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Before the North Bank

The north bank of the Miami River, like many inhabitants of its shores, is a recent arrival. For most of the earth's history, the bluff or any terrestrial site at this location simply did not exist. The geological and ecological developments that ultimately shaped the North Bank—specifically the formation of Lake Okeechobee, the Everglades, the Miami River, and Biscayne Bay—only occurred around 5,000 years ago. For geologists who work in terrestrial epochs that last hundreds of thousands if not millions of years, the site's lifespan represents a brief moment. The site may be older than our collective memories, but it is not older than dirt.

Unlike the mythical phoenix, Miami and its North Bank emerged out of the water rather than out of the ashes. South Florida existed under a shallow layer of seawater that covered the region and left behind a layer of sandy quartz sediment with layers of limestone and dolestone. Its sandy complexion has been a blessing for phosphate miners but has been the bane of farmers, who for centuries who have complained that there is "no true soil on top of it."[1] The Florida peninsula and its beachfront property began to emerge slowly from the waters around 15–20 million years ago, a period that geologists call the Late Oligocene Epoch. Florida's emergence as dry land was temporary, as water would cover large parts of the southern peninsula on at least four different occasions before Florida would reach its current

state above sea level. Each of these sustained floods would cover less of the state than the previous one. As a result, the peninsula slowly took shape as the coastlines expanded and contracted in sync with the changing temperatures of the ocean waters. For most of this time Miami's North Bank, or at least its coordinates (25.771364 N 80.188608 W), remained under water.[2]

The last cycle of geologic expansion and contraction ended with an ice age, an epoch when the glaciers swelled and consumed enough of the earth's water to lower the ocean levels by more than 350 feet. This era lasted from about 50,000 to about 13,000 years ago, during which time Florida was much larger. The Atlantic coast extended several miles eastward of its current location and the Gulf coast extended many miles to the west. For most of this period the Florida peninsula was at least twice as large as it is today. The abundant water that defines Miami and the North Bank today had yet to appear. Humidity and standing water (and mosquitos) would eventually arrive, but for thousands of years Miami may have been too dry for human habitation. It existed too far from the Atlantic coast, and fresh water could only be found in isolated sinkholes, natural springs, and sunken pockets in the limestone that sporadically covered the Florida peninsula. In these isolated locations, savannahs and dune scrubs formed and sustained the plants and animals that human occupation required. Life could hardly exist elsewhere.[3]

Humans likely arrived in Florida near the end of this ice age and perhaps several millennia before most of Miami become inhabitable. These earliest Floridians probably descended from the Asian migrants who crossed Berengia, a span of land and ice that periodically connected Asia and North America. This "land bridge" existed until around 35,000 years ago, reemerged again from around 22,000 to 17,000 years ago, and then appeared again for the last time from 15,500 to 5,000 years ago. At the end of this period the Bering Strait emerged to separate Alaska from Eastern Asia.[4] Other theories exist to explain the origins of humans in the Americas; some point to ancient Africans, Asians, or Europeans coming to the Americas by water on boats or ice floe. Others proclaim that Native Americans

originated in the Americas. Even adherents of the Bering Strait theory debate the timing and nature of humans' crossing and the speed at which the migrants made it to the Florida peninsula. Despite these differences, most of the evidence points to the settling of Florida at least 12,000–14,000 years ago.[5]

Florida may be the farthest point from the Bering Strait in mainland North America, but human beings likely settled in the middle and northern part of the region shortly after the first migrants crossed the land bridge. Some of the best evidence for Florida's antiquity comes from Little Salt Springs, along the gulf coast of Sarasota County. In this area, archeologists uncovered some of the oldest artifacts found in the American South, including a 12,000-year-old sharpened stake that was likely used by hunters as well as an ancient deer antler that had been carefully crafted into a measuring tool.[6] At around the same time, ancient Floridians occupied High Springs' Ichetucknee River and created, among other things, a spear point made from mammoth ivory. In addition to confirming the ancient presence of Indians in the territory, the shape of this particular spear point also helps demonstrate the rapid spread of people across North America. Its shape, much to the surprise of many scholars, is similar to the Clovis-style points that hunters used to kill the now extinct Pleistocene animals in New Mexico and elsewhere.[7] The oldest human-made object found in Florida—a fossilized bone with a carved image of a mammoth or mastodon on it—was discovered nearly a century ago in a spring in present-day Vero Beach. The mastodon went extinct at least 13,000 years ago, helping further to establish humans' early presence on the peninsula.[8]

Although these sites have yielded evidence for an ancient presence in Florida, they do not reveal a direct link to a human presence at the North Bank. These artifacts offer only a few glimpses for the Florida's southeastern peninsula in general. Ten thousand years ago, the still-inland site remained rather arid and therefore comparatively uninviting to potential hunters and gatherers elsewhere in the region. Yet humans have lived in the general neighborhood of present-day south Florida for at least about 10,000 years. The best evidence for first

Floridians in the Miami area comes from what is now the Deering Estate at Cutler some 13 miles to the south of the North Bank. The estate was once the bayfront property of Charles Deering—an early twentieth-century art collector whose family's fortune stemmed from the selling of harvesting machines along with their partner, Cyrus McCormick. Thousands of years before Deering established his limestone home and hotel, Native Floridians also visited the site. There, at what is called the Cutler Fossil Site, a solution hole serves as a repository of ancient artifacts. Thousands of years ago, the solution hole collected rain or spring water for much of the year, creating a flourishing "oasis effect" that attracted water-dependent animals to the area. Ancient Floridians frequented these places because they provided reliable sources of water for both themselves and the animals they hunted. As a result, the site contains human and animal remains, a 10,000-year-old spear point, charcoal from an ancient hearth, and evidence that the first Miamians had created various drills, scrapers, and other tools.[9]

We may never know if ancient Floridians visited the landmass that would become known as North Bank before the waterways that defined it formed. The nature of the archaeological evidence makes it especially unlikely. The Cutler Fossil Site and other archaeological sites in Florida have revealed thousands of pieces of physical evidence that are related to Florida's ancient past. Most commonly, the sites contain spear points that were primarily made from snail and conch shells, shark teeth, and the bones of various animals. These types of physical remains reveal the tendency of Florida's earliest hunters to ambush or attack a wide range of prey near marshes or watering holes and to forage and gather an abundance of wild plants like gourds and hickory nuts. It is also likely that they had some form of political structure to organize hunting expeditions and possibly their daily life. These first Floridians also employed a variety of techniques and materials for making spears, throwing sticks, bolas, adzes, mortars, and other tools. They constructed knives made of shark teeth, pins and needles made of the bones of animals, wooden mortars to grind seeds and nuts, and wooden boomerangs. With their various

weapons, they hunted and ate a wide range of animals, including megafauna like mastodons, mammoths, horses, camels, and bison as well as smaller mammals such as deer, rabbits, and raccoons. This lifestyle allowed these migratory Floridians to be more stable and semisedentary than modern-day images of big-game hunters would often lead people to believe.[10]

Around 9,500 years ago, around the same time as the oldest evidence at Miami's Cutler Fossil Site, the earth began to warm. These climatic changes had a profound effect on the Florida peninsula and its inhabitants. Rising temperatures ushered in a series of transformations that ultimately made the North Bank the center of human behavior in the region. For starters, the warming climate made Florida's land mass smaller and wetter, as the Atlantic coastline hesitatingly began to move toward its present-day location. The physical North Bank and its geographic surroundings would not exist for several thousand more years, but during the early Archaic period the Atlantic coast slowly ceded ground to a strait of water that would later become Biscayne Bay. Indeed, most of the modern watering holes, creeks, lakes, wetlands, mangroves, beaches, barrier islands, and coasts did not form until thousands of years later. During this era, south Florida also became part of the subtropics—with an ecosystem accustomed to the heat, humidity, and ocean breezes. The rising temperatures further coincided with a wave of extinctions that erased Florida's population of mastodons, mammoths, giant sloths, camels, llamas, horses, and saber-toothed cats.[11]

During the Archaic period, Florida's human populations underwent tremendous changes while adjusting to the wetting of south Florida and the extinctions of the animals that they depended upon for survival. Although no evidence suggests that Indians occupied the North Bank during this period, the Cutler Fossil Site and others point to presence of Native Floridians in the southern part of the peninsula. The Indians of the southern interior migrated away from the disappearing shores and closer to the new coastlines and to the interior. They may have also moved north to take advantage of the wetter climates there. These Indians replaced the large spear

points designed for hunting the now extinct megafauna with smaller and lighter weapons. Those who settled along the coasts relied on nets (cordage) to catch sea animals, and the archaeological record reveals their persistent reliance on shellfish and other marine life for sustenance.[12]

Perhaps the best, and certainly most unique, Archaic evidence on the Florida peninsula is found at the Windover Archaeological Site near Titusville on the Atlantic coast. There, in a peat-bottomed bog, archaeologists have unearthed an ancient cemetery with at least 168 skeletons, many of which still contain brain matter. When discovered, the bodies were uncharacteristically well preserved because of the nearly neutral pH level of the watery grave as well as the anaerobic atmosphere created by the peat that covered the bodies. The human remains date to between 7,330 and 8,120 years old, and the survival of the brain matter demonstrates the community's commitment to burying the deceased within 48 hours. Other evidence comes from the presence of grave goods that include textile wraps, antlerbone awls, shark's teeth, and stone projectile points. The pond also contains baskets, twine, and other materials rarely found in the Archaic archaeological record. Their preservation illuminates the roots of the ancient cultures that would ultimately establish themselves a few hundred miles to the south at the North Bank.[13]

The people of Windover, like the Tequestas at the North Bank, formed a largely sedentary community who survived by a combination of hunting, fishing, and gathering. They likely lived in the nut and berry-rich area in the spring and summer and perhaps wintered along the banks of the nearby Indian River. They feasted on snails and mussels from local waterways, designed prestige items like jewelry and toys, devised various tools from wood and bones, and created at least seven different textile patterns woven from palm fronds. Some of these textiles required the use of looms—another technical innovation of the era. Although some of the bodies show signs of distress and trauma, other graves revealed that the ancient Floridians had tremendous concern for the sick. The gravesite, for example, includes one woman with a belly full of what seems to be a medicine made of

berries and roots, a 50-year-old woman who had lived several years after suffering from debilitating bone fractures, and a young teenager who died after battling the symptoms of spina bifida for most if not all of his life. The latter two seemed to die of natural causes, pointing to a community that was willing to care for rather than abandon those who required assistance for their daily needs.[14]

Windover and other Archaic sites in Florida point to a divergence in the ancient world, a split that in many ways separated the experiences of coastal and southern Florida from the rest of the American South. Whereas many of the interior groups in North America began experimenting with food cultivation and ultimately corn agriculture, the Indians in south Florida pursued different ecological opportunities. These opportunistic hunters relied on a wide range of locally available animals, nuts, and plants for their survival. The ecosystem (and climate) of south Florida provided more than sufficient resources to its inhabitants. Native Floridians did not have to move very far, if at all, to avail themselves of the bounties of the various seasons. They could meet their basic and often not-so-basic needs within rather close proximity. Perhaps most importantly, the presence of water allowed south Florida Indians to fish with nets and collect shellfish rather efficiently.[15]

As the region became wetter, Florida's Indians increasingly relied on dugout canoes to crisscross their way across the peninsula. This mode of transportation allowed the Indians to exploit the interior as well as the coastline of Florida and helped facilitate trade and diplomacy with more distant groups. The use of canoes allowed people to cross the gulf, created trade routes to Caribbean islands, and otherwise fostered long-distance trade and travel. Florida's Indians also used the canoes to travel to their temporary camps in their search for specific game and raw materials. As a result, their permanent communities that they established across the southern part of the Florida peninsula—places often called base camps—came to display a greater diversity of material goods.[16]

The topography and climate of south Florida would take its contemporary shape around 3,200–5,500 years ago. Although ecological