

Clam Gardens: Aboriginal Mariculture on Canada's West Coast

by Judith Williams

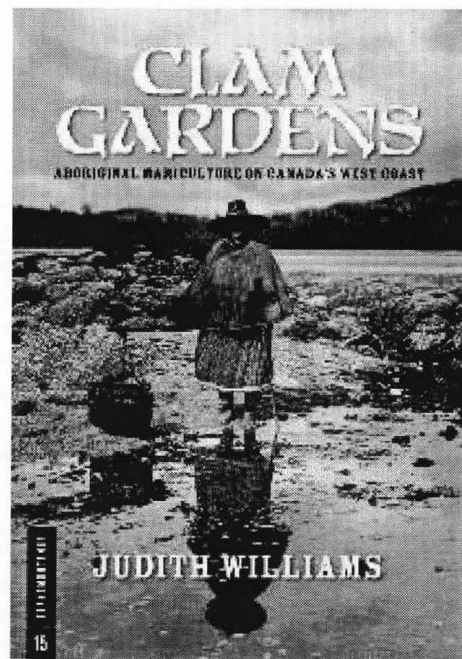
Transmontanus/New Star Books, Vancouver, 2006
127 pp., illus., bib. and notes, index
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Artist and writer Judith Williams' 2006 book *Clam Gardens: Aboriginal Mariculture on Canada's West Coast* offers a uniquely personal perspective into a recent and important development in Northwest Coast marine archaeology. Based upon the parallel investigations of the author and coastal geomorphologist John Harper, Williams' thoughtful narrative relates her exploration into the nature and meaning of previously unrecorded intertidal petroforms (aligned rock walls) off the northeast coast of Vancouver Island.

Visible only at extreme low tide and enclosing productive shellfish beds, the clam garden story is as much about human exploration as it is about marine archaeology and Northwest Coast prehistory. The implications of the (re)discovery of the clam garden, a previously undocumented site-type on the Coast, are significant and multi-faceted, simultaneously raising important questions relating to the nature of precontact coastal economies, large-scale landscape modification and food production in the marine zone, as well as the modern politics of British Columbia's submerged lands.

In her prologue, Williams explains the impetus for her interest in clam gardens and provides a brief overview of their construction and meaning. In 1993, Williams was sent by a Klahoose elder to view aligned rock walls located in the intertidal of Quadra Island, northern Strait of Georgia. That visit led her to explore and document other intertidal rock alignments in the region. As a result of these visits and an ever-expanding colour-keyed, push-pin distribution map, Williams began to speculate that these rock alignments were not of natural origin—a hypothesis then being tested by Harper and others (Harper, Haggerty and Morris 1995; Harper et al. 2005)—but instead represented intertidal landscape modification and marine aquaculture.

The petroforms, Williams suggests, represent the intentional, large-scale modification of an entire intertidal ecosystem for the sole purpose of increasing clam production. The target species of this "energetic cultivation" was the butter clam (*Saxidomus gigantea*). By rolling or carrying basketball-sized boulders down slope to the seaward edge of a naturally occurring butter clam beach, a low ridge of rock wall, roughly paralleling the shoreline, was created at the extreme low tide mark. The practice of wall construction occurred over several generations and served several purposes. By removing rocks from the beach, future harvesting was made easier and allowed for more clams to grow in the areas formerly occupied by those boulders. In using the boulders to construct a linear wall, sediment would become trapped behind it, raising and leveling the naturally sloping beach, also increasing the productive area of the beach. While a single wall could widen the beach and thus extend the harvestable area, multiple walls could integrate a series of small clam beds, significantly increasing clam



productivity.

In chapter one, Williams begins her exploration of the nature of clam gardens and her initial contact with coastal scientist John Harper. This introduction, made possible by a journalist, brought her attention to Harper's long seven-year battle for the recognition of clam gardens in the face of resistance from the wider archaeology community. Throughout the subsequent chapters, Williams recounts her visits to clam garden sites all along the B.C. coastline, relating her personal interactions with the coastal residents of the region. Of particular interest to Williams is the dissimilarity in responses from her contacts. While the nature and meaning of the clam gardens was well-known by First Nations and long-time residents (i.e., old-timers), archaeologists were both unfamiliar and skeptical of the notion that the petroforms could be human-made. This skepticism, however, did not stop Williams' investigation, nor did it prevent people from sharing with her their stories (and clam chowder recipes).

In this narrative, Williams links rock art, oral traditions, and place names with these features to provide a holistic context for the clam garden. The stories shared with her emphasize the central role that women and children played as landscape-builders, clam gardeners, and chefs. Certainly, the significance of Williams' work should not be judged by her inclusion of six scrumptious clam recipes in her appendix.

Indeed, mapping by Harper et al. (2005) has identified over 500 clam garden features, ranging from the Heiltsuk traditional area (Bella Bella) in the north to Tsartlip-Coast Salish traditional area (Victoria, BC) in the south. (The highest densities of the clam gardens are reported for the Broughton Archipelago, northern Vancouver Island.) Of relevance to our neighbours to the south is that only one published reference exists for clam gardens, and that is for the Lummi traditional area in northern Washington State. In his 1934 ethnography of the Lummi, Bernard Stern reported a clam garden-like feature on Orcas Island (San Juan archipelago), although Stern notes that such a feature is "exceptional." This

particular locale, however, has yet to be identified.

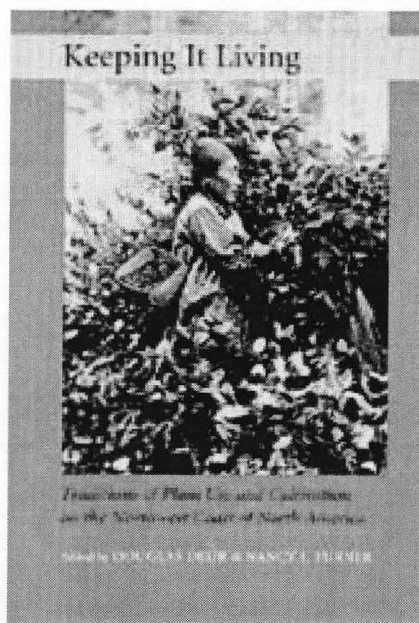
Additionally, recent work by Browne (2008) raises important questions about the role of clam gardens in the modern political sphere. Specifically, Browne points out that, given that "the provincial and federal governments take the position that First Nations do not have any aboriginal rights or title relating to submerged lands in British Columbia," recent evidence of "extensive traditional construction, use and management of fish weirs and clam gardens by many coastal First Nation calls these government positions into question." More recently, intertidal surveys by Simon Fraser University and the University of Victoria field schools, both working in southwestern British Columbia, have identified clam garden features (see *The Midden* 40(3)). An excellent, high quality National Geographic film about clam gardens is also available (Woods and Woods 2005).

Williams' book should be of interest to anyone concerned with past human-environment interaction on the Northwest Coast. Weaving together marine biology, coastal geology, cultural anthropology, maritime archaeology and traditional ecological knowledge, *Clam Gardens* highlights the benefit of a holistic approach to archaeology. It also underscores some common misconceptions about the extent, significance and meaning of the marine archaeological record. In a colourful style, this book addresses an important subject. As Williams concludes, "the clam gardens were and are a coastal treasure. Unique living artifacts, they are still useable sources of food and exchange items for the local populations. This primary mariculture technology of the Northwest Pacific should be protected for the descendants of those who created it."

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Keeping It Living: Traditions of Plant Use and Cultivation on the Northwest Coast of North America

Edited by Douglas Deur and Nancy J. Turner

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The significance of plants to the aboriginal cultures of the Northwest Coast of North America often takes a back seat to the iconic salmon. *Keeping it Living*, edited by Douglas Deur of the University of Washington and Nancy Turner of the University of Victoria, brings these essential resources to the forefront. The authors featured in this volume come from a variety of fields, ranging from archaeology and anthropology to ecology and Native American traditional scholarship, and each brings their unique expertise to this collection. They document and discuss a wide array of plant uses, management and cultivation practices, and document many factors that have led to the scarcity of attention for plants in the anthropological and archaeological communities. As the editors note, the idea that Northwest Coast cultures are examples of complex, sedentary societies that developed without the advent of agriculture is entrenched in introductory textbooks and popular media. Deur and Turner have brought together a diverse group of authors that show it's not that simple. These authors show that sophisticated management of plant resources was, and continues to be, a significant element of Northwest Coast cultures.

The volume is divided into three sections: Concepts, Case Studies, and Conclusions. Concepts is comprised of five chapters, covering many of the premises and terminology that have obscured the relevance and ubiquity of plant management practices on the Northwest Coast. Bruce Smith begins with an informative