THE CULTURE-HISTORICAL DIVISION OF THE CENTRAL EUROPEAN UPPER PALEOLITHIC IN SOVIET ARCHEOLOGY

ABSTRACT: Studying the historiography of East European Upper Paleolithic culture-historical subdivisions, I described the features of the Soviet Paleolithic School and made periodization of the history of archeological thought in this field. But we need a common topic of scientific interest for comparing Paleolithic archeology development on both sides of the "iron curtain". The Upper Paleolithic of Central Europe was studied by both Soviet and Western archeologists. In this article I will overview approaches of Soviet specialists to the subdivision of the Central European Upper Paleolithic from the 1930s till the beginning of 1990s. Two topics related to the Upper Paleolithic of Central Europe were actively developed in Soviet archeology, namely: the Upper Paleolithic of Central Europe in the context of the Willendorf-Kostenki Culture and the Transcarpathian Upper Paleolithic. In the 1930–50s Central European sites were studied in regard to regularities of development of the Paleolithic society viewed through the prism of progress in stone tool techniques. They were included into general schemes of European Paleolithic by P. P. Efimenko and compared with Kostenki sites by P. Boriskovskii according to the so-called Stadial paradigm. In the 1960s, G. Grigor’ev recognized archeological cultures in Central Europe as related to Kostenki Upper Paleolithic. Specialists from the Academy of Science of UkrSSR studied Transcarpathian Upper Paleolithic during the second half of the 1960–1980s.

KEY WORDS: Upper Paleolithic – Central Europe – Soviet archeology – Methodology – Historiography

INTRODUCTION

The elaboration of archeological theory and solving of methodological problems needs to begin with a careful historiographic analysis of all past developments of the science. Culture-historical subdivision has been a central problem in Paleolithic archeology since the earliest developments of the discipline. The transition from an empirical to a theoretical level of cognition occurs during the analytical process of attributing sites to particular
culture-historical categories. Therefore the historiography of Paleolithic culture-historical subdivisions in any territory reflects the development of central theoretical and methodological tenets of different traditions of Paleolithic archeology.

The particular interest in the history of Paleolithic archeology has increased over the last ten years. Recent publications on the history of Upper Paleolithic research in separate regions (Chubur 2005, Fedorchenko 2007a, 2007b) and general overviews (Vasil'ev 2004, 2008) have appeared. An increasing number of papers on the historical and cultural subdivision of the Upper Paleolithic of the Middle Don region (Sinitsyn et al. 2002), the Middle Dnepr region (Paliienko 2008b) and the South of East Europe (Paliienko 2008a) have been published since that time. The main trends in the development of archeological cognition in Soviet Paleolithic archeology in 1920–50s were analyzed completely in Vasil'ev's books. S. Paliienko considers the features of cultural and historical attribution of East Europe Upper Paleolithic sites in the second half of the 20th – beginning of the 21st century at an interpretive level (Paliienko 2009, 2011a). Criteria for culture-historical subdivisions of Upper Paleolithic sites were investigated independently (Paliienko 2010, 2011b). Unfortunately, Soviet specialists' approaches to the Upper Paleolithic of Central Europe have not been studied at all.

The Central European Upper Paleolithic has been researched by numerous Soviet archeologists. Materials from Upper Paleolithic sites in Central Europe were analyzed for paleoeconomic and cultural reconstructions, as well as studies of primitive art, by scholars from Leningrad, Kiev, and various other scientific centers. The Early and Middle Paleolithic of Central Europe was examined in particular detail. V. Gladilin and his followers were conducting key research during 1970–80s. Some of these researchers, such as V. Usik, are working on the Upper Paleolithic now. In this paper, however, I will overview only approaches of Soviet specialists to the subdivision of the Central European Upper Paleolithic from the 1930s till the beginning of 1990s. Modern Ukrainian and Russian archeologists' approaches as well as European researchers' opinions to this problem and their influence on Soviet colleagues will not be examined in this article. This will be a topic of my further studies.

THE CULTURE-HISTORICAL SUBDIVISION OF THE EAST EUROPEAN UPPER PALEOLITHIC IN SOVIET AND POST-SOVIET ARCHEOLOGY

Before assessing the historiography of Soviet cultural attributions of Central European Upper Paleolithic sites we need to describe briefly the main trends in the development of Soviet Paleolithic archeology regarding the cultural subdivision of the East European Upper Paleolithic. Analysis of published literature has enabled the division of the historical development of archeology in this region into four periods with different stages (see Table 1) (Paliienko 2009, 2011a).

The features of every period and stage will be examined further below.

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First period

The first and the second periods present the time when the Soviet school of Paleolithic archeology was being formed. The first period (the 1920s) is the time of the Migration concept, during which the traditions of pre-revolutionary archeology were continued. All local differences and changes in Upper Paleolithic material culture were explained by migrations of different human races. This approach was typical for European archeologists of that time. Very generalized schemes of East European Upper Paleolithic development were proposed, due mainly to the very limited number of sites that were being investigated in the region at this time. No theoretical publications appeared during this period.

Second period

The second period (the 1930s to the end of the 1950s) is the time of the Stadial concept. The Marxist approach was first applied to Paleolithic archeology during this period. Investigating changes in the social structure of Paleolithic society was the central concern. It had an effect on researchers’ approaches to the considered problem. Two stages might be recognized in this period, namely:

The first stage (the 1930s to the beginning of the 1950s) is the developmental phase of the Stadial concept of Upper Paleolithic culture, which was the result of the adoption of Marxist theory and methodology by Soviet archeologists. Complex research on the history of primitive society was made. Attempts were made to create sociological periodizations of primitive society. A single theoretical paper was published. During this stage many new Paleolithic sites were investigated and general schemes of the development of the East European Upper Paleolithic were improved.

The second stage (the middle of the 1950s) is a time of discussion about the use of geological data for chronological attributions of Upper Paleolithic sites and the existence of local differences in Paleolithic material culture. This is the beginning of Upper Paleolithic local archeological cultures (AC) subdivision as a result of increasing new archeological data. This data was incompatible with old schemes devised under the Stadial concept. The first local scheme of the Kostenki-Borschevo region Upper Paleolithic cultural subdivision appeared during this time, but yet again theoretical publications were absent.

Third period

The third period (the end of the 1950s to the beginning of the 1990s) is a time of local AC concept. We can divide it into three stages.

The first stage (the end of 1950s to the 1960s) is a period when the concept of Upper Paleolithic local AC was strengthened in Soviet Paleolithic archeology. The discussion on this topic between A. N. Rogachov and P. I. Boriskovskii took place. A few Upper Paleolithic historical and cultural areas (HCA) were recognized within Eastern Europe and new cultural chronological schemes of Upper Paleolithic development for separate regions were elaborated on the basis of this new paradigm. There was also discussion about the intermediate steppe zone of Upper Paleolithic development during this period. Special theoretical publications on the definition of AC appeared and a few summarized books were published.

The second stage (the beginning of the 1970s to the middle of the 1980s) is a time when the cultural chronological schemes for the development of the Upper Paleolithic in separate regions of Eastern Europe, which were created in the preceding period, were improved. New approaches were used and new sites were added. Theoretical publications on the problem of AC criteria and the meaning as well as correlation of the following definitions "AC", "ethnic cultural area" and "economic cultural type" appeared. Summarized books were published.

The third stage (the middle of the 1980s to the beginning of the 1990s) is a period of reduction of archeological interests in the problem of historical and cultural subdivision of the Upper Paleolithic of the Middle Don, the Middle Dnepr, and the Middle Dniester regions, and the elaboration of cultural chronological schemes for separate regions of the south of East Europe. The problem of general regularities between Upper Paleolithic development of separate regions or chronological periods was a central research area during this stage. The methodological crisis of the definition of local AC took place in Soviet archeology.

Fourth period

The fourth period (the beginning of 1990s till now) is a time of the technocomplex approach to culture-historical subdivisions of the East European Upper Paleolithic. The methodological basis of this approach was elaborated by G. P. Grigor’ev and M. V. Anikovich. Scientists’ interest in theoretical problems decreased during this time. With few exceptions, theoretical papers were not published in Ukraine. New methods from the environmental sciences began to be used increasingly for the chronological attribution of sites. General publications on the Upper Paleolithic of East Europe, Russia or Ukraine are unfortunately absent during this
post-soviet period. This period can be subdivided into three stages.

The first stage (the first half of the 1990s) is a time when the methodological foundations of the technocomplex approach were elaborated and applied to the creation of new cultural chronological schemes for the Upper Paleolithic in the Middle Don region. The preceding paradigm was also used for the cultural attribution of Upper Paleolithic sites.

The second stage (the second half of the 1990s) is a time when The East Gravettian discussion took place and the technocomplex approach enabled the elaboration of new regional schemes of Upper Paleolithic development in the Middle Dnepr and Dniester, and for the south of East Europe in general. The archeological features of different chronological periods of the Upper Paleolithic started to be investigated during this time.

The third stage (the beginning of the 21st century till now) is a period when a few cultural chronological schemes of Upper Paleolithic development for the South of East Europe were created and cultural attribution of new sites in other regions was done based on the technocomplex concept. Chronological schemes for separate regions of East Europe were elaborated using the data of environment sciences. The discussion about Dnepr-Don HCA of mammoth hunters between M. V. Anikovich and G. V. Grigor’eva took place this time. Theoretical groundwork of Russian archeologists was generalized.

We must overview Soviet and contemporary archeologists' main approaches used for culture-historical attributions of Upper Paleolithic sites based on stone tool analysis. In my opinion three main approaches could be detected. But these methods are usually combined, for example, typological and statistical or statistical and technological (I define the terms used in my publications in order to avoid variant reading.).

The typological method is an approach in which the cultural identity of site is defined by the presence or absence of certain types of stone artefacts. The theoretical explanation of this method was made in Soviet Paleolithic archeology by G. P. Grigor’ev (1966a). And he implemented this approach practically (Grigor’ev 1970: 43–63).

The statistical method attributes sites to particular cultures based on the relative proportions of different stone artefact types between different sites. Many Soviet archeologists referred to papers of D. de Sonneville-Bordes and J. Perrot as a theoretical basis (Chernysh 1959: 187, Krotova 2000: 31).

The technological method is an approach where knapping techniques and secondary treatment of stone artefacts with formal type descriptions are used to compare different Upper Paleolithic sites. This approach was used by A. Rogachov and M. Anikovich in the part of the book "The Paleolithic of the USSR" (1984).

It is too early to talk about the correlation between interpretation of results and the different approaches employed because research is still in progress. But there are preliminary results on the cultural attribution of Upper Paleolithic sites from certain regions of East Europe.

In a process of studying the Middle Dniepr region Upper Paleolithic an a determination of local differences of sites correlates with the beginning of the use of statistical methods. But the paradigm was not changed when technological features of lithic artefacts had been taken into account. And appearance of technocomplex approach to culture-historical subdivision of this region Upper Paleolithic was not a result of using new methods of stone tool analysis (Paliienko 2010: 74). A similar situation is observed in the process of studying the Upper Paleolithic of the Middle Dnepr region and the South of East Europe.

THE CULTURE-HISTORICAL SUBDIVISION OF THE CENTRAL EUROPE UPPER PALEOLITHIC WITHIN THE SCOPE OF THE STADIAL PARADIGM BEFORE WWII

The early 1930s witnessed the transition of Soviet archeology to Marxist approaches. During this period the central task of prehistorians was to study the evolution of social relations. Researchers of all archeological periods including the Paleolithic started to work within the bounds of the Marxist paradigm. During this time archeologists tried to link changes in techniques of stone processing with processes of hunting economy improvement and changes in social organization (Boriskovskii 1932). The concept of interconnection between changes in material culture and social development stages is known in historiography as stadialism.

There were three editions of P. P. Efimenko's book during the 1930s – beginning of the 1950s: "The pre-tribal society" (1934) and "The primitive society" (1938, 1953). P. P. Efimenko wrote that sites classification based on typological features is not considered scheme of the primitive society development. Because it does not take into account the historical significance of these features. Therefore, he proposed his own scheme, which includes three phases.
The early Upper Paleolithic (Aurignacian–Solutrean epoch) is a beginning of the Upper Paleolithic early-tribal society forming, when settled types of hunting economy dominated.

The later Upper Paleolithic (Magdalenian epoch) is a time when art had arisen in parallel with modernization of lithic and bone technologies. In that period the type of hunter-nomads was prevalent.

Epipaleolithic (Azilian and Tardenois epochs) is a period of hunting economy degradation (Efimenko 1938: 328–329).

P. P. Efimenko noted that such a chronological scheme also applied to the Upper Paleolithic of periglacial Europe and partly periglacial Asia (Siberia). The author pointed out that generally used subdivisions for early periods of the Upper Paleolithic have conventional value defining chronology of sites in respect to their historical and cultural attribution. From the standpoint of general history it would be more correct to divide sites into two groups: the first one included the early and the middle Aurignacian and the second one included the later Aurignacian and Solutrean.

P. P. Efimenko wrote about Central European Upper Paleolithic sites that Solutrean monuments were found in South Germany, Czechoslovakia (Předmosti), Poland (Jerzmanowice Cave), and Hungary. Artefacts from last two countries belonging to the second group have a specific feature.

The scientist considered that the only one mark for a subdivision of Solutrean layers as a special phase of the Upper Paleolithic is a flint spear point. Whereas, judging by other attributes Solutrean sites are natural completion of early stage of the Upper Paleolithic technique development. So the main argument for reference of Předmosti site to the end of Aurignacian – Solutrean epoch is the presence of flint laurel-leaf points with crude but typical retouch. There are little tanged and shouldered points as remains of Aurignacian types. Special features of Hungarian cave Szeleta and Polish cave-site Jerzmanowice are flint laurel-leaf points illustrating earlier appearance of Solutrean technique here.

P. P. Efimenko admitted that most of the sites from the wide territory between the Danube and Don belong to the later Aurignacian – earlier Solutrean period. And the frontier between these two epochs cannot be recognized in this part of Europe. Because these sites on the basis of total characters as type of settlements, stone and bone artefacts, objects of so-called Paleolithic art represent one stage, one historical period despite that typical Solutrean features appeared on some of them later. Further comparison of the later Aurignacian layers of Willendorf with Předmosti is in line with this point. In the archeologist's opinion, the progress in stone tool technologies is connected with the beginnings of settled life at least in the northern zone of humanity of that time (Efimenko 1938: 366–368, 378–379).

In early 1930s, P. I. Boriskovskii, who was influenced by P. P. Efimenko's work, began to investigate the problem of Upper Paleolithic stages. He speculated that we can retrace the development of primitive society only by studying improvements in hunting technologies, which were the main tools of man's survival during this time.

Boriskovskii proposed the scheme of hunting weapon development during the Upper Paleolithic. Moreover the researcher took into account the development of both the stone and bone points. Aurignacian time was therefore a period of stone and bone hunting weapons, with the use of wooden spears and bludgeons as well. Backed points (as head of missile weapon) and, possibly, Mousterian points used on some Aurignacian sites. Bone points were represented by typical Aurignacian split base points (à base fendue) and points with beveled base. Both bone and stone points were used in parallel, but none of them was dominant during that period.

According to P. I. Boriskovskii, the co-existence of bone and flint hunting weapons was confirmed by Aurignacian layers of multilayer German sites (Sirgenstein, Große and Kleine Ofnet, The Klausenhöhle (cave), etc.). This type Aurignacian is known in Poland (Hora Bronislawa, Gliniany), in Bohemia (Jenerálka, Lubná), and Moravia (Dolní Věstonice). The typical Aurignacian industries presented on sites of Lower Austria (in the neighborhood of Kremes, Willendorf, Hundesteig, Aggsbach), Hungary, and Transylvania.

The process of flint hunting weapon improvement began in the Upper or Final Aurignacian. Stone weapon dominated over bone ones. And specific types of points as shouldered (type Willendorf or Kostenki 1), tanged (Font-Robert) and leaf-shaped with easily retouched edges were produced. A flat pressure Solutrean retouch appeared in this process. Firstly it formed only separate parts as a tip of a point then covered its most part. Tanged and shouldered points sometimes with partial pressure retouch were replaced by more or less strongly pronounced laurel-leaf points covered by flat pressure retouch initially partially then entirely. Bone points faded into the background but existed during the whole of Solutrean period (as a point with beveled base). Boriskovskii noted that the rest of the lithic and bone industry was not changed considerably during the
transition from Aurignacian to Solutrean epoch in the process of hunting weapon development. Main tool types as end-scrapers, burins, borers, etc. remained the same.

The archeologist considered that this development could be retraced in Germany: from the Upper Aurignacian layer of Syrgenstein through proto-Solutrean layer of this cave to developed Solutrean of Ofnet and the Klausenhöhle and on some other German sites. The same situation could be seen on the sites near Krakow: from Gliniany through Pulawy to the developed Solutrean of Jerzmanowice, in Moravia: from the Upper Aurignacian Pavlov through proto-Solutrean Předmosti to developed Solutrean of Ondratice. Willendorf gave the development from Aurignacian to Solutrean in Austria.

There was the evolved Solutrean industry here. P. I. Boriskovskii wrote about features of the Hungarian Upper Paleolithic that Solutrean industry was presented better on this territory than in neighboring East European countries. Four stages of its development could be subdivided. But this fact did not change the general succession and the essence of Aurignacian – Solutrean hunting weapon development stated for the whole Atlantic province.

According to P. I. Boriskovskii the main difference in the development of Magdalenian industries from previous industries was in flint hunting weapon replacement by bone and usage of flint tools for bones treatment. Key tools were produced of bone that was a product of hunting that gave the raw materials for hunting tools. P. I. Boriskovskii wrote that some German cave sites, such as the Middle and Upper Klausenhöhle had a Magdalenian industry over Solutrean. The same changes in stone hunting weapon replacement by bone were found here. The Magdalenian layers of other German sites (Stetten ob Lontal, Andernach, Kastelhang) confirmed this too. The same trend was demonstrated by the early Magdalenian layers deposited over Solutrean on Polish sites Jerzmanowice and Koziarne. The developed Magdalenian of Poland with a florescence of bone weaponry was represented at Masycka cave. This stage could be represented by the loess site Liboc in Bohemia, a region where the Upper Paleolithic was little known. A number of bone spearheads were found there. This stage was present too on the sites Kostelik, Kúlna, and some others. The harpoon of the same type as on Magdalenian sites in Germany and France was found at the Kostelik site. There was Magdalenian on Gudenus cave-site in Austria. But it was a little represented in Hungary where a lot of Solutrean sites were known. Scanty remains of bone needles and points were found on Kiskevely and Jankovic sites. Solutrean points had disappeared in Magdalenian layers everywhere here (Boriskovskii 1932: 12–16, 29–30).

THE CULTURE-HISTORICAL SUBDIVISION OF THE CENTRAL EUROPE UPPER PALEOLITHIC WITHIN THE SCOPE OF THE 1950s STADIAL PARADIGM

A. N. Rogachov, P. I. Boriskovskii, and P. P. Efimenko visited Czechoslovakia in the first half of the 1950s. The latter went to Hungary too (Grigor'ev 1963: 2, Efimenko 1956: 33). That is why Central European site data was actively involved in discussions of the variability of the Upper Paleolithic that was taking place in Soviet archeology in the middle of the 1950s.

P. P. Efimenko tried, therefore, to trace the continuity of cultural traditions in Central European records. He organized the available data in the following sequence: late Mousterian – the Šipka type (pre-Aurignacian) – the earlier Szeletian type – the later Szeletian type – the Pavlov type (later Aurignacian, Gravettian) – Magdalenian (Efimenko 1956: 44).

P. P. Efimenko believed that Jislova Cave (northward from Prague), earlier layers of Šipka Cave, the lowest horizons of Kúlna Cave and Čertova dira Cave in Moravia, Nad Kačákem Cave near Beroun and the famous Předmosti site (the layer under the main horizon) belong either to pre-Aurignacian or the Šipka sites. The grounds for this conclusion was the fact that though the major portion of assemblages were still represented by crude quartz and quartzite flakes, the elongated blades knapped from prismatic cores were represented alongside with isolated points of primitive Solutrean type.

According to P. P. Efimenko the earlier Szeletian stage is, in fact, the Upper Paleolithic. Some Mousterian features still survived in the ancient culture during this period. For example, microflaking of large butts was typical for Mousterian technique, and in the archeologist's opinion, could be found even on elongated blades. The rest of stone artefacts as end-scrapers, primitive burins, and core-shaped forms could be considered as real and obvious arguments in favor of the Upper Paleolithic age of this culture. Another peculiarity of the earlier Szeletian type-sites was points with Solutrean flat retouch. These points were notable for sometimes more regular leaf-shaped, sometimes asymmetrical form. Moreover colored flint and jasper began to be used widely instead of local crude raw materials (quartz and quartzite).
The Culture-Historical Division of the Central European Upper Paleolithic in Soviet Archeology

P. P. Efimenko attributed sites Barca II near Košice (the East Slovakia), Ivanovce and Zamarovce in the neighborhood of Trenčín, Dlhá, Banka I and II near Piešťany (the West Slovakia) and Dzeravá skála Cave to earlier Szeletian stage.

The next stage was the Szeletian (or the late Szeletian). P. P. Efimenko could not distinguish this period from previous periods by material remains. Czechoslovakian sites of this period were similar to those of the West European Solutrean. This period had a flourishing lithic technology and the Upper Paleolithic tools types assumed even greater importance but elements of Mousterian techniques played a significant part. Typical Solutrean points of flint and jasper were widespread in such quantities in the local characteristics of Szeletian sites of separate groups in Czechoslovakia. Other lithic tools were common in general.

According to the researchers, Kechnec, Milhost and Seňa in the neighborhood of Košice, and Lišen and Tvarožná near Brno belonged to the late Szeletian stage. The latter two sites, in P. P. Efimenko's opinion, were specific for especially abundant Solutrean points of various types, and ranging from large laurel-leaf to small poplar-leaf forms. He noted that a special group of sites was in Northern Moravia. Otaslavice and Ondratice belonged to this group. The major part of findings consisted of crude quartzite flakes typical for Solutrean artefact types. Similar flakes were found in lower horizon of Býčí skála near Brno.

The next stage – the later Solutrean time was characterized by the use of a new high-quality dark chalk flint. The term "the later Aurignacian" or "Gravette" was used for sites of this period by Czechoslovakian archeologists. Dolní Věstonice, Pavlov, Předmostí, and other East European sites with similar types of dwelling, burials (were uncommon), bone tools, and works of primitive arts were attributed to this period by P. P. Efimenko.

Typical lithic artefacts of Dolní Věstonice, Pavlov, and other similar sites were correlated with the Upper layer of Kostenki I. Large flint blades were used here as the main blanks for making basic tool kits. The form of Shouldered points was another similarity with Czechoslovakian sites. It was represented by large flint pointed blade with retouch on the end or rarely on the edge. According to P. P. Efimenko it could be the local Central European type of later Solutrean Culture or be explained by a later age.

Czechoslovakian sites belonged to the next stage, which was the Magdalenian, characterized by a special bone and lithic tool kit. There were typical Magdalenian tools such as regular narrow flint bladelets knapped by pressure from well-prepared faceted cores, little end-scrapers (often short and double), small regular burins, various borers, diminutive curved backed points, backed bladelets, flakes and bladelet fragments with typical flat retouch on ends.

P. P. Efimenko referring to P. I. Boriskovskii attributed upper layers of Býčí skála, Kúlna, Nová Drátenická and Dzeravá skála Caves, Koněpruské Cave, Hostim site, Moravany-Jackowsk and Pekárna Cave to that period (Efimenko 1956: 33–42). P. I. Boriskovskii overviewed the Central and South-East European Upper Paleolithic after his visit to Czechoslovakia in the beginning of the 1950s. His bipartite paper on this topic was published in 1957 and 1959.

In the first publication Czechoslovakian sites were attributed by the researcher to the Earlier Paleolithic and Mesolithic sites of Czechoslovakia were characterized more precisely.

Describing lithic tools from Dolní Věstonice, archeologists noted that elements of Solutrean techniques as leaf-shaped points with bifacial retouch, Kostenki knives with trimming on the end from ventral surface were absent and carénés end-scrapers were practically absent, in contrast to Předmostí. He listed major types of tools found on the site and marked that they had been made from regular elongated blades.

P. I. Boriskovskii pointed out the similarities between stone tools from Dolní Věstonice and Mezin, Suponevo, Timonovka that, in his opinion, indicated a later date of the site in comparison with Předmostí, Avdecko, and Kostenki I.

Concerning lithic tools from Předmostí the researcher wrote that Solutrean leaf-shaped points (there were 163 examples of Solutrean type in all or 0.62%) were found on the site. They could not have been from the main cultural layer but occurred above it. There were more features of resemblance between Předmostí and Dolní Věstonice. P. I. Boriskovskii reported about a thousand lithic artefacts of Lower Paleolithic morphology, but their origin remains unclear. These artefacts could belong to the underlying layer.

Soviet archeologists dwelled at length on the Upper Paleolithic sites in the neighborhood of Moravany in the valley of Váh River. P. I. Boriskovskii divided these sites into two groups on the grounds of differences in location, depending on lithic raw materials used, the types of flint tools and technology.

Sites of the first group (Podkovica, Novinha, Jackowski, and Lopata) were located mainly on loess
slopes. Tools were made of patinated dark-grey flint from
the North in most cases. Artefacts of native radiolarite
were found more seldom. There were finds of large
shouldered points—similar to examples from Kostenki I.

Sites of the second group (Dlhá, Moravany-Rumné,
etc.) were located higher—on slopes of Považský Inovec
River and in other places. Tools found there were made
d of color radiolarite jasper. Tools of dark-grey flint were
practically absent. There were a lot of Solutrean leaf-
shaped points with bifacial pressure retouch.

P. I. Boriskovskii pointed to similarities between
Kostenki-Borschevo and Moravany groups of the Upper
Paleolithic sites. He explained it by similar location,
resembling forms of economy, similarity of general
process of the Upper Paleolithic culture and technology
development in East and Central Europe, belonging of
both groups of sites to a common area of Upper Paleolithic
cultural development (Boriskovskii 1957: 41–62).

In the second part of research, P. I. Boriskovskii
focused on the problem of Central European pre-
Solutrean Aurignacian. He characterized nine layers of
Willendorf II site. According to Boriskovskii all these
layers were related. The lithic technology was
developing gradually from the lower to the upper layer
through few intermediate stages. Therefore P. I. Boriskovskii
supposed that if not all the nine layers, then a major part
of them, were left by the same population at different
stages of its development.

The researcher considered that the close link of all
nine layers and absence of the gaps between them should
be correlated with the presence of some Solutrean tools
with partial Solutrean retouch (leaf-shaped tools,
shouldered points). He concluded that the lower layers of
Willendorf II belonged to pre-Solutrean Aurignacian
and were left by ancestors of people who lived there and
then Solutrean pressure retouch and Solutrean flint tools
were worked out by them. P. I. Boriskovskii pointed out
that this conclusion was tentative because materials of
site were published incomplete and fragmentarily.

Then P. I. Boriskovskii overviewed Czechoslovakian
sites Dzeravá skála and Pekárna and concluded that
evidence of pre-Solutrean Aurignacian was not recorded
exactly in Czechoslovakia. The Upper Paleolithic layers
underlying Solutrean were not found in Hungary and
Poland. There were multilayer sites on these territories
where layers attributed as Magdalenian overlay
Aurignacian cultural layers, but without Solutrean layers
between them, although Solutrean technique and culture
were well-represented.

In this context the researcher raised the problem of
criteria using for Aurignacian cultural layer attribution
and distinguishing it from Magdalenian because
Solutrean pressure retouch and flint points were absent
in both cultural types.

P. I. Boriskovskii noted that the criteria for attributing
layers to Magdalenian were the presence of certain
animal remains, presence of bone tools of evolved forms
— harpoons, eyed needles, and spread of lithic tools made
of short geometric form bladelets: small double end-
scrapers, circular end-scrapers, small truncation burins
and curved backed point. In his opinion it is problematic
to attribute layers to Aurignacian if Solutrean horizons
did not overlie them because typical tools for the
Aurignacian of France were widespread on Magdalenian
sites. Therefore criteria for attribution to Aurignacian
were negative—absence of typical types for Solutrean
or Magdalenian tools. Based on this, the Aurignacian
ages were doubted for certain caves of Czechoslovakia
(Býčí skála, Kůlna, etc.) and Poland (Jaskinia Mamucia).

To solve this problem P. I. Boriskovskii proposed to
determine a correlation between several non-
simultaneous complexes on a limited territory and to
elaborate the scale for comparison with the Upper
Paleolithic complexes of faraway territories. The Stadal
concept of the consistent development of Upper
Paleolithic technology served as the basis for this, but
the researcher did not deny irregularities of historical
development of certain tribal communities. According to
his opinion it was not at variance with the existence of
local differences in culture development though they
were insignificant and spread to wide territories. But
P. I. Boriskovskii pointed that it was a mistake to regard
differences in lithic and bone technology, and dwelling
structures near sites as ethnic indicators. Thus the
presence or absence of one or another secondary tool or
their varieties in archeological context could be
considered as an ethnic characteristic, but Solutrean
pressure retouch or Solutrean points and Magdalenian
harpoons—the main hunting weapon of certain epoch
could not be used for that. Each of Upper Paleolithic
local groups must go on in the direction of studying
special features of ornamentation and peculiarity of
works of art that were typical for separate groups of the
Upper Paleolithic sites.

In P. I. Boriskovskii’s opinion archeological materials
from Moravany confirmed the development of the lithic
technology in Central Europe as on the Russian plain
from Solutrean technique characterized by perfect leaf-
shaped points with pressure retouch to the technology
without these points but with consummate shouldered
points. The pressure retouch was used partially during
the treatment of the latter tools. Then shouldered points
disappeared and Magdalenian technology of bone hunting weapon production spread.

P. I. Boriskovskii did not deny the possibility of transition to Solutrean technology directly from Mousterian technique, and connected it with irregularities of development and the influence of more developed tribes on lagging neighbors. He concluded that widespread of Solutrean cultural layers overlaid by typical Upper Paleolithic layers without Solutrean retouch and Solutrean points and diffusion (but less vast) of Solutrean layers underlain by the Aurignacian in Central Europe disproved an assumption on the existence of tribal communities with different varieties of Aurignacian, Solutrean, etc. technologies on this territory during all Upper Paleolithic (Boriskovskii 1959: 8–18).

P. I. Boriskovskii also explained irregularities in the distribution of sites with Solutrean points. They presented enough on the South of Poland, in Czechoslovakia, and Hungary, worse – in certain regions of Romania at that time they were almost unknown in Yugoslavia, Bulgaria, and on the South of Romania. In this researcher's opinion, the frontier between communities belonged to European near-glacial and Mediterranean–African areas along the 46th parallel. He explained the difference in proportions between Solutrean points and other forms by economic specificities of sites and random circumstances.

P. I. Boriskovskii summarized differences in the transition from Solutrean to Magdalenian technologies in various regions of Central Europe: in Austria from complexes with shouldered points and asymmetrical points practically without Solutrean retouch; in the Bükk Mountains of Northern Hungary from complexes dominated by leaf-shaped points completely treated by Solutrean pressure retouch; in the Váh River basin in Czechoslovakia and probably on the Upper Oder, a few stages of Solutrean technology development included tools from both above complexes that preceded this transformation. But local differences in the development of Magdalenian technology could not be discovered in these territories (Boriskovskii 1959: 19–26).

THE CULTURE-HISTORICAL SUBDIVISION OF THE CENTRAL EUROPE UPPER PALEOLITHIC WITHIN THE SCOPE OF LOCAL ARCHEOLOGICAL CULTURES CONCEPT

In the issue of discussion in the end of the 1950s, P. P. Efimenko yielded to A. N. Rogachov's arguments on a possibility of local archeological culture subdivision in the Upper Paleolithic (Efimenko 1960: 15–16). Therefore the main polemic continued between A. N. Rogachov and P. I. Boriskovskii. G. P. Grigor'ev from Leningrad joined to the discussion (Grigor'ev 1963, 1966b). Later he became the main apologist of local archeological culture subdivision in the Upper Paleolithic.

Concerning the Central European Upper Paleolithic G. P. Grigor'ev compared sites attributed to the Szeletian of Central Europe and sites of Kostenki-Streletskaia culture of the East European Plain. In his opinion, typical for the Szeletian culture types of end-scrapers, burins, points, borers, and side-scrapers and their ratios must be established for the cultural attribution of sites (Grigor'ev 1963: 6). Then he compared each group of tools found at Szeletian sites and in the lowest layers of Kostenki I and concluded that they were not similar even generally.

Also G. P. Grigor'ev made comparative analysis of Szeletian and Aurignacian sites from Czechoslovakia. He noted the total absence (Barca II, Žlutava) or presence of single fragments of Szeletian points, the increasing frequency of end-scrapers and burins (more then two thirds of all tools versus Szeletian culture where these two classes were from a quarter to a half of all tools), and the limited frequencies and different forms of side-scrapers differentiating the second cultural group from the first. End-scrapers with pointed base and large end-scrapers with marginal retouch were widespread in the Aurignacian but absent in the Szeletian. The typical features united non-simultaneous and distant Szeletian sites into a single culture that were absent in Aurignacian sites. G. P. Grigor'ev made the conclusion that the Szeletian and Kostenki-Streletskaia cultures were synchronous, independent, and unrelated (Grigor'ev 1963: 8–9).

In G. P. Grigor'ev's opinion the date indicated that so-called Solutrean technology appeared in different territories of Europe at different times. Bifacial techniques were first found in the Mousterian period (Germany: Mauern, Ranis, etc.). This technology had appeared in Czechoslovakia and Hungary at the beginning of the Upper Paleolithic in the Szeletian culture, and ceased to exist in the second interstadial of Würm or earlier. Solutrean culture appeared after a while in the territory of France after the end of Szeletian culture that followed from the comparison of radiocarbon and geological data.

G. P. Grigor'ev noted that during earlier periods of archeological research the task of the archeologist was to find approximate similarities with French standards.
ignoring distinguishing features of distant sites and attribute analyzed site to particular cultural stages. It is natural that he took into account only index fossils as Solutrean points, Magdalenian harpoons, and Aurignacian end-scrapers because only they were widespread all over the European continent. But this method could not be used by this time. The Paleolithic archeologist must use for cultural subdivision of the Upper Paleolithic the methods applied by archeologists studying later periods. The specialist must take into consideration all types of tools without division into "index fossils" and "non-typical" types. Under these statistical approaches all types of tools were analyzed (Grigor'ev 1963: 10–11).

Central European Upper Paleolithic sites became the next research project of G. P. Grigor'ev. At first the researcher made typological analysis of artefacts from Krems, Aggsbach, Getzersdorf, Wagram, lower layers of Willendorf II. The researcher divided tools groups and within each of them divided types. Then he made a typological comparison of artefacts inside each group. As a result G. P. Grigor'ev attributed all these sites to the Krems culture.

Further G. P. Grigor'ev compared Krems culture sites with the upper layers of Willendorf II, then – with Czech sites Petřkovice, Dolní Věstonice, and Pavlov attributed to Pavlov culture and with East European sites. He concluded that there were genetic relationships of "point and statuette culture" (the 9th layer of Willendorf II) with the earlier Willendorf culture (the 5th–8th layers of Willendorf II) and by it with the Krems culture spread across bounded area. Then the researcher found out that the Willendorf culture was not interrelated with earlier native sites on territories where it had spread (Moravia, Russian Plain). Hence it followed that the Willendorf culture arisen once spread to distant regions by migration. G. P. Grigor'ev proposed to name all group of sites Willendorf, Pavlov, and Kostenki as Willendorf-Pavlov-Kostenki cultural unity whereas every group must be attributed as related culture. Or we would have been under the impression that the single culture existed from Danube to Don but on the narrow strip in the same period during 10,000 years (Grigor'ev 1966b: 23–24).

In 1966, G. P. Grigor'ev's paper was published in which the typological method was grounded (Grigor'ev 1966a). It should be noted that at the end of the 1980s the researcher's theoretical works reached a deadlock. He had to admit that there were no local cultures answered to his definition in the Upper Paleolithic of East Europe except the Kostenki culture (Grigor'ev 1988: 13–15).

THE CULTURE-HISTORICAL SUBDIVISION OF THE TRANS-CARPATHIAN UPPER PALEOLITHIC

The archeological observation of the Transcarpathia by Soviet specialists began after unification with UkrSSR. New Paleolithic sites had been explored by surveys since the end of the 1950s. Transcarpathian archeological expedition of Archeology Institute of The Academy of science of the UkrSSR began its work in the end of 1960s. The first publications of its work results on the Upper Paleolithic appeared in the 1970s.

Thus the expedition staff member S. V. Smirnov carried out typological analysis of lithic artefacts from Transcarpathian site Beregovo I on the next categories of tools: cores, end-scrapers, burins, flake tools, knives, retouched blades, retouched flakes, notched tools, and found analogies. In his opinion, on the basis of technological features Beregovo I had similarities with Central European Upper Paleolithic complexes, which made the Upper Paleolithic sites from East Slovakia important for cultural attributions of Transcarpathian sites.

S. V. Smirnov characterized East Slovakian Aurignacian industries. He noted that blades of different forms, denticulate flakes, side-scrapers of Mousterian type, and unexpressive end-scrapers on flakes were typical for the early Aurignacian dated to Würm 1/2. The tool kit increased in the middle phase related to the first half of Würm 2 stage. Different end-scrapers on blades with end-scrapers on flakes spread during this period. Large circular end-scrapers and double end-scrapers appeared. Retouched blades developed into points. There were denticulate and retouched blades and flakes and side-scrapers of complete form. Angle burins were widespread and the first microblades appeared. In the late Aurignacian phase dated to the second half of Würm 2 the inventory acquired an expressive blade character. The range of burins was expanded by truncation. Burins had been rare in the middle phase. Microblades became a regular type in the tool kit.

In S. V. Smirnov's opinion, defining the level of lithic technology by East Slovakian standards, we could conclude that the Beregovo I site was inhabited not much later than the late Aurignacian of East Slovakia. He pointed out that certain categories of the Beregovo I lithic inventory had a much more evolved character than artefacts from sites of the later phase. Thus the typical forms of burin on flakes were absent here but they were present in all phases of the East Slovakian Aurignacian.
S. V. Smirnov made a typological comparison between Beregovo I artefacts and materials from Beregovo II site located nearby. As a result he did not rule out that both Beregovo sites represented two phases of the same cultural development (Smirnov 1974: 34–41).

Later V. I. Tkachenko – research worker of the Archeological museum of IA AS UkrSSR continued studying of Transcarpathian Upper Paleolithic sites. His paper on this topic was published in English in Czechoslovakia at the end of the 1980s (Tkachenko 1989). In the beginning of 1990s the Russian version of this publication appeared (Tkachenko 1992). This researcher overviewed the group of sites in the surroundings of Beregovo (Beregovo I–VI, Muzhievo I, Dobroselie I). He characterized the Beregovo I site describing raw materials, knapping techniques, and secondary treatment of lithic artefacts including percentage between certain categories and types. Based on this he concluded that the common territory of the Beregovo group, similarity of primary flaking methods and in structure of the assemblage, and the practically contemporary age of sites could be interpreted as sites belonging to an independent Upper Paleolithic culture – to the Beregovo culture.

V. I. Tkachenko compared the assemblage of the Beregovo sites with the earliest Upper Paleolithic complexes in Korolevo. He noted that in the Upper Paleolithic industry in Korolevo II (complex II) there was still a considerable component of Mousterian type. In Beregovo Mousterian-type tools appeared only sporadically. In the Upper Paleolithic Korolevo I (complex Ia) end-scrapers amounted to 46.8% of all tools, but burins had a limited presence. End-scrapers prevailed also in the Beregovo group, but they clearly differed from the Korolevo industry with their rich standardization and high degree of perfection. More burins – between 10–26% were here; they demonstrated also high-degree of standardization and perfection, characteristic of the developed Upper Paleolithic industries of the post-Paudorf period. In the Upper Paleolithic Korolevo collections there were few rezchiks (flat burins), widespread in the Beregovo assemblages and also chisels, borers, and some other kind of tools, typical for the Beregovo collections. And, finally, andesite artefacts of the late Mousterian and of the Upper Paleolithic Korolevo complexes were more weathered than the Upper Paleolithic artefacts made of the same raw material in the Beregovo group of sites. It was the evidence of their earlier age. Following the above-mentioned facts V. I. Tkachenko concluded that the Upper Paleolithic Korolevo and Beregovo collections were two independent Upper Paleolithic groups of different age that both existed in the Transcarpathian region (Tkachenko 1989: 217, 222).

CONCLUSION

Following the above-mentioned facts we can conclude that the approach to studying the process of cultural subdivision of the Central Europe Upper Paleolithic in Soviet archeology was the same as the one used for solving the problem of the East Europe Upper Paleolithic subdivision.

Thus in the 1930s Central European Upper Paleolithic sites were used equally with West European materials for construction of general schemes of the Upper Paleolithic material culture development within the scope of the Stadial paradigm. There was a basis for chronological attribution of the East European Upper Paleolithic sites and their following social reconstruction. This was due to the fact that there were few Upper Paleolithic sites in the USSR that had been discovered at the time.

In the 1950s during the discussion of the possibility of local archeological culture subdivisions in the Upper Paleolithic Central European sites were used for correction of existing schemes of material culture development because they could not explain new materials from the Kostenki-Borschevo region. Additionally external factors encouraged Soviet archeologists' interest to Central European Paleolithic sites because Central European states had been involved in the Soviet influence sphere after WW2 that intensified international cooperation.

In the 1930–50s the typological approach was applied for the attribution of Central European sites to one stage or another. The principle of index fossils was used within the scope of this approach. For example, P. P. Efimenko considered that the main criterion of belonging to the Solutrean stage was a presence of items with "Solutrean" retouch, presence of bone or lithic points of specific types were used as a criterion for attribution sites to certain stages by P. I. Boriskovskii. Furthermore researchers took into account the raw materials used for making tools and the location of sites. Descriptions of the main types of lithic tools were presented in many publications but they were not used for cultural and chronological attribution of the sites.

In 1960s, Soviet researchers applied to materials of Central European sites within the scope of the local cultures concept. First of all, it was done for disproof of
typological and chronological schemes created by stadialists. G. P. Grigor'ev examined artefact assemblages from Upper Paleolithic sites in Austria and Czechoslovakia in connection with problem of the Willendorf-Pavlov-Kostenki cultural unity. During this period he proclaimed the necessity to break from the usage of the "index fossils" principle, to spread the typological method to all types of lithic artefacts, and to apply statistical methods. However, the last approach was not used broadly by G. P. Grigor'ev in his works.

Following the reduction of Soviet archeologists' interest in the Central European Upper Paleolithic, which was connected with a growth of archeological observation in the European part of the USSR, this was caused by new materials coming in that were enough for elaboration of cultural and chronological schemes of the separate East European regions Upper Paleolithic development.

Just in the 1960s intensive archeological studying of the Upper Paleolithic of the Transcarpathian region (UkrSSR) located geographically in Central Europe. Received materials were the basis for the cultural and chronological attribution of the Upper Paleolithic sites in this territory within the scope of local cultures concept. As for East European sites attribution typological and statistical methods were used in the beginning, then statistical methods were used in the beginning, then statistical and technological approaches were applied. Further comparisons between Soviet specialist approaches and the methodology of Western archeologists used for solving the problem of the Central Europe Upper Paleolithic cultural subdivision can help to understand better regularities of archeological cognition and to reveal peculiarities in formation and development of the Soviet Paleolithic archeology school.

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