INTRODUCTION

During the past three decades archaeological research in the Strait of Georgia region has concentrated upon the establishment and refinement of regional chronologies. The Fraser delta sequence, until quite recently at least, was considered to date to approximately 1000 B.C. at the earliest. The sequence consisted of five phases which are, earliest to latest: Locarno Beach, Marpole, Whalen II, Pre-Stselax and Stselax. Pre-Stselax was presented as a provisional term denoting a developmental stage between Whalen II and Stselax (Borden 1970:110). For a number of reasons the validity of the Whalen II phase has been questioned and it has been suggested that this phase be deleted (Mitchell 1971a:56, Fladmark 1974).

Since the presentation of the Fraser delta sequence two immediate problems, both temporal in nature, have become apparent. The first problem in the sequence related to the origins of the Locarno Beach phase (i.e. the pre-1000 B.C. time period). Archaeologists have long suspected that "early" culture-bearing deposits existed in the lower Fraser vicinity and the discovery of an early sequence in the Fraser Canyon (Borden 1957) heightened this suspicion. Lately, this problem has been addressed and a number of researchers (Carlson 1970; Calvert 1970; Mitchell 1971a; Loy 1972; Percy 1974) have made important contributions to the 5000–1000 B.C. period. Much of this material has been recently synthesized (Borden 1975). Matson (1976) has now added significant new data to the early end of this sequence.

The second problem involved the poorly understood A.D. 400–1200 time period and it is this time period on which the present study focuses. In 1971 examination of a number of surface collections from the Belcarra Park site convinced the author that the site contained a late prehistoric component. Included in all collections were artifact types considered characteristic of late components defined for the region (Borden 1970:96; Carlson 1970: 120; Mitchell 1971a:48). Noteworthy in the Belcarra Park collections was the presence of relatively large percentages of small triangular chipped stone projectile points of the side-notched and corner-notched variety and of small triangular ground slate projectile points of the side-notched variety. This presence suggested that the Belcarra Park site contained deposits belonging to the A.D. 400–1200 time period and that the potential for making a statement about the chronology and culture change for this time period seemed good. Hence the excavation strategy was directed toward recovery of a sample of closely associated artifacts to permit definition of valid cultural taxonomic units. This goal was accomplished and two superimposed assemblages were recovered: Belcarra Park I and Belcarra Park II.

The delineation of the two cultural units is based on the distributional analysis of an assemblage of 1,036 artifacts obtained from fifteen judgementally selected excavation units and an examination of the physical stratigraphy. A summary of the artifacts and their assignment to site components is presented in Table I. A unit by unit distribution of all artifacts is given in Appendix II. By plotting the distribution of key artifact classes on stratigraphic profiles, significant physical and cultural breaks were identified and isolated. Two stratigraphic zones were idenified: Zone B which contains the cultural unit Belcarra Park I, and Zone C which contains the cultural unit Belcarra Park II. Zone A consists of the underlying sterile subsoil. The Belcarra Park I assemblage correlates typologically with previously defined components of the Locarno Beach phase. The Belcarra Park II assemblage shares many characteristics with previously defined late prehistoric components of the region, most notably Whalen II and Stselax (Borden 1970) as well as San Juan (Carlson 1970) and Gulf of Georgia (Mitchell 1971a).

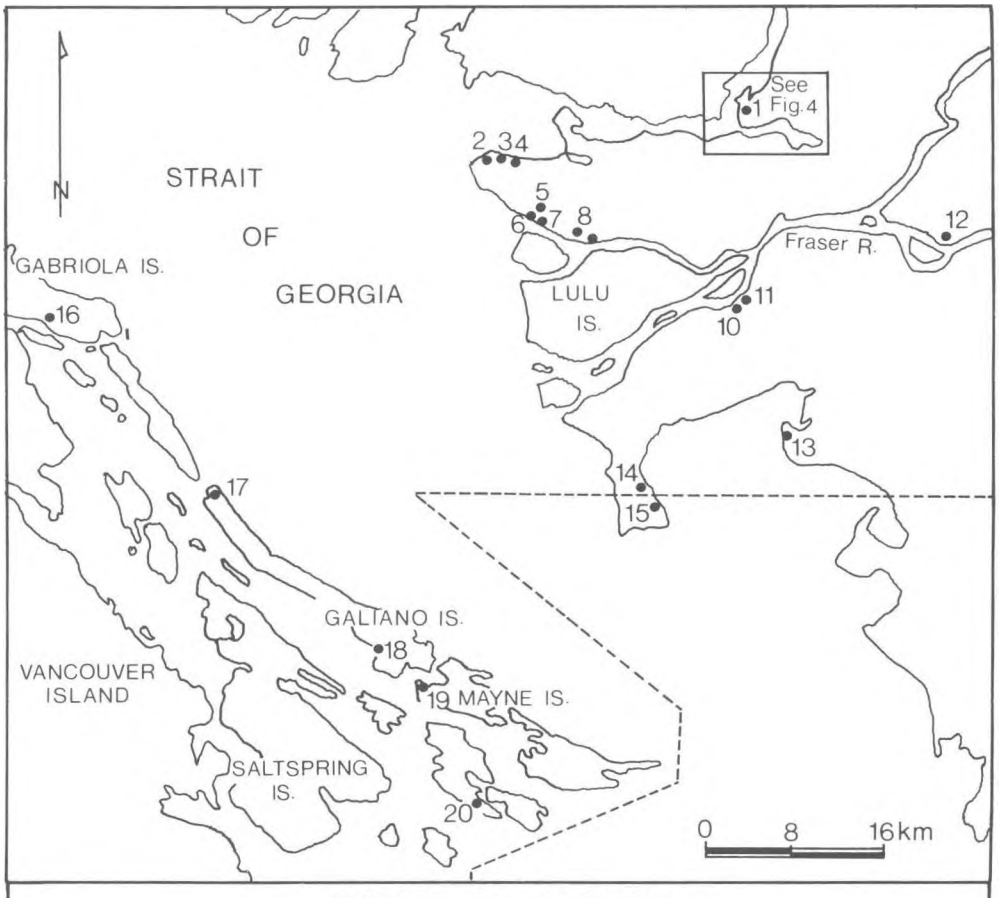
The artifact types most characteristic of each component are the following:

(a) Belcarra Park I
- Chipped contracting stem points
- Stemless ground slate points
- Ground slate knives (thick)

(b) Belcarra Park II
- Chipped triangular side and corner notched points
- Triangular ground slate points
- Triangular ground slate points (side-notched)
- Wedge based bone points
- Composite toggling harpoon valves

Reliance was placed upon these types as they have been utilized previously by a number of workers with apparent success. A further approach using presence and absence of artifact types was applied to the assemblage. The above methods of isolating components have recently been subjected to criticism (Abbott 1972, Fladmark 1974). However, as Mitchell has noted:

> ...The fact that their distributions (key artifact types) led to the formation of boundaries which are consistent with the distribution breaks for other



STRAIT OF GEORGIA
Selected Archaeological Sites

1. Belcarra Park DhRr 6
2. Point Grey DhRt 5
3. Locarno Beach DhRt 6
4. Jericho Beach DhRt 18
5. Old Musqueam DhRt 3
6. Male DhRt 1
7. Stselax DhRt 2
8. Liquid Air DhRs 19
9. Marpole DhRs 1
10. St. Mungo DgRr 2
11. Glenrose DgRr 6
12. Port Hammond DhRp 17
13. Crescent Beach DgRs 6
14. Beach Grove DgRs 1
15. Whalen Farm DfRs 3
16. False Narrows DgRw 4
17. Dionisio Point DgRv 3
18. Montague Harbour DfRu 13
19. Helen Point DfRu 8
20. Pender Canal DeRt 2

Fig. 1 Gulf of Georgia: Selected Archaeological Sites.

Table I Distribution of Artifacts by Component

Class	Component I	Component II	Site Total
STONE			
Chipped Stone			280
Leaf-shaped points	6	5	11
Contracting stem points	5		5
Stemmed points	3	16	19
Triangular points		12	12
Triangular side-notched points		55	55
Triangular corner-notched points		13	13
Miscellaneous chipped stone points		15	15
Core tools	3	8	11
Split cobble tools	3		3
Chipped slate knives		6	6
Chipped stone bifaces	8	24	32
Chipped stone unifaces		6	6
Cobble core tool		1	1
Graver		1	1
Drills		2	2
Unifacially retouched flakes	3	11	14
Bifacially retouched flakes		19	19
Utilized flakes	19	34	53
Miscellaneous chipped stone	2		2
Ground Stone			143
Stemless points (slate	14		14
Stemmed points (slate)	2		2
Triangular points (slate)		43	43
Triangular side-notched points (slate)		8	8
Ground slate knives (thick)	4		4
Ground slate knife fragments (thin)		61	61
Adze blades	6	15	21
Ground slate object		1	1
Miscellaneous ground stone fragments	1		1
Pecked and Ground Stone			135
Shaped abrasive stones	5	54	59
Unshaped abrasive stones		43	43
Abrasive slab		1	1
Hand mauls		2	2
Hammerstones	6	4	10
Notched sinker		1	1
Perforated stone preform		1	1
Saws		12	12
Pipes		5	5
Miscellaneous pecked and ground stone	1		1
BONE			550
Barbed bone points	1	31	32
Barbed bone harpoons		3	3
Barbed bone arrow/harpoons		2	2
Wedge based points		122	122
Medium bone points		41	41
Shouldered bone point		1	1
Bone bipoints		9	9
Ulna tools		14	14
Split bone awls		24	24
Shouldered awls		9	9
Straight awls		13	13
Metatarsal awls	1		1
Bird bone awls		10	10
Bird bone splinter awls		9	9
Bird bone points		3	3
Bird bone tube beads		3	3
Bird bone whistle		1	1
Chisels or wedges	2	5	7
Bone splinter drills		6	6
Bone needle		1	1
Bone splinters with worked tips		67	67
Bone blanket pins		24	24
Tooth pendants		4	4
Rodent incisor tools		23	23
Miscellaneous decorated bone items		3	3
Miscellaneous worked bone fragments	1	117	118
ANTLER			149
Barbed points		13	13
Barbed harpoon		1	1
Wedges	1	12	13
Antler tine tips		7	7
Antler sleeve hafts		4	4
Composite toggling harpoon valves	1	93	94
Antler foreshafts?		3	3
Worked Antler preforms		4	4
Miscellaneous worked antler	1	9	10
TOTAL	99	1,170	1,269
Per cent of Total	8	92	100

> classes of artifacts as well suggests they can be useful for sorting out components.
>
> (Mitchell 1971a:88)

The method of judgemental rather than random selection of units to excavate has been questioned also. A recent study utilized both random and non-random samples from a single site to test the hypothesis that the "differences between the sample obtained by judgemental and probability sampling strategies...should exist and be detectable by statistical procedures" (Spurling 1976:64). In this case the variations between the sampling strategies were found to be insignificant and that, "on the basis of the respective technic item frequencies recovered, the probabalistic technique displayed no obvious increase in representativeness over that recovered by the judgemental implicit strategy" (Spurling 1976:66).

The following three sections describe first the Belcarra Park site and then the two components from the site. Artifact classifications and descriptions are included in the sections describing the Belcarra Park I and II components.

In many cases, taxonomic categories developed by previous researchers have been retained for purposes of comparison. These include Borden (1950, 1951, 1962, 1968a, 1970, 1975), Calvert (1970), Carlson (1960, 1970), Crowe-Swords (1974), Drucker (1943), Duff (1952), Kidd (1969), McMurdo (1972) and Mitchell (1971a, 1971b). Ninety-nine artifacts based on 25 types are assigned to the Belcarra Park I component while 1,170 artifacts based on 64 types are assigned to the Belcarra Park II component. In addition, 29 artifacts are classified as historic.

The final section summarizes the findings, places the Belcarra Park site within the context of Strait of Georgia prehistory and presents some suggestions for future research. Discussion is focused upon chronology and culture change in the region. Three hypotheses to explain the cultural differences observed in the two Belcarra components are examined. It is argued that gradual cultural change based upon the introduction of new techniques to exploit the environment is the most likely explanation, as opposed to hypotheses that place emphasis on either migration or environmental factors.

Table II Historic Artifacts Intruded into the Upper Midden

Class	Component I	Component II
HISTORIC ITEMS		
Clamshell button		1
Bifacially flaked flint		1
Bone knife handle		1
Clay pipe stem		1
Glass bottle and cork		1
Glass button		1
Square head nails		15
Round head nails		2
Rifle shells		2
Fork handle		1
Cufflink		1
Hat pin		1
Wooden object		1
		29