



cover design by Jennifer Steffey

Gale A. Bishop
Harold B. Rollins
David Hurst Thomas

Geoarchaeology of St. Catherines Island, Georgia

The field of geoarchaeology has typically been defined as either *geology pursued within an archaeological framework* or sometimes the reverse, as *archaeology framed with the help of geological methodology*. Either way, the formalized objectives of geoarchaeology define a broad range of pursuits, from placing archaeological sites into relative and absolute temporal context through the application of stratigraphic principles and absolute dating techniques, to understanding the natural processes of site formation, to reconstructing the landscapes that existed around a site or group of sites at the time of occupation.

The volume editors stress the importance of multiple viewpoints and methodologies to apply geoscience techniques in evaluating the archaeological record of St. Catherines Island, Georgia, home for aboriginal people for five millennia. In the broadest sense, then, the *Geoarchaeology of St. Catherines Island* applies multiple earth-science concepts, techniques, or knowledge bases to the known archaeological record and the processes that created that record.

Geoarchaeology of St. Catherines Island, Georgia consists of 16 papers presenting the newest research on the stratigraphic and geomorphological evolution of the St. Catherines

Island landscape. Of particular interest are presentations addressing the relative timing and nature of sedimentation, paleobiology, sea level change, stream capture, hydrology, and erosional patterning evident on St. Catherines Island (and to some degree the rest of the Georgia Bight). These papers were initially presented at the Fourth Caldwell Conference, cosponsored by the American Museum of Natural History and the St. Catherines Island Foundation, held on St. Catherines Island, March 27–29, 2009.

GALE A. BISHOP is the Director, St. Catherines Island Sea Turtle Program, Professor Emeritus, Department of Geology, Georgia Southern University, and President of GeoTrec LLC, a sole-proprietorship science-education and conservation consultancy. He has conducted research on St. Catherines Island since 1986.

HAROLD B. ROLLINS is Professor Emeritus, Department of Geology, University of Pittsburgh. He has conducted research on St. Catherines Island since 1974.

DAVID HURST THOMAS is a Curator in the Division of Anthropology at the American Museum of Natural History. He has conducted research on St. Catherines Island since 1974.

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Gale A. Bishop, Harold B. Rollins, and David Hurst Thomas
Editors and Contributors

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ON THE COVER: Geologist Gale Bishop (left) instructing archaeological interns Danielia Donahue (middle) and GiNESSA Mahar (right) in the finer points of safely drilling and extracting a vibracore column at the St. Catherines Shell Ring (9Li231). This critically important site was first recorded in 1979 as part of the American Museum of Natural History's systematic survey across the island. The vibracore evidence helped establish the site's stratigraphic sequence, tying the condensed archaeological "zone," the Anthropocene, into the adjacent and subjacent Late Pleistocene and Holocene geological stratigraphic records (fig. 10.8). The ample radiocarbon evidence demonstrates that this Late Archaic construction began in 2540–2290 cal B.C. with the majority of the shell deposition taking place within a century later. The shell-heavy portion of this site contains an abundance of plain and decorated fiber-tempered ceramics, the oldest-known pottery complex in North America. Several chapters in this volume discuss the geoarchaeological significance of this and other Late Archaic sites on St. Catherines Island.