

Chapter VIII

FEATURES

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Thirteen features were noted during the 1989 and 1990 excavations and are shown in Table VIII-1. Eight of these were interpreted as hearths and one (Feature 9) was thought to be the remains of a winter domestic structure. Another feature (No. 11) is a set of possible postmolds within Feature 9, leaving three small “unique features.” These include two small bowls from unit Fnw, one of clay and one of sand, and another of unknown “function” which may actually be an intrusion in the South Trench. Since the majority of these features are hearths, I turn to them first.

Within the category of “hearths” found at Crescent Beach there is significant variation. A number of hearths (Features 1, 2, 3, 5, 8, and 12) appear as areas of scattered fire-cracked rocks and lenses of both reduced (dark) and oxidized soil. These range in size from circa 50 cm in diameter (Feature 8) to about 120

Table VIII-1 Crescent Beach Features

<u>Number</u>	<u>Unit</u>	<u>Layer</u>	<u>Dimensions</u> <u>N-SxE-WxThick</u>	<u>Function</u>
1	Isw/Knw	CL-1	70 x 76x 8 cm	Hearth (circa 1/2 uncovered)
2	Knw	CL-1	63 x 48 x 9	Hearth
3	Isw/Knw	CN-4	40 x 128 x 8	Hearth (circa 1/2 uncovered)
4	Inw	CN-4	20 x 18 x 5	Intrusion?
5	Inw	CN-4	40 x 80 x 10	Hearth (circa 2/3 uncovered)
6	Fnw	BC-G1 200-210 cm	32 x 30 x 10	Clay Lined Bowl
7	Fnw	BC-G1 200-210 cm	22 x 20 x ~ 15	Sandy Bowl
8	Mne	CN-1	72 x 48 x 9	Hearth
9	Dnw/Esw/Enw	BC-H/b	400 x 150 x 35	“Pithouse” (circa 1/2 uncovered)
10	Inw	C-S	120 x 40 x 13	Hearth (3210 + 110 RCYBP (WSU 4247)
11	Esw	BC-H		Postmolds within Feature 9 ?
12	Inw/Mne	C-S	100 x 50 x ?	Hearth (circa 1/2 uncovered)
13	Inw	C-Y	100 x 75 x 25	Hearth

cm in diameter. Whether the larger ones are hearths that were reused more often than the smaller ones or had a different function is not clear. The thickness of these hearths is relatively constant at between 8 and 10 cm, as is the size of fire-cracked rocks with most being from 4 x 6 to 5 x 6 cm. The amount of fire-cracked rock ranged from 17 to 26 in number and from 2 to 4 kg in total weight. Cobbles without visible indications of heat alteration were also abundant and ranged from 4 to 30 in number and weighed 1.5 to 3.5 kg. Two of these features in Layer CN-4 (Features 3 and 5) also had numerous smaller pebbles present which were neither counted or weighed.

Features 1 and 3 were both truncated by the sewer trench, as shown for Feature 3 (Figure VIII-1). They are also located on top of each other with several intervening layers and about 12 cm of material between them. Both appear to have been originally smaller features, but during or after use spread out to their greater than 1 metre measured diameters.

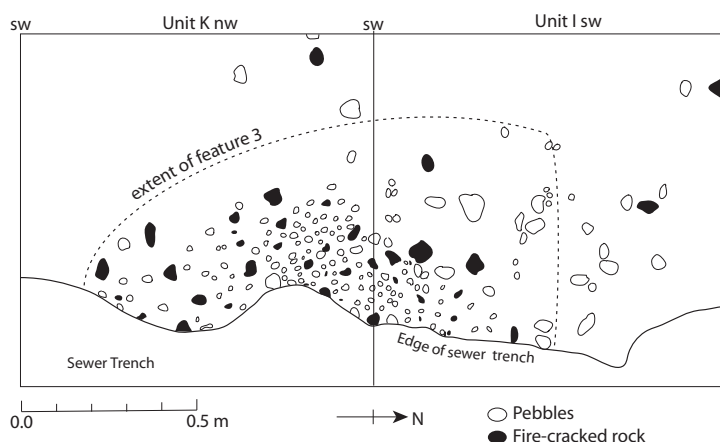


Figure VIII-1. Feature 3, “hearth”, truncated by Sewer Trench, Layer CN-4.

The other two hearths (Features 10 and 13, Figures IV-1 and VIII-2) appear to be of a different form, small basins full of fire-cracked rock surrounded by larger areas with both scattered fire-cracked rock and oxidized and reduced soil. The two excavated basins were 50 x 55 cm and 100 x 75 cm and about 13 and 25 cm deep. Both features are surrounded by enough discolored matrix and fire-cracked rock to indicate extensive reuse. Feature 10 had 40 pieces (10 kg) of fire-crack rock and 16 (4 kg) of non-fire-cracked rock

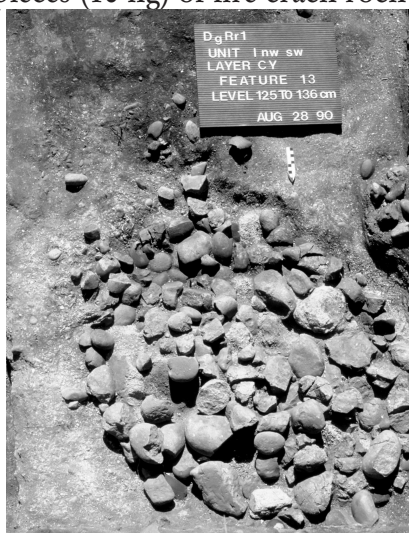


Figure VIII-2. Feature 13. Checkered scale points North and intervals are 1 cm each.

while Feature 13 had 238 (72 kg) pieces of fire-cracked rock and only 12 (3 kg) other cobbles. Feature 10 (Figure IV-1) is from lower Locarno Beach layers (C-S) and Feature 13 (Figure VIII-1) is from St. Mungo Layers. Feature 10 also produced our charcoal sample 67 (WSU 4247) which was assayed at 3210 ± 110 RCYBP. These two more discrete hearths are more developed “site furniture”, have a larger number of cobbles associated with them, and are relatively old. All these factors are in accord with a longer duration occupation of this site earlier and in latter times, a more limited activity use as seen in so many other sources of information. The similarity of the area immediately outside of the shallow basins with the other six hearths, however, does leave the possibility that some of the other hearth features are incomplete and originally included more formal hearths. This is a possibility, though, only for Features 5 and 12. Five of the hearths are found in Marpole layers and all are of the “scattered” form, while two of the three in the Locarno and St. Mungo layers are of the more formal kind.

The numerous fire-cracked rock often found scattered around in layers, such as CW (Figure VIII-3) may be the result of dispersed hearths, and/or hearths located just outside the excavated portion. Although Figure VIII-3 seems to show that the size of many of the rocks are larger than typical of the hearths, the median of six samples of Layer CW is 128g for fire-cracked rock compared to averages of 250g and 302 g from Features 10 and 13. This size difference is agrees with the scattered hearth but not the larger rock idea.



Figure VIII-3. Layer C-W, Units Isw & Inw, Arrow points North, checkers 1 cm each.

Investigations at the Hatzic Rock site (Mason 1994, Ormerod 2001) and Scowlitz (Matson 1994b) produced clusters of what were inferred to be “boiling stones”. The ones at Scowlitz weighed a mean of 62.2g and had a mean length of 4.74 cm (Matson 1994b:35-36), while those at Hatzic (contemporary with St. Mungo) had a median length of 4.6 cm and a median weight of 34.2 g (Mason 1994b:95). These authors inferred a size of stone easy to pick up with cedar tongs was selected for, and that these stones tended to be flat, which experiments showed made them much easier to grasp with the tongs. The smallest pebble size noted in these features is about 100g, the average for the non-fire-cracked rock in Feature 1, indicating that another selection process was occurring at Crescent Beach. To be fair, the above analyses occurred years after the Crescent Beach excavations and the rocks were collected and analyzed in the lab, while at Crescent Beach, the rocks were only counted and weighed (in mass) in the field and then discarded allowing for numerous intervening effects not to be found at Hatzic or Scowlitz.

The two “basins” were discovered during 1989 in unit Fnw close to the burial. One, Feature 6, Figure VIII-4, was a clay-lined basin approximately 32 x 30 cm and 10 cm thick. This was found at the 200-210 cm level. Immediately adjacent to it (Figure VIII-5) was a sand basin (Feature 7), recognized by the lining of crushed mussel shells. This was somewhat smaller, 22 by 20 cm and perhaps 15 cm thick, although less distinct than Feature 6 given the nature of the material of which it was composed. Clay basins are a feature often seen in Locarno Beach deposits, as noted by Mitchell (1971:57, 144) and Percy (1974) recorded several from his excavations. The same level that produced these two features also produced our charcoal sample 15 (SFU 727) which was dated to 3060 ± 80 RCYBP, a good Locarno date and consistent with a date from the neighboring Feature 9, although sample SFU 727 was picked from the screen. These two basins, then, appear to be examples of this little understood Locarno Beach phenomenon.



Figure VIII-4. Feature 6, arrow as before.

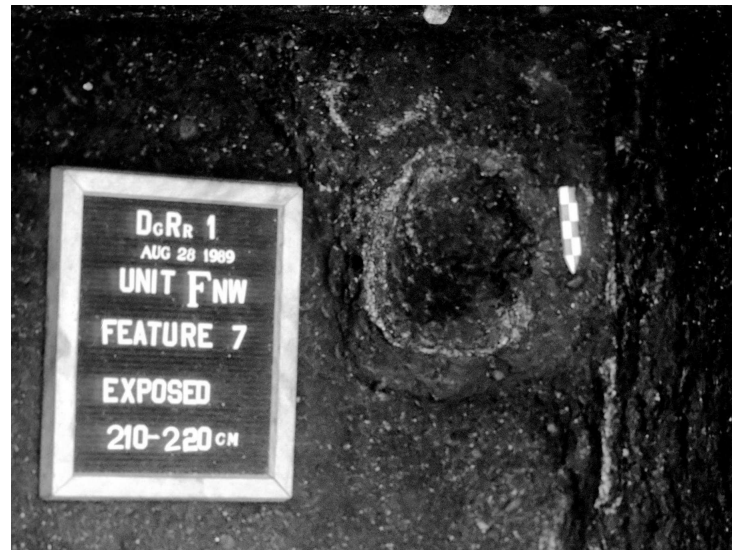


Figure VIII-5. Feature 7, arrow scale as before.

At Montague Harbour (Mitchell 1971:144) a large clay basin was found adjacent to a burial, indicating that the association between the two noted at Crescent Beach may not be accidental. Percy (1974:25-32) records five basins, all made out of clay, from his excavations at Crescent Beach. These appeared to be of two types, clay lined hollows and clay basins built up on flats. The sizes of these are larger than the clay basin we recorded, ranging from 35 x 47 cm rim-to-rim to 40 x 60 to 70 x 70 cm. Two of these have finely crushed shell present, as was found in Feature 7, which Percy (1974:26) relates to the possibility of the preparation of lime for the use with chewing tobacco (Turner and Taylor 1972). The date of these, though, may be older than any known use of tobacco on the Northwest Coast. Percy associates four of these with his oldest component and one with his Locarno Beach component. Although the exact component assignments of some of these may be not be too clear, at least one of Percy's, Feature 6, appears to be in the St. Mungo component. From this perspective, our Features 6 and 7 appear to be small examples of this class of features, with the burned, crushed shell present with some, and to be likely examples of the form built up, rather than clay-lined depressions. These features are clearly present at the beginning of the Locarno culture, although, perhaps not at the end, and also, at least on occasion, at the end of the St. Mungo culture.

Feature 4 was a curious patch of dark soil in Unit Inw in layer CN-4. Upon further excavation, it turns out the this part of the layer was depressed into the undelying layer. The nature of this feature is unclear, but it may be the result of post occupation disturbance, some heavy penetration of the top soil. The bottom of this feature is only 60 cm from the current surface.

The most impressive feature discovered during our excavations was the likely winter domestic structure, Feature 9. Feature 9 was first recognized during 1990 in the North Trench, and some confusion over its nature, size, and intersection with the sewer trench meant that separation of this feature and surrounding proveniences was not always optimal. Along the west wall of the trench Feature 9 extended from Fsw to the south border of Dnw, a distance of 3.5 metres (Figure III-4). The top surface of this feature (Figure VIII-6) is the interface of Layer BC-I and BC-H, also designated at BC-H1, which ranged from 190 to 200 cm below datum. The bottom of Feature 9 is the interface of either Layer BC-H or BC-Hb and the underlying BC-I, with varied from a minimum of 195 cm at the outside edges of this bowl shaped feature to 222 cm at the Northwest corner of unit Esw (Figure III-9). Of the seven units in the North Trench that might have had evidence of Feature 9 (Fsw, Enw, Dnw, Dne, Ese, Ene, and Esw) one unit, Dne, had almost all of the relevant deposits destroyed by the Sewer Trench (Figure III-9), however, only the northwest corner of this unit would have likely been within this feature. Unit Ene, whose southwest corner was within this unit, was one where the interface of the bottom of BC-H was not consistently distinguished. This feature, then, which is recognized in seven different units, and covers some of them completely, is a circular shallow depression, (Figure III-4) filled with two distinct layers, BC-H and BC-Hb, whose combined thickness does not exceed 35 cm.



Figure VIII-6. Top of Feature 9. All four quadrants of Unit E shown, arrow as before.

Although the portion of this feature exposed by excavation measured 3.5 m by 1.5 m (Figure III-10), indicating a total size of 3.5 - 4 m in diameter, there are several reasons why this is a minimum size. First, the 3.5 m size is along the west wall of the trench, (as seen in Figure III-4), where the north end is well defined in the profile but not the south. In fact, the extent into Unit Dsw is unknown, as this unit was not excavated into this layer. It is unlikely that it extends very far into this unit. Secondly, the feature was difficult to define around the edges, making the exact definition as Layer BC-H thins out, subject to judgement. Most importantly, though, the west wall of the trench may not be through the centre of the

feature, but lie to the east of the center, meaning that the full diameter may be greater than that measured. Given the general circular shaped of the uncovered feature, it is unlikely that the feature is greater than 6 m in diameter. As the west wall of trench is at (or even slightly, into) the restricted area close to the railroad tracks, the full size of this feature will remain in doubt, but is at least about 4 m, and, if circular, no more than 6 m in diameter.

The lack of internal features within Feature 9 is somewhat surprising, given our interpretation. Actually, a number possible postmolds were noted on the periphery (Figure VIII-7). Feature 11 in Unit Esw was one set of 4 such items. When excavated these possible postmolds did not yield convincing results.



Figure VIII-7. Possible Postmolds (Feature 11) in Feature 9 within Enw.

It may be that the nature of the matrix did not preserve good evidence of the posts. It has also been observed in other situations that if posts are removed, rather than rotting in place, that the resulting postmolds tend to be weakly present in the archaeological record, and this might have been the case here. Alternatively, these “postmolds” may have been the result of some other activity.

The large amount of fire-cracked rock in layer BC-Hb indicates lots of hearth activity, but the absence of a formal hearth may be surprising. One possible explanation may be that once one builds up a crushed mussel layer, hearth features are not very permanent or needed. This appears to be often the case in later Salish shed-roof houses (Matson 2003). Removal of rocks from the living surface by pushing them into the soft matrix may also be an option.

Because we had the three dates in excess of 3700 RCYBP from equivalent depths in the adjacent Unit Fnw, in the field we thought it was likely that Feature 9 was of that age, and thus belonged to the St. Mungo component. A good radiocarbon sample was recovered from Enw, Layer BC-Hb (#97) and returned at date of 3010 ± 85 RCYBP (WSU 4246), a middle Locarno Beach date. Inspection of the dates from Fnw and the profile (Figure III-8) shows that the appropriate comparison would be SFU 727, from 200-210 cm below datum, 3060 ± 80 RCYBP. These two dates are in good agreement and support a date of about 3000 RCYBP for this feature.

If one chooses to consider these two dates to be of the same event, one can legitimately average them. Using Berry's (1982) algorithm results in a date of 3037 ± 58 RCYBP. This is our best estimate of the date of Feature 9.

As briefly discussed in Chapter IV, the dates from the North Trench indicate a hiatus in deposition. In Unit Fnw dates from 210-220 and 230-240 cm below datum are 3910 ± 90 and 3780 ± 80 RCYBP (WSU 793 and 794) indicating a hiatus of at least 700 years. This break is confirmed by the *in situ* carbon collected from Fsw at 220-230 cm below datum of 3710 ± 80 RCYBP (WSU 4244). The cross-section of Feature 9 is

consistent with the interpretation that this feature was excavated into existing layers, removing them, resulting in this hiatus in deposition. The observation that this hiatus is also found in Unit Fnw, well outside the bowl cross-section of Feature 9 may indicate that the removal of existing layers may extend outside the area that we recognized as Feature 9. This may mean that the observed Feature 9 is only part of a larger feature which removed a number of layers – or that deposits dating between 3100 and 3600 never existed in the North Trench. As stated in Chapter IV, though, I would expect a hiatus of that duration to have left a distinct layer.

As reported in Chapter VI-iii by Lisa Rankin, the shell samples from Feature 9 show both a higher percentage of bay mussel than expected for samples of this age, and have a broader range of shellfish than expected. These two attributes are consistent with a long duration of occupation during the winter. This should result in a wider range of resources being used, and bay mussel is the single important shellfish that is found in the upper intertidal zone and thus more available in the winter when tides, daylight, and cold water make digging clams more difficult. Larger amounts of fire-cracked rock were recovered than typical of other layers, also agrees with a more intensive occupation.

The attributes described above, along with the fish described in Chapter VI-iv, are consistent with this feature being the result of a winter-time habitation. The shape of this feature is consistent with a small, circular shallow pithouse 4- 6 metres in diameter. This is the size associated with a single nuclear family elsewhere (Matson 1996a), and is not too different from contemporaneous structures in the interior. There were several possible small postholes noted around the periphery of this feature. When excavated, though, these were not very convincing.

In the interior, an equivalent pithouse would have been deeper and would likely have more evidence of postholes. A winter structure along the coast, though would have less concern with temperatures and more with moisture. Thus a deeper pit may not have been desired, and a lighter superstructure with cedar bark as a covering may have been preferred.

There was certain amount of doubt expressed about this Locarno “pithouse” (Figure VIII-6) when I presented this inference, including that expressed by experienced visitors to the site, as no such find had been reported for Locarno or other coastal cultures in this area. Luckily, for this interpretation, Morgan (1999) later reported three similar pithouses from the Sequim Bypass project, located in Washington, across from Victoria (Figure XI-1). The best preserved of these is Feature 416, (Figure VIII-8) an approximately 4 x 5m, roughly rectangular structure, which has three radiocarbon dates from 2480 ± 60 RCYBP to 1970 ± 60 RCYBP. Feature 310 (Figure VIII-8, also) is more similar to the one at Crescent Beach, relatively circular about 3.5 m in diameter. A single date of 2470 ± 80 RCYBP is associated with this structure, as well as lots of fire-cracked rock, something we also noted with the Crescent Beach structure. A third semicircular feature has a radiocarbon date of 1950 ± 60 RCYBP. Although these structures are somewhat later than the Crescent Beach example, two of the three have dates that indicate that they are late representatives of the Locarno phase, and as a group, they certainly show the existence of similar domestic structures.

Another very similar structure has also been reported from Decatur Island (Walker 2003). This one has four radiocarbon dates, 2600 ± 60 (Beta 170653), 2460 ± 40 (Beta 170649) 2570 ± 60 (Beta 168999) and 2450 ± 90 (Beta 170650) RCYBP indicating a late Locarno age. This structure is said to be “subrectangular” (Figure VIII-9) which is more apparent when looking at the shallow depression than the “housefloor” illustrated here, which is a little more than 4 metres long by a little less than 4 metres wide. Like the Crescent Beach structure, no neat hearth is present. “Feature 169-17” in Figure VIII-9 is, however, an oxidized surface interpreted as a spread-out hearth area. Note that in Figure III-10 a similar “Orange Ash 10yr6/8” area is present in Feature 9. Unlike the Crescent Beach example, the Decatur Island housefloor does not consist of mussel shell, but a dark soil, ranging from 1 cm to 20 cm in thickness, perhaps

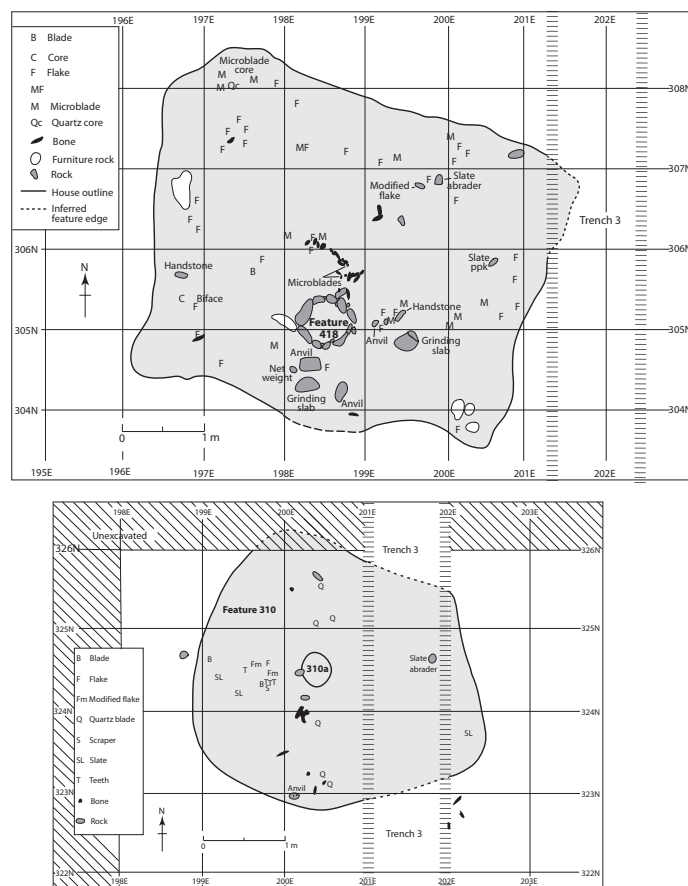


Figure VIII-8. Features 416 and 310 from Sequim, Washington.

equivalent with layer BC-Hb at Crescent Beach. Two other attributes of this Decatur Island feature are similar to that of Feature 9, the absence of clear postmolds (and thus evidence how the structure was roofed) and several large rocks interpreted as anvil and/or grinding stones. The flat portion of the floor is said to be 3.0 by 3.5 metres (Walker 2003:122) suggesting a smaller effective area than that above, and indicating how tricky it is to come up with an precise figure for domestic areas.

Figure VIII-10 shows all four structures at the same scale, giving an idea of the range of these small, one family winter dwelling structures in the 2000-3000 RCYBP period. Note that the outlines range from “rectangular” through “subrectangular” to “circular”, and that two have definite hearths, and two do not. The more rectangular ones are more placed in “pits”, although neither very deeply, while the two more circular ones are not. Anvil and/or grinding/abrasive stones are associated with three of the four, as are unmodified large rocks or boulders.

Three other similar domestic structures 2000 RCYBP or older are also known. One is the third structure from Sequim, mentioned above, another is a feature from Pender Harbour (Figure II-1) and the third is described by Howes (1982) at Hoko River. The Pender Island feature “House floor (SU 2b)” at DeRt 1, is said to be “Locarno” and has three associated radiocarbon dates (Carlson and Hobler 1993:42-43) ranging from 2390 to 2190 RCYBP (2390 ± 140 (RIDDL 219); 2390 ± 170 (RIDDL 113) and 2160 ± 60 RCYBP (SFU 597). Unfortunately for the assignment to Locarno, all three of these dates are post Locarno in age (as described in more detail in Chapter XI). It appears to me (from Figure 4, Carlson and Hobler 1993:43, the authors do not give a size) that this feature is about 4 x 6 metres, and includes a rectangular stone cist and what may be a well defined hearth. Although not as clearly defined as the four discussed in more detail

above, it appears to be another one of this class.

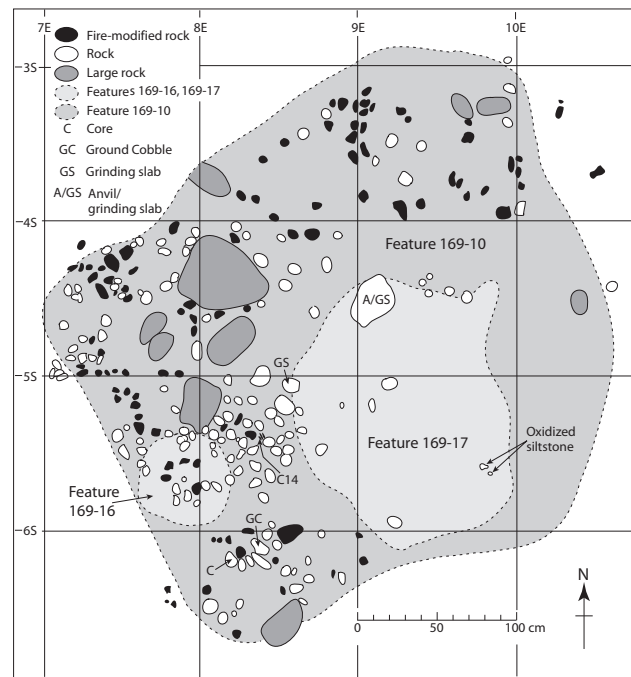


Figure VIII-9. Feature 169-10, Decatur Island, Washington.

Croes (1995:197-200) and Howes (1982) describe the evidence of some sort of rectangular structure dated to about 2700 RCYBP (Croes 1995:197) at Hoko River (Figure XI-1) which was interpreted as a mat lodge with the edges defined by boulders inferred to hold down the mats. The estimated size is 5 x 6 metres, although the width is unclear since both sides were not within the excavation, so it was at least 4 metres or could be greater than 5 metres. A probable hearth was located offset according to length and if assumed to be in the middle of the width yields the 5 metre figure (Howes 1982: 77-82). The seasonality is inferred to be during the seasons of better weather, apparently based on the ethnographic use of mat structures (Howes 1982:120), but the presence of an interior hearth might be considered to suggest otherwise. This structure may be the first non-winter Locarno dwelling yet discovered, or a variant of the small rectangular winter dwellings better preserved elsewhere.

Two other small rectangular pithouses have also been recently noted on Vancouver Island. An approximately 4 x 6m rectangular depression with dates of 2100 RCYBP was found at Duncan on Somenos Creek (Eric McLay, Per. Comm. Feb 8, 2008). This was excavated into basal marine clays, so its outline is very distinct. And a newspaper (*Times Colonist* Jan. 6, 2008) has an article reporting another feature of approximately the same size thought to be 2800 RCYBP on the shore of Esquimalt Lagoon in Victoria. When these two are more fully described, they will be undoubtedly included to the ones above.

At Long Harbour on Saltspring Island (Figure II-1), Johnstone (1991) found some post-molds indicative of a large shed roof house in what he considered a Locarno component. As argued elsewhere (Matson and Coupland 1995:215) this small, undated component is a better fit as an Old Musqueam subphase component, a possibility apparently not investigated by Johnstone (1991). As of this writing, all dated Locarno domestic structures are small and no dated shed roof house is of Locarno age. The oldest known shed roof structure in the Gulf of Georgia region is at Scowlitz, which is near Agassiz, well up the Fraser River, and dated to about 2450 RCYBP (Matson 1994b; Lepofsky et al. 2000).

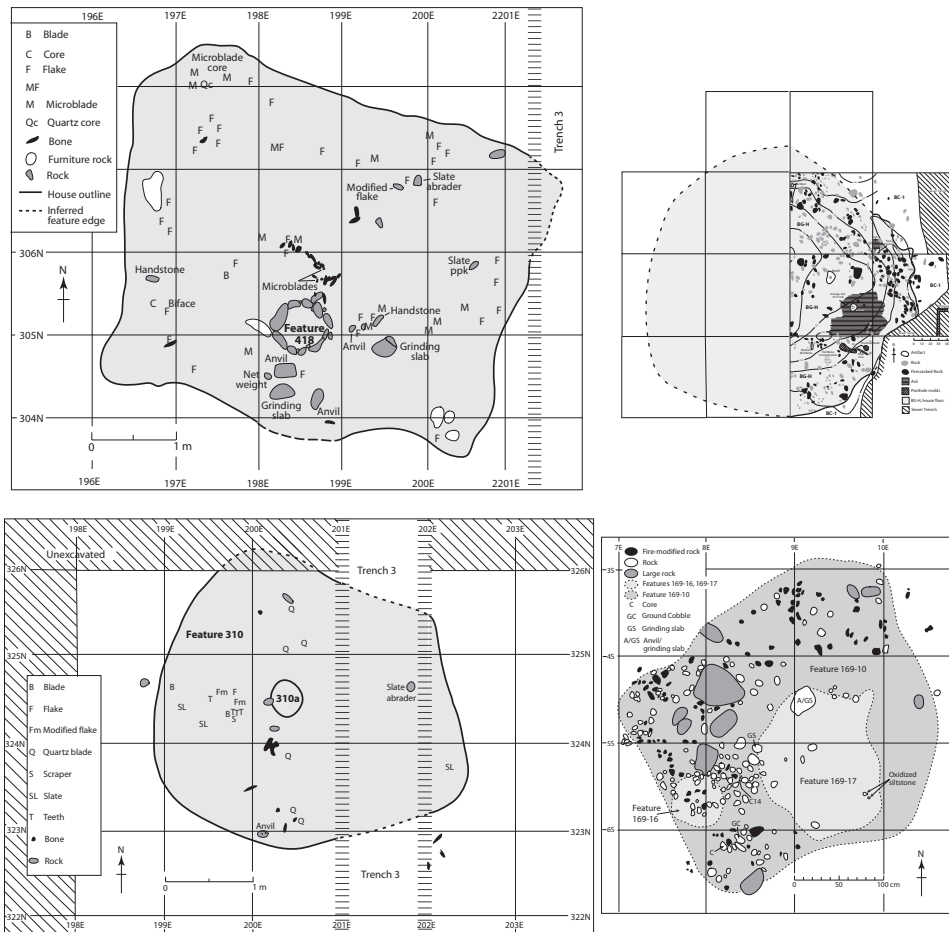


Figure VIII-10. Sequim, Decatur and Crescent Beach domestic features shown at the same scale.

Moving much further afield, Estevez and Vila (2006) have reported on a similar early 19th century structure in Tierra del Fuego at Tunel VII. The structure there, found along the Beagle Channel, and with remains of fish, shellfish, sea mammals, land mammals and birds, is also only some 3-4 metres in diameter. Estevez and Vila (2006) were able to identify 10 separate occupations of the 30cm fill of this structure produced in a variety of seasons. A central hearth was present, but other secondary hearths were also present in several of the occupations. The lack of a constantly used central hearth is another similar between Crescent Beach and Tunel VII, as is the lack of well-defined post-molds.

In summary, the features found at Crescent Beach are found elsewhere in similar cultures of similar age and, indeed, much more recent in time. At the time of excavation, the “pithouse”, Feature 9, was controversial, as no such winter dwelling structure had been identified in Locarno (or St. Mungo or Marpole) deposits. Since that time, a number of other small winter structures, shallow pithouses of rectangular or circular outline have been found in other Locarno or early Marpole contexts (and elsewhere), supporting the Crescent Beach interpretations. Although in many ways the structural remains of Feature 9 have been superseded by these other later discoveries, the detailed seasonality information remains the best so far. Two really distinctive hearths were located at Crescent Beach in our excavations, but do not add very much to pre-existing information. Lots of hearths, however, were probably originally present, and their remains were spread around during the use of the site resulting in the abundant fire-cracked rock. Unfortunately, it is unclear what these well preserved hearths were used for, but the abundant rocks to

point to heating the rocks as the primary purpose.