HUNGARIAN ARCHAEOLOGY
E-JOURNAL • 2016 SPRING
www.magyarregeszet.hu

EARLY SETTLEMENT AND TRADE IN THE IPOLY REGION: INTRODUCING THE IPOLY-SZÉCSÉNY ARCHAEOLOGICAL PROJECT

Szilvia Fábián [1] – Roderick B. Salisbury [2] – Gábor Serlegi [3] – Nicklas Larsson [4] – Szilvia Guba [5] – Gábor Bácsmegi [6]

A new research project has been launched to examine interregional trade networks and cultural change in northern Hungary. The Ipoly-Szécsény Archaeological Project focuses on the Szécsény-Ültetés archaeological site and its surrounding area of the Szécsény Hills in the Nógrád Basin at the northern part of Cserhát Mountain and Ipoly Valley. Although there has been relatively little archaeological research in this area, the Ipoly and Zagyva Rivers appear to have served as important transportation routes during the Neolithic. Ceramic and lithic material from Szécsény-Ültetés and the few other sites examined in the region indicates exchange with groups to the east, west and south, including Bükk, Notenkopf, Vinča, Szakálhát, and both eastern and western variants of the Linearbandkeramik. Our goal is to fill in the empty spaces in our archaeological maps of the region, and to gain a better understanding of trade and related social interactions.

INTRODUCTION TO THE IPOLY-SZÉCSÉNY ARCHAEOLOGICAL PROJECT

The first reliable evidence for early farming settlements in the Nógrád Basin and the Ipoly River Valley comes from the Notenkopf period, the later phase of the earliest Central European Neolithic culture, the Linearbandkeramik (LBK). This implies that neolithization in the Ipoly-Szécsény region, begins some 50 to 100 years later than settlement of the surrounding LBK distribution area in the Garam Valley, the Gödöllő Hills and the Zagyva Valley in the southern part of the Cserhát Mountains *(Fig. 1)*. If this chronology holds true, the relatively late settlement of this northern fringe of the Carpathian Basin may be related to movement along the natural transportation route offered by the Ipoly Valley. Alternatively, earlier Neolithic sites may remain to be found in the fields around Szécsény. The only excavated Neolithic sites in the area, Szécsény-Ültetés[7] and Karancsság Alsó-rétek[8], raised awareness of the whole Ipoly-Szécsény region as an important node in a network stretching across the northern Carpathian Basin, from the obsidian sources near Tokaj in the east to the Danube Valley in the west. However, these studies also highlighted the lack of detailed archaeological survey in the region. The Ipoly-Szécsény Archaeological Project is designed to enlarge the archaeological database for the Szécsény Hills in the Nógrád Basin at the northern part of Cserhát Mountains and Ipoly Valley.

[1] Hungarian National Museum, Budapest, Hungary
[2] University of Vienna, Department of Prehistory and Historical Archaeology, Vienna, Austria
[3] Research Centre for the Humanities of the HAS, Institute of Archaeology, Budapest, Hungary
[4] Hungarian National Museum, Budapest, Hungary
[5] Kubinyi Ferenc Museum, Szécsény, Hungary
[6] Munkácsy Mihály Museum, Békéscsaba, Hungary

[7] Soós, Virág: Előzetes jelentés a Szécsény-ültetési zselizi telep feltárásáról (Vorbereicht über Ausgrabungen der Siedlung der neolitischen Zseliz-Gruppe in Szécsény-Ültetés). *Nógrád Megyei Múzeumok Évkönyve* 8 (1982), 7–46; Fábián, Szilvia: Siedlung der Zseliz-Periode der Linearbandkeramik in Szécsény. *Antaeus* 31–32 (2010), 225–283.

[8] Bácsmegi, Gábor: A lengyeli kultúra temetkezései Karancságon (Die Bestattungen der Lengyel-Kultur in Karancság). *MFMÉ–Studia Archeologia* 9 (2003), 81–86; Bácsmegi Gábor: Geoarchaeological and Environmental Historical Studies on the Karancság-Alsó-rétek Site (PhD Dissertation) SZTE TTK 2015 (Downloaded: 04/04/2016 22:04).

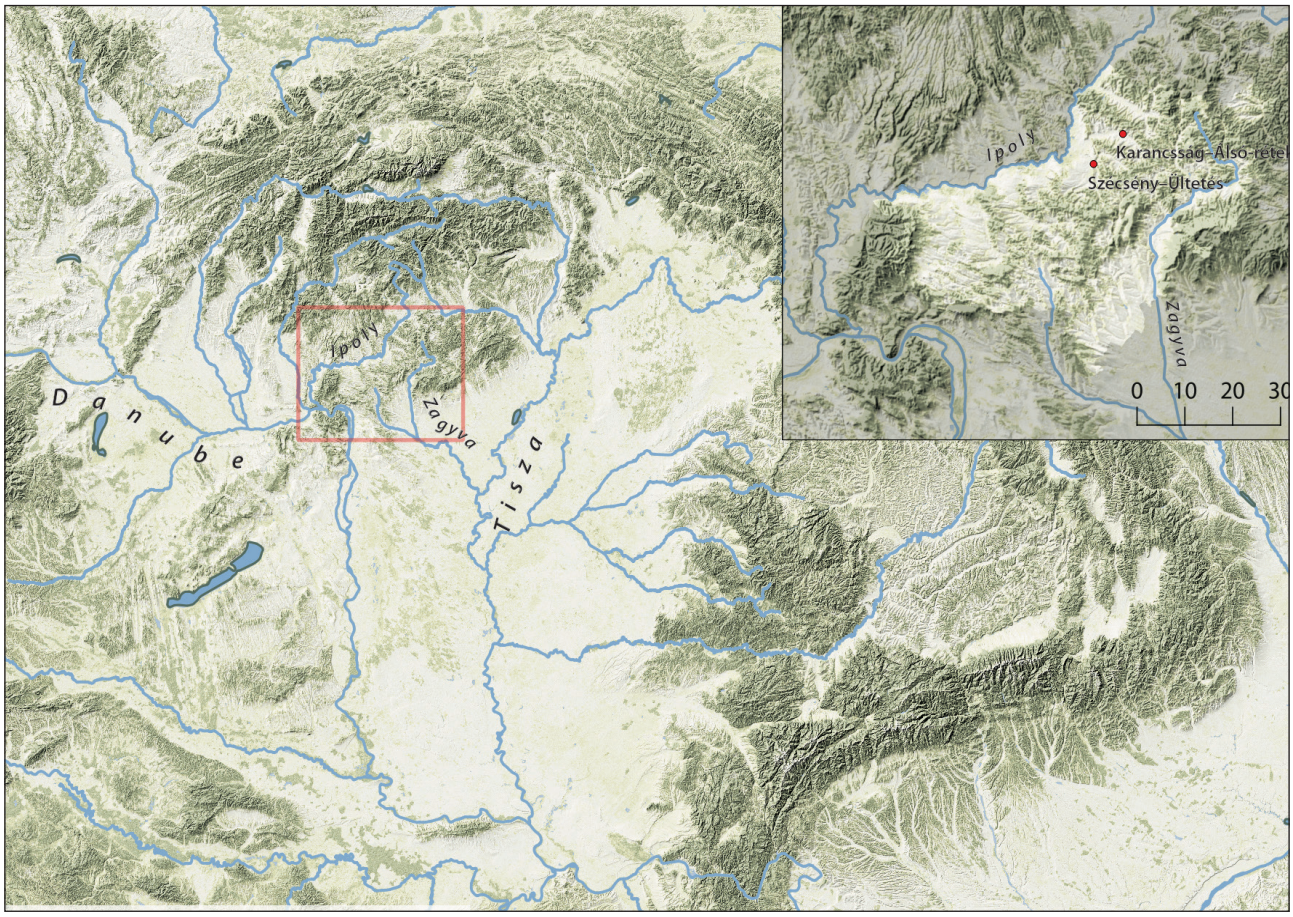

Fig. 1: *Location of Nógrád County in the Carpathian Basin, and locations of Szécsény-Ültetés and Karancsság Alsó-rétek in the study area (inset)*

Cultural interactions across boundaries and between archaeologically defined culture groups are common, wide-ranging, and an important aspect of cultural change.[9] Evidence for trade or other interactions have been documented at sites across Hungary, including at Szécsény,[10] Aszód,[11] and Csőszhalom.[12] These studies indicate that material and possibly people moved back and forth between cultural groups and across cultural boundaries during the Neolithic. Both micro-crystalline lithic material (e.g. flint, obsidian, chert) and ceramic vessels have been found hundreds of kilometers outside of the regions where they originated.

[9] Kovács, Katalin: Late Neolithic Exchange Networks in the Carpathian Basin. In: *Moments in Time. Papers Presented to Pál Raczky on His 60th Birthday,* ed. Anders, A. – Kulcsár, G. (Budapest: L'Harmattan, 2013), 385–400; Raczky, Pál: The cultural and chronological relations of the Tisza Region during the Middle and Late Neolithic, as reflected by the excavations at Öcsöd-Kováshalom. *A Béri Balogh Ádám Múzeum Évkönyve* 13 (1985) [1986], 103–125.

[10] T. Biró, Katalin: Chipped stone industry of the Linearband Pottery Culture in Hungary. In: *Chipped stone industries of the early farming cultures in Europe*, ed. Kozłowski, J. K. – Kozłowski, S. K.: Archaeologia Interregionalis 240 (Warszawa–Kraków, 1987), 131–167; T. Biró, Katalin: *Lithic implements and circulation of raw materials in the Great Hungarian Plain during the Late Neolithic Period* (Budapest, 1988); Fábián, Szilvia: Siedlung der Zseliz-Periode der Linearbandkeramik in Szécsény. *Antaeus* 31–32 (2010); Fábián Szilvia: Szécsény-Ültetés újkőkori településének időrendje az import kerámialeletek tükrében. Die Chronologie der Jungsteinzeitlichen Siedlung von Szécsény-Ültetés im Spiegel der Importfunde. In: *ΜΩΜΟΣ III. Őskoros Kutatók IV. Összejövetelének konferenciakötete,* ed. Nagy, Emese. Debrecen, 2005. március 22–24. (Debrecen, 2012), 191–213.

[11] Kalicz, Nándor – Kovács, Katalin – Siklósi, Zsuzsanna – Tóth, Zsuzsanna: Aszód-Papi földek késő neolitikus lelőhely: kapcsolat kelet és nyugat között (*Aszód-Papi földek Late Neolithic site: Connection between East and West*). Report. OTKA (2013) (Downloaded: 04/04/2016 22:04)

[12] Raczky, Pál – Domboróczki, László – Hajdú, Zsigmond: The site of Polgár-Csőszhalom and its cultural and chronological connections with the Lengyel Culture. In: *The Lengyel, Polgár and related cultures in the middle/late Neolithic in Central Europe*, ed. Raczky, P. – Kozłowski, J. K. (Krakow, 2007), 49–70.

The Neolithic settlement of Szécsény-Ültetés is particularly interesting in terms of settlement type and evidence for cross-cultural interactions. The site is situated on the end of a flat-topped ridge overlooking the entrance to the small valley of the Lóci stream, at the edge of the Nógrád Basin near the Ipoly River *(Fig. 2)*. The ridge is quite steep on three sides, providing a natural defense. At the southern end of the site, the ridge is narrow and could have been protected with a short ditch or palisade. The site location suggests that it could have served as a gateway to the Ipoly Valley. The Ipoly forms part of an east-west travel corridor that extends from the Tisza in the northeast corner of the Carpathian Basin, along the Zagyva and Ipoly Rivers to the Danube in the west. As such, the Ipoly Valley forms an important route for interregional interaction. The site has been identified as Zseliz (late LBK), based on ceramics from surface collections and earlier excavations[13], but with ceramics diagnostic of the Transdanubian LBK, the Alföld LBK, Notenkopf, Vinča, Szakálhát, and Bükk.[14] As such, it apparently played an important role in connecting east and west, and has great potential to answer questions about prehistoric interactions along the river route. One aspect of our research is to search for sites in similar settings, and compare these sites to other site types within the settlement system (e.g., Nagybárkány).[15] So far, Szécsény-Ültetés is one of the most extensively investigated Middle Neolithic sites in the region, yielding a rich assortment of finds.[16] Filling in the gap in knowledge about the archaeology of the Ipoly Valley and the Nógrád basin is essential if we are to answer questions about the prehistoric settlement patterns in the region, the environmental impact of prehistoric landuse here, and the role of this region in interregional exchange.

Fig. 2: *The site of Szécsény-Ültetés, viewed from the narrowest southeast part of the plateau*

[13] Soós, Virág: Előzetes jelentés a Szécsény-ültetési zselizi telep feltárásáról (Vorbereicht über Ausgrabungen der Siedlung der neolitischen Zseliz-Gruppe in Szécsény-Ültetés). *Nógrád Megyei Múzeumok Évkönyve* 8 (1982); Fábián, Szilvia: Siedlung der Zseliz-Periode der Linearbandkeramik in Szécsény. *Antaeus* 31–32 (2010).

[14] Fábián, Szilvia: Siedlung der Zseliz-Periode der Linearbandkeramik in Szécsény. Antaeus 31–32 (2010), 269–274; Fábián Szilvia: Szécsény-Ültetés újkőkori településének időrendje az import kerámialeletek tükrében. Die Chronologie der Jungsteinzeitlichen Siedlung von Szécsény-Ültetés im Spiegel der Importfunde. In: ΜΩΜΟΣ *III. Őskoros Kutatók IV. Összejövetelének konferenciakötete*, ed. Nagy, Emese. Debrecen, 2005. március 22–24. (Debrecen, 2012).

[15] Bácsmegi, Gábor – Fábián, Szilvia: The Neolithic of Nagybárkány and its environs. In: *Environmental archaeology in North-Eastern Hungary*, ed. Gál, Erika – Juhász, Imola – Sümegi, Pál.: Varia Archaeologica Hungarica XIX (Budapest, 2005), 237–241; Bácsmegi, Gábor – Sümegi, Pál – Töröcsik, Tünde: Late Glacial at Early Holocene and Late Holocene life at the interface of a distinct landscape in the Sub-Carpathian region (N-Hungary). *Central European Journal of Geosciences* 4 (4) (2012), 614–622.

[16] Soós, Virág: Előzetes jelentés a Szécsény-ültetési zselizi telep feltárásáról (Vorbereicht über Ausgrabungen der Siedlung der neolitischen Zseliz-Gruppe in Szécsény-Ültetés). *Nógrád Megyei Múzeumok Évkönyve* 8 (1982); Fábián, Szilvia: Siedlung der Zseliz-Periode der Linearbandkeramik in Szécsény. *Antaeus* 31–32 (2010); Fábián Szilvia: Szécsény-Ültetés újkőkori településének időrendje az import kerámialeletek tükrében. Die Chronologie der Jungsteinzeitlichen Siedlung von Szécsény-Ültetés im Spiegel der Importfunde. In: ΜΩΜΟΣ *III. Őskoros Kutatók IV. Összejövetelének konferenciakötete,* ed. Nagy, Emese. Debrecen, 2005. március 22–24. (Debrecen, 2012).

The landscape is one of stream dissected valleys in the Cserhát hills and small elevated lag islands on the otherwise flat surface of the Nógrád Basin. Within the valley stream system, the Ménes stream, a tributary of the Ipoly, and the Little Zagyva, a tributary of the Zagyva, are separated by less than 1 km. Another, the Lóci stream, runs at the base of the ridge upon which the Szécsény-Ültetés site was established. These small waterways provide transportation routes through the hills to and from the Ipoly.

PREVIOUS RESEARCH AROUND SZÉCSÉNY

Our archaeological knowledge about this region, as previously mentioned, is quite limited. Until the late 1970s, most evidence came from stray finds presented to the museum in Nógrád County. A few small excavations took place in the region during the 1980s, but until the 1990s, Neolithic finds generally came during field survey. The major exception is Szécsény-Ültetés, where a rescue excavation took place from 1979 to 1985 for a planned dam construction.[17] Linearbandkeramik finds were also recovered at excavations near Karancsság.[18] More broadly, in neighboring regions, sites with Notenkopf and Zseliz ceramics have been identified at the Ludányhalászi-Gravel pit east of the Zagyva River and farther southeast at Mátranovák-Dózsa Street. There are a few sites, such as Szurdokpüspöki-Hollósdomb and Nógrádmegyer, that only yielded Zseliz finds, and a few settlement features of the Zseliz Culture were uncovered on the bank of the Tarna River near Cered in 2002–2003.[19] Recently, two new LBK sites were identified at Kosd[20] in Pest County and at Apc-Berekalja[21] in Heves County. The systematic field surveys and excavations conducted over the past 20 years have enriched our knowledge of the Neolithic in the north-central part of the Carpathian Basin, but still we know very little about the overall settlement pattern, cultural distributions, and economy of this area.

Fig. 3: *Decorated fine ware from Szécsény-Ültetés, typical to the Zseliz Culture*

Fig. 4: *Pottery fragments with anthropomorphic depiction*

At Szécsény-Ültetés, excavation was carried out on only a small part of the site, but yielded a rich assemblage of finds, including a high proportion of decorated fine wares *(Fig. 3)*, pottery fragments with anthropomorphic and zoomorphic depictions *(Fig. 4, 5)*, and human face pots, which presumably had a special role in Neolithic culture and ideology *(Fig. 6)*.[22] The import wares include large quantities of Bükk, Szakálhát, Szilmeg and Esztár-style ceramic ware, in addition to several sherds indicating even more far-reaching contacts *(Fig. 7)*. Taken together, they

[17] Soós, Virág: Előzetes jelentés a Szécsény-ültetési zselizi telep feltárásáról (Vorbereicht über Ausgrabungen der Siedlung der neolitischen Zseliz-Gruppe in Szécsény-Ültetés). *Nógrád Megyei Múzeumok Évkönyve* 8 (1982). (although this project was later abandoned).

[18] Bácsmegi, Gábor: A lengyeli kultúra temetkezései Karancságon (Die Bestattungen der Lengyel-Kultur in Karancság). *MFMÉ–Studia Archeologia* 9 (2003). Bácsmegi Gábor: Geoarchaeological and Environmental Historical Studies on the Karancság-Alsó-rétek Site (PhD Dissertation) SZTE TTK 2015. (Downloaded: 04/04/2016 22:04)

[19] Bácsmegi, Gábor – Fábián, Szilvia: The Neolithic of Nagybárkány and its environs. In: *Environmental archaeology in North-Eastern Hungary,* ed. Gál, Erika – Juhász, Imola – Sümegi, Pál.: Varia Archaeologica Hungarica XIX (Budapest, 2005).

[20] Information kindly provided by Róbert Patay.

[21] Information kindly provided by László Domboróczky.

[22] Fábián Szilvia: Arcos edénytöredékek a Zselizi kultúra lelőhelyéről, Szécsény-Ültetésről (Anthropomorphic vessel with representation of human face from Szécsény-Ültetés, locality of the Zseliz Culture). *Archaeológiai Értesítő* 130 (2005), 5–20.

Fig. 5: *Pottery fragments with zoomorphic depiction*

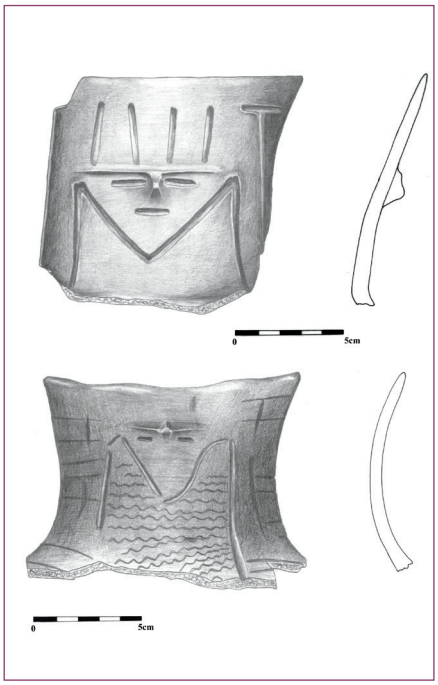

Fig. 6: *Human face pots from Szécsény-Ültetés*

reflect the wide-ranging cultural contacts of the Zseliz community at Szécsény-Ültetés. The abundance of stone finds was also remarkable, and the wide variety of lithic types, in particular obsidian from the Tokaj Mountains, appears to be associated with the many different imported ceramics.[23] We still need to determine whether these materials were distributed around the Ipoly-Szécsény region, or were restricted to this one site. Findings from Karancsság-Alsó-rétek, a multi-component site in the valley of the Ménes stream northeast of Szécsény-Ültetés, imply that imported materials will also be found at other sites in the region. Parts of Notenkopf, Zseliz and Lengyel Culture settlements were excavated at Karancsság in 2002.[24] Obsidian, limnoquarzite and Krakow-Jura flint were common in every Neolithic context, suggesting long-term connection and interactions between the sites. If this is the case, we then must determine whether materials were distributed from a few key sites, such as Szécsény-Ültetés, out to other settlements.

The analysis of the imported pottery from Szécsény-Ültetés supports earlier analysis of the chipped stone implements and conclusions regarding the circulation of stone implements and lithic raw material, namely, that there was a spectacular increase in the amount of lithics in the central areas of the Great Hungarian Plain by the end of the Middle Neolithic and, also, that these lithics included increasingly more imports, such as Transdanubian radiolarite and Polish chert from the north. It seems likely that the Zseliz population was one of the chief actors in the lithics trade,[25] a possibility further supported by Zseliz imports found on Szakálhát and Vinča sites.[26]

[23] T. Biró, Katalin: *Chipped stone industry of the Linearband Pottery Culture in Hungary. In: Chipped stone industries of the early farming cultures in Europe*. Archaeologia Interregionalis 240, ed. Kozłowski, J. K. – Kozłowski, S. K. (Warszawa–Kraków, 1987), 154-159. T. Biró, Katalin: *Lithic implements and circulation of raw materials in the Great Hungarian Plain during the Late Neolithic Period* (Budapest, 1998).

[24] Bácsmegi, Gábor: A lengyeli kultúra temetkezései Karancságon (Die Bestattungen der Lengyel-Kultur in Karancság). *MFMÉ–Studia Archeologia* 9 (2003).

[25] T. Biró, Katalin: *Lithic implements and circulation of raw materials in the Great Hungarian Plain during the Late Neolithic Period* (Budapest, 1998), 50.

[26] Vasić, Miloje: Praistoriska Vinča I–IV. (Beograd, 1932–36), 38–44.

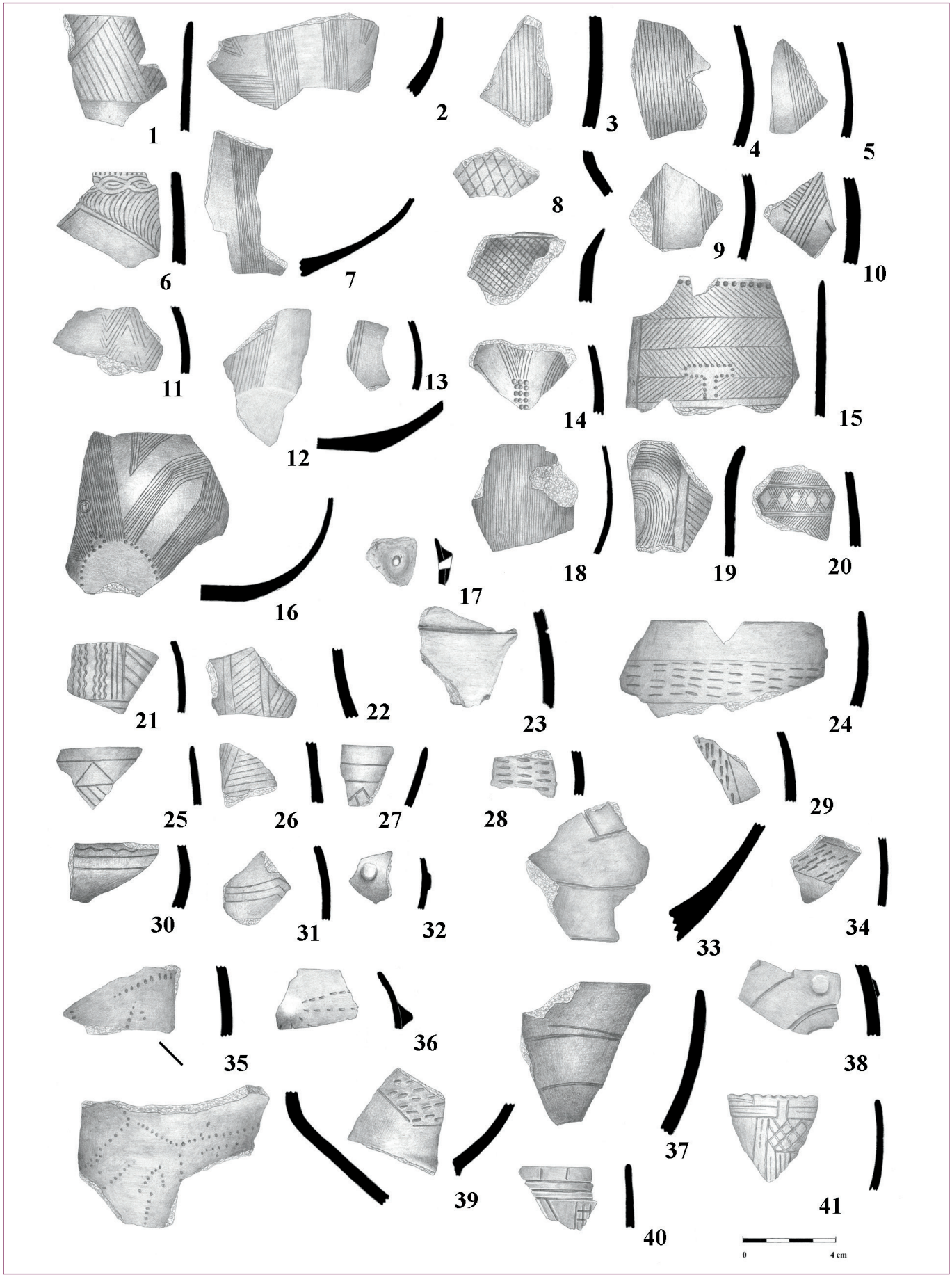

Fig. 7: *Pottery fragments of various imported ceramic wares from Szécsény-Ültetés*

FIRST RESULTS FROM ISZAP

Geomagnetic prospection was carried out in spring 2014 by colleagues of in the former National Heritage Protection Centre of the Hungarian National Museum[27] using a MAGNETO® DLM fluxgate magnetometer *(Fig. 8)*. The prospected area covered the main part of the known site. The area southeast of the measured field was covered with sunflower, and could not be surveyed.

The geomagnetic survey revealed anomalies that can be interpreted as long pits that are characteristic features of the Middle Neolithic. On the northern and western edge of the plateau, an area containing many settlement features, several postholes in a line are interpreted as traces of a former palisade. South and west of this area a great amount of pits and different types of archaeological features are visible. In the narrowest southeastern part of the plateau, a 5-meter wide southeast-northwest oriented trench is identifiable between the two edges of the plateau. About the middle of the trench, a discontinuity is visible as a presumable entrance to the Neolithic settlement. South of the trench the number of identifiable archaeological features is significantly lower than to the north. The trenches of the former excavation were also clearly visible.

Preliminary coring at Szécsény-Ültetés was carried out in 2014. Seven cores were placed at selected locations in the plateau to collect samples for soil chemistry

Fig. 8: *Geomagnetic prospection in progress at Szécsény-Ültetés*

Fig. 9: *Locations of preliminary cores taken at Szécsény-Ültetés*

[27] Máté Stibrányi, Gábor Mesterházy, Szilvia Fábián archaeologists and Mihály Pethe geophysicist.

Fig. 10: *Systematic surface collection in the ISzAP Region*

analysis and to characterize site stratigraphy *(Fig. 9)*. Coring and soil phosphate survey can be used to identify general activity areas and delineate vertical and horizontal boundaries, as well as being useful as a prospection tool to augment surface collection and geophysics.[28] Four cores were placed within the suspected settlement area. In terms of settlement structure and areas of activity, cores number 1 and 4 are most interesting. These contain thick layers of dark, organic-rich loamy soils with fragments of burnt bone and pottery. Cores number 5 and 7 appear to be within the settlement area but have thinner upper horizons, with less organic matter and fewer fragments of cultural material. The other three cores were placed at the edges of the settlement area. These appear to be in natural soils, with gradual boundaries between soil horizons.

Results of the soil phosphate analysis from these cores produce a largely expected pattern: phosphate enrichment is found at the edges of the site, and moderate values are found within the main occupation area. This pattern results from the deposition of organic waste in middens placed away from the houses and domestic spaces. In future work, a regular grid of samples will be taken at 10 m intervals over the entire site to map phosphate anomalies.

A first campaign of systematic surface collection was conducted in late February 2016 *(Fig. 10)*. Based on GIS modeling, in which we took into consideration the geographic situation of known sites, we selected six areas in the Szécsény Basin for field survey. Two of the locations are at the entrances of the Ménes and Nógrádmegyer streams, selected to look for evidence that these valley entrances were used as gateway sites similar to Szécsény-Ültetés. Among the different topographic situations, we positively identified only one LBK settlement. However, we identified four Bronze Age sites, as well as several prehistoric scatters that require additional examination. Furthermore, several promising locations were found to be under pasture, thus inappropriate for surface collection. These will be tested later this year by coring, in order to search for archaeological traces.

[28] Salisbury, Roderick B.: Soilscapes and settlements: remote mapping of activity areas in unexcavated small farmsteads. *Antiquity* 86 (2012), 178–190; Salisbury, Roderick B – Bertók, Gábor – Bácsmegi, Gábor: Integrated Prospection Methods to Define Small-Site Settlement Structure: A Case Study from Neolithic Hungary. *Archaeological Prospection* 20 (2013), 1–10.

SUMMARY AND FUTURE PLANS FOR THE ISZAP REGIONAL PROJECT

The geographic setting of the area, its openness towards the west, the proximity of the Ipoly River and associated access to the Danube, provided significant advantages for the area's occupants. Since the Szécsény-Ültetés settlement lay at the junction of natural trade routes, it is quite possible that the community exploited this excellent strategic position, controlling the trade route leading from Slovakia to the Danube valley, and participated in interregional exchange networks. The evidence suggests that the late Middle Neolithic population of the region established and maintained contact with cultures on the Great Hungarian Plain, moving along the stream valleys penetrating the Cserhát Mountains, along the Zagyva (flowing north to south) and along the Tisza. There are also hints at western connections, either south and/or west along the Danube.

The first phase of the ISzAP project aims to fill in the gaps in our knowledge of regional settlement patterns, to complete the soil phosphate survey at Szécsény-Ültetés, and to select materials for lithic and ceramic analysis. A second surface collection campaign is planned, and grassy areas in our predictive model will be examined using coring, soil phosphates, and shovel-testing. We will give special attention to reconstructing the complete Neolithic settlement pattern, which appears to include several types of sites in several topographic settings.

Lithic and ceramic analysis will focus on identifying cultural affiliations (ceramics) and sources of raw materials (lithics) from Szécsény-Ültetés and surface surveys, to aid in identifying trade patterns and cultural interactions. Another important question is what products may have been traded along with the stone materials. The presence of pottery fragments with decorative and stylistic characteristics attributable to other cultures is not surprising, considering the variety of stone material types found at the site. Both appear to support the hypothesis that the Zseliz population had widespread connections in several directions. For this reason, it is essential that our project clarify whether the so-called "imported" ceramic material was brought in through the exchange networks, or was made locally. Specialization and standardization of a ceramic type or of different types can help us to reconstruct social organization, economy, and social interactions between communities.

This region, at the border of cultural groups and transportation routes, may have played a significant role in the movement of materials, ideas and people. The current picture suggests a community actively involved in interregional exchange, possibly trying to control the movement of goods or people through control of access along stream valleys connecting the Ipoly and Zagyva Rivers.

ACKNOWLEDGEMENTS

The initial survey of ISzAP project is supported by the Hungarian Nemzeti Kulturális Alap (NKA 3234/00276, National Cultural Fund). We would like to thank all the institutions that made the launch of our project possible, including the Kubinyi Ferenc Museum, Szécsény, the Hungarian National Museum, the Research Center for Humanities of the Hungarian Academy of Sciences (HAS), Institute of Archaeology and the Munkácsy Mihály Museum, Békéscsaba.

RECOMMENDED LITERATURE

Bánffy, Eszter
Neolithic Contacts: Adaptation, Exchange of Information (An Introduction). *Antaeus* 27 (2004), 11–16.

Domboróczki, László
Settlement structures of the Alföld Linear Culture (ALPC) in Heves County (north-eastern Hungary): development models and historical reconstructions on micro, meso and macro levels. In: *Interactions between Different Models of Neolithization North of the Central European Agro-Ecological Barrier*, ed. Kozłowski, J. K., 75–127. Kraków: Prace Komisji Prehistorii Karpat PAU, 2009.

Earle, Timothy K.
Prehistoric Economies and the Archaeology of Exchange. In *Contexts for Prehistoric Exchange*, ed. Ericson, J. E. – Earle, T. K., 1–12. New York: Academic Press, 1982.

Kovács, Katalin
Late Neolithic Exchange Networks in the Carpathian Basin. In: *Moments in Time. Papers Presented to Pál Raczky on His 60th Birthday*, ed. Anders, A. – Kulcsár, G., 385–400. Budapest: L'Harmattan, 2013.

Marton, Tibor – Oross, Krisztián
Reconstructing Space in a Familiar World: The Formation of late LBK Settlements in Central Transdanubia. In: *Interactions Between Different Models of Neolithization North of the Central European Agro-Ecological Barrier*, ed. Kozłowsky, J. K., 51–72. Kraków: Prace Komisji Prehistorii Karpat PAU, 2009.

Raczky, Pál – Anders, alexandra
Settlement History of the Middle Neolithic in the Polgár Micro-region (The Development of the Alföld Linearband Pottery in the Upper Tisza Region, Hungary. In: *Interactions between Different Models of Neolithization North of the Ventral European Agro-Ecological Barrier*, ed. Kozłowski, J. K., 31–50. Kraków: Prace Komisji Prehistorii Karpat PAU, 2009.

Salisbury, Roderick B.
Soilscapes in Archaeology: Settlement and Social Organization in the Neolithic of the Great Hungarian Plain, *Prehistoric Research in the Körös Region*. Budapest: Archaeolingua, 2016.