Follow the Shore: Refining Late Holocene Sea-Level Histories Through Settlement Change in northern Quadra Island, B.C.

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Why Follow the Shore?

• Regional sea-level histories, while well refined (Fedje et al. 2005), are often unable to capture localized changes, like tectonic events.

• Human and sea-level histories are inseparable, particularly along the Northwest Coast, meaning human behaviour can provide insight into environmental changes.

• Where the shore shifted, so went settlements, maximizing available land at the expense of beachfront. This is evident by sites currently eroding from modern sea-level rise.

• Preliminary coring in Waiatt and Kanish Bay shell middens suggests we can track sea-level histories at a finer scale using human settlement patterns.

Learning from Shell Middens

We aim to:

• Document settlement history of Late Holocene (5ka-present) shell-midden sites through basal dating.

• Examine local variations in sea-level histories that emerge from settlement patterns within and between bays.

• Gauge efficacy of percussion coring methodology for determining localized sea-level change in the Late Holocene.

Coring the Middens

• Survey and sample multiple shell-midden sites from each bay.

• Select site pairs based upon substrate and locational variables (i.e. fetch).

• Core along transects perpendicular to the modern shoreline.

• Radiocarbon date top and basal samples.

• Tie elevation of basal samples in relation to modern sea-level to help predict ancient shorelines.

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