an excellent opportunity to rethink and understand the whole tool making procedure of the South-eastern Transdanubian group of the Lengyel culture from a new perspective, because our exact knowledge of the archaeological contexts at Alsónyék allows for a much more detailed contextual analysis.

The comparison of the lithic assemblages from the settlement and burials forms the core of the dissertation, and is interpreted in the context of the wider South-eastern Transdanubian group. I interpret the entire lithic material as representing a fundamental transformation in the Late Neolithic period, which is visible in the unique features of the site and does not show any similarities with the previous middle Neolithic and following Early Copper Age sites in Transdanubia (Bánffy 1991, 23–33; Bánffy et al. 2013, Bánffy et al. 2014). For this reason, I concentrate on investigating on assessing the nature of this transformation and the underlying reasons, arguing for a serious social and mental transformation. The entire site – with its enormous extension and excessive number of buildings and burials, its unique archaeological material – stand out not only from the other South-eastern Transdanubian Late Neolithic sites, but also constitutes an exceptional case in the whole territory of Transdanubia. The site chronology indicates a surprisingly short time period in the light of the very intensive concentration of settlement structures and burial activity: Based on the highest probability estimates, the settlement was used for 200–500 years, while the burial activity encompasses 250–350 years. This period was even shorter in the most intensively used part of the settlement, where the lifespan is, with a 95% probability, estimated to 45 years, while the burial activities took place for 95 years (Osztás et al. 2013b, 280, Tab. 6.; 282. Tab. 8.).

Regarding the entire site, I investigate the very important historical question, how to understand and interpret the origin and the short duration of this Late Neolithic phenomenon which was reflected by an extraordinarily intensive and concentrated activity for a limited number of generations. From this observation, we can infer a relatively „sudden" transformation, a rapid growth of population necessitating the establishment of the extensive settlement, changes in food production and the development of craft activities. We have to investigate the possible spatial and temporal dimensions of the transformation to understand the Alsónyék "phenomenon". Regarding the spatial dimension, Alsónyék differs from the other known sites of the Lengyel culture, in the sense that Alsónyék is an extraordinarily large flat settlement. Regarding temporal dimension, this period demonstrates an extraordinary dynamic of change, a marked social and mental transformation at the end of the Neolithic and the beginning of the Copper Age. These dynamic changes are very well represented by the grave goods and burial practices. They can be interpreted in relation to the larger regional transformation visible in the neighbouring Great Hungarian Plan. In that area, at this time, the tell-settlements ceased to be used and new communities with absolutely different material culture and new settlement forms appeared. Replacing intra-mural burials, now the dead are buried in extra-mural cemeteries, separated from the settlements (Siklósi 2010; 2013; Raczky & Anders 2009; 2010; Raczky et al. 2014, 328–332; Salisbury 2012; Schier 2014, 428). In Transdanubia, the transition period between these two periods (the Late Neolithic and the Early Copper Age) was of a continuous nature, and the new Copper Age period here started in the context of the same Lengyel culture. In this period the "Alsónyék" community was probably the agent of this transformation, while the pottery material suggests that they were a recipient of southern impulses (Zalai-Gaál 1980, 1982, 1993, 2008; Bánffy 1991, 1994, 1995, 2007).

For this reason, in the dissertation, I focus on a further examination of this transformation. This I do by investigating three major topics, namely the environmental background, the activities in the settlement and those connected to the burials. Within each of these topics, different phenomena are studied, at different spatial scales, using different methods. While in the study of the environmental background the interrelation between landscape, human actions and cultural patterns is central, the study of the settlement features will concentrate on chaîne opératoire and spatial distribution analyses to detect activity areas. The study of the burials uses methods of social and cognitive archaeology to reconstruct meaningful social practices (Müller 2018).

Scientific results achieved

During the last few years I processed the whole Late Neolithic lithic material from the site Alsónyék. The basic features of the chipped stone material were analysed with regards to the research topics discussed above. In light of this, the most important results are:

- We now understand the typical raw material procurement strategy, its methods and the possible trade routes used by the Late Neolithic communities of Alsónyék and the whole South-eastern Transdanubian group of the Lengyel culture.

- We can understand the raw material selection activity, the technological background of the community in Alsónyék and the tool production inside the settlement from the aspect of the stone tool making activity.

- A better understanding of many new elements of the burial practice, starting from the basic point of stone tools deposited in the graves. The raw material, types of tool and their position inside the grave signify specific meanings. These features point to and are part of the fundamental transformation taking place at the transition from the Late Neolithic to the Early Copper Age periods.

The method of the raw material collecting activity shows more about the use of the environment in the context of the Lengyel culture. The original question was: how was the raw material procurement organised and was there cooperation or possibly a division of labour between the contemporaneous settlements? Based on the field survey and the processed lithic assemblages we can suggest that the local raw material procurement activity did not require very sophisticated or highly specialised exploitation activities, but instead very good raw material knowledge. We can assume that the people involved in these activities knew the raw material sources in the East-Mecsek Mountains very well. During the field survey we found that the bigger part of the valley and the stream were potential raw material sources, from which the knapping specialist could choose and collect the good quality knappable raw materials in a very easy way. However, concerning the Alsónyék lithic material, the big-sized radiolarite blades used as grave goods had to be retrieved from the outcrops/bedrocks, not from the stream valley. These bedrocks are potential suitable raw material sources for these blades and in these thin bedded structures many radiolarite intercalations are located (Barabás 1986; Konda 1986; Raucsik 2012a, 2012b, 2012c, 2012d). This observation suggests, that, again, the prociduous bedded (raw material) blocks could be collected without any special exploitation activity or specialized tools. The bigger-sized radiolarite blocks – concluding from the recent features – were suitable to create the cores which were needed for the big-sized blades. All this suggests, that the raw material collecting activities were most likely carried out by those people, who had the stone tools making skills, the lithic-local environment of knowledge and who knew the exact places of the stream valley, and the outcrops of suitable raw materials for the big blades (**Fig. 7.**).

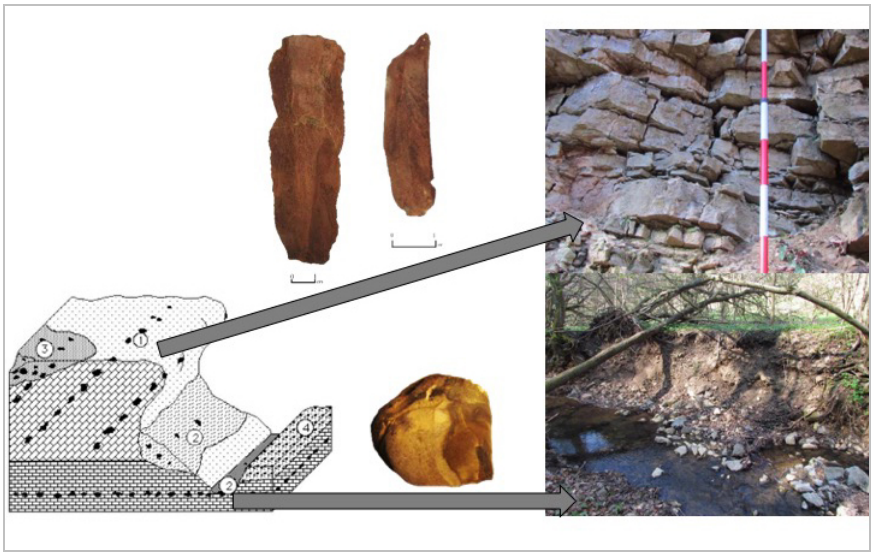

Fig. 7.: The sources of different kind of raw material. The two possible raw material procurement strategies: 1 – primary autochthonous source – bedrocks – large blade from the burial; 2 – secondary autochthonous source – stream bed – average sized core from the settlement. Created by Kata Szilágyi.

7. ábra: A különböző fajta kőzetek nyersanyagforrásai. A két lehetséges nyersanyagbeszerzési stratégia: 1 – elsődleges helyzetű nyersanyagforrás – szálkőzet – nagyméretű pengék a sírokban; 2 – másodlagos helyzetű nyersanyagforrás – átlagos méretű magkő a településről. Készítette Szilágyi Kata.

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In the settlement assemblages, there is not a large amount of decortication flakes, which would prove the preparation of the core within the settlement. For this reason, we can assume that the local raw material arrived in the settlement in the form of cores, pre-cores or raw material blocks, all of these forms that did not have a significant amount of cortex. There are two possible explanations for this. One possibility is that, in some cases many stone tools made from the less "pure" radiolarite or parts of the whole were silicified, thus it was not necessary to remove the whole cortex. The other possible explanation for the lack of corticated flakes on the site is, based on the observation of the field survey that it was necessary to break the nodules and the bigger raw material blocks to check if it was suitable for knapping. This often leads to the creation of very sharp fracture surfaces and edges, which would cause a problem for the collector, since they could easily cause injuries during transport or simply cut through what bag they were stored in. This constitutes an important practical aspect in the Late Neolithic, given the conditions for the transport of the raw material either by living animals or carried by humans. In the case of Alsónyék this would mean transport over 20–30 km distance, considering the field features of the Mecsek. Thus, transporting unprocessed or freshly broken up rock, raw material of which a significant part would be useless for stone tool making would be a waste of energy.It would therefore have been seen as more rational to create the pre-form or even the cores in the surroundings of the collecting area.

The study of the different technological categories of the stone tool production activity enables us to assess the cultural tradition of the Lengyel culture that is reflected by the stone tools. Based on the technological features studied, the South-eastern Transdanubian group of the Lengyel culture was a „blade culture", as in every lithic assemblage blades and tools made on blades heavily dominate. The highest proportion of blades is found on the part of the lithic assemblage that comes from the burials. Most of the burials appeared at the Alsónyék and Mórágy sites, and the numbers of blades are outstandingly high in both of their stone collections. In general, in the settlement lithic assemblages (Zengővárkony, Pécsvárad, Villánykövesd, Alsónyék), blades and flakes are most frequent, while cores and tools are less abundant (Biró 1998). By contrast, in the burial assemblages' blade-tools appear in the highest quantity. The new data from Alsónyék can shed new light on the reason why the blade was the most important type.

High-intensity burial activities similar to those of Alsónyék or similar amounts of chipped stone assemblages were not found in any other place within the South-eastern Transdanubian group of the Lengyel culture. This phenomenon, the co-occurrence of high-intensity burial activities and large amounts of chipped stone materials, in itself sheds new light on the mentioned group and the Lengyel culture. The vast majority of the identified 2236 burials at this site had the traditional oval-shaped pit. In addition, a total of 130 rectangular-shaped burials were documented by the excavating archaeologists, which until now was an unknown grave type in the Lengyel culture (Zalai-Gaál et al. 2011, 2012). The distribution of burials and grave groups show a large difference in the entire site because, like the intensity of the settlement structure, the burial activity is also the densest in the northern part of the site, where there are 41 grave groups in this area out of a total of 92 grave groups (Gallina 2009; Gallina et al. 2010; Köhler 2013).The grave groups also show huge differences concerning the number of burials, which is manifested in several aspects (**Fig. 8**.).

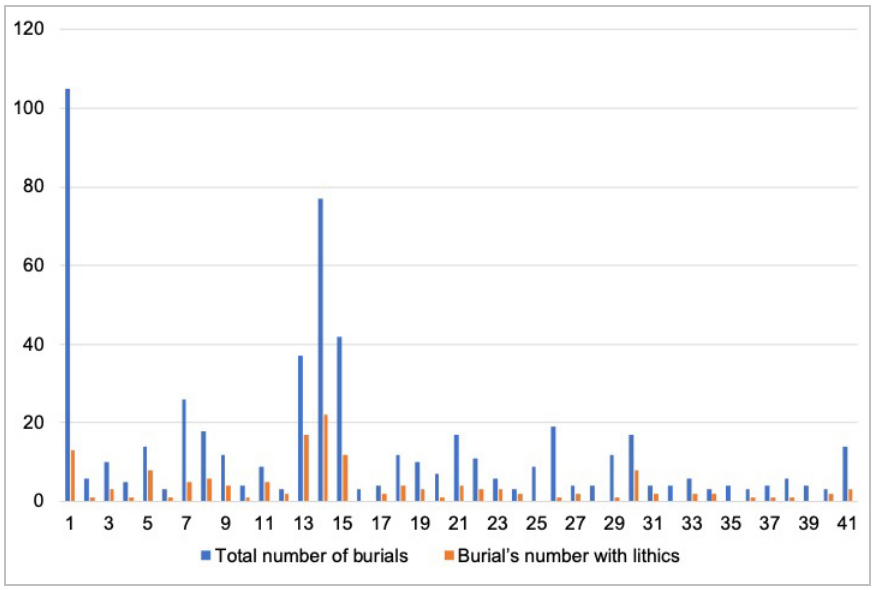

Fig. 8.:
The comparison of the total burial number and burials with lithic grave good.

8. ábra:
A összes sír mennyiség és a kőeszköz melléklettel rendelkező sírok számának összehasonlítása.

The creation of the grave groups is part of a process of mental transformation, the emergence and consolidation of a new burial rite involving the artefacts and people (in this case the dead/buried persons), a dead community, the funeral as a social act, embedded in a regular ritual process. It also represents a socio-mental argument, as a result of which the new concept of cemetery (the community of the dead) develops separately from the settlement (the community of the living). The spatial separation is a very important element in this transformation since the listed items are physically displaced from each other. The search and decision for a location was performed in the mental map of the community which first needed to crystallize before the physical location of the graves and the artefacts could be carried out. In my opinion, at the case of Alsónyék, we can interpret the burials which are organized in grave groups and the constant places of the artefacts/grave goods inside the grave as the nonverbal print-out of this mental map (Dzbyński 2008).

The number of burials in each grave group did not determine the frequency of stone equipment attached to them, indeed nearly half of the chipped stone assemblage came from burials not belonging to any grave group. The grave groups show very large differences in the number of burials, their location, structure, the form of graves and the frequency of the stone tools as grave goods (**Fig. 9.**). The orientation and position of the deceased's posture show definite regularity, that is, a kind of system can be recognized. By contrast, there is a number of "irregularities" in group structure, both in quantity and quality of burials and grave goods. Presumably, regularity and the rule itself are manifested in space at this time, that is, the definite place of the tombs and the positions of grave goods within the grave speak to the ongoing social-mental transformation unfolding in the period and in that Late Neolithic community. Within such a transformation the mentioned "irregularities" can be well explained as deviations from the slowly crystallizing new standard, in which the forming burial rite concerning the individuals and the artefacts would only gradually have found their place. However, the relationship between any individual burial and the specific artefacts placed next to him/her, the system of relationships is now beginning to take a definite and regular form. Incidentally, the relationship between the deceased individual or the burial community and the artefacts placed in the grave may develop during this period and become a more definite sign.

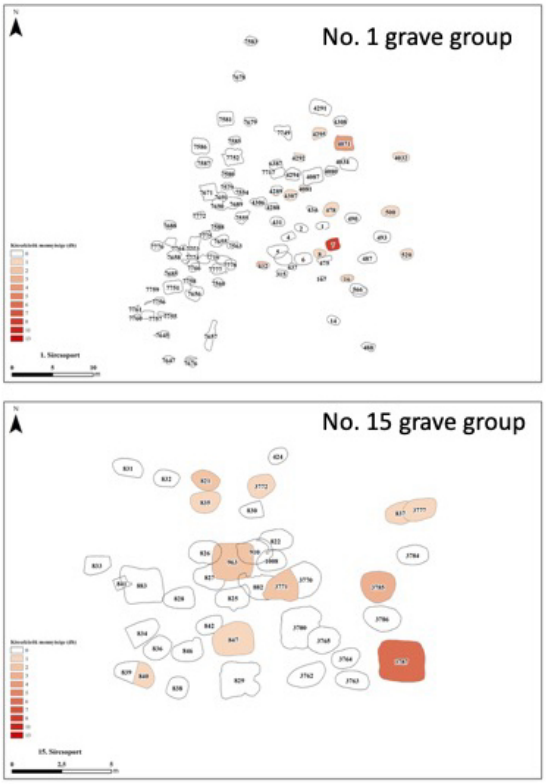

Fig. 9.: The frequency of the lithic grave goods in the No. 1. and No. 15. grave groups. Created by Péter Czukor.

9. ábra: Kőeszköz mellékletek gyakorisága az 1. és 15. számú sírcsoportban. Készítette Czukor Péter.

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