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MAP MAKING OF THE NORTH ALASKAN ESKIMO

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The making of maps by primitive peoples, while not unknown, is a phenomenon of sufficiently rare occurrence as to merit some comment. This is especially deserved when the cartography takes place outside of the sphere of the supernatural and religious and when maps are expressly made for the purpose of locating and describing natural features as a means of indicating directions. Two cases of map making among non-literate peoples are noteworthy—aboriginal Australia is recorded as using roughly and conventionally drawn maps as a device to show the location of water holes. Australian maps also had a ritual significance, however, in that they were also used to show the hiding places of certain ritual and ceremonial paraphernalia. Similarly, some rather dramatic star and sea maps were drawn in native Micronesia as an aid to navigation. But apart from these well documented instances, cartography is a feature which has had virtually no role in primitive science.

It was thus of interest to record, in the course of some recent ethnographic investigations among Eskimo groups of northern Alaska, native employment of mapping as a means of depicting and describing local terrain.¹ The maps themselves were rather

simple in execution, although they did reflect the trained eye for topography which the native Eskimo had developed. The maps were used when travel directions and instructions were given from one person to another. If a man were about to travel to an area which he had not previously visited, he made a point of discussing his plans with another who had been there. The latter would then draw a map in the sand or snow and explain the most desirable travel route and the natural landmarks which were of aid in finding one's way. The map was thus drawn during the course of explanation. It was in the main a physical map in that the narrator would pile snow or sand in ridges to indicate the surface features of the tundra, would hollow out sections for lakes, and would smooth out beach and ocean areas. He would draw in the water courses and lakes, and show some care in designating portages. This meant, of course, that the traveler would be obliged to commit the map to memory, fixing in his mind the natural features and landmarks which had been described. These he could remember by name, since the native cultures of the area gave atten-

¹ Field work in the Point Barrow area was carried on in 1952 with the aid of contract (N-ONR 710 (03) between the Office of Naval Research and the University of Minnesota, and in 1953 by contract with the Arctic Institute of North America.

tion to place naming and designated each natural feature, however small or apparently insignificant, by a name.

Maps were never drawn on skin or on some other easily transportable material. In a few instances, men skilled at such cartography would carve a map of the local area as a decorative device on a piece of ivory, on the lid of a work box, or simply on a walrus tusk. This, however, served no practical purposes beyond pure decoration, although they were accurate representations of the home area. Such maps were always drawn by men, a result of the fact that travel arrangements and plans were always men's activities. The point is worth stressing, however, that the maps were carefully worked to scale and that some time and pains might be given to their preparation. Indeed, the cartographer, employing sticks, would indicate the prevailing wind directions by season and would advise as to how snow, ice, mossy ground and bare ground might appear in conditions of storm. Similarly, he might show his companion points on the beaches where winter pack ice made travel hazardous and where marshes might interfere with successful transport. The map, in short, and the concepts of depicting familiar territory were well developed and a reflection of the remarkable environmental adjustment which the Eskimo had achieved.

The mere fact of the map, simple and temporary though it might be, indicates a preoccupation with travel and the necessity for portraying with some exactness the area through which a travel goal must be reached. It is obvious that depiction of the local territory of a group, the home grounds, would not require such Travel outside, to unfamiliar areas, fraught with description. potential danger as a result of the environmental circumstances, did demand a careful attention to detail. The systematic conceptualization of topographic features on the part of the peoples in question permits some evaluation of the relations between them and their territory. It allows the definition of the area and the people in it. Through the use of maps and in the attention given in strange areas to such direction finding devices as ground swell at sea, wind direction and snow drift on land, and in the definitions of familiar as against unfamiliar territory, it begins to be possible to obtain some concept of the nature of the territorial group in north Alaska.

The north Alaskan Eskimo offer certain difficulties of definition. That they are a group apart, distinguishable from the McKenzie Eskimo to the east and those of the Cape Prince of Wales—Bering area to the south is well established. The Alaskan Arctic Slope itself, the gradual decline from the Brooks Range northward to the Arctic Ocean, forms a natural area of foothill and tundra in which, a century ago, about 4,000 native peoples lived. The area becomes distinctive because of its twofold human ecological pattern. Along the coasts, village units grew up around the sea mammal

hunting, while in the interior, in the foothill and coastal plain provinces, were caribou hunting, nomadic groups. In terms of population, the latter were the more numerous, there being roughly 3,000 inland Eskimo, groups which today, with the exception of a few small remnants in the Selawik-Kobuk drainage above Hotham Inlet, and one band in the Anaktuvuk area in the Brooks Range, have vanished. On the coasts, several definite villages arose. There were two at Point Barrow, one at Wainwright, another

at Icy Cape, and still another at Point Hope³ in northwestern

Alaska, the site of the ancient Ipiutak culture. These were well organized around the hunting of whales and the cult of the whale. In the interior, the term band might be employed to designate local nomadic grouping, structured and oriented around caribou hunting.

The problem of group definition, however, is not so easily resolved when it is considered that neither the inland band nor the maritime village was a conceptual unit. Rainey's suggestion that the people of Point Hope formed a tribe is hardly tenable when it is considered that the village of Point Hope, or indeed, any community up the coasts of the Arctic Slope, lacked any sense of integration as a whole.⁴ Indeed, the ties of kinship were the significant

factor of social cohesion and it is apparent that these cut across village lines on the coast and across band lines in the interior. It is worth noting that kinship extended to those in the same ecological setting but did not cross the ecological line. To treat the matter objectively, it can be said that the maritime Eskimo of north Alaska were a single unit because ties of kinship cut across all territorial divisions. Conversely, the peoples of the interior could trace extended lines of genetic relationship over the wide area of northern Alaska.

Despite a difference in ecological patterning, the basic culture patterns of the peoples of the area were the same. There was the same language, the same forms of societal organization, and indeed, the same community of understanding. Differences arose out of the economic systems, it is true, creating settled life on the coasts, nomadism associated with caribou migrations in the interior. In general, however, the basic similarities outweighed the differences and it is possible to obtain a picture of native life in which unity lay in kinship and not primarily in any such extra-familial associations as village or tribe.

² nuwuk and utkeaarvik.

³ tikeraaq

⁴ F. G. Rainey, The Whale Hunters of Tigara, (Anthropological Papers, American Museum of Natural History, Vol. 41, pt. 2), pp. 240-41. 1947.

The problem of group analysis is thus rendered complex when the extended relationships reaching over a wide area are considered. The alternative analysis lies in territory, wholly informally conceived, it is true, but reflecting the locus of habitation. Since ties of kinship reached beyond the local territory in both the maritime and interior setting, and since the local unit itself lacked any stabilizing and integrating institution, one is left with the sense of community in territory and is obliged to define the various village or band units as purely territorial ones. The present writer proposes that these be designated as sections, a term which aptly serves to demonstrate the essential unity of societal organization despite differences in economy.

To indicate how such a section might operate, the old community at the present site of Barrow village may serve as an example. A villager might have relatives as far south as Point Hope but his own ties to the local territory of the Point Barrow area, his kindred there, his familiarity with that terrain, served to establish his membership in the Barrow section. Similarly, among the inland people, the groups along the Ikpikpuk River, made up of families with ties elsewhere in the interior, exploited the familiar terrain of their own territory and it is legitimate to designate the Ikpikpuk section. Individuals and families entered and left sections freely, although the tendency was to avoid crossing the ecological barrier.

Because of such inter-section movement, as kindred crossed and recrossed section lines, the impression is gained of considerable travel. Nor were the two ecological patterns distinct from each other in this respect. A lively trade existed aboriginally in which goods from one setting were exchanged with those from another. Trading centers were located at the mouth of the Colville River, at Hotham Inlet, at the present site of Kotzebue, and at other points on the inland rivers. In the trading expeditions which took place in the summer, considerable movement from all sections on the Alaskan Arctic Slope occurred.

Lacking other social ties than kinship, excepting those of an informal nature which arose for cooperative purposes within a territorial section between non-kin, and since extended travel within the north Alaskan area took place, it can be seen that the problem of familiarity with areas to be visited became significant. It was a problem which was solved by designating natural features with names, by determining the predictable action of tide and wind, and lastly, in imparting the necessary information to the traveler who was going to an unfamiliar area, by making actual maps of the sections of other peoples. The maps therefore, were maps of areas inhabited by groups. These sections were named and the result was to offer a conceptual series of ethnic groupings in an area of essentially common culture. These, in turn, can be shown accurately and the problem of group designation in north Alaska can readily be resolved.