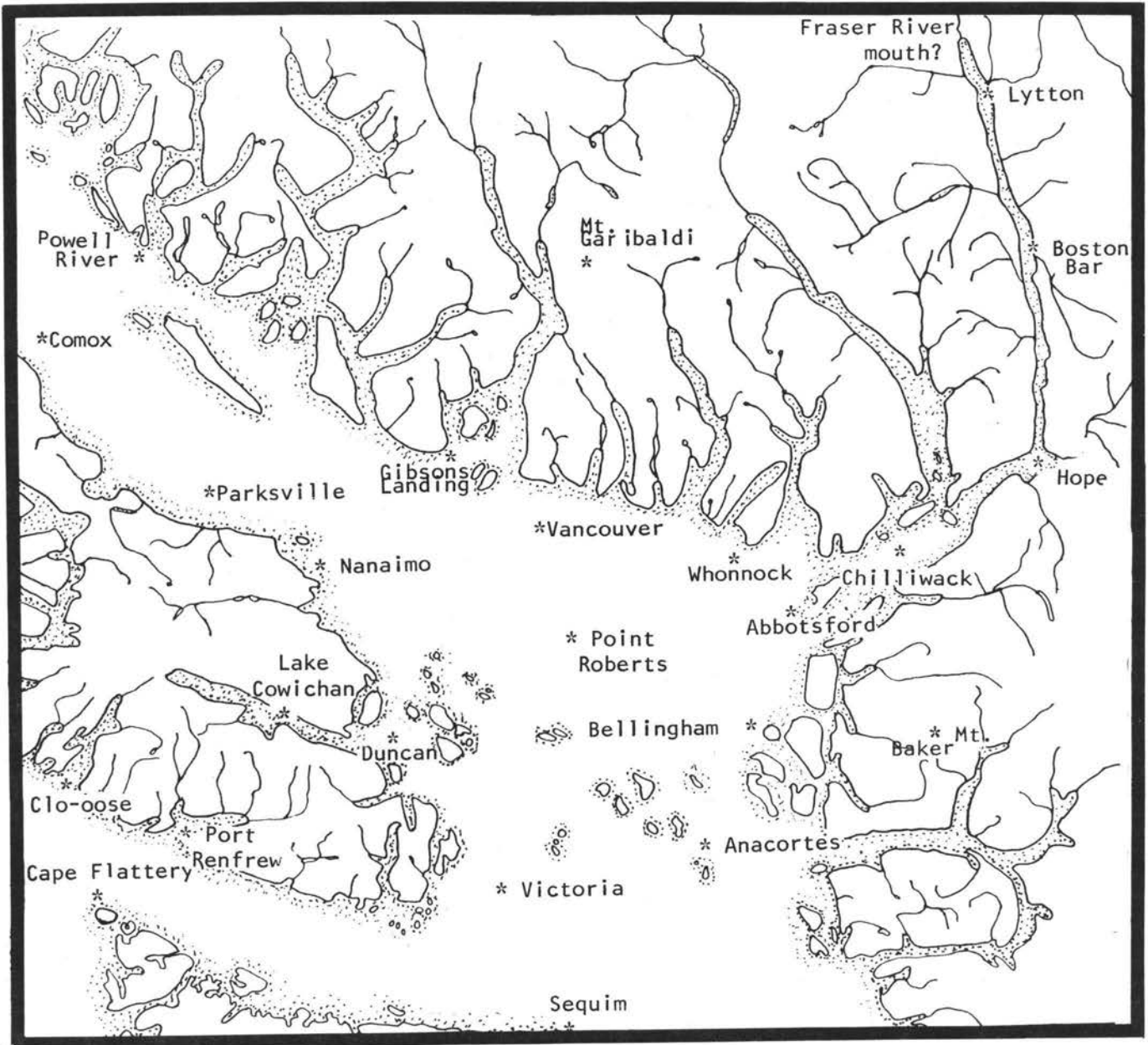


The Midden



Gulf of Georgia 12,000 years ago:

Was this the way it was? Page 8.

THE MIDDEN

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Submissions and exchange publications should be addressed to the Editor, P.O. Box 29, Whonnock, B.C., V0M 1S0. Contributions on subjects germane to B.C. Archaeology are welcomed. They should be relatively brief, with few footnotes, and only a brief bibliography (if necessary at all).

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Particular thanks for help with this issue of THE MIDDEN go to Ms. Nicola Lupton, Shirley Wallace, Kathryn Bernick, and the Heritage Trust.

PETROGLYPH PARK GETS A FACELIFT

Large-scale overhauling of Petroglyph Park, near Nanaimo, has been carried out over the summer.

The Heritage Conservation Branch, in collaboration with the B.C. Parks Branch, has set up a series of petroglyph reproductions, with instructions to visitors on how to make rubbings. Other displays explain the design elements, how petroglyphs were made, and the damage done by vandals.

Officials hope the new interpretive area will help discourage vandals, who have caused heavy damage to the classic petroglyph collection in recent years.

The shelters over the original petroglyphs have also been removed, as experts felt their Fibreglass roofs magnified the sunlight, accelerating lichen growth.

Local Regional Advisors will check out the site periodically, just in case the renovations in fact tend to attract vandals to the area.

The Strange Case of the Disappearing Archaeological Site

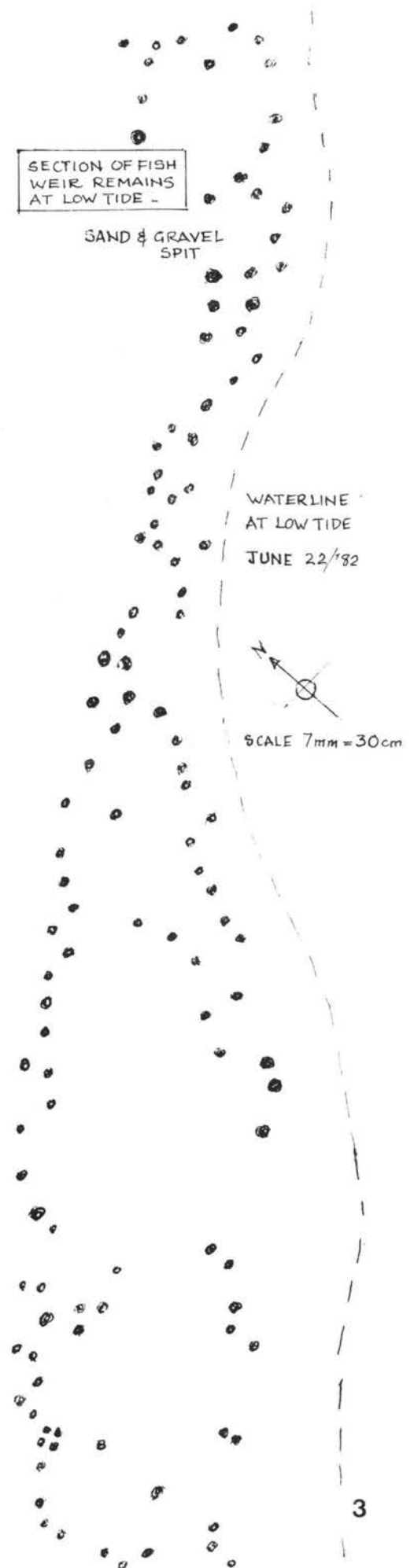
By Hilary Stewart

Imagine an archaeological site that reveals itself only once or twice a year, for an hour or two, before nature's powerful hand inexorably covers it over again. Then imagine the frustration of two people trying to record as much of it as possible, knowing that when the site is again visible some of it will have been further destroyed.

Such a situation may sound like a movie plot or a tormented dream, yet on June 21st of this year, it was reality. It was also excitement laced with urgency and great curiosity. Let me start at the beginning.

In early May, John Arnold was working on the ferry that hourly shuttled between Campbell River on Vancouver Island, and Quathiaski Cove on Quadra Island, a breezy journey of some 14 minutes. With the cars safely loaded aboard and the gate secured, the small ferry gently slid away from the Campbell River dock as Arnold and the rest of the crew stood in the ship's bridge, looking in a northwesterly direction. The tide was low, and something unusual caught their attention: aligned along one side of a sandspit which ran out from the rip-rap embankment they noticed a cluster of wooden stakes. The crew were all quite familiar with the shoreline, yet none had ever seen these before. Wondering if the stakes could be the remains of an ancient Indian fish weir, Arnold later contacted anthropologist Joy Inglis, a resident of Quadra Island. She visited the site and confirmed the discovery.

The following week Joy Inglis invited me up to see this interesting find, and, armed with tape measure and note pad, together we measured and plotted the remains of 23 visible stakes, mainly in pairs. Several had recently been broken off at the beach level, probably due to a fierce windstorm creating rough seas earlier in the month, but many stood 35cm and more tall. Additional stakes, which Joy had previously seen with John Arnold, were not revealed by this tide,



but we were pleased to have recorded as much as we did.

Three weeks later I once again drove from Vancouver for a visit to Quadra Island. On June 21st, with one of the year's lowest tides (minus 30cm) slated for 12.55 pm, Joy Inglis and I took the ferry over to Campbell River. From the upper deck we could see a veritable forest of dark stakes edging the long, exposed sandspit, and our expectations heightened.

Walking out to the far end of the spit we beheld an astounding sight. Dozens upon dozens of blackish-brown stakes in varying stages of preservation marched in rows or staggered in organized disarray along the beach edge. Many were closely clustered, some were in pairs, some were lined up in such evenly spaced rows that where there were gaps, we only had to look among the pebbles to find the stub of the missing stakes. And to cap it all, at the farthest end on the seaward side, a rock alignment angled off for some 7.5m.

Knowing our time was limited by the return of the tide, Joy Inglis and I set about the formidable task of measuring and plotting the positions of this remarkable array of stakes. We began with the rock alignment and the stakes at the low tide edge, working our way up the beach toward the embankment, steadily pursued by the relentless tide. In some areas there were so many stakes so close together that it became a necessary time saver to measure the overall length and plot the stakes by estimating the short distances between them - 10cm, 15cm, and so on. Their diameter ranged from 6cm. to around 11cm. Some were 45cm. tall.

The breeze off the water tempered the heat of the midday sun as we worked nonstop for two and a half hours, aware that the rising tide would give no consideration to the amount of work before us. When a local resident visiting the site offered to help, we said yes please and had him wading out into the icy cold water measuring stakes already covered by the tide.

There were varying distances between the groups of stake remains, and these we measured also. Section by section, we plotted the positions of the ancient wooden posts that had once played a vital part in supplying food for the native population of the area. Broken now, in part riddled with the empty tunnels of toredos and home to tiny barnacles, the remnants of this once highly organized fishing technology had somehow re-emerged to become important again. But now it was important for a different reason.



UPROOTED STAKE,
WITH TOP BROKEN,
SHOWED ADZING
AND FRAIED TIP.

In spite of the years it had existed, it was now a fleeting, transitory thing to be witnessed for a brief span. How long had it existed? We couldn't tell. Who had built and used it? That would depend on its antiquity, because although people of the Kwakiutl nation now occupy the region, it had been Coast Salish territory until about 1845. Why was the site exposed now?

We worked on in the hot sun. In a moment of enthusiasm, and without either Joy or I noticing, our strong and valuable helper pulled up one of the stakes solidly embedded in the beach! Its lower 35cm. heavily adzed to a point, was splayed at the tip from having been pounded in through pebbles. Since it was impossible to replace the stake, we decided to forward it to the British Columbia Heritage Conservation Branch, along with the report on the site.

Finally the incoming tide enveloped all but three of the taller, heavier stakes. Looking back over the sea-covered spit, we saw that those three stakes were perfectly aligned, their dark tops reflecting on the calm surface of the water.

The Director of the Campbell River museum, Jay Stewart, undertook to convey the uprooted stake to the Heritage Conservation Branch in Victoria. When the report of the site was completed, there were six pages of scale drawings plotting the positions of all the stakes we could locate. The total, including the initial 23, amounted to an astounding 254 - probably the most extensive fish weir site ever recorded along the Northwest Coast.

Campbell River thrives on its reputation as a fisherman's paradise. Perhaps that title stems from a greater antiquity than it realises.





EVENTS

Two lecture series offered by Vancouver Community College this fall may be of special interest to A.S.B.C. members.

Although both are already under way, they are free, registration is not required, and people are welcome to drop in.

The "Classical Studies Col-oquia" happen at the Langara campus at 3:30 on Wednesdays:

Oct. 20	Demosthenes	P. Harding
Oct. 27	Tacitus	A. Dusing
Nov. 3	The Etruscans	V. Sutherland
Nov. 10	Pompeii	J. Russell
Nov. 17	The Image of the Barbarian in Late Latin Literature	B.A. Brill
Nov. 24	Continuity from Classical to Renaissance	B. Hanbury

"Great Lovers of the Past" is a Robson Square lunch-hour series, Thursdays at noon:

Oct. 14	Queen Elizabeth	K. Quigley
Oct. 21	Admiral Lord Nelson and Lady Emma Hamilton	V. Sutherland
Oct. 28	Love Sacred and Profane during the Middle Ages	B.A. Brill
Nov. 4	King Solomon and the Queen of Sheba	A. Bursewicz
Nov. 25	Ae Fond Kiss	G. Sutherland
Dec. 2	Helen of Troy	E. Langley
Dec. 9	Napoleon and Josephine ... Love or Revolution	B. Hanbury

GOVERNMENT FREEZES ARCHAEOLOGICAL PUBLICATIONS

The Heritage Conservation Branch has suffered a freeze on publications, which further postpones production of some monographs already a year or two old.

Art Charlton told The Midden that HCB had hoped to produce a Greg Monks report in early 1983, and a David Archer paper later that year, to establish a pattern of two Occasional Papers each year. However, all departmental publishing has been put on hold, as part of the government's budget squeeze.

S.F.U. FIELD SCHOOL WORKS ON HISTORIC SITE

The SFU field school joined the Bella Bella Indian Band in a 2½-month excavation this summer, at Old Town Bella Bella (FaTa4).

A 20-person crew, directed by Dr. Phil Hobler, investigated several stages of historic occupation, encountering some architectural features (post molds, chimney stones, hearths), and quantities of china, glass and nails. No prehistoric material was identified.

The site was occupied from 1833 to 1899. It was originally the location of the Hudson Bay Company's Fort McLaughlin, a complex of eight log structures surrounded by an 18-foot-high wall with parapets, bastions, and mounted cannons. Native people congregated near the fort/trading post. Missionaries, arriving in 1880, contributed to a rapid modernization of the settlement, including a shift from large plank houses to small family dwellings, built with milled lumber. By 1899 the population had outgrown the available space, and the village moved to the present site at Bella Bella.

One of the objectives of the summer's research was to locate remains of the early fort. Although no evidence was found of the buildings or palisade, the edge of the clearing at the SW corner of the fort was identified. The other aspect of the project was to excavate one plank house and one of the milled lumber houses, and to compare the "trash" found at them.

Although the analysis and final report are still in progress, Dr. Hobler reports finding architectural features at both excavations, plus contemporary refuse. However, the vast majority of artifacts from both buildings comprised manufactured, store-bought items. Although they date from different parts of the 19th century and seem to vary somewhat in style, the two assemblages appear to be functionally similar.

K.B.

----- ST.MUNGO DIG FINALLY GETS GO-AHEAD

Excavations at the important St.Mungo Cannery site, soon to be demolished by bridge approaches, finally got underway this Fall.

The on-again, off-again dig, directed by Leonard Ham, was scheduled to begin in the spring, but final approval of the three-way funding --Highways Dept., Heritage Conservation Branch and Heritage Trust-- was constantly delayed.

One important element of the excavation work will be public education, with large public displays being mounted, and heavy emphasis on schools involvement.

THOUGHTS ON THE STATUS OF CULTURAL CONTINUITY

By Grant
Archaeology Division

In discussing the history of prehistoric cultures on the southern coast of British Columbia, there seems to be the general attitude that the archaeological record will reveal one of two things - continuity or change. However these two lines of thought are not necessarily in opposition to each other when it comes to interpreting the archaeological record.

The cultural-historical processes of direct conquest, migrations of populations, and diffusion of both ideas and actual artifactual materials have all played at least a minor role at various times in various places in British Columbia. But these processes are not as important in themselves as they may appear to be. Invariably continuity with change is the rule of cultural development in this area.

Processes such as migration and diffusion must be explained in terms of the adaptational process of the culture or cultures involved. These cultures must always come to terms with their own resources.

One culture that has adapted to a precise set of strategies in a specific environment cannot necessarily move into a new landscape with new resource distributions and expect to continue resource exploitation with the same old strategies and technologies.

Diffusion and migration have to follow rules, rules that are tied to limited adaptational processes.

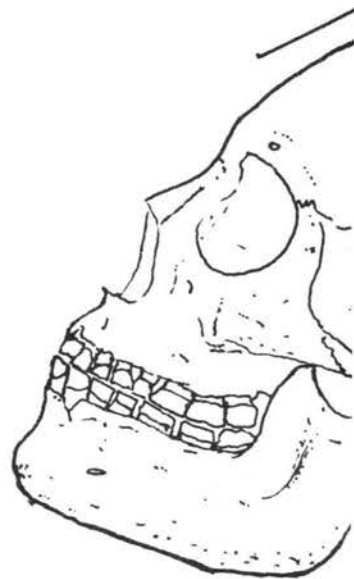
On the other hand, a growing population in a changing environment needs to adapt new strategies and technologies. What we do know about the environmental history of Salish territory would indicate that change was a normal occurrence, especially when looking at the long-term perspective.

Trait Lists

One of our main biases in determining change seems to be the idea that the larger the trait list of differences

Fi

The "Cowichan" or front view of the cranium of a specimen c.3000 B.P. f



in artifact assemblages if the change is more drastic the change in the population of people or a economy.

Yet if we were to excavate the last 8000 years and eliminate what might be thought of as artifacts used in the preparation of food and items for shelter, becoming much more similar

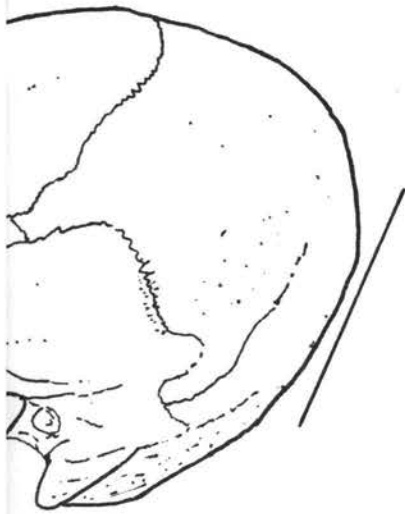
Social artifacts would include anthropomorphic bowls and ornaments such as labrets, pendants of every kind, and

AND CHANGE AMONG PREHISTORIC SALISH POPULATIONS

eddie,
B.C. Provincial Museum

pl

lamboidal style of artificial
The oldest example is a
the Beach Grove site.



one time period to another, the
then the two periods and therefore
that we are dealing with a new
complete shift in the subsistence

the our period trait lists which
the Gulf of Georgia area and
and social artifacts, as opposed
to procurement and processing
of, we would find the lists

include ritual objects such as
as well as personal
use rings, earplugs, beads or
artificial cranial deformation and

burial cairns. These kinds of items usually compose 20-30%
of trait lists.

If we were to further eliminate differences that are
functional improvements and/or stylistic changes, such as
the difference between chipped slate knives and ground slate
knives, large hammerstones and handmauls, we would find the
period lists becoming even more similar.

Those artifacts left on our period lists, we could
assume, may potentially reflect actual changes in the
subsistence base. Some of these, however, such as stone
fish hook shanks and to a lesser extent, ground sea-
mussel points are restricted to only parts of the Gulf of
Georgia region and may be a reflection of the local
availability of a particular kind of raw material or a
particular resource.

To date we know the actual function of only a small
number of these probable tools of survival. In the case
of only one, the herring rake barb, can we associate it
with any confidence to the time of initial large-scale
exploitation of a new resource.

What this conclusion may lead one to ponder is the
importance of looking at comparing subsistence artifacts
separately but in conjunction with social artifacts before
making general statements about change between two defined
periods of time.

Internal Changes

Archaeologists have recognized major changes in what we
know as the ethno-linguistic territory of Coast Salish peoples
by defining three cultural phases occurring over the past
3500 years. The nature of these changes is not yet well
defined, but there is no doubt (at least in the author's mind)
that these are changes within Salish populations.

One proof of this is the fact that the intentional
artificial shaping of the cranium observed among historic

period Salish peoples has been practised in this area for the last 3000 years (see Fig. 1). This practice (composed of three defined styles) does not occur earlier among any neighbouring groups. The very different Kwakiutl style of annular deformation overlaps a later part of the time sequence.

In light of this alone, the Salish could not have come to this area as a conquering people replacing other populations in the last 3000 years (although they may have lost or expanded their territory in some areas). The differences between the Gulf of Georgia Salish, the Bella Coola, Tillamook and Interior Salish peoples constitute in themselves sufficient evidence of wide ranging changes before at least the last 4000 years. Later changes defined as occurring at the introduction of the "Locarno Beach Phase", the "Marpole Phase" and the "Developed Coast Salish Phase" have occurred after sea level changes and climate had stabilized to approximate those of today. If changes in the subsistence base were important in altering these late artifact assemblages, we can expect that the more drastic environmental changes in the period from 13,000 to 3500 years ago will predictably show even greater alterations in the archaeological record as it pertains to basic subsistence artifacts.

The Changing Landscape

During the retreat of the late vashon stade of the Fraser glaciation c. 14,000 - 13,000 B.P. there appeared the first vegetated areas on Vancouver Island and the lower mainland. The first non-long-distance swimming animals now living on Vancouver Island may have populated these unglaciated areas at this early time while the sea level was much lower than present and the Gulf of Georgia was still filled with glacial outwash debris or low lying ice sheets. Human populations could conceivably move at this time-period into the first areas with sufficient survival resources at least on a seasonal basis.

In speculating on the economy of these people, we may surmise that some may have been hunters of mammoths and mastodons that roamed the low coastal plains. Others may have had a mixed economy involving both land and sea mammals, birds and fish, depending on whether or to what extent the Gulf of Georgia was filled with ice or glacial debris.

Whatever their economy, these first populations that occupied the low coastal areas would be continually displaced to higher land surfaces by rapidly rising sea levels.

Around 12,000 years ago, when waters inundated the land varying from 25 meters on the outer coast of Vancouver Island to possibly 200 meters in the lower Fraser, the landscape was a very different one from that which we know today.

The ocean probably went inland as far as Hope (see Fig.2). If the land mass inland from Hope was sufficiently depressed

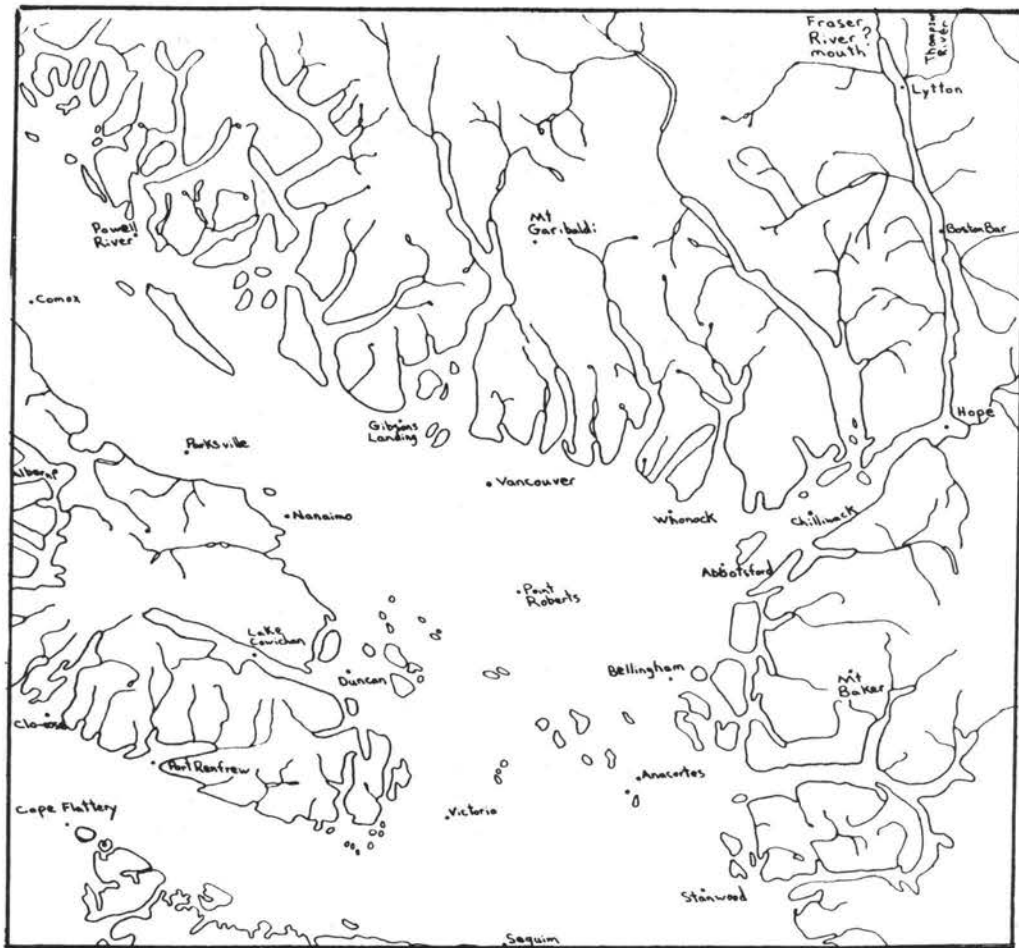


Fig.2. Maximum possible inundation of the land surface in the Gulf of Georgia area c.12000 B.P. (Reduced from Cover)

the wildest speculation may allow for a long fiord extending up the Fraser Canyon to the Lytton area but at present there is no evidence for this. A large fiord would have extended up the Lillooet River past Harrison Lake. However, it is unknown as to whether or not ice filled much of this fiord.

What we do know for certain is that all of the Fraser Valley west of Abbotsford and extensive low areas along the Washington Coast would be submerged. Most of the present Gulf Islands would be gone or greatly reduced in size. There would be a new island complex east of what is now

Bellingham and possibly a large island in Skagit county east of Mount Vernon. Mt. Baker would be the centre of a large peninsula between two ocean inlets.

Indian Arm, Pitt, Alouette, and Stave Lakes would be large, unprotected ocean inlets possibly with ice at their upper limits. The southern end of Vancouver Island would be nearly bisected by a major inlet up the Cowichan Valley, and extensive lowlands from Victoria to Comox would be drowned.

During this early period of prehistory the landscape may have tended to promote regional differences in human populations, especially in terms of steep walled inner fiord groups and outer gulf peoples.

The Changing Climate

It was cold 12,000 years ago. The landscape in many areas was probably a scene of open woodland and subalpine forests. For the next 1000 years the waters receded rapidly until they approximated those of today. As the cold climate improved, hemlock forests expanded. During this period many new resource localities became available and old ones disappeared literally every generation.

The next 2000 years from 9000 - 7000 B.P. saw much greater stability in sea level but also the sudden warming and drying of the climate which was accompanied by the invasion of Douglas Fir forests in many areas.

From about 7000 B.P. to 3500 B.P. the climate cooled to approximate that of today. The sea level, which had receded around 12 meters below that of present, rose up to near present level and the low Fraser Delta had expanded to half of its present extent.

Social Change

The changes observed in the archaeological record of Salish peoples over the last 3500 years have occurred in a relatively stable natural environment. For this reason one is tempted to surmise that in this recent period (more so than in previous periods) the vital processes of Salish ecological adjustment (or unadjustment) are ones of social relationships and not dominantly factors of the natural environment as appears to be the favourite explanation for change at present.

The appearance of artificial cranial deformation, artistically developed anthropomorphic artifacts, and the wearing of lip plugs certainly tells us about changes in

regional group identification as well as individual status distinctions. Linked with these changes is the evidence for extensive trade networks. Nephrite as a wealth item and woodworking tool, and quartz crystals and obsidian for a new and different microblade technology moved in large volume to the coast while dentalia shells as a wealth item returned to the interior.

Increasing human populations and their competition for access to resources must have been an important factor initiating change in Salish culture in the last 3500 years.

By at least a late prehistoric time, this competition had developed into large-scale intensified warfare as evidenced by both oral tradition and the widespread occurrence of fortified sites on or in close proximity to more permanent village sites, especially on southern Vancouver Island and the Gulf Islands.

Summary

We seem to live with the archaic idea that there was once some simple generalized culture lacking survival efficiency, as if without any previous history of its own, that later developed into specialized regional groups. I think that it is likely we will find that the first immigrants to the unglaciated parts of what now is N.W. Washington and S.W. British Columbia were very proficient in their exploitation of a very diverse range of environments and that regional differences in the archaeological subsistence assemblages will reflect this. We tend to make simple overgeneralized statements about "early" assemblages (and therefore people) about which we know very little.

It is just as likely as not, that the first peoples on the southern coast were a diffuse assemblage of smaller human populations that became more homogeneous through the extensive development of social networks.

With increasing populations, interband co-operation would become more and more necessary to prevent conflict over the utilization of certain local resources and to maintain the wealth supporting trade networks.

Archaeological changes observable in the last 3500 years are probably a result of the expansion, realignment or breakdown of these extensive social networks. Maybe if we begin to recognize the importance of social change we will begin to see the significance of social artifacts and the kind of changes that they reflect.

B.C.'s OLDEST HOUSE FOUND AT MINE SITE?

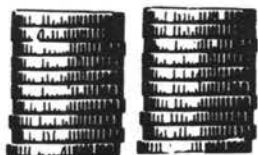
Survey and excavation work at Bethlehem Mine property on the Nicola plateau has identified an unusually important site.

A Heritage Conservation Branch crew working in the area in 1981 located several promising sites, and branch officials subsequently approached Bethlehem Copper for support for excavations in 1982. The company, which had never had dealings with archaeological work before, agreed, and Arnoud Stryd's company ARCAS Heritage Consultants was hired to carry out the work.

Shortly before the dig was due to end --Heritage chief Art Charlton told The Midden-- the archaeologists located what appeared to be a microblade factory. After hasty consulting between Stryd, Charlton and Bethlehem officials, the copper company agreed to extend funding so the dig could be completed.

Subsequently, Stryd's team confirmed their suspicion that the working area was in fact a house floor, complete with post moulds. This, said Charlton, would likely make the structure the oldest datable building ever found in B.C.

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