## Carnivores and Humans in the Upper Paleolithic

## The East European Perspective

(Summary)

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Carnivore remains are found in large numbers at some European Upper Paleolithic sites. Remains of these species are especially numerous at the open air sites assigned to the Eastern Gravettian and Epigravettian technocomplexes. A consideration of the Minimum Number of Individual animals found at the sites shows that carnivores predominate at a number of the sites (e.g., Pavlov, Eliseevichi, Timonovka II). The significant presence of these species in the organic inventories suggests that these taxa played a significant role in Upper Paleolithic economies. Archeozoological research on their skeletal remains documents a variety of uses these animals were put to.

Faunal remains recovered at the sites on the central part of the East European or Russian Plain show a heavy utilization of arctic foxes (Alopex lagopus) and wolves (Canis lupus). Bones of these and other fur bearing carnivorous species recovered at these sites show cut and dismembering marks associated with the removal of hides or pelts but do not show any marks specifically associated with the procurement of meat (e.g., filleting). Long bones of the carnivores are neither split for marrow nor show any burning or charring which can be associated with the use of these species as food. The most parsimonious explanation for the importance of these species is as sources of furs or pelts. Some of these sites, especially those found in the northern part of the plain along the Desna and its tributaries, have yielded extremely large numbers of fur bearers which, controlling for site types and numbers of occupants, suggest a specialization in the procurement of these fur bearers. The association of these remains with exotic materials used for personal decoration imply the existence of wide exchange networks through which these items traveled. Finally, skeletal remains of these carnivores were also used as raw material for the production of bone

tools (awls and needles especially) while their perforated teeth (canines) served as beads or pendants.

A consideration of the treatment and distribution of carnivore skeletal remains at other sites on the Russian Plain (e.g., Avdeevo) also suggests that some of the carnivores were of ritual importance.

Moravian Upper Paleolithic sites assigned to the Pavlov culture have also yielded remains of numerous carnivores (e.g., Alopex lagopus, Canis lupus, Gulo gulo). As on the East European Plain, archeozoological research indicates the use of the long bones of these taxa for tool production as well as of their canines for personal decoration. A study of the especially numerous faunal remains recovered at Dolní Věstonice, currently in progress, also documents hide or pelt removal. Unlike the data from the Russian Plain however, remains of carnivores at Dolní Věstonice also bear extensive cut and filleting marks associated with the removal of meat (e.g., filleting marks on scapulae, mandibular cuts indicating tongue removal). These marks are analogous to those found on the bones of the herbivores and suggest that the carnivore flesh was also consumed. These preliminary findings reveal the habitual use of carnivores for food here a situation which is difficult to explain given the abundance of herbivore remains (e.g., considered as far more optimal food sources mammoths, reindeer, wild cattle). Ethnographic data on subsistence practices of northern hunter-gatherers indicate that carnivores were consumed under two circumstances—either as ritual foods or in times of seasonal subsistence stress. Evidence from Dolní Věstonice, which shows almost total removal of all meat from both carnivore and herbivore bones, as well as data on extensive breaking of herbivore long bones for marrow removal appear to support the hypothesis for

possibly seasonal food stress. Such food stress is difficult to explain if we assume that all of the mammoths recovered at the site came from active kills which provided their hunters with an inexhaustable supply of mest protein. Given the same disposal patterns for herbivore and carnivore remains, the consumption of carnivores as ritual food is possible, but less likely.

A summary look at the carnivores exploited by the Eastern Gravettian and Epigravettian

groups indicates that these taxa played varied roles, being used for both utilitarian (as food, for pelts, as raw material for tool making) and non-utilitarian purposes (possibly as ritual foods, for decoration, as well as in rituals). The varied size of the carnivores taken at the Central and East European Upper Paleolithic sites also indicate that a variety of hunting methods was used to procure them which included spearing, trapping, snaring, and possibly hunting with bows and arrows.

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