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Devil's Club often grows atop shell midden as is the case here at the Muddy River Midden, PET-828 (570 to 450 BP).



The Shell Midden of Southeast Alaska

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The Tlingit and Haida people of central southeast Alaska are a part of a cultural group that inhabits the region from Puget Sound in Washington State to Icy Bay, north of Yakutat. Their Pre-contact society was based on a fishing economy substantially supplemented by hunting and gathering, with cultural attributes that include art, oral traditions and a complex legal and social system. We are fortunate aspects of their lifeways are well-preserved in the discarded remains of food processing activities, particularly those associated with shellfish harvest.



Shell midden deposits are most easily discovered with open-faced split spoon soil augers.



Bucket augers and shovel tests provide stratigraphic detail and cultural material for analysis.

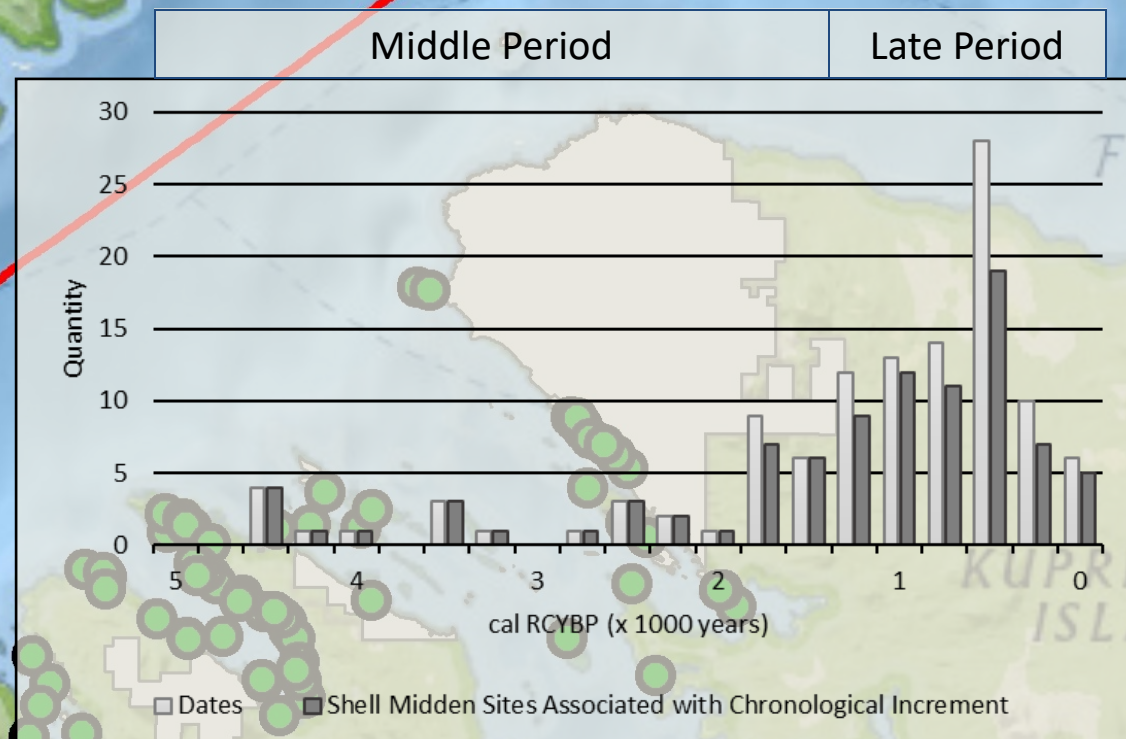


Test unit excavations can reveal site formation processes where layers of shell deposit differ in content and age or a hiatus in site use might be represented by an organic layer of decomposing forest detritus.

Photographs by Gina Esposito and Jane Smith, USDA-FS Tongass National Forest
Base Map Credits: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp
Northwest Coast Cultural Sequence: Moss, M.L. 1998 Northern Northwest Coast Regional Overview. *Arctic Anthropology* 35(1):88-111.

Over 375 sites with shell midden features have been discovered in the study area.

Our temperate rainforest consumes the physical remnants of the cultural past at an unforgiving rate. If not for the beauty of the shell midden much important information would be missing from our story. Shell middens are readily detectable in the archaeological record because calcium carbonates from shell enhances preservation by neutralizing the acidic soils characteristic of southeast Alaska, stabilizing organic material that might otherwise degrade.



Radiocarbon Dates

- 115 ¹⁴C dates from 54 study area shell midden sites represent camps, forts, villages, a cave and a rock shelter. Dates range from ca 4,000 BP to modern with most less than 2,000 years old and falling mainly within the Late period of the northern Northwest Coast Cultural Sequence.
- 83 dates (n=43 sites) are associated with the Late Period, 32 dates (n=16 sites) with the Middle Period, while no dated midden sites are associated with the Early Period. Eleven Middle Period midden sites have Late Period components, leaving only 5 sites with solely Middle Period dates.

General observations and GIS analysis of the 378 study area shell middens:

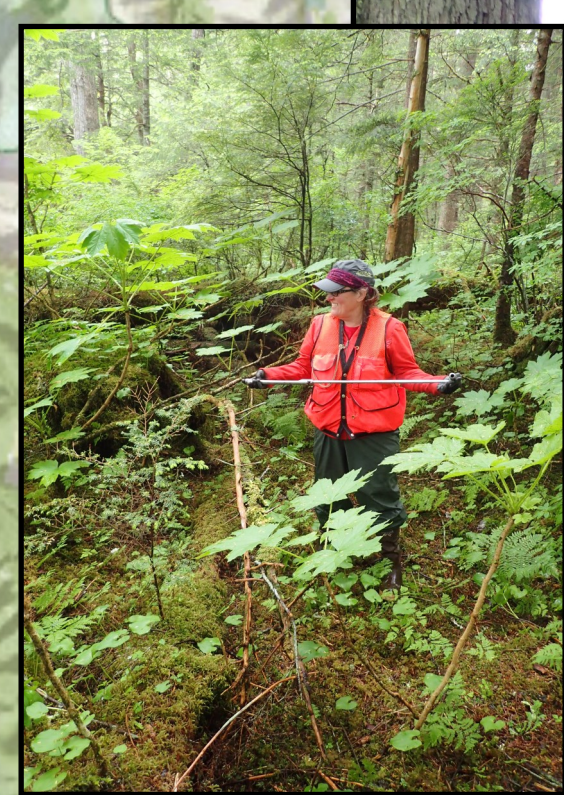
- Most shell midden features have mounded surface indications.
- Large diameter trees tend to grow from shell midden deposits presumably because they are rich from composted material and well drained due to the presence of broken and crushed shell. Devil's Club grows on many deposits.
- Shell middens are typically on the first and second terraces above the beach.
- A total of 236 (63 percent) have either full or partial southern exposure.
- Twenty-five (6.6 percent) have depressed surface indications believed to represent house locations.
- Eighteen (4.8 percent) are considered potential fort sites because they are located on high elevated defensible landforms.
- A total of 205 (54 percent) are within 500 m of an anadromous stream, while 127 (33.6 percent) are within 250 m of an anadromous stream.
- Forty (10.6 percent) are within 500 m of a fish trap or weir site (n=120 fish trap and weir sites), while 19 (5 percent) are within 250 m of a trap or weir.



The study area includes the Petersburg and Wrangell Ranger Districts, Tongass National Forest. This territory is the traditional home of the Kééx' Kwáan, Shtax'heén Kwáan and Hinyaa Kwáan Tlingit.



Large diameter trees with shallow root systems thrive on the compost-like nature of shell midden. Tipped trees are common and readily expose what is buried beneath.



Camps represent most shell midden sites in the study area. Deposits vary widely in size and may or may not have mounded surface indications.



Forts and Lookouts, often identified by the presence of shell midden, are on high elevated landforms with commanding views.



Villages are large sites, perhaps over 1000 square meters, sometimes with house depressions accentuated by berms of shell midden. Those without depressions usually have extensive shell midden mounds and pockets of midden dispersed across the living area.