

NOTIS - NOTE

TWO NEW MAMMOTH-FRAGMENTS FROM NORWAY AND AGE-DETERMINATION OF ONE OF THEM

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In June 1967 a fragment of a large mammoth-tusk was found in the same gravel pit, west of Kvam railway station, Gudbrandsdalen, where another tusk was discovered in 1964 (Heintz 1965, see here regarding the nature of the pit). The new find represents only a small part — about 65 cm long and about 36 cm as a maximum circumference — of a large tusk. It is thus a fragment of the largest tusk at present known from Norway; it must have been at least 2—2.5 m long (Heintz 1967), and probably belonged to a male mammoth.

200 g of dentine from the new tusk was sent to the 'Laboratoriet for Radioaktiv Datering' N.T.H., Trondheim, to determine its age by means of C¹⁴. The age determination, based on the proteins of the sample, was performed by Miss A. Syrstad under the supervision of Dr. R. Nygård. It gave as a result 24, 400 ± 900 years before our time (1950).

The age of another Norwegian mammoth-tusk (from Toten, Heintz 1956) was previously determined in Trondheim as 19,000 ± 1,200 before our time (1950).

It thus seems that both the Norwegian determinations of the age of mammoth correspond rather well and indicate that the mammoth lived in Norway about 20-25,000 years ago. These results are in fact rather unexpected (Heintz 1965), as one usually considers that at this time the Main Würm glaciation had reached its maximum of especially low temperature (Heintz & Garutt 1965, Fig. 1.), and that the whole of Scandinavia was covered by a mighty glacier.

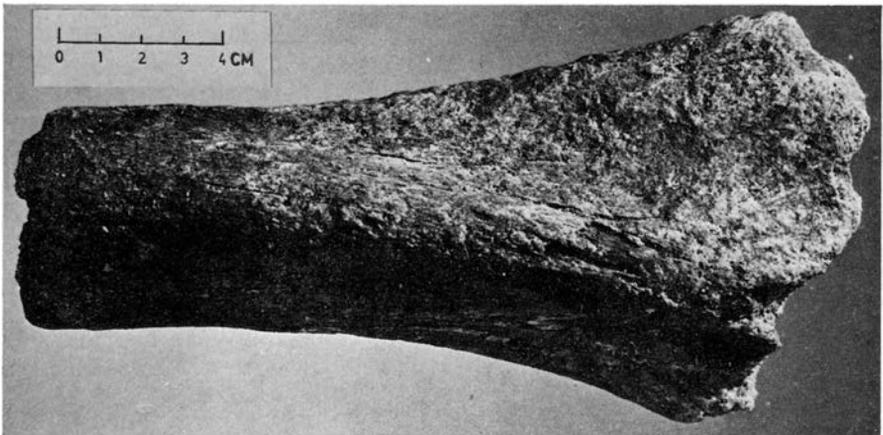


Fig. 1. Left ulna (P.M.O. No. 74657) of a baby mammoth. Kvam, Gudbrandsdalen.

We can thus either suppose that the age-determinations, because of contamination, only give the *minimum-age* of the animals (*not less* than 20,000 years old — probably considerably older) or that the age 20-25,000 is more or less correct, which must indicate that the Main Würm glaciation had a warm interstadial at this time, allowing mammoths and musk-oxen to live in Norway. New studies in Sweden indicate that such a warmer interstadial can also be traced there (Hillefors 1964, 1967, 1969).

The last — fourteenth — Norwegian mammoth-fragment was found in the spring of 1968, again in the same gravel pit as the two previous ones. The bone was unusually small to be a mammoth-bone, only about 19 cm long and about 9 cm in the broadest part (Fig. 1). It was, in fact, rather difficult to determine, and I originally supposed that it perhaps represented a fragment of a bison-bone. However, Dr. U. Möhl (Zoological Museum, Copenhagen), who kindly agreed to study the bone, finally stated that it represents an almost complete left ulna of a baby mammoth about 1 year old! (Heintz 1969). As fragments of juvenile mammoths are quite rare, it is very interesting that such a bone has been discovered in Norway.

Finally we should mention the remarkable fact that four of the fourteen Norwegian mammoth fragments have been found at Kvam, Gudbrandsdalen. At the moment it is difficult to state whether this is just an accident, or if the Quaternary deposits near Kvam are such that the mammoth-fragments here have especially good chances for preservation.

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