

NORTHWEST NORTH AMERICA AND CENTRAL UNITED STATES: A REVIEW¹

by

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This is by no means a thorough review of these areas; it deals with certain correspondences between non-ceramic complexes in the Mackenzie and Yukon drainage basins and others in the central parts of the United States and southern Canada. To the writer, these typological correspondences when placed in a chronological framework suggest historical relationships in the form of cultural exchanges between the two areas. However, the ways in which these exchanges took place is not yet clear.

In the far northwest, it is still impossible to designate discrete archaeological cultures outside the Eskimo area. However, in some cases traits and specialized industries, and even whole complexes, can be traced widely in space and time with some assurance that these continuities reflect the sharing of technical knowledge by people quite remote from one another. It is useful at present, in fact it is the only expedient open, to try to organize these "tracers" into abstractions like traditions, area co-traditions, diffusion spheres, and so forth, and to try to draw their geographical and chronological boundaries. MacNeish (1959a), Giddings (1961) and the writer (1962) have tried to do this with varying degrees of lucidity and conviction. One of the main difficulties encountered, it seems to me, results from the too-great readiness of authors and readers alike to endow with abiding historical reality these abstractions which can never be more than expedients devised for the solution of particular historical problems.

In the present paper I shall be concerned mainly with traits and complexes that appear to be common to the far northwest and the central part of the continent. This means that the Arctic Small Tool tradition need be considered only insofar as it bears on the chronology of less well-known manifestations, for its distinctive types of burins, microblades, and minute biface implements seem never to have been adopted by dwellers of the northern forest. It is known in its earliest form in the Bering Strait—North Alaska region, where it was present prior to 3500 B.C. (Giddings, 1961). By 1000 B.C. or earlier its distinctive features had begun to merge with the stone technology of some of the earliest recognizable Eskimoid cultures.

The Northwest Microblade tradition (MacNeish, 1959a) is a remarkably variable phenomenon. It is known best from sites in the Yukon

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Territory, Mackenzie District, and interior Alaska, most of which are small. All of the collections have microblades and most of them have tongue-shaped or wedge-shaped microblade cores, derived without much question from prototypes in the Far East (Nelson, 1937; Irving, 1955, 1962). Most have at least a few projectile points of medium size, with side notches which have been ground or rubbed smooth. There are also side-notched points without such grinding, and lanceolate points or knife blades of various forms. With these are found large, rough bifaces, some of which resemble chipped ulus, others of which are more like scrapers. In most of the collections there is a rather large number of flakes which have been modified to serve as scrapers, knives, or engraving tools. Most of them have, in addition, simple burins made on broken bifaces or truncated flakes. MacNeish, in defining the tradition, lists a number of other types, and notes that "many of its components are seen as coming from widely different sources" (1959a: 7).

In discussing the Callison site in southwest Yukon Territory, MacNeish (1960b) outlines a sequence based on a large number of very small sites found in various soil horizons for which he and other students propose a regional chronology. For the Little Arm complex, the oldest one in which microblades occur, he suggests a date of 3000 to 5000 B.C., on the assumption that the pink soil matrix marks the first post-glacial advance of the forest into the area and that this occurred during the climatic optimum. Side-notched points do not show up until the next succeeding complex, called Gladstone. They are found together with microblades in this and the later Taye Lake complex, which MacNeish correlates with the N. T. Docks complex of Great Bear Lake. A number of dates have been reported for C-14 specimens thought to represent the N. T. Docks complex (MacNeish, 1956a). Those most recently accepted by MacNeish (1959a) are 5000 and 4100 B.P.; the determinations were made by the acetylene method. For a somewhat similar inventory far to the south in British Columbia, Borden (1952) announced an age of 2400 years, gotten by means of the carbon-black method. The Taye Lake materials—the latest members of the Northwest Microblade tradition in MacNeish's sequence, underlie an ash horizon thought, on the basis of C-14 dates obtained prior to 1951, to have been deposited around 430 A.D.

The data reviewed thus far show that the Northwest Microblade tradition was present in the northwestern boreal forest prior to 3000 B.C., and that it lasted there for a considerable length of time, perhaps until as late as the beginning of the present era. The geographical and chronological distributions of some of its elements extend far outside the limits of the tradition as it is tentatively identified here, and present both historical clues and perplexing problems.

At the Callison site the earliest microblades are found in the Little Arm complex associated with lanceolate, rather than with stemmed or side-notched points. These MacNeish described as Milnesand-like and Agate Basin-like. A still earlier complex at the same site and some others in the area, called Champagne and ascribed to the 4000-6000 B.C. period, has similar points and some described as Plainview-like, with a meager inventory characterized by absence of microblades and dearth of other implements. Support for the dating of the Champagne complex comes from the very similar Franklin Tanks component found on Great Bear River stratigraphically below the N. T. Docks complex mentioned above; N. T. Docks apparently dates from 2000 or 3000 B.C. The deplorable use of type names from other areas need not distract us from noting the early presence in the area of lanceolate points that resemble some from the Plano complex, and the subsequent appearance first of microblades and then of notched points.

However, the picture is complicated by sites far to the north. At Cape Krusenstern Giddings (1961) has described the Palisades II assemblage characterized by several varieties of side-notched points but not by microblades, which he thinks dates from well before 3500 B.C., perhaps in the 4000-6000 B.C. range (*ibid.*: 161). His dating is based on the apparent absence of Palisades II types from the long, possibly continuous, beach ridge sequence at Cape Krusenstern. Giddings compares his points with others found without microblades in interior Alaska, and suggests that "side-notching first appeared in the circumpolar region at the time of Palisades II and spread immediately as far as a population then existed, then later eastward," to the Central Area and northern Greenland. He considers Campbell's (1961b) Tuktu complex from the central Brooks Range some 300 miles east of Krusenstern to be later than the Palisades II assemblage. There are both side-notched points and microblades in Tuktu. The microblades Giddings apparently considers derived from the same source that gave the trait to the Denbigh Flint complex (part of the present writer's Arctic Small Tool tradition), which he thinks post-dates Palisades II.

We thus have a sequence of events proposed for northern Alaska in which microblades appear after side-notched points, instead of before them as seems to have happened in southern Yukon Territory. This discrepancy is a serious one. As a problem, it seems to me that it can be resolved into two parts. One is the question whether the microblades and cores in the Tuktu complex are related to those of the Denbigh Flint complex or not. I am inclined to think that they are not, because not a single Denbigh type was found with them (I have outlined elsewhere reasons for thinking that the microblade industries of the Northwest Microblade tradition and the Arctic Small Tool tradition have no common predecessor in North America [1955, 1962]). If this is the case, then

Tuktu is not to be dated by correlation with the Denbigh Flint complex, and Tuktu can be placed in the Northwest Microblade tradition, where it might have an age somewhat greater than the 3000 or 4000 years Campbell has suggested for it.

This leaves us with the Krusenstern notched points to consider. Were it not for Giddings' contention that Palisades II is different from the Old Whaling culture of the same locality, which also lacks microblades, and which dates apparently from between 1000 and 2000 B.C., I would lump the two together on the basis of published photographs of projectile points. An alternative is to consider the Krusenstern sequence of Palisades I—II—Old Whaling as having been conservative, independent of influence from the Northwest Microblade tradition, and furthermore uninfluenced by the Arctic Small Tool tradition which showed up in force at Krusenstern between the times of Palisades II and Old Whaling. In any case, the source of the Old Whaling culture, with its predominantly maritime economy and its side-notched points and stemmed and notched end scrapers reminiscent of the Archaic of the northern Middle West loom as some of the most perplexing enigmas in the far northwest.

This digression, in addition to working over local problems, brings out the fact that the Northwest Microblade tradition cannot yet be considered a concrete cultural unit. At the same time it leads to a discussion of extensions of parts of the tradition into areas outside those considered so far.

In the Barren Grounds west of Hudson Bay, Harp (1961) has proposed a sequence which shows interesting parallels to that outlined above for the northwestern boreal forest. The initial occupation, Complex B, brought with it an inventory that includes Keewatin lanceolate points similar to the Agate Basin and Milnesand types of the Plano complex (Harp, 1961: 53). They are accompanied by round-based bifaces, discoidal knives, snub-nosed end scrapers, and other, similarly undiagnostic forms which Harp thinks are "basic to the technology of all (sic.) prehistoric cultural adaptations to the interior northern regions of the New World," (*ibid.*: 54). He goes on to say that "With the grafting of specialized traits or trait complexes onto this base, for example microblade technology or lanceolate points, the culture might be shifted to meet changed ecological or environmental conditions" (*ibid.*). The latter view is consistent with that of MacNeish with respect to the origins of the Northwest Microblade tradition; I would take exception only to the extreme generality of Harp's first statement. Harp notes that the country was open to occupancy following glaciation and marine transgression "at least as early as 3000 B.C." (*ibid.*: 55), but in his summary states that "The Thelon area was not inhabited until some time after 3000 B.C." (*ibid.*: 70).

In Harp's sequence Complex B is followed by Complex A which he relates to a late stage of pre-Dorset and dates to about 1000-700 B.C. (*ibid*: 52). There is little about this complex that is both distinctive and held in common with Complex B, or with Complex C, which postdates Complex A. Complex C includes, along with members of the basic kit, corner-removed and side-notched points as well as large lanceolate forms, and chipped adzes. Harp describes it as being related to the Late Archaic and compares it, with reservations, with the Larter and other foci in southeast Manitoba, whence he apparently takes his estimated date of later than pre-Dorset (after 700 B.C.) (*ibid*: 58).

Harp's absolute dates are derived from a consideration of glacial geology which suggests that the country first became habitable some time between 5000 and 3000 B.C., and correlation with the closest available regional sequences. It is possible that they will be changed and the chronology of complexes related to southern interior traditions will be revised downward. In any event, it is interesting to note that Harp sees historical connections in two periods between the Barren Grounds and the Prairie, and further that he relates his B and C Complexes to some of the very complexes in the northwestern boreal forest that belong in or grade into the Northwest Microblade tradition. The relationships are intricate and, apparently especially in the more westerly sites, inventories vary greatly in detail from one site to another. However, the early appearance of complexes with lanceolate points apparently derived from the Northern Plains or some adjacent region, followed by the introduction of somewhat different complexes with side-notched points, is a sequence common to both the Barren Grounds and the northwestern boreal forest.

Several other traditions might be set up in the far northwest, for instance, probably more than one on the northwest coast and southwestern Alaska, and some probably earlier blade industries in the interior which are at present very poorly known (MacNeish, 1959a; Campbell, 1961a—Kogruk). For the present, the one that concerns us comprises a number of sites which are characterized by rather large, well-made lanceolate points and a very limited number of other types. In some cases these appear to be associated with microblades, as in the case of the Little Arm complex, so there may be some continuity with the Northwest Microblade tradition. However, this is probably not the case at the Kayuk site in the Brooks Range (Campbell, 1959, 1961b—Tuktu). Because of its large size and distinctive character I would take this collection as being representative of a special taxonomic group, which approximates MacNeish's Yuma tradition. Unlike MacNeish, I would prefer to leave the sites with microblades out of it, and probably those with burins; these sites can be just as conveniently left as intergrades or complexes of indeterminate status. Some writers would call the whole series Plano complex. But this, to me, implies too much uniformity

within what is really a very diverse group. The notion of Plano complex may indeed be a valid one, but if it is made to include all the unnotched, stemless unfluted points found between Point Barrow and Pali Aike, some term other than complex should be devised for it. It is clear, in any case, that subdivisions must be picked out if the notion is to be a useful one. For the present, we should deal with the Yuma tradition of the far northwest, and the somewhat similar Plano complex of the Great Plains.

In that part of North America which used to be known to Alaskans as "Outside" and which is now sometimes referred to as "the lower states" there is much more information available and the picture is in some respects clearer. I shall refer mainly to the northern High Plains, west of the 98th or 100th meridian, and to the area stretching eastward from this boundary in the direction of Lake Michigan and Illinois. Southern Saskatchewan and Manitoba are included; they seem to have affiliations with both of these southern areas. Students in these areas seem to have gotten by fairly well without using traditions; the archaeology here is organized mainly in terms of individual sites, larger periods or stages, and what are locally known as complexes.

The Plano complex, which I take to be represented by such sites as Agate Basin, Angostura, and the Finley site—and the Aqua Plano of Great Lakes fame—seems to have occurred throughout much of this area between 8000 or 9000, and 4500 or 5000 B.C. Perhaps north and west of the Great Lakes its derivatives lasted somewhat later (cf. Harp, 1962; and earlier in this paper).

It seems to be pretty generally accepted that the Yuma tradition in the far Northwest is closely related to the Plano complex sites in the Plains, or at least to some of them. It is also, and I think gratuitously, assumed that the far northern correlatives of Agate Basin and Angostura points, and also some that resemble Eden, Scottsbluff, Milnesand and Plainview points—all of which are reported to occur in Alaska or the Yukon—were made by refugees from a catastrophe in the Great Plains. The known or suspected catastrophes are the somewhat enigmatic altithermal drought and the clearly demonstrated extinction of large forms of bison, events which may be related to one another. Wheeler (ms) and Mulloy (1958), working in Wyoming, have found archaeological evidence which seems to reflect these events in the form of a hiatus between, roughly, 4500 and 2500 B.C., following which the Plano complex was displaced by other cultures.

The refugee line of reasoning would require, then, that the Plains-derived types made in the far northwest date from some time after 5000 B.C. But most of the points do not resemble those from the latest pre-Altithermal period in the Plains, such as those from the Horner site; rather, the majority of them resemble Agate Basin or Angostura points,

and others look like Eden and a few like Plainview, all of which are most numerous in the Plains in sites dated around 6000 B.C. or earlier. It will be recalled, furthermore, that there is some local evidence in the far northwest for thinking that some, if not all, of the Yuma tradition (or Plano complex) sites are older than the Northwest Microblade tradition, and hence at the very least older than 3000 B.C. Therefore, the case for the refugee hypothesis seems a little weak, so I would propose another in its place: The entire range of bison in the plains and the western part of the northern forest—which at the Firth River during Flint Creek times came within 20 miles of the Arctic Coast (MacNeish, 1956)—was occupied between 8000 or 9000 and 4000 or 5000 B.C. by *related* cultures in a single diffusion sphere (perhaps some would call it an area co-tradition). Whether or not the common forms found in Wyoming and Alaska can be used as horizon markers remains to be seen. At present this doesn't appear to be likely, but will be necessary to build up regional sequences and similar taxonomic units than Plano complex before this problem can be dealt with.

After the Altithermal hiatus in the central and northern plains, in the time interval there designated as the Middle Prehistoric Period which runs from about 2500 B.C. to the introduction of pottery, or evidence of contact with pottery-using cultures, the Plano complex is but weakly represented, if at all. The same holds true in the country east of the hundredth meridian, although here there is no indication of an hiatus, and here the change in character may have taken place earlier. The histories of the two areas should be considered separately, but both are characterized during this period by complexes which show certain resemblances to the Northwest Microblade tradition.

This is an unwieldy set of data, because in all of the areas under consideration there was in this period little emphasis on good workmanship in making stone implements, and therefore little uniformity within types. Most of these collections can be described as being of low characterization. However, some common features seem to bind them together. The most striking of these is the prevalence of medium-sized projectile points with notches and more or less straight bases on which, in earlier periods, grinding is fairly common. Widespread within these areas, but not so common in all of them, are side-notched points with concave bases, points with short, expanded stems and convex bases, and rather broad thin points with bases like fish tails. There are very close resemblances between such types as Wheeler's Kolterman Point from Wyoming and those from Fisherman's Lake near Fort Liard (MacNeish, 1954); between points from an intermediate level in the Mortlach (Wettlaufer, 1955) site in southern Saskatchewan and others from the Rategin (Skarland and Keim) site in central Alaska, and between Durst stemmed points from Wisconsin (Wittry, 1959) and some of those from Pointed

Mountain near Fort Liard (MacNeish, 1954). The Middle Prehistoric period of the northern Plains also has a number of large, ovoid biface and uniface implements which resemble forms in the Northwest Microblade tradition, and relatively long, thick end scrapers occur in both cultural units. No microblades have been found in the central U.S. older than 2000 years.

MacNeish's suggestion that the Northwest Microblade tradition formed as a result of the amalgamation of an Asian microblade industry with some indigenous American industries which include side-notched points, seems borne out. However, the traits I have discussed are simply tracers which in some cases record the flow of culture in one direction or another, but which for the most part simply show that in post-Altithermal times just as in the earlier period north-central United States and the far northwest were part of a single diffusion sphere. The picture is not greatly clarified by this revelation, but it does permit the formulation of certain problems. Cultures of the Middle Prehistoric Period in the Plains are thought to have moved into the area from the northern Great Basin. At the same time, they are generally somewhat younger than most of the Northwest Microblade tradition sites appear to be. This suggests that the connecting links will be found in the Plateau and along the cordillera. Quite likely this will be proven one way or another by Cressman's² and Borden's current work at 5 Mile Rapids and the Frazer Canyon site. On the other hand, connecting links along the eastern Plains-forest border are also indicated; this is an extremely interesting possibility, if only because this route is a likely one for the transmission of ceramic traits between the far northwest and the eastern Woodland, during the time period being considered.

I've left the question of cultural boundaries until last, because it is most difficult to deal with, and in some respects, most important. There seems to be a boundary between the high plains and the prairie east of the 98th or 100th meridian during the Middle Prehistoric Period. Another may be found somewhere in the Plateau, which will delimit the southern extension of microblade industries—but defining the southern limit of the Northwest Microblade tradition viewed as a set of associated types, may be more difficult. At present, there is even less clarity about boundaries east of the Rocky Mountains and north of Colorado and Nebraska.

In conclusion, I would observe that this review has turned up very little evidence for migrations except on a relatively local scale as in the case of the Middle Prehistoric Period cultures which may have come from the Basin. In general, neither in the Plano complex nor in the

² I have not yet studied thoroughly Cressman's 1961 report in this connection, but at present see little trace of the projectile types common to the far northwest and the central U.S. in the 5 Mile Rapids material.

later cultures are there clear geographic boundaries south of the northern treeline. Certain types occur throughout a vast area, but this raises, rather than settles, problems of taxonomy, for the uniformity of culture that this might be taken to imply in a small area is difficult to accept for such large parts of North America. The main point that emerges from the foregoing is the evident fact that some specialized aspects of technology were shared by the central and far northwestern part of North America. These may be clues that will lead to the recognition of other, more significant cultural exchanges between these two areas.

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Not for Resale