



Southwest Florida  
Archaeological  
Society Newsletter



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### **MAY SWFAS MEETING**

Josh Toney will discuss the archaeology and ethnography of Amazonian village plans. Josh has presented his data at the International meetings of the Society for American Archaeology in Puerto Rico and will provide SWFAS a detailed summary of his findings. The Mound House at 238 Connecticut Street, Fort Meyers Beach, FL, will host his talk on May 17 at 7:00 p.m.

### **ARCHAEOLOGY AND HISTORY FESTIVAL**

By Rebecca L. Austin

Rookery Bay Environmental Learning Center, along with the Southwest Florida Archaeology society and the Marco Island Historical Society sponsored the Southwest Florida History and Archaeology Festival on Saturday, March 25 in Naples. Over 400 people attended and the weather was perfect – not too hot, not too cool. There were lectures by William Marquardt and Darcie MacMahon of the Florida Museum of Natural History; and John Beriault of the Archaeological and Historical

Conservancy. Marquardt and MacMahon's talk was on the "Estuary and its Human Legacy" focusing on the roles of the estuary as rich and diverse ecosystems that have supported human populations for over 5,000 years. MacMahon emphasized the importance of estuaries in the health of the surrounding environment – even for the health of our air quality. Beriault's talk focused on the evolution of ceramics at Rookery Bay over a 3,000-year period.

Beriault also provided atlatl demonstrations, and guided tours of a shell mound along with Rookery Bay resource specialist Steve Bertone.



Other activities included: a show entitled "Chautauqua Presentation" by the Marco Island Historical Society. This was a show of vignettes representing four people who were important in the history of the island communities of the area: Captain W.D. "Bill" Collier of Marco, portrayed by Lee Lindberg; Tommie Camilla Barfield of Caxambas, played by Betsy Perdichizzi; Lida E. Burnham of Caxambas, played by Eleanor Burnham; Deaconess Harriet Bedell, played by Marion Nicolay. The show was well received by a full house.

On the second floor of the center, the long-awaited Phase II exhibit was unveiled. This exhibit is now open to the public and focuses on 3,000 years of human history of Rookery Bay area. It includes artifacts, photos, a three dimensional map of an island with archaeological sites, a replica of a pioneer homestead porch, and audio recordings of oral history accounts. Visitors might wonder what the long white curvy display that looks like a cloth stands for; it represents the scroll used for the petition that local residents gathered signatures on in the 1960s. They lobbied for preserving the Rookery Bay estuarine reserve, and protested the development of a road through the area.



On the lawn outside, Theresa Schober and Misty Snyder of Mound House set up a display. They were busy twining necklaces and bracelets of natural fibers and teaching kids how to do this throughout the day. Other activities included palm frond weaving, a scavenger's hunt, and of course: eating barbeque!

Renee Wilson was the main coordinator of the event from Rookery Bay. SWFAS would like to thank her, and any others we may have forgotten in this summary, for their efforts in making this event an enjoyable day.

### **ARCHEOLOGICAL KAYAK TOUR TO USEPPA ISLAND**

Thursday, May 25<sup>th</sup> - 10AM - Travel with us to this unusual private island. Your guide is a Florida Master Naturalist that knows the ins and outs of the route and a lot of the history of the area. We will visit Useppa Island's museum which details 10,000 years of human habitation on Useppa. This island has a fascinating history, both ancient and modern. We will eat lunch at the historic Collier Inn and get to see the beautiful flora and interesting fauna of the island. This will be an all day tour - \$55 per person, plus the cost of lunch.

*Call Connie at:  
GAEA Guides - guided kayak nature  
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free 866 256-6388  
Website - [www.GAEAGuides.com](http://www.GAEAGuides.com)*

**ORIGINS OF A CALUSA  
CHIEFDOM: NEW EVIDENCE  
FROM USEPPA ISLAND**  
*A Lecture by John Dietler*  
Reported by Liz Clement

On March 22, 2006 several members of SWFAS attended John's lecture that was sponsored by the Florida Gulf Coast University (FGCU) Anthropology Club. John is a graduate student at the University of California, Los Angeles. John gave a brief history of the Calusa that included: social and political structure, shell tool invention and use, canoe production techniques and canal transportation. It was interesting to hear that the Calusa did call themselves "Caluse" meaning "fierce people." The Spaniards added the "a."

John's hypotheses are: 1) Would-be elites organized local craftsmen to create non-food surpluses, and 2) this brought about trading with others. John's project has been to make shell tools to analyze by-products and leftover material. He is also excavating small test pits and analyzing tools found on Mound Key, Pine Island, Big Mound Key, and Useppa.

He will have his materials carbon dated to learn if these tool production locations were in use for short or long periods of time. By studying the minerals in the shells he will also learn the location of origin. We look forward to learning more when he writes up his findings.

**FORT CENTER FIELD TRIP**

By John G. Beriault

On April 22<sup>nd</sup>, 2006, approximately 20 members of SWFAS and other interested individuals gathered at 10 AM at the gate leading into the Fort Center Site on a warm dry April Saturday morning. Ahead of us lay a long straight, slightly elevated sand road through flat cattle range with scattered live oaks. Ben Tillman, longtime area resident and a witness to the work done at Fort Center by Dr. William Sears acted as guide together with SWFAS president Corbett Torrence who elaborated on the archaeological significance of the features encountered. The walk into the site area proved to be at least 1.5 miles long, but the beauty of the rural setting and the presence of wildflowers combined with the view of distant circular mounds and causeways glimpsed at intervals along the way made the distance seem less.



Charlie Strader and Corbett Torrence on the summit of a small round sand mound in the central area of Fort Center

My first impression was that the site is immense, covering several-hundred acres with at least three long causeways or extensions ending in circular mounds and ridges/ditches running south from the central complex.

After a mile or so we entered the shade of a climax live oak hammock. Everywhere were growing wild citrus, oranges, sweet grapefruit, rough lemons with fruit in abundance. As the central complex was approached, the quiet of the hammock seemed to intensify. We stepped out into a bowl-shaped clearing/precinct, the former location of an immense sand mound ringed by a circular ridge.



View south at "D"-shaped charnal pond in the middle of the Fort Center earthwork complex. This is the site of the finding of abundant carved wooden animal totems and other decorative elements.

Near one corner was the "D" shaped charnal pond, the site of the finding of the many elaborate carved wooden animal totems and other things. As we approached numerous black vultures arose with croaking cries from around its edges. Probably these birds were scaveng-

ing dead fish from the rapidly-drying pond, but I wondered if there was an ancestral memory at play, and these were the descendants of the birds who dined on more grisly fare when bodies were laid out on platforms in this very spot. We toured the area, ate some of the sweet and abundant grapefruit in the hammock and then entered the great circular earthwork enclosure lying to the north. Eventually we came to the eastern edge of this great circle where a portion is eroding into Fisheating Creek.



View east along beautiful Fisheating Creek at a point along the eastern eroding edge of the great circular earthwork at Fort Center.

Dark gray midden soil filled with numerous pieces of faunal bone and potsherds were exposed by creek-bank energetics.

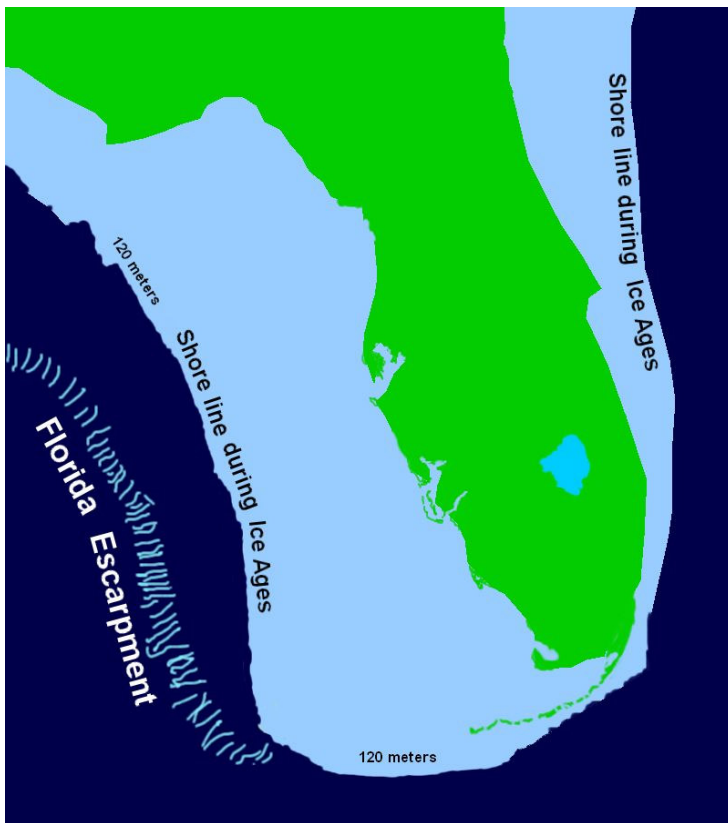
Now came the long walk back out on a really hot day. I found this trip to one of the grandest of sites in South Florida to be both an educational and spiritual experience. Our thanks to Ben Tillman and Corbett Torrence both for providing this opportunity.

## GEOLOGY RULES

By Jack Harvey

### This Month – Tarzan’s Kingdom

How deep is the ocean? Oceanographers talk about the “broad, relatively flat expanse of sea floor lying 3–6 km (2–4 mi) below sea level.” Seamounts and continental shelves are shallower exceptions while trenches down to 11 km (6.8 mi) exist. Much of the Gulf of Mexico is about 3 km (2 mi) deep. But if we drained the oceans away into space, Florida would look drastically different.



If we were on safari on the dry Gulf floor about 400 km (250 mi) west of Naples/Fort Myers we would see the gigantic Florida Escarpment roughly paralleling the current west coast of the peninsula. This two-mile high nearly sheer scarp rises from the abyssal plain of the Gulf. Tarzan’s

kingdom could be at its top and it’s one of the longest and highest escarpments on the planet. A gentler rise continues east between South Florida and Cuba, then north along the Atlantic coast. The new land of South Florida is a high plain about 650 km (400 mi) wide at an altitude of 10,000 feet. If we drained the oceans away into space.

And it’s no accident that the flat top of this high altitude plain is close to current sea level *because the sea built it*.

We learned in “Concrete Florida” about how calcium carbonate dissolved in abyssal seawater under high pressure flows up to shallow depths, where it precipitates out as calcite to form concretions of the clastic powder, sand and gravel washed out of the main continent and carried along the extending peninsula by littoral drift.

The shallow water west of Florida is a classic continental shelf, also called a passive margin by geologists since it is seismically and volcanically quiet. That’s our South Florida. These shelves typically slope about 1.75 meters per kilometer, but our shelf is even milder, only half that.

The non-volcanic land forming processes (dunes, sand bars, barrier islands, coral reefs, etc., cemented with calcium carbonate) we saw in “Concrete Florida” happen mostly in shallow seawater shores. So as the shore shifts out and in during an ice age cycle, new terra firma is “painted” across the continental shelf.

When it piles up too steeply near the low water (ice age peak) mark, great underwater landslides occur and the accumulated sedimentary rock, limestone and coral reefs tumble down into the abyssal deep. These tsunami-generating events stretched the Florida peninsula ever farther south, carrying shallow water shells to the ocean bottom.

The relentless littoral drift southward from the Gulf coast and also southward along the Atlantic coast caused the ever-lengthening Florida peninsula to extend from the far more ancient North American continent.

The Florida peninsula is mostly calcium carbonate based sedimentary stone, but the peninsula didn't grow up from the ocean floor. Instead, it grew south from perhaps the Orlando area. How fast did this peninsula growth occur? Undoubtedly the rate varied greatly depending on global climate conditions. However, we can compute a long-term average. The distance from Orlando to Key Largo is about 395 km (245 mi) and it may have taken about 100 million years for the peninsula to grow that far. That's about 4 mm (1/8<sup>th</sup> inch) a year.

The peninsula growth rate looks a little better in terms of an ice age. If (and it's a big if) major ice ages occur, on average, every 50 thousand years, the peninsula extends south by about 200 meters (660 feet) per ice age. At that rate, South Florida might reach Cuba in 25 million years but don't count on it. Cuba may have waltzed farther east by then.

## Get Real

This has been a virtual hurricane of numbers – many incomprehensible to real people not used to the geologist's typical time scale. After all, human evidence in South Florida goes back only about ten kiloyears, whereas, South Florida itself is perhaps 65 megayears old and the planet itself is around 4.5 gigayears – but there I go again. Sorry, but numbers are important to understanding our South Florida land. I'll try to put all these ridiculous figures in an understandable perspective next time.

### ABOUT SWFAS

The Directorate:

President – Corbett Torrence

1<sup>st</sup> VP – Theresa Schober

2<sup>nd</sup> VP – Tom Franchino

Recording Secretary – Jo Ann Grey

Treasurer – Charlie Strader

Membership – Charlie Strader

SWFAS Committees:

Field – John Beriault

Lab – Jack Thompson

Hospitality – Jeanne Sanders

Education – Dr. John Worth

Finance – Charlie Strader

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To Join: Address your check to:

The Southwest Florida Archaeological Society,  
PO Box 9965,

Naples FL 34101.

Dues are:

Individual - \$20. Sustaining - \$50.

Family - \$35. Student - \$15.

Send news articles to: [jakharve@earthlink.net](mailto:jakharve@earthlink.net)

Board meetings: 2<sup>nd</sup> Wednesday of the  
month at 7 PM, Hampton Inn, Bonita  
Springs  
All welcome