Neolithic Man and Domestic Animals at High Altitudes in South Norway

Abstract

The present paper is based on fieldwork carried out during 1970-74 on the Hardangervidda mountain plateau, as part of the Hardangervidda Project for Interdisciplinary Cultural Research.

Archaeological as well as pollenanalytical material contained data which might be indicative of the presence of grazing domestic animals on this mountain plateau, between 1100 m and 1300 m above sea level, during an early phase of the neolithic. The archaeological material in question consisted of flakes chipped off polished flint axes of southern Scandinavian, neolithic types, and of pottery. Such flakes, which date from a period from c. 5,000 ^{14}C years B.P. and throughout the entire neolithic, occur on a total of 26 settlement sites. The pottery, of early neolithic type, has been found at two settlement sites; in one of these two, it is dated to between 5,000 and 4,700 years B.P.

The botanical indices consist largely of the presence of single pollen grains of *Urtica* and of *Plantago lanceolata* in pollen diagrams. The earliest registrations may be dated to c. 5,200 B.P. These two types of pollen continue for most of the neolithic ; the amounts, although small, do not differ essentially from those representing the last two centuries, when a great number of domestic animals are known to have grazed on these pastures. In some cases, no recent pollen of these taxa are found in studies at summer farms in recent use. Despite these conditions, it is likely that the single pollen grains found have been transported by wind from lower areas outside the unforested mountainous plateau, most likely from settled mountain-valleys.

Thus the archaeological and the botanical data each provide strong indications to the effect that the Hardangervidda mountain plateau and the associated mountain valleys was frequently visited during the neolithic period by groups of people with cultural affinities with the earliest southeast Norwegian agricultural population ; moreover they indicate that these groups took domestic animals with them into the arctic-alpine area. The earliest visits of this kind took place at about 5,000 ^{14}C years B.P. or a little earlier. The first evidence for distinct local grazing is dated to c. 4,800 ^{14}C years B.P. (at Halne, a site in the middle of the Hardangervidda mountain plateau).

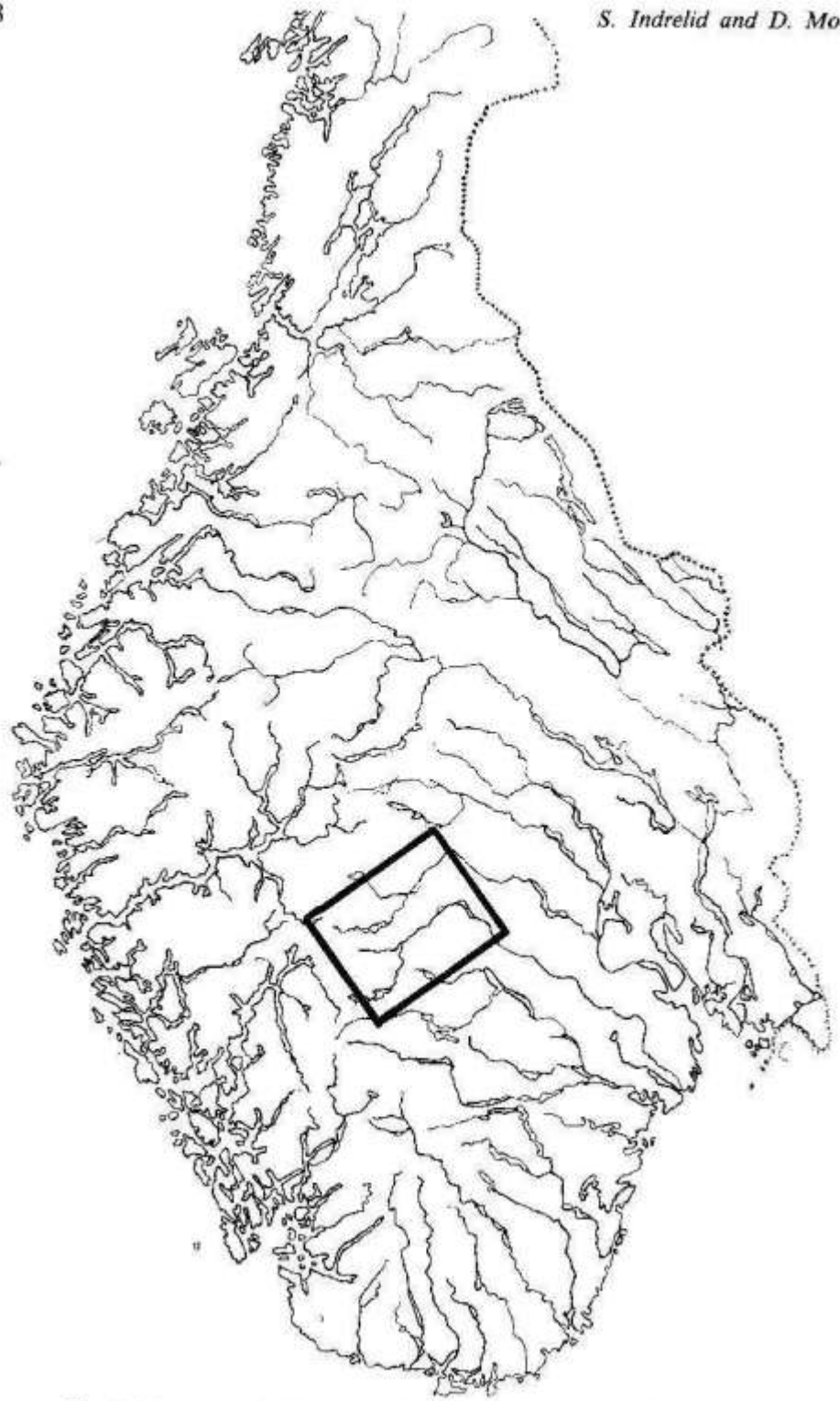

Fig. 1. Survey map of Southern Norway showing the studied area.

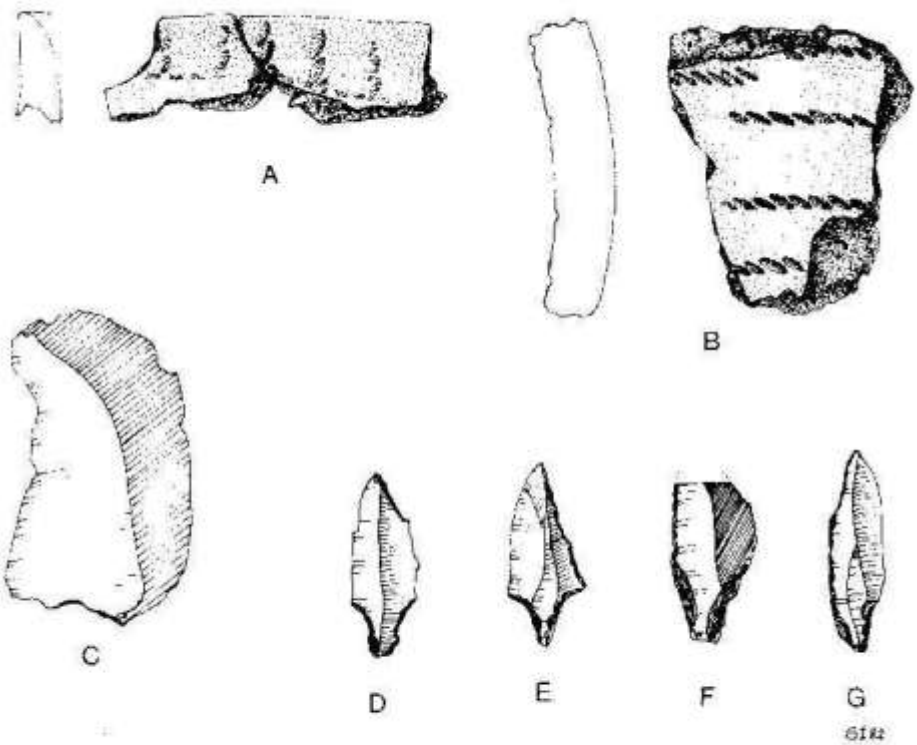

Fig. 2. Neolithic pottery and tools made from chips of polished flint axes, found at mountain sites, Hardangervidda, South Norway. (From Indrelid and Moe, 1983).

One of the most important gateways to the plateau — and one of the earliest used — would seem to have led through the valley of Numedal, in the east, where a great number of polished flint axes have been found. These axes are assumed to represent traces of a relatively stable agrarian population, a population which lived more or less permanently in this valley during an early part of the neolithic, and throughout the remainder of that period. It seems likely — although we have no evidence to prove such an assumption — that this Numedal population could be included among those who have left their trace on the Hardanger mountain plateau in the form of flakes from polished flint axes and of pottery.

Another gate to the plateau probably led through Telemark, south-east of the area studied, and we also have clear traces of people from South-Western Norway (Valldalen) having visited the Hardanger mountain plateau during the neolithic period. We know that there was pasturing on the coast of Western Norway during this period, but the material culture of the western Norwegian stock-keeping groups was different from that of the eastern Norwegian population. It appears that the Hardanger mountain plateau was a region where these two different cultural groups came into contact with each other.

It seems hardly likely that the animals were pastured on the mountain plateau all the year round. Since the people of this period did not have effective

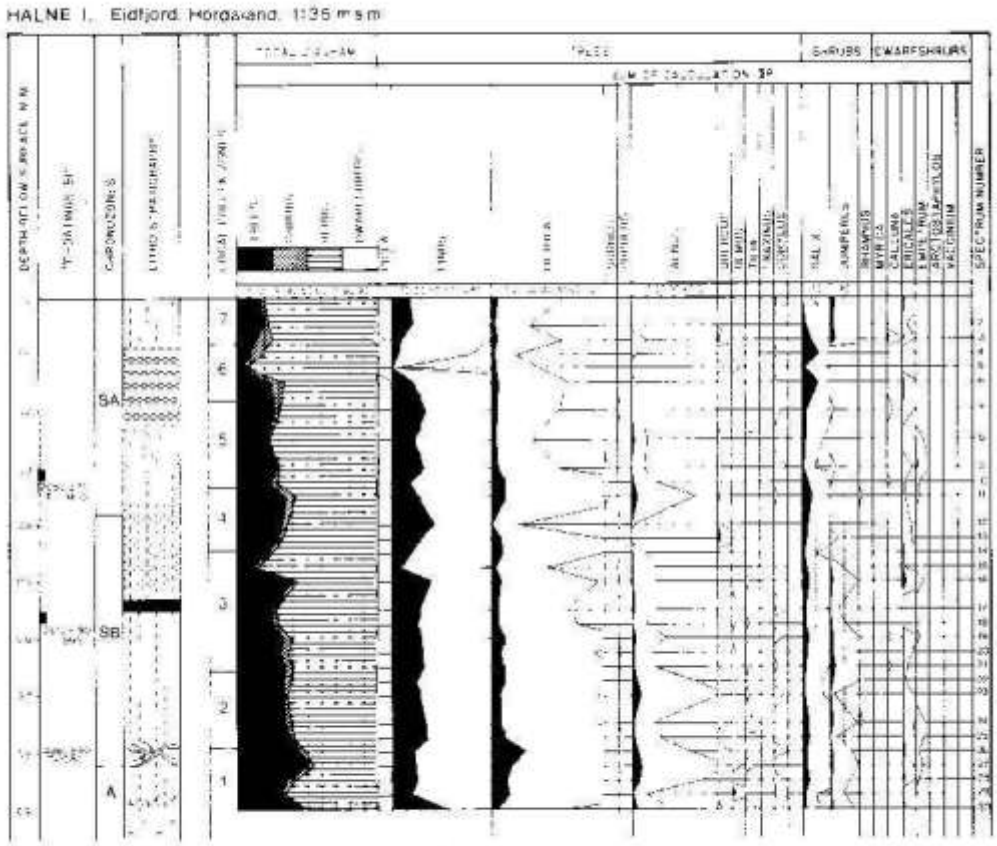

Fig. 3a. Pollen diagram from Halne. (From Moe et al., *1988).*

equipment for harvesting fodder, and since fodder would be required for about eight months of the year in these regions, it must have been quite impossible to keep domestic animals on the mountains in the winter.

Thus is seems most likely that the winters were spent in the valleys adjoining the mountain plateau, and that leaves and twigs were used as fodder. In this connection it may be of interest to note that some pollen diagrams from Telemark (south-east of the plateau) show a certain decline in the occurence of *Ulmus*, at the same time as *Plantago lanceolata* makes its appearance. Pollen diagrams relevant to Numedal are not yet available.

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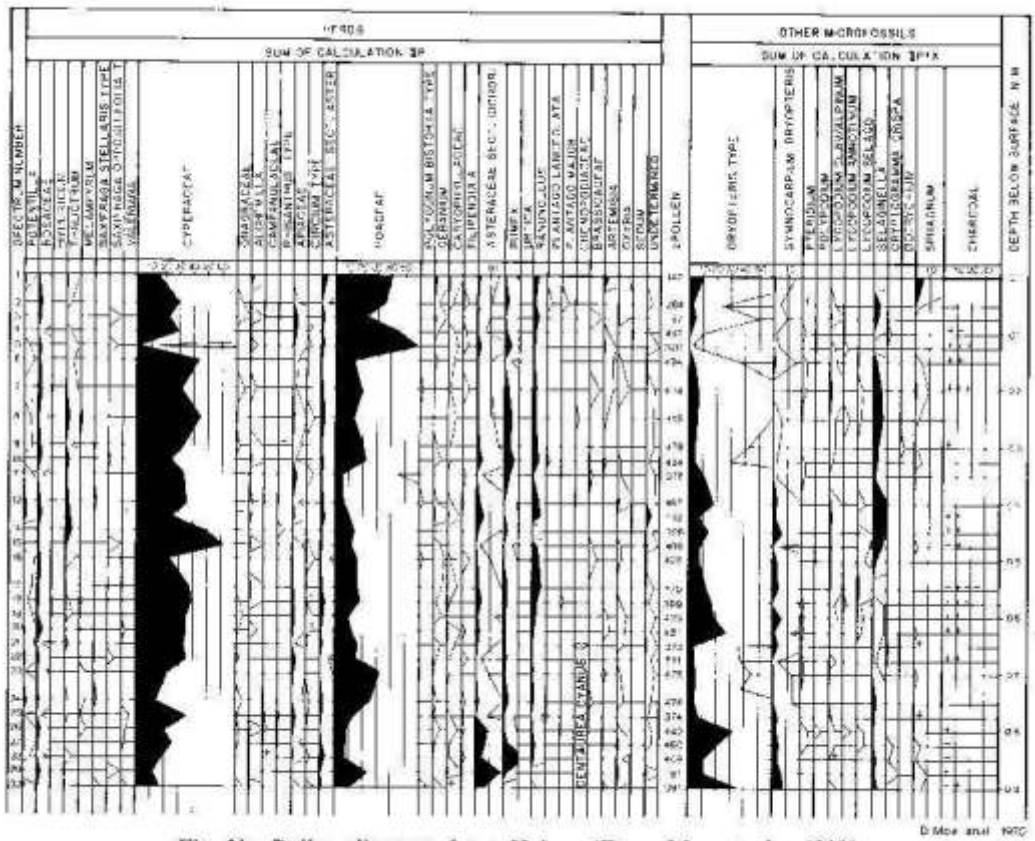

Fig. 3b. Pollen diagram from Halne. (From Moe et al., *1988).*

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