Excavations at Helen Point on Mayne Island

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INTRODUCTION

Mayne Island is located toward the southern end of the Strait of Georgia in the Gulf Islands (Fig. 13). The Helen Point site (DfRu 8) is located on the northwest corner of Mayne Island on Active Pass on an occasionally occupied reserve of the Tsartlip band of Saanich Indians. Other excavations at the site were undertaken by the Archaeological Sites Advisory Board in 1966 (Hall 1968), and by the Provincial Museum in 1968. The following preliminary report describes excavations undertaken between May 15 and July 19, 1968 by the Archaeological Field School of Simon Fraser University which I directed.

THE SITE

The site extends for about 450 metres along the shore of Active Pass from a cluster of contemporary Indian dwellings on a small bay at the western end to a large rectangular house depression at the eastern end. Midden deposit is discernable up to 50 metres back from the beach. Tsartlip tradition holds that the inhabitants of the site resettled from the eastern portion of the site to the small bay during the historic period. Shellfish are present in the sandy bottom of the bay, deer and formerly elk on the island, and fish and sea mammals in the waters of Active Pass. The main sockeye salmon run goes through Active Pass on its way to the Fraser River. Large conifers are growing from the midden.

THE EXCAVATION

Our excavations were undertaken toward the eastern end of the site, west of a concrete slab marking an historic burial which is immediately west of the rectangular house depression. Our primary horizontal excavation units were 2 meter by 2 meter squares arranged in two bisecting trenches. Levels of 10 cm. thickness were the primary vertical excavation

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units. Approximately 147 cubic meters of midden were thus excavated which produced 2,580 catalogued artifacts, eight burials, and a number of habitation features. The midden varied from 10 to 150 cm. in depth.

STRATIFICATION

The oldest geological deposit is a conglomerate of Cretaceous age which is covered in part by a thin layer of yellow glacial till on which rests the artifacts and debris of the initial human occupation. The surface of the conglomerate where protected by this mantle of till is striated as a result of glacial activity. In places where the conglomerate was not protected, it has a rough surface as a result of post glacial weathering prior to the accumulation of the midden. The midden itself is divisible into three main stratigraphic units.

The earliest stratigraphic unit is a compact, greasy, black deposit which contains charcoal, bone, fire cracked rock, hearths, burials, and artifacts, but only minute amounts of highly fragmented shell. This layer is 90 cm. thick in the deeper portions of the site and thins to 10 cm. and less toward the present beach line. The surface of this deposit is by no means uniform and has had pits and burials intruded into it from younger occupations. This unit is designated Stratum I and contains the artifact complex of the Mayne phase.

Stratum II, the next youngest stratigraphic unit is very similar in composition to Stratum I except that shellfish remains are somewhat more abundant. Final analysis may indicate sub-division of this deposit into two units, one containing an early and the other a later Marpole phase component. In the central portion of the excavation, this unit is partly capped by a layer of burned yellow earth suggesting an extensive fire.

The youngest deposit, Stratum III, is located more toward the beachward portion of the midden and is characterized by heavy concentrations of whole and fragmentary shell, as well as fire cracked rock and other midden debris. Artifacts of the San Juan phase are associated with this stratigraphic unit. No burials were found in this unit.

CULTURAL PHASES

The data indicate that there were three sequent occupations of the excavated parts of the site punctuated by periods of abandonment. Comparisons with artifact assemblages of known dates from other sites

suggests that there is an estimated 5,000 years of prehistory compressed into the 1.5 meter deep deposit. Distinct assemblages or tool kits are characteristic of each period of occupation. Each period witnessed the presence of a particular phase of prehistoric culture with its distinctive complex of artifacts. These phases in chronological order from earliest to youngest are the Mayne phase, the Marpole phase, and the San Juan phase.

Mayne Phase

The following cultural traits were found in association in Stratum I and are characteristic of the Mayne phase:

- Flaked basalt artifacts and debitage in quantity
  - Leaf shaped basalt points
  - Diamond shaped basalt points
  - Stemmed and shouldered basalt points
  - Scrapers and knives
- Pebble choppers
- Flakes and casual artifacts of milky quartz and quartz crystal including microblades
- Obsidian flakes and artifacts including microblades
- Ground slate points and knives present, but rare
- Chipped slate points
- Bilaterally barbed harpoon heads of antler
- Unilaterally barbed antler points with lashing grooves
- Antler wedges
- Sandstone abrading slabs and whetstones
- Labrets and other polished stone ornaments
- Bone pendants
- Long, unbarbed, bone points
- Red ochre
- Extended burials
- Circular hearths
- Rock slab features

Other types of artifacts and subdivisions of the preceding types will be added once the final analysis of the material is completed. Particularly diagnostic are the small bilaterally barbed harpoon heads, and the particular style of unilaterally barbed antler point. Stemmed and shouldered chipped stone points far outnumber other forms. Typical artifacts are shown in Figure 34. Estimated dating of the Mayne phase places it within the time period between 3,000 and 1,000 B.C.

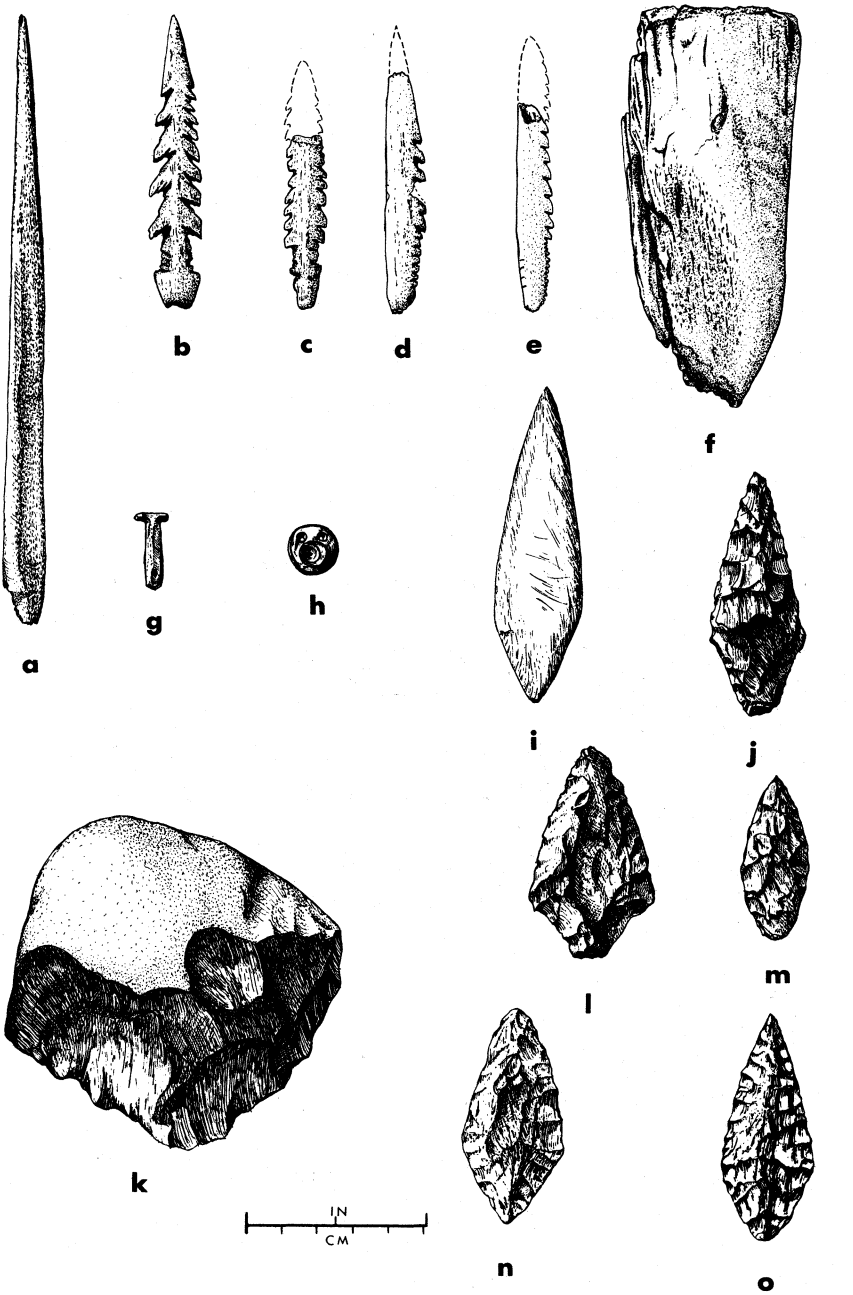

FIG. 34. Mayne phase artifact types from the Helen Point site. *a*, bone point; *b*, *c*, bilaterally barbed harpoons of antler; *d*, *e*, unilaterally barbed antler points with lashing grooves; *f*, antler wedge; *g*, stone labret; *h*, stone ornament; *i*, ground slate point; *j*, *l*, stemmed chipped stone points; *k*, pebble tool; *m*, leaf-shaped point; *n*, *o*, diamond shaped stone points.

The Mayne phase material is the most intriguing of the three assemblages recovered. These particular artifact types in association have not previously been reported for southern British Columbia. Comparisons suggest that the Mayne phase is part of a widespread coastal culture which extended from the Pacific Coast of Alaska to southern British Columbia between 3,000 and 1,000 B.C. The best evidence for the Alaskan end of this culture area comes from the Takli site on Takli Island just off the Pacific Coast of the Alaska Peninsula (Clark 1968). At that site stemmed flaked stone points, diamond and leaf shaped points, small bilaterally barbed harpoon heads with tang and lateral line guards, wedges, labrets, ground slate points and knives, whetstones, flaked slate projectile points, chipped stone scrapers and knives of various sorts, and a maritime sea coast orientation with implements for both land and sea hunting are characteristic of the Takli Birch phase which is dated in that locality between approximately 2,500 and 1,000 B.C., but may extend up to the time of Christ (Clark 1968). Some of these artifact types including the bilaterally barbed harpoons appear even earlier in the Takli Alder phase, 4,000 to 3,000 B.C. (Clark 1968).

In the area intervening between Takli Island in Alaska and Mayne Island in British Columbia, evidence of this culture or indeed of any culture between 3,000 and 1,000 B.C. is meagre. In the lower Skeena locality harpoons with bilateral barbs are concentrated if not totally restricted to the Early Period, 500 - 2,500 B.C. (George MacDonald, personal communication). At Fort Rupert on northern Vancouver Island, Capes (1964: 72-77) uncovered a bilaterally barbed harpoon from a layer dated by radiocarbon to 3,325 B.C.; the test excavation was too limited, however, to produce sufficient diagnostic data for phase placement.

There is some evidence to suggest the spread of this early coastal culture up the Fraser Valley and inferentially up the other major river valleys of British Columbia. There are similarities between the Mayne phase projectile points and those from the Eayem phase at Yale and at the St. Mungo site (Clavert, this volume). The St. Mungo site also yielded one bilaterally barbed harpoon head of a somewhat different style. Private collections from Lillooet (Baker, this volume) also contain several bilaterally barbed antler harpoon heads. A Fraser River site which might contain a Mayne phase component is the site at Port Hammond which produced a number of small bilaterally barbed harpoon heads (Smith 1903, Fig. 19). The specific associations of these artifacts are unfortunately unknown.

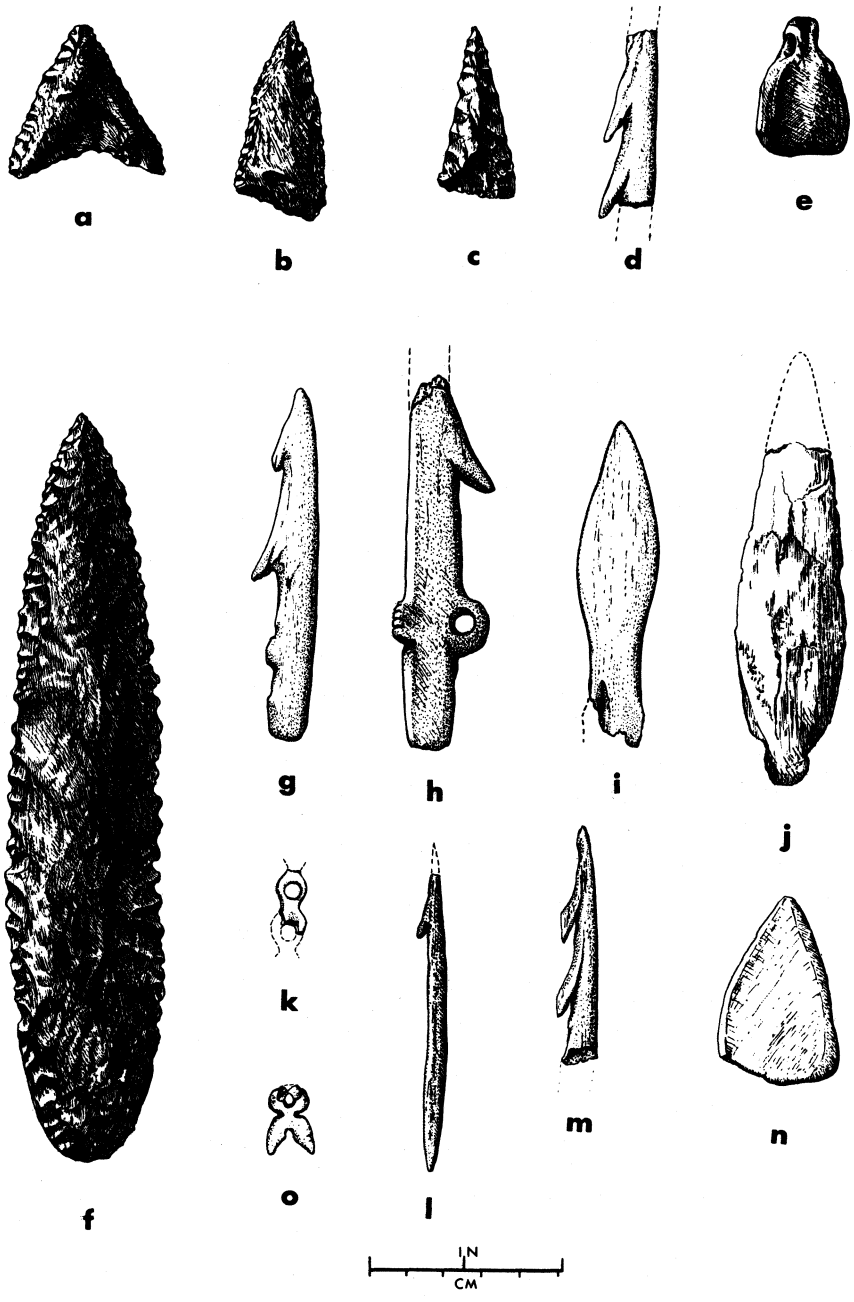

FIG. 35. Marpole phase artifacts from the Helen Point site. *a - c*, chipped stone projectile points; *d*, *m*, fragments of barbed antler points; *e*, laterally perforated soapstone pendant; *f*, ceremonial knife; *g*, *h*, antler harpoons with line guard; *i*, antler point; *j*, *n*, ground slate points; *k*, *o*, antler ornaments; *l*, bone point or fish hook barb.

Marpole Phase

The artifacts of the Marpole phase are distinctly different in style from the artifacts of the preceding Mayne phase even though both phases are representative of the same general type of hunting, fishing, and gathering culture. Culture traits characteristic of the Marpole phase component are as follows:

- Quantities of flaked basalt artifacts
  - Triangular projectile points
  - Broad, thin, sometimes stemmed points which probably served as cutting blades for harpoons
  - Knives and scrapers
- Large, ceremonial knives of flaked stone
- Groundslate points and knives
- Nephrite Adze blades
- Unilaterally barbed fixed points of antler
- Marpole style unilaterally barbed harpoon heads of antler
- Ornaments of antler
- Wedges of antler
- Unbarbed points of antler
- Sandstone whetstones and abraders
- Laterally perforated stone pendants
- Bone "daggers" and gouges
- Flexed burials

Single representatives of other artifact types — one piece socketed harpoon head, composite harpoon valves, fish hook shanks, and fish effigies, were also recovered. Final classification will add some additional types to this list. Typical artifacts are shown in Figure 35.

The typological evidence indicates that the Marpole phase component is not a direct outgrowth of the earlier Mayne phase, but that an intervening phase is missing from the sequence at this site. Except for a few cultural traits such as the one piece socketed harpoon head, and the heavy ground slate points, the component here is very similar to the Marpole phase component at the Garrison site in the San Juan Islands (Carlson 1960). The Marpole phase which presently is known to occupy the time period between at least 400 B.C. and 400 A.D. will eventually have to be subdivided. Final analysis of the Helen Point material may permit such sub-division. In general the basic technologies in the working of stone, bone, and antler continue from the earlier Mayne phase. The disappearance of the pebble chopper and the appearance of the ground

nephrite adze blade, and the change in style of harpoon heads are notable changes.

Evidence for the Locarno Beach phase at the Helen Point site is minimal. A few artifacts of types generally attributed to the Locarno Beach phase — heavy ground slate points and one single piece socketed harpoon head and antler foreshaft — were recovered from Stratum II along with Marpole phase artifacts. Such an association is expectable in view of the apparent overlap in time of the Locarno Beach and Marpole phases.

San Juan Phase

The San Juan phase differs markedly in culture content from the preceding phases, even though it represents a continuation of a hunting-fishing-gathering mode of existence. The following culture traits characterize this phase:

Chipped stone artifacts nearly absent
Abundant artifacts made from the split long bones of deer or elk
Barbs for composite fish hooks in quantity
Herring rake (?) barbs
Unilaterally barbed bone points
Small unbarbed bone points
Sandstone abraders
Ground nephrite adze blades
Valves for composite, socketed, harpoon heads
Thin ground slate knives
Thin, triangular, ground slate points
Antler wedges

Other artifact types are present in small numbers. The range and quantity of artifact types is very similar to that of sites of the same phase in the San Juan Islands (Carlson 1960). Typical artifacts are shown in Figure 36. The San Juan phase represents the protohistoric culture of the Straits Salish and dates from at least A.D. 1,200 to the time of European contact.

The portion of the site we excavated yielded no evidence for human occupation during the period of time between the Marpole and San Juan phases, that is, between approximately 400 and 1,200 A.D. A significant degree of culture change took place during this 800 year interval. The most conspicuous change is the near disappearance of chipped stone technology with its projectile points, knives, and scrapers

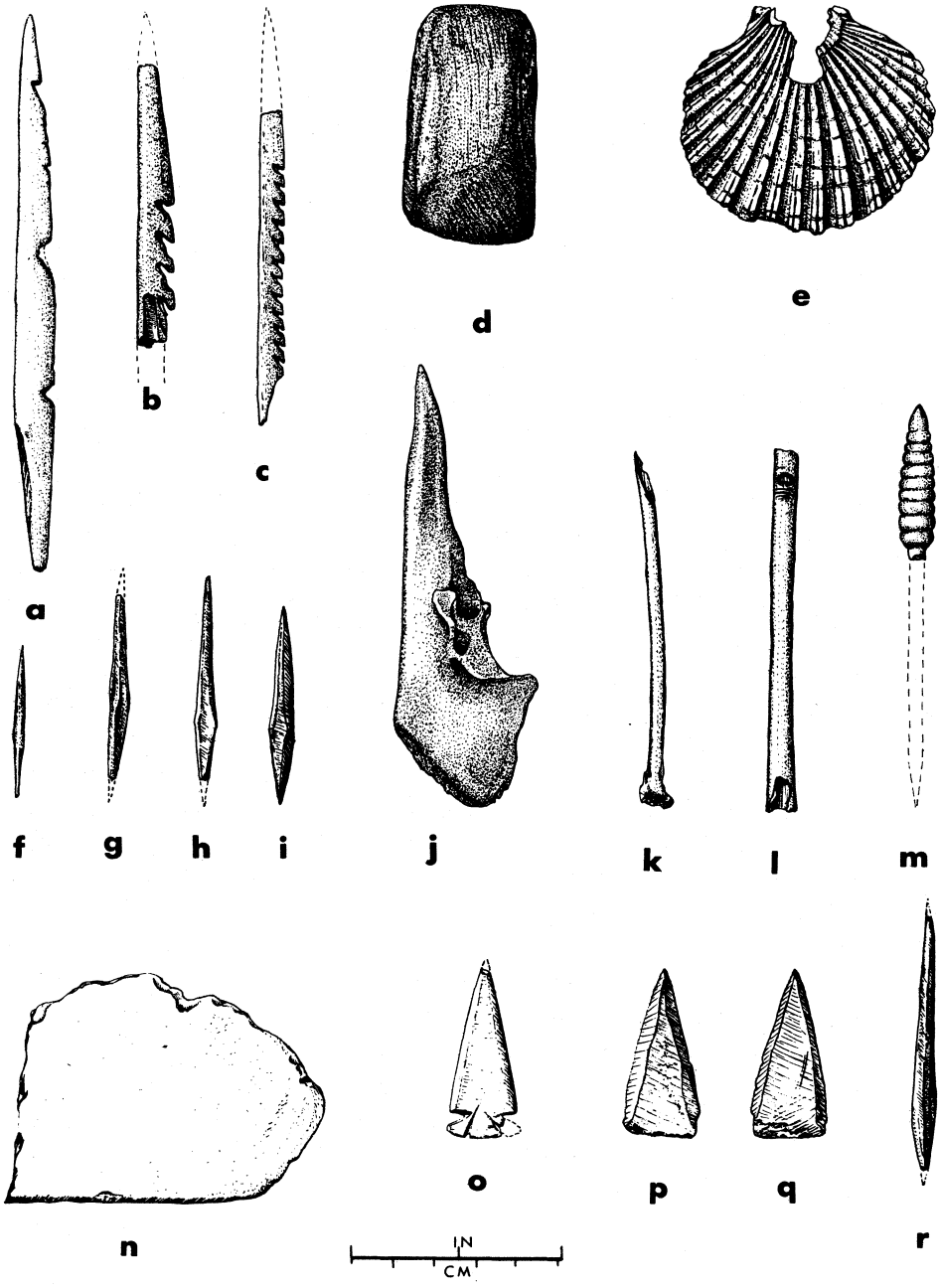

FIG. 36. San Juan phase artifacts from the Helen Point site. *a-c*, barbed bone points; *d*, nephrite adze blade; *e*, pectin shell rattle; *f*, bone herring rake (?) barb; *g-i*, bone fish hook barbs; *j*, awl of deer ulna; *k*, bird bone skewer; *l*, bird bone whistle; *m*, head of blanket pin; *n*, thin ground slate knife; *o-q*, ground slate points; *r*, small bone point.

which typify all earlier phases, and its replacement by the numerous artifacts of ground and polished bone of which barbs for composite fish hooks are the most common single artifact type. Several hypotheses in regard to the reasons for and processes of this change can be suggested.

One possibility is that the bearers of Marpole phase culture were replaced by another human population with a different technology. Such an hypothesis is very difficult to document archaeologically. The explanation of how population shifts might have taken place in the past lies primarily in an understanding of the nature of the socio-political organization operative in the cultures under consideration. Autonomy by small local groups, either villages or bands, was the characteristic organization of the ethnographic cultures of British Columbia, and there is every reason to infer that an organization of no greater complexity was operative in prehistoric as well as ethnographic times. As such a prehistoric population replacement would have been a gradual process involving slow territorial expansion and population growth over a number of generations, rather than a rapid replacement of one population by another. Differentiating culture change brought about by this type of population replacement from culture change brought about by simple borrowing of ideas and technological innovations through such mechanisms as intermarriage and trade between adjacent groups is very difficult on the basis of archaeological data.

A second possible hypothesis for the changes which took place between the Marpole and San Juan phases is that the changes in technology were a response to changing conditions of the natural habitat. Archaeological research in southern British Columbia has so far concentrated on the establishment of local chronologies and the working out of complexes of artifact types characteristic of particular phases and periods. Nowhere do we have the detailed paleoecological studies necessary for the reconstruction of past environments. All of the fish and mammal remains from Helen Point and samples of the molluscan materials have been saved, and when analyzed may shed some light on this hypothesis.

A third possible explanation is that of gradual change of the culture of the Marpole phase into that of the San Juan phase as the result of the introduction of new techniques for exploiting the environment. Much of the evidence for or against this idea lies in the poorly known period between A.D. 400 and 1,200 in the Gulf Islands. Certain other evidence would tend to support this idea. It is becoming apparent from the data at Ozette on the Pacific coast of Washington, from Yuquot on the west coast of Vancouver Island, and from Kisameet Bay near

Namu that the pattern of de-emphasis of chipped stone tools combined with use of certain bone tools has a greater antiquity there than along the Strait of Georgia. The spread of a particular complex of fishing technology to the cultures of the Strait of Georgia from localities to the north and west and the incorporation of this complex into the cultures of the Marpole phase to produce the San Juan phase may be the key process in this change. Detailed site reports and detailed typological comparisons need to be made before one can do more than suggest.

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Abbreviations Used

A.A.	American Antiquity.
A.An	American Anthropologist.
A.B.C.	Anthropology in British Columbia.
A.I.A.	Arctic Institute of North America.
A.J.P.A.	American Journal of Physical Anthropology.
A.M.N.H.	American Museum of Natural History.
A.M.N.H. - B.	American Museum of Natural History, Bulletin.
A.M.N.H. - M	American Museum of Natural History, Memoirs.
A.N.	American Naturalist.
B.A.E. - B.	Bureau of American Ethnology, Bulletin.
B.C.H.Q.	B.C. Historical Quarterly.
B.C.P.M.	British Columbia Provincial Museum, Victoria.
B.C.P.M. - A.R.	British Columbia Provincial Museum, Victoria, Annual Report.
C.G.J.	Canadian Geographical Journal.
D.J.A.	Davidson Journal of Anthropology.
G.S.A.B.	Geological Society of America Bulletin.
G.S.C.	Geological Survey of Canada.
I.C.A.	International Congress of Americanists.
I.C.A.E.S.	International Congress of Anthropological and Ethnological Sciences.
I.N.M.	Indian Notes and Monographs, Heye Foundation.
J.R.A.I.	Journal of the Royal Anthropological Institute.
J.W.A.S.	Journal of the Washington Academy of Sciences.
MS.	Manuscript, unpublished.
N.M.C.	National Museum of Canada.
N.M.C. - A.P.	National Museum of Canada, Anthropology Papers.
N.M.C. - B.	National Museum of Canada, Bulletin.
N.W.A.C.	Northwest Anthropology Conference.
O.P.I.S.U.M.	Occasional Papers, Idaho State University Museum, Pocatello.
o.s.	Old Series (Unless so marked all references given are "New Series").
P.N.W.Q.	Pacific Northwest Quarterly.

P.T.R.S.C.	Proceedings and Transactions of the Royal Society of Canada.
R.B.A.A.S.	Report, British Association for the Advancement of Science.
R.S.C.	Royal Society of Canada.
R.S.S.C.W.	Research Studies, State College of Washington.
S.A.A.	Society for American Archaeology.
Scs.	Screenings, Monthly Bulletin of the Oregon Archaeological Society.
S.I. - R.B.S. - C.B.P.	Smithsonian Institute, River Basin Surveys, Columbia Basin Project.
S.J.A.	Southwestern Journal of Anthropology.
T.A.P.S.	Transactions, American Philosophical Society.
Teb.	Tebiwa: Journal of the Idaho State University Museum, Pocatello.
T.R.S.C.	Transactions of the Royal Society of Canada.
U.B.C.	University of British Columbia.
U.S.N.M.	United States National Museum.
W.S.U.,L.A.,R.I.	Washington State University, Laboratory of Anthropology, Reports of Investigations.