REPORT

INTERNATIONAL EXHIBITION DEVOTED TO THE UNIQUE ACHIEVEMENTS OF FLINT WORKING TECHNOLOGY AT THE END OF THE STONE AGE

N. N. Skakun
Institute for the History of Material Culture of the Russian Academy of Sciences, St. Petersburg, Russia.

E. V. Tsvek
Institute of Archaeology of the national Academy of Sciences of Ukraine, Kiev, Ukraine

B. Mateva
Historical Museum of Isperih, Bulgaria

J.-C. Marquet
Laboratoire Archéologie et Territoires. Tours, France

Archaeological exhibitions are a popular entertainment. They always provoke a high interest both among the lay audience and professional community. However, most of them are devoted to art objects, weaponry, spectacular pottery assemblages, while the materials illustrating technological attainments at different stages of ancient history often remain underrepresented. The project described here was initiated by N. Skakun (Institute for the History of Material Culture of Russian Academy Science, St. Petersburg, Russia) and materialized thanks to the energy of J.-C. Marque (Laboratoire Archéologie et Territoires, Tours, France) and financial support from the Cultural Commission of the European Union. The Région Centre in France and Andalusia in Spain also helped to some extent to fill this gap.

The exhibition, which took place in museums of France (Orleans, Tour), Bulgaria (Varna) and Spain (Granada, Barcelona) in 2007-2008 was devoted to a unique phenomenon of prehistoric technology, namely the production of long, super-regular flint blades, representing the apex of flint working. The appearance of this technology in different areas of Old World is dated to different periods, from the middle of the 5th millennium BC to the beginning of the 3rd millennium BC. In archaeological terms this is the end of the Stone Age and the beginning of the Early Metal Period. As a rule, the sites where long blades were manufactured are associated with sources of high quality Cretaceous flint available in the form of big pebbles or large tablets. The most famous of the European sites of the kind are Spiennes in Belgium and Grand Pressigny in France, as well as the regions of Dobrudja in Bulgaria, Volyn' and Donbass in Ukraine.

The materials of late Stone Age workshops, settlements, and cemeteries from Bulgaria, Ukraine, France and Spain were presented at the exhibition in the Museum of Natural History of Orleans. The round exhibition hall was divided into four sections, each devoted to a particular region. Special significance was given to the central part of the hall, which housed a number of showcases with flint artifacts directly associated with different centers of flint working. The objects exhibited here included specimens of raw material, cores of various forms, waste products, as well as crested blades and other technical elements allowing one to assess both the skillfulness of ancient craftsmen and carefulness of the process of flaking. In addition, various tools used in flint working were displayed (ham-

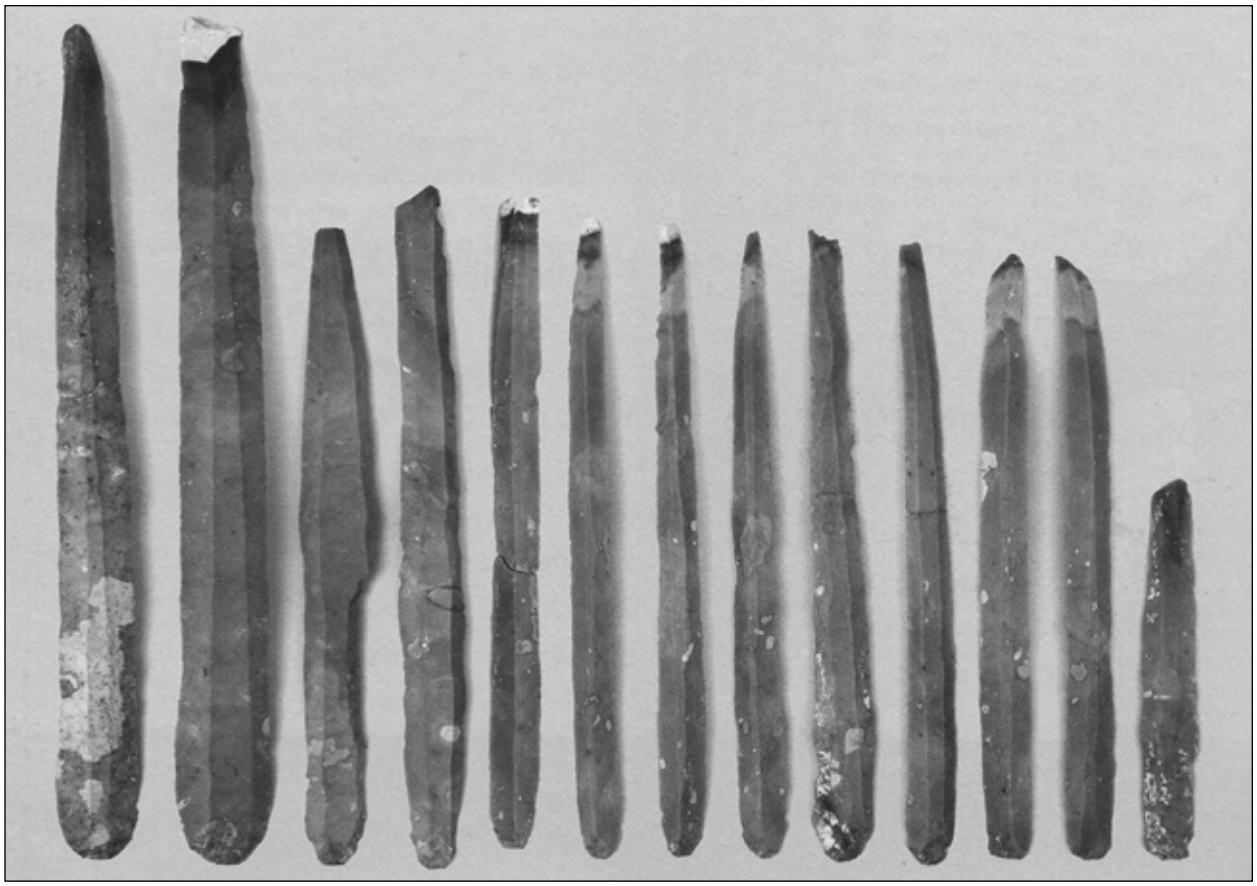

Figure 1. Eneolithic blades from the tell of Sava, Bulgaria (after ARCHEA 2007: 28.).

merstones, pressure flaking tools, mediators) and, of course, final products — spectacular archaeological specimens of long blades from workshops, caches, and settlements, where they were used for utilitarian purposes. Intact blades from interments were also shown, where they acted as prestigious components of burial goods (Figure 1). For the sake of obviousness, the archaeological materials were accompanied by graphic reconstructions of the methods of blade manufacture characteristic of different production centers. General interest was provoked by an effective method of long blade production with the use of a lever, proposed by the outstanding French experimenter J. Pelegrin. The method allowed him to fully reproduce the best archaeological examples of long blades (Figure 2).

Materials coming from different regions and archaeological cultures were demonstrated in different sections of the hall. The French materials included daggers of Turonian flint bifacially worked by delicate retouch, well known for the perfection of their manufacture. These include artifacts from the Late Neolithic workshop of Petit Paulmy (Abilly, France), situated near the flint outcrops of Grand Pressigny and excavated by J.-C. Marquet. To give the visitors an idea of the interior view of the workshop, the organizers of the exhibition presented its model, executed on the basis of archaeological evidence and containing replicas of archaeological finds. The functions of flint artifacts, identified by use wear studies, were shown in special display cases.

The Spanish part of the exhibition contained materials of several settlements and cemeteries which yielded long blades. One of the latter was 35cm long. A particular interest was generated by the blades from Los Millares — one of the most enigmatic archaeological settlements of Europe.

Figure 2. Method of flaking with the use of a lever, proposed by J. Pelegrin (after ARCHEA 2007: 13).

The process of their production was reproduced by J. Pelegrin and A. Morgado. In addition to flint objects, this part of the exposition included examples of pottery, bone articles, as well as votive objects.

Materials from Bulgaria were represented by various finds from the settlements, whose occupants made most of their tools from long blade fragments, walled pottery, clay female figurines, and a hoard of long blades from the tell of Sava. Many visitors were literally charmed by the exhibits from the Varna necropolis. One cannot help being excited by the skillfulness of the ancient flintknapper, who was able to produce a wonderful and to this point unique blade, the length of which exceeded 40 cm. They might have been detached with the use of a lever and a copper mediator. The Bulgarian section included also copper objects, replicas of gold things from a chief's burial, and his bust reconstructed on the basis of M. Gerasimov's method.

The Ukrainian part of the exhibition consisted of the most spectacular objects found at the settlement of Bodaki, belonging to the Tripolie culture and excavated by N. Skakun. Though the settlement was mainly devoted to flint working, all other kinds of production and domestic activity characteristic of the period are represented here, too. The visitors could see the masterpieces of Tripolie pottery, some enigmatic ceramic objects, antler and bone tools, adornments, anthropomorphic figurines. Each section of the exhibition was decorated with picturesque paintings representing different settlements of ancient flint workers. The paintings were accompanied by model reconstructions of dwellings and workshops made after archaeological data.

Information about the location, age, and cultural affiliation of flint working centers, as well as about the distribution of their products, was demonstrated on colorful maps, diagrams and posters. In addition, one could watch taped films devoted to the experimental study of flint procurement, working, long blade production and use. Among others there was a short subject devoted to N. Skakun's traceological studies of the materials from Petit Paulmy (Abilly, France), Bodaki (Ukraine) and some settlements of Bulgaria. The special attention of the visitors was attracted by the film devoted to the experiments with threshing sledge mounted with flint blanks.

The exhibition was prepared by a large international team, which included members of the association from Région Centre in France (ARCHEA), and archaeologists from different institutions in Russia, France, Spain, Bulgaria, Ukraine (N.N. Skakun, J. Pelegrin, J. Roussot-Larroque, C. Verjux, L.-A. Millet-Richard, N. Mallet, A. Samzun, A. Nercessian, G. Martinez, A. Morgado, J. Marrero, B. Mateva, V. Slavchev, O. Pelevina, E. V. Tsvek, A. V. Matsipura, V. I. Chaika, I. I. Movchan, L. V. Kulakovskaya, and others).

The grand opening of the exhibition attracted over 400 people, including scholars, staff members of the local and regional administration, representatives of consulates of some European countries. The heads of the delegations of the project's

participating countries (R. Longuépée, ARCHEA President from France, A. Morgado from Granada University in Spain, V. Yotov, Director of Varna Archaeology museum, E. V. Tsvek, senior researcher of Institute of Archaeology of the National Academy of Sciences of Ukraine, V. Chaika, curator of National Historical Reserve of Zbarazh, Ukraine) and other speakers noted the distinctiveness of the exhibition theme and the uniqueness of the materials presented to the public. Summing up the content of the speeches at the opening ceremony, the head of the Russian delegation, corresponding member of the Russian Academy of Sciences (RAS), E. N. Nosov (Director of the Institute for the History of Material Culture RAS in St. Petersburg), emphasized the social significance of the exhibition, which demonstrated the importance of cooperation between researchers from different countries.

The first excursion was guided by the authors of the exhibition themselves. It was accompanied by informal lectures about the current state of experimental and use-wear studies in archaeology. Everybody had the chance to practice in flintknapping or to look for use-wear traces on ancient tools with the help of a binocular microscope. The excursion was followed by the presentation of J.-C. Marquee's comic book, describing the adventures of a fictional 4th millennium BC family, who traveled in search for long blades.

After France, the exhibition was successfully shown in Spain and Bulgaria. It ended in Barcelona with a round table, whose participants continued the discussion of the phenomenon of long blades, which had started earlier in Tour. For the first time the specialists in the field could discuss numerous subjects of mutual interest. Everybody agreed that the production of long blades can be considered the highest achievement of flint working technology, which "fully exhausted the useful properties of stone" (Semenov 1964).

While summarizing, all the speakers unanimously highlighted the successful integration of scientific and social activities in one project. On the one hand, its purpose was the sharing of the collected information necessary for joining the efforts of specialists for addressing the most important problem of prehistoric archaeology, which is study of main lines of technological progress. On the other hand, the project was aimed at showing the public at large the achievements of prehistoric technology, modes of distribution of technical discoveries, and their influence on the level of social and economic life in ancient times.

REFERENCES

ARCHEA

2007 Catalogue de l'exposition L'Europe, "Déjà, à la fin des temps préhistoriques. Des grandes lames en silex dans toute l'Europe." ARCHEA, Orléans.

Semenov Sergei A.

1964 *Prehistoric Technology.* Cory, Adams, and Mackay, London.

ABOUT THE AUTHORS

N. N. Skakun, senior researcher, Institute for the History of Material Culture of the Russian Academy of Sciences, Dvortsovaya emb. 18191186, St. Petersburg Russia, Mobile phone +79112288351, skakunnatalia@yandex.ru

E. V. Tsvek, senior researcher, Institute of Archaeology of the national Academy of Sciences of Ukraine, Geroev Stalingrada 12 Kiev Ukraine, Mobile phone + 380668753931, tsvek@inbox.ru

B. Mateva, Director of Historical Museum of Isperih, Zar Osvoboditel 6, Isperih, Bulgaria, Mobile phone +359889007383, boryanamateva@yahoo.com

J.-C. Marquet, chercheur associé Laboratoire Archéologie et Territoires et Association ARCHEA. Tours. France, Fixe phone +033247289262, jcmarquet@wanadoo.fr