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C. R. Palevol 5 (2006) 319–322
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Human Palaeontology and Prehistory

Initial colonization of the Arctic zone

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Received 22 March 2005; accepted after revision 21 November 2005
Available online 28 December 2005
Written on invitation of the Editorial Board

Abstract

Human colonization of the Arctic zone constitutes one of the most beautiful illustrations of the thesis according which human history, particularly in its early stages, represents a continuum of adaptations. The study of archaeological sites of North Fennoscandia has brought numerous evidences since the Mesolithic period. ***To cite this article: V. Shumkin, C. R. Palevol 5 (2006)***.

Résumé

Première colonisation dans la zone Arctique. L'histoire de la colonisation de l'Arctique par l'Homme constitue l'un des plus beaux exemples de la thèse selon laquelle l'histoire humaine, en particulier au cours ses premiers stades, présente un continuum d'adaptations. L'étude des sites archéologiques de Fennoscandie du Nord en apporte le témoignage, et ce depuis le Mésolithique. ***Pour citer cet article : V. Shumkin, C. R. Palevol 5 (2006)***.

Mots clés: Migration de population; Stratégies de subsistance; Continuum d'adaptation; Environnement périglaciaire; Zone Arctique

Keywords: Population migration; Subsistence strategies; Continuum of adaptation; Periglacial environments; Arctic zone

Human history, especially in its early stages, represents a continuum of adaptations. The history of human colonization of the Arctic regions represents one of the best illustrations of this thesis.

Geological and geomorphological explorations of recent decades have shown that, during the last glaciation, the Scandinavian ice sheet did not penetrate into the eastern part of northern Fennoscandia. In the central part of the Kola Peninsula, the Scandinavian glacier collided with the Ponoyan one, which is considered by some geologists to be a part of the immense Barents Sea glacier, which was moving from the east. It is thought that the presence of the latter caused some climatic aridization and anticyclones, contributing to more intensive retreat of the Scandinavian glacier and to its almost total disappearance about 9000–8000 years ago. At the same time, the Ponoyan glacier was still rather big and retreated very slowly. It disappeared only at the end of the Early Holocene time, and even after this a part of the area it had occupied was barely accessible for animals and humans. The southern shore of the Kola Peninsula also was a region with very severe environmental conditions.

The Early Mesolithic populations of northern Europe (10–9 thousands years ago) had to adapt to very complex and constantly changing environmental conditions of the Late Pre-Boreal and Boreal periods, while the

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1631-0683/$ - see front matter © 2005 Published by Elsevier SAS on behalf of Académie des sciences.
doi:10.1016/j.crpv.2005.12.001

Late Mesolithic and Neolithic humans lived under very favourable conditions of the Atlantic and Sub-Boreal times. The second half of the Atlantic period witnessed the onset of a climatic optimum. The climate became warmer and the forest zone moved far to the north. The Sub-Boreal environments also were rather favourable for ancient people. Some deterioration of the climate took place during the Sub-Boreal phases 2 and 3 corresponding to the Early Metal Period, but it did not exert any perceptible influence on local human groups. The subsequent period was characterized by increasing humidity and cooling, and this trend reached its maximum by the middle of the first millennium BC.

The environmental changes that occurred during the Pre-Boreal period (about 11–10 thousands of years ago) caused the crisis of the specialized reindeer hunting economy among the groups belonging to the Arensburgian and Swiderian cultures, which in turn resulted in population movements. The Arensburgian groups mainly moved northward, while the Swiderians preferred to migrate to the east and the northeast. One of the results of these population movements was the formation of the Fosna, Komsa, and Suomusyarvi cultures. The makers of the former two were mainly the descendants of the Arensburgian populations, who penetrated into Fennoscandia through the uplifted land which earlier had been the bottom of the strait between the Ioldy Sea and the ocean. Originally the populations belonging to the Komsa and Fosna cultures lived only in the littoral zone of the southern, western, and southwestern Fennoscandia. Subsequently they started to gradually move northward (along the sea shore), and after that penetrated into the eastern and south-eastern littoral areas. Some inland areas were colonized by the Late Mesolithic time, but it was not earlier than the Late Neolithic that the whole of the region was settled.

The study of archaeological sites of northern Fennoscandia gives abundant and important materials to characterize the process of human adaptation to environmental settings. It can be seen that both the objects of hunting and their ratios changed more than once. This was due to faunal changes and to the development of hunting equipment and strategies. Fishing was originally less important than hunting because of the scarcity of fish in inland periglacial water pools. The main objects of hunting for the ancient inhabitants of the region were elk and reindeer, which had appeared in northern Fennoscandia not later than the Allerod time. Sea mammals like seal and walrus also played a very important role in human subsistence. To be sure small game hunting and gathering were practiced too.

Judging by the geography and topography of Mesolithic sites, the thickness of cultural layers, and the composition of tool assemblages, people who left them should be considered mobile specialized sea gatherers. This type of economy could have been rather stable, since the region under consideration had a very abundant and diverse sea fauna. The subsistence activity of the earliest settlers was mainly concentrated in the littoral zone. The Early Mesolithic people led an extremely mobile way of life, but the hypothesis of the seasonal character of their sites is contradicted by the absence of any evidence of human presence in the inland areas.

During the later stages of the Mesolithic period (8–6000 years ago), after the glacier had disappeared, some human groups started to settle in the inland areas of the region and to search for new food resources. This gave rise to new subsistence strategies. The life of this population depended first of all on hunting forest animals, which was supplemented with gathering and, possibly, with very primitive and casual fishing. The methods of fishing were adapted from the hunting practice. The littoral and inland sites are nearly identical by their tool composition, tool-making technologies, and thickness of cultural layers. This fact may suggest that the Late Mesolithic population was economically uniform and that seasonal migrations to the sea shore (in summer) and back to inland areas (in winter) took place. However, this picture was more characteristic of the South of Scandinavia, while in the North of the region the maritime and inland groups had less in common and their economies were rather different.

During the Early Neolithic time (6000 years ago), the process of formation of specialized maritime and continental economies was continued, and in the Late Neolithic (5000–4500 years ago) this trend led to the formation of two different cultural and economical types. The inhabitants of inland areas became taiga hunters and fishers, while the littoral zone dwellers were engaged in sea hunting, supplemented with forest hunting, gathering and fishing. The latter group can be considered as Arctic sea hunters, though it should be emphasized that this type of economy was still in the making.

During the Early Metal Period (3500 years ago), hunters and fishers of the inland part of the region greatly succeeded in improving their traditional ways of resource procurement. The material culture of maritime populations reflects the peculiar character of their way of life. Their hunting inventory includes huge numbers of arrowheads, spearheads, dartheads, and harpoons of different types. The faunal assemblages are