

Chapter IX

CULTURAL COMPONENTS

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There were a number of information sources that proved useful in classifying the modest artifact collections we excavated into cultural components. Traditionally stratigraphy, radiocarbon dates and diagnostic artifact types are the three most important. The last was not too successful in this case, because of the modest size of our collections, and because we have found that a number of the “diagnostics” are not really as significant as thought. For instance, previously we have shown that the Marpole-style unilaterally barbed harpoons and nipple topped mauls, both previously seen as important Marpole artifact types, are not present in early Marpole components (Matson et al. 1980, Matson 1989; Matson and Coupland 1995:215-217). Thus their absence in our collections does not mean that we do not have a Marpole component. In addition to “diagnostic” artifact types, we and Burley (1979, 1980) also have published descriptions of a number of components which tabulated the varying abundance of other artifact classes (Matson 1974a; Matson et al. 1980; Matson and Coupland 1995:217) in Marpole and Locarno components. We also had the comparative analysis of a number of St. Mungo-aged components carried out by Pratt (1992).

In addition to these sources of information, we also have the subsistence information that show some significant changes as reviewed in Chapter VI. In addition we have the debitage review, and B. Thom’s analysis of beads in Chapter V. As well there is the aid of the previous excavation at Crescent Beach by Percy (1974) which resulted in a much larger number of artifacts and his classification of his collection into three cultural components. None of these sources are conclusive by themselves, but together they present a relatively integrated picture. Let us begin with the South Trench, since that appears to be the result of continuous deposition, without any inconformities.

Because the most recent component found by Percy in the adjacent road had already been previously identified as an Old Musqueam subphase component of the Marpole phase (Matson et al. 1980; Matson 1989; Matson and Coupland 1995:211-215) we expected that we would find the same. Since the top 180 cm of deposit was removed in the North Trench excavation area, we expected, and did, find it only in the South Trench area. Many Marpole components are noted for their large quantity of ground stone disc beads, and we found (Chapter V, Thom) that this was the case for our excavation. Starting from the topmost layer, CL-0, how far down should this component extend?

Neither the radiocarbon dating or the subsistence information are very useful in this conjunction. The first radiocarbon date we have any confidence in, is that of 3210 ± 110 RCYBP (WSU 4247) in layer C-S (Figure IX-1). Clearly the dividing line should be well above that. I have selected layer C-P as the lowest Marpole layer. I think the CN layers are Marpole; if they are not classified as Marpole, we would have almost none. Few artifacts are found in Layers C0 and CP but they also appear to me to be Marpole. Table IX-1 shows the tabulation of tools found in Layers CL-0 through CP.

Notable in this listing are the four contracting stem points, the 224 ground stone disc beads in contrast with the 3 shell beads, and a relatively substantial bone tool industry. Although 4 quartz crystal microliths with use wear were found, more were found in lower layers. The single labret confirms the presence of labrets in Old Musqueam components. It is the only Marpole phase with a consistent presence of labrets (Matson and Coupland 1995:213-4), as first pointed out by J. Cybulski (per. com.).

The Locarno component must begin below layer CS according to the date cited above, but above layer C-V1 which has a date of 3590 ± 85 RCYBP (WSU 4245). Layer C-T/U is in between (Figure IX-1) and has

not only the stratigraphy lowest labret, but also two possible Gulf Island complex fragments. Labrets and Gulf Complex items are usually considered diagnostic of Locarno Beach components (Borden 1970; Matson

Table IX-1. Marpole Component, South Trench Layers CL-0 to CP

Marpole <u>South Trench Layers CL-0 – CP</u>		
<i>Stone Tools</i>		
Cores	CORE	6
Hammerstone/Anvil	HA	1
Pebble Tool Unifaces	PCHU	2
Cortex Spalls	CSP	3
Utilized Flakes	UF	9
Quartz Crystal Microliths	QCML	4
Contracting Stem Points		
No Shoulders	CSTB	1
Shoulders	CSBS	3
Biface Distal Frags.	BDF	1
Abrasive Stone	AS	1
Formed Abrasive Stone	FAS	1
Ground Stone Disc Beads	GSDB	224
Labret	LAB	1
<i>Bone Tools</i>		
Worked Bone End Frags.	WBEF	4
Worked Bone Medial Frags.	WBMF	3
Bone Bead	BEAD	1
Spilt Bone Awl	SAWL	1
Metapodial Awl	MAWL	1
<i>Shell Tools</i>		
Shell Beads	SHB	3
Misc. Ground Shell Frag.	MGSF	1
Total		267

and Coupland 1995:156; Mitchell 1971:57, 1990) We also find that Quartz Crystal Microliths with use wear are not found below this layer, which is also a time of change in both subsistence and beads. Although as stated earlier (Thom, this volume), ground stone disk beads have not been previously considered part of the Locarno Beach artifact assemblage – except by Trace (1981) – they are present in substantial numbers in this component. Table IX- 2 shows a tabulation of the material found in these levels. Note that lithic tools increase in numbers and that there are twice as many Quartz Crystal Microliths, continuation of contracting stem points, more abundant abrasive stone, a total of 3 labrets, and two small pebble “mortars”. In spite of 68 chipped stone tools compared to 30 in the Marpole component, the Locarno component actually has one less bone tools (9 compared to 10). Notice, too, that the proportion of shell beads has climbed to 10% from the less than 2% found in the Marpole component.

The final component found in the South Trench (Figure IX-1) is the St. Mungo, Table IX- 3. Note that this is clearly a “St. Mungo” as compared to “Mayne” as no labrets, Ground Slate Knives or obsidian microblades are present, the items that Mayne is said to have present (Carlson 1970) and which have not been found in dated St. Mungo components (Matson 1976; Calvert 1970; Ham et al. 1986). Shell beads now

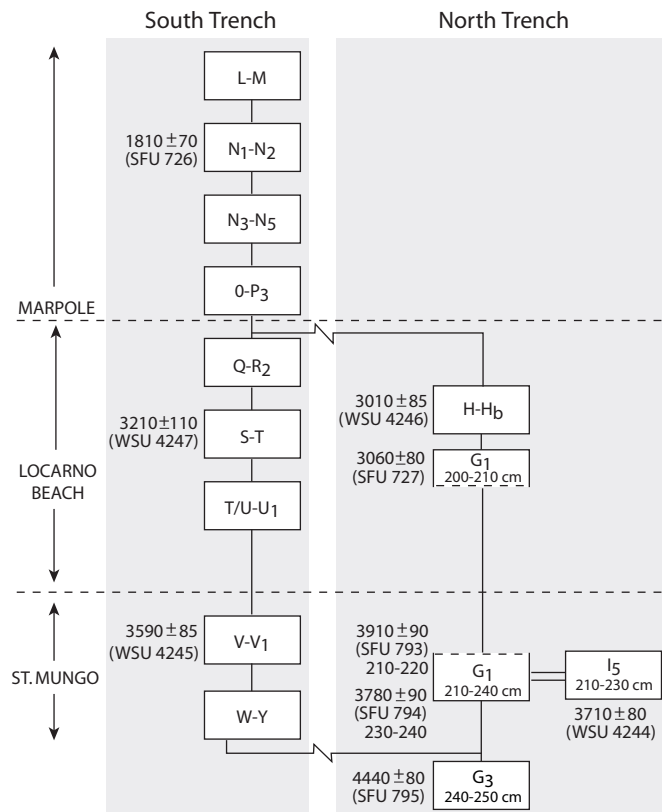


Figure IX-1. Harris Matrix of Crescent Beach stratigraphy.

approach 40% of the bead total (in contrast to the later components), along with a decrease in number of bone tools. Quartz Crystal Microliths disappear; Quartz crystal debitage is almost absent as well. The presence of California mussel shell adze blades in St. Mungo is confirmed in this component as well. The nephrite Adze blade listed in this table is very dubious, found in the screen from the unit (Lse) that contains a telegraph pole. This single, not *in situ* case, is not sufficient to add ground stone Adzes to the artifacts found in St. Mungo components.

The South Trench components boundaries are relatively clear and un-problematic, but the North Trench is a very different situation (Figure IX-1). As reported in Chapter IV on stratigraphy and dating, Feature 9 (Layers H and Hb), and stratigraphic equivalent layers, date to 3000 RCY ago. Immediately underneath this level – 100 cm away from Feature 9, at 225 cm below the surface and just underneath the northeast edge of Feature 9 – we have two dates of about 3700 RCYBP. So we have a hiatus of about 600 years. The situation is complicated by the fact that we did not recognize in the field of the importance of this point in the stratigraphy in Unit Fnw in 1989 and so have a number of artifacts from this unit which can not be securely placed into either of the components. The bottom of the North Trench deposit is dated at 4440 ± 80 RCYBP (SFU 795) in Unit Fnw. This date corresponds well with Percy's (1974) date of 4270 ± 80 RCYBP (Gak 4925) for the lowest levels of his excavation at Crescent Beach.

For the St. Mungo component in the North Trench (Table IX-3), I have included the artifacts from Units Fsw and Fnw below 210 cm. We expect at a minimum all these items to date 3700 years RCYBP. We may have a situation where all of the St. Mungo material in the North Trench is older than any of the St. Mungo material in the South Trench. Remember that the oldest date in the South Trench is about 3600 RCYBP, and is about 50 cm above the deepest excavated deposits. The oldest material in the South Trench may be anywhere from 3700 to 4000 years old.

The problem with this analysis is that a burial was found in Unit Fnw and almost certainly belongs to the Locarno Beach phase, given the dates from the same level in the same unit. This would explain the dominance of the ground stone disc beads found there. On the other hand, conditions in the North Trench are different than in the South Trench, and it may be that shell beads did not survive in those conditions.

Table IX-2. Locarno Components, North and South Trench.

Locarno Beach			
	South Trench		North Trench
	<u>Layers CQ-CT/U</u>		<u>Layers H, Hb (Feature 9)</u>
<i>Stone Tools</i>			
Cores	CORE	7	3
Hammerstones	HAM	2	-
Anvil	ANV	-	1
Pebble Tool Unifaces	PCHU	3	-
Pebble Tool Bifaces	PCHB	1	2
Cortex Spalls	CSP	2	1
Utilized Flakes	UF	24	5
Quartz Crystal Microliths	QCML	8	-
Uniface Retouch. Flake, Steep	SRF	3	-
Uniface Retouch. Flake, Narr.	NRF	3	1
Bifacially Retouched Flakes	BRF	2	-
Contracting Stem Points			
No Shoulders	CSTB	1	-
Shouldered	CSBS	1	-
Unident. Biface Fragments	UNBF	1	-
Abrasive Stone	AS	12	-
Formed Abrasive Stone	FAS	1	-
Ground Stone Disc Beads	GSDB	249	4
Gulf Island Complex	GIC	2	-
Labrets	LAB	2	-
Misc. Ground Stone	MGS	1	-
Mortar	MORT	2	-
Bipolar Implements	BP	2	-
<i>Bone Tools</i>			
Worked Bone End Frag.	WBEF	2	-
Worked Bone Medial Frag.	WBMF	1	-
Split Bone Awl	SAWL	2	-
Bird Bone Awl	BAWL	1	-
Unipoint	UNPT	1	-
Pointed Bone Object Frag.	PBOF	1	-
Bone Labret	BLAB	1	-
Unident. Wedge, Chisel, or Bone Blade Frag.	UWCF	-	1
<i>Shell Tools</i>			
Shell Beads	SHB	24	3
Total		374	22

For the North Trench Locarno component, I have listed only the material from Feature 9. Feature 9 was not originally recognized in all units where we later decided it was present, and most of what is tabulated is only the later, clearly designated material. Most of the other material that may be part of this component is difficult to assign, as it lies at the interface between the bottom of the drainage ditch (Layer BC-F) and intact deposits (BC-I). This indefinite material in total is only a very small collection.

Table IX-3. St. Mungo Components, North and South Trenches

St. Mungo			
	South Trench		North Trench
	<u>Layers CU-CY</u>		<u>Units Fnw and Fsw (> 210 cm below Datum)</u>
<i>Stone Tools</i>			
Cores	CORE	11	1
Anvil	ANV	1	-
Cortex Spalls	CSP	4	2
Utilized Flakes	UF	10	4
Uniface Retouch. Flake, Steep	SRF	1	1
Uniface Retouch. Flake, Narr.	NRF	-	1
Bifacially Retouched Flakes	BRF	-	1
Narrow Angled Uniface	NFU	-	2
Leaf Shaped Biface	LBF	2	-
Contracting Stem Points			
Shouldered	CSBS	1	-
Biface Medial Frag.	BMF	-	1
Unident. Biface Frag.	UNBF	-	1
Abrasive Stone	AS	5	3
Formed Abrasive Stone	FAS	1	-
Ground Stone Disc Beads	GSDB	90	406
Adze	ADZ	1	-
Decorated Ground Stone	DGS	1	-
Bipolar Implements	BP	2	1
<i>Bone Tools</i>			
Rodent Incisors	RI	2	-
Bone Bead	BEAD	4	-
Ulna Awl	ULNA	1	-
Worked Bone End Frag.	WBEF	-	1
Worked Bone Medial Frag.	WBMF	-	1
Unident. Wedge, Chisel, or Bone			
Blade Frag.	UWCF	1	-
<i>Shell Tools</i>			
Shell Beads	SHB	56	39
Shell Adze Blade	SAB	1	-
Total		197	474

To summarize the North Trench, the tabulated artifacts are a subsample of the total found, but include all of those I judged could be assigned with a degree of certainty to either component. There remains problems with the material from Fnw because of the burial.

The artifact assemblages assigned to the cultural components found in our excavations are modest, but include significant contributions to our understanding. The presence and absence of microliths and beads to each component can be treated as relatively secure. Ground stone disk beads can thus be added with confidence to the artifact assemblages of Locarno Beach and St. Mungo cultures. The Quartz Crystal Microlith complex can be securely attributed also to Locarno Beach – it is also known from several other Locarno components, DhRt 4 and Bowker Creek (Mitchell 1979), as well as a few were recently found at the Locarno Beach type site (Arcas 1993). The Quartz Crystal Microlith complex can also be added to the Old Musqueam subphase. Other Old Musqueam subphase components have microblades, so the quartz crystal complex may be a functional equivalent of this, as microblades and non-quartz crystal microliths (Croes and Blinman 1980) are also reported from other Locarno Beach components. The absence of this material – and microblades – from the St. Mungo culture also is secure. This new information about these abundant, but small objects, is a result of excavation by fine-grained natural layers and the use of fine mesh and water screening. The much more equivocal artifact assemblages in the North Trench indicates that these expensive field techniques do not resolve all such problems.

In terms of numbers, the relative absence of quartz crystal of all sorts from the St. Mungo component is clear; no quartz crystal tool or debitage was recovered from this component in the North Trench. In the South Trench, four pieces of quartz were present in the upper-most St. Mungo layer, CV, and two more in lower layers, one in CW and one in CX-1/2 (Rankin, Chapter V). Given that over 100 pieces of quartz were found in the Locarno layers in the South Trench, and the small size of all of these objects this is a very small amount. It may well be that quartz is one of the first items introduced in the transition from St. Mungo to Locarno and this occurred at about 3500 RCYBP.

The lack of Ground Slate Knives, labrets, and microblades make it clear that the oldest component is 'St. Mungo' rather than 'Mayne' as these three artifact types are the items that distinguish the Mayne from the St. Mungo culture (Carlson 1970). In terms of most artifact classes, there is a close similarity between the Crescent Beach St. Mungo component and those from Glenrose and St. Mungo (Pratt 1992).

Dating of Crescent Beach Cultures.

How do the dates obtained at Crescent Beach fit with others obtained for the same cultures? When the St. Mungo culture was first defined (Matson 1976) the dating suggested was 4300 to 3300 RCYBP, based on dates from the St. Mungo component at Glenrose and at the St. Mungo site, itself (Calvert 1970, Boehm 1973). At that time there were several dates at 4200 and 4300 for the beginning parts of this culture from those two sites, and it was succeeded by the Locarno Beach culture, which at that time was seen as beginning at 3200 RCYBP (Mitchell 1971). Since then, several dates, including one from Crescent Beach, have been obtained indicating that this culture dates to 4500 RCYBP (Ham et al. 1986; Mitchell 1990:340).

Only one good direct date existed for the end of the St. Mungo culture when first defined in 1976 (3280 \pm 105 RCYBP, Gak 4683), and Matson's (1976:19-20) ending dates was based on the beginning dates of Locarno Beach, as understood then and this date. We now have dates of 3300 RCYBP for 'good' Locarno Beach assemblages, including one reported in Chapter X, that we obtained from the lower levels of the type site itself. These dates are more fully discussed in Chapter XI. Locarno Beach certainly had begun by 3300 RCYBP (Mitchell 1990; Matson and Coupland 1995:154). At Crescent Beach, we have put the beginnings of this culture at the Layer C-T/U, sandwiched between Layer C-S which has a date of 3210 \pm 110 RCYBP (WSU 4247) and Layer C-V1, which has a date of 3590 \pm 85 RCYBP (WSU 4245). This places the beginning of Locarno Beach between 3500 and 3300 RCYBP. Current evidence indicates a gradual development from St. Mungo to Locarno Beach cultures, rather than a sudden transition (Mitchell 1990:340). Ham (Ham et al. 1986), for instance distinguished a transitional component (discussed in more

detail in Chapter XI), component 'C', dated to 3400 RCYBP at St. Mungo. Similarly, Layer C-T/U at Crescent Beach has transitional characteristics, particularly in terms of the salmon remains. The period between 3500 and 3300 RCYBP appears to be a 'conversion' or cultural 'interface' reflecting the evolution of St. Mungo into the Locarno Beach culture, and the information from Crescent Beach is fully in accord with this.

Although the Crescent Beach dates have contributed significantly to our understanding of the dating of the two oldest components, none of the dates that should have contributed to the dating of the Old Musqueam component can be accepted. The Locarno Beach culture is usually thought to go to about 2500 RCYBP (Mitchell 1971, 1990; Matson 1992; Matson and Coupland 1995:156; Matson et al. 1980). Dates for the Old Musqueam component are currently available (and acceptable) from Glenrose (2310 ± 105 , Gak 4646, 2030 ± 95 Gak 4647; Matson 1976:18; 2340 ± 115 , S 790, 2300 ± 70 ; Burley 1980:32), Old Musqueam (DhRt 3 – 2350 ± 80 RCYBP, Gak 1283, 1910 ± 80 RCYBP Gak 5137; Monks 1976:267), and one of 2110 ± 65 RCYBP (WSU 4340) from Whalen Farm II (Chapter X). The three oldest of these dates are greater than 2300 RCYBP, which places the beginning of this subphase at 2400 RCYBP and the dates as a whole place this subphase between 2000 and 2400 RCYBP. It is most likely that the Crescent Beach Old Musqueam component belongs to this time period. As discussed in Chapter XI, the Old Musqueam component is the most problematic one at Crescent Beach.