# Seascape corridors : modeling routes to connect communities across the Caribbean Sea

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**Citation**

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# Curriculum vitae

Emma Slayton was born on October 1, 1988. After attending Sammamish High School (2003-2007), she studied anthropology, with a focus in biological anthropology, archaeology, material culture studies, and creative writing at Pitzer College (2007-2011). Her interest in seafaring and inter-island mobility was sparked when she studied the Chumash peoples of the Santa Barbara Channel Islands for her bachelor's thesis. After graduating with honors, Emma left the United States for the United Kingdom, where she studied at Oxford University. She applied least-cost pathway techniques to analyzing movement across seascapes, between islands in the Caribbean and the islands of the Cyclades in her master's research and obtained an MPhil with distinction in 2013. Over the course of her bachelor's and master's studies, Emma participated in archaeological field projects in the United States, Israel, Malta, and the United Kingdom.

Emma worked on her PhD as a part of the NWO funded Island Networks Project (project number 360-62-060). During her PhD at the Leiden University, Emma co-authored several papers, was a teaching assistant, guest lectured, presented at seven international conferences, organized three conference sessions and one conference at the SAA and EAA, and organized lectures and workshops for the Leiden Digital Archaeology Group. She participated in fieldwork in Grenada and Saba. She was also a part of several canoe training runs in Martinique organized by the Karisko project.

# SEASCAPE CORRIDORS

There is little evidence of the routes connecting Amerindian communities in the Caribbean prior to and just after 1492. Uncovering possible canoe routes between these communities can help to explain the structure, capabilities, and limitations of the physical links in their social and material networks. This book evaluates how routes connecting islands indicate the structure of past inter-island networks, by using computer modeling.

Computer modeling and least-cost pathway analysis is a popular approach for analyzing the physical connection between sites in archaeology. Over the past three decades researchers have explored several theories and methods to analyze least-cost pathways on landscapes. Land-based least-cost efforts have outpaced the number of works evaluating optimal travel routes across the sea's surface. Perhaps as a result, no community standard for using computer- and GIS-based methods to model canoe or sailing routes exists. Although methods used in previous research often focus on determining the time-cost and success of specific routes, these measures have

been calculated or judged in different ways. One way this book adds to the discussion of seascape modeling is by focusing on inter-island voyaging, or the process of maintained connections between island sites rather than a focus on exploration, a technique rarely explored in sea-based least-cost pathways analysis.

Relying on archeological evidence, ethnographic accounts and language analysis, and computer tools developed for this work, optimal routes between indigenous sites were modeled to determine how routes in various seasons and through different regions influenced possible lines of connection. To gain a broader understanding of the feasibility this model, canoe routes were generated in three different areas in the Caribbean, stretching from the island of Hispaniola to the Leeward Islands and from the Windward Islands to Guyana. These modeled sea-based provide new insights into the movement of peoples and material culture between islands and past Amerindians communities in this region.

NWO

Netherlands Organisation for Scientific Research

ISLAND NETWORKS