Anthropologie et Préhistoire, 111, 2000, 88–94

The Boomerang from Obłazowa and its Prehistoric Context

Paweł VALDE-NOWAK

The Obłazowa cave is located in the southern wall of a limestone hill (670 m). The hill itself is situated in a broad valley stretching at the foot of the Tatra mountains, on the northern side of the mountain range, along the borderland between Poland and Slovakia in the village Nowa Biaa near Nowy Targ. In the cave, we have recognised eight cultural levels within 16 sedimentation series so far (fig. 1). The rocky bottom of the cave has not been reached yet (Vald-Nowak, Nadachowski & Wolsan, 1987). The boomerang was found in layer n. 8, below two layers with some unspecified Upper Paleolithic flint material, and above layer n. 11, where leaf-points have been found, most probably of the Szeleta culture. Incidentally, I will only add that the deeper layers, n. 12 and 15, contained Mousterian inventories. Drawing attention to the stratigraphic position of the layer with the boomerang is important in so far as the results of the radiocarbon dates of layer n. 8, i.e., the one with the boomerang, (about 32000 B.P.), and layer n. 15 (about 25000 B.P.), cannot be accepted. The samples were taken from bones. A whole series of samples will be dated as soon as possible. Summarising: the stratigraphic position of the level with the boomerang allows to date it approximately back to the youngest part of the Upper Paleolithic.

The boomerang was found during the first season of research, that is in 1985, in the assemblage of large quartz and granite pebbles, undoubtedly brought to the cave by Prehistoric man. Other objects were also found in the assemblage, such as cores of imported flints and local radiolarite, or stone tools (fig. 2). Some elements of the inventory may be referred to the circle of the Eastern Gravettian cultures (Valde-Nowak, 1987). The finds were accompanied by very rich faunal remains representing such species as Arctic and Norway lemming or reindeer (Nadachowski & Wolsan, 1987). Thus, very briefly, the archaeological context of the find may be represented.

The boomerang is relatively well preserved. In 1985, it was brought to light as an almost complete object. Only a small end-piece was missing. Fortunately, five years later, during further exploration, we managed to find the missing fragment, so that now the object is longer (fig. 3). We are also sure about the shape of the whole object. It was made of a splinter of a mammoth's tusk. One of the faces was polished, which resulted in the cross-section, flat on one side, and convex on the other, typical for many kinds of boomerangs. Traces of numerous scratches on the convex side cannot be ascribed to human activity. We must seriously take into consideration the possibility that they are marks left on the tusk while the animal was still alive. The incisions visible on the flat side must be interpreted in a different way: there is no doubt that they were all made by man. At one of the ends, we can see relatively deep engraved lines parallel to the edge of the object. They can hardly be recognised as an ornamental pattern, though they clearly set off the integrity of the form (fig. 4). At the other end, we can see a series of straight lines running diagonally on both the convex and flat sides. They are probably caused by use. The recently carried out reconstruction, aiming at a better fitting of a slightly deformed ring, i.e., a subsequent layer of growth of dentin, showed that the boomerang is a little twisted round its longest axis (fig. 5). The twist, reflecting the form of the tusk itself, which is twisting during its growth, may have had a great significance for such and not any other aerodynamic characteristics of the object. These characteristics will finally be determined after experimental tests with a more complete initial material available now. The previous replicas were made after the incomplete object, while such an important characteristic as the

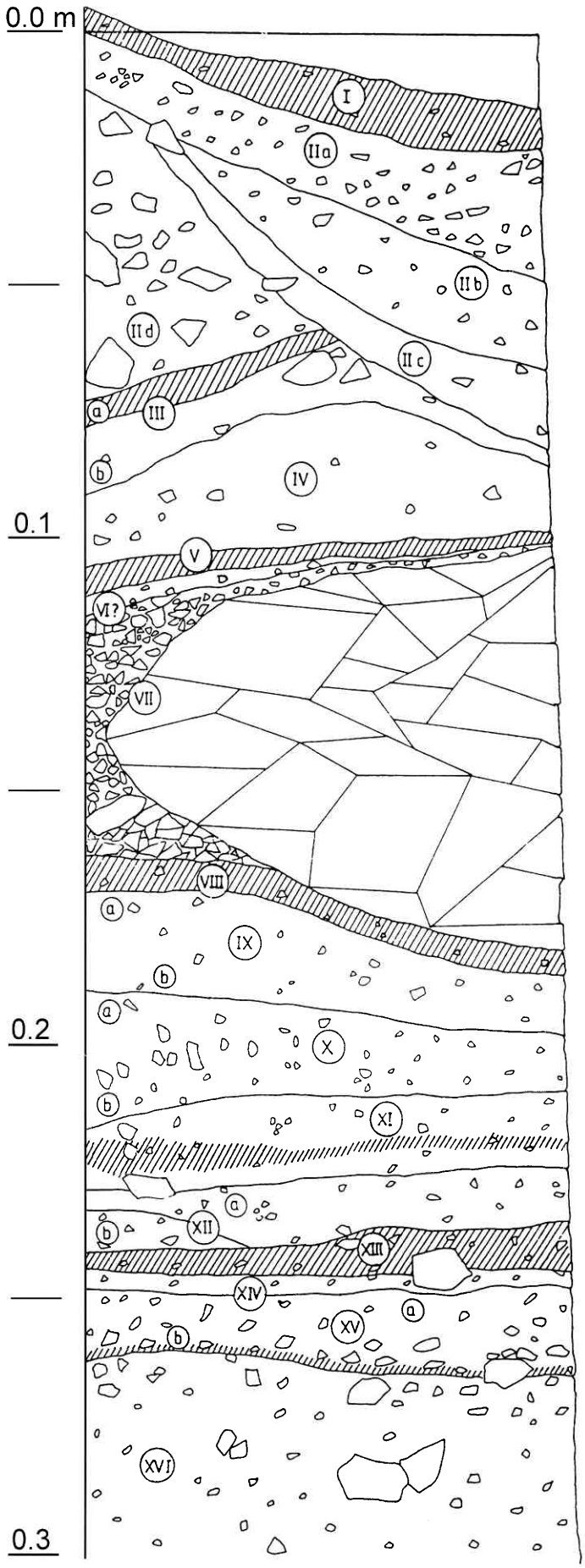

Fig. 1 — Synthetic stratigraphy of sediments in the cave of Obłazowa data of research 1985–1990. Commentary in the text.

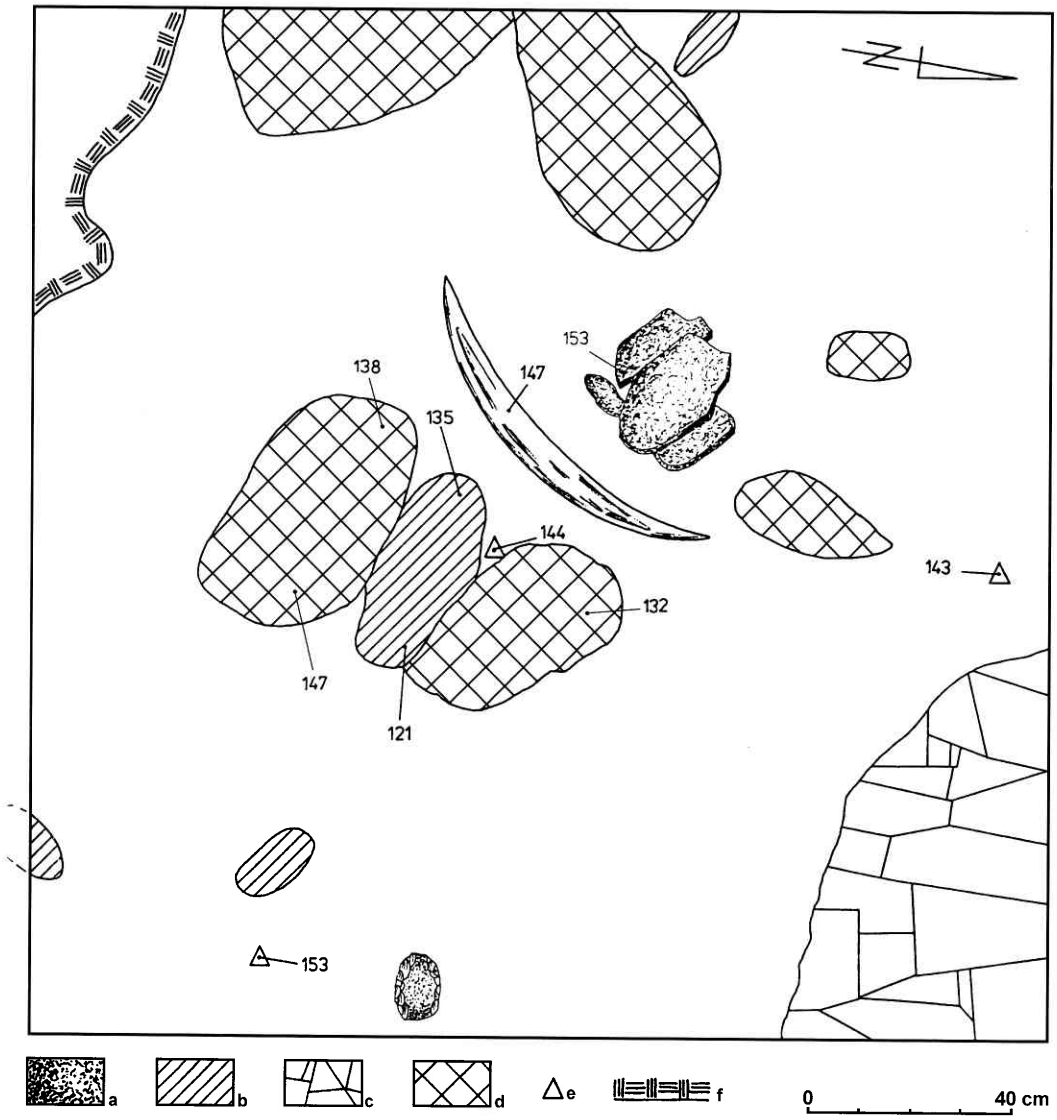

Fig. 2 — Section of the planigraphy of finds in the layer in which the boomerang was found.

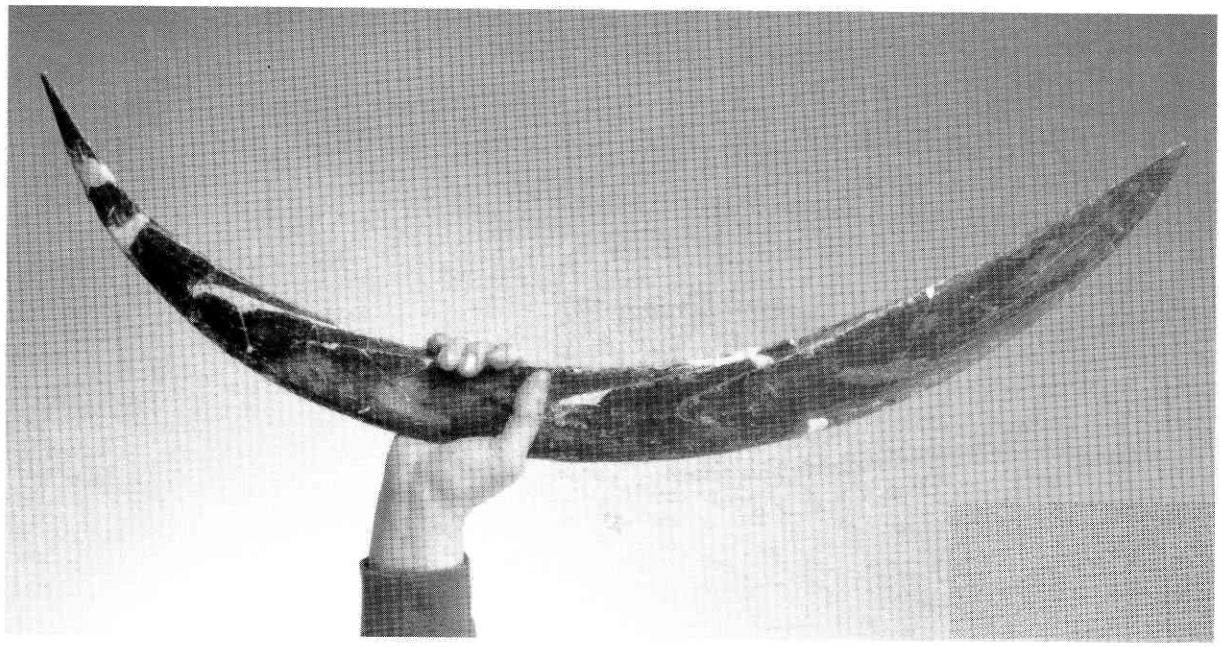

Fig. 3 — Boomerang from Obłazowa with the fixed end-piece found in 1990.

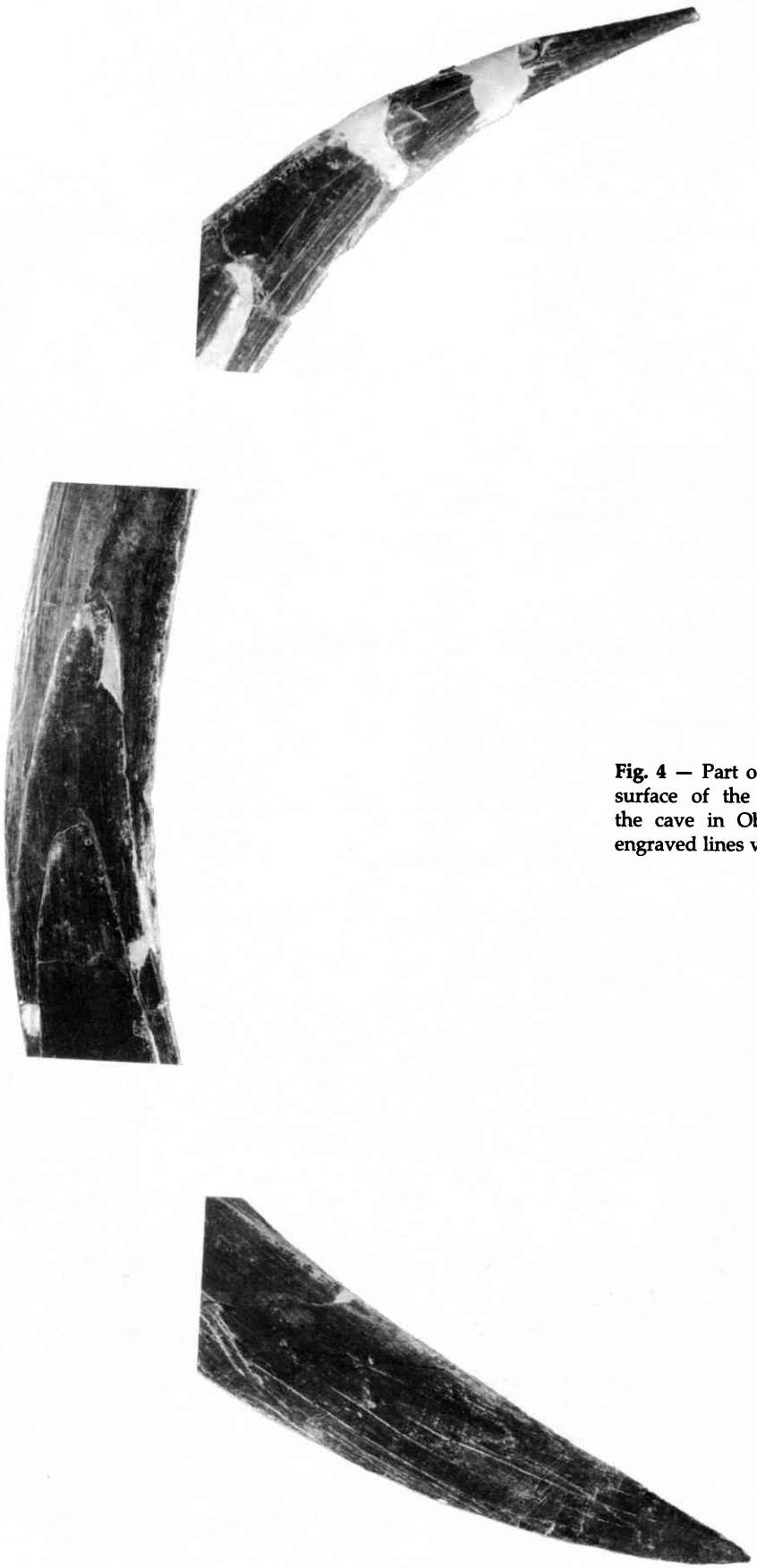

Fig. 4 — Part of the bottom (flat) surface of the boomerang from the cave in Obłazowa with the engraved lines visible.

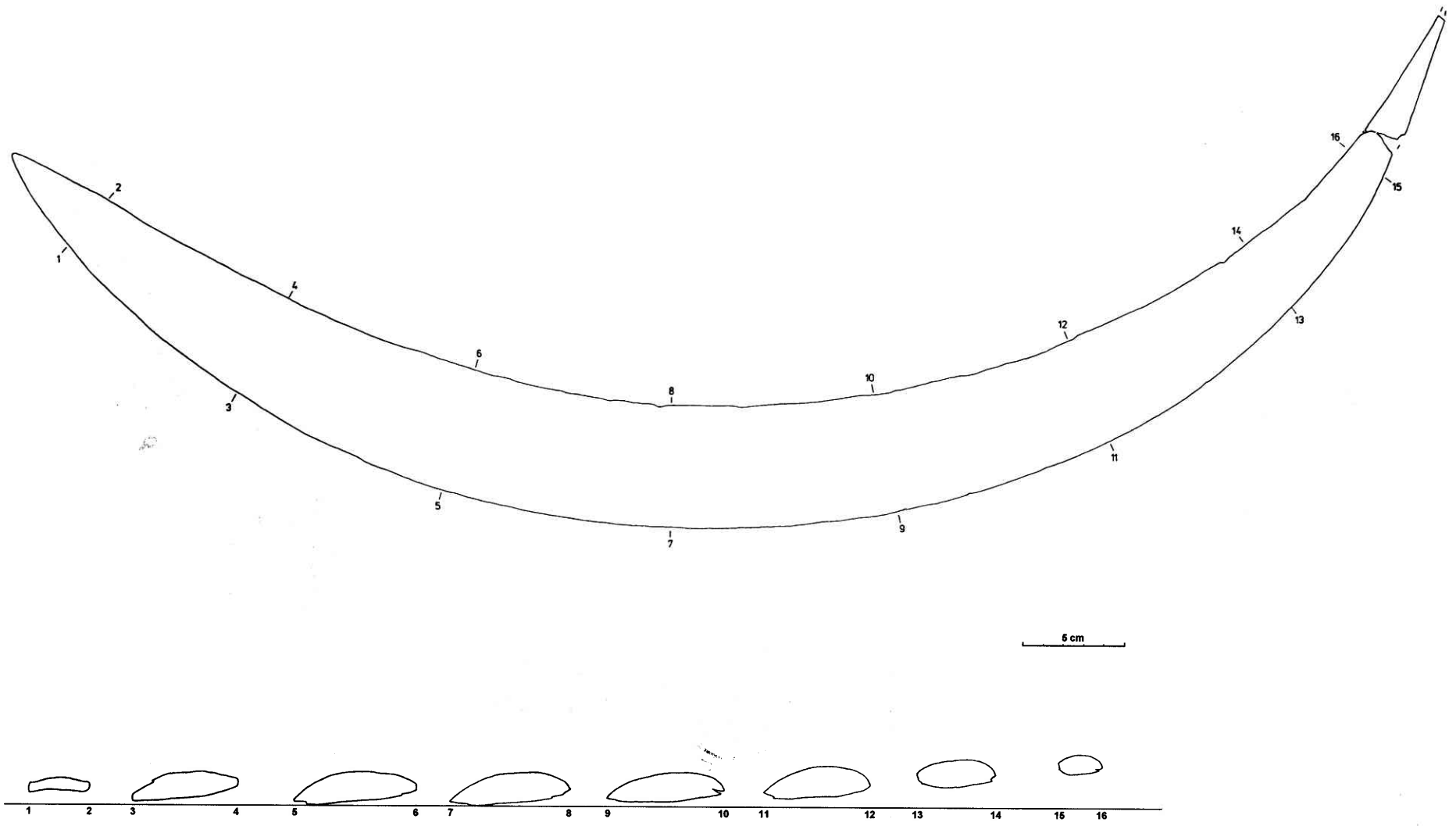

Fig. 5 — Complete boomerang from Obłazowa in outline and its vertical sections parallel to one cutting plane.

above mentioned twist, was unknown. The experiments are carried out by Mr. Dieter Evers in Wiesbaden.

It is generally known that the definition of the boomerang and the so-called killing-stick has lead to much controversy (compare, for example, Thomas, 1983). The rich literature of the subject has caused a serious confusion, and it was only recently that in the monograph by Hans Peter (1986), both the definition, typology and world history of the boomerang, was critically and thoroughly investigated. We can learn from it, among other things, that a boomerang does not need to have the capability to return to the thrower. Referring to numerous examples from Australia, we may show that a majority of the types of boomerangs used there do not have that capability. Besides, what may be particularly interesting, among the boomerangs of one type, for example the ordinary boomerang, the Kimberley or West Australian types, some specimens have the capability to return, while others do not. Nevertheless, the Aborigenes regard them as boomerangs. The criterion of returning cannot, according to Peter, help to define the boomerang accurately. Peter did find another characteristic which does allow to define it. The characteristic is linked with the vertical cross-section of a boomerang. If the cross-section is flat and convex, or lenticular, then according to *Peter and the Australians*, we are dealing with a boomerang. Other elongated thrown, oval or round in cross-section, are considered to be killing-sticks. With reference to such definitions, the specimen from Obłazowa must undoubtedly be regarded as a boomerang. Attention should be drawn to a clear similarity between the specimen from Obłazowa and one of the twelve major types of boomerangs known from Australia. Here I have in mind the so-called Queensland type, which used to be widespread in the eastern Australian province of the same name. Nowadays, such boomerangs are found mainly in museums. There are no known descriptions of aerodynamic characteristics of such objects and no experiments on replicas of museum specimens have been carried out. Hans Peter supposes that some of the Queensland boomerangs may have the capability to return. Typological affinity of the Obłazowa specimen to the Queensland type involves not only its characteristic crescent form, pointed at the ends, without any distinct hold, but also its size, which is rather narrowly specified for this particular type, in contrast to other Australian boomerang types. The length of the Queensland boomerangs ranges between 60 and 80 cm. Let me remind you that the boomerang from Obłazowa is 72 cm long.

The number of archaeological and iconographic data confirming that this kind of weapon originated in many different places rather than in Australia alone is considerable. Here we may mention the collection of over 20 boomerangs from the tomb of Tutankhamen, some of which (the fact important for the find from Obłazowa) were made of ivory. From Africa also, many depictions of human figures with boomerang are known, for example on the stone plate from Abydos (3000 B.C.), which represents hunting scenes. Egyptian paintings showing Libyan warriors with boomerangs from the time of the reign of Queen Hatszepsut may be cited as well. The relief from Niniva depicting a hunter with a boomerang falls among the best known Asian proofs of the use of the boomerang in the past. As for the American continent, besides many proofs that the boomerang is known among Indian tribes such as Comanche, there is an archaeological find dated by radiocarbon at about 10000 B.P., which has been known for some time. It is a wooden object identified as a hooked boomerang (all these finds are more extensively discussed by Peter, 1986). Since the beginning of the 20th century we have also known archaeological finds of boomerangs in Europe. At least one of the three repeatedly published wooden objects found in the Upper Mesolithic layers of the peat-bog of Braband-s in Denmark is a boomerang (Schwantes, 1934). Incidentally, the boomerang from Braband-s looks like the Kimberley type known from Australia. So far, the boomerang from Braband-s has been recognised as the earliest specimen of a weapon of this kind in Europe. A subsequent European find Velsem in Holland is considerably later. It dates back to the Early Iron Age. This completely preserved specimen revealed the capability of returning during experiments (Hess, 1973). Similarly to the object from Obłazowa, it is slightly twisted.

Side by side with these frequently published earliest European boomerangs, I would like to cite the find of a fragment of the radius bone of a mammoth shaped by man, and found in one if the brick-works in Stillfried in Lower Austria. Since it was flat-and-convex in cross-section, it was classified as a boomerang by Karl Kriegler

(1962) and referred to the Upper Paleolithic, though the find had no archaeological context of corresponding stratigraphic data: in any case, neither from the well-known Gravettian site (Stonework Workshop) examined by Felgenhauer, nor from the famous paleopedological profile also located in Stillfried (Felgenhauer, 1980, see further literature there).

In my opinion, the find in the cave in Obłazowa gives evidence that a thrown weapon with the characteristics of a boomerang was used in Central Europe in the Upper Paleolithic. Greater attention should therefore be given to previously excavated inventories of that chronology which contain numerous bone fragments, including mammoth tusks. It is very likely that some of these objects, which are only fragmentarily preserved, escaped the attention of the researchers.

References

FELGENHAUER F., 1980. Ein jungpaläolitishes Steinschlageratelier aus Stillfried an der March, Niederösterreich. Zur Herstellungstechnik von Mikrogravettenspitzen, Forschungen in Stillfried, 4. *Veröffentlichungen der Österreichen Arbeitsgemeinschaft für Ur- und Frühgeschichte*, Wein, **XII/XIV**: 7–40.

HESS F., 1973. *Antiquity*, **47**: 303–306.

KRIEGLER K., 1962. Die bearbeitete Mammuthspeiche aus Stillfried an der March, Niederösterreich. *Acta Preahisorica*, **XXX/IV**: 6–13.

NADACHOWSKI A. & WOLSAN M., 1987. A new location of the late Pleistocene Fauna in the Polish Carpathians. *Current Research in the Pleistocene*, **4**: 112–114.

PETER H., 1986. *Wesen und Bedeutung des Bumerangs*. Wien.

SCHWANTES G., 1934. *Deutschlands Urgeschichte*. Leipzig.

THOMAS J., 1983. Why boomerangs boomerang (and killing-sticks don't). *New Scientist*, **22** (9): 838–843.

VALDE-NOWAK P., 1987. Entdeckung der paläolitischen Fundstellen im Tal des Bialka Tatrzanka-Flusses. *Acta Archeologica Carpatica*, **XXVI**: 5–35.

VALDE-NOWAK P., NADACHOWSKI A. & WOLSAN M., 1987. Upper Paleolithic boomerang made of mammoth tusk in south Poland. *Nature*, **329**: 436–438.

Author's address:

Paweł VALDE-NOWAK
Polska Akademia Nauk
Zaklad Archeologii Malopolski
Instytutu Historii Kultury Materialnej
Sławkowska 17
P–31-016 Kraków (Pologne)