

Stratum Plus: Культурная антропология и археология (Stratum Plus: Cultural Anthropology and Archaeology): The Paleolithic Issues

Mark E. Tkachuk (editor-in-chief), Roman A. Rabinovich (coordinating editor); L.B. Vishnyatsky (Paleolithic, Mesolithic volume editor); St. Petersburg (Russia), Kishinev (Moldova), Odessa (Ukraine), and Bucharest (Romania): the High Anthropological School University in Kishinev
Stratum Plus issued bimonthly in Russian (all papers supplemented by abstracts in English, Russian, and Moldovan)
ISSN 1608-9057, E-ISSN 1857-3533.

Reviewed by JOHN F. HOFFECKER

Institute of Arctic and Alpine Research, University of Colorado at Boulder, Boulder, CO 80309-0450, USA; John.Hoffecker@colorado.edu

In terms of climate and biota, Western Europe has always been an anomaly in northern Eurasia. Situated at the extreme western tip of the super-continent, areas west of the Danubian Basin receive a steady flow of warm, moist air from the North Atlantic, which provides for mild winters and high plant and animal productivity. By the time the westerlies carry this air east of the Carpathians, it is drier and promotes a more continental climate with low winter temperatures and reduced biological productivity. Farther east, the pattern intensifies, producing significantly lower plant production and extreme winter lows in Northeast Asia.

Paleoanthropologists realized long ago that east of the Carpathian Mountains, northern Eurasia contains a record of human settlement that differs from that of Western Europe. These regions were colonized late in human evolution, and never widely by the precursors of *Homo sapiens*. Mountainous areas on the southern margin, such as the Caucasus and Altai, probably supported the richest pre-modern human settlement (they also enjoy higher archaeological visibility due to the profusion of natural shelters). During the late Pleistocene, modern humans struggled with the problems presented by extreme winter conditions and generally low plant and animal productivity. At times, the lack of wood in some places may have been an issue as well. The archaeological record is strikingly different from that of Western Europe.

It is no accident of history that the lands east of the Carpathians have developed along a separate path and maintained a distinct cultural and political identity. During modern times, most of the region has been administered by the Russian Empire and, more recently, the Soviet Union. Archaeology, including Paleolithic archaeology and paleoanthropology, evolved within this cultural and administrative setting—influenced by trends in Western Europe, but with its own approaches and traditions (Platonova 2010). The study of the Paleolithic began during the final decades of the Russian Empire with some major discoveries in European Russia and Siberia. It was during the Soviet period, however, that the field acquired its distinctive character.

This is the wider context of the journal *Stratum Plus*, which began publication in 1999, at a time when archaeology in this part of the world was recovering from disruptions caused by the dissolution of the Soviet Union at the beginning of the decade, somewhat analogous to the

collapse of the Russian Empire at the beginning of the last century (Berezkin 2000). The journal is published six times a year and the first issue (January–February) is devoted to Paleolithic and Mesolithic archaeology, which is the focus of this review. *Stratum Plus* is edited from four centers: (1) Kishinev and (2) Odessa in the former Soviet republics of Moldova and Ukraine, respectively, (3) Saint Petersburg in the Russian Federation, and (4) Bucharest in Romania. The last reflects more than the post-Second World War legacy of Romania as a Warsaw Pact nation: the East European Plain and its archaeological record extend across Moldova and southwestern Ukraine into southern Romania.

The Paleolithic-Mesolithic issues of *Stratum Plus* are edited in Saint Petersburg, reflecting a long history as a center of Paleolithic archaeology. In a number of respects, the journal continues traditions in the publication of Paleolithic archaeology that emerged during the Soviet period. Although major sites were published in monograph form and issues were addressed in occasional edited collections of papers, the core literature was published in several serial publications, most notably *Материалы и исследования по археологии СССР* (“Materials and Investigations on the Archaeology of the USSR”) and *Краткие сообщения Института археологии* (“Brief Communications of the Institute of Archaeology”). Both publications periodically produced issues devoted to Stone Age archaeology (Paleolithic-Neolithic), which typically contained a set of research reports in the form of journal articles. But the former also included monographs, such as Boriskovskii (1953) and Rogachev (1957), and occasionally thematic issues.

The Paleolithic issues of *Stratum Plus* are chiefly composed of research articles, but also contain monographs, such as Vishnyatsky (2010) on the Neanderthals, Sapozhnikov and Sapozhnikova (2011) on the stone age (including Neolithic) of the northwest Black Sea region, and Stepanchuk (2013) on the early Upper Paleolithic site *Mira* in Ukraine. Although new sites are described, as in the Soviet serial publications, among the shorter papers, there is a greater tendency to address specific aspects or problems of a site or a group of sites than was the case in the earlier literature. Examples include lithic reduction sequences in the Middle Paleolithic assemblages from *Korman' IV* in Ukraine (Sytnik 2011) and evidence of mammoth-bone structures in Middle Paleolithic sites of the Dnestr and Prut Valleys (Anisyutkin 2005). Papers on more general problems, such

as the influence of raw materials on Lower and Middle Paleolithic technology of the East European Plain (Matyukhin 2010) or the question of armed violence in the Paleolithic (Vishnyatsky 2014), are also included.

As its sub-title suggests, *Stratum Plus* carries an explicit humanistic theme, but, as elsewhere, Paleolithic studies in the journal continue to mirror the influence of the natural sciences—an emphasis on raw materials, lithic technology, geochronology, and human ecology. Unlike the serial publications of the Soviet period, all issues of the journal possess a particular title and sometimes a theme. Although the first Paleolithic issue was relatively generic, the second—published in 2000—was organized around the “last Neanderthals” and contained a number of papers on late Middle Paleolithic and early Upper Paleolithic sites. Later issues were devoted to Middle Paleolithic “cultural dynamics” (2009), human hunting and large mammal extinctions (2013), and again the Neanderthals in 2010 (as «альтернативное человечество» or “alternative humankind”).

Many of the papers (and monographs) are only loosely tied to the title of the issue, however, or address other topics, and the titles often seem to be designed to “package” the journal more attractively. Glossy packaging also is manifest on the cover with its vivid color reanimations of Paleolithic life. For those familiar with the earlier literature, in fact, the most obvious contrast with the Soviet period lies in the images inside the journal, reflecting the impact of graphics software and digital photography. The improved graphics—especially the photographic images and maps—not only present a more attractive package, but enhance communication of the contents.

Each of the major epochs of the Paleolithic in northern Eurasia east of the Carpathians carries its own set of problems and issues, and these are addressed in the pages of *Stratum Plus* more explicitly than they were in the earlier serial publications. For the Lower Paleolithic, its very presence is the problem. While the oldest known traces of humanity outside Africa lie on the southern slope of the Caucasus Mountains, evidence of pre-Neanderthal settlement farther north remains limited and often problematic. There are no East European or Siberian sites above latitude 50° North like Boxgrove or Hoxne. (The Lower Paleolithic sites in Central Asia are found at lower latitudes.) Predictably, the strongest evidence derives from the Northern Caucasus and southwest East European Plain. In the 2012 Paleolithic issue (entitled «В начале начал» or “in the beginning of beginnings”), Lower Paleolithic finds were described from *Urma 1* in central Dagestan (Amirkhanov and Mashchenko 2012) and *Medzhibozh* on the Southern Bug River in Ukraine (Stepanchuk 2012).

The analysis and interpretation of these sites—like earlier reported Lower Paleolithic discoveries in Eastern Europe and Siberia—involves classic archaeological problems of reliable dating and incontrovertible traces of a human presence. The latter is complicated by the fact that large bifacial tools or handaxes are almost completely absent in this part of the world, and the retouched artifacts are invariably confined to simple pebble and flake tools. Sometimes, other

avenues for documenting human occupation are available; at *Medzhibozh*, for example (originally discovered many decades ago), some of the large mammal bones exhibit possible traces of stone tools. The dating of both sites is based on classic methods: loess/soil stratigraphy (*Medzhibozh*) and association with fauna, specifically *Achidiskodon meridionalis* (*Urma 1*).

By contrast, the Middle Paleolithic is well and widely established across Eastern Europe and famously present in the southwestern corner of Siberia in the Altai region. In recent years, however, the identity of the Middle Paleolithic artifact-makers has become complicated. There is a strong Neanderthal presence in Crimea and the Northern Caucasus, as well as the Altai, based on the association with diagnostic skeletal remains (and some aDNA). But the analysis of aDNA from human remains in the Altai revealed that at least some of the makers of Middle Paleolithic artifacts in the region probably were Denisovans (Reich et al. 2010). At the same time, growing evidence that modern humans produced the Emiran industry of the Levant suggests they also may have made at least some of the Levallois blades and points in Eastern Europe (and Central Asia and Siberia) (Douka et al. 2013).

The problems and issues in Middle Paleolithic archaeology addressed in *Stratum Plus* are similar to those discussed in the earlier literature, and include the meaning of spatial and temporal variability among Middle Paleolithic assemblages and questions of local cultures (or groups) and changes through time, such as in the Eastern Carpathian region (Anisytukin 2009) or Altai (Rybin and Kolobova 2009). Both of these papers, as well as those on other areas, were published in the Middle Paleolithic cultural dynamics issue. Another long-standing problem in Middle Paleolithic archeology is the relationship between Middle and Upper Paleolithic industries. Regardless of the fossil and genetic evidence for an “out-of-Africa” origin for modern humans, many archaeologists working in Eastern Europe and Siberia perceive a local transition in at least some places (e.g., Altai) and some industries (e.g., *Micoquian*), and this view has been articulated in a number of *Stratum Plus* papers, including Rybin and Kolobova (2009) and by the late M.V. Anikovich (2013).

The Upper Paleolithic remains the centerpiece of Paleolithic archaeology in Eastern Europe and Siberia with its spectacular features and mobiliary art. Noteworthy papers in *Stratum Plus* include comprehensive inventories of two and three-dimensional depictions of mammoth in Upper Paleolithic of northern Eurasia by the late Z.A. Abramova (2005a, 2005b) and reconstruction of the large mammoth-bone dwelling at *Kostenki 11* by the late V.V. Popov (2005), all published in “The Age of Mammoths” Paleolithic issue. A more recent paper of special interest is focused on the osteological data pertaining to the dwellings in the middle Upper Paleolithic site of *Kostenki 4* (Zheltova and Burova 2014).

The Upper Paleolithic settlement of Eastern Europe and Siberia may be described as the “eyed-needle zone,” because it contains the earliest known eyed needles (from

the Northern Caucasus, central plain of Eastern Europe, and the Altai), which do not show up in Western Europe until much later (Last Glacial Maximum). The eyed needles presumably reflect the production of tailored winter clothing—subsequently depicted in human figurines from southern Siberia—and are tied to the evidence for heated shelters as part of the technological adaptation to extreme winter temperatures. The East European and Siberian sites also yield early evidence for a broad-based northern interior diet (i.e., small mammals, aquatic foods) in the form of stable isotope values on human bone, and concentrations of small vertebrate remains among the occupation debris. The expanded dietary breadth was a response to the overall reduced biological productivity of the more continental landscapes east of the Carpathians and another technological adaptation. And there is dramatic evidence for high mobility in the form of raw material movements over hundreds of kilometers, both in Eastern Europe and southern Siberia (e.g., Demonerova et al. 2014).

Stratum Plus is not the only vehicle for publication of Paleolithic research in the lands of the former Soviet Union (and adjoining areas), but it has become—along with *Archaeology, Ethnology & Anthropology of Eurasia*—the primary serial publication for paleoanthropology in northern Eurasia east of the Carpathians. The latter is a quarterly journal published simultaneously in Russian and English by the Russian Academy of Sciences in Novosibirsk that began publication in the year following the first volume of *Stratum Plus*. Both journals are primarily devoted to post-Paleolithic archaeology and include papers on areas outside Eastern Europe and the former Soviet republics. But together they provide the most important source of new and current information on Paleolithic research in the latter. They have inherited the role of the now defunct Soviet publications described above. And because this vast region is so critical to later human evolution, especially the transition to modern humans and the Upper Paleolithic, and is continually producing significant new discoveries and results, both journals are essential to the world literature.

REFERENCES

- Abramova, Z.A. 2005a. Katalog izobrazhenii mamonta v evropeiskom paleoliticheskom iskusstve malykh form. *Stratum Plus* No. 1 2005, 23–67.
- Abramova, Z.A. 2005b. Katalog izobrazhenii mamonta v evropeiskom paleoliticheskom nastennom iskusstve Evropy. *Stratum Plus* No. 1 2005, 68–113.
- Amirkhanov, Kh. A. and Mashchenko, E.N. 2012. Urna 1 – mestonakhozhdenie rannego pleistotsena v Tsentral'nom Dagestane. *Stratum Plus* No. 1 2012, 43–46.
- Anikov, M.V. 2013. Eshche raz o probleme proiskhozhdeniya verkhnego paleolita, ili “Kritika kriticheskoi kritiki.” *Stratum Plus* No. 1 2013, 283–312.
- Anisyutkin, N.K. 2005. Mamonta v srednem paleolite Vostochnoi Evropy (k voprosu o must'erskikh zhilykh strukturakh i ispol'zovanii kostei mamonta). *Stratum Plus* No. 1 2005, 114–129.
- Anisyutkin, N.K. 2009. Srednii paleolit Vostochnogo Prikarpat'ya nakanune poyavleniya verkhnego paleolita: khronologiya, variabel'nost, evolyutsiya, struktura poselenii, obraz zhizni. *Stratum Plus* No. 1 2009, 123–186.
- Berezkin, Yu. E. 2000. Archaeology and education in post-soviet Russia. *Antiquity* 74, 155–159.
- Boriskovskii, P.I. 1953. Paleolit Ukrainy. *Materialy i Issledovaniya po Arkheologii SSSR* 40.
- Demonerova, E., Ivanov, A.V., Ineshin, E.M., and Teten'kin, A.B. 2014. K voprosu o mobil'nosti drevnego naseleniya severa Baikal'skoi Sibiri v kontse pleistotsena. *Stratum Plus* No. 1 2014, 165–180.
- Douka, K., Bergman, C.A., Hedges, R.E.M., Wesselingh, F.P., and Higham, T.F.G. 2013. Chronology of Ksar Akil (Lebanon) and implications for the colonization of Europe by anatomically modern humans. *PLoS ONE* 8, e72931.
- Matyukhin, A.E. 2010. O kharaktere sviyazi syr'ya, tipologii i tekhnologii domuster'skikh muster'skikh pamyatnikov Russkoi ravnine. *Stratum Plus* No. 1 2010, 201–226.
- Popov, V.V. 2005. Kosti mamonta v konstruksii zhilishcha anosovsko-mezinskogo tipa na stoyanke Kostenki 11 (Anosovka 2). *Stratum Plus* No. 1 2005, 157–186.
- Platonov, N.I. 2010. *Istoriya arkheologicheskoi mysli v Rossii*. St. Petersburg: Nestor-Istoriya.
- Reich, D., Green, R.E., Kircher, M., Krause, J., Patterson, N., Durand, E.Y., Viola, B., Briggs, A.W., Stenzel, U., Johnson, P.L.F., Maricic, T., Good, J.M., Marques-Bonet, T., Alkan, C., Fu, Q., Mallick, S., Li, H., Meyer, M., Eichler, E.E., Stoneking, M., Richards, M., Talamo, S., Shunkov, M.V., Derevianko, A.P., Hublin, J.-J., Kelso, J., Slatkin, M., and Pääbo, S. 2010. Genetic history of an archaic hominin group from Denisova Cave in Siberia. *Nature* 468, 1053–1060.
- Rogachev, A.N. 1957. Mnogosloinye stoyanki Kostenkovsko-Borshevskogo raiona na Donu i problema razvitiya kul'tury v epokhy verkhnego paleolita na Russkoi ravnine. *Materialy i Issledovaniya po Arkheologii SSSR* 59, 9–134.
- Rybin, E.P. and Kolobova, K.A. 2009. Srednii paleolit Altaya: variabel'nost i evolyutsiya. *Stratum Plus* No. 1 2009, 33–78.
- Sapozhnikov, I.V. and Sapozhnikova, G.V. 2011. Kamennyi vek Severo-Zapadnogo Prichernomor'ya. *Stratum Plus* No. 1 2011, 15–149.
- Stepanchuk, V.N. 2012. Nizhnepaleoliticheskoe mestonakhozhdenie Medzhibozh na Yuzhnom Buge, Ukraina: novye dannye i interpretatsii. *Stratum Plus* No. 1 2012, 47–65.
- Stepanchuk, V.N. 2013. Mira: stoyanka rannego verkhnego paleolita na Dnepre. *Stratum Plus* No. 1 2013, 15–110.
- Sytnik, A.S. 2011. Srednepaleoliteschie komplekсы stoyanki Korman' IV na Dnestre. *Stratum Plus* No. 1 2011, 203–236.
- Vishnyatsky, L.B. 2010. Neandertal'tsy: kakimi oni byli, i pochemu ikh ni stalo. *Stratum Plus* No. 1 2010, 25–98.

Vishnyatsky, L.B. 2014. Vooruzhennoe nasilie v paleolite. *Stratum Plus* No. 1 2014, 311–334.
Zheltova, M.N. and Burova, N.D. 2014. Sopostavlenie zhi-

lykh kompleksov Kostenok 4 na osnove izucheniya osteologicheskikh kollektzii. *Stratum Plus* No. 1 2014, 111–148.