

PALEO-INDIAN ARTIFACTS IN ALASKA: AN EXAMPLE OF CULTURAL RETARDATION IN THE ARCTIC

by

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As radiocarbon dates are lacking for the pre-Athapaskan sites in interior Alaska, their age and relationship to Paleo-Indian or Plano sites in the High Plains containing similar types of projectile points are problems for the future. Rather than speculate on the relative ages of these widely separated sites it will be more rewarding, for the purpose I have in mind, to restrict attention for the moment to the coastal Arctic sites with similar inventories recently discovered by Giddings in Kotzebue Sound. I wish particularly to comment on the significance of the enormous time difference between the Arctic coast sites, some of which are radiocarbon dated, and the Paleo-Indian sites of known age far to the south.

Giddings (this volume) draws attention to the occurrence of Paleo-Indian and Archaic type projectile points at a number of Alaskan sites he has investigated. At Cape Krusenstern alone the long succession of old beach lines and the Palisades area beyond have yielded many examples of early forms of projectile points which were deposited there over a period extending roughly from 4,500 to 1,000 B.C. Omitting the questionable Sandia attribution for a single crude bifacial point from Palisades I, the Krusenstern sites contain projectile points that may be equated, typologically, with Milnesand, Angostura, Scottsbluff, Browns Valley, and Old Copper.¹ Of particular significance is the remarkable cache of 36 complete and 8 broken points which in shape, size and flaking technique are clearly to be identified as Angostura (Wormington, 1957: Figs. 45, 71), differing only in that the tips are more narrow and tapering. This cache was excavated from a beach (labeled Pre-Choris on Giddings' chart) between the Choris beaches and those of the Old Whaling culture. A series of radiocarbon dates of from 688 to 286 B.C. for the Choris

¹ The Old Copper side-notched points on Giddings' chart are those of the Old Whaling culture (2,000 B.C.) found on Beach 53. However, the much older Palisades II (estimated at 4,500 B.C.) also has side-notched points, a short stubby variety closely similar to Durst Stemmed, a late Archaic Old Copper type from Wisconsin. The occurrence of a late Archaic type of this surprising antiquity in the Arctic, and its presence near the base of the Krusenstern sequence while Plano-type points are associated with later stages of the sequence, raise a question as to the age attribution of Palisades II. So does the presence of a few animal bones just beneath the surface in association with the Palisades II implements, whereas the Denbigh sites of supposedly later age contain no trace of organic material (Giddings, 1961). The Krusenstern sequence would seem more reasonable if Denbigh were placed earlier than Palisades II.

culture (Rainey and Ralph, 1959) and from 2,000 to 1,500 B.C. for Old Whaling (Giddings, 1961: 164) indicates a date no earlier than 1,500 B.C. for the Angostura implements, the place assigned them on Giddings' chart. Moreover, a house at the Choris site itself, which Giddings places at 1,000 B.C., contained several fragments of large diagonally flaked Plano-type points (Giddings, 1957: Fig. 9), from which Giddings concludes (this volume) that the Angostura type "appears to have continued, almost without change, from the time of the Denbigh Flint complex to that of pre-Choris and Choris, and even to late Choris phases of culture."

The possibility that the Angostura points at Cape Krusenstern are much older than their "beach number" would indicate, and more nearly contemporaneous with similar artifacts from the Plains area, is virtually excluded in view of Giddings' demonstration of periodicity of beach formation and their sequential occupation by different groups of people from the time of the Denbigh Flint complex to the present. As I have remarked elsewhere (Collins, 1962), the location of archaeological sites on a series of old beaches all at the same elevation, as here at Cape Krusenstern, is a reliable indication of relative age. The determining factor is the distance of the sites from the present beach. At Cape Krusenstern, as at Gambell on St. Lawrence Island (Collins, 1937: 33-34, 252) the oldest sites are on beach lines far back from the shore. As there is no reason why people dependent on the sea would choose so inconvenient a location, it is obvious that the beaches have built up since the sites were abandoned.² We may, therefore, accept the evidence of the Krusenstern beaches, namely that projectile points of the same form as those used by big game hunters in the Plains 7,000 to 9,000 years ago were used by caribou hunters on the Arctic coast of Alaska as late as 3,500 years ago, and that they were deposited on a beach that was probably not even in existence 4,000 years ago.

The fact that Plano-type projectiles occur as normal components of a series of culture stages at Cape Krusenstern that are susceptible of relative and absolute dating, gives point to Giddings' insistence that it is necessary first of all to establish a full chronology for coastal sites. With such a chronological framework, based on the rich content of Arctic habitation sites, it will be possible to understand the local meaning and functional significance of typologically ancient artifacts in known cultural

² This is in contrast to the situation in the central Arctic where the beaches lie at different elevations due to isostatic changes in sea level. There the elevation of a site above sea level may or may not be indicative of its age, for in some cases an old elevated beach may be chosen as a dwelling site by recent or prehistoric Eskimos because the elevation in itself offered certain advantages. At Resolute, Cornwallis Island, for example, one old beach was found to contain sites of different ages (late Thule, early Thule, Dorset), and sites of exactly the same age (late Thule) were found on very recent and much older beaches (Collins, 1951a, 1955).

assemblages of known age. No such chronology is presently available, or perhaps possible, for the shallow, unstratified, undated interior sites yielding the same types of artifacts. It does not follow, however, that the age of the interior sites is to be automatically determined on the basis of the coastal chronology. They could be contemporaneous with, younger or older than those on the coast.

One possibility would be that the Plano-type implements of the Brooks Range indicate continuous occupation of the mountain-forest-tundra areas of central and northern Alaska since Pleistocene time. It is true that as yet there is no unequivocal evidence of Pleistocene man in Alaska. I venture to suggest, however, that some of the artifacts described by Rainey (1939) reportedly found in gold dredging operations near Fairbanks may actually have been of this age. They are said to have been found near the base of the frozen silts overlying the gold-bearing gravels at depths of 12 to 20 meters below the surface in association with mammoth, mastodon, bison and horse bones. These discoveries have been largely ignored because they were not made by trained archaeologists and their reported association with extinct mammals could not be proved. Also, a few typical modern Eskimo artifacts reportedly found at the same sites (Rainey, 1939: Fig. 10, 1, 2; Fig. 11, 2) were obviously intrusive and a cause for suspicion. The fact remains however that several of the artifacts are definitely of Paleo-Indian type and that they were discovered by Alaskan gold miners before most of the early western types had been described and published. One of them (Rainey, 1939: Fig. 9, 5) has the size and shape of an Angostura point (the flaking not clear from the photograph). It should be noted that this point was found in 1933, before even the Clovis type had been described in print by Howard and Cotter. The other (Rainey, 1939: Fig. 10, 4) has the straight base, tapering stem and general outline of some of the wider forms of Agate Basin. It was discovered in 1936-37. Some of the accompanying artifacts are equally noteworthy. Thus, it may be more than coincidence that one of the artifacts from the Goldstream muck deposits is a thin, lozenge-shaped blade resembling the Solutrean laurel leaf form. In the same deposit were found two long slender bone points like those so common at Palaeolithic sites in Europe. Similar bone points, but with beveled instead of conical lower ends, were found associated with mammoth bones at Clovis and at early sites in Florida and Oregon. Cotter (1962) has recently, and rightly I think, emphasized the importance of this type of bone artifact as a connecting link between the early American and Upper Palaeolithic cultures of the Old World.

In short, the nature of these stone and bone artifacts leads me to believe that they may well have been found, as claimed, deep in the frozen muck in association with a Pleistocene fauna. If so, they would be the only Alaskan finds that could be as old or older than those from Paleo-

Indian sites in the south. The possibility that the undated Brooks Range and other interior Alaskan sites with Plano-type artifacts could be part of a local cultural continuum extending from a Pleistocene base in Alaska itself should warn against premature acceptance of the presently prevailing view that big game hunters of now extinct animals moved up from the Plains to become caribou hunters in the north.

I will return now to the question stated at the beginning of this paper, namely the great disparity in age between the coastal Alaskan sites containing Plano-type artifacts and the western Plano sites themselves. How is this to be interpreted? Are the Arctic manifestations to be disregarded because they are at least 5,000 years later than those in the south? Those interested only in strict cross dating of identical implement types or complexes, or in determining the ultimate origins of only the oldest complexes, might be so inclined, possibly falling back on the time-honored, easy and overworked explanation of independent invention. But if viewed in broad perspective, the later history of a culture unit or complex is as meaningful as its beginning, and it is precisely this record of subsequent distribution, duration, and assimilation that sheds light on culture process. From this point of view the long persistence of typologically ancient implements on the Arctic coast of Alaska is in itself as important as the determination of their exact relationship to similar forms elsewhere.

The relative recency of Plano-type artifacts on the Arctic coast should have come as no surprise. Actually, they provide only another, striking example of what should be recognized as a generalization of Arctic archaeology, the phenomenon that might be called "Arctic retardation." It is no novel idea that the Arctic should have been a refuge area, if for no other reason than its marginal position geographically. I have discussed elsewhere the cultural, historical and environmental factors that have fostered stability and uniformity in Eskimo culture without inhibiting culture change (Collins, 1940: 535, 537-540). But it is the later discoveries in Alaska, Canada and Greenland that have provided the most striking evidence of the truly marginal character of Arctic cultures, both Eskimo and pre-Eskimo (Collins, 1943: 232; 1951b: 440, 460; 1953a: 38; 1953b: 200-202; 1957a: 520; 1962). To summarize briefly: The stone industry of Ipiutak (A.D. 300) is in large part a continuation from Denbigh, with many delicate end blades that are also closely similar to those from Neolithic sites in Siberia. More important, Ipiutak bone and ivory arrowheads and lances with inset side blades have direct parallels in the early Siberian Neolithic and the Mesolithic of northern Europe; side blades were also used on harpoon heads (Okvik-Old Bering Sea, Birnirk, Ipiutak) and lances (Dorset). A single Dorset site, T1 on Southampton Island (675 to 100 B.C.) yielded an impressive array of early implement types: Microblades,

burins, burin spalls, end blades, oval and rectangular side blades, and triangular-sectioned knives similar to Paleolithic backed blades but struck from the outer edges of prepared cores. Burins, several thousand years later in the American Arctic and Siberia than in Europe, were used by Dorset Eskimos as late as 100 B.C., and the burin tradition, through a series of changing forms, continued into modern Eskimo culture. In short, culture patterns in the Arctic, once established, tend to persist over long periods of time, and at any stage of their development reflect technics and practices previously discontinued in other parts of the world. Thus, the Arctic Small Tool tradition is in large part an American variant of the much older Eurasian Mesolithic. And the later Eskimo cultures to which it gave rise continued to exemplify a Mesolithic way of life, not only in their general configuration but in the specific types of Mesolithic implements which they employed. And now, on an earlier time level, we see that ancient American types of implements like those used thousands of years earlier in the Plains and Southwest remained part of the equipment of Arctic hunters as late as 1,500 B.C.

Culture lag and retention in the Arctic are primarily phenomena of culture. Only in the broadest sense can they be explained as due to the peculiarities of the Arctic environment. In an area where hunting is the only possible basis of life, it is obvious that traits and influences entering it must conform to this particular pattern. But while the Arctic environment sets limits on the basic form of the economy it does not prescribe the precise form an implement is to take. Although others have argued differently, I can see no reason for invoking environment in explanation for such traits of Arctic culture as those we have been considering. The occurrence of similar types of burins, microblades, side-notched and lanceolate blades, and chipping techniques in such widely different Arctic environments as the sea coasts, inland tundra, mountain and forest is enough to dispell the idea that particular implement typologies in some way reflect the particular environment in which they are found.

Of all man's handiwork art would probably be acknowledged as least subject to the dictates of environment. It may be that we have here a final example of the perpetuation of ancient culture patterns in the Arctic. As it involves a more subjective evaluation than the other examples cited above, I would not mention it here if it were not for a highly important discovery in one of the Trail Creek caves on Seward Peninsula. In discussing the history and origins of Eskimo art I have suggested that there were significant resemblances between the earliest forms of Eskimo art and that of the Upper Paleolithic and Mesolithic—that the simple, linear, geometric motifs and designs of Okvik, Dorset and early Aleutian art were actually closer to those of the Paleolithic and Mesolithic than to any later styles either in America or Eurasia (Collins, 1937: 294-296; 1940: 585-586; 1959). In a paper presented

at the meeting of the 34th International Congress of Americanists in Vienna in 1960, Helge Larsen described and illustrated a bone artifact bearing a typical Maglemose decoration which he had excavated at one of the Trail Creek caves in 1949. The discovery of Mesolithic art at this pre-Eskimo site in association with Plano-type stone artifacts and typical Mesolithic bone points slotted for side blades, tends greatly to strengthen the probability of a relationship between Eskimo and Mesolithic art, and reinforces previous indications of the Mesolithic origin of Eskimo culture.

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