

# MARSHALL'S BEACH FISH TRAP, LASQUETI ISLAND

By Dana Lepofsky

When socially and economically complex peoples are described in introductory Anthropology textbooks, Northwest Coast peoples are always presented as the exception to the rule. Like most complex societies worldwide, they traditionally had hierarchical social systems, lived in large permanent villages for all or most of the year, and had high population densities. What is distinct about Northwest Coast societies, however, is that the economic basis for this complex social system did not involve full-scale agriculture. Northwest Coast peoples were hunter-gatherer-fisherfolk, who, through a well developed system of resource management and ownership, were able to harvest and process enough food to create surplus. This surplus was used in trade, to finance their elaborate ritual systems, and to feed the people throughout the year when fresh food was not available.

Elaborate fish traps, like the one at Marshall's Beach, were a central component of the social and economic system of Northwest Coast peoples. Archaeologists know little about the development of this amazing technology. The oldest recorded fish weir, dating to over 4000 years ago, is located in the mudflats of the Glenrose Cannery site. It was constructed of wooden stakes and nets of various size openings, which were used to catch a variety of fish species (and any other animals who were attracted to the fish). Sometime in the past 3000 years or so, stone fish traps show up on the coast, and probably become increasingly common after that. Based on the artifacts eroding out of the large midden at Marshall's Beach, the Marshall Beach fish trap also dates to sometime in the last 1-2000 years.

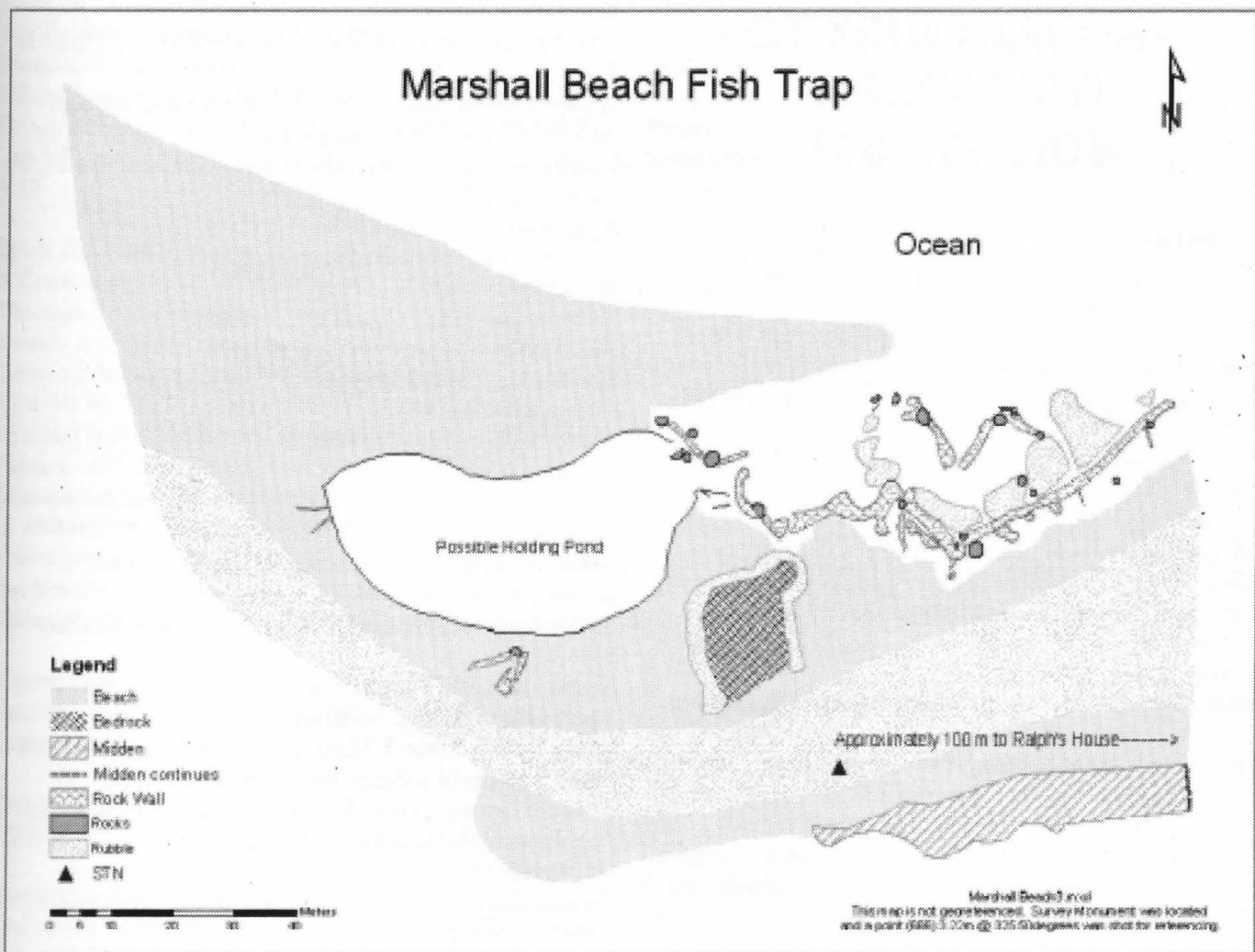
Archaeologists know even less about how the stone fish traps were used. In Bella Bella, where the highest density of fish traps on the coast has been recorded, researchers are working with Heiltsuk elders to find out details of how their traps worked. We do know that most fish traps were some combination of stakes, nets, baskets, and stone alignments. Some, like one located in near Lennie's Lagoon Bay, just to the east of Marshall's Beach, were composed of relatively simple linear arrangements of rocks and nets spanning a bay or a stream entrance. In the more complex systems of rock alignments, like the one at Marshall's Beach, we are probably looking at a system that has been added to and changed over time, so not all the alignments

we see would have been in use simultaneously. Other simpler and more complex stone fish traps and wooden fish weirs are located in other bays on Lasqueti and on the neighbouring small islands.

The map you see here of the Marshall's Beach Fish Trap, represents the basic features of this incredibly complex system. The data for the map were collected over two low-tides in September. Various friends and I, directed by my GIS-mapping friend extraordinaire, Susan Formosa, used a Leica total station to collect the hundreds of data points that defined the major outlines of the trap. We raced the tide to gather as many points as possible. At the end, we collected some of the points from a canoe and stripped off clothes to wade out to some rocks that were being fast covered by the incoming tide. When the tide is fully in, there is no sign of this amazing ancient system.

Once we started mapping, it didn't take us long to realize that most of the rocks on that very beautiful beach had been moved by people as part of this incredible engineering feat. There are several prominent features to the trap. A long, 3-5 course stone wall defines much of the eastern portion. To the south of this wall are various smaller walls coming off it at right angles. These presumably had nets across them, which may have formed small pens. On the opposite side of the wall are large clusters of rubble, which have been pushed together to create channels between them. In many cases these channels match up with the smaller walls. A major feature of the system is a large circular, rock-free depression at the western end of the beach that holds water even at low tide. Rocks surrounding the depression have been pushed up along the beach edge, forming an even larger, circular depression when the tide is higher. We think this was a large holding pond for trapped fish.

As in many traps on the coast, the main feature of the trap is a series of funnel-shaped alignments of rocks, with the small side of the funnel facing the in-coming tide. These funnels lead into areas we think are holding ponds. When the tide comes in at Marshall's Beach, the water flowing through these funnels is so strong that you literally cannot stand up in the flow near them. Don McDonald, a fisherman friend of mine, says that sockeye and pinks, on their way to the Fraser River, would have hung out in the calm waters in the bay, waiting for a favourable tide on which to move south.



When the tide was unfavourable (we're guessing on a flood tide), the fish would have come closer to shore, looking for back eddies. They then would have been drawn into the rush of water going through the funnels and would have experienced the holding pen as a back eddie. We suspect that one-way gates were placed across the openings of these funnels. Thus, with incoming tides, salmon would have been funneled in, and then trapped in the holding pens, where they could be processed for immediate and future consumption. These holding pens would have been an ingenious way of taking care of the "bottle-neck" that Northwest Coast peoples faced during peak salmon runs: how to process fish quickly enough before it rotted.

Building and maintaining a trap of this size and complexity, and managing the huge amount of fish that it was capable of catching, would have required a high level of community organization. The head, or heads, of the elite households likely managed the trap on behalf of the community members. I don't know how many people could have been supported by the trap, but judging from the size

of the nearby midden, the village was of substantial size. I love thinking of that beach so full of life—both human and otherwise.

Since we mapped the Marshall's Beach trap, several islanders have told me about other traps and weirs on or near Lasqueti. The community on Lasqueti has a strong sense of the importance of heritage. They are keen to continue to map these and other archaeological features on the island, both to find out more about the island's past, but also to preserve these resources for the future.

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