INTRODUCTION

Everyone who has traveled at least once through the Arctic regions (whether by plane, helicopter, ship, etc.) and seen boundless tundra that is yellow-green in summer and white in winter with black spots of rocks; icy ocean with dark water in leads; naturally asks himself, "Is it possible to survive here?" It is true that even now the Arctic remains a severe, inhospitable region, never forgiving disrespect. Even at the end of the 20th century when mankind has reached a technological power that sometimes seems to be somewhat more than enough, the Arctic remains the same sparsely populated area as it was originally. It is also true that there are some rare "spots of civilization" that look like black dots on the white snow cover.

At the same time, there are many aboriginal people who have lived in the Arctic for a very long time—long enough to adapt themselves and their culture to survive under those rigorous conditions. But how long? When were the Arctic regions peopled for the first time? The archaeological data provide an opportunity to answer these questions more or less objectively, based on the available data collected by both archaeologists and natural scientists.

Ancient man and the natural environment, human material culture and adaptive capabilities, as they can be understood through the latter—these fields of research are a traditional way of studying Stone Age archaeology. But they become most important when applied to problems of the ancient history of the Arctic region, where well-expressed environmental variability (both spatial and chronological) brought about a variety of subsistence and settlement patterns from the very beginning. The starting point for the peopling of the region is not clearly defined, and in all probability cannot be, since nature provided unequal opportunity for development in different territories. At the same time, it is beyond any doubt that the initial peopling of the Arctic goes back to the Late Quaternary times when the American continent was settled.

However, the Arctic is not something uniform from west to east. It includes some areas that are rather different from each other, though the differences are leveled by the general environmental features characteristic of Polar Regions. First of all, what is the Arctic? Igor Krupnik, opening his excellent "Arctic Ethnoecology," has compared the most popular views, concentrating on the following: (1) the Arctic (or Circumpolar Area) is limited by the Arctic Circle at 66°33' N (the most traditional); (2) it is limited by the northern boundary of the distribution of tree vegetation; (3) the boundary of the Arctic region can be marked by the spatial position of the July isotherm of +10°C, which is generally located a little north of the northern tree line but can be considered more or less close to it. From the purely geographical point of view, the Arctic includes the Arctic proper, or High Arctic (Arctic deserts and semi-deserts) and the Subarctic areas (tundras and sparse north woods). At the same time, it is quite obvious that all these criteria except the first are rather unstable from the historical point of view, inasmuch as data on Late Quaternary natural dynamics in the Arctic amassed to the present demonstrate that the Arctic environment did not remain stable and constant. There occurred climatic alterations and latitudinal shifting of the vegetation belts, i.e., reordering of ecosystems that strongly

affect human activity and culture. Natural conditions have been more or less stable over the past 3,000-4,000 years, though some regional climatic fluctuations are known during this period caused a collapse in some localities or substantially influenced local cultural evolution (Pitul'ko 1990:74–79; Pitul'ko and Shumkin 1993:39–46). It is worth noting that the northernmost sites in Greenland, situated at 82°N, show human penetration into Arctic-proper areas and are dated approximately to the beginning of that period.

Nevertheless, criteria such as the northern tree line or the 10-degree July isotherm are helpful if the cultural evolution under consideration covers a period of constant or more or less stable natural conditions. Consequently, discussing the above-mentioned positions, Krupnik (1989) is inclined to support the latter, keeping in mind the evident stability of the northern tree line during the past 200–300 years; this is important from both the ecological and the ethnographic views. Let me also note that the severe nature of the Arctic directly affect the formation of Arctic indigenous cultures, whose bearers were integrated into the sphere of world civilization relatively late. Consequently the conservative type of aboriginal hunting culture exhibits features suggested to be a background for comparison with the culture of the Late Upper-Upper Palaeolithic, though the correctness of such analogies is disputable.

Considering both the above-mentioned reasons and the available data coming from the territories under discussion, it would be correct to put the "geographic limit" of the study at the latitude of the Arctic Circle, which is the most permanent natural boundary of the Arctic. Of course, it is acceptable only in as much as it is possible to generally apply a "ruler" to human activity. Thus, it would be illogical to take into account materials from the Yakut Arctic area that leave out finds from the Chukchi Peninsula, or from other territories south of the Arctic Circle. The Arctic cultures indisputably stemmed from the southern roots. Materials coming southward will be discussed if necessary.

When using the term "Arctic" I mean more often the Eurasian one and try to present in the last chapter a kind of transcontinental correlation of the aboriginal survival strategies as I understand them from the archaeological finds. The artifacts coming from the eastern Arctic, where the most complete historical information of the long chronological scale (at least from the Pleistocene-Holocene boundary up to ethnographic contemporaneity) is available, will be primary in later discussion, and the question of early migrations to the Arctic will receive special attention.

Obviously, there is no necessity to thoroughly describe the present natural environment of the Arctic region. This is a good subject for another study and, moreover, will not help evaluate the ancient steps of cultural evolution in the region. I want only to note that the Arctic biota is not the same from west to east. Together with the predominating territories of scanty vegetation, some refuges make up a part of the Arctic natural phenomenon—such as Wrangel Island where about 400 species of higher vegetation are counted—more than in the entire Canadian Arctic Archipelago (Petrovsky 1989). At the same time it needs to be stressed that, along with the still-existing latitudinal zonality becoming more intense from north to south, there is a distinct meridianal trend that was probably of greater importance in former times. Four main

provinces need to be pointed out: Atlantic and Pacific, Siberian and Canadian. For the first pair, owing to the cyclonic type of atmospheric circulation, the land glaciation and the climate of oceanic type are very characteristic. The latter is especially perceptible in the Atlantic area, where winters in some locations are anomalously warm for the Arctic region. Siberian and Canadian areas occupying the northern borderlands (including the seas and islands) of Siberia and Canada have a corresponding climate of continental type and remain mainly under a very strong anti-cyclonic atmospheric circulation. The latter is formed above Northeast Siberia, the Canadian Northwest Territories, and the Pacific area of the Arctic Ocean (The Arctic and the South Oceans 1985:126, 127).

The peculiarities of the atmospheric circulation strongly affected natural evolution in the Arctic during the Late Pleistocene and Holocene periods. That is why the latter occupy a significant place in further discussion. From the archaeological point of view, the book is occupied primarily with the materials from the unique Zhokhov island archaeological site that was excavated in 1989 and 1990.