

EXCERPT FROM:

NAPLES WATERFRONT: CHANGES IN TIME

BY TODD T. TURRELL

THE LAND WE LIVE ON IN NAPLES was born under the sea. A primary rock formation beneath the earth is Tamiami Limestone, formed some six million years ago. The limestone and other kinds of rock and sediment are a result of marine deposition during periods when Naples and, at times, the entire southern peninsula of Florida was underwater. Marine sediments settled to the sea floor from the warm ocean or were formed as a result of marine organisms living on the bottom, as observed in the shellfish and coral you can discover in local rock. As recently as 100,000 years ago, Naples was underwater with a sea level 25 feet higher than it is today.

The first humans to explore our shoreline likely were groups of Paleo-Indians, nomadic hunting clans following mastodons and other game into what is currently Florida. They arrived at the end of the last ice age. Colder temperatures and a lower sea level allowed migration across an ice bridge connecting what is now Russia with the Aleutian Island chain of western Alaska. Mastodons were small elephants accustomed to cold temperatures, much colder than we live in today. At times, other animals existed here, including camels, horses, and giant armadillos. It is difficult to imagine these animals roaming around the Naples area, but their fossils are commonly found. John Pulling, whose family settled in Naples in the early 1900s, once showed me a mastodon vertebra he picked up when the area around Tin City was being dredged prior to World War II. On a recent trip to the Peace River, which is north of us in Charlotte

County, I found fossils of prehistoric horse teeth mixed with dugong bones (ancient manatee) and shark teeth from when sea level was significantly higher. These were millions of years different in age, yet sat next to each other in the steam bed.

During colder periods, much more of the Earth's surface water was frozen in the polar ice caps, and this caused the sea level to be lower...Scientific data suggest water levels were more than 150 feet lower 10,000 years ago when the first Paleo-Indians would have been wandering down our coast. With the shallow slope offshore in the Gulf of Mexico, this ancient shoreline is roughly 80 miles offshore.



A sports fishing trip in the Naples area in the early 1900s.

Consequently, the remains of the earliest encampments along the prehistoric beach are now underwater many miles into the Gulf. This is an interesting prospect for marine archaeologists, since artifacts could be well preserved under layers of marine sediment. I once found a water-worn pot shard on the beach in Naples, entirely smoothed and rounded by the surf, which could have washed up from a Native American settlement located in deeper water.

While 10,000 years ago seems like a long time, it is actually quite recent from a geological perspective. Two to three million years earlier, the sea level was so high that most of south Florida was under water. It is amazing to think that the "land" where we now live has been home to a great variety of marine life, including coral reefs and the megalodon shark. An area of exception was the higher ground of the Lake Wales Ridge, located in Central Florida, which would have then existed as a series of islands in a warm, tropical sea. Species evolved on this

ridge that cannot be found anywhere else in Florida, nor anywhere else on the surface of the Earth.

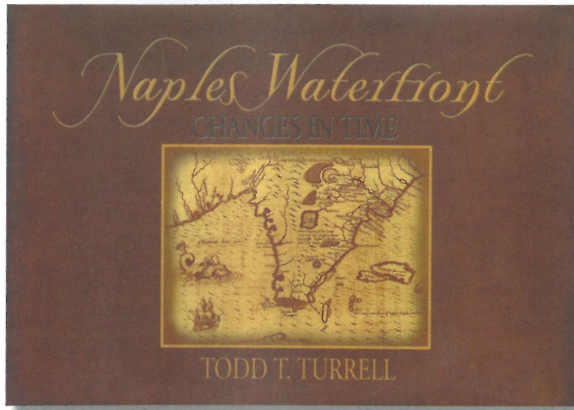


Detail from a map, circa 1776, of the Naples Coast by Thomas Jefferys, Geographer to His Majesty (London). From the collection of John Wanklyn.

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At right: Collier County Sheriff's Deputy Roy Atkins is pictured with moonshine confiscated during Prohibition.

Below: The changing face of Marco Island—from natural terrain prior to the 1960s, to dredged and fully developed in 2009.



Todd T. Turrell

Bronze Medal, Florida Nonfiction

When Todd T. Turrell was teaching beginners how to fly airplanes in the late 1970s, a couple of “seemingly nice guys” asked him if he would like to make more than \$20,000 for a night’s work hauling cargo from Jamaica to Florida. Fear and good sense kept him from accepting—but that and many experiences during his career as an engineer along Florida waterfronts have made for some great stories.

Turrell recounts many of them in his *Naples Waterfront: Changes in Time*, along with the history of the coast from ancient to modern times, photographs, antique maps, and aerial photos.

Turrell has a degree in ocean engineering, a keen interest in natural history, and a professional eye for the impact humans have had along the coast. He is president of Turrell, Hall & Associates, Inc., a marine and environmental consulting firm specializing in waterfront and environmentally sensitive sites in Florida and the Caribbean. The company has projects around the world.



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