WHAT ABOUT THE SZELETIAN LEAF POINT AS FOSSILE DIRECTEUR?

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DOI: https://doi.org/10.31577/szausav.2021.suppl.2.4

Keywords: Solutrean, Szeletian, research history, typology, morphometry, index fossil, leaf-shaped tools

Abstract: The Szeletian is widely accepted as an industry of the Middle to Upper Palaeolithic transition in Central Europe, characterized by the production of leaf points and associated with Neanderthals. In 1953, F. Prošek has introduced the term Szeletian for describing an already existing archaeological unit in Central Europe, which had been defined relative to the Solutrean of Western Europe. He did not define the new unit but applied the fourfold model Hungarian scholars established to describe the development of the Solutrean in Hungary, based solely upon leaf point typology. Here, I argue that the “Szeletian leaf point,” which is thought to characterize this unit, is a typologically undefined tool. However, the analyses of bifacial and leaf-shaped tools from Moravian and Hungarian sites, during the last decade, revealed the existence of certain basic forms which are frequent as far as they could represent types or sub-types among “Szeletian leaf points.” For being considered as fossil directeur, these types have to have something specific by which they can be distinguished from other leaf point types, and they have to appear exclusively in the context of Szeletian assemblages. To clarify it needs further joint researches by concerned Central European scholars. Until we can not demonstrate the existence of a specific type of leaf point linked strictly to the Szeletian, it seems to be better to not use the “Szeletian leaf point” as a typological term.

INTRODUCTION

Since F. Prošek (1953) introduced the term Szeletian for an industry of the Early Upper Palaeolithic characterized by bifacial leaf-shaped tools in the Middle Danube basin, there is not a commonly accepted view of what the Szeletian is (Mester 2014a, 160–165). This is because the scholars from related countries based their views on the archaeological record of their own territories (Bárta 1960; 1990; Gábori 1990; Kaminská 2015; Kaminská zost. 2014; Kaminská/Kozlowski/Škrdla 2011; Kozlowski 2000; Neruda/Nerudová 2013; Oliva 1991; 1995; Prošek 1953; Ringer 1989; 2001; Simán 1990; Svoboda/Simán 1989; Václavik 1957; 1990; Vértess 1956; 1968). After the publication of the monograph by P. Allsworth-Jones (1986), the Szeletian became widely accepted as one of the cultural units of the transition from the Middle to Upper Palaeolithic in Central Europe, associated with Neanderthals (Bolus 2004a; Marks/Monigal 2000; Nigst 2006; Svoboda 2001; 2006). This unit is thought to be characterized by bifacial leaf points, although such tools can be found in different cultural and chronological contexts from Great Britain to Russia (Allsworth-Jones 1990; Bolus 2004b; Kot 2014; 2016; Kozlowski 1990; 1995).

I was faced with the problem of the bifacial leaf points following the new interpretation of the archaeological sequence of Szeleta Cave by Á. Ringer (Ringer/Mester 2000). According to his model, the leaf points of the Szeletian appear together with the leaf-shaped tools of the Jankovichian along almost the whole sequence (Ringer/Mester 2000, 265). However, the Jankovichian is considered a Late Middle Palaeolithic unit (Gábori-Csánk 1983; 1993). To look for technological differences for distinguishing types of these two units, I performed analyses of the leaf-shaped tools of Szeleta and Jankovichian caves (Mester 2010; 2014b). Surprisingly, more similarities have been found between Early Szeletian and Jankovichian than between Early and Developed Szeletian. This result raised the question of what the meaning of the “Szeletian leaf point” is (Mester 2018a). The main topic of the 16th SKAM Lithic Workshop, organized by the Institute of Archaeology Slovak Academy of Sciences in Nitra (Nemergut et al. eds. 2019) provided an opportunity to discuss the role of these tools as index fossils of the Szeletian. However, the purpose of
this paper is not to answer the question in the title by defining the “Szeletian leaf point” as a tool type. It aims at opening a discussion about the meaning of this type in the context of the Szeletian in Central Europe.

First, I briefly review the research history to understand why a definition of the type is lacking. After that, I reconsider the typology of the leaf-shaped tools in Szeletian context in order to find elements for a future definition. Finally, I reconsider the role of fossile directeur.

THE UNDEFINED SZELETIAN LEAF POINT

The lack of definition for a “Szeletian leaf point” is a consequence of the complicated research history of the problem of interpretation of the industries with leaf points in Europe (Freund 1952). During several decades of the developing Palaeolithic archaeology in Central and Eastern Europe starting in the late 19th century, all lithic assemblages found in “diluvial” (i.e. of Pleistocene age) layers were compared to the classification elaborated in France by G. de Mortillet from the 1870s onward (Bourdier 1967, 45; Brézillon 1972, 160). This French system was laid on the concept of a linear (“Lamarckian”) evolution of the human technical knowledge and society, common in the 19th century (cf. Morgan 1877). Mortillet’s classification of the Palaeolithic was conceived as successive stages of the technological development of prehistoric humans from handaxes of the Chellean to high-quality bone industry of the Magdalenian. This classification served as a chronological scheme thought to be universal (Julien 1992, 165, 166). The principle and the methodology have been taken from geology and palaeontology (Pautrat 1993).

After the debate on the existence of a separate Aurignacian between the Mousterian and the Solutrean (Groenen 1994, 162–169), Mortillet’s classification was refined by H. Breuil (1912). In both classifications, bifacial leaf points were attributed to the Solutrean stage only. As a result, lithic assemblages with leaf points found at the sites of Central Europe were classified – automatically – to the Solutrean (Kozlowski J./Kozlowski S. 1996; Mester 2014a; Valoch 1996). At the moment of the discovery, it was evident to link the leaf point assemblages of Szeleta Cave in Hungary to the Solutrean (Kadić 1916). Because of the lower quality of their shaping, the more or less regular leaf points found at Hungarian sites were classified as Proto-Solutrean and Early Solutrean (Hillebrand 1935; Kadić 1934). Moreover, J. Hillebrand (1935, 34) supposed that the Solutrean has been developed in Central Europe and migrated to Southwestern Europe under the effects of the cooling climate. Based on the clear differences in the shaping between the tools of the Solutrean in Western Europe and those of the industries in Central Europe, in the 1950s, Central European scholars tried to introduce a separate stage for the industries with leaf points of the region, with Predmosti in Moravia (F. Wiegers) or Szeleta Cave in Hungary (I. L. Červinka) as eponymous site (Freund 1952, 211–213; Prošek 1953, 144, 145, 187, 188). Following J. Andréé (1930), J. Hillebrand (1935, 31) used the name of “Szeleta-Kultur” for the Proto-Solutrean of Hungary.

At the beginning of the 1950s, the leaf points of Central and Eastern Europe were demonstrated to belong to a period earlier than the Solutrean of Western Europe. Based on her European scale analysis of the evidence, G. Freund (1952) proposed to name them “Prae-Solutrean”. According to stratigraphic observations made during new excavations in Western Slovakia, including Dzeravá skala Cave, F. Prošek (1953) concluded to an age of Würmian 1/2 interstadial for these assemblages in the Carpathian Basin, and described them as “Szeletian” after the first excavated site.

F. Prošek’s proposition for distinguishing the Szeletian as an Early Upper Palaeolithic culture concerned an already existing unit (Solutrean) under a new name and a new chronological position. Probably, that is why he did not give a definition of the new unit but applied the fourfold model Hungarian scholars established to describe the development of the Solutrean in Hungary, although he criticized this model for being based upon solely of leaf point typology. This model was built up after a dozen excavations conducted at cave sites in Northern Hungary (Hillebrand 1935; Kadić 1934; Mottl 1938), it distinguished the phases of a Protosolutrean, an Early Solutrean, a Developed Solutrean and a Late Solutrean. The regular shaped bifacial leaf points in the upper layers at Szeleta Cave represented the top of this evolution, the Developed Solutrean (Fig. 1: 5, 6). The roughly elaborated specimens of the lower layers of Szeleta corresponded to the dawn of the development, the Protosolutrean (Fig. 1: 1–3). The bifacial leaf points of the Jankovich Cave fitted between the two developmental levels, the Early Solutrean (Fig. 1: 4, 7, 8). The bifacial foliate tools of the Puskaporos Rockshelter, associated with Late Glacial fauna, were less regularly shaped like the best types of the Szeleta, therefore they represented the Late Solutrean (Fig.
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1: 9, 10). This typological sequence of the “laurel leaf points” was built by a biographical approach. It means that the development of a lithic tool-type follows the life of a human: childhood (the early phase after the birth) – adolescence (developmental phase) – adulthood (fully developed phase) – old age (declining phase). F. Prošek completed the characterization of these phases of the Szeletian by describing cores and other tools, too, including the archaeological record of Western Slovakia and the published data from Hungary. He did not identify the late phase of the Szeletian in Slovakia. At the same time,
M. Gábori (1953) revised the Hungarian record and also doubted the integrity of the late phase which he proposed to be included in the developed phase.

F. Prošek’s idea intensified the research in Central Europe (Mester 2014a). In Hungary, the investigations aimed at specifying the archaeological meaning of the Szeletian by revising the lithic assemblages of the already excavated cave sites, as well as at demonstrating its origin in the local Middle Palaeolithic, especially in the Mousterian of the Bükk Mountains (Vértes 1956; 1958; 1962–1963; 1968). In Czechoslovakia, intensive field works have been undertaken, focusing on the valley of the Váh River (Western Slovakia) by J. Bárta and the region of Brno and the Krumlovský les area (Moravia) by K. Valoch (Allsworth-Jones 1986). Due to methodological development and changing paradigm in French Palaeolithic research from the 1990s onward, lithic studies shifted from using certain types to include the whole assemblages in defining cultural identity (Julien 1992, 166–172). As a consequence, Central European scholars became interested in the composition of Szeletian industries using statistical approaches (Oliva 1991; 1995; Valoch 1957; 1990; Valoch et al. 1993; Vértes 1968). From the 1980s onward, the question of the Szelétian became part of the discussion about the Middle to Upper Palaeolithic transition (Allsworth-Jones 1986; Camps/Chauhan eds. 2009; Conard ed. 2006; Farizy dir. 1990; Neruda/Nerudová 2013; Otte ed. 2014; Riel-Salvatore/Clark eds. 2007; Svoboda 2001; Svoboda/Simán 1989). Scholars, were not motivated to establish a detailed typology of the “Szeletian leaf points” on a Central European scale. Only the inner variability of the type was highlighted (Kaminská 2015; Oliva 1991; Valoch 1990; Valoch et al. 1993).

ELEMENTS FOR THE TYPOLOGY OF THE SZELETIAN LEAF POINT

Now we are in a strange situation: the Szeletian is widely accepted to be a “Middle to Upper Palaeolithic transitional industry” in Central Europe characterized by the presence of the “Szeletian leaf point” which is a typologically undefined tool. Among the leaf points in Szeletian context, the only exception is the “foliate point of Moravany-Dlhá type” described by J. Bárta (1960, 302): a classic poplar leaf-shaped tip with a relatively straight base, which has the maximum width in the lower quarter of the tool and the overall shape resembles an equilateral triangle. P.-Y. Demars and P. Laurent (1992, 124) gave a very general definition for the “Szeletian leaf point”: a foliate piece that is highly variable in form and retouched usually on the whole surface of both faces. Moreover, their fig. 48 illustrates the type by five artefacts, two of which have a different cultural context: no. 1 from Ilsenhöhle Cave and no. 4 from Nietoperzowa Cave now belong to the Lincombian-Ranisian-Jerzmanowician (LRJ) complex (Flas 2011; 2014). Demars and Laurent accepted the possibility that the Jerzmanowice point can also be included in the category of “Szeletian leaf point” as a partially retouched variant. On the contrary, P. Allsworth-Jones (1986, 30, 31) argued to distinguish the “unifacial leaf point” as another tool type. In my view too, the Jerzmanowice point suggests a shaping concept completely different from bifacial leaf points, even if there are partly or totally “unifacial” examples of this latter in the archaeological assemblages (e.g. Bárta 1960, pl. I: 3, 4, 6; III: 2, 4; Nemergút 2010, pl. V: 1–12). Moreover, the Jerzmanowice point seems to be a good fossile directeur of the LRJ complex.

In the early 20th century, Hungarian scholars had good reasons to base their analyses of the mentioned cave sites on the “laurel leaf points” as fossile directeur. On the one hand, the assemblages were attributed to the Solutrean which was characterized by this tool-type in the aforementioned French system. On the other hand, these tools seemed to be of high importance in the region, because the first discoveries in the town of Miskolc (Northeast Hungary) – interpreted as traces of prehistoric humans, which incited O. Kadić to excavate at Szeleta Cave – were bifacial leaf-shaped artefacts (Kadić 1934, 19–23, pl. I; II; Mester 2014a). For a real evaluation of the typology of the leaf points in Hungary, made by Kadić and Hillebrand, we should not forget that they classified their types in comparison with the “classical” laurel leaf points of the Solutrean in France. The definition of the Solutrean laurel leaf point (Brézillon 1968, 216, 217; Demars/Laurent 1992, 132) emphasizes the often symmetrical and pointed form, the totally retouched surface on both sides with flat and parallel negatives. There is a certain variability in forms, whereby P. Smith distinguished 13 variants of the type (Brézillon 1968, 217, fig. 87), but almost all are elongated. From this perspective, the regular and symmetrical, elongated, bifacial foliate points from Szeleta Cave were similar enough to the “classical” type. Moreover, the two basic types recognized by O. Kadić (1916, 238) within the collection of the regular and symmetrical points
from Szeleta were known in the French Solutrean too (cf. Brézillon 1968, fig. 87: B, C, I): a mainly larger with rounded base (*feuille de laurier* – laurel leaf) and a mainly narrower with pointed base (*feuille de saule* – willow leaf). K. Simán (1990, 192) also distinguished only these two types in the assemblage from the upper layers of Szeleta Cave, however, the morphological analysis demonstrated the existence of both variants (with rounded and with pointed base) for both types (large or narrow symmetrical form; Fig. 2: 1A, 1B, 2A, 2B; Mester 2014b, fig. 12).

F. Prošek’s paper (1953) published in Slovenská archeológia journal (Czechoslovakia), probably was hardly known to prehistoric archaeologists on the other side of the Iron Curtain. These colleagues could get knowledge of any new results mainly from review articles published in Western European languages.
in Western European journals. The major source of information on the Szeletian appears to have been the paper of B. Klíma (1957) in Quartár published in Erlangen (West Germany) and, consequently, the article of J. Combier (1962) in L’Anthropologie journal (France). This could be the reason why these two publications are referred to for the description of the “Szeletian leaf point” as a type. Relying on a figure published by B. Klíma (1957, 102, fig. 9), P.-Y. Demars and P. Laurent (1992, 124) present three variants – willow leaf point, laurel leaf point, and poplar leaf point – from the Modřice site in Moravia. Klíma’s three variants, supplemented by a fourth one – asymmetrical point – were also cited by M. Brézillon (1968, 330, fig. 199) who used J. Combier’s (1962, fig. 1: 1, 2, 4, 5) illustrations presenting the pieces from Modřice, Neslovice and Dzeravá skala Cave. The poplar leaf point as a variant was originally defined by L. F. Zotz (1951, 183–187), who introduced the name of “foliate point of Moravany type” because a very rich collection has been found at the excavation of Moravany nad Váhom-Dlhá open-air site in Western Slovakia. Zotz pointed out that this type was already found at several sites before, including a top-quality exemplar discovered at a house building at Petőfi Street in Miskolc, which was wrongly attributed to the Late Acheulean by H. Obermaier because of its regular triangular shape (cf. Kadić 1934, pl. II: 2). According to O. Kadić (1934, 23), this artefact from Miskolc had an uncertain stratigraphic position, but needs to belong to the Developed Solutrean by its shaping technique even though this type was unknown in the assemblage of Szeleta Cave.

One can consider the analyses of bifacial and leaf-shaped tools from Moravian and from Hungarian sites accomplished during the last decade as “an attempt to fill the void” (Kot 2014; Mester 2010; 2014b; 2017; 2018b; Neruda/Nerudová 2017; Nerudová 2009; 2011; Nerudová/Neruda/Sadovský 2011). These investigations applied technological and cognitive approaches, including refits, techno-functional analysis, scar-pattern (working stages) analysis, use-wear studies, GIS, 2D morphometry and statistics. The most important aspect of these studies is the attempt to understand human behaviour during tool production and use. This contributed to better estimate the role of re-sharpening and transformation in the final morphology of bifacial tools, as well as to recognize characteristic forms linked to stages of production. All these factors could be the source of variability in a lithic assemblage.

Morphometrical studies, however, revealed the existence of certain basic forms which are so frequent that they could represent types or sub-types among “Szeletian leaf points”. Z. Nerudová described 13 basic shape variants, applied for the analyses of bifacial tools from Moravian sites (Fig. 3; Nerudová 2009, 165–167; 2011, 63; Nerudová/Neruda/Sadovský 2011, 24). In these publications, she analysed 183, 31 and 415 pieces from Szeletian contexts respectively. It is very thought-provoking that the most frequent variants were the B (semi-leaf) and E (sub-leaf) in each case (31.1%, 19.4% and 26.4%, as well as 20.2%, 29.0% and 19.7% respectively), completed by the variants A (willow-leaf; 12.5%, 6.5%, 11.8%) and D (lateral; 7.7%, 19.4%, 7.5%). It looks like these forms have some meanings within the Szeletian bifacial tool production in Moravia.

Taking into account the cognitive framework of the tool production (Inizan et al. 1999, 15; Mester 2014b, 43, 44; 2018b; Tixier 2012, 40, 41), the shape variants correspond to different tool ideas. Based on this cognitive model, nine tool ideas termed “modules” had been recognized within the collection of leaf-shaped tools of Szeleta Cave (Fig. 2; Mester 2010, fig. 1; 2014b, 48, fig. 12). Five of them are present among the leaf-shaped tools of Jankovich Cave, too (Mester 2017, 82, 83, fig. 6). Furthermore, some of these modules occur in Szeletian assemblages in Western Slovakia and Moravia as well, and vice versa some shape variants of Nerudová (or modules) occur in assemblages related to the Szeletian in Hungary and Western Slovakia (Mester 2018a, 30).
In conclusion, it seems reasonable to take these common elements of the Moravian, Slovakian and Hungarian leaf-shaped tool assemblages as a basis, if we are looking for a definition of the “Szeletian leaf point” tool-type.

THE SZELETIAN LEAF POINT AS FOSSILE DIRECTEUR

The fossile directeur or index fossil is a term borrowed from geology. The principle that certain fossils could be used to indicate the geologic age of a rock formation is due to William Smith at the beginning of the 19th century, who based the chronostratigraphic sequence of the geological units on the faunal succession for developing the first map of the United Kingdom published in 1815 (Harries 2015). He observed that the distribution of specific fossils through time permit the identification of geologic periods and the correlation of rocks containing these fossils. By analogy, prehistorians of the 19th and early 20th centuries considered specific tool-types as indicators of levels of the chronostratigraphic sequence of human industries (Leclerc/Tarrête 1988a; Pautrat 1993).

To be able to accomplish this role of indicator, an index fossil in geology have to have the following characteristics, according to P. Harries (2015, 354):

– rapid evolution so that the temporal intervals represented are short;
– wide geographic distribution allowing correlation over a broad area;
– virtually instantaneous range expansion following origination and simultaneous extinction decreasing the likelihood that these boundaries are time transgressive;
– distinctive morphologic characters allowing differentiation from related taxa;
– mineralized skeletal elements that are preserved in the fossil record;
– sufficient abundance affording the likelihood of finding their remains.

These principles were applicable for selecting fossiles directeurs among Palaeolithic stone tools when these were used for chronostratigraphic categorization on a continental scale (Leclerc/Tarrête 1988a). For differentiating stages like de Mortillet’s Acheulean, Mousterian, Solutrean and Magdalenian the tool-types like large and regular handaxe, triangular retouched point, bifacial leaf point and bone harpoon were convenient because of their assumed successive appearance and disappearance. Similarly, for defining subdivisions within stages researchers could find tool-types with more limited presence in time, like the backed point of Chatelperron type and that of La Gravette type or the shouldered point with bifacial flat retouch, the raclette and the parrot beak burin, indicating respectively Breuil’s Lower Aurignacian, Upper Aurignacian, Upper Solutrean, Magdalenian I and Magdalenian VI (Demars/Laurent 1992, 66, 86, 96, 100, 140).

During his excavations carried out at La Ferrassie and Laugerie-Haute rock-shelters in the 1930s, D. Peyrony observed that the three kinds of Aurignacian of Breuil’s subdivision are not successive in the sequence but the Middle one is parallel with the Lower and Upper ones (Taborin 1992, 360). He interpreted this situation as the existence of two contemporaneous cultures, the Aurignacian and the Perigordian (corresponding to the Chatelperronian and the subsequent Gravettian). Consequently, the meaning of the fossile directeur had to be changed from chronological to cultural sens. An archaeological culture or unit is conceived as a specific combination of observable cultural elements which can be outlined in time and space (Leclerc/Tarrête 1988b). As a consequence, the corresponding index fossil needs to show limited distribution too, intimately linked to the context of the specific combination of cultural elements. F. Bordes (1961, 2) cited only four such tool-types: the big flat triangular handaxe of the Mousterian of Acheulean tradition, the typical Solutrean shouldered point of the Upper Solutrean, the multiple borer of the Lower Magdalenian and the parrot beak burin of the Upper Magdalenian.

For this reason, the “Szeletian leaf point” has to be unique for the Szeletian to consider its fossile directeur. On the one hand, this type has to have something specific (morphology, technique in shaping or retouching, chaîne opératoire in the production, tool concept, etc.) by which it can be distinguished from other types of leaf point. On the other hand, it has to appear exclusively in the context of Szeletian assemblages.

To find specificities for this typological definition is not easy and requires a thorough analysis of the leaf points/leaf tools of the Late Middle Palaeolithic and the Early Upper Palaeolithic in Europe. Logically, it is expectable to find a lot of common elements because of the nature of the bifacial shaping
as a method and the direct percussion with a hard or soft hammer as the applied knapping technique (Inizan et al. 1999). Moreover, the observed morphology of bifacial tools is largely influenced by some basic components, like the length/width ratio and the position of the maximal with along the longitudinal axis (Bordes 1961, 50–52; Debenath/Dibble 1994, 130–133; Iovita/McPherron 2011; Roe 1964). Furthermore, the type of the cross-section is the result of the shaping of the two faces by convex and flat removals (Boeda 1995, 58). The combination of these removals on the opposite sides and the dorsal and ventral faces results in a certain number of possible cross-sections. All these elements provide a limited chance to find specificities for the “Szeletian leaf point”. On the contrary, the production process should be characteristic (Kot 2016; Neruda/Nerudová 2017). In this aspect, it is crucial to differentiate the operations for creating from the operations for transforming, re-sharpening and from damages originating from use. In my view, the most promising approach is to look for the tool concept (Mester 2014b; 2018b). The overall form of the leaf-shaped tools (a tendency for symmetry or even asymmetry, dimensions), as well as the combination of components (delineation of the base and the edges, character and angle of the tip, etc.), are linked to the technical system of the human group (Geneste 1991; Lemonnier 1983; 1991), and so are culturally determined.

Several shape variants of bifacial leaf points until now recognized in Szeletian assemblages should be a general type. Nerudová’s shape variant A, the rhomboid bipointed form appears in the context of the Lincombian-Ranisian-Jerzmanowician (LRJ) complex (Flas 2011). Exemplars were published from an East Anglian open-air site (Campbell 1977, fig. 108: 2), from Ranis 2 (Flas 2011, fig. 3: 2) and Mamutowa Cave (Kožlowski 2017, fig. 3: 1). The same variant is known in Bohunician context as well from Brno-Bohunice (Tostevin/Škrda 2006, fig. 2: 3, 4), and as single finds without cultural context from Haldenstein Cave in the Swabian Jura (Bohraus 2004b, fig. 10). My module 3C was also documented in Kent’s Cavern in LRJ context (Campbell 1977, fig. 86: 4). My module 3D is present in apparently Late Middle Palaeolithic context at Musilievo (Kot 2013, fig. 69), in the Aurignacian of Miškovice type at Přestavlky (Oliva 1990, fig. 3: 7) and at Miškovice (Oliva 1990, fig. 4: 4), as well as in the context of Keilmessergruppen at Rörshain (Kot 2013, fig. 114) and at Wahlen (Kot 2013, fig. 119).

The problem of context has already revealed for the leaf points of the eponymous site (Simán 1990). In the sequence of Szeleta Cave, the most regular and symmetrical leaf points were found in Layer 5 and mainly in Layer 6. In Layer 5 a typical La Gravette point was also found (Kadić 1916, 286, fig. 32: 1). This stratigraphic position fitted well in the general chronostratigraphic sequence at that time: the Late Aurignacian (Gravettian) followed by the Solutrean. M. Gábori (1990, 104) interpreted this situation as indicating that the Gravettian appeared earlier than the Developed Szeletian. J. Bárt (1988) unearthed very similar leaf points together with a Gravettian lithic industry at Trenčianske Bohuslavice in the Váh River valley in Western Slovakia (Kaminská et al. 2008; Žár 2007). This discovery shed new light on the Developed Szeletian of Szeleta Cave which was attributed to a Gravettian with leaf points (Lengyel/Mester/Szolyák 2016; Simán 1990). According to the archaeological, radiometric, paleobotanical, stratigraphic, and snail faunal evidence obtained during the recent excavation of Trenčianske Bohuslavice (Więczynski et al. 2020), the bifacial leaf points occur in layer B-1 without diagnostic Late Gravettian tool-types. This layer revealed to be younger than both the Szeletian and the Gravettian. As a consequence, the elongated and symmetrical leaf points of the Szeleta Cave could not be classified typologically as “Szeletian leaf point”.

CONCLUSION

The Szeletian is widely accepted as an industry of the Middle to Upper Palaeolithic transition in Central Europe, characterized by the production of leaf points and associated with Neanderthals. As a term, the Szeletian was introduced in 1953 for describing an already existing archaeological unit in Central Europe, which had been defined in relation to the Solutrean in Western Europe. Because of this, the cultural unit is far from being clear, and the term inherited many problems coming from altogether more than one hundred years of research history (Mester 2018a).

One of these inherited problems represents the “Szeletian leaf points” tool-type, considered as a kind of fossile directeur of this archaeological unit. Originally, the bifacial leaf-shaped points unearthed in Hungarian cave sites were used for subdividing the Solutrean in a developmental concept. This basic concept was not questioned in the framework of the new archaeological unit. On the one hand, this is understandable, taking into account the stratigraphical and chronological problems of the majority
of the concerned lithic assemblages and the regional character of the researches carried out until now. On the other hand, it becomes more and more important to clarify the status of the Szeletian within the archaeological cultures and complexes producing bifacial leaf-shaped tools from the Late Middle Palaeolithic to the Middle Upper Palaeolithic. This clarification requires a comprehensive analysis of the role the leaf-shaped tools played in the processes of the cultural changes during this long period (e.g. Kozłowski 1990). Researches of the last fifteen years dealing with leaf-shaped tools, and especially those in Szeletian context, demonstrated how fruitful the technological analysis combined with a behavioural approach can be. But we have to shift from reconstructing to understanding.

The “Szeletian leaf point” is a typologically undefined term. It has rather “feeling” than “meaning” when we use it on the field. As it was illustrated above, there are variants of leaf-shaped tools in the lithic assemblages attributed to the Szeletian in Central Europe which should be considered as real types or subtypes. However, some of them are quite common in the archaeological record of the Middle and Upper Palaeolithic of Europe. Evidently, these types could not have been fossiles directeurs of either the Szeletian or the other cultural units. From Szeletian contexts, the only type among the bifacial leaf-shaped tools which have a definition is the leaf point of Moravany-Dlhá type. It seems to be characteristic enough for representing a typological unit. However, it should not be the fossile directeur of the Szeletian because of its limited presence at Szeletian sites.

Until we can not demonstrate the existence of a specific type of leaf point linked strictly to the Szeletian, it seems to be better to not use the “Szeletian leaf point” as a typological term. In my view, it would be more reasonable to define more general types for bifacial leaf-shaped tools (like in the case of side scrapers, for example). With the help of such a typology we could better characterize the composition of the tool-kits of the concerned industries and at the same time avoid ambiguities and misunderstandings.

Acknowledgement

I am grateful to Adrián Nemergut for inviting and motivating me to write this paper. I am indebted to Norbert Faragó, György Lengyel and the anonymous reviewers for valuable comments on the first draft of the manuscript.

Translated by author

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Hillebrand 1935a

Inizan et al. 1999

Iovita/McPherron 2011

Julien 1992

Kadić 1916
WHAT ABOUT THE SZELETIAN LEAF POINT AS FOSSILE DIRECTEUR?

Kadić 1934

Kaminská zost. 2014

Kaminská 2015

Kaminská/Kozłowski/Škrdla 2011

Kaminská et al. 2008

Kloch 1957

Kot 2013

Kot 2014

Kot 2016

Kozłowski 1990

Kozłowski 1995

Kozłowski 2000

Kozłowski 2017

Kozłowski J./Kozłowski S. 1996

Leclerc/Tarrête 1988a

Leclerc/Tarrête 1988b

Lemonnier 1983

Lemonnier 1991

Lengyel/Mester/Szolyák 2016

Marks/Monigal 2000

Mester 2010

Mester 2014a

Mester 2014b

Mester 2017

Mester 2018a
Szeletiensky listovitý hrot ako fossile directeur?

Zsolt Mester

Sühren


Návrh F. Proška na definovanie szeletienu, kultúry zo včasného mladého paleolitu, sa vzťahoval už na existujúci celok (solutréen), avšak s novým názvom a novou chronologickou pozíciou. Nevytvoril definíciu nového celku, ale aplikoval model, ktorý maďarskí bádatelia vytvorili na opísanie vývoja solutréenu v Maďarsku. Tento model bol založený výlučne na typológii listovitých hrotov (Hillebrand 1935; Kadić 1934; Mottl 1938) a rozlišuje protosolutréen.


Obr. 1. Listovité hroty z fáz „solutréenu“ v Maďarsku. 1 – 3 – protosolutréen z jaskyne Szeleta (podľa Kadić 1934, tab. IV: 2, 5, 7, pôvodná fotografia G. Toborffy); 4 – 6 – raný solutréen z jaskyne Jankovich (podľa Gábori-Csánk 1993, tab. IIB: 5, 8, 10, pôvodná fotografia A. Dabasi); 7, 8 – rozvinutý solutréen z jaskyne Szeleta (podľa Kadić 1934, tab. V: 1, 3, pôvodná fotografia G. Toborffy); 9, 10 – neskorý solutréen zo skalného previsu Puskaporos (podľa Kadić 1934, tab. VI: 2, 7, pôvodná fotografia T. Dömök). Bez mierky.

Obr. 2. Rozlíšené moduly bifaciálnych listovitých nástrojov z jaskyne Szeleta. 1 – širšie alebo hlubšie listovité hroty (podľa Nerusová/Nerudová/Sadovský 2011), bez mierky.

Obr. 3. Morfologické tvary bifaciálnych nástrojov aplikované v opisnom systéme listovitých artefaktov z moravských lokalít (podľa Nerusová 2011, obr. 2: 3).

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