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WHALEN FARM REVISITED

40 YEARS LATER

by Brian Thom

On Monday, June 20, 1949, Charles E. Borden recorded in his field notes the arrival of his crew at the Whalen Farm site (DfRs 3) in the small community of Maple Beach, Washington. Borden and his crew excavated in the shell midden located on Mike Whalen's farm for the 1949 and 1950 field seasons. This site was to provide important but problematic data for his Fraser Delta culture historical sequence which is well known from his classic 1970 article in *BC Studies*, *Cultural History of the Fraser Delta Region: An Outline*. It was in this article that he best articulated his cultural phase scheme: Locarno Beach Phase, Marpole Phase, Whalen II Phase, and Stselax Phase. Though most of these phases are widely referred to by archaeologists studying Fraser Delta prehistory, the Whalen II phase has fallen into general disuse. I have recently completed a study of the Whalen Farm material and have found that the collection excavated from the Whalen Farm site can be explained in terms of the now well-established culture historical scheme for the Fraser Delta, which excludes the questionable Whalen II Phase.

Reconstruction of the Site

The Whalen Farm site is located on the eastern shore of the Point Roberts peninsula. It extends from the base of the Roberts uplands (Maple Beach, Washington) in the south, and across the international border into the low-lying area of Boundary Bay in B.C. The eastern part of the site is about 75 metres from the high tide mark of Boundary Bay; the western extent is about 500 metres from the shore. A series of midden ridges run almost due north and south for about 800 meters.

The site has been heavily damaged since urban development began in the mid-1950s. When Borden excavated Whalen Farm in 1949-50, the area was largely undeveloped farm land. Since I was unable to locate any map by Borden showing exactly where his excavations were, I went to the site and

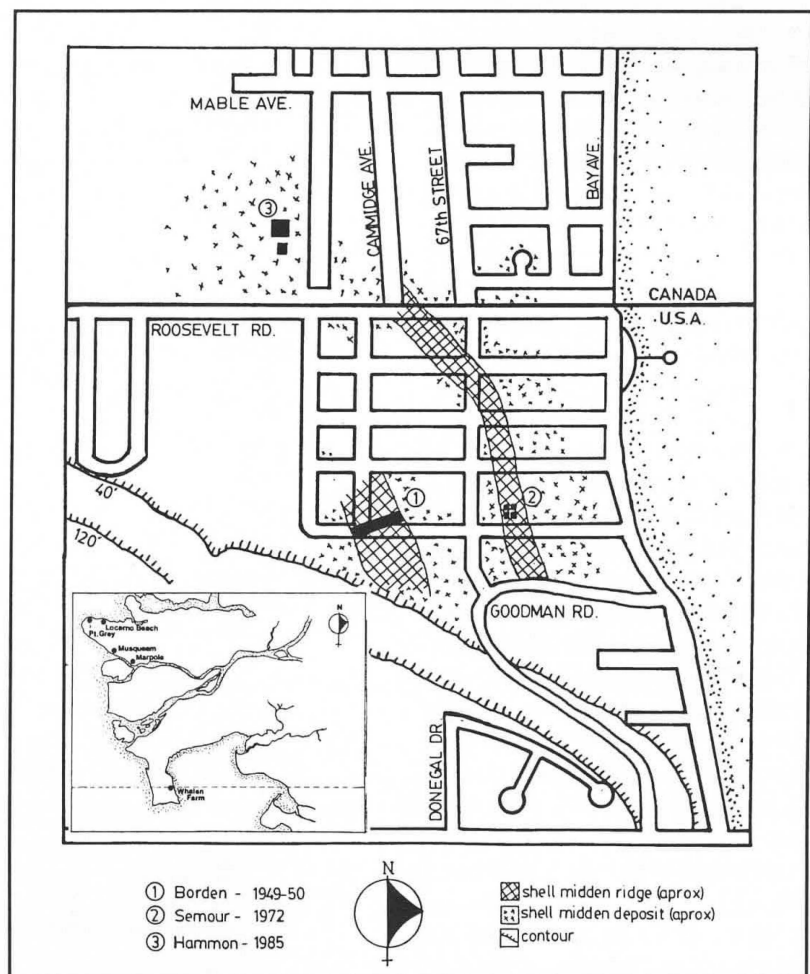
made a map of the remaining midden ridges and deposits to reconstruct approximately where the excavations took place. An old barn that was noted on one of Borden's contour maps and depicted in an old field photo allowed me to plot the approximate location of his excavation trench. The location of subsequent excavations at the Whalen Farm site by Brian Seymour in 1972 and Dimity Hammon in 1985 are also shown.

Geological studies of the Lower Fraser Delta by W. H. Mathews indicate that the Roberts uplands was an island until about 5000 BP. Another geological study by Harry Williams and Michael Roberts suggests

that the sea-level stabilized around 2250 BP in this area. A radiocarbon date [C14] from the lowest level of Borden's excavation trench shows the earliest occupation to have been 2450 ± 160 BP. These dates indicate that this was probably the first time that a settlement occurred in the low-lying area.

Borden's Excavation

Borden set out a trench divided into a total of nineteen 5' x 5' units cross-cutting the largest midden ridge. A fence-post indicated on Borden's field contour map provided the horizontal datum point, while the highest point of the midden was used for the



Map of Whalen Farm showing midden ridges and excavations. Courtesy B. Thom.

vertical measurements. Borden very conscientiously obtained the horizontal and vertical provenience of the artifacts from the midden.

All of the excavated midden was screened using a 1/4" screen in the field. Assorted material was collected and bagged in what Borden referred to as "Assmat" bags. Samples of the matrix, carbon, various faunal material, and stone debitage were kept in the Assmat bags. Samples in the Assmat bags were saved intuitively rather than by statistical sampling methods. Though they are of limited value for faunal or matrix analysis due to their judgemental nature, the bags of carbon can still be used for C14 dating. Careful examination of the contents of the debitage bags revealed 29 uncatalogued artifacts with good 3-dimensional provenience.

Borden considered site profiles very important, and great care and attention were taken in drawing them in the field. The midden was excavated down to sterile beach sand 12 feet below the top of the deposit. Two components were distinguished by Borden on the basis of the difference in the contents of the layers. Whalen II, the upper and more recent component, is distinguished by a general pattern of thick layers of large shell-fish such as horse-clams, butter-clams, and some bay mussels. Whalen I, the lower component, contained far more bay mussels and a few instances of basket cockles. On the original site profile a blue pencil-crayon line distinguishes the Whalen I from the Whalen II component. This line provided my basis for a reconstruction of Borden's artifact assemblages.

The Artifacts and Other Remains

A total of 449 artifacts made of a variety of chipped, pecked and ground stone, bone, antler and shell were found *in situ* at the Whalen Farm site. A major problem, however, was that Borden never published tabulations of the artifacts which he excavated. This made it very difficult for any kind of comparative analysis to be done without looking at the collection. The table (p.5) gives the first published account of the artifacts found at this site.

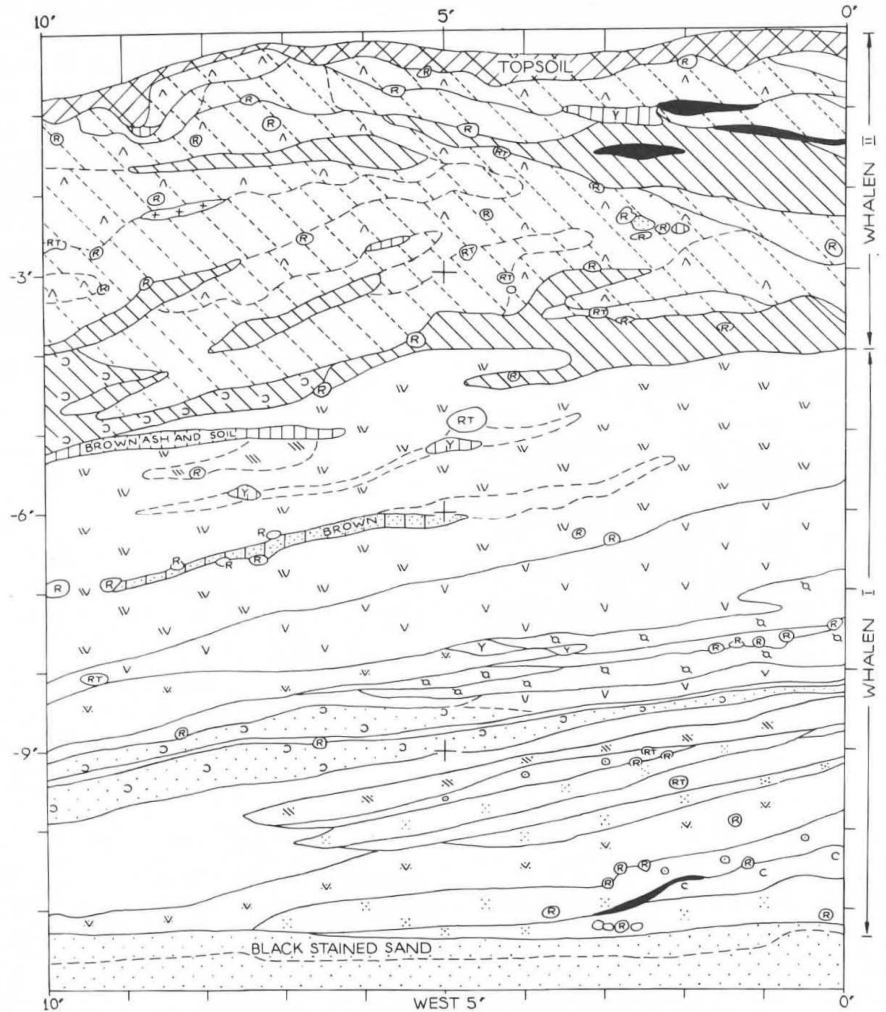
The skeletal remains of 13 individuals were excavated by Borden at the Whalen Farm site. All of the 10 burials attributed to the Whalen II component were buried in a flexed or semi-flexed position, with six of them on their right side facing east. One

burial was partially burned and faced north-east. The final three were largely disturbed. Four of the Whalen II burials contained grave goods. The three burials found in the Whalen I component were also in a flexed or semi-flexed position, but were facing west and contained no grave goods.

In 1952 Borden submitted to the then-new University of Saskatchewan Radiocarbon Laboratory, charcoal samples from Whalen Farm. Two dates were obtained. The date of 2450 ± 160 BP from the lowest level of the Whalen I component, and the artifact assemblage that goes with it, is considered Locarno Beach Phase. The other

sample, taken from mid-way through the Whalen II component, yielded a date of 1580 ± 140 BP. Borden considered the assemblage of artifacts from this component to represent a unique phase in Fraser Delta culture history, at this period between the Marpole and later Stselax Phases. He called this the Whalen II Phase.

I recently submitted a third sample of charcoal taken from the Assmat bags to the Washington State University Radiocarbon Dating Laboratory. The Assmat bag was recorded to have come from the lowest reaches of the Whalen II component, and provided a date of 2110 ± 65 BP. This



WHALEN FARM SITE - MAIN TRENCH

PROFILE SECTION OF NORTH FACE AT NORTH 25° FROM 0' TO WEST 10'

SCALE: 0 1 2 FEET

KEY:	CLAM	MUSSEL WITH DARK MATTER	MUSSEL WITH CLAM AND SAND	CHARCOAL
CLAM WITH SOME MUSSEL	MUSSEL WITH DARK MATTER AND CLAM	SAND WITH SOME MUSSEL	ASH (Y=YELLOW)	SAND
CLAM AND COCKLE	MUSSEL WITH SOME CLAM	MUSSEL WITH CLAM AND BARNACLE	SAND AND ASH	ROCK
CLAM AND MUSSEL	MUSSEL WITH SAND	MUSSEL WITH BARNACLE	SEA URCHIN	ROOT
CLAM AND MUSSEL WITH DARK MATTER	MUSSEL WITH DARK MATTER AND SAND	TOPSOIL		

Illustration by Moira Irvine

CM1

"new" radiocarbon date indicates that the Whalen II component of the site was occupied from early Marpole times.

Borden's Interpretations

Borden's interpretations of Fraser Delta prehistory went through major changes throughout his career. His initial interpretations of the Whalen Farm site were published by the B.C. Provincial Museum in 1950. In this analysis Borden attempted to trace the cultural ancestors of the prehistoric inhabitants of the Fraser Delta to Alaska by the technological evolution of harpoon styles as represented in his

excavations at Locarno Beach and in the Whalen I component. The appearance of the toggling harpoon in these sites suggested a diffusion of Eskimo culture south into the Fraser Delta.

The presence of wood-working implements and an emphasis on the chipped stone industry caused Borden to hypothesize that the Whalen II component was introduced by a different migration of people from the Interior to the Fraser Delta. Borden noted a difference between his Whalen II component and the material from the Marpole site—specifically an absence of ground slate tools and barbed harpoons

in Whalen II; and the presence there of obsidian blades, Olivella beads and toggling harpoon heads.

In a 1962 article Borden changed his interpretations of the Whalen I component. New dates and data from Alaska and from the Fraser Canyon caused Borden to shift his hypothesis. He no longer thought that an Eskimo culture diffused down the coast, but instead that the southern Northwest Coast had developed a marine adaptation *in situ* and subsequently these traits spread north to Alaska. He still explained the Whalen II component, however, by a migration of Interior populations to the Coast.

ARTIFACT TABULATION FOR WHALEN FARM 1949-50 EXCAVATIONS BY BORDEN

Artifact Type	Whalen I (L.B.)	Whalen II (Wh II)
CHIPPED STONE		
biface medial frag	-	2
bottom notched biface	-	1
biface proximal fragment	-	1
bifacially retouched flake	1	1
corner notched biface	1	2
core	4	1
contracting stem biface w/ shoulders	-	2
cortex spall	-	1
chipped stone narrow-angled biface	-	1
contracting stem biface no shoulders	3	1
leaf-shaped biface	1	7
microblade	1	11
unifac. arrow-angled retouched flake	1	-
quartz crystal microlith	1	-
side notched biface	-	2
utilized flake	-	3
steep-angled retouched flake	-	1
Total	(13)	(37)
Percent of component	(7%)	(15%)
PECKED AND GROUND STONE		
adze	3	6
anvil stone	2	-
abrasive stone	22	48
decorated ground stone	1	1
formed abrasive stone	10	12
facetted ground stone point	6	1
Gulf Island complex	-	2
ground stone point medial fragment	1	1
ground stone point proximal fragment	2	1
ground stone disk bead	2	2
ground slate knife	1	3
hammerstone	3	8
leaf-shaped ground stone point	3	3
handmaul	-	1
miscellaneous ground stone	8	7
mortar	2	2
unfinished sinker	2	2
worked sedimentary stone	2	7
Total	(70)	(107)
Percent of component	(36%)	(42%)

BONE		
birdbone awl	2	1
bone chisel	1	-
bone bipoint	1	1
decorated bone object	-	2
formed split bone awl	6	3
metapodial awl	-	1
bone needle	1	-
non-facetted bone pt w/o cntrl cavity	-	3
facetted bone pt w/ central cavity	-	2
net gauge	1	-
bone knife slitting instrument	1	1
pointed bone object fragment	-	2
perforated bone pendant	1	-
rodent incisor tool	-	3
splinter awl	1	3
tooth pendant	2	1
bird bone tube	4	3
ulna awl	3	2
unidentified worked bone fragment	4	7
worked bone end fragment	10	14
worked bone medial fragment	14	15
worked dogfish spine	25	3
bird bone whistle	2	8
Total	(79)	(75)
Percent of component	(40%)	(30%)

ANTLER		
antler foreshaft	2	-
frag unilat. barbed fixed antler point	-	3
socketed harpoon valv	-	1
toggling composite harpoon valve	2	6
worked antler end fragment	3	4
worked antler medial fragment	2	1
antler wedge	1	-
Total	(10)	(15)
Percent of component	(5%)	(6%)

SHELL		
dentalium shell	-	4
shell bead	-	1
miscellaneous ground shell fragments	10	5
olivella shell bead	-	4
Shell adze blade	10	3
ground shell pendant	3	1
side notched shell point	1	1
Total	(24)	(19)
Percent of component	(12%)	(8%)
TOTAL	196	253

Borden's 1970 paper outlining the history of the Fraser Delta region was the most complete description of the Whalen Farm material. His interpretation had not changed much since the 1962 article where he proposed important traits of the Whalen II Phase (ca. A.D. 350-800) to be microblades, Olivella beads, side- and corner-notched points, and the lack of ground slate, stone bowls and stone-carving.

The period from 1970 to 1983 was a time of great expansion in the knowledge of Fraser Delta prehistory. Both the Whalen II phase and Borden's diffusion theories received heavy criticism from other scholars working in the area. Borden's final article in 1983 addressed some of these criticisms.



Crew at work, 1949

Nowhere in this article did he mention a diffusion or migration of people from the Interior to the Coast during the Whalen II Phase. Borden argued instead that the most important aspect which distinguishes the Whalen II Phase is the fusing of traits of the Locarno Beach culture and the Marpole culture which developed into the Coast Salish culture as known in ethnographic times.

Present Interpretations & Conclusions

Although the Whalen II Phase has been questioned, and, to a large extent, dismissed, no one has gone to the original collections to see how the Whalen Farm material fits into Fraser Delta archaeology. As the focus of my reexamination of the Whalen Farm material, I tested the Whalen II phase hy-

pothesis as presented by Borden.

Looking at the tabulation of artifacts from the Whalen Farm site, we find that the Whalen II assemblage is not as unique as Borden thought. One of the distinguishing factors of the Whalen II Phase was the lack of ground slate. In fact, the Whalen II component shows three ground slate knives as well as seven pieces of miscellaneous ground stone.

The lack of stone-carving cited for the Whalen II Phase is also problematic, as a beautifully carved "miniature pestle" comes from this component. Borden also notes in his field record a carved stone bowl found in a cut in the midden near the excavation site.

The presence of microblades, side- and corner-notched projectile points in the Whalen II component is no longer anomalous in light of findings by David Burley and Donald Mitchell, both of whom record these items at other similarly dated sites. The relative lack of chipped stone, especially flaked tools from the Whalen II component can be explained by the excavation methods used when Borden was doing field work. Utilized and retouched flakes recovered from the Assmat bags indicate it is likely that only a small sample was retained.

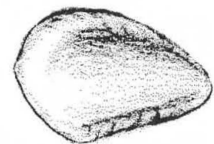
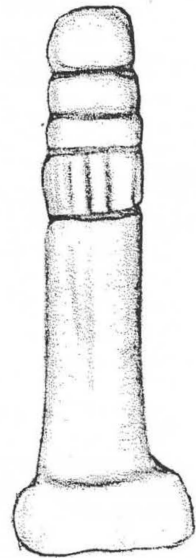
Rather than the cultural "fusion" proposed in Borden's 1983 paper, the new C14 date recently obtained from the original material from the Whalen Farm site now shows an excellent example of *in situ* cultural evolution. Population movements from the Interior no longer need explain the assemblage from the Whalen II component of the site.

The final, and most important criticism of the Whalen II Phase, is the fact that no other Whalen II-like components have ever been found. This is the main reason why the Whalen II Phase has long been rejected by other archaeologists working in the area.

An alternative hypothesis is that the Whalen II component does not represent a unique culture type, but rather is a variant of the Marpole phase. I believe that the variation in this assemblage is due to the seasonal nature of the site, which would have utilized key abundant resources available in the Boundary Bay region from the early fall to late spring.

The artifact assemblage in the Whalen II component is similar to the three sea-

sonal, late-winter components found at Deep Bay, Shoal Bay and Crescent Beach discussed by Leonard Ham in his doctoral dissertation (1982). These sites also have wood-working tools, two piece toggling harpoons, chipped stone tools and a relative lack of ground stone—all distinguishing features of the Whalen II component. Although not conclusive evidence for seasonality, the comparison provides a plausible explanation of the Whalen II assemblage.



Miniature pestle (Wh 534)
drawn by C.E. Borden, 1949

All photos and illustrations courtesy of U.B.C. Laboratory of Archaeology unless noted otherwise.

Brian Thom is currently a first-year graduate student at UBC working on his Master's thesis.