

The Early Component at Ts'ishaa, an Outer Coast Site on Western Vancouver Island

Alan D. McMillan

Introduction

This paper presents recent results of the Tseshaht Archaeological Project, in Barkley Sound, western Vancouver Island. In particular, I report the findings from the early component, located on a raised landform at the back of the large outer-coast ancestral Nuu-chah-nulth village of Ts'ishaa. This research, co-directed by Denis St. Claire and myself, has been a cooperative venture with the Tseshaht First Nation and Parks Canada. As the analysis of recovered materials is at an early stage, the results reported here are preliminary.

"Early" in this paper is used in a relative sense. Elsewhere on the Northwest Coast the term generally implies an age greater than 5000 years (Carlson 1996). No such "early" dates have been reported previously for western Vancouver Island, a fact that reflects sea level history in this region and the restriction of previous archaeological attention to sites associated with modern tides. The recent work at Ts'ishaa, however, extends our knowledge slightly beyond this chronological barrier.

The site of Yuquot (DjSp 1), near the outer coast of Nootka Sound, has long held claim to the oldest radiocarbon dates in ethnographic Nuu-chah-nulth territory. The earliest, a date of 4230 ± 90 , is based on charcoal from sand and pebbles at the base of the cultural deposits and presumably refers to the initial occupation of this large village site (Dewhirst 1980:37). Calibration of this date (at two sigma) extends the initial occupation back to between 4530 and 4990 BP (Hutchinson 1992:14). Dewhirst (1980) argues for continuity throughout the cultural sequence at Yuquot, leading directly to the historic Nuu-chah-nulth of Nootka Sound. The Yuquot data featured prominently in Mitchell's (1990) definition of the West Coast

culture type and shaped his view that this was a stable adaptation with little change over the last 5000 years.

More recent research in Barkley Sound, however, has provided dates that rival Yuquot and has yielded assemblages that challenge the prevailing view of long-term continuity (McMillan 1998). At the western edge of the sound, at Ucluelet, the Little Beach site (DfSj 100) provided two basal dates of 4000 radiocarbon years (calibrated 4240 to 4820 BP). A small sample of stone artifacts suggested markedly different cultural affiliations than the lower deposits at Yuquot (Arcas Consulting Archeologists 1991). Nearby, the large village site of Ch'uumat'a (DfSi 4) provided equally early dates from the deep back portion of the site, and yielded a larger sample of chipped stone and other artifacts that resembled those from Little Beach (McMillan and St. Claire 1996; McMillan 1999). At all three sites, the basal dates came from beach sands with water-rolled shell and artifacts now well above the high tide line, indicating that sea levels were significantly higher at the time of initial occupation.

Ts'ishaa Excavations

More compelling evidence has recently come from the large village of Ts'ishaa (DfSi 16) on Benson Island, one of the outer islands of the Broken Group in central Barkley Sound (Figure 4:1). This large village site was the original homeland of the Tseshaht, a Nuu-chah-nulth group now resident in Port Alberni, whose traditional territories encompassed all of central Barkley Sound (McMillan and St. Claire 2001). Not only do they derive their name from this site (Tseshaht literally means "people of Ts'ishaa"), but in their oral traditions it was at this location that First Man and First Woman came into being (Sapir and Swadesh 1955:52-

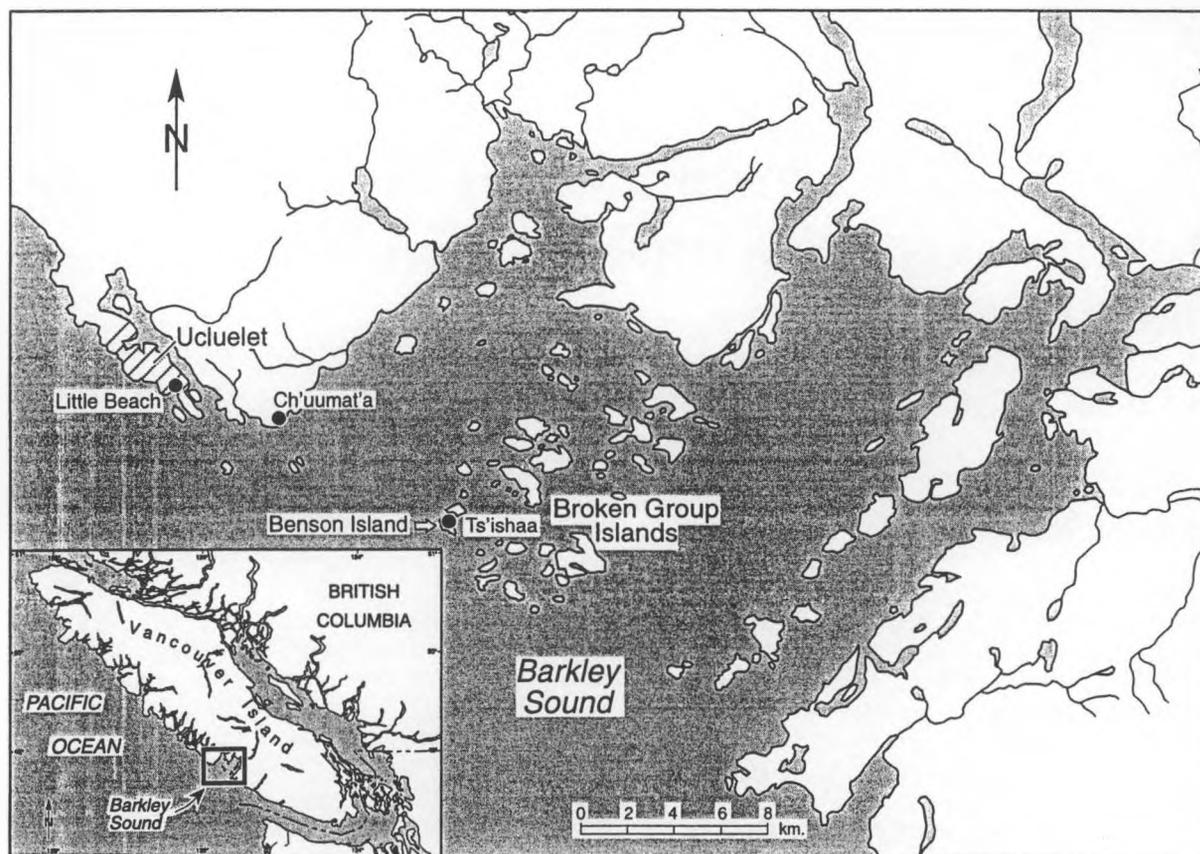


Figure 4:1. Map of Barkley Sound, western Vancouver Island, showing location of Ts'ishaa on Benson Island.

53). Early in the 20th century knowledgeable Tseshaht individuals provided the anthropologist Edward Sapir with extensive accounts of the history and social groups associated with this site. Over three seasons, from 1999 to 2001, we excavated in three widely separated portions of the site, in extensive shell midden deposits up to 3.7 m in depth (McMillan and St. Claire 2000, 2001). The artifact assemblage, dominated by small bone implements such as points and bipoints, falls within the West Coast culture type. A series of radiocarbon dates from across the site places its history within the last two millennia.

One small area of the site, however, provided evidence of earlier occupation and yielded a distinctly different artifact assemblage. Probing detected midden deposit on a relatively flat elevated area behind the main village, separated from it by a gully for most of its length. This back ridge portion of the site stands about four metres above the main village area. When the cultural deposits are removed from consideration, however, the base of the back portion of

the site stands six to seven metres above the original beach at the base of the main village area. We interpreted this area as representing an earlier occupation at a time of higher sea levels and began test excavation there in 2000 and larger scale excavation in 2001 (Figure 4:2).

Friele (1991), Hutchinson (1992), and others (Friele and Hutchinson 1993; Boxwell et al. 2000) have examined Holocene relative sea level history on central western Vancouver Island. They have proposed a sea level curve that is based primarily on Clayoquot Sound data, although it incorporates some information from Barkley Sound and is believed to reflect sea level history for the entire region (Figure 4:3). Hebda's work at several locations in the Broken Group islands of Barkley Sound, for example, indicates that early Holocene sea levels stood at least 10 metres below present levels (Hutchinson 1992:37). From these early Holocene lows, the relative sea level rose rapidly to intersect the modern beach just prior to about 7000 cal BP. In Barkley Sound this sea level rise is marked by freshwater peats in island bogs that are overlain



Figure 4:2. Excavation along the Back Ridge Portion of the Ts'ishaa Site.

Table 4:1. Radiocarbon dates from the Ts'ishaa early component.

Lab No.	Lab Date	Calibrated range (2 sigma)	Intercept Date	Comments
Beta-158739	430+/-46	BP 540 to 320	BP 500	Upper silt layer - date rejected
Beta-158740	3000+/-70	BP 3360 to 2960	BP 3210	Shell layer
Beta-158744	3050+/-70	BP 3390 to 3050	BP 3260	Upper shell layer
Beta-158742	3330+/-70	BP 3710 to 3390	BP 3570	Shell layer
Beta-147071	3580+/-80	BP 4090 to 3670	BP 3870	Base of shell layer
Beta-158745	4080+/-70	BP 4830 to 4410	BP 4540	Brown silt-clay
Beta-158747	4160+/-70	BP 4850 to 4440	BP 4720 (average)	Near base of shell layer
Beta-158743	4430+/-80	BP 5310 to 4840	BP 5010 (average)	Red-brown clay at base
Beta-158741	4470+/-70	BP 5310 to 4860	BP 5050	Surface of red-brown clay, with cultural materials
Beta-147073	5050+/-60	BP 5920 to 5640	BP 5810 (average)	From red-brown clay at base

by marine deposits dating to around that time (Hutchinson 1992:37). The relative sea level continued to rise and reached three to four metres above present, where it remained from about 6000 to 4800 cal BP, a period termed the Ahaus Bay Stillstand by Friele (1991). Subse-

quent gradual emergence of the land relative to the sea through the late Holocene is attributed to tectonic uplift (Friele 1991; Friele and Hutchinson 1993; Boxwell et al. 2000).

This research indicates that the area that later became the village of Ts'ishaa would have been an active beach during the period of mid-

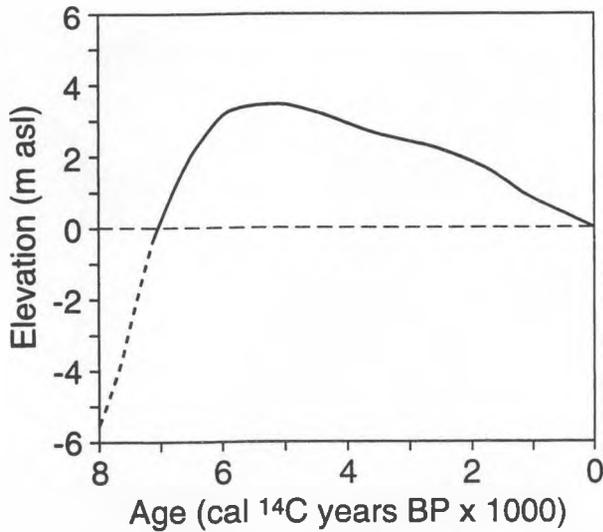


Figure 4.3. Reconstructed Holocene Sea Level History for central western Vancouver Island (based on Friele 1991, Friele and Hutchinson 1993, Boxwell et al. 2000).

Holocene higher sea levels, with highest tides coming right to the rise below what is now the back ridge. Radiocarbon dates from this portion of the site provide supporting evidence. Our oldest date, from the clay at the base of the deposit, is 5920 to 5640 cal BP. Two other dates, from similar contexts, are roughly 5300 to 4800 cal BP. These correspond very closely to the proposed period of higher sea levels, the Ahous Bay Stillstand.

Radiocarbon dates from throughout the deposits (Table 4:1) demonstrate that this back area of the site had been in use for over 2000 years. The upper stratum, consisting of black silt and rocks, contained a number of highly distinctive artifacts, including a large biface of obsidian from Glass Buttes in Oregon, several large stemmed and faceted ground slate points (Figure 4:4), and large bone points with barbs produced by shallow notches. All were found clustered in a small area and may be mortuary offerings as several burials were encountered nearby. In addition, crudely chipped stone objects were abundant throughout this layer. These consist of schist knives, choppers based on cobbles or large cortex spalls, large re-touched flake scrapers, and numerous smaller flakes and split pebbles, many showing evidence of a bipolar flaking technology (Figure 4:5). Chert and vein quartz microliths are particularly common. Although this layer is undated, its age is estimated at 2500 to 3200 BP, based on dates from the underlying stratum and the close similarity of several distinct artifact types with the

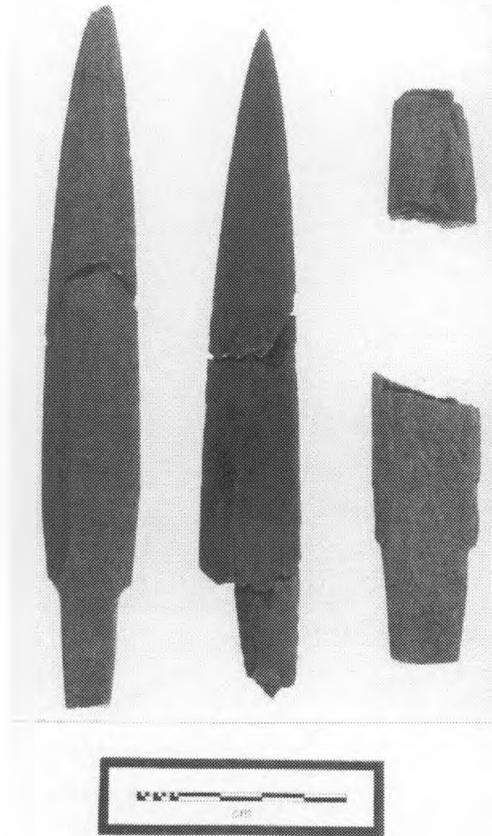


Figure 4.4. Ground Slate Points from the Upper Layer of the Ts'ishaa Back Ridge.

Locarno Beach stage in the Strait of Georgia. These include the large stemmed and faceted ground slate points and the large bone points with shallow enclosed barbs, both of which have close counterparts in Locarno Beach assemblages (Matson and Coupland 1995:158-9).

A shell layer underlies this upper stratum along the eastern portion of the back ridge. It is most extensive at its eastern end, which would have been a point extending out over the former high tide line. Here it reaches over two metres in depth, with bracketing dates of 3260 cal BP at the top and 4720 cal BP near the base. Along the back of the site the shell layer is much less extensive, with two dates of 3210 cal BP and 3570 cal BP. Another date of 3870 cal BP was obtained from a silt and shell stratum just above the basal clay.

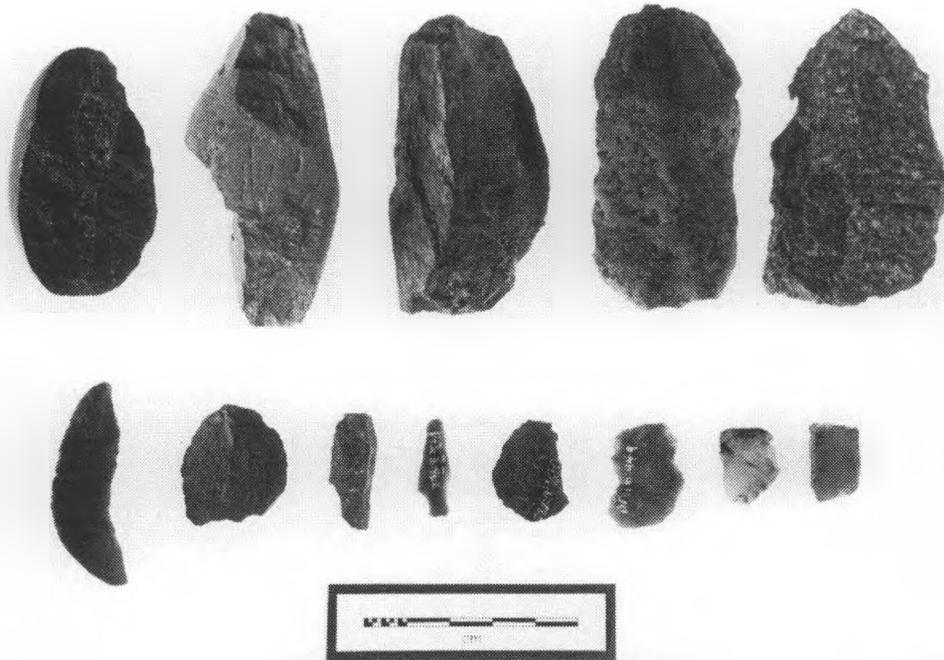


Figure 4.5. Chipped Stone from the Ts'ishaa Back Ridge (upper row: bipolar cores and flakes; lower row: chert and vein quartz microliths).

The shell disappears completely or is restricted to a few isolated pockets along the northern and western portions of the back ridge. In these areas a brown silty-clay directly underlies the black silt of the uppermost stratum. Stone flakes, split pebbles, and choppers were relatively common. Abrasive stones were also numerous, including several decorated examples. A particularly finely-made sandstone abrader, with an incised triangular design around its raised outer surface, was found directly below a charcoal sample dated to 4540 cal BP, the only date available from this layer.

At the base of the deposit is reddish-brown clay, which sits directly on bedrock at the back of the site although it is of considerable depth closer to the slope down to the later village. It is likely marine, or possibly glacio-marine, in origin. Crushed shell and charcoal extend into its upper surface, likely as a result of trampling during the earliest occupation of this landform. One sample from this type of context yielded a result of 5050 cal BP, which may date the initial occupation. The earliest date obtained from the

site, 5920 to 5640 cal BP, came from charcoal within the clay matrix, but cannot be conclusively shown to refer to a cultural event. No artifacts, shell, or other cultural materials were in direct association, although the charcoal was collected a very short distance below the base of the lowest shell layer.

Faunal remains have not yet been analyzed. Bone is poorly preserved in the non-shell layers. Nevertheless, sea mammal bones, most large enough to be identified as whale, were relatively commonly encountered. A fully maritime way of life seems to date to the earliest occupation, as would be expected for this outer island location.

Comparisons and Conclusions

The lithic materials from the Ts'ishaa back ridge resemble those from Ch'uumat'a, Little Beach, and the Hoko River site on the Olympic Peninsula. Traits such as quartz microliths and bipolar split pebbles, chipped schist knives, and large faceted ground slate points seem particularly akin to Hoko River (see Croes 1995). All

resemble Locarno Beach assemblages in the Strait of Georgia, with which they are contemporaneous. The earliest Ts'ishaa materials, along with those from the lowest levels at Ch'uumat'a, also overlap with the Charles culture in the Strait of Georgia. All are markedly dissimilar to contemporaneous materials from the earliest levels at Yuquot, where stone tools (with the exception of abraders) are relatively rare and chipped stone almost absent (Dewhirst 1980).

The predominance of stone in the Ts'ishaa back ridge assemblage (68.8% of the total), particularly chipped stone (43.4%, including unmodified flakes), also makes this area markedly dissimilar to the later village at Ts'ishaa, where stone makes up only 10.6% of the total and chipped stone objects are rare (0.7%). One possible explanation for this apparent discontinuity involves ethnic replacement, with a relatively late arrival of Nuu-chah-nulth culture in the Barkley Sound area (McMillan 1998). On the other hand, Croes (1989; 1995:227-8) interprets changes in the stone and bone artifact assemblages as reflecting sequential economic stages, while viewing styles of basketry preserved at Hoko River as indicating ethnic continuity to the historic inhabitants of the area.

Ts'ishaa, now with the oldest radiocarbon dates for a site in ethnographic Nuu-chah-nulth territory, extends the known history of this region back in time to just over 5000 cal BP. It also serves as one more reminder that the complex sea level history of this region needs to be better understood and taken into account in regional archaeological studies. Although evidence of early Holocene occupation may have been lost to rising sea levels, additional mid-Holocene sites should be sought at higher elevations than the large village locations of later times. Although we now have considerable information on late Holocene Nuu-chah-nulth culture from a number of sites, the earlier history of this region remains largely unknown.

Acknowledgements

In this tribute volume, I would like to acknowledge Phil Hobler's early interest in the relationship between archaeological sites and sea levels, as well as his work with early lithic assemblages at several locations on the coast. The research reported here was cooperatively funded and supported in various ways by Parks Canada and the Tseshaht First Nation. Denis St. Claire co-directed the project with the author. Ian Sumpter participated in the project as a Parks Canada representative and Jim Stafford served as field supervisor on this portion of the site.