## Proximal end of an OBS II compound harpoon socket piece, 19.8 cm





There has been no discussion in the literature of compound socket pieces. The feature has merely been noted in a few catalog descriptions (i.e., designated "zusammengesetzt"), and most Arctic archaeologists are therefore unfamiliar with them. This object has a tapered, undecorated end where the socket piece is inserted into the wood harpoon shaft. A short distance after the beginning of the decoration that extends almost all of the remaining length, there is a typical perforation for lashing the socket piece to the wood shaft. However, at the distal end there is no socket for the foreshaft, but instead the surface is recessed such that the object ends with an undecorated protrusion with an oval cross-section and perforated by a hole. This hole was mostly filled by an ivory pin (see photos below) that was removed and a portion used for AMS radiocarbon dating (Beta 236840). It gave a calibrated age of  $500 \pm 100$  A.D., using a  $\Delta R$  of  $188 \pm 27$  years for the northern and eastern Bering Sea marine reservoir effect (Dumond and Griffin, 2002; Khassanov and Savinetsky, 2006).

Compound socket pieces such as this example had a now missing extension that was probably fabricated after the socket broke and secured by the ivory pin. However, the missing portion may have been made of antler when the harpoon was originally made, and replacements for broken sockets were most frequently fabricated from antler because it is less brittle (i.e., more "flexible"), and therefore less likely to break with leverage stress from the foreshaft (Kirill Dneprovsky, personal communication). Examples of compound sockets from the Ekven site are illustrated in Arutiunov and Sergeev (1975, Fig. 45-5) and in Leskov and Müller-Beck (1993, catalogue numbers 57, 60, 61 and 63; see below for 57 and 60).



The ivory pin in situ and after removal from the socket piece shown above





Complete compound socket pieces from Ekven burials 250 (OBS I, 41.2 cm) and 238 (33.1 cm), with ivory pins seen at the right. Leskov and Müller-Beck (1993), Nos. 60 and 57

In most cases there is an attempt to continue on the new portion the decorative scheme present on the original socket (e.g., top, above), but other replacements may be undecorated (bottom, above) or with entirely different decoration (e.g., Fig. III m in Fitzhugh et al., 2009, p. 103).

## Literature:

- Arutiunov, S.A. and Sergeev, D.A. (1975): *Problemy etnicheskoi istorii Beringomoria Ekvenskii mogilnik* (Problems of the Ethnic History of the Bering Sea The Ekven Cemetery), Nauka, Moscow [English translation by Richard L. Bland, Shared Beringian Heritage Project, U.S. National Park Service, 2006].
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- Fitzhugh, W.W., Hollowell, J. and Crowell, A., Eds. (2009): *Gifts from the Ancestors: Ancient Ivories of Bering Strait*, Yale University Press, New Haven and London.
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- Leskov, A.M. and Müller-Beck, H. (1993): *Arktische Waljäger vor 3000 Jahren unbekannte sibirische Kunst*, v. Hase & Koehler Verlag, Mainz.