REVIEWS

A. SOROKIN. MESOLITHIC CULTURE OF BUTOVO. Moscow: Nauka. 2002. 256 p.

In 1990, some Russian colleagues provided the expedition of the archaeologist A. Girininkas with a few copies of Sorokin's study "Mesolithic Culture of Butovo" in Russian (Moscow, 1990). A few students, followers of Girininkas, won the books in a draw (I was lucky to get one of them). The principles of criticism of sandy Stone Age settlements, as archaeological sources, presented in the study by Sorokin, and the principles of the analysis of the collections of flint findings, were among the most important stimuli for the "young expedition generation" to start immediately and to improve radically the research methodologies for Stone Age settlements. Firstly, to correct the fixing of finds, which is the basis for the preservation of information about monuments. That was the first rather significant introduction of young archaeologists (Dž. Brazaitis, E. Šatavičius, and others), organised by Girininkas, to the research of Sorokin.

Sorokin's 2002 study is about the Mesolithic Period of the Zhizdra river basin, and examines the problems of East European Mesolithic source analysis. It consists of 256 pages, with 57 statistical tables, 49 pictures of finds, and two maps.

In the introductory part of the book, the author introduces the Mesolithic Period as a form of human adaptation to the early Holocene (post-glacial period) and underlines the particularity of Mesolithic communities in the East European forest region. According to the author, a concrete historical principle is very important in analysing theoretical and global processes, as it is based on actual facts and grants real content to abstract theoretical contemplation. Therefore, a polesie, a sandy lowland micro-region of the River Zhizdra was selected as grounds for the model, reflecting the entirety of processes in the sandy flatlands of Europe. The author was planning to implement the following: to introduce the Mesolithic material of the Zhizdra micro-region, to make a thorough analysis of it and to identify the general features of archaeological complexes, and to find the location of these complexes in the Mesolithic Period of the Desna-Oka region. Another important aim of the study was to present his own methodology on how to explain the "cultural diversity" of archaeological sources and complexes: to find out whether it is a syncretic complex of a natural formation (a mechanically mixed collection without human interruption), or whether it reflects cultural processes and cultural metastasis. The Zhizdra micro-region, as one of the best explored Mesolithic Russian flatland regions, is most appropriate for these tasks. Around 70 Mesolithic monuments, linked by different researchers to several Mesolithic cultures, are identified in the Zhizdra polesie or around it.

In the first chapter Sorokin characterises the paleogeography of the selected micro-region. Peripheral sandy lowlands, or polesies, had been shaped by flow platforms of internal tectonic sags in the process of the melting of the glaciers. The Zhizdra polesie is among the largest at the northeastern edge, and includes the basins of the Pripet', the midstream Dnieper and the Desna. The Zhizdra is a tributary of the upper Oka, and the Zhizdra polesie meets the basins of the Oka and Desna rivers. On the basis of palynological data, the author presents brief characteristics of the natural environment at the beginning of the Holocene (pre-boreal, boreal and first atlantis periods, 10,300 to 7,000 years ago), which actually covers the Mesolithic Period in the Zhizdra basin. The natural environment of the Zhizdra polesie and its development in the early and mid-Holocene periods was similar to the natural conditions of sandy flatlands covered by mixed forests and stretching from Britain to the Urals.

The history of archaeological research in the Zhizdra polesie is briefly, but thoroughly, reviewed in the second chapter. It started at the end of the 19th century, though the largest contribution was made in the period 1951 to 1984, when the Upper Oka Expedition from the Institute of Archaeology of the Academy of Sciences of the USSR was working there. Besides, starting from 1973, a digest of archaeological monuments in the Kaluga region was under way. Mesolithic settlements in the Zhizdra basin were also explored by I. Frolovas and A. Smirnov.

In the chapter entitled "Stratigraphy of monuments and methodology of field tests in settlements of zandric type", Sorokin notes that an excess of water and powdery sediments are dominant in the polesie. These circumstances determined the topography of Mesolithic

settlements, priorities in choosing living sites and peculiarities of the formation and survival of the cultural layer. All Mesolithic settlements in the Zhizdra polesie started on the edge of river banks in the vicinity of lakes or similar valleys. Usually the genuine colours of cultural layers in Mesolithic settlements do not differ from the natural colours of the soil and its lower layers. It is generally traced as a "horizon with finds". Later cultural layers in zandric zones were affected by numerous destructive factors: natural, climatic, biochemical, etc. They all influenced unfavourably the survival of the cultural layers. According to the author of the study, it is very important to choose a proper methodology for an archaeological field test to collect the most information possible for research. While working in sandy flatlands, researchers employ both a traditional finding horizon methodology and specially designed ones, like vertical horizon scrape. The first destroys the microstratigraphy of the cultural layers; the second, recording the stratigraphy more carefully, reduces the opportunities for horizontal research. Sorokin developed a methodology of three-dimensional finding fixation and introduced it in 1982. This methodology enables us to preserve a considerably larger amount of information about cultural layers destroyed in settlements during explorations, and at the same time offers an opportunity for the versatile analysis of a cultural layer, from stratigraphic, horizontal and other aspects. It should be mentioned that similar methodologies have been developed, improved and employed in the research of settlements from the Stone and Bronze ages during the expeditions by Girininkas and his "school" in Lithuania since 1990.

The fourth chapter of Sorokin's book is designed for a criticism of Mesolithic sources on the Zhizdra polesie. The author identifies five types of archaeological material. Selected (sorted), mixed collections or rare sets might be employed only as a subsidiary. Only the so-called "clean" and abundant enough (over 100 morphologically evident items) collections are valuable sources and can be employed in the solution of culturological problems. Thirteen basic settlements of the micro-region are characterised in the chapter. All of them are sandy, and the level of their exploration is different. The author thinks that five abundant enough, "relatively clean", without typological "sorting" collections of settlements might be singled out. These are the Krasnoye "Vasia", Krasnoye 3, Krasnoye 8 "Penioshki", and Reseta 2 and 3 settlements. The material collected in these settlements or acquired in different sites of these settlements during extensive research was divided by Sorokin into 15 complexes. They were employed in further research.

In the largest (70 pages) chapter in the study, "Inventory of Mesolithic settlements in the Zhizdra polesie", the author describes in detail 15 flint finding collections from five of the above settlements and compares them both with each other and with collections of Mesolithic monuments from neighbouring regions. The collections are described in a detailed and precise way. Readers can form a rather clear and preliminary view of the collections on the basis of descriptions and pictures of the findings. It is preliminary, because any self-respecting researcher can only shape his own attitude to a concrete collection after a review of the settlement material.

A few remarks of a general character about what kind of information I missed in the description of sets on Mesolithic settlements from the Zhizdra region. In most collections, flint material of several kinds was traced. It would also be interesting to trace the interrelations between findings of different material in each settlement from the point of view of technology, typology and planigraphic analysis. It would be good to describe in detail the evidence of primary processing technique: striking points, remnants of platforms on blades and flakes, shapes and sizes of bulbs, blade profiles, and so on. This would enable us to form a clear view about the primary flint knapping technique and provide additional material for contemplation about the identity of collections. Despite the abundant pictures of findings, I missed some significant findings described in the text, firstly, pictures of microliths and arrowheads.

I would like to point out a few particular details to draw the author's attention. The typological distribution of microliths and hunting inventory ought to be elaborated. To my mind, typologically identical (judging from descriptions and pictures) artefacts, namely, microlithic blades with chipped (retouched) ends, are classed as different types: diagonal points, trapezoid points, micro-blades with chipped ends, microliths with retouched sides, blades, even broad trapeziums (for example, from Krasnoye 1 "Vasia" settlement [p. 206 Fig. 11]). Short trapeziums from the same Krasnoye 1 "Vasia" settlement [p. 33-34, 39] cannot be called trapeziums (from the aspect of trapezoid arrowheads and microliths). From the pictures (p. 206, Fig. 11: 21, 23) it becomes evident that these flint artefacts should be called microlithic blades with retouched terminals, but not trapeziums. On page 204, a Mesolithic-type lancet is depicted (Fig. 9: 16), which is treated by the author as a broken Ahrensburg-type arrowhead. According to Sorokin, the facet at the lancet point is casual and in the process of a retouch (p. 38). Guessing from the blade on the left side, the retouch of this shape is made specially for micro-burin percussion; therefore, the artefact should be treated as a lancet. The

division of arrowheads into "Swiderian" and "Ahrensburgian" only on the basis of plate retouch (sometimes very superficial, with a few tiny negatives) at the stems does not seem to be reasonable, the more so because there is no difference in the billets of arrowheads and their shapes (p. 204-205 Fig. 9-10). I presume it to be a rather formal attitude towards the material. Usually every Swiderian culture settlement has a few arrowheads without a flattened retouch, that is, they are not completed, or simply the barb is not removed due to other reasons.

The sixth chapter in the study, "Mesolithic of the Zhizdra polesie. Data analysis", gives a detailed statistical comparison of the complexes of discovered finds. All Sorokin's attempts are reflected and illustrated by 57 statistical tables, a real hoard for the researcher's colleagues. The final conclusion of the data analysis is that the Krasnoye 8 "Penioshki" settlement is to be linked to Studienok-type settlements (Desna orlate stage of Piesotchny Rov culture). The origin of the Krasnoye 1 "Vasia" settlement is not clear. Reseta 3 and Reseta 2 are linked to Reseta culture, the Krasnoye 3 settlement to Butovo culture.

The author of the study does not discount the possibility that the above complexes of settlements do not reflect cultural ties and transformations. They are just a mechanically mixed inheritance of different cultures from different times. Sorokin, however, chooses the hypothesis of cultural interface and continuity to explain the peculiarities of Mesolithic Zhizdra collections. According to him, the chain of Reseta 3, Reseta 2 and Krasnoye 3 complexes reflects the transformation of Reseta culture into Butovo culture. On the basis of experience, working with material about sandy Stone Age settlements in Lithuania, I should say that Sorokin's conclusions are too audacious. Five out of 13 (38.5%) Zhizdra polesie settlements were identified by him as "clean" or not intermixed. For comparison: after several revisions of material on Mesolithic finds from about 200 Lithuanian sandy settlements, I would recognise the Maksimoniai IV settlement complex as the only "clean" Mesolithic collection. Mechanical intermixture is supported by different flint material, discovered in almost all settlements of the Zhizdra micro-region. Huge amounts of different flint material from the Reseta 2 and Reseta 3 settlements are to be emphasised in particular, as these are monuments of a new Reseta culture. Having no opportunities to view collections of flint finds, I can only preliminarily point to signs of a mechanical intermixture within Zhizdra complexes. Nowhere in Baltic or Polish material are post-Swiderian and Swiderian arrowheads in contemporaneous complexes. Neither are Swiderian, post-Swiderian and other types of stemmed arrowheads discovered in one single complex, including the inheritance of Mesolithic microlithic cultures (Komornica, Janislavici, Choynice-Pienkowska, etc). This also involves settlements of post-gravethic Kudlaevka culture, which is the Reseta equivalent in early Mesolithic of the Nemunas basin. Therefore, I think that stemmed arrowheads from the Reseta 2 and Reseta 3 settlements testify to a mechanical intermixture of complexes from different times and different cultures, especially in that, for example, the Reseta 2 complex, according to data from Sorokin's statistical analysis, is very close to the "total" Mesolithic Zhizdra region complex (p. 111-112). My suggestion to Sorokin would be to examine primary flint processing technologies. In the Nemunas basin the technologies of Kudlaevka and other Mesolithic cultures differ greatly. The method of direct percussion was applied in Kudlaevka culture, while in Kunda and Janislavici cultures pressure technique was applied. Probably, Reseta culture, as a post-gravethic culture, could employ a Kudlaevka-type technology. My opinion is a preliminary one only. To prove it, I would have at least to view independently all the collections of finds from the Zhizdra region.

I also think that the dating of Reseta culture settlements on the basis of dates connected with Pulli-type settlements of Kunda culture, has no substance (p. 112). Sorokin does this with reference to his own hypothesis about the evolution of Reseta-Kunda-Butovo cultures (see my article "On the Genesis of Kunda Culture" in this volume). The Chernobyl catastrophe had no impact on radiocarbon dating (the opinion of N. Kovaluch, head of the C-14 laboratory in Kiev); therefore, it could be performed in the Zhizdra region as well. The shifting of dates from remote monuments is beside the purpose.

In the chapter entitled "Place of Zhizdra polesie Mesolithic settlements in the Mesolithic of the Oka-Desna watershed", Sorokin introduces us briefly to the taxonomic classification of Mesolithic, characterises significant monuments of the period in the Desna and Oka basins, and names the basic problems in the research of the above cultures. Four cultural groups are identified within the Desna river basin: the Smyatchka XIV group, Desna culture and its Studienok period, and Kudlaevka culture. Within the Oka river basin, Butovo, Reseta, Yenev, Purgasov cultures and Krasnov 1 types of settlements are identified. As I have already mentioned, Sorokin's opinion about Pulli-type settlements (Kunda culture) is very interesting for researchers into Eastern Baltic Mesolithic. According to the author, Pulli and Lepakoze settlements reflect the seasonal migration of Reseta cultural groups into the Eastern Baltic region. At the same time, Pulli-type settlements are treated as a transitional stage between Reseta and Butovo cultures.

This hypothesis is unusual, though Mesolithic research of the Nemunas basin in the last decade allows us to refute it decisively.

From the point of view of archaeology, the most significant is the eighth chapter, "Problem of source analysis on the Mesolithic of Eastern Europe". I would not agree, though, with Sorokin, who defines archaeological sources as a type of historical source and studies of archaeological sources only as research into the particularity of archaeological monuments, perceived as historical sources. This theoretical attitude of Sorokin is based on the tradition and ideology of Soviet historiography, treating archaeology only as an auxiliary discipline of prehistoric science. In short, this paradigm does not reflect the basic difference of an archaeological source from a historical source: key historical sources are written sources. Their origin is subjective and they are the offspring of an ideologically engaged human. Besides, very often it is done purposefully. Archaeological sources, on the contrary, are objective in their essence. They reflect objectively the processes of time. Information might become subjective only when researching historical monuments, researching in a harsh way on the basis of primitive methodologies. A long time ago, archaeology became a miscellaneous, multi-disciplinary science, closely linked to many other sciences exploring the development of the human race and its natural environment. The historical process is no longer the only basic aim of archaeological research.

In this chapter, the author analyses processes that take place during and after the formation of a cultural layer as an archaeological source, processes that modify the cultural layer (post-depositive processes). I totally agree with Sorokin that the fixation of finds by means of three measurements enable us to preserve much more information than traditional and ordinary research methods. This information is very often vital to the value of an archaeological monument as a source. This methodology is important in particular for the exploration of sandy settlements with multicultural features. It is also important working in contact zones of natural-geographic and cultural regions. The Zhizdra polesie is in a similar contact zone. Sorokin suggests employing technologies of "finds-markers" (finds with features from several cultural traditions) and hybrids (mestizos) to separate "mixed", naturally shaped complexes from those formed on the basis of cultural mestization. If the above features are isolated, or if they are not traced at all, the collection of finds is a mechanically intermixed multicultural collection. As East European polycultural sets of finds, "shaped" by natural forces, are the rule rather than the exception, Sorokin offers a "naturation" term instead of the "non-cultural forming of syncretic sets". Naturation is a mechanism of natural factors which influences the formation of artefacts and mixed polycultural sets. The naturation phenomenon is opposed to acculturation, when human groups interact in the cultural process of mestization. Naturation takes place under appropriate conditions: the horizontal conjunction of settlements from different cultures, finds in the soil, powdery deposits in the soil, pedoturbation, aeolian deposits, erosion, etc. In this chapter the author also analyses Mesolithic polycultural sets of finds which were formed in the process of naturation in the upper Oka region. For his final conclusions about the eventual influence of naturation processes upon archaeologists' deductions, Sorokin chose Lithuania, as it is relatively well explored, materials are available due to the publications of R. Rimantienė in 1971, etc. On the basis of descriptions of material and pictures of finds only, the author proves that a significant amount of Palaeolithic and Mesolithic sets are not culturally hybrid (mestizic), but are simply mixed (p. 156-159). It is obvious that Sorokin could not perform a precise and detailed research of separate settlements without archaeological collections. Nevertheless, in most cases his conclusions are incredibly correct: for example, when he speaks about the artificially mixed character of Mesolithic Nemunas culture. Readers should know that in 1971 the study by Rimantienė was actually the first serious generalisation of Palaeolithic and Mesolitic material in Lithuania and was ahead of its time, with conclusions influencing exploration in neighbouring and even remote regions. It is understandable that Rimantienė, possessing mostly surface collections, found it difficult to rate everything properly, the more so because knowledge of the above periods in neighbouring countries was even worse. The merit of the study is unquestioned until now, and Sorokin's attention is a manifestation of that. Thanks to this publication, only the verification of the researcher's hypothesis about naturation appears to be thinkable. I would like to add to his conclusions information that will allow readers to evaluate more precisely the material presented by Sorokin. The so-called Baltic Madlen complexes from the late Palaeolithic Period are traced in Lithuania. They are divided into those similar to Ljungby and to the Vilnius group (sometimes linked to Ahrensburg culture). In Swiderian culture, settlements of two stages (?) are distinguished: settlements with stemmed arrowheads, and with willow-leaf shape arrowheads. One genuine hybrid or Chvalibogovici-type settlement was explored (Varenie 5), in the hunting inventory of which features of Swiderian and Ahrensburg cultures (the West European type) are reflected. At the very beginning of the Mesolithic (the start of pre-Boreal) Period, late Swiderian culture still survives.

In the pre-Boreal Period, settlements of Kunda (Pulli type) and Kudlaevka cultures are common. Probably at the end of the pre-Boreal Period Maglemoze groups emerge (Proto-Janislavici). Late Mesolithic is associated with Janislavici culture. In this chapter Sorokin also analyses critically the influence of naturation processes upon Mirnoye settlements from the coastal area of the northern Black Sea.

At the end of the chapter Sorokin draws attention to the necessity of criticism towards settlement sets (as sources) before employing them in further work. I would also like to draw the author's attention to the fact that the complexes analysed above do not hold water from the point of view of naturation processes. Sorokin presents no patterns of hybrid "finds-markers" or mestizic technologies in the Krasnoye 1 "Vasia", Reseta 2 and 3 settlements; therefore, according to the same naturation features, they should be treated as naturally mixed poly-cultural sets. In the set of the Krasnoye 1 "Vasia" settlement, the inheritance of at least three components from late Palaeolithic Swiderian culture (presumably Smyatchka XIV type), Butovo culture and some later Mesolithic (presumably Janislavici) culture could be traced. Components of Butovo and Reseta cultures emerge in the Reseta 2 set, while in the set of Reseta 3 settlement at least three different parts can be distinguished: the heritage of Palaeolithic Swiderian culture (Smyatchka XIV) and material from Mesolithic Butovo and Reseta cultures. On the basis of the above, I would like to point out that researchers of the Mesolithic in the Volga-Oka basins should search for a really unblended complex of Reseta culture. Reseta 2 and 3 sets do not assist us in understanding technologies and material that are to be linked to the Reseta cultural tradition.

Finally, I would like to draw the attention of all East European late Palaeolithic and Mesolithic researchers to a rather substantial misunderstanding which is anchored in the historiography of the region. Ahrensburg culture in the northern part of Western Europe is a totally different cultural phenomenon, compared to similarly named settlement groups in the upper basins of the Dnieper, Volga and Oka (including the Nemunas, of course). With its primary flint processing technology, West European Ahrensburg culture is totally identical to Swiderian culture (the same two-end cores for blades). Therefore, the identification of East European cultural groups with their flake technologies (alongside other differences) with then existing West European cultural phenomena is misleading and indefensible. The appearance of the terms "Ahrensburg" or "Eastern Ahrensburg" in the context of East European material was conditioned by the poor exploration of local regions and the search for similar stemmed arrowheads in well-explored northwest Europe. Attempts to oppose these finds to the abundant inheritance of Swiderian culture were also influential. I find it advisable to withdraw from using the term "Ahrensburg" with respect to East European material, as the terminology is abundant and complicated enough (Perstunska, Volkushanska, Krasnoselie, Desna, Grensko, Yenevo, Piesochny Rov cultures, let alone different monumental types and groups).

Sorokin's study is valuable not only as an exceptionally exhaustive and diverse publication about archaeological sources and Mesolithic settlements from the Zhizdra river region. Processes in cultural layers of sandy settlements are summarised and analysed in detail with respect to theories of cultural mestization. The theory of naturation processes was designed, clear criteria and methods were established to recognise factors of such a character, and finally to solve the problem. Abundant patterns of application demonstrate the vitality of the method and introduce readers to critically evaluated material on standard Mesolithic monuments of the upper Volga-Oka region.

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