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October SWFAS: Rachel Wentz on Florida's Ancient Pond Cemeteries



At the October 15 SWFAS meeting, Dr. Rachel Wentz will be talking about: "Beneath the Surface: Exploring Florida's Ancient Pond Cemeteries."

Over 7,000 years ago, Florida's early inhabitants were using the numerous natural bodies of water found across the state for the interment of their dead. This presentation explores these fascinating sites, including the wealth of information that has resulted from the analyses of their remains, the beautifully preserved artifacts that were buried alongside those interred, and the possible meaning behind the use of these ponds and springs.

Currently the Director of the East Central Regional Center of FPAN, Dr. Wentz specializes in the bioarchaeological analysis of human remains with foci on ancient disease and population health. She graduated from Florida State University with a Ph.D. in Anthropology. Her master's thesis was an analysis of fracture frequencies among the Windover skeletal population, a 7,000-year-old site in Titusville, Florida. Her doctoral dissertation was a bioarchaeological assessment of the same population using the Western Hemisphere Health Index.

Dr. Wentz has also analyzed remains from Little Salt Spring and Calico Hill, both prehistoric sites in Florida. She has done skeletal work in St. Croix, England, and Ukraine. She obtained experience in forensic anthropology at the C.A. Pound Human Identification Laboratory at the University of Florida, Gainesville and received training in the analyses of stable isotopes at the National High Magnetic Field Laboratory at Florida State University. Dr. Wentz has taught courses in physical anthropology, human osteology and forensic anthropology at Florida State University.

Upcoming SWFAS Programs

- November 19th – Margo Schwadron, "Mound Complexity in the 10,000 Islands"
- December 13th – Annual Picnic at Roberts Ranch in Immokalee. *(more info on the Roberts Ranch picnic on page 3)*
- January 21st, 2009 – Phyllis Kolianos, "Early Maritime Travel and Coastal Habitation on Old Tampa Bay"
- February 18th – Franklin P. Adams
- March 21st – Trail Speaker Event at the Collier County Museum

Geology Rules: Bedrock

By Jack Harvey

Do you know a bedrock when you see one? You know it's not a hard mattress and you probably also know you have to dig down to find it. And that's about the best definition there is. It doesn't have a specific chemical composition or mechanical characteristic but it is big, not just another rock or boulder buried in the soil.

What gets called bedrock varies greatly depending on the geologic history of the part of the earth's surface where it is located. Tectonic movement of surface blocks, coupled with volcanic upwelling of magma creates a veritable crazy quilt of all kinds of rock. Most of it is far more than 100 million years old and a billion years is common.

Contrast that with the bedrock of South Florida. Ours is almost exclusively some variation on limestone. Most of it is less than 100,000 years old, some as young as 5,000 and the oldest is only six million years. This drastic difference in mix and age is, of course, because our land was not built by tectonic upheaval and volcanic processes, as my columns have monotonously pointed out.

Still, geologists have named about a half-dozen different kinds of bedrock occurring in county-sized sheets carpeting South Florida. All are limestone-based or related but were deposited under different conditions and so are made of various combinations of the materials (oolite, bryolite, lime rock, coral, etc.) described here in earlier columns.

The map with this column is derived from "Land from the Sea" by J. E. Hoffmeister. It



South Florida Bedrock Formations. Geologists have identified six different kinds of limestone-based rock formations in various areas of this map.

shows six different kinds, and not all are contiguous. For example, "Miami Limestone" is also found in the lower keys, from Key West to about Cudjoe Key. (The Upper Keys, Marathon to Largo, are of the



Tamiami Formation. Characteristic of inland Collier and Lee Counties, it is mostly limestone with some bryolite, quartz sand and shell inclusions. Courtesy Florida Geological Survey.



Anastasia Formation. This is an example of a very high shell concentration lime rock, found along much of the Southwest Florida Coast. Courtesy Florida Geological Survey.

More on the December 13 SWFAS Picnic at Roberts Ranch

On Saturday, December 13, SWFAS will meet at 10 a.m. at the Roberts Ranch in Immokalee. Lee Mitchell will give a short talk and lead a tour, and then members will break to enjoy a picnic lunch (bring your own). There will be chairs.

There will be more info in upcoming issues of the newsletter.

Directions to the Roberts Ranch

From Immokalee Road

- Take Immokalee Road to the intersection of Main and State Road 29
- Turn left on Main Street

- Go one (1) mile north to the junction of Main and Roberts Avenue
- Turn right onto Roberts Avenue (at Popeye's Chicken)
- Entrance to museum is on the right

From CR 846

- Take CR 846 east to downtown Immokalee.
- Continue straight- through first traffic light (Main Street) along North 1st Street
- Take second left hand turn and continue along Roberts Avenue West for nine (9) blocks until you reach the parking area for the ranch on the left hand side of the road.

John Beriault's September Talk

On September 17, John Beriault delivered an interesting (and at times, tongue-in-cheek) talk on "Archaeology and Plants: Beating the Bushes for Archaeological Sites in Southwest Florida."

John, a life-long Collier County resident, founding member of SWFAS, and contract archaeologist used slides to illustrate one method archaeologists can use to locate archaeological and historical sites. Sometimes, above-ground native plant formations and associations

can reliably mirror below-ground archaeological sites and material. Archaeologists can use this information to locate, investigate, and hopefully preserve area archaeological sites. However, with his characteristic humility, John noted that his rules for finding sites work most of the time (except when they don't).

Beriault has been a life-long avocational archaeologist and has worked professionally for the last ten years for the Archaeological and Historical Conservancy of Davie, Florida.

Upcoming Programs of Interest

At Koreshan State Park

- October 1-4 -- The Communal Studies Association, a national organization studying communal life styles, will hold their annual conference in Fort Myers and at Koreshan State Park in Estero. Along with presentations about the Shakers and other groups, there will be several presentations on the Koreshans as well as tours of the site. For more info, contact R. Lynn Rainard, Ph.D. at Tidewater Community College in Chesapeake, VA at lrainard@tcc.edu; 757/822-5226.

At the Marco Island Historical Society

- October 2 -- Panel of "Old Timers" explore "Roots of Marco's Past." A panel of old-timers who lived on the island before the 1950s will discuss their memories of Marco Island, Goodland and Caxambas. Panel members are: Henry Lowe, Lois Howard Crews, Carson Bomar,

Marilyn Simes Sims, Michael Griffins, Lucille Doxsee Thompson, Curtis Wyman Bostick, and Nellie Hamilton Whitehurst. The panel will be moderated by local attorney, Craig Woodward, whose family moved here in 1967.

- November 4 -- Bill Marquardt of the Florida Museum of Natural History, 7 p.m. Mackle Park, talks about collections and the preservation policies for a museum.

Mark Your Calendar

- February 6 - 8, 2009 -- 2nd Annual Stone Age and Primitive Arts Festival at Ochlockonee River State Park in Sopchoppy. There will be demonstrations of flint knapping, projectile point fashioning, deer hide brain tanning, bone, wood and antler carving, plus you can observe bow-and-arrow construction, basket weaving and early pottery. Contact Linda Trice, P.S.S., 850/962-2771 or Linda.trice@dep.state.fl.us. Admission \$3 per vehicle.

Geology Rules -- from left

Key Largo Limestone.)

The southwestern coastal region around Fort Myers, Naples and Marco Island is of the Anastasia Formation, but this formation is also found on the east coast around West Palm Beach. The Tamiami Formation, which comprises most of inland Collier County, is also found north of the Caloosahatchee River in Charlotte and Glades Counties.

These rock formations are, like prehistoric pottery, often named for a location or region where they were first identified. The Anastasia Formation, for example, is named for Anastasia Island near St. Augustine, so it's found pretty widely. Unlike aboriginal ceramics, the differences between these six kinds of bedrock are often difficult to spot. All are likely to have shell inclusions (lime rock-like) and many will

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Geology Rules -- from page 3

have evidence of bryolite, oolite and coral.

For example, Anastasia rock has a very high concentration of many species of shell, so much so that it is often used as an ornament. On the other hand, Tamiami Formation rock has far less visible shell but has inclusions of quartz sand and gravel with some fossil barnacle and foraminifer molds. These are shown in the photos.

The map implies hard boundaries between the various South Florida bedrock formations, but they are rather broad transitions where the two kinds blend in various mixtures. The transitions are not smooth either, and small "islands" with concentrations of one kind will be found surrounded by the other kind.

Moreover, the differences between formations are not always as clear cut as the photos of Anastasia and Tamiami show. Miami Limestone looks similar to the Tamiami Formation but is generally much younger.

An economic feature of the Tamiami Formation is that

it often has significant inclusions of phosphates or potash, important sources of potassium for agricultural fertilizer. Much of this potash is formed from decomposed wood, telling of vast forests in this formation's past.

These bedrock layers are the top of the South Florida sandwich and they vary in thickness from a few centimeters to dozens of meters. Being on top in a passive margin simply means they are the newest strata; older rocks lie beneath.

In the ancient continent to the north, rock strata and their chemical makeup often show the history of chaotic volcanic and tectonic uplifts that formed them. But our South Florida formations instead tell of sea level and climate changes, and of the changing ocean currents they brought.

Since sea level and climate are rather closely linked by continental ice changes, we'll look deeper into these transformations since aboriginal man first arrived in South Florida, next time.

About SWFAS

The Directorate:

*President - Theresa Schober
1st VP - Tom Franchino
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Treasurer - Charlie Strader
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SWFAS Committees:

*Field - John Beriault
Lab - Jack Thompson
Hospitality - Jeanne Sanders
Newsletter - Karen Nelson*

*If you would like to join SWFAS, please address your check to: The Southwest Florida Archaeological Society; P.O. Box 9965; Naples, FL 34101
Dues are: Individual - \$20; Sustaining - \$50; Family - \$35; Student \$15*

Learn more about SWFAS at:

<http://www.explorationsinc.com/swfl-archaeology/index.html>

Board meetings are usually held prior to the regular meeting on the third Wednesday of the month at the Bonita Springs Community Hall at 27381 Old U.S. 41 (by the banyan tree). All are welcome. Board meetings begin at 6 p.m. Regular meetings begin at 7:30 (with coffee served at 7).

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The Southwest Florida Archaeological Society
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