Appendix D:
Invertebrate Fauna Analysis – Huu7ii Village, Diana Island, Barkley Sound

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Introduction

A representative sample of marine invertebrate remains from the village of Huu7ii (DfSh-7) was examined for purposes of identification, quantification, and dietary/ecological information. The shell materials were recovered from two sediment column samples taken from two areas investigated in 2004. The two tested areas comprise deep stratified cultural deposits dating to the late (House 1) and middle (back terrace) Holocene periods.

The Assemblage Samples

The two sediment columns were recovered from the north wall of Unit N4-6/E0-2, associated with a cultural occupation area on a back elevated terrace landform, and the west wall of Unit N10-12/E2-4 in House 1. A total of 20 bulk samples were examined: ten from each column. The assemblage represents a sampling fraction by volume ranging between 25% (Unit N4-6/E0-2) and 33% (Unit N10-12/E2-4). Over 24 litres of bulk sediments were investigated, with samples varying between 1.0 litre and 2.5 litres in volume (Table 1). The invertebrate fauna assemblages described and analysed in this report consist of shell specimens recovered from bulk column samples passed through 6.4 mm (¼") and 3.2 mm (⅛") meshes.

Results

Over 3.4 kg of marine shellfish remains were examined from the two column samples: 1813.3 g (53%) from Unit N4-6/E0-2 and 1606.2 g (47%) from Unit N10-12/E2-4. Thirteen different shellfish taxa were identified to species, genera, or family suborder level. The assemblage comprised five different bivalves, three marine snails, two barnacle taxa, one species of sea urchin, one chiton, and Northern abalone (Table 2).

Bivalves make up 96% of the total shellfish assemblage by weight, obscuring the contributions of the other smaller and lighter mollusc taxa. Bivalve umbone counts and weights indicate that mussel (*Mytilus californianus, Mytilus* sp.) is the most abundant identified bivalve species present in both the early and late shell assemblages. On average,

Table 1. Huu7ii shellfish column sample and volume data.

Column Sample	# of Bulk Samples Examined	Examined Sample Volume (L)	Bulk Sample Sizes (L)	# of Bulk Samples Excavated	Column Stratigraphic Layers Examined	Vertical Depth of Column (m dbs)	Analytical Sample Wt (g)
N4-6/E0-2	10	14.5	6–1 3–2 1–2.5	41	3 (B, C, D)	0.15–2.20	1813.3
N10-12/E2-4	10	10.0	10–1	33	4 (A, C, D, E)	0.18–1.83	1606.2

Table 2. List of identified shell taxa from Huu7ii, site DfSh-7, Diana Island.

California mussel *Mytilus californianus*
Butter clam *Saxidomus gigantea*
Native little-neck clam *Protothaca staminea*
c.f. Basket cockle *Clinocardium nuttallii*
Nestling saxicave clam *Hiatella* sp.
Black katy chiton *Katharina tunicate*
Purple sea urchin *Strongylocentrotus purpuratus*
Channeled dogwinkle *Nucella canaliculata*
Frilled dogwinkle *Nucella lamellosa*
Black turban snail *Tegula funebralis*
Barnacle *Archaeobalanidae/Balanidae*
Gooseneck barnacle *Pollicipes polymerus*
Northern abalone *Haliatis kamtschatkana*

Table 3. Relative frequencies of 2004 Huu7ii column shell weight data by major shell groups (>3.0 mm mesh).

Late Cultural Component – House 1 Column Sample Unit N10-12/E2-4					
Layer	**A**	**C**	**D**	**E**	**Totals**
Major Shell Group	**%**	**%**	**%**	**%**	**%**
Mussel	56.5	94.5	99.9	99.9	94.3
Clam & Cockle	33.9	1.4		<0.1	1.6
Marine Snail	2.4	0.1	0.0	0.0	0.1
Abalone	0.0	0.4	0.0	0.0	0.4
Chiton	0.0	<0.1	0.0	0.0	<0.1
Sea Urchin	0.0	<0.1	0.0	0.0	<0.1
Barnacle	7.3	3.3	<0.1	0.0	3.3
Unid Shell	<0.1	0.3	<0.1	<0.1	0.3
Shell Totals 100%	**12.4 g**	**1560.6 g**	**0.8 g**	**32.4 g**	**1602.2 g**
Early Cultural Component – Back Ridge Column Sample Unit N4-6/E0-2					
Layer	**B**	**C**	**D**		**Totals**
Major Shell Group	**%**	**%**	**%**		**%**
Mussel	95.6	97.5	94.6		96.5
Clam & Cockle	0.0	0.5	0.0		0.3
Marine Snail	0.0	0.2	1.2		0.6
Abalone	0.0	0	0.1		<0.1
Chiton	0.0	0	0.1		<0.1
Sea Urchin	0.0	0	0.4		0.2
Barnacle	3.0	1.3	3.4		2.1
Unid Shell	1.5	0.4	0.2		0.4
Shell Totals 100%	**13.5 g**	**1157.2 g**	**642.6 g**		**1813.3 g**

mussel comprises 95.4% of the Bivalve Group by weight (Table 3).

California mussel (*Mytilus californianus*) represents the only identifiable *Mytilus* taxon. Although larger quantities of indeterminate *Mytilus* sp. (<2 mm thick) were encountered, they were interpreted as being the smaller, broken valve fragments of the California mussel. No other mussel species, such as the foolish mussel (*Mytilus trossulus*), were observed.

Shell data (umbone counts, weight) suggest that the site occupants placed a much lesser focus on the consumption of other bivalve species during both the late and earlier cultural components. Butter, native littleneck, and nestling saxicave clams are present, but in limited numbers—representing less than 0.1% and 0.4% of bivalve weights in the early and late components, respectively. The nestling saxicave clam was probably not a source of food, but likely entered the site in an inadvertent or accidental manner. Indeterminate clams, a category consisting of broken, unidentifiable valve and uncharacteristic hinge fragments most likely belonging to butter and possibly horse clams, are more plentiful. Indeterminate clams make up 0.3% (early component) and 1.3% (late component) of the Bivalve Group by weight.

The second most abundant shell group in the two assemblages is barnacle. This group contributes 2.1% and 3.3% to the early and late assemblage shell weights, respectively. Two different barnacle taxa were identified: acorn (comprising species of the *Archaeobalanidae* and *Balanidae* families) and goose (*Pollicipes polymerus*) barnacles. Although acorn barnacle specimens in the two assemblages were not identified or quantified to the genus- or species-levels, observed species did include thatched (*Balanus coriosus*), common (*Balanus glandula*), and giant (*Balanus nubilus*) barnacles. The acorn barnacles are more common that the goose barnacle. Acorn barnacles are present in all early component Unit N4-6/E0-2 sediment layers, and in all but one (basal sediment layer E) in late component House 1 Unit N10-12/E2-4. The goose barnacle is more frequent in the early component unit, comprising 2.9% of the Barnacle Group by weight.

The remaining identified shell groups (Marine Snail, Chiton, Sea Urchin, and Abalone) are

present, but consist of a limited number of species and contribute only 0.6% or less by group weight. The Marine Snail Group contains three identified gastropod taxa: two types of dogwinkles (*Nucella canaliculata*, *Nucella lamellosa*) and the black turban snail (*Tegula funebralis*). A small number of snail opercula were recovered, possibly having been harvested from the red turban snail (*Astrea gibberosa*). Sea urchin was recovered in both units—but was more frequent in the back ridge unit. Purple sea urchin (*Strongylocentrotus purpuratus*) represents the only identified sea urchin species. Black katy chiton (*Katharina tunicata*) and Northern abalone (*Haliotis kamtschatkana)* are also present. These two univalves were observed in only one stratigraphic layer per column sample.

Finally, Unidentified Shell was recovered in all sediment layers throughout the two assemblages. These materials occur in all column levels except for one in Unit N10-12/E2-4 and two in Unit N4-6/E0-2. This category consists of broken and eroded shell fragments that could not be assigned to a genus or family with confidence. Items within this group comprise extremely eroded mollusc valve fragments and possibly small pieces of snail and barnacle probably crushed during site occupation or broken during transport from the field to the lab.

Unit N10-12/E2-4 Column Sample

Of the 1606.2 g of shellfish remains examined in this assemblage, 99.7% were identified to species, genus, or family (Table 4). The assemblage was collected from a single 20- by 10- by 165-cm-deep vertical sediment column positioned close to the south end of the west wall of Excavation Unit N10-12/E2-4. This portion of the unit is interpreted to be immediately 'outside' the rear southwest corner of House 1 in the central part of the village (Frederick et al. 2006:33). Two radiocarbon dates provide age estimates of 540 to 1280 calibrated years BP for deposits in this unit.

The column sample intersected six stratigraphic layers (A, B, C, D, E, F), however sediment levels from two layers (B, F) were not examined due to their lack of shell content. Ten of 33 5-cm thick bulk samples were examined (33% sampling fraction by volume). The number of column levels recovered from each soil layer varied pending layer thickness and context (i.e., bulk samples comprising sediments from two different layers were not examined). The ten column bulk samples examined in Unit N10-12/E2-4 included: Layer A = Level 1; Layer C = Levels 5, 7, 9, 11, 17; Layer D = Levels 19, 20; and Layer E = Levels 22, 23. Layer C is the thickest stratigraphic layer in the unit (~80 cm), encompassing 97.2% of the total assemblage shellfish weight (Table 4).

Twelve species of bivalve and univalve molluscs, chitons, barnacles, and sea urchins were identified in Column N10-12/E2-4. Significant major shell groups include Bivalves (95.9%) and Barnacles (3.3%). The other major shell groups, Marine Snail, Chiton, Sea Urchin, and Abalone, contribute less than 0.5% of the sample by weight, individually.

Mussel (*Mytilus*) is the most frequent species in the assemblage's Bivalve Group—comprising 98.3% of the group by weight. Almost half of the mussel identified is California mussel (*Mytilus californianus*); the other half consists of small, thin fragmented *Mytilus* sp. measuring less than 2 mm thick. It is suggested here that all examined mussel remains are most likely California mussel, particularly in view that the site is located in an exposed, outside environment, and that no other mussel species (i.e., foolish/bay mussel) were identified in the assemblage. Layer recovery rates for mussel ranged between 56.5% (upper Layer A) and 99.9% (lower Layers D, E). Although shellfish samples from three of four soil layers are very small (ranging between <0.1% and 2.0% of the assemblage by weight), preliminary stratigraphic data for this unit suggests a possible decrease in the exploitation of mussel through time.

Clams are present in the N10-12/E2-4 column sample but only in small quantities (1.7% of Bivalve Group weight). Three clam taxa identified include butter (*Saxidomus gigantea*), native littleneck (*Protothaca staminea*), and nestling saxicave (*Hiatella* sp.). The three species are present in only two of the four layers examined (upper Layer A and C). Butter and native littleneck clams represent the most common clam species. Whilst both comprise 0.2% of the Bivalve Group by weight, umbo counts for the two taxa totalled only six: two native little-neck clam and four butter clam. The nestling saxicave clam (<0.1% of Bivalve Group weight) was limited to six valves in Layer C only. This small species was not likely gathered for human consumption. Unidentified clam represents the most abundant clam material, contributing to 1.3% of the Bivalve Group by weight. These materials, likely comprising eroded and fragmented valves of the butter clam and possible horse clam, were found in all layers but lower D and E.

Barnacle represents the second most abundant shell group in this column assemblage. *Archaeobalanidae* and *Balanidae* materials are the most common,

Table 4. Relative frequencies by weight of shellfish remains within major shell groups—Column N10-12/E2-4 (>3 mm mesh).

	Layer A TOTALS	Layer C TOTALS	Layer D TOTALS	Layer E TOTALS	Assemblage TOTAL	GROUP %
BIVALVES						
California mussel	2.5	736.1	0.2	9.1	747.9	48.5%
Indeterminate mussel sp. (<2mm thick)	4.5	738.2	0.6	23.3	766.6	49.8%
Butter clam	2.6	<0.1			2.6	0.2%
Native little-neck clam	0.3	2.4			2.7	0.2%
Nestling saxicave clam		0.4			0.4	<0.1%
Unidentified clam species	1.3	19.0			20.3	1.3%
Bivalve Group Wt Total (100%)	**11.2 g**	**1496.1 g**	**0.8 g**	**32.4 g**	**1540.5 g**	**100.0%**
% of Layer Wt Data	**90.4%**	**95.9%**	**100.0%**	**100.0%**	**95.9%**	
MARINE SNAILS						
Channeled dogwinkle		0.3			0.3	25.0%
Frilled dogwinke	0.3	0.5			0.8	66.7%
Purple/black Turban-snail		<0.1			<0.1	0.0%
Indeterminate marine snail		0.1			0.1	8.3%
Marine snail operculum				<0.1	<0.1	<0.1%
Marine Snail Group Wt Total (100%)	**0.3 g**	**0.9 g**	**0.0 g**	**<0.1 g**	**1.2 g**	**100.0%**
% of Layer Wt Data	**2.4%**	**0.1%**	**0.0%**	**<0.1%**	**0.1%**	
BARNACLES						
Acorn barnacle sp.	0.9	52.0	<0.1		52.9	100.0%
Goose Barnacle		<0.1			<0.1	<0.1%
Barnacle Group Wt Total (100%)	**0.9 g**	**52.0 g**	**<0.1 g**	**0.0 g**	**52.9 g**	**100.0%**
% of Layer Wt Data	**7.3%**	**3.3%**	**<0.1%**	**0.0%**	**3.3%**	
CHITONS						
Black katy chiton		0.3			0.3	75.0%
Indeterminate chiton sp.		0.1			0.1	25.0%
Chiton Group Wt Total (100%)	**0.0 g**	**0.4 g**	**0.0 g**	**0.0 g**	**0.4 g**	**100.0%**
% of Layer Wt Data	**0.0%**	**<0.1%**	**0.0%**	**0.0%**	**<0.1%**	
SEA URCHINS						
Purple sea urchin		<0.1			<0.1	<0.1%
Indeterminate sea urchin		0.7			0.7	100.0%
Sea Urchin Group Wt Total (100%)	**0.0**	**0.7 g**	**0.0 g**	**0.0 g**	**0.7 g**	**100.0%**
% of Layer Wt Data	**0.0%**	**<0.1%**	**0.0%**	**0.0%**	**<0.1%**	
ABALONE						
Northern abalone		6.4			6.4	100.0%
Abalone Group Wt Total (100%)	**0.0**	**6.4 g**	**0.0 g**	**0.0 g**	**6.4 g**	**100.0%**
% of Layer Wt Data	**0.0%**	**0.4%**	**0.0%**	**0.0%**	**0.4%**	
Unidentified Shell	<0.1 g	4.1 g	<0.1 g	<0.1 g	4.1 g	100.0%
% of Layer Wt Data	**<0.1%**	**0.3%**	**<0.1%**	**<0.1%**	**0.3%**	
TOTAL MARINE SHELL WT (g)	12.4 g	1560.6 g	0.8 g	32.4 g	1606.2 g	0.3%
Layer % of Assembage	**0.8%**	**97.2%**	**<0.1%**	**2.0%**	**100.0%**	

making up over 99.9% of the group by weight. Two dominant species belonging to these families include giant (*Balanus nubilus*) and thatched (*B. cariosus*) acorn barnacles. Traces of the gooseneck barnacle (*Pollicipes polymerus*) were found in Layer C only.

Abalone is the third largest major shell group. Northern abalone (*Haliotis kamtschatkana*) is present in Layer C only. Interestingly, traces of limpet, a relative of the abalone, were not observed in the Unit 10-12/E2-4 column sample.

Three species of marine gastrapods are found in the assemblage's Marine Snail Group sample. The frilled dogwinkle (*Nucella lamellosa*) is the most abundant, encompassing 66.7% of the group by weight. Smaller amounts of channelled dogwinkle (*Nucella canaliculata*) and black turban snail (*Tegula funebralis*) were also found in Layer C. The frilled dogwinkle represents the only snail found in Layer A, all three species were recovered in Layer C. The operculum of a marine snail was recovered in Layer E. This specimen likely belongs to the red turban snail (*Artrea gibberosa*), and if so, it represents the only evidence for the taxon in the column sample.

Only one species of chiton is present in Column N10-12/E2-4: the black katy chiton (*Katharina tunicata*). This species and an indeterminate chiton are present in Layer C only. The only identified sea urchin species is the purple sea urchin (*S. purpuratus*). Indeterminate sea urchins (*Strongylcentrotus* sp.) however dominate the Sea Urchins Group (99.9%). Both were recovered in Layer C only. The indeterminate sea urchin remains are grey in colour and unidentifiable to species. As the meat or gonads of the sea urchin were eaten raw, discolouration of the sea urchin remains likely represents post-harvesting modification (burning by fire).

Unit N4-6/E0-2 Column Sample

A total of 1813.3 g of shellfish remains were examined and analysed from the Unit 4-6/E0-2 column sample (Table 5), 99.6% of which were identified to species, genus, or family levels. The vertical column sample measured 20 by 10 cm by 205 cm deep. It was collected from the west portion of the unit's north wall. The contiguous 2-x-2-m unit was excavated in a flat area toward the back of an elevated terrace landform at the rear of the site, approximately 100 m southeast of House 1. Two radiocarbon date estimates indicate these deposits range between 3320 to 4980 calibrated years BP—a time of higher relative sea levels.

This column sample intersected three separate soil layers, commencing in upper Layer B and proceeding downwards through layers C and D. Lower Layer D, a grey ash with burned shell mixed with sand, was the thickest sediment layer in the unit. It made up approximately half of the 2.0+ m deep stratigraphic profile and half of the bulk samples, yet only encompassed 35.4% of the total shellfish assemblage by weight (Table 5).

Ten of 41 5-cm-thick bulk samples from the column were examined (25% sampling fraction by volume). As in the Late Component column (Unit 10-12/E2-4), the number of bulk samples examined was influenced by layer thickness. The 10 bulk samples examined in Unit N4-6/E0-2 column included: Layer B = Levels 4, 7; Layer C = Levels 10, 14, 16; and Layer D = Levels 22, 26, 29, 32, and 34).

Ten shell species were identified in the unit's column sample. Bivalves and barnacles represent the dominant shell groups, contributing 96.8% and 2.1% of the column assemblage by weight, respectively. The remaining groups (Marine Snail, Chiton, Sea Urchin, and Abalone) contribute less than 0.6% of the sample by weight, individually.

As is the case in the column sample from House 1, mussel is the chief shell species found in this early assemblage: 96.5% of the total shell assemblage and 99.6% of the Bivalve Group, by weight. Only a quarter of the mussel was identified as California mussel, the remainder consists of fragmented *Mytilus* sp. measuring less than 2 mm thick. Again, it is safe to suggest that all examined mussel remains are likely those of California mussel as no other mussel species was observed. The relative proportions of mussel for each of the three sediment layers are consistently high, ranging between 94.6% (Layer D) and 97.5% (Layer C) of the assemblage by weight.

Clams and cockles are rare in this Early Component column sample. These shells make up only 0.3% of the whole assemblage by weight, less than that found in the Later Component column sample (1.6%). Only two species were identified, native littleneck clam and probable basket cockle. Unidentified clam represents the most abundant clam material observed. These shell remains likely represent eroded and fragmented valves of the butter clam and/or horse clam. A high proportion of the unidentified clam was recovered in Layer C.

The second most abundant shell group is this column sample is the Barnacle Group. Two species are present in the assemblage, *Archaeobalanidae/Balanidae* family and gooseneck barnacle (*Pollicipes polymerus*). The former were not sorted by species, but were dominated by both giant and thatched acorn barnarcles. *Archaeobalanidae/Balanidae* materials are present in all three layers and contribute 97.1% of the Barnacle Group. Only traces of goose barnacle were observed in Layers B and C.

The third dominant shell group are Marine Snails, contributing 0.6% of the assemblage shell weight. Higher measures (ten-fold) of marine snails are found in this early assemblage sample than those from the more recent sample from Unit N10-12/E2-4. Only two snail species were observed, the

Table 5. Relative frequencies by weight of shellfish remains within major shell groups—Unit N4-6/ E0-2 (>3 mm mesh).

	Layer B TOTALS	Layer C TOTALS	Layer D TOTALS	Assemblage Totals and %	Shell Group Wt %
BIVALVES					
California mussel	3.6	271.1	137.9	412.6	23.5%
Indeterminate mussel sp.(<2mm thick)	9.3	857.2	470.2	1336.7	76.1%
Indeterminate cockle			<0.1	<0.1	<0.1%
Native little-neck clam		0.2	<0.1	0.2	<0.1%
Unidentified clam species		5.7	0.3	6.0	0.3%
Bivalve Group Wt Total (100%) and % of Layer Wt Data	**12.9 g (95.6%)**	**1134.2 g (98.0%)**	**608.4 g (94.6%)**	**1755.5 g (96.8%)**	**100.0%**
MARINE SNAILS					
Channeled dogwinkle		0.5	<0.1	0.5	5.0%
Frilled dogwinkle		1.7	7.0	8.7	87.0%
Indeterminate marine snail		<0.1	0.4	0.4	4.0%
Marine snail operculum		0.4	<0.1	0.4	4.0%
Marine Snail Group Wt Total (100%) and % of Layer Wt Data	**0.0 g (0.0%)**	**2.6 g (0.2%)**	**7.4 g (1.2%)**	**10.0 g (0.6%)**	**100.0%**
BARNACLES					
Acorn barnacle sp	0.4	15.2	20.7	36.3	97.1%
Goose Barnacle		<0.1	1.1	1.1	2.9%
Barnacle Group Wt Total (100%) and % of Layer Wt Data	**0.4 g (3.0%)**	**15.2 g (1.3%)**	**21.8 g (3.4%)**	**37.4 g (2.1%)**	**100.0%**
CHITONS					
Black katy chiton			0.4	0.4	100.0%
Chiton Group Wt Total (1005) and % of Layer Wt Data	**0.0 g (0.0%)**	**0.0 g (0.0%)**	**0.4 g (0.1%)**	**0.4 g (<0.1%)**	**100.0%**
SEA URCHINS					
Purple sea urchin		0.4	0.9	1.3	41.9%
Indeterminate sea urchin			1.8	1.8	58.1%
Sea Urchin Group Wt Total (100%) and % of Layer Wt Data	**0.0 g (0.0%)**	**0.4 g (<0.1%)**	**2.7 g (0.4%)**	**3.1 g (0.2%)**	**100.0%**
ABALONE					
Northern abalone		,	0.4	0.4	100.0%
Abalone Group Wt Total (100%) and % of Layer Wt Data	**0.0 g (0.0%)**	**0.0 g (0.0%)**	**0.4 g (0.1%)**	**0.4 g (<0.1%)**	**100.0%**
Unidentified Shell	**0.2 g (1.5%)**	**4.8 g (0.4%)**	**1.5 g (23.1%)**	**6.5 g (0.4%)**	**100.0%**
Total Layer Shell Wt And % of Shell Assemblage	**13.5 g (1.5%)**	**1157.2 g (63.8%)**	**642.6 g (0.2%)**	**1813.3 g**	

frilled dogwinkle and the channeled dogwinkle. The frilled dogwinkle is the most abundant snail, making up 87% of the Marine Snail Group by weight. A small number of snail operculi were found and likely reveal evidence for the red turban snail.

The remaining shell groups, Chiton, Sea Urchin, and Abalone, contribute less than 0.2% of the assemblage sample weight, combined. Identified species include: black katy chiton, Northern abalone, and purple sea urchin. The black katy chiton and Northern abalone were recovered from lower Layer D only. Grey-coloured sea urchin specimens were also recovered in only Layer D. As mentioned above, these discoloured sea urchin remains probably represent specimens that have been subjected to heat.

Shell Modification

Burnt shell is abundant throughout both Huu7ii column samples. Commonly found at Northwest Coast midden sites, this type of modification is indicative of food processing and preparation activities. California mussel yielded the highest

quantity of burnt shell and is present in almost all bulk samples. Ethnographic information relates that California mussel was not traditionally eaten raw by the Nuu-chah-nulth peoples, but instead was roasted, steamed, or boiled (Ellis and Swan 1981). Evidence for the heating of barnacles was also observed and included both acorn and goose-neck species. Both barnacle species were roasted or steamed before consumption (Ellis and Swan 1981). Grey-coloured sea urchin spines were also recovered. As the meat or gonads of this species was eaten raw, the discolouration of these remains most likely represent discarded food refuse and post-consumption roasting.

Discussion and Conclusions

Examined invertebrate remains from Huu7ii indicate a dietary focus by the site occupants on the consumption of shell species inhabiting local, exposed rocky shores. California mussel, one of the most abundant shell foods found in Barkley Sound, proved to be the most favoured shell species exploited during both "late" (330–1280 cal yr BP) and "early" (3320–4980 cal yr BP) occupation periods. Further archaeological sampling is warranted to determine whether this subsistence pattern continued through a "middle" cultural component. Smaller amounts of other rocky shore species (barnacle, gastrapods, chitons, sea urchins, and abalone) were also harvested.

Interestingly, the Huu7ii subsistence pattern suggests a lack in the utilisation of bivalves from semi-exposed and protected sediment beaches (for example, butter, horse, and native little-neck clams and the basket cockle). Preliminary sampling revealed that the quantity of sediment beach shell foods consumed at Huu7ii (clam/cockle range = 0.3% to 1.6%) differs from those assemblages examined at other pre-contact Nuu-chah-nulth village sites in Barkley Sound. Dietary data shows that sediment beach bivalve consumption values at Huu7ii fall within the lower levels of those recorded for nearby Ts'ishaa on Benson Island (clam and cockle range = 1.3% to 4.3%) and is significantly lower than those documented at nearby Kiix7in (clam and cockle range 9.9%–15.7%) (Sumpter 2005, 2006).

An examination of marine shell taxanomic richness over time shows little change in species diversity between the early and late cultural components. Preliminary data show at least 13 different shellfish species were harvested at Huu7ii. Analyses of shell assemblages from other village sites in Barkley Sound reveal higher species utilisation at nearby Kiix7in (17 species) and Ts'ishaa (53 species). The lack of change in species breadth at Huu7ii over time may be a sign that a variety of behavioural variables were influencing shell harvesting choices. Such behavioural factors may have included: specialised resource exploitation and/or habitat use, restricted access or shell gathering rights at local shores and beaches, and seasonality (i.e., winter village use only). Statistical and environmental studies coupled with additional archaeological investigations at Huu7ii may help to clarify such observations.

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