THE MARPOLE CULTURE TYPE –

CURRENT KNOWLEDGE

A major implicit criticism of the culture historical sequence, as established within the Gulf of Georgia region, has been the strict definition of individual units on the basis of trait presence/absence. While such a scheme might be justifiable given the full analysis of several collections from controlled excavations, in addition to absolute dates, this has not been the case. In fact, the original concept of a Marpole culture type (the Intermediate Period) was based on broad comparisons from "table top" inspection of a few component assemblages. Specific characteristics were singled out and emphasized as all important diagnostics (cf. Borden 1951).

Since the original characterization, there have been a number of modifications stemming from recent analyses and a plethora of radiocarbon assays. The tendency has been to de-emphasize gross differences between Marpole and articulating culture types as well as extending the terminal date. Still, the unit has remained a viable culture historical concept. Moreover, at least a partial measure of statistical distinctiveness has been illustrated in recent analyses by Matson (1974). Matson's study employed a polythetic set with both presence/absence and frequency data.

Mitchell's (1971: 52) synthesis of diagnostic archaeological features within the Marpole culture type lists 20 defining criteria. Based upon the works of Borden (1950, 1954, 1960, 1962, 1968a, 1970), Carlson (1960, 1970), Hill-Tout (1895, 1948) and H.I. Smith (1903, 1907), these include: a variety of chipped stone point forms; microblades; large ground slate points; thin ground slate fish knives; celts of various sizes; disc beads of shell or shale; labrets and possibly earspools; stone hand mauls; perforated stones; stone sculpture; large needles; sectioned or split bone awls; barbed antler points; antler wedges; antler sculpture; relatively frequent use of native copper for ornaments; midden burials, some with plentiful grave goods; skull deformation and occasional trepanation; and, finally, large post moulds and house outlines. Subsequent sections provide an evaluation for each of these diagnostics.

Projectile Point Forms

Within the Marpole culture type, a large variety of chipped stone projectile point forms are notable. As well, at a number of sites this category of implement is surprisingly abundant in relation to the total assemblage (see Burley 1979a, 1979b). While the possibility of site specific factors cannot be ruled out, as a general characteristic, variety and abundance of chipped points appear more diagnostic of Marpole than culture types preceding and succeeding it. Forms most frequently found include:

1) large well made thin lanceolate bifaces both with and without stems. A number have serrated blade edges and are manufactured of exotic raw materials including silicified wood, chert, chalcedony and quartz. In that many of this form have been associated with burials, a ceremonial or ritual function is suspected (Figure 4, a, b);
2) a medium to large sized contracting stem form with straight to convex blades, squared to rounded shoulders and pointed convex to straight bases (Figure 4, c);
3) a small to medium sized expanding stem type having straight to convex blades and a convex base (Figure 4, d);
4) a medium sized corner-notched form intergrading with the preceding type. Basal margins vary from straight to convex as do blade edges (Figure 4, e).
5) a basal-notched barbed form often with an ill-defined or truncated stem. Bases tend to be either pointed convex or convex, blade edges vary between slightly incurvate and slightly convex while barbs are well defined and have a tendency to project below the basal edge (Figure 4, f);
6) a wide variety of unstemmed triangular types of a small to medium size. Blade edges range from incurvate through to slightly convex as do the basal margins. One specific type with an asymmetric slanted base has been suggested as particularly diagnostic (Mitchell 1971: 52) Figure 4, g–j);
7) small to medium sized leaf shaped points with varying types of basal margins. Leaf forms, on the whole, tend to be rare (Figure 4, k);

The lanceolate type aside, for almost all chipped point styles, the basic raw material is basalt/andesite. Typically, it varies in consistency from vitreous to highly granular. Concomitant with the flaking propensities of this material is what might be considered a poor or "crude" workmanship on many specimens. Non basaltic materials do occur but these tend to be extremely rare. With the exception noted above, no typological preference for the use of such

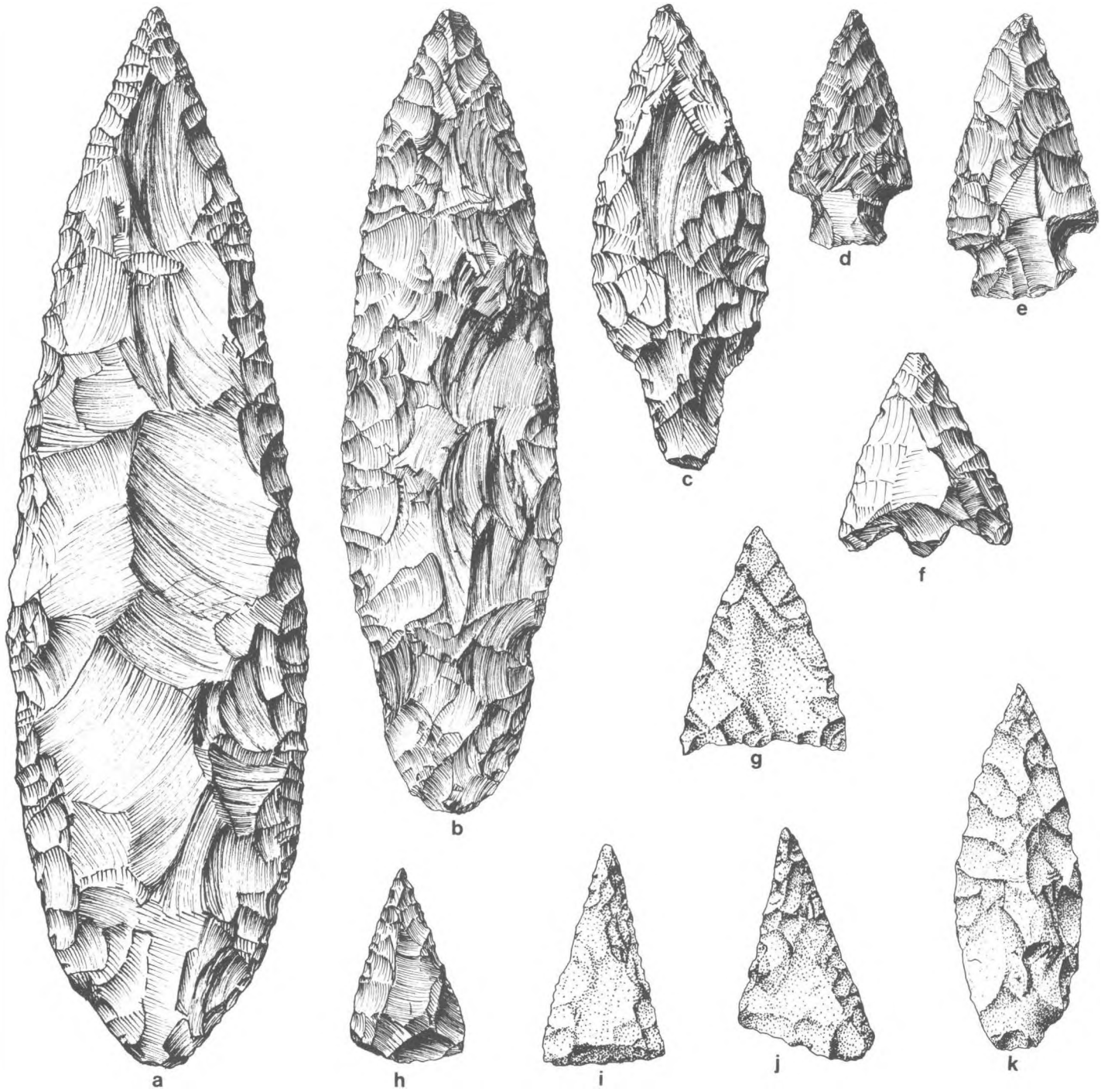


Fig. 4. Chipped Stone Projectile Point Styles Characteristic of the Marpole Culture Type. (a,b) Large Lanceolate Bifaces. (c) Contracting Stem Point; (d) Expanding Stem Point ; (e) Corner-notch Point; (f) Basally-notched Barbed Point ; (g-j) Triangular Points; (k) Small Leaf Shaped Points

materials can be illustrated.

At this point it is difficult to ascertain and quantify intraculture type chronological distributions for specific styles. On a general level, a few trends may be delineated. First, I would suggest that the smaller unstemmed triangular point forms occur toward the latter end of the Marpole period. Many types are virtually indistinguishable from those of late period assemblages attributed to the Gulf of

Georgia culture type (Mitchell 1971: 52, Burley 1979a) and rarely occur in an early Marpole context (for instance see Matson 1976d). Similarly, notched and barbed forms seem to have a late distribution. Borden's (1970: 106) illustration of Whalen II phase points show much overlap with these styles. Finally, both contracting and expanding stem types appear to be equally distributed through time with a possible tendency to drop in frequency and size in later assemblages.

This tendency for reduced size and increasing variability through time may be indicative of something more than stylistic change. Specifically, we may note that at roughly the same time elsewhere in the Pacific Northwest, there is a major shift in hunting technology from the atlatl and dart to the bow and arrow. Cressman (1977: 106) suggests a transitional date of 300 B.C. for the Columbia Dalles region while Borden (1968a: 15) marks its appearance into the Fraser Canyon during the Baldwin phase (1,000–300 B.C.). On the other hand, Stryd (1973: 50) argues for a more recent introduction in the interior plateau during the Lillooet phase (A.D. 200–800).

Whatever the case may be, there can be little doubt that the notched point styles are reflective of a major cultural flow out of the interior to the coast. Such an inference is predicated upon the close similarities of these forms with those of Sanger's (1970: 56) Upper Middle Period, Wilson's (1976: 17–18) Thompson phase or Turnbull's (1977: 107–108) Deer Park phase. However, this diffusion stream may not have spread throughout the entire Gulf region. As reported in a later discussion, notched points tend to be most abundant and associated with mainland (including the Point Roberts Uplands) sites.

Microblades

Microblades and prepared cores have been recovered from a large number of Marpole culture type sites. However, their distribution is not solely limited to this period, occurring in earlier Locarno Beach assemblages and possibly persisting into later components as exhibited in the Whalen II phase (Borden 1970). Of course the latter might be considered the terminal aspect of Marpole.

As a technological tradition, microblade production is found throughout much of the Pacific Northwest (Borden 1962; Mitchell 1968a; Sanger 1968; MacNeish 1964; Ackerman 1968; and Fladmark 1975). Their presence has been used to propose a variety of migration and diffusion streams in a host of directions. For the Gulf of Georgia, Borden (1962: 16–17) first suggested them to be the end product of a north to south temporal gradient running through the interior plateau and hence to the coast. Shortly thereafter, Mitchell (1968a) illustrated a much earlier distribution than previously considered for the region. Subsequently, he argued that it was indicative of a continuity in regional culture growth (1968a: 14). Sanger (1968) has also taken issue with Borden's model, again illustrating a long time depth (*circa* 5,000 B.C. to A.D. 1) in the interior plateau. Notably, he reports marked differences in plateau/coastal microblade technologies. Summarizing, Sanger has stated:

> The coastal microblades represent a different technology. From the evidence drawn from both microblade and core examination, many of the coastal microblade cores are typified by: extensively modified striking platforms; lesser emphasis on core edge preparation compared with the Plateau specimens; unmodified to little modified lateral surfaces; and fluted surfaces which are parallel or tend to expand, rather than to contract, towards the keel (1968:111).

Sanger attributes many of these variations to differences in raw materials. Whereas the interior complex is almost solely based on basalt, coastal specimens tend to be of quartz crystal or obsidian. As a result, the coastal technique is posited as a development on quartz crystal applied to obsidian (Sanger 1968: 111). The few basalt specimens which have been recovered in the Gulf of Georgia are found to exhibit characteristics of the cryptocrystalline industry.

Disregarding technological and material differences, Sanger notes that microblades and cores represent a relatively small percentage of coastal assemblages as opposed to the interior. For the Marpole culture type, this may be in part an artifact of recovery technique and the temporal context of these assemblages. Of the latter, it is important to note that Marpole's chronological placement is at a period where, in the remainder of the Northwest, microblade technology is at a decline. In this light, 33 quartz crystal microblades and four cores were excavated from the Locarno Beach culture type component at Georgeson's Bay (DfRu 24) (Haggarty and Sendey 1976: 23–26). Since the total assemblage amounted to only 263 specimens and the excavation was limited to a pair of 2 x 2 metre pits, this artifact type could hardly be considered a rarity. A similar situation is found in at least two other components of a coeval age (Kenney 1974, MacMillan and St. Claire 1975).

Nonetheless, speaking strictly of Marpole, few assemblages have an abundance of microblades. Further, no spatial trends appear to be present with a wide distribution throughout the Gulf of Georgia. Given microblade profusion in the Locarno Beach culture type, one would expect the earlier Marpole assemblages to have a more abundant collection with fewer specimens from sites with less time depth. Such a situation has yet to be illustrated and comparable microblade samples are found among even the latest of Marpole components.

Ground Slate Points

On a general level, ground slate points are less numerous than their chipped stone counterparts. While the most

typical form appears to be a medium sized excurvate to leaf shaped variety with lenticular cross section, a number of other styles are present. These include: small to medium sized triangular and eared points with faceted edges and flat surfaces; the occasional medium sized stemmed or notched point; and a series of large faceted types of which a few have stems.

The relative lack of ground points in the Marpole culture type contrasts with both earlier and later units. Despite this factor, existent styles do overlap. Several large faceted points are comparable to types present in Locarno Beach while the triangular points are analogous to Gulf of Georgia culture type forms. It is interesting to note that, at False Narrows (DgRw 4), a number of the bayonet type points were recovered in a burial context suggestive of a ceremonial function (Burley 1979a). In this regard, they may be analogous to the earlier described large lanceolate chipped stone bifaces.

Since types with a lenticular cross section tend to be thicker than those having faceted blade edges and flattened surfaces, they may be representative of varied functions. That is, the latter appear more suited for insertion as cutting blades in composite harpoons while the former may be tips for arrows or atlatl darts. Late Marpole assemblages at False Narrows (Burley 1979a) and Deep Bay (Monks 1977) include thin point types in association with composite harpoon valves.

Thin Ground Slate Knives

In his original excavations at the Marpole site, Borden (1950) encountered numerous complete and fragmentary ground slate knife specimens. Ranging in shape from rectangular to semilunar, he described them as being "...thin, 2 mm, rarely more than 3 mm thick, of even thickness throughout and with the entire surfaces ground smooth" (1950: 18). Although present in later assemblages, this category of implement was felt to discriminate between the Marpole and Locarno Beach phases, the latter having a thicker and heavier type (Borden 1970: 103).

With the exception of other Fraser River sites, large numbers of ground slate knives are rare. Moreover, though infrequent, thin knives are possibly recognized in earlier coastal contexts (Calvert 1970; Carlson 1970; Haggarty and Sendey 1976, Burley 1979b). Borden (1970: 103) also notes that knives of this form are present by 3,000 B.C. in the Eayem phase of the Fraser Canyon.

While sample skewness may be used to explain discrepancies in quantities between the Fraser River and other locales, alternative interpretations are proffered. Should these implements be assumed as integral to the mass processing of fish, then one would expect them to be an important aspect of a tool kit at sites optimally situated to exploit such a resource. The Fraser River salmon runs are by far the most prolific fish population within the Gulf of Georgia region and it is notable that set migratory approaches to the river are followed (Suttles 1951).

Crowe-Swords (1974: 98–105), reporting an excessively large collection of knives from the Carruthers site (DhRp 11), suggests an alternative function. Specifically, he proposes that, at least at Carruthers, they may have been used in the preparation of wild potato. The possibilities of a multi-purpose employment, therefore, cannot be ruled out.

Whatever the case may be, on the basis of present data, thin ground knives appear to segregate Marpole from earlier assemblages. Such a recognition has formed the basis for isolating Marpole from an earlier component at the Marpole site itself (Burley 1979b). However, it must also be emphasized that identical specimens are abundant in later collections (Borden 1970; Carlson 1970; Mitchell 1971).

Celts/Adze Blades

The sudden occurrence of large celts within the Marpole phase, in addition to other aspects of a heavy duty woodworking tool kit, suggested to Borden (1954, 1970) an introduction of the large scale woodworking industry of ethnographic times. Celts or adze blades found in earlier contexts are characteristically small and, it is implied, unsuited to such a technology (Borden 1970: 99). Although Mitchell (1971: 59) has questioned the postulate that large scale woodworking was absent in the Locarno Beach culture type, he also points out that larger celt forms are absent prior to Marpole.

Mitchell (1971: 52) characterizes Marpole celts as being "...of various sizes, generally large, made with little care, of flattened oval cross section and with a rough rounded poll; the sides often taper towards the poll." That various sizes are represented are now fully documented (Matson 1976c: 152; Borden 1950: 19; Burley 1979a, 1979b). However, with the remainder of the above description, some issue may be taken. In analyzed collections of the False Narrows and Marpole sites (Burley 1979a, 1979b), many specimens have completely finished polls, faceted or flattened lateral margins and extreme care taken in their manufacture. At Marpole, small to medium sized celts are most abundant, as was the case in the Marpole component at Glenrose Cannery (Matson 1976d). Thus, while it is admitted that sample sizes at individual sites are inadequate to establish a comprehensive typology, it is felt that when such a study has been completed, considerable overlap of smaller forms will be found with Locarno Beach. To date, larger adzes or celts have not been recovered in a Locarno Beach context and may prove to be a reliable temporal delimitor. Marpole and Gulf of Georgia culture type celt assemblages are virtually indistin-

guishable.

For most celts of all periods, the predominant raw material intergrades between jadeite, nephrite and serpentine (Loy 1977, personal communication). Since the origins of this material are extralocal, extensive trade or migratory pursuits must be inferred. The closest source is the Fraser River Canyon (Mitchell 1971: 152). Basalt adze blades are also present though much less frequent.

Disc Beads of Shell or Shale

Involving considerable energy expenditure, the manufacture of both shell and slate disc beads has been interpreted as signalling a great emphasis on personal wealth and ornamentation within the Marpole culture type (see Stewart 1973: 90–91). Such a hypothesis is reinforced by their ubiquitous occurrence in burial contexts and often association with a second assumed wealth item, dentalia.

As a chronological diagnostic, shale or shell disc beads appear to be relatively isolated to the Marpole culture type although a few occurrences are noted in earlier and later associations. Of the latter, they are either insignificant in numbers or have a questionable placement. For example, Percy (1975: 143) suggests that five examples of disc beads in the early component at Crescent Beach ". . .were chance discoveries of items intrusive from stratigraphically superior components". Similarly, the single occurrence of a ground stone disc bead in the Lithic and Gulf of Georgia culture type components at Deep Bay (Monks 1977: 223) might be considered anomalous. Five steatite disc beads are reported as being present in the Georgeson's Bay I component (Haggarty and Sendey 1976: 35).

Without qualification, the arguments for disc beads as prime *fossil directeur* might be misleading. Specifically, the size of individual items makes them all but impossible to recover using standardized excavation procedures unless concentrated and/or recognized *in situ*. In Marpole, as has been reported, such a situation frequently occurs in burial contexts. Since mortuary patterns of previous and later culture types do not include extensive grave furniture, it could be proposed that differential variation is not found in the actual artifact form, but in burial practices and recovery rates. In fact, I believe this may well prove to be the case for the Gulf of Georgia culture type.

Labrets and Earspools

Although infrequent, both labrets and earspools have positive associations with the Marpole culture type. Also, both are found within the material culture of Locarno Beach. Ethnographically, neither labrets nor earspools are reported within the region and they are absent for the Gulf of Georgia culture type. However, pierced ears were common and ornaments of haliotis shell were frequently worn (Suttles 1951: 268; Barnett 1955: 76).

Almost all known forms of labrets found on the Northwest Coast are present during Marpole. These include T-shaped, button, pendulant and, tentatively, composite and novice types (Matson 1976c: 157; Percy 1975: 140; Kidd 1969: 55; Haggarty and Hall 1976). Moreover, they are manufactured of both stone and shell.

Although there appears to be no distributional pattern, on a regional level it is interesting to note that, where they do occur, they tend to be found in clusters. At Glenrose Cannery there are four (Matson 1976c), at Crescent Beach, six (Percy 1975), at the Hill site, five (Haggarty and Hall 1976), and at Musqueam Northeast, three (Matson 1974). In a minimum of 12 other Marpole components, they are not identified.

Mitchell (1971: 52) has attributed earspools to the Marpole culture type by inference from sculpture. Two are now reported for the Component II assemblage at the Marpole site (Burley 1979b). As well, a possible bone specimen was excavated within late Marpole deposits at Crescent Beach (Ham 1977, personal communication).

Stone Hand Mauls

Prior to the Marpole culture type, large well made spooled hand mauls are absent. Once introduced, they persist up to the historic era. Although a complete specimen, in a fully diagnostic sense, is a rare find in controlled excavation, the style most typical of Marpole has a conical projection (nipple top) on its proximal flange. Plain and grooved conical top mauls also occur but are infrequent (Smith 1903: 156, Fig. 23, d and e). While all three forms may be associated with later assemblages, the flat topped variety of the Gulf of Georgia culture type has yet to be recovered from earlier deposits.

Being pecked and polished out of a tough fine grained material (characteristically diorite), individual mauls represent a considerable investment of labor. However, once finished it is suspected that the attrition rate due to breakage or loss would be low. Should it be assumed that mauls primarily served in a plank splitting capacity along with antler wedges, we might predict that their greatest frequency would occur at sites with large scale architecture such as the winter village. Too few excavated specimens have been recovered *in situ* to verify this postulate.

Perforated Stones

Commonly interpreted as sinkers and possibly associated with a number of fishing techniques (Stewart 1973, 1977), perforated stones are found in a variety of weight classes and materials. Of the two basic types, centre and end perforated (King 1950), neither can be attributed with chronological patterning during the Marpole culture type. However, as will be noted in later analyses of interassemblage variability, there is a tendency for artifacts of this class to be

found in sites away from the Fraser River and delta. This association may be suggestive of varied fishing technologies for river mouth and coastal locales.

Again, although both Borden (1970) and Mitchell (1971) list perforated stones as a diagnostic of Marpole, they can be found in more recent contexts. King (1950: 40) attributes six specimens to his late phase, albeit five are incomplete, while at False Narrows, three are definitely associated with component III (San Juan phase or Gulf of Georgia culture type) (Burley 1979a). Similarly, a single specimen is reported in a late component at Coronet Bay on Whidbey Island (Bryan 1963).

As yet, perforated stones are unreported for pre-Marpole horizons. Since notched and girdled specimens are present in a number of Locarno Beach deposits (see Mitchell 1971; Haggarty and Sendey 1976), major differences in fish procurement strategies may not be inferred.

Stone Sculpture

Possibly one of the most distinctive of Marpole industries is that of stone sculpture. For the most part, it is a representational art form of both an anthropomorphic and zoomorphic nature. Included in this complex are a wide range of both functional and ritualistic items (see later discussions and Figure 6). Most notable are the seated human figurine bowls; sculptured heads; fish, seal, turtle, and other faunal effigies; as well as an assortment of decorated bowls.

Several base lithics are employed in the sculpture industry although most fine detailed work is done in soft stones such as steatite or lignite. Again these materials imply an intense trading pattern. In fact, Duff (1956: 99) has proposed that soapstone figurine bowls may well have been imported in a finished form from the midFraser. Specimens of less exotic materials he suggested to be copies by local artists.

Although the ultimate origins of this complex are unclear (see Duff 1956: 104–109 for a detailed review), it does not seem to be a logical development out of the earlier Locarno Beach culture type. Since it does not persist with any degree of intensity into the late period, the tradition would seem to have reached a peak in an early to mid-Marpole context.

On a general level, stylistic elements of the stone sculpture assemblage (and this would apply to carving in other media) have their most comparable analogues further to the north. Duff (1956: 105), while pointing this out, suggests it to be an evolutionary prototype of the northern wood carving tradition – the latter evolving out of the former. In a similar vein, Borden (1976a) has argued that the Marpole artistic complex is a southern climax for the later artistic developments of the north. The Coast Salish, and presumably Gulf of Georgia culture type artistic traditions, are less representational and of a more geometric nature.

Large Needles

Large needles of land mammal bone have a fairly widespread distribution among Marpole culture type sites. At least two distinct forms are present and assumed to have had varying functions. These include specimens with distal eye placements and a wide proximal end as opposed to a longer more slender type with proximal eyes. It is unlikely that the former implement could be pulled through a material and, therefore, would have an analogous function to the present day bodkin. At False Narrows, two such implements are decorated on their proximal ends (Burley 1979a).

Bone needles have a widespread chronological distribution in the Gulf of Georgia and it seems curious that Mitchell (1971: 52) would posit them as a distinctive archaeological feature. Borden (1950: 16) attributes three forms of varying sizes to Locarno Beach II deposits and illustrates specimens for Marpole and Stselax phases which closely correspond (1970: Figure 31 b and c, Figure 33). Although Borden (1950) describes all Locarno Beach II specimens as being distally perforated, his illustration of diagnostic artifacts shows two examples with proximal eyes (1970: Figure 30 i and k). Thus, I suspect a confusion in terminology. Even so, both Hall (1968) and J. McMurdo (1974) record distally perforated examples within Helen Point I, a Locarno Beach culture type component.

As an aside, Borden (1970: 96) lists bird bone needles as occurring solely within a Locarno Beach time period. At Marpole (Burley 1979b) and Montague Harbor (Mitchell 1971), they are found in a Marpole culture type association and in late period deposits at Coronet Bay (Bryan 1963).

Sectioned or Split Bone Awls

As a generalized category, awls of land mammal bone are abundant throughout the entire spectrum of culture types within the Gulf of Georgia (cf. Matson 1976d; Burley 1979a, 1979b; Borden 1950; Percy 1975). Moreover, there does not appear to be a distinctive or more abundant variety associated with Marpole. As a diagnostic criterion, it is somewhat suspect.

Whether the difference between sectioned and split awls are meaningful beyond taxonomic purposes remains to be answered. In analyses of awls from the False Narrows and Marpole sites, aside from types formed on identifiable elements, I have followed Percy (1975) in delimiting two major varieties, splinter and formed split bone (see Burley 1979a, 1979b). It was assumed that the former were immediate use tools and the latter, curated items. Matson (1976c: 159–162) has applied differing criteria for class delineation at Glenrose Cannery, that being morphology of the tip. Such a format applied to large collections from intra-

regional sites may lead to a refined functional typology.

Harpoon Points

Of all categories of artifacts, that considered most diagnostic of the Marpole culture type is the distinctive unilaterally barbed harpoon. Such a priority is not without its justification. The chronological distribution of unilaterally barbed harpoons, with but a few exceptions, is restricted to the Marpole time period. They are preceded in the Locarno Beach culture type by single and two piece composite toggling harpoons and are succeeded during the Gulf of Georgia period by two piece composite varieties.

Although the typical Marpole harpoon is standardized as a unilaterally barbed noncomposite style, there remains considerable variation in the form of line attachment attributes. In a comprehensive analysis of unilaterally barbed harpoons, A. McMurdo (1972) has proposed five major types with a number of subtypes. Her classificatory scheme includes (see Figure 5):

Type 1 unilaterally barbed harpoons with line guards
- a) unilateral line guards
- b) bilateral line guards
- c) line guards with incisions or secondary sawing

Type 2 unilaterally barbed harpoons with a notched form of line attachment
- a) unilateral line attachment by means of notching
- b) bilateral line attachment by means of notching
- c) a neck or spool form of line attachment
- d) light harpoons with constriction on the base

Type 3 unilateral barbed harpoons with shoulders
- a) unilateral shouldering
- b) bilateral shouldering

Type 4 unilateral barbed harpoons with line hole
- a) unilateral line attachment in the form of a round drilled intrusion into the shaft resembling a broken line hole

Type 5 unilateral barbed harpoons with a line hole in combination with another attachment.

After reviewing the distributional data for each type (Table I), I would concur with McMurdo's (1972: 101) proposition that bilateral line guards are the most typical Marpole form and probably represent a "middle time slot". They occur in seven undisputed Marpole components throughout the Gulf of Georgia.

It is interesting to note that, when examples of unilaterally barbed *bone* harpoons have been recovered in Gulf of Georgia sites, they seem to be associated with late components. Bone specimens are reported at Belcarra Park II, a component falling into an A.D. 400 to 800 period (Charlton 1977) and Georgeson Bay II, a Gulf of Georgia culture type component (Haggarty and Sendey 1976). A possible exception are a few examples within Borden's collections from Marpole. Even here, however, a date of A.D. 440 ± 90 (Har 2183) for Marpole II may be supportive of this late association.

Table I Distribution of Unilaterally Barbed Harpoon Forms Within Gulf of Georgia Region Sites

	Harpoon Type											
	Ia	Ib	Ic	IIa	IIb	IIc	IId	IIIa	IIIb	IV	IVa	V
Marpole	x	x	x	x		x	x	x				x
Helen Point	x											x
St. Mungo	x											
Cadboro Bay		x			x						x	
Montague Harbor		x							x			
False Narrows			x					x				
Pedder Bay						x		x				x
Fishtown*								x				
Beach Grove												
Georgeson Bay*									x			
Belcarra Park*							x	x				
Point Grey		x										
Garrison		x										
Richardson		x										
Argyle Lagoon		x										

(adapted from McMurdo 1972: 99–100)

* unsure of the presence of a Marpole component

Although unilaterally barbed harpoons are virtually restricted to the Marpole culture type, there is growing evidence to propose that, in small frequencies, two other forms occur. The first of these is a bilaterally barbed shouldered harpoon of a fairly stout nature. Having some range of variation, at least three specimens may be attributed to Marpole. Borden (see Willey 1966: 390) has recovered one from the Marpole site; Matson (1976d: 182) attributes another to Glenrose Cannery III; and King (1950: 43) ascribes the third to his Maritime phase. All are made of antler. Smith (1903: 152) also illustrates one from Port Hammond although its cultural affiliation is unknown.

In addition to bilaterally barbed harpoons, eight Marpole components are now reported to include toggle valves for composite harpoons. These are False Narrows I and II (Burley 1979a), Beach Grove (D. Smith 1963: 32), Whalen Farm (Seymour 1976: 89), Deep Bay (Monks 1977: 224), the Hill site (McCauley 1976: 69–70), Helen Point II (Carlson 1970: 119) and Cadboro Bay I (Mitchell 1971: 72). Aside from Deep Bay and False Narrows II, only single specimens are represented. Moreover, the date of 900 ± 90 (GaK 6036) (Monks 1977: 61) for Deep Bay is considered to be extremely late for a Marpole component while False Narrows II is hypothesized as a Marpole transitional/Gulf of Georgia culture type component (Burley 1979a). Similarly, it could be proposed that the majority of the above listed collections come from a middle to late Marpole context.

Unilaterally Barbed Antler Points

Fixed unilaterally barbed points of antler, in addition to harpoon styles, are thought to be among the most diagnostic traits of the Marpole culture type. Borden

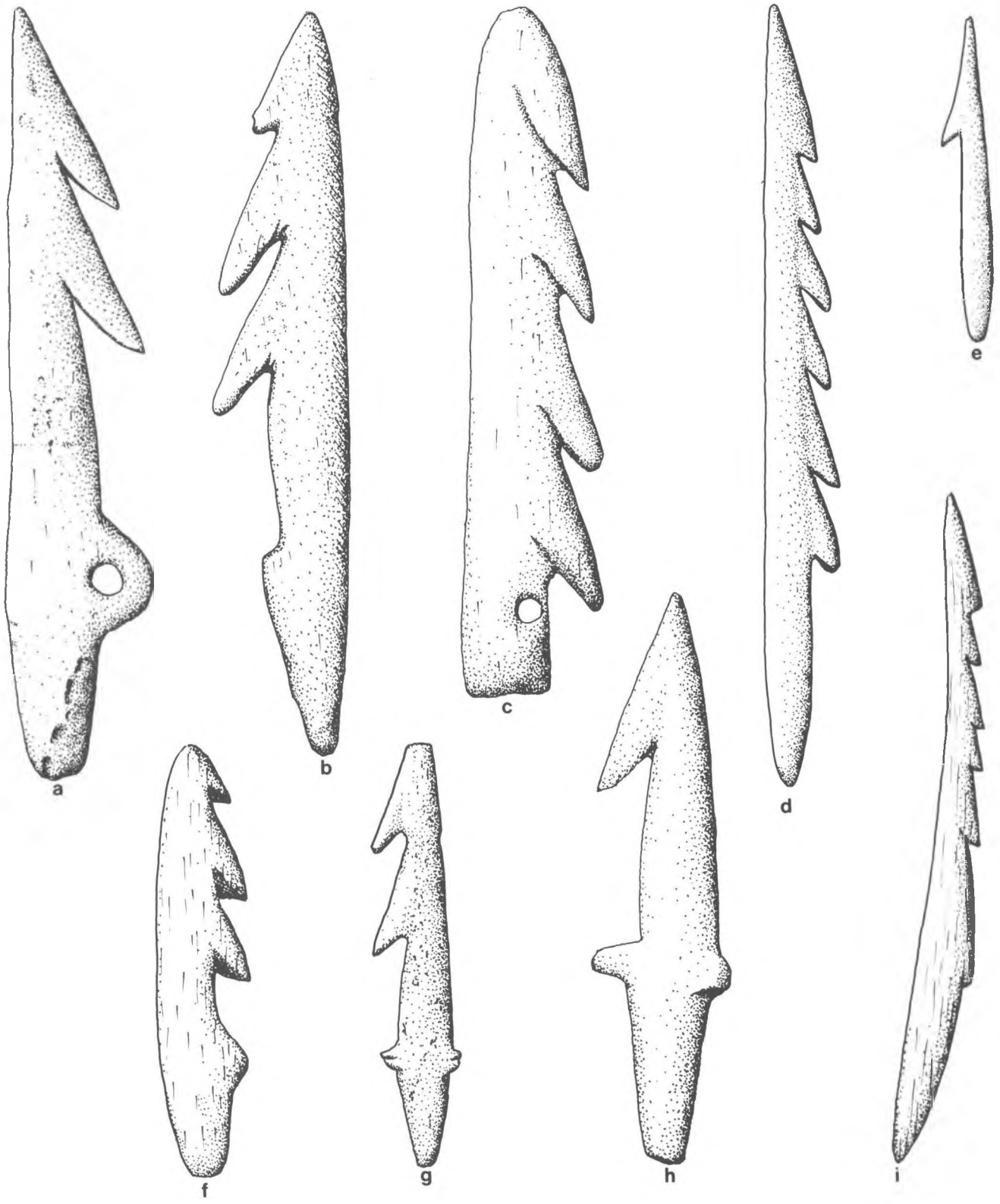


Fig. 5. Unilaterally Barbed Harpoons and Points Associated with the Marpole Culture Type.

(1970: 96) lists them as abundant in Marpole, rare in Locarno Beach and Whalen II and absent in Stselax. In the Marpole site assemblage that I have analyzed (Burley 1979b), the only material employed in barbed point manufacture was antler. Although based on a brief inspection of other collections from that site, antler is by far the most abundant medium. Such a case exists for several other related assemblages.

Despite antler being the most frequent material employed during Marpole, fixed unilaterally barbed bone points have also been recovered. They are noted at False Narrows I (Burley 1979a), Helen Point II (J. McMurdo 1974, Hall 1968), English Bluffs (Sutherland n.d.), Garrison (Carlson 1960) and Montague Harbor II (Mitchell 1971). Further, in limited numbers, barbed antler points are listed as constituents of a few Gulf of Georgia culture type assemblages.

In conjunction with her study of noncomposite harpoons, A. McMurdo (1972) has intensively analyzed fixed barbed bone and antler points. Restricting her sample to specimens from Gulf of Georgia sites, the typology, primarily, was based upon barb form and application technique. The subsequent classification resulted in 10 types of straight profile points (six bone and four antler), two types having curved profiles and an additional two types of small unibarbs. While a detailed outline of the classification is unwarranted, several of her conclusions on temporal distributions are significant with regard to the Marpole culture type.

Of the straight profile points (Class II), those most consistently associated with Marpole (Figure 5) are antler points having low straight extended barbs (Type VII) and antler points with high extended barbs (Type IX, A. McMurdo 1972: 101–103). The bone counterparts for these two forms (Types VIII and X) are also highly correlated with Marpole. Of the latter, however, both are viewed as late developments and may be considered transitional.

Curved profile points (Class III) of both antler and bone are included within Marpole deposits. In fact, the antler specimens were found to occur only in Marpole (A. McMurdo 1972: 106). Again, curved profile bone points are considered to be an evolutionary or transitional form. Finally, it is noteworthy that bone and antler unibarbs are, without exception, restricted to the Marpole period within the Gulf of Georgia (ibid.).

In a diagnostic sense, it can be concluded that fixed antler points of the types mentioned above are viable chronological indicators. Bone points with barb application similar to the antler forms may also be time sensitive. However, they are found in later contexts and by themselves are unreliable.

Antler Wedges

As previously reported, the occurrence in Marpole of antler wedges, spooled hand mauls, and large celts led Borden (1954, 1968a, 1970) to suggest the beginnings of heavy duty woodworking. This triad of tool types was thought to be absent or extremely rare in the earlier Locarno Beach period (Borden 1970: 96). Recent excavations, to some extent, have supported the reported distribution with large celts and mauls seemingly absent from early components. Nevertheless, both tine and beam antler wedges are now recorded for a large number of pre-Marpole components (Mitchell 1971; Charlton 1977; Matson 1976c; Calvert 1970; Percy 1975) while Carlson (1970: 115) goes so far as to list them as a diagnostic trait of his Mayne phase. Moreover, a full scale woodworking industry has been adequately documented within the waterlogged deposits at Musqueam Northeast, a Locarno Beach culture type component (Borden and Archer 1974).

From the above discussion, it is obvious that antler wedges are not a distinguishing characteristic of Marpole. They are found in abundance in both earlier and later contexts and are widely distributed throughout the Gulf of Georgia.

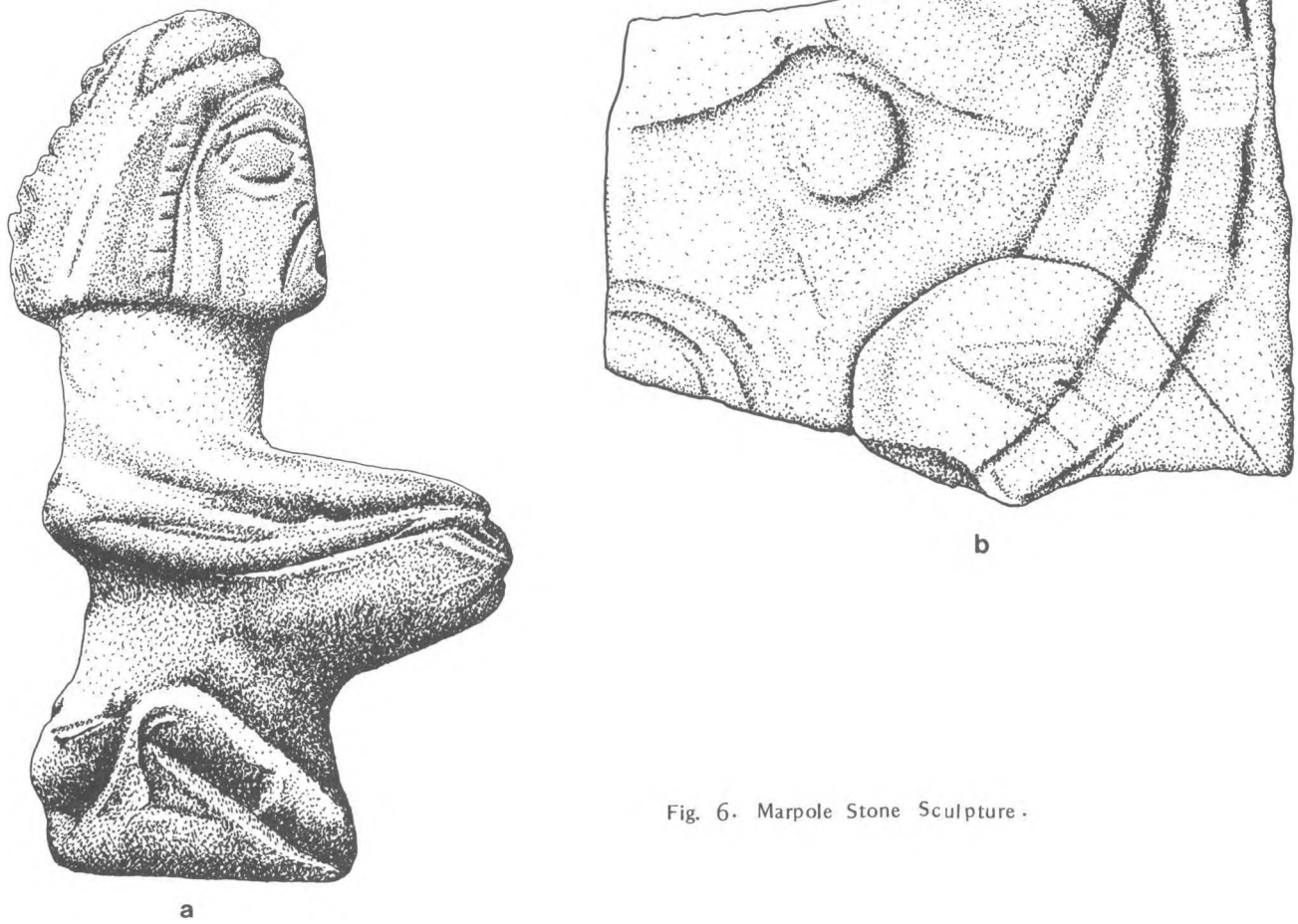
Antler Sculpture

In many stylistic aspects, sculpture in antler is related to that undertaken in stone. It tends to be representational including both anthropomorphic and zoomorphic motifs, although a few geometric forms are also known. In addition to purely artistic specimens, it is found on a number of functional implements including knife hafts, spoons, harpoons and barbed points. Antler pendants, of which there are several varieties, attest to its use in personal ornamentation. One specific form, a small crowned tear drop pendant, is considered to be particularly diagnostic. With limited variation, they have been recovered at Marpole (Borden 1950: 19, Burley 1979b), Point Grey (Borden 1950: 14), False Narrows (Burley 1979a), Helen Point (Hall 1968: 73) and Beach Grove (Smith 1963: 35).

Antler sculpture, in addition to that of stone, may be regarded as part of a general artistic emphasis in Marpole. Although it is not totally restricted to this culture type, here it is highly developed and most abundant.

Native Copper Ornaments

Although Mitchell (1971: 52) attributes the Marpole culture type with a "relatively frequent use of native copper for ornaments", and Borden (1970: 96) posits native copper ornaments as a distinctive Marpole trait, I have been able to find only a few recorded cases of copper in any form. These are a nose ring (Smith 1903: 178) and sheet copper (Menzies 1948: 16) from Marpole, a bead fragment from Deep Bay (Monks 1977: 224), a pendant from Cadboro Bay, copper fragments from Beach Grove (Abbott 1961) and a pendant, disc and several fragments from False Narrows (Burley



a b

Fig. 6. Marpole Stone Sculpture.

1979a). None, to my knowledge, have had a source identification. In two of the above cases (Cadboro Bay and False Narrows) there may be an association with a late component while at Penn Cove Park, Bryan (1963) has most definitely recovered a copper triangular pendant from a recent horizon.

Because copper is an extralocal material, we must again surmise widespread trading patterns. In this case, the most logical source would be the Copper River in Alaska.

Flexed Midden Burial

As yet, there has been little research into intraculture type patterning of mortuary practices within the Gulf of Georgia. On a general level, the form considered most typical of the Marpole culture type is a simple subsurface interment with individuals having a loose to tight flexure. Moreover, burials tend to be placed on the inland slope of the village midden (Borden 1970: 105).

Despite the modal type just described, there is a possibility that as many as four other burial forms are present. These include true cairn burials (see Smith and Fowke 1901), burials with associated large rock features, surface inhumation and, quite possibly, reburial. True cairn burials are a rare occurrence in Marpole with the vast majority

related to what I would term rock slab associated interments. However, examples of cairns are reported at Marpole (Menzies 1948) and False Narrows (Burley 1979a). Rock slab associated burials characteristically include one or several large boulders placed over varying parts of the body. They may be interpreted from either of two perspectives or, possibly, both. On the one hand, the rocks may have served to hold down the lid of burial boxes and thus protect the body from scavengers. With the decay of the box, the boulder would eventually come to rest on the interment. On the other, the rocks may be part of a ceremonial feature related to the transference of the soul or spirits from the real world into the afterlife. Above ground inhumation and reburial are suggested by the large number of scattered skeletal elements found in the majority of Marpole components. Both practices are characteristic of the early contact period (Borden 1970: 112; Barnett 1955: 220; Duff 1952: 94–95).

Although we are lacking large burial populations from definite Locarno Beach culture type sites, it would seem that the range of variation found in Marpole may be extended to this period. Flexed interments are reported in Locarno Beach components at Crescent Beach (Percy 1975), Montague Harbor (Mitchell 1971), Helen Point (J. McMurdo 1974) and Whalen Farm (Borden 1950). In addition, probable cairns or rock slab associated features are noted by Mitchell (1971: 147), J. McMurdo (1974: 128–129) and Percy (1975: 35). A cairn-like structure, although for Georgeson Bay I (Haggarty and Sendey 1976: 66). If one interprets disarticulated skeletal elements as evidence one interprets disarticulated skeletal elements as evidence for reburials, they too must be considered part of the Locarno Beach pattern.

Late prehistoric burial practices are somewhat obscured by what may be a European influenced ethnographic pattern. Despite the fact that burial remains, for the most part, were placed in mortuary houses, caves or trees (Borden 1970; Mitchell 1971), flexed midden burials do occur (Burley 1979a; Monks 1977). Monks (1977: 367) also attributes a cairn burial to his Deep Bay III, Gulf of Georgia culture type component.

A major aspect of Marpole burial practices not found to a great extent in earlier or later periods is the interment of plentiful grave goods. These include personal ornamentation (i.e. disc beads, dentalia, pendants, etc.), ceremonial items and functional implements.

Employing richly interred graves as a prime characteristic, Mitchell (1968a: 13) has aligned False Narrows with the "Beach Grove variant of the Marpole culture type". Whether or not such a variant actually exists remains to be determined. As suggested in later sections, False Narrows also shares many similarities with the Marpole site itself and Cadboro Bay I. As at False Narrows and Beach Grove, the Hill site (Haggarty and Hall 1976) includes a complex of richly interred individuals.

Skull Deformation and Occasional Trepanation

Although it is unclear whether artificial cranial deformation can be associated with individuals of a pre-Marpole period, it is a frequent trait within Marpole and persists through time to ethnographic Coast Salish cultures. At least two forms are recognized, each of which may have temporal significance.

Lambdoidal deformation, extending from just above the external occipital protruberance to the parietal foramina creating an angle of 30 to 40 degrees (Gordon 1974: 4), is the type most commonly found with Marpole individuals. Beattie (1977, personal communication) has raised the possibility that this form may not be intentional but related to cradle board binding.

Also associated with Marpole, but more common within the Gulf of Georgia culture type, is occipito-parieto deformation. Characteristic of this deformation form are markedly flattened occipital areas with the frontal area only mildly flattened (Gordon 1974: 7). Unlike lambdoidal deformation, it would appear to be the result of definite head binding (Beattie 1977, personal communication). If a positive association between occipito-parieto and late Marpole/Gulf of Georgia culture type can be drawn, it may be possible to infer a logical developmental sequence. At this time, occipito-parieto deformation has been found in Marpole populations at Deep Bay, Beach Grove and Musqueam Northeast (Beattie 1977, personal communication). At False Narrows (Burley 1979a), it occurs in either a transitional or late component.

While cranial deformation has a distinct occurrence in Marpole, trepanation is on a much less solid footing. The only identified case which has been associated with Marpole comes from the Marpole site (G. Kidd 1930, 1948). In a recent study, Cybulski (1977a) not only has questioned the identification of trepanation on this particular skull, but all seven other reported cases within the province. Offering alternative explanations for each, he concludes that the practice of trepanation has yet to be proven. Cybulski's study aside, one possible example hardly quantifies trepanation as a characteristic of the Marpole culture type.

Large Post Moulds and House Outlines

The presence of large post moulds within a number of Marpole culture type components (Mitchell 1971: 53; Gose 1976: 173) and possible house platforms at Beach Grove (Abbott 1961: 37–38; D. Smith 1963: 2) and False Narrows (Burley 1979a; Mitchell 1966) suggest a type of habitation structure not unlike that of the ethnographic peoples. Such an interpretation is supported by the presence of a wood working tool kit suited to the building

of this house type.

Again, however, large post moulds and house outlines cannot be taken as discriminating traits for the Marpole culture type. They occur, or at least one would expect them to occur, in all post Marpole contexts where permanent habitations were constructed. Prior to Marpole the picture is unclear. Mitchell (1971: 59) argues that "... there is no reason to assume that bearers of the Locarno Beach culture were unable to split planks for use on dwellings." Despite this possibility, recent excavations have failed to record the presence of large habitation structures as inferred from cultural features (see Percy 1975; Gose 1976; McMurdo 1974; Charlton 1977). However, it should also be pointed out that few projects have systematically attempted to excavate a living floor (Gose 1976: 190).

Summary

The preceding review has attempted to evaluate the reliability of diagnostic features attributed to the Marpole culture type. While a limited number are shown to have a somewhat restricted temporal span, others notably overlap with earlier or later components. In several cases, specific traits were found to occur in both later and earlier contexts and their diagnostic value has been questioned.

Although individual artifact types are the material expression needed to discriminate component assemblages, it is obvious that a number of distinctions are manifest on a more general level. For instance, sculpture in antler and stone seem indicative of greater emphasis in certain forms of artistic endeavors. Of course we cannot yet compare Marpole art forms in wood or other organic materials with those of the ethnographic period due to preservational factors. Still, given the richness of the art in other media, it is expected to equal or surpass the ethnographic industry. Similarly, disc beads, various styles of pendants and richly interred burials may also mirror variations in social organization principles (see page 59). Other macro-level differences which might be suggested include a more developed woodworking industry than in the Locarno Beach culture type as possibly exhibited in housing forms and a greater emphasis on chipped stone in relation to cultures immediately preceding and following Marpole. The significance of these traits awaits discussion in succeeding sections.

Of component recognition for the Marpole culture type, it must first be pointed out that I have evaluated only positive traits. As with certain of the characteristics outlined for Marpole, several others are temporally restricted to earlier or later units and thus are absent or rare in Marpole. Specific examples include Gulf Islands complex artifacts and certain forms of ground stone and bone points for Locarno Beach while small composite bone points including arming tips and herring rake barbs are found predominantly among Gulf of Georgia culture type components. The previous review, therefore, has presented a slightly obscured picture deflating at least some of the major differences.

In terms of providing a specific definition or formula for the identification of the Marpole culture type, it should now be apparent that none is forthcoming. While several artifact forms may be restricted to the Marpole interval or have their greatest frequency of occurrence there (i.e. barbed harpoons, laterally perforated pendants, stone sculpture, etc.), they tend to be types which are infrequently recovered. Moreover, as suggested by a later analysis of interassemblage variability, a quantification of the Marpole pattern is no easy task due to vagaries of sample skewness, reportage bias and other noncultural traits. These problems, undoubtedly, are associated with the definition of other culture types within the region (cf. Matson 1974). Such being the case, it must be concluded that, without the possession of a large collection having a wide range of artifact types and/or supplementary aids such as radiocarbon assays, one can have little faith in temporal assignations (see also Boehm 1973: 82–83). This does not mean that a definitional pattern may never be found. Rather, I would only suggest that with the data at hand, this pattern would be extremely difficult to delimit and, most probably, would be misleading.