

Hunting in the Neolithic in Slovakia

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The majority of the contributions presented during this colloquium dealt with various aspects of hunting during the Palaeolithic and the Mesolithic. This is the period—lasting thousands of years—where the “sense of life” of man was the attendance to alimentation, that means, gathering and hunting. This work, whether directly or not (tool and weapon manufacturing), occupied evidently a great part of the human activity. It depended on natural and geographical conditions mankind lived in. It is natural that, such as all other manifestations of human activity—including hunting—its techniques and strategy, have their history which is the subject of the archaeological and prehistorical investigations. In this sphere, our knowledge has reached a certain stage and is continuously getting broader, proportionately to the manner how the methods of archaeological field research are being improved and how source materials extend. But today the results are also dependent on the degree of cooperation between archaeology and other scientific branches, especially natural sciences, which play an important role in the interpretation of some source materials.

The interdisciplinary co-operation has been realised by the researchers who are engaged in the Palaeolithic studies since a long time. It is given by the kind of source material that is investigated. Stone implements are the witnesses to the activity of the Palaeolithic man who manufactured and used them, of which typology and chronology have already been worked up in detail. These materials, owing to their physical properties, remained almost untouched. Besides them, most often animal skeletal remains can be found during archaeological excavations. They represent occupation and food debris. The archaeologist must therefore ask for help from other specialists with whom he will solve his problems in a complex way. But it is not the aim of my paper to develop these thoughts, although they would deserve a special attention. I believe that most of

the archaeologists (but unfortunately not all of them) take such a co-operation for granted and they make full advantage of it.

Hunting and gathering, as the only source of food, occupied a very long period in the history of mankind. But at a certain level of the historical and biological development of man, a substantial and very important change took place in the economic structure of the human society. This change was influenced by the modification in the environment. But on the other hand man himself affected more and more the environment by his activity and he changed it gradually. The change in climate over the big territory of continents, Central Europe included, with which the last glacial period ends, also caused considerable modifications in the composition of plant and animal communities. Some species were able to adapt to the new conditions, other migrated to more convenient ones, but many of them were not able to do so and became extinct.

During this period a substantial break took place in the means of alimentation. Till then man's survival depended on whether he had gathered enough plant food or killed enough animals. It was the domestication of animals and the cultivation of plants that diminished his dependence on nature. Therefore, if we want to speak of the hunting in this period, we always must do so in connection with animal keeping. This period used to be called “the agricultural” or “the Neolithic revolution”. It was certainly not a revolution in the sense of our time, causing sudden changes from one day to the next. It was, in fact, a more long lasting process, which introduced, somewhere sooner and somewhere later, a new form of economy, that substantially influenced further development of mankind. Since that time, if one community learned and acquired this kind of economy—beginning with agriculture—hunting stopped to be the only source of meat. It does not, of course, mean that man was no more dependent on hunting.

The animal keeping also brought some difficulties. So, for instance in the winter, when Neolithic man certainly had problems with getting food for himself, he had to have stocked certain feed-stuffs. He had to accept a more settled way of life because his migration was limited by the herds. Therefore hunting continued to remain more or less substantial, if not always, at least a complementary part of his food.

The interaction between man and hunted animals was mutual. Taming and domestication of animals influenced man's way of life and vice versa. Man limited the motion, the choice of food, and the natural choice of partners in the reproduction of domesticated animals. All these restrictions in domestication brought about substantial changes in the constitution of animals. First of all their size decreased. This phenomenon happened relatively quickly, already in the first generations. The advantage was (and it was essential for man) that he had "live preserve" in domestic animals, which—when hunting failed and in times of need—he could use for survival.

Let us now turn our attention to the area from which we can present concrete observation results based on archaeological excavations. In the territory of Slovakia, excavations on

many sites from the period that followed the agricultural revolution were carried out, i.e. from the Neolithic to the Bronze Age, and from many of them animal remains were analysed. They give us information, on one hand, on the animals kept and, on the other on the fauna composition coming from the surrounding of the settlements. They enable us too to appreciate till which degree man was dependent on hunting. Therefore in terms of characteristics of individual Neolithic cultures we first of all are interested in questions as: which animal species occurred as domestic ones, as hunted ones and what about their proportion. As far as the transition period from the Palaeolithic and/or the Mesolithic to the Neolithic, no bone samples are available. We do not have any systematically excavated settlement, where we would be able to prove, by evidence, the existence of wild ancestors of domestic animals as well as their descendants already with characteristics of domestication. So far, the oldest Neolithic settlement from which we have bone samples, belongs to the period of the Early Linear Pottery (about 4300 B.C.). On this site, although relatively small numbers of animal remains were found, domestic species prevail markedly (fig. 1). Already in whole Europe at those times known species were kept:

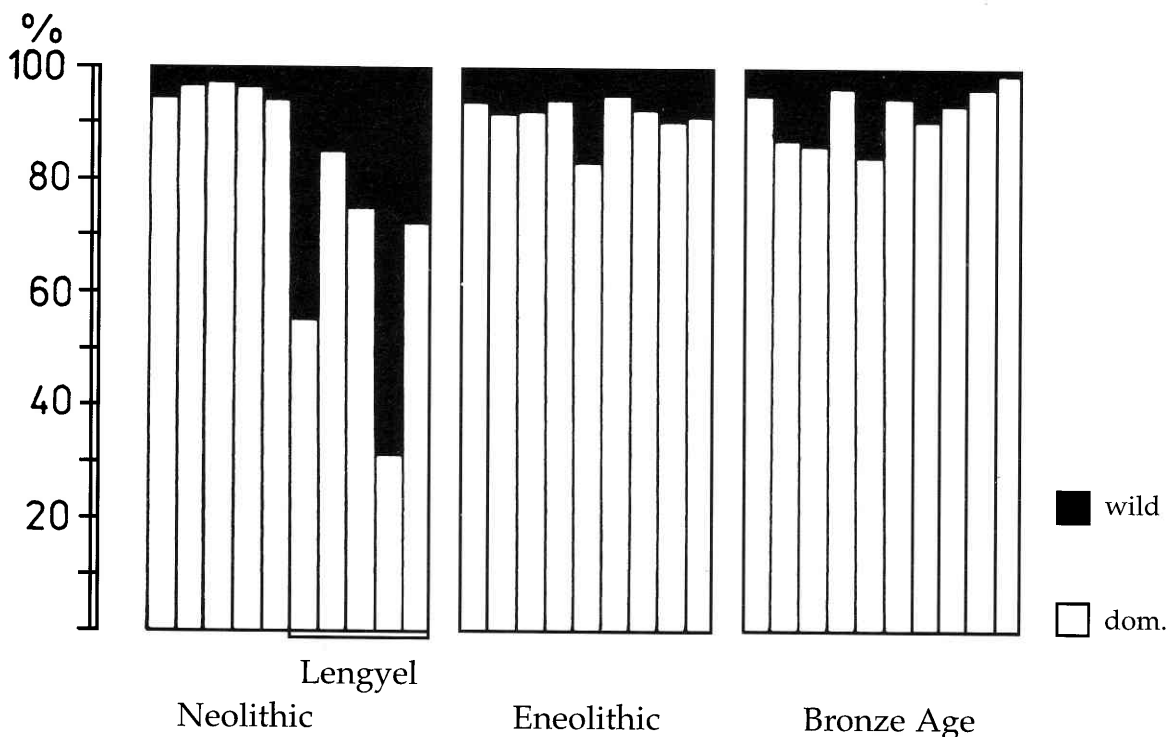


Fig. 1 — Frequency relations of domestic and wild animals (number of bones) in prehistoric sites in Slovakia (unpublished material).

cattle, sheep, goat, pig and dog. Cattle, pig, and dog had wild ancestors in this territory, so that they were domesticated from the native fauna. Compared to this, goat and sheep had to be brought already domesticated, because their wild form did not live here. The nearest place where they occurred most probably were some Mediterranean islands and their domestication took place in the Near East. A similar proportion of domestic and wild animals can be found in many settlements from the period of the Late Linear Pottery and of the Bükk culture, where hunted animals do not exceed 6% of the bone samples. The most usual hunted species in the period of the Neolithic (but also later) were the red deer, the wild swine and the aurochs, followed by the roe deer and smaller animals which provided in addition to meat also fur, or only fur, as the hare, the beaver, the fox, the wolf, the badger, and some other species often represented in the bone sample by a small number of bones.

After this period a new culture appeared, spread in the western part of the Carpathian basin—the Lengyel culture. It occupied the time span from the Late Neolithic to the Early Eneolithic (our settlements are dated to about 3800–3200 B.C.). There, the form of economy has changed. Bone samples from

these settlements differ from other Neolithic and Eneolithic Cultures (Ambros, 1986). The share of hunted animals increases and represents even 15 to 70% of bones. It means that hunting plays an increased role for the alimentation. The specificity of this culture becomes apparent in the representation of species of domestic animals as well (fig. 2). Cattle prevail as in settlements of other cultures not only in Slovakia but also in neighbouring areas in Central and South-East Europe. The difference lies in the representation of small ruminants, sheep and goat. In settlements of the Lengyel culture, pig bones represent 17 to 38% of domestic animals, while sheep and goat only 5 to 13%. Even in one settlement with relatively high bone sample (Bucany, distr. of Trnava) not the slightest bone of these animals was found. This means that sheep and goat were not kept here at all. A similar situation as in Slovakia was found out by Bökönyi in Hungary (1974) not only in settlements of the Lengyel culture but also in the contemporary Tisza and Herpaly cultures. Bökönyi (1984) explains this state by various causes. He calls this period as one of “domestication fever”. Man had tried to increase, by all means, the number of his domestic animals. He could succeed only in the case of cattle and pig because only these

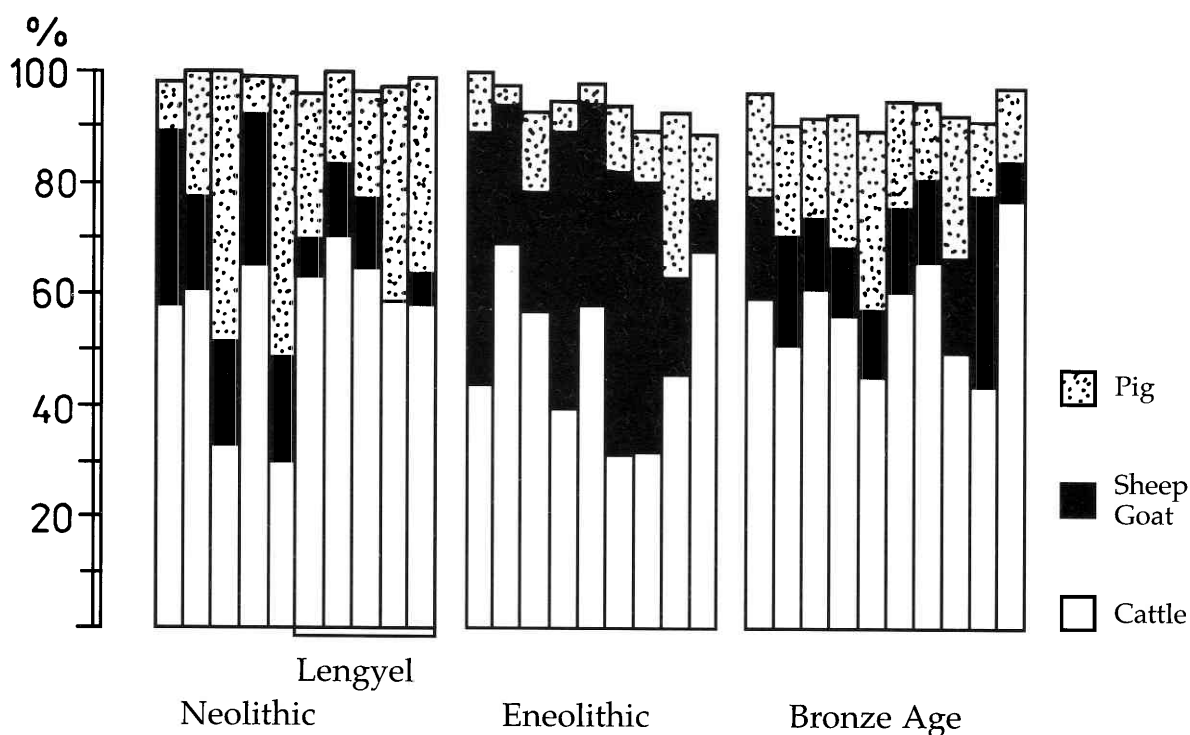


Fig. 2 — Frequency relations of main domestic animals (number of bones) in prehistoric sites in Slovakia (unpublished material).

animals, as we already mentioned, had wild ancestors in this territory (aurochs and wild swine). He could enlarge his herds by catching them. It was not possible to do the same with sheep and goat. To catch the young of aurochs and wild swine, because only young specimens could be domesticated, man often had to kill adult individuals which protected their young. To reach this goal wild species had to be in sufficient number in the surroundings and they had to have favourable conditions for their reproduction. This was fully dependent on climatic conditions. At the end of the Neolithic, climate changed. It got colder and it resulted the increasing of deforestation of greater areas. This change was especially favourable for wild swine and domestic pig, whereas sheep and goat kept declining due to the impossibility of new domestication.

It would be possible to explain the greater occurrence of bones of wild animals in the settlements of the Lengyel culture by a new domestication wave—catching the young and killing their parents. This could be the case for aurochs and wild swine. But, among the hunted animals, a markedly represented species is the red deer, a species which has never been domesticated. The red deer was the main hunted species not only in the settlements of the Lengyel culture but also in many other Neolithic and Eneolithic sites in Europe. This animal offered, in addition to a quantity of meat, antlers and bones as a popular raw material for production of tools and decorative articles. Therefore another explanation of the described state could be the hypothesis that people of this culture did not accept domestication of animals as a main form of meat food, or as the case may be, they still did not come to the point to accept this form as a prevailing one. We can therefore find cattle and pig bones in higher quantities because these species could be locally domesticated from their wild relatives, and fewer or almost no sheep and goat bones, because these animals had to be, in fact, "imported". In the following cultures of this area, such as the Baden culture and the Boléraz group, economic conditions had turned again. Hunting does not play an important role and animal breeding changes as well. Sheep and goats dominate over pig.

Finds of horse skeletal remains deserve our special attention. According to our present day knowledge, the area of the Ukraine is considered

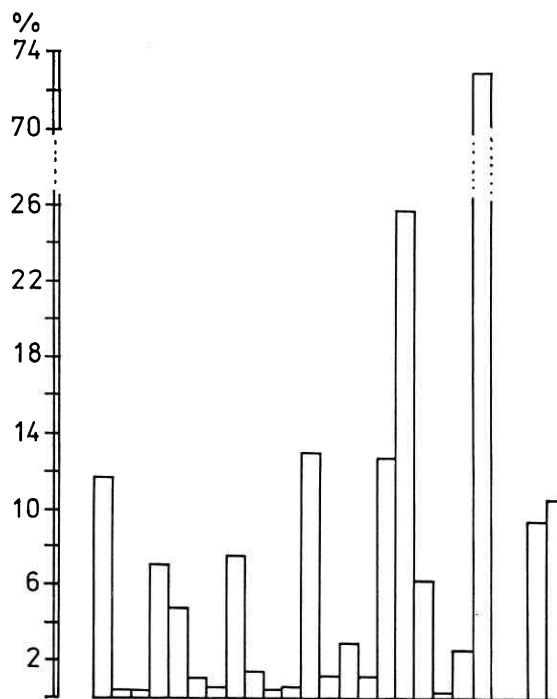


Fig. 3 — Frequency of horse bones (in per cent of bones of domestic animals) in prehistoric sites in USSR (Ukraine, Moldavia) [Bibikova, 1963; Pidopličko, 1956; Zalkin, 1970].

to be the oldest domestication centre of the horse. At Dereievka, the Eneolithic settlement of the Sredni Stog culture, horse bones represented 73% of the domestic animals (fig. 3). This horse is considered to be a domestic animal. Also in other settlements of this territory the horse occurs in great numbers (Pidopličko, 1956; Bibikova, 1963; Zalkin, 1970). Compared with this, the finds of horses from the Neolithic and Eneolithic of Central and South-Eastern Europe are rare. Only at the end of the Eneolithic does the number of horse finds increase and occur in almost all the sites from the period of the Bronze Age. The same situation can be observed in Slovakia. The rare finds from the Neolithic cultures are considered to be the remains of wild horses. One is concerned with isolated finds, often fragmentary, and they cannot be used for the characteristics of this horse whose taxonomy is therefore not quite clear. Only the finds of the subspecies *Equus (Hydruntinus) hydruntinus* are well distinguishable. It is the subspecies which in Europe survives from the Pleistocene and whose remains were excavated in the South-East Europe, namely in Hungary, Rumania, Bulgaria, but they were found in Czechoslovakia as well (southern Moravia, Kratochvil, 1973). Up to today they have not been found in Slovakia. But horse bones occur in the Neolithic settlements

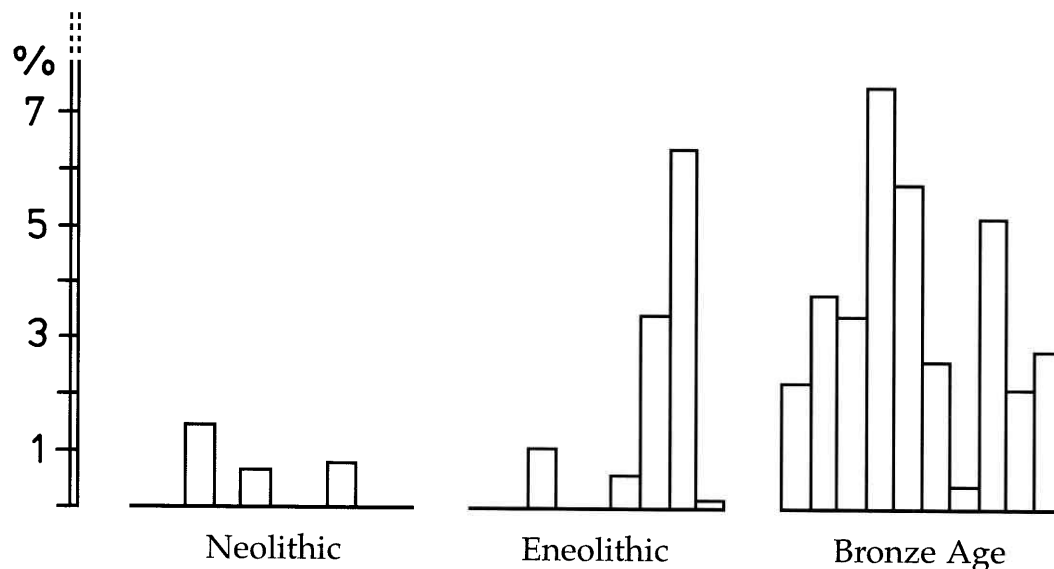


Fig. 4 — Frequency of horse bones (in per cent of bones of domestic animals) in prehistoric sites in Slovakia (unpublished material).

we examined (fig. 4). The finds increase in number in the Eneolithic cultures, especially in the Baden culture. During the Bronze Age, they occur in almost all settlements and in greater numbers. Although we have a large literature dealing with prehistoric and protohistoric horse finds at our disposal, a series of problems remain to be solved.

References

- AMBROS C., 1986. Tierknochenfunde aus Siedlungen der Lengyel-Kultur in der Slowakei. In: *Internat. Symposium über die Lengyel-Kultur*. Nitra, Wien: 11–17.
- BIBIKOVA V.I., 1963. Iz istorii golotsenovoi fauni pozvonocnikh v vostochnoi Evrope (On the history of the Holocene fauna in east Europe). In: I.G. Pidopličko (red.), *Prirodnaya obstanovka i fauni proslovo. 1*. Kiev: 119–146.
- BÖKÖNYI S., 1974. *History of domestic mammals in Central and Eastern Europe*. Budapest.
- BÖKÖNYI S., 1984. Die Herkunft bzw. Herausbildung der Haustierfauna Südosteuropas und ihre Verbindung mit Südwestasien. In: H. Schwabedissen (ed.), *Die Anfänge des Neolithikums vom Orient bis Nordeuropa. Teil IX. Der Beginn der Haustierhaltung in der „Alten Welt“*. Köln-Wien: 24–43.
- KRATOCHVIL Z., 1973. Der Fund von *Equus (Hydruntinus) hydruntinus* (Regalia, 1907) und anderer Säuger aus dem südmährischen Neolithikum. *Slovenska Archeologia*, 21: 195–210.
- PIDOPLIČKO I.G., 1956. *Materiali do vivceniia minulih faun SSSR, 2*. Kiev.
- ZALKIN V.I., 1970. Drevnejsie domasnie zivotnie vostochnoi Evrope (The oldest domestic animals of East Europe). *Materiali i issledovaniia po archeologii SSSR*, 161. Moskva.

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