Conclusions: Early Tool Traditions In Northwest North America

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THE NAMU-KISAMEET SEQUENCE

It should be pointed out that Luebbers declined to isolate sequential cultural units in his discussion of the artifacts. He perceived the strong evidence of continuity present in the collections and preferred to emphasize this fact rather than to break this continuum into what he regarded as arbitrary subdivisions. In my approach I will not depart from Luebbers' data but will simply divide them into a series of cultural units, each characterized by some artifactual differences. By emphasizing this change, rather than the continuity which is also present, it is possible to identify several sequential units which I will term "components". We do know that similar units of culture content are known from the Grant Anchorage site (Milbanke Sound), McNaughton Island, and Kwatna. The degree of correspondence is at present unknown, due to limited artifactual analysis. Future comparative analysis should lead to firm groupings on a regional basis, and the definition of cultural phases.

Namu I – 9140 BP – 6000 BP or later

The first of the components we have isolated is specifically different from the others in that it covers approximately 4000 years. We assume that further research will permit the definition of internal subdivisions more comparable to the later units. This unit occupies a long enough time period to be identified as a "tradition". The artifact classes present include:

- microblades
- developed microflakes
- utilized microflakes
- obsidian microcores
- crude bifacial projectile points
- unifacial core flakes

present in the later half of the tradition are:

- large hand choppers
- large prismatic cores

found only in this component are:

- microblades
- crude bifacial projectile points
- large hand choppers

Whereas our total cultural information is limited, the economy featured a mixed reliance on both the hunting of land mammals and sea mammals. According to Conover (Fig. 66) the reliance by environmental zone was Coastal Forest 73% and Coastal Littoral 27%. In addition salmon are present throughout all levels, although in low frequency, indicating that fishing was also part of the economic pattern.

Namu II – 4500 BP – 3400 BP

This component initiates the reliance on shellfish as a major economic pursuit. As Conover points out, the species preferred were the rock dwellers, barnacle, *Thais,* and mussel, with clams of lesser importance. Hunting continued to be mixed with a slight increase in the land mammal frequency. The Coastal Forest representation is 81% and Coast Littoral 19%. Although our fish data are incompletely analyzed, fishing increased in quantity of bones present and in species. Salmon is the most prevalent genus. Burial patterns include extended inhumation with offerings of implements and ornaments; flexed inhumations, and bundle burials, both with limited offerings. Several of the flexed burials had large boulders dropped onto the bodies prior to covering with earth. Three bodies also show burning – possible evidence of cremation. The burials were

single, in multi-individual graves, and in sequential multiple graves.

Artifact distributions include:

appearance of bone tools – specifically simple awl/-gouges, bone wedges, fixed barb points, fishhook barb-points. Ground and polished celts also appear and are the only artifact type which is not found in the succeeding component.

Namu III – 3400 BP – 2800 BP

The economy continues the pattern established in Namu II. The major distinction is an increase in the total reliance on shellfish. Fish also increase in frequency and species. The burial patterns are the same as in Namu II.

The artifact inventory is marked by the presence of:

bifacial core flakes
ground celts
large utilized flakes
bone projectile points
ulna awls
wide back awls
miscellaneous ornaments

At the end of the period of this component the following artifact types disappear:

large prismatic cores
bone wedges

Namu IV – 2880 BP – 1860 BP

This component is marked by the peak in shellfish utilization. Clams have increased to 36% of total shellfish, although barnacle is still most common (44%); mussel have nearly been eliminated. In mammal remains reliance on Coastal Forest species increased to 89% with only 11% Coastal Littoral. Fish remains increase with salmon still predominant. The burial pattern includes only bundle burials. The artifact inventory includes the following:

obsidian end scrapers
obsidian gravers
lanceolate projectile points
leaf shaped projectile points
mussel shell adzes
double ended barb-points
square end barb-points
wide barb-points
posterior beveled barb-points
outcurving barb-points
simple barb-points
fishhook barb-points

Artifacts not found in the succeeding component include:

developed microflakes
utilized microflakes
obsidian end scrapers
obsidian gravers
lanceolate projectile points
unifacial core flakes
burnishing stones
large utilized flakes
large developed flakes
mussel shell adzes
bone projectile points
wide barb-points
simple barb-points
fishhook barb-points
fixed barb points

Kisameet I and Namu V – 1860 BP – 980 BP

These components are characterized by environmental adjustment. The total amount of shell decreases rapidly reaching a level of about 10% of the 4 mm debris shortly after 1800 BP, about one fourth of its prior high. There is a dramatic increase in rock dwellers to 80% of the total at Kisameet with clams responsible for only 17%, down from their high of 36% in the preceding component. These adjustments would seem to substantiate Luebbers' concept of a period of lower sea level. Deer are the most common mammals hunted (56%) and seals second (13%). The breakdown of reliance on mammals by environmental zone is Coastal Forest (65%) and Coast Littoral (29%), the Coast Mountains (5%) provided an appreciable amount of the total for the only time in the entire prehistoric sequence. Fishing is at its peak with our first evidence of major utilization of species other than salmon, *i.e.* rockfish, rock greenling, ratfish, dogfish, ling cod, herring, and sand sole. Salmon is still the most prevalent genus accounting for half to three fourths of all identified fish bones.

The artifactual inventory is unique in that these components are marked primarily by continuation of existing artifact types. Only one new type is introduced. Continuing artifact types are:

leaf shaped projectile points
ground celts
ulna awls
simple awl/gouges
square end awls
wide back awls
double ended barb-points
square end barb-points
outcurving barb-points
bone wedges

The only new artifact form is the composite projectile point head.

Several artifact types are not found in later components;

these include:

square end awls
wide back awls
square end barb-points
outcurving barb-points

No burials were encountered so the burial pattern is unknown.

Kisameet II and Namu VI – 980 BP – 480 BP

The major feature of these components was the increasing reliance on shellfish with the predominant species being clam, rather than rock dwellers. The mammal exploitation records a shift from Coastal Forest utilization, down to 55%, to increasing reliance on the Coast Littoral – 45%. Fishing continued to be important but possibly less so than in the preceding components. No burials were found.

Artifacts record a continuing reduction in the number of types present. No new types were introduced. Types present include:

ground celts
ulna awls
simple awl/gouges
composite projectile point heads

Midway in the deposits containing these components double-ended barb-points and miscellaneous ornaments disappear. At the top of the deposits the following disappear:

ground celts
simple awl/gouges
composite projectile point-heads

Namu VII – 480 BP to 140 BP (1833 A.D.)

This component is inadequately represented in our excavations. Only a small number of artifacts were recovered. They include ulna awls and one new form – harpoon toggle valves.

The period of historic contact, most of which is synonymous with the ethnographic present, was initiated in 1833, based on the construction of the Hudson's Bay post at Ft. McLoughlin. Although Vancouver's expedition traversed the region in 1792, it did not have the lasting impact that the fort did. The date of 1897 marks the removal of the village from Old Bella Bella to New Bella Bella, and represents the beginning of the modern era. We did not dig an historic period site, nor were any historic artifacts recovered that pertain to this period. At Namu our historic objects were all of 20th century derivation.

Our definition of components of these sites, Namu and Kisameet, is based on limited data; however these data do provide evidence of cultural change. We view these subdivisions as possessing some cultural reality. Their utility is seen in their provision of a tentative local chronology which may be tested by future work.

Although our fish bone data are still being analyzed, it is possible to ascertain some major trends. These are that while salmon was utilized throughout our prehistoric record, salmon increases in frequency from early to late. Therefore the period of major reliance on salmon, approximating that of the ethnographic present, appears to date back to 1800 BP. Just prior to this rise in salmon frequency there occurred a major reliance on shellfish utilization which was dominant from 4540 to 1880 with the period of peak utilization dated 2880 – 1880. The implication is that as shellfish utilization declined, salmon utilization increased.

Early Tool Traditions

Within this long record we need to identify the sources of the traditions represented. The methodology we have employed consists of examining the archaeological literature in search of radiocarbon dated "early" examples of diagnostic artifacts.* These data have been plotted on a series of maps, and sites of equivalent age have been connected by lines. The resultant isochronic lines, where reasonably complete, permit an assessment of the point of origin of each of these major traditions and their spread through time and space. As a means of documenting this spread we have selected certain artifact classes as representative of a particular tradition. We have simplified our approach by not attempting to deal with linked traits, cultural complexes, or assemblages. The resultant maps are expected to represent a distillation of the relevant data to permit a clearer assessment of cultural diffusion. Our approach then is synthetic and generalizing at the broadest level. The artifact classes we have selected are the following: microblades, pebble tools, bifacially flaked projectile points, ground slate implements, socketed base toggling harpoons and labrets.

Microblades

The earliest artifactual manifestation at Namu consists of microblades. This is not necessarily the earliest tradition in the region, as pebble tools may be even earlier. The occurrence of microblades at Namu however fits rather well into the distribution of microblades in time and space (Fig. 68). According to the distribution data currently available, microblades are early in three localities in north-

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* *Data presented in this section were in large part compiled by students enrolled in a seminar in Northwest Coast prehistory. I gratefully acknowledge the contributions made by Larry Nordby, Larry Parish, and Jean Afton. Responsibility for the positions of the isochronic lines on the maps is my own.*

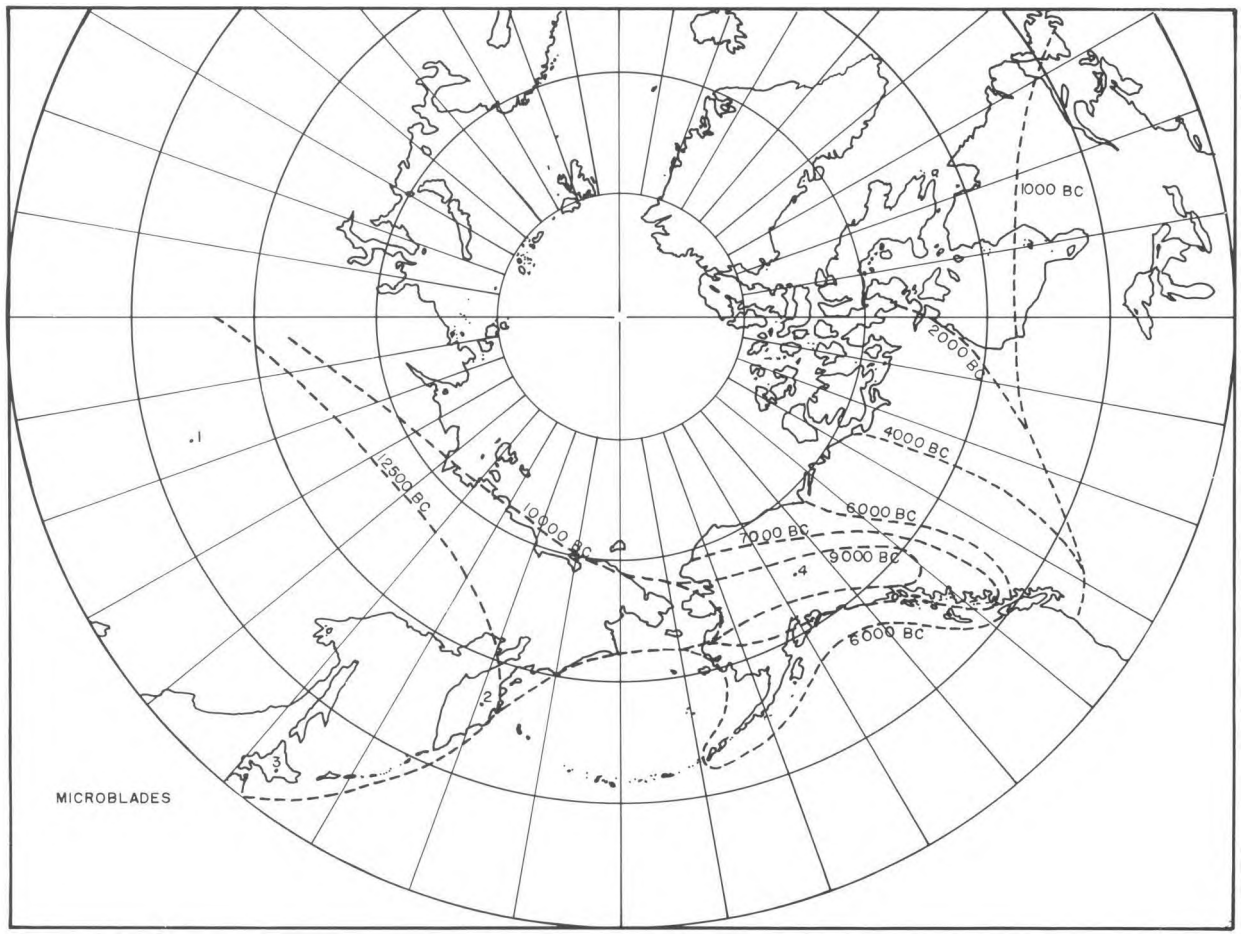

Fig. 68 Microblade distribution.

eastern Asia: the Baikal region, the Ushki site of Kamchatka, and several sites in Japan including Shirataki, Okedo, Fukui Cave and others. The transition from Late Palaeolithic blade industries into those featuring microblades at these sites appears to have occurred by 12,500 B.C., according to radiocarbon and obsidian chronologies (Table XI). It is assumed that the ultimate area of origin of microblades lies to the west and south of these sites, beyond the geographic focus of the present article. Our next isochronic line (10,000 B.C.) is entirely hypothetical as we have had little research in the Siberian areas bordering Bering Strait. However, such a hypothetical line seems reasonable as we have dated occurrences at Healy Lake, Alaska at 9150 B.C. and at Ice Mountain, British Columbia (9000 B.C.). By 7,190 B.C. we find the earliest microblades at Namu. Another 7000 B.C. occurrence is at Groundhog Bay, Alaska. By 6000 B.C. we can include the Akmak complex, the Anangula site, the Anaktuvuk Pass sites, the Queen Charlotte Islands sites, and others. Thus by this time we may visualize a distribution which includes most of Alaska, the Aleutian chain, and much of the B.C. Coast. By 4000 B.C. we perceive the maximum southern extension of the microblade distribution with sites in northeastern Washington State at Ryegrass Coulee, Veratic cave, etc. The distribution further includes sites in central Alberta indicating a spread to the east. After 4000 B.C. the spread of microblades proceeded rapidly to the east reaching the western edge of Hudson's Bay by 2000 B.C. By this time the distribution is stabilized along its southern periphery with all new territory occupied being to the north and east. By 1000 B.C. microblades are found all the way east to Labrador and north to Greenland. On the Northwest Coast proper the temporal distribution is as yet unclear. At Namu we have no specimen dated later than 2620 B.C., although they occur as late as 370 A.D. at the Whalen Farm site.

Table XI Radiocarbon dates and age estimates of microblade sites

Site	Radiocarbon	Estimates
Krasnyi Iar, on the Angara		18,000 B.C.
Shirataki - Toma H		12,150 B.C.
Cheremushnik		8–9,000 B.C.
Okedo		10,850 B.C.
Verkholenskaia Gora Levels I III		8–10,000 B.C.
Tachikawa Loc 1		10,350 B.C.
Ulan Khada Levels IX–XI		6–2,000 B.C.
Ushki site, Khamchatka	8410 ± 350 B.C.	
Afontova Gora II	9385 ± 270 B.C.	
Fukui complex, Japan	10,750± 350 B.C. to 9380 ± 260	
Malta – horizon II	12,800± 120 B.C.	
Kokorevo I	12,500 ± 150 to 10,990 ± 270 B.C.	
Ice Mountain, N.B.C.	9000 B.C.	
Ust Belaia	7010 ± 60 B.C.	
Trail Creek		7,000 B.C.
Denbigh Flint	3974 ± 600 B.C.	3,000 B.C.
Akmak Complex		6,500 B.C.
Anangula Island		6,500 B.C.
Anaktuvuk Pass		8,000–2,000 B.C.
Healy Lake		8,150 B.C.
Queen Charlotte Islands		6,000 B.C.
Ground Hog Bay 2	8230 ± 800 B.C.	
Early Mountain		1,300 B.C.
N.T. Docks		2,100 B.C.
Natalkuz Lake		500 B.C.
Southwest Yukon		
Taye Lake	1770 ± 330 B.C.	2,000 B.C.
	2780 ± 320 B.C.	
Gladstone	1270 ± 140 B.C.	3,000 B.C.
Little Arm	1150 ± 70 B.C.	4,000 B.C.
Champagne	970 ± 140 B.C.	6,000 B.C.
Nesikep Creek VII		3,500 B.C.
Drynoch Slide	5580 B.C.	5,580 B.C.
Milliken Site		900 B.C.
Gulf of Georgia		
Whalen II	A.D. 370 ± 140	
Marpole	400 B.C. ± A.D. 179	
Locarno Beach	940 ± 140 B.C. C480 B.C.	
Montague Harbor	1210 ± 130 B.C.	
Columbia Plateau		
Lehman	4700 ± 110 B.C.	4,500–1,500 B.C.
Ryegrass Coulee	4530 ± 80 B.C.	4,500–1,500 B.C.
Veratic Cave	4328 ± 299 B.C.	4,500–1,500 B.C.
	3920 ± 120 B.C.	4,500–1,500 B.C.
	3720 ± 120 B.C.	4,500–1,500 B.C.
Weis Rockshelter	2700 ± 70 B.C.	4,500–1,500 B.C.
Sourdough Creek	2250 ± 125 B.C.	4,500–1,500 B.C.
Schaake Village	1260 ± 150 B.C.	1,500–0 B.C.
Indian Dan	1070 ± 150 B.C.	1,500–0 B.C.
Hymer Orchard	830 ± 190 B.C.	1,500–0 B.C.
Schaake Village	830 ± 190 B.C.	1,500 0 B.C.
Three Springs	810 ± 240 B.C.	1,500–0 B.C.
Ivugivik		2,000–1,000 B.C.
Hudson Bay Sites		155 B.C.–A.D. 100

(These dates have been compiled from Giddings 1964, Borden 1968, Mitchell 1968, Browman and Munsell 1969, Sanger 1964, Campbell 1962, Taylor 1962, Meldgaard 1962, MacNeish 1964, Khlobstin 1969, Medvedev 1969 Aksenov 1969a, 1969b. Fladmark 1971, Klein 1971, Hayashi 1968, Morlan 1967, Ackerman 1968, Smith 1971.)

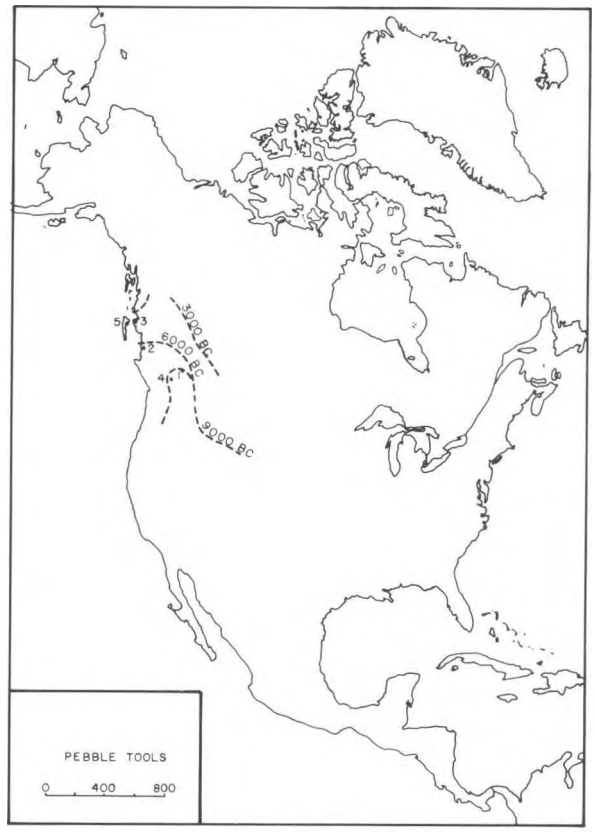

Fig. 69 Pebble tool distribution.

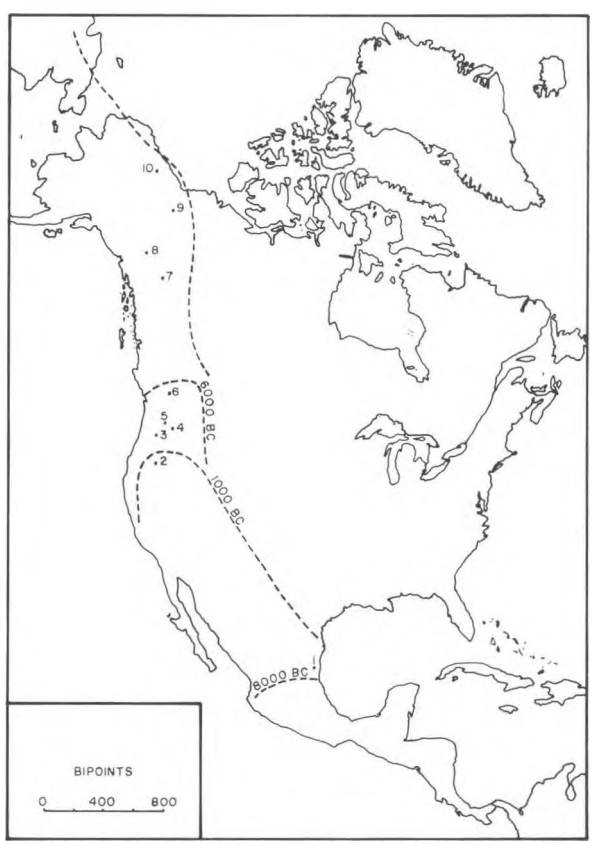

Fig. 70 Bifacial point distribution.

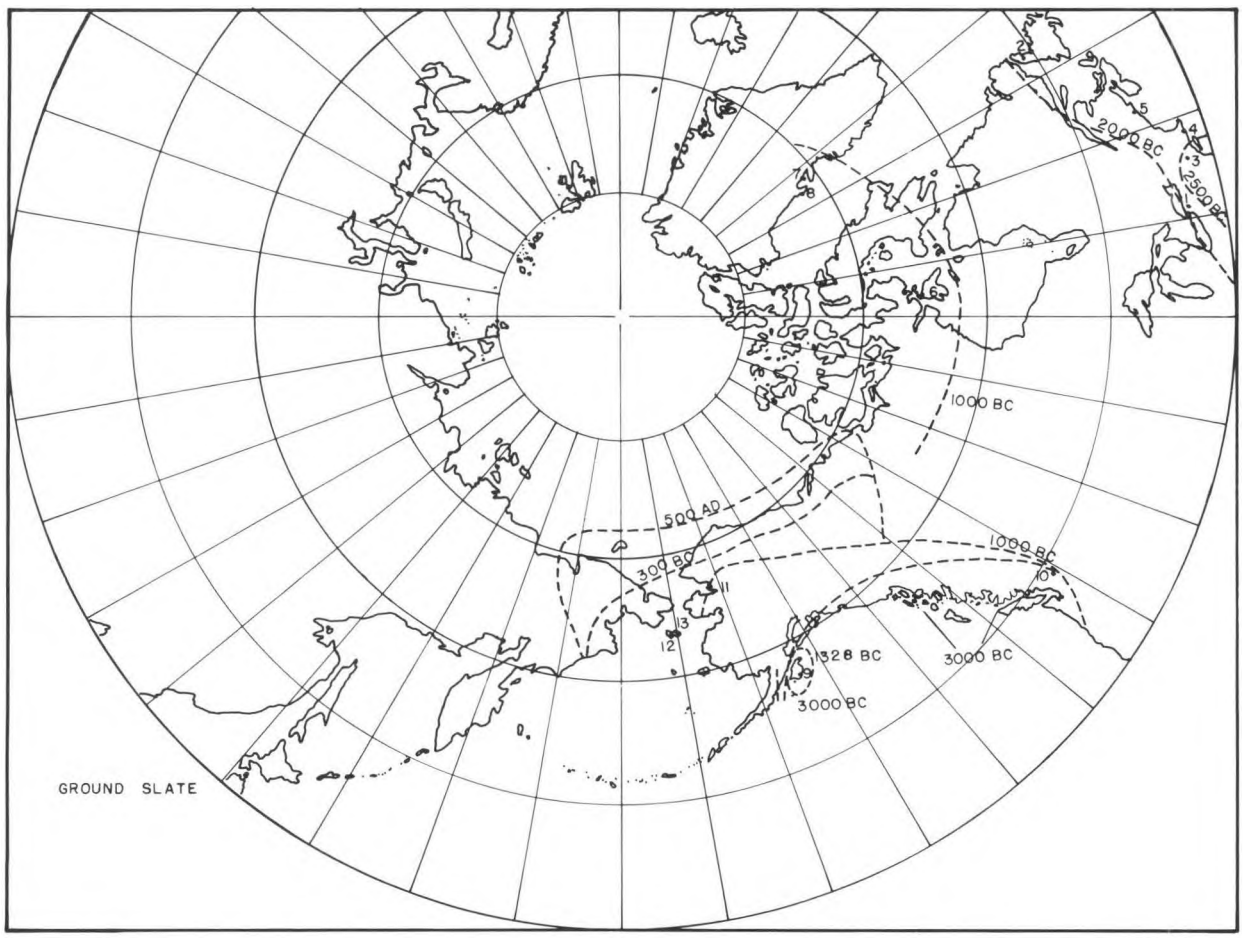

Fig. 71 Ground slate distribution.

Pebble Tools

Our poorest data concerns the distribution of pebble tools (Table XII). This may be due to the lack of interest in them by archaeologists as well as the difficulty of seriating and dating the implements themselves. The earliest occurrence of pebble tools (mostly large flakes) at Namu is dated 5850 B.C. ± 200. Prior to this date the North American distribution of pebble tools indicates that they occur earlier in sites to the south and east of Namu (Fig. 69). Early occurrences are at Wilson Butte Cave, 12,600 B.C. and at the Milliken site, 9,000 ± 900 B.C. and 7100–6200 B.C. With so little valid data to work with it is impossible to construct an accurate map. On the basis of the North American data the distribution through time seems to be from south to north extending from the San Dieguito area north into the Yukon. However this distribution does not take into account the Old World chopper-chopping tool complex and its distribution through time or similar industries in South America termed pre-projectile point by Krieger (1964) and chopper tradition by Willey (1972).

Bifacial Points

Our data on the distribution of bifacial points – the Lerma, Cascade and other forms – is again inadequate. Bifacial points are early in South America (Ayampitin ca. 8000 B.C.) as well as in Mesoamerica (Tamaulipas 7320 ± 500 B.C.). Other early occurrences are Ft. Rock Cave, Ore. (7103 ± 350 B.C.), Five Mile Rapids, Ore. 6–8000 B.C.), Lind Coulee, Wash. (6750 B.C.), and Milliken, B.C., (7050 B.C.). At Namu crude bifacial points date from the beginning of the occupation – ca. 7000 B.C. The points thus dated imply a south to north movement of the tradition with the earliest examples originating in South America. The distribution seems to be limited to the Cordillera. Farther north and extending into Siberia are sites with both bifacial points and microblades which have been termed the Denali complex. These sites include the Alaskan Campus

Table XII Radiocarbon dates of pebble tool sites

Sites	Radiocarbon Dates
Milliken site	7100–6200 B.C.
Wilson Butte Cave	12,600 B.C.
San Dieguito complex	9–7000 B.C.
Namu	5850 ± 2000 B.C.
Glenrose, B.C.	before 5000 B.C.
Prince Rupert Harbour	3000 B.C.
Lower Fraser river	2250 B.C.
Queen Charlotte City	2215 ±135 B.C.
Kulpo culture in Korea	late Palaeolithic
Fisherman Lake, Ft. Heard region – guess dates up to 13,500 B.C.	
Bayrock, Alberta	ca. 9000 B.C.
Caribou Island, Central Alberta	not securely dated

(Compiled from Fladmark 1971, Borden 1968, Larichev and Grigorenko 1969, Bryan 1969.)

Table XIII Radiocarbon dates of bifacial point sites

Sites	Radiocarbon Dates
Tamalipas Sierra	7320 B.C. ± 500 B.C.
Ft. Rock Cave	7103 ± 350 B.C.
Five Mile Rapids	6 8000 B.C.
Lind Coulee	6750 ± B.C.
Ryegrass Coulee	4530 ± 80 B.C.
Milliken, B.C.	7050 B.C.
Klondike site	undated
Kluane complex	undated
Flint Creek	undated
Kayuk	undated
Ground Hog Bay	8230 ± 800 B.C.
Lake Baikal	10,500 B.C.
Healy Lake	9–6550 B.C.
Onion Portage (Palisades I)	4000 B.C.
Glenrose, B.C.	before 5,000 B.C.

(Compiled from Borden 1968, Butler 1961, Loy 1973, Ackerman 1968.)

Table XIV Radiocarbon dates of ground slate sites

Site	Radiocarbon Dates
Frontenac Island	2980 ± 260 B.C. to 1723 ± 250 B.C.
Port au choix, Newfoundland	2340 B.C.
Bannerman site, Hudson Valley	2524 ± 300 B.C.
Wapanucket No. 6, Mass.	2300 ± 300 B.C.
Ellsworth Falls, Maine	2009 ± 310 B.C.
Dorset T1, Southampton Is.	675 to 103 B.C.
Sarqaq layer, Jakobshavn	790 ± 100 B.C.
Sarqaq site, Disko Bay	810 ± 100 B.C.
Kodiak	1328 B.C.
Marpole	400 B.C
Choris	1000 B.C.
Okvik	308 B.C.
Old Bering Sea	300 B.C.

(Compiled from Ritchie 1962, Dumond 1968, Borden 1962, Griffin 1960.)

Table XV Radiocarbon dates of toggling harpoon sites

Site	Radiocarbon Dates
Port au Choix	2340 B.C.
Igloolik	1948 B.C., 1602 B.C.
Cape Krusenstern	1800–1500 B.C.
Buchanan Site	1040 B.C.
Independence II	1000 B.C.
Chaluka Level IV	946 B.C.
Point Moller	1010 B.C.
Choris	1000 B.C.
Ust Belaia	900 B.C.
Yukon Island	748 B.C.
Native Point	675 B.C.
Locarno Beach	476, 493 B.C.

(Compiled from Rainey and Ralph 1959, Taylor 1967, Bandi 1969, Aigner 1966, Denniston 1966, McCartney 1969, Chard and Workman 1965, Borden 1962 Willey 1966.)

Table XVI Radiocarbon dates of labret sites

Site	Radiocarbon Dates
Chaluka	1800 ± 180 B.C.
Kodiak Is.	1328 B.C. + 61
Marpole	943 B.C. C14 400 B.C.
Katchemak Bay I	748 B C. C-14
Choris	700 B.C.
Okvik	308 B.C.
Old Bering Sea	300 B.C. guess
Ipuitak	331 to 660 A.D. ± 200
Birnirk	500–900 A.D. guess

(Compiled from McCartney 1969, Jennings 1968, Bandi 1969.)

site, Ushki Layer VI, Verkholenskaia Gora II and III, Ust Belaia XIII–V, Anangula, Shabarakh Usu, Ulan Khada, and others. If this distribution represents related phenomena then we could hypothesize a North American introduction into NE Asia of bifacially flaked points. The time of such an introduction is unclear but it could be as early as 7000 B.C. On the other hand valid data is still woefully inadequate (Table XIII).

Ground Slate

Another major class of implements on the Northwest Coast are those made of ground slate: points, knives, etc. The major occurrence of ground stone implements at Namu consists of celts (not slate) appearing about 3000 B.C. The distribution of ground slate elsewhere does not fit a particularly conformable pattern. Ground stone in the Archaic of the Ohio valley dates back to 4000 B.C. (Griffin 1960). Later occurrences in the Laurentian complex of New England date about 3000–2500 B.C., and at Port au Choix, Newfoundland 2340 B.C. Other early occurrences include the Koniag level at Kodiak (1328 B.C.), Choris (1000 B.C.), and at the mouth of the Fraser (943

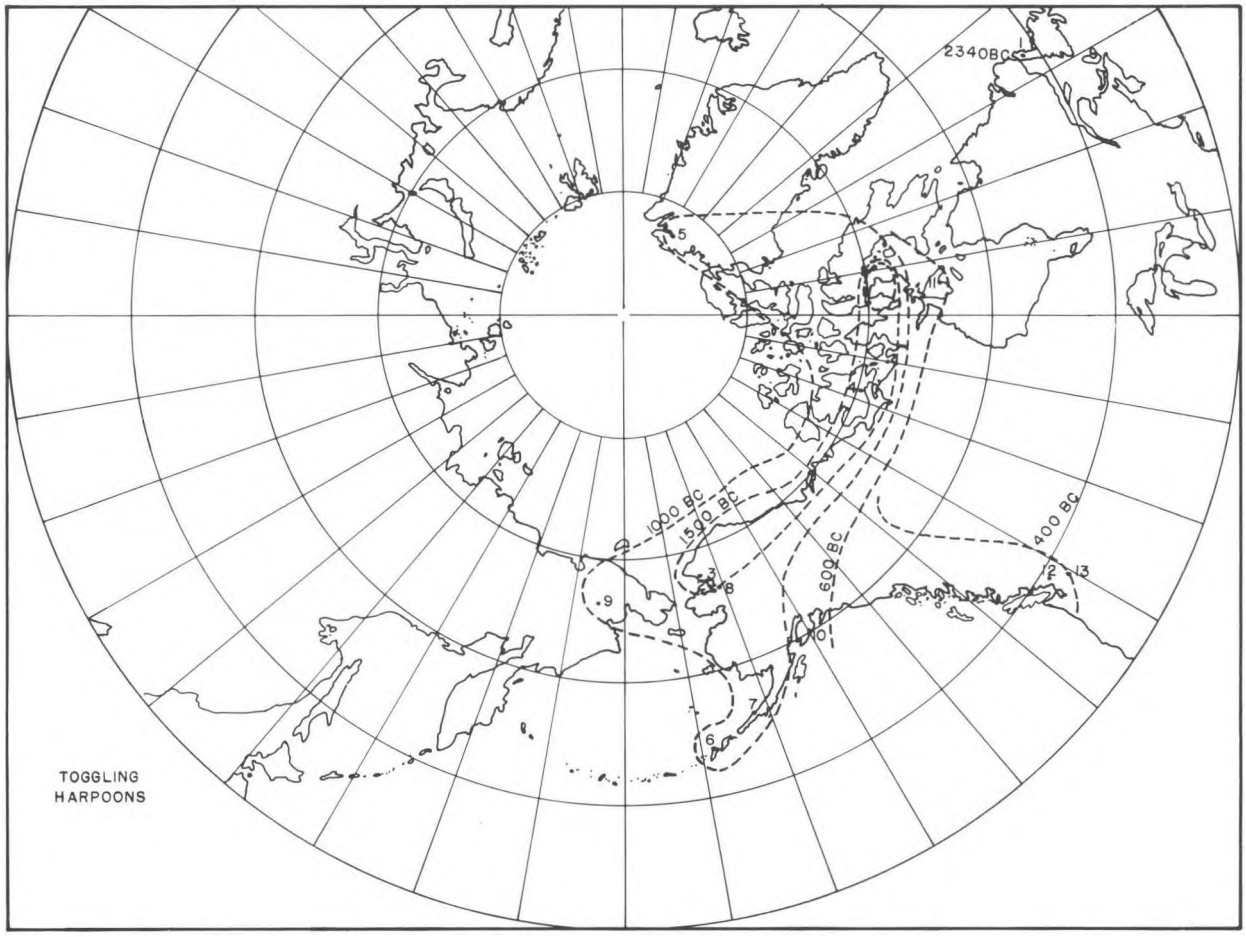

Fig. 72 Toggling Harpoon distribution.

B.C.). Articles by Borden (1962) and Dumond (1968) clearly describe the post 1000 B.C. spread of ground slate as a south to north movement across Alaska. In the east the earliest documented occurrences are in the Sarqaq and Dorset levels dated about 6–800 B.C. The present known distribution implies two centres of origin, one in New England and the other on the Northwest Coast. This implied dual origin may be the result of inadequate information concerning the distribution of ground slate in the Prairie Provinces (Table XIV, Fig. 71).

Toggling Harpoons

Socketed base, one piece, toggling harpoons were not recovered from Namu although their presence there was to be predicted. However the two piece composite toggling type appears there about 700 B.C. The presumed distribution of toggling harpoons is from the eastern Arctic west to Alaska and Siberia and then south to the Northwest Coast (Fig. 72). The earliest occurrences are at Port au Choix (2340 B.C.), and at Igloolik (1948 B.C.), followed by Cape Krusenstern, Alaska, (1800–1500 B.C.). Other Early Alaskan sites are Point Moller (1010 B.C.), and Choris (1000 B.C.), with the Siberian site of Ust Belaia, (900 B.C.), of similar age. At the same time the trait had spread to Northern Greenland (Independence II 1000 B.C.). Dated sites in the Aleutians are only slightly later, Chaluka Level IV, 946 B.C. The spread to the Northwest Coast appears to have taken place between 748 B.C. (Yukon Island) and the occurrence at Locarno Beach 493 B.C. (Table XV).

Labrets

Labrets also were not recovered at Namu although they should occur there. Among all the tool classes studied, labrets have the most restricted occurrence. They appear to be only associated with Northwest Coast, Aleutian, and Western Eskimo cultures. According to dated sites they occur earliest in the Aleutians ca. 1500 B.C. then spread down the Northwest Coast to the mouth of the Fraser by

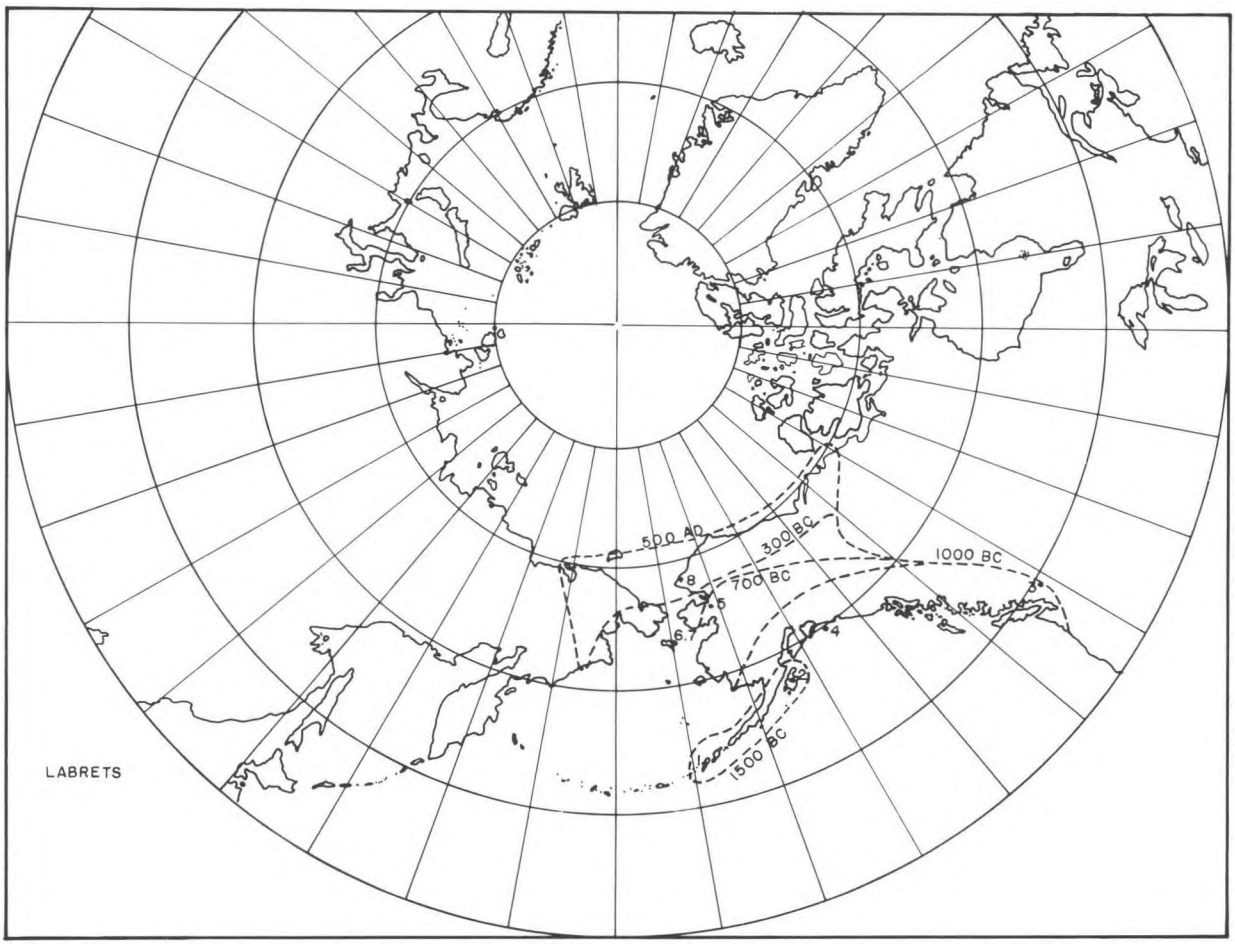

Fig. 73 Labret distribution.

1000 B.C. and north to Choris (Fig. 73) Subsequent movement is north and then both east and west along the Arctic Ocean with the trait reaching the Arctic north slope by 500 A.D. (Table XVI)

CONCLUSIONS

The evidence from Namu suggests that it is a unique site, in that it has presented us with such a complete record of cultural influences over more than 9000 years. Several tool traditions occur early there and their presence suggests that the cultural influences felt there through time were many, varied, and were introduced from several different directions.

Two of these traditions, represented by pebble tools and bifacial points seem to be only vaguely understood due to inadequate study. What is perhaps most needed are future studies focused on those traditions. The ground slate distribution suggests that more research in the Prairie Provinces could help clarify that problem. The microblade distribution is best known, with toggling harpoons and labrets nearly as well documented. Several major conclusions are suggested by the present survey:

1. We have not identified a single origin of Northwest Coast culture, but instead multiple origins of the component elements.
2. We should consider all our data in light of the probable northward spread of culture elements after deglaciation.
3. No single trait examined in the present survey occurs earliest on the Northwest Coast.
4. We may view Northwest Coast culture as part of a wide-

spread Circumpolar Cultural tradition.

5. There is the possibility of travel by boat at even the earliest time level. The early distributions of microblades in insular locations, Japan, the Queen Charlotte islands, etc., is easily explained by postulating water transport. The invoking of lowered sea level with the requisite land bridges is a more complex explanation.

In our analysis, we have utilized the artifactual data from Namu as our data base. However we have sought to place its component parts in the wider context of the known cultural traditions of Northwestern North America. The results of this comparative approach have been of value as they help place our findings in perspective. What emerges as the most significant result of our work at Namu is that although the cultural record there is both long and complex, Namu was the recipient rather than the originator of these cultural influences.

The excavations have revealed much about the prehistoric subsistence patterns and the technology utilized in subsistence activities. The patterns of resource utilization may be inferred from the data we have recovered. These patterns and the relationships between the cultural practices and various environmental factors through time are the focus of our continuing studies. It seems appropriate to review the cultural practices we have identified and trace their prehistoric time depth. This chronology of cultural elements, presented in Figure 74 provides an assessment of the time depth associated with a number of the cultural elements that were incorporated within the classic Northwest Coast ethnographic culture pattern. These data indicate to some degree the way in which the classic pattern developed through time, primarily through accretion.

The trait complexes through time graphed in Figure 74 are inferences based on data of varying indicative quality. The economic pursuits are inferred from bones, shells, etc. present as food debris. Tool technologies are indicated by the actual presence of such tools. Other activities are inferred from the uses to which the tools were put. Woodworking is inferred from the presence of ground stone celts and bone wedges, basketry or matting from the awls. Differential status was implied by the presence of ornaments and the elaborate burial group with offerings (FS 4. h,I,J). Hostilities are suggested by the fact that a bone point was found sticking into the vertebrae in burial FS 4.H. Perhaps our most tenuous inference is that of the use of watercraft. The coast is rugged and water transport would have greatly facilitated its settlement. Further, watercraft would have been most useful in sea mammal hunting, a tradition evidenced throughout the prehistory of the region. Dogs are present in quantity throughout the strata. They are so common, the second most common mammal species, that one is led to infer that they served some economic function. Two possible functions would be for food or for wool. The burials without offerings, but with large boulders dropped on them, imply persons of low status. It is possible these represent slaves, although we cannot prove such an inference. Although our data are incomplete, it is apparent that the economic base of patterned reliance on multiple food resources antedates by thousands of years on the Northwest Coast, the classical ethnographic emphases on status, rank, hereditary privilege, wealth, conspicuous consumption, and a developed art style. In our data, elements of this classical pattern appear after 3800 BP and the various elements appeared at different times. According to our comparative studies these elements were introduced from several different directions and from cultures of differing types. Our reconstruction of Northwest Coast prehistory is predicated upon the concept that basic to that culture pattern was the multiple resource subsistence strategy. Other elements exhibited in the ethnographic pattern are the result of a complex history of cultural contacts with adjacent regions as well as indigenous developments. Our view is thus that the ethnographic pattern represents an amalgamation and integration of these indigenous and introduced traits. Northwest Coast prehistory should be viewed as a continuum which included mechanisms for assimilation of new traits. It remained flexible and adaptive as the historic evidence indicates. The exact chronology of the adoption or loss of specific trait complexes is yet to be compiled. What is important to recognize here is that the cultural pattern had as its core the subsistence pattern. This base was augmented through time by the addition of new trait complexes. At this writing the mechanisms at work seem to have included accretion and synthesis. In the Bella Bella region at least, the cultural pattern seems to have been more the result of introduced ideas rather than their local development.

Reasons for the acceptance of introduced patterns, the failure of indigenous traits to be widely disseminated beyond the Northwest Coast culture area, and the final collapse of the Northwest Coast culture pattern lies beyond the scope of our present study.

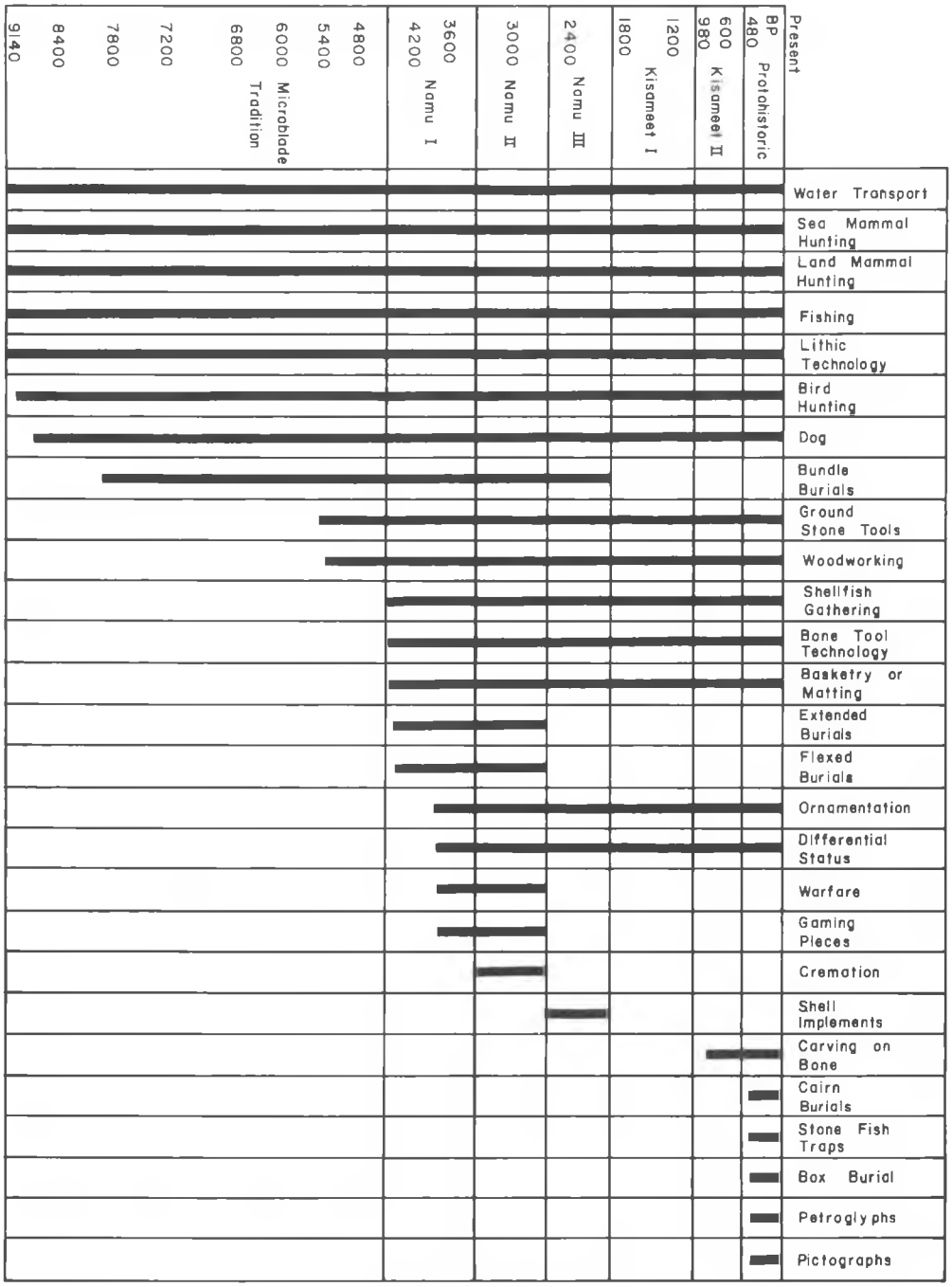

Fig. 74 Trait complexes through time.

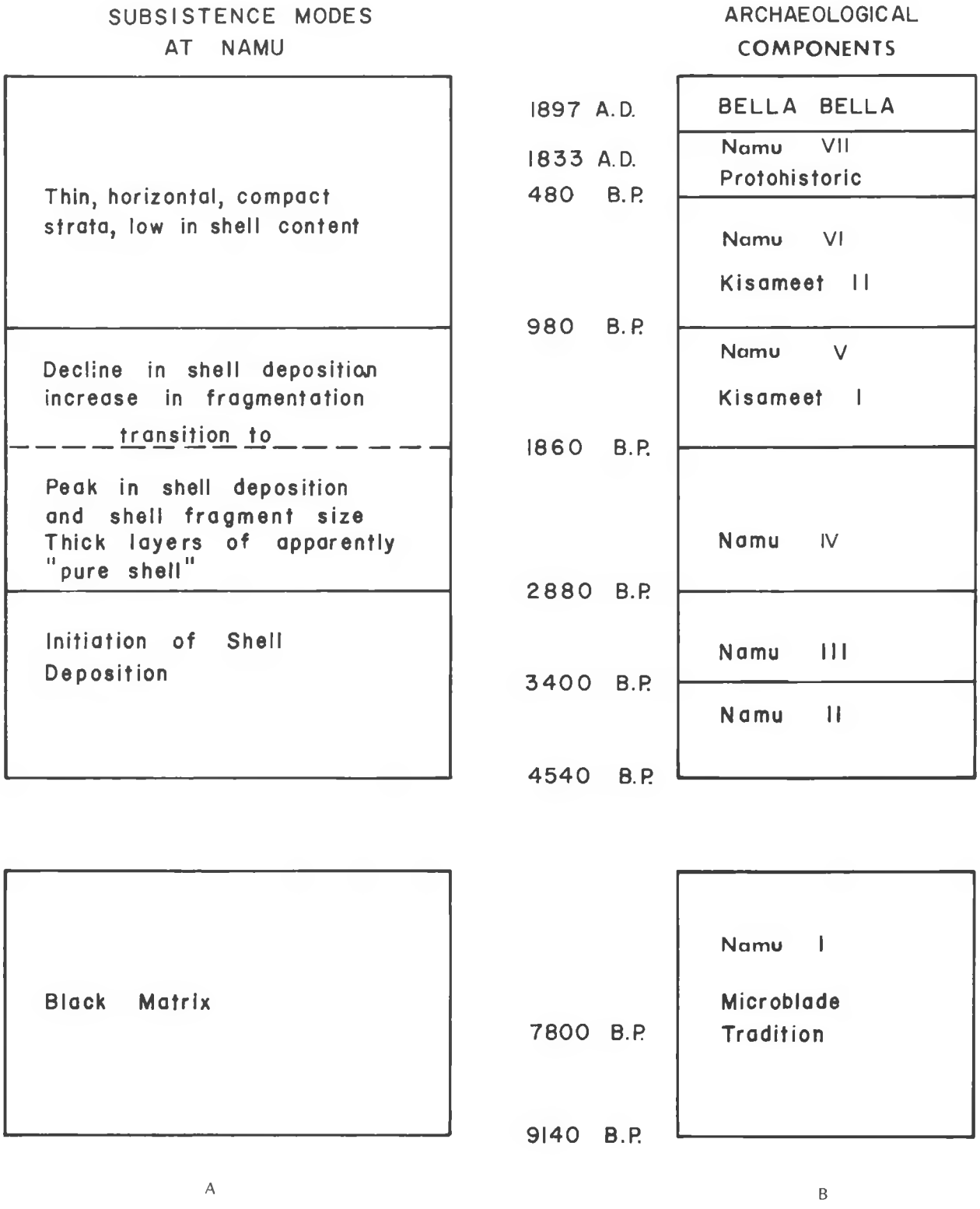

Fig. 75 Definition of subsistence modes from environmental remains (A) and archaeological components from diagnostic artifacts (B). While the former has been demonstrated to be possible, the latter is chronologically more sensitive.