



**Vol. 24 No. 3**

**March 2008**

## **March 19 Lecture by Robert Tykot at FGCU** *No SWFAS Meeting in Bonita Springs*

### **BC/AD in the New World: Using Bone Chemistry to Study Ancient Diets**

Robert H. Tykot, Professor of Anthropology at the University of South Florida, will be speaking at Florida Gulf Coast University on Wednesday, March 19 at 7:30 p.m. on "BC/AD in the New World: Using Bone Chemistry to Study Ancient Diets." The talk is co-sponsored by the Southwest Florida Archaeological Society (SWFAS) and the FGCU Anthropology Club.

Tykot's lecture will focus on determining the diet of ancient New World cultures by using the chemical analysis of skeletal tissue. He will be speaking at the Sugden Welcome Center at FGCU; it's in Building 18, which is near the campus entrance. The lecture is free.

Tykot, John Staller and Bruce Benz co-edited "Histories of Maize: Multidisciplinary Approaches to the Prehistory, Linguistics, Biogeography, Domestication, and Evolution of Maize." Published in 2006, this volume is the most comprehensive examination (704 pages) of the role that maize (corn) played in the ancient Americas.

Tykot will explain how stable carbon, nitrogen, and oxygen isotope analysis of skeletal tissues is used to quantify the proportions of C3, or temperate, and C4, or more arid-adapted, plants (e.g. maize), and the contribution of freshwater and/or marine resources to otherwise terrestrial diets.

This isotope analysis allows the comparison of individual dietary practices with variables such as sex and/or status, as well as ecological, cultural, and chronological settings. Also, he will present a synthetic perspective for the New World based on collagen (bone protein), apatite (bone mineral), tooth enamel, and hair data from many sites in North, Central, and South America, and especially including recent work in Florida.



*Robert Tykot in 2005 on the Argentina side of the Andes.*

Robert H. Tykot is a Professor of Anthropology and the Director of the Laboratory for Archaeological Sciences at the University of South Florida. He holds an MA in Classical Archaeology from Tufts University and a Ph.D. in Anthropology from Harvard University. He has authored and co-authored over 100 books, articles, and scholarly publications, and has given more than 50 public lectures. His website may be found by searching Google for "bone chemistry" (<http://shell.cas.usf.edu/~rtykot/>).

For more than 25 years, he has worked on obsidian in the central Mediterranean, including a recent survey and analysis of the obsidian sources on Sardinia, Lipari, Palmarola and

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## Calusa Heritage Day at Randell Research Center

By Michael Wylde

February 23 was the annual Calusa Heritage Day, hosted by the Randell Research Center at the Calusa Heritage Trail in Pineland on Pine Island. It was a great day weather-wise, and the many participants all had a great time, sharing their knowledge with the public. Dr. Karen Walker and Dr. Bill Marquardt of the Florida Museum of Natural History and the RRC drew together an amazing array of talent for the event.

In the classroom, archaeologists from the museum had display tables reflecting different aspects of the archaeology of the Pineland site, including zooarchaeology and archaeobotany displays by FLMNH's Irv Quitmyer and Donna Ruhl. On the deck outside, local author D.L. Havlin entertained the crowd with tales from Florida's cracker days. An entire area of the site near Brown's Mound



*Photos by Rebecca Austin*  
*SWFAS founder John Beriault makes a clay sculpture at Dr. Robin Brown's table.*

was set-aside for artists and primitive technology replication. Merald Clark, noted artist and illustrator for the Calusa Heritage Trail, was in attendance, as were artists Sue Ellen Hunter, Hermann Trappman, David Meo, and Denege Patterson. Calusa pottery technology was demonstrated by noted author Robin Brown and SWFAS's John Beriault (the firing of the pots was on March 1st, at the site). Dick Workman

and Rick Tully demonstrated fiber technology and weaving, and Terry Powell of St. Petersburg had an amazing display of Calusa shell and wood tools that he encouraged the public to try out. Atlatls were thrown, stone tools were made, conch horns blown, and a good time was had by all. There were Calusa 'snacks' made available too: grilled mullet, local clams, and fresh papaya.

There were also ten local environmental and eco-tourism organizations set up along the trail, and local captain Brian Holaway of Relax and Explore Tours offered a four-hour boat trip to be raffled off, and Tropic Star of Pine Island gave away a boat trip as well.

At 2 p.m., Dr. Marquardt gave a talk on "Calusa Archaeology Since Cushing" to a packed classroom, with many people hanging into the doorways to hear the talk.

The entire anthropology staff from Florida Gulf Coast University was in attendance at the Festival, as well as Paul Backhouse and Marion Smith, archaeologists for the Seminole Tribe of Florida. Several FGCU anthropology students also attended. For those others of you who attended, thank you for your support; for those of you who did not, plan to be there next February 21, 2009. It was a great way to spend a day "doing archaeology."



*Photos by Rebecca Austin*  
*Far left: Terry Powell demonstrates replicas of a Calusa wood and shell tools. Left: Michael Wylde of Randell Research Center explains how stone knives and points are made.*

## April Events

*Alison Elgart, Ph.D.* will speak at the April 16 SWFAS meeting in Bonita Springs on "Life and Death in the Late Archaic of Southeastern Florida." She will talk about a cemetery discovered at the Hiatus #2 site (DA3283), a Late Archaic to Glades Period site located on the Pine Island Ridge in Broward County, comparing those mortuary patterns to those in other contemporaneous sites on southern Florida. Elgart holds a Ph.D. from Cornell University and teaches biological anthropology at FGCU.

*Patsy West* will speak to the Bonita Spring Historical Society on April 8 with a unique presentation on the Native Seminoles with whom she has formed a close relationship. She is the author of "Enduring Seminoles" and "A Seminole Legend: The Life of Betty Mae Tiger Jumper". West writes a column for the *Seminole Tribune* and is the director of the Seminole/Miccosukee Photographic Archive in Fort Lauderdale, Florida. The author's books will be available for purchase. (See March 11 right for details.)



## Upcoming Events

March 2, 3 pm ***Art Interprets History: Visions of Marco Island's Past*** opens at the Art League of Marco Island, 1010 Winterberry Drive, Marco Island. An exhibit of the commissioned art work depicting scenes from Marco Island's past will be displayed through March, along with the artists' and scholars' statements. The collaboration reflects the use of the historical and archaeological records to inform the artists' renderings.

March 5, 2 pm ***Florida's Delicious History: A Gastronomic Journey Through Modern Florida***, East Naples Branch Library, 8787 Tamiami Trail East, Naples. Florida's food and restaurants are as diverse as its people, and have changed throughout the 20th century. Food scholar Andrew Huse offers a gustatory romp through modern Florida's cuisine, with a look back at union soup houses, African American jook joints, shady speakeasies, drive-in burger stands, barbecue pits, fish fries, and palaces of luxurious leisure. From the rarefied cuisine of the super-rich to the humble home-style foods of city and hamlet, food habits queasy and quirky are explored.

March 11, 7 pm ***Real Florida: The History and Legacy of the Native Landscape***, Community Hall, 27381 Old 41, Bonita Springs at the Bonita Springs Historical Society. Following a video presentation that details the changes in two Florida coastal communities, maritime anthropologist Mike Jepson discusses the changes in the lives of the residents and the landscape of their communities.

March 13, 6 pm ***African American Experience in Florida: The Rosewood Incident***, Mid-County Regional Library, Meeting Room C, 2050 Forrest Nelson Blvd, Port Charlotte. Reservations required. Rosewood, Florida was an African American village in western Levy County that was



*On Marco: The Mask Makers by artist Jonathan Green*

burned beyond recognition by a group of angry whites. FSU history professor Dr. Maxine Jones, author of a 1993 report to the Florida Legislature on the Rosewood Incident as well as other books on African American history in Florida, presents the true story of the Rosewood incident.

March 29, 7 pm ***Florida Cracker Cowboys***, Clewiston Museum, 109 Central Ave, Clewiston. Judge Nelson Bailey, dressed in period garb, is a classic storyteller about Florida cracker cowboys and their lives. His presentation includes portrayals of the daily activities and routines of Florida cowmen.

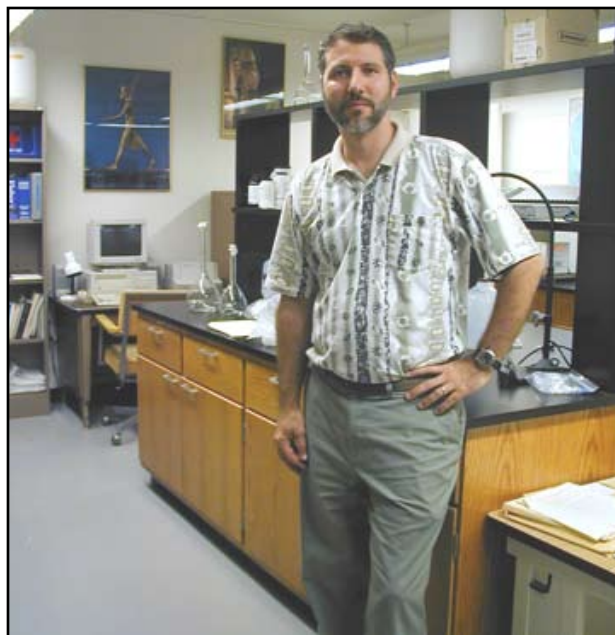
***Old Florida Festival*** is the Collier County Museum's signature event held annually on the last weekend (Saturday & Sunday) of March in Naples. To request a free calendar of events, programs and exhibits presented throughout the year, contact the Collier County Museum: (239) 774-8476

## Robert Tykot, from page 1

Pantelleria and of artifacts found at Neolithic archaeological sites throughout the region.

He has also conducted excavations at a Bronze Age site in Sardinia where a metal workshop was discovered, and a survey and excavation at Sennixeddu in Sardinia, a large obsidian quarry and workshop area, and is now beginning a large multi-year field program in Sicily. At the same time, his expertise in isotopic analysis of skeletal remains led to studies of fishing practices in coastal Italy, and of maize agriculture in New World societies. These projects have included analyses of South American mummies to look at seasonal variation in diets; differences based on social status in Mesoamerica; and the importance of marine resources in Florida.

His research emphasizes scientific analysis of archaeological materials, especially elemental and isotopic studies, to investigate trade, technology, and dietary patterns in many parts of the world, including Algeria, Argentina, Belize, Bolivia, Chile, China, Cyprus, Ecuador, Egypt, France, Greece, Guatemala, India, Italy, Malaysia, Mexico, Peru, Romania, Tunisia, Turkey, South Africa, Sweden and the United States.



*Tykot in the lab*

# Geology Rules: Stratigraphy

By Jack Harvey

The ground beneath our feet is a layer cake telling a story about the past, illustrated by fossils and artifacts like nuts in the layers. Stratigraphy is a fancy word for the scientific study of this layer cake. The science has been adapted by archaeologists to help understand ancient human lives.

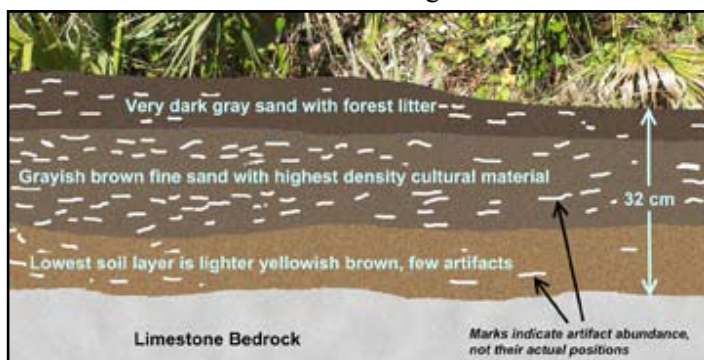
The famous Lucy hominid skeleton is a classic example of how stratigraphy can indirectly tell the age of fossil bones that can't be accurately dated themselves. Since they were sandwiched between layers of volcanic rock, the layer ages bracket the bone age. Embedded in a middle layer of sandstone, the bones were protected from the violent eruption that deposited the upper volcanic layer. Isotope dating showed that the upper layer was 3.2 million years old and 600,000 years younger than the volcanic rock layer below the Lucy sandstone.

Such great expanses of time aren't useful for Florida archaeology since humans weren't here that long ago. But stratigraphy can still help understand the 10,000-year time span typical of South Florida. While we don't have volcanic rock punctuating the story, there are many other layers giving clues to aboriginal life.

Mounds are a common archaeological theme and much understanding comes from analysis of the refuse layers created by early societies living in fixed or semi-fixed locations. These middens are not only artifact treasuries, but the very color of their soil layers tell of activities and living arrangements. Short lens-like gray layers are often ash from fire pits. Black layers may signal long-active living areas. And their tales are organized in time by Nicolas Steno's rule that (unless strong evidence to the contrary is seen) upper layers are younger than lower layers.

Even when contrary evidence is found, it often has a new story to tell. Robert Austin speaking at our November 2007 meeting explained how Indian mounds at the Bayshore Homes site in St. Petersburg, FL, had material in inverted date sequence showing that it had been moved from one location to another.

Human-built mounds are among our best sources for



*Reconstruction of Test Pit 1 layers, after the sketch from the Heineken Hammock report by Craighead Laboratory.*



*Human-made layers at Mound House being discussed by Theresa Schober.*

information about pre-historic times. Vertical slices through these layer cakes display graphic views of their history. Examples are "A Window to the Past" at Spanish Point, where we visited during our field trip of July 2002, and the underground chamber at Mound House on Fort Myers Beach. (Some of you helped with its excavation in 2006.)

But the stratigraphy of man-made mounds is drastically different from the layers that dated the Lucy skeleton and not only in the vastly different time scale. Geologic processes like volcanism, plate upheaval, erosion and sedimentation usually cover huge areas with layers of similar material. In South Florida, geologists identified a contiguous limestone layer covering all of Dade and parts of Monroe and Broward counties that was formed about 100,000 years ago. This layer (the Miami Limestone) is often only a few feet thick, but in places may be up to 100 feet in depth.

Another layer in scientific news in recent decades is the so-called K-T boundary which is nearly planet-wide. This thin layer (typically a few inches) characterized by a high level of iridium and shocked quartz grains is generally accepted as resulting from the meteor impact at Chicxulub, Mexico causing extinction of large dinosaurs 65 million years ago.

Hunter-gatherer societies often migrate to find food and although South Florida aboriginals with easy access to plentiful seafood had more fixed or semi-fixed dwelling places than usual, there is still evidence of human habitation where mounds weren't built. Artifacts are sometimes found buried in the earth at sites where there is no significant human-built mound.

An example of this was presented by Steve Koski at our October 2007 meeting. He described a survey of the flat ground around Little Salt Spring where many auger tests drilled down about six feet. While the survey results haven't been published yet, early indications were that artifacts were found deep below the present surface.

Another flat ground example is Heineken Hammock (8CR231) investigated by SWFAS from 1983 through 1995 with results published by Craighead Laboratory in May 1998. This showed clear indications of human activity at depths about a foot below the current forest surface.

These and similar results at other non-mound sites raise nagging questions. *Where did the soil above these artifacts come from?* What put it there if not humans? Putting it another way, how did these artifacts get so far below the surface? Did



# Mound House Update

By Elizabeth Clement

On the 20th of February, 2008, twenty-two people attended the SWFAS monthly meeting held at 7:30 PM in the Bonita Springs Recreation Center. Theresa Schober, our president and the Mound House Director, presented a very interesting talk about the latest progress and findings in the Mound House restoration.

As many members have learned over the years, the Mound House is situated on the top of a Calusa shell mound on the back bay side of Fort Myers Beach. The February SWFAS newsletter detailed much of the project history and restoration, and the landscaping plans. With the use of slides, Theresa explained how the \$1.4 million grant budget is being used to create this educational and cultural public learning center.

The 800-square-foot swimming pool that was once built into the shell mound has been excavated to the base of the mound and is now covered by a roof level with the top of the mound. With proposed native vegetation and fruit tree landscaping, a visitor to the site will not see the new underground exhibit from the front of the property, helping to set the 1920s ambience for the historic house on top of the mound.

At the base of the mound excavation, many post holes were observed – some that appeared to be arranged in pairs in a circle, as well as shell debris, ash pits, and a ceramic pipe with plant material inside.

The earliest dates for the site suggested mound construction began approximately 2,000 years ago or a little earlier.

It was interesting to note that this shell mound was undulating on its different surfaces. It was not constructed evenly through time. In the middle of the mound, for example, evidence suggests three different small mounds were present that were possibly used by individual families. Later mound deposits joined together these smaller mounds and the upper layers of the mound evidence more intensive mound building through time. Radiocarbon dates of the shell layers were not sequential, indicating large quantities of mound material was brought in from older archaeological sites or older areas of the Estero Island site. When the site was abandoned around A.D. 800, mound construction also stopped at many other sites in the region. The population shifted to certain sites, such as Mound Key, where mound building intensified further.

We look forward to visiting this amazing exhibit in 2009.

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## Collier Commissioners Takes Dyches Property off the “A” List

By Betsy Perdichizzi

The Dyches' property on Marco Island (site of the historic old Barfield House in Caxambas now called the Estate Section) was one of many properties under consideration for acquisition by the Advisory Committee; most of the properties are in Naples.

Following earlier discussion the Conservation Collier Committee had voted five to three to place the Dyches property on the "A" list for consideration for purchase. When the issue came before the Collier County Board of Commissioners for approval in late January, the Commissioners voted unanimously to remove the acquisition of the Dyches property from the "A" category to the "C."

The Historical Society has promoted purchase of the Dyches property with or without the house to expand Otter Mound Park, to solve the easement situation, serve as a buffer, and expand the parking.

The Society believes acquisition of the Dyches property is consistent with Conservation Collier Ordinance: "To manage acquired environmentally sensitive lands with the primary objectives of maintaining and preserving their natural resource

values, and providing appropriate natural resource-based recreational and educational opportunities, by employing management techniques that are most appropriate for each native community so that our natural heritage may be preserved and appreciated by and for present and future generations."

It is unfortunate that the BCC is willing to discard the home site of a member of the first BCC of Collier County, Jim Barfield, and the first Superintendent of Schools and birth mother of Collier County, Tommie Barfield. Next to Baron Collier, these two individuals are, by far, the most notable individuals ever to reside in Collier County.

There was no discussion among the Commissioners after Conservation Collier and the Audubon Society and one neighbor spoke against the purchase.

At the BCC meeting, the Conservancy promoted a parcel that was on the C list and the Commissioners voted to put it on the A List. The A list goes forward to look for funding, although final decisions are made at later dates when the staff has done the work and appraisals have been completed.

It was a disappointing turn of events for the Historical Society, which put in hours and hours of work.

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## Geology, from left

humans (or animals) dig holes and bury them? Or did they simply sink through the soil? Perhaps dust fell from outer space and covered up the artifacts. This last suggestion has come from many sources, but has been pretty thoroughly refuted. Since humans first arrived in Florida, the space dust accumulation has been less than the thickness of a hair.

Was the upper layer of earth blown there by wind, or eroded down from higher elevations? But if so, where did it

come from? We don't have Georgia's Blue Ridge Mountains as ready sources of material to blanket county-sized areas. While the southern Marco Island coastal dunes were windblown, the Heineken Hammock area (near Interstate-75 and Santa Barbara Boulevard in Collier County) certainly isn't dune country.

How this flat soil came to bury 4,000 year old artifacts may shed light on aboriginal life. We'll look for the Keys to this puzzle next time.

**Don't forget to renew your membership -- all memberships expired in January!**

## SWFAS 2008 Officers & Trustees

The candidates for the 2008 Officers and Trustees were accepted by the vote of the SWFAS general membership at the February meeting.

### OFFICERS:

President: Theresa Schober  
1st VP: Tom Franchino  
2nd VP: James Oswald  
Recording Secretary: JoAnn Grey  
Treasurer: Charlie Strader  
Membership Sec: Charlie Strader

### TRUSTEES:

First year of 3 year term:  
- Rebecca Austin  
- Alison Elgart  
Second year of 3 year term:  
- John Beriault

- Betsy McCarthy  
- Jean Belknap  
Last year of 3 year term:  
- Jack Thompson  
- Betsy Perdichizzi  
- Liz Clement

## About SWFAS

### *The Directorate:*

*President - Theresa Schober  
1st VP - Tom Franchino  
2nd VP - James Oswald  
Recording Secretary - Jo Ann Grey  
Treasurer - Charlie Strader  
Membership Secretary - Charlie Strader*

### *Trustees:*

*Rebecca Austin, Jean Belknap, John Beriault, Liz Clement, Alison Elgart, Betsy McCarthy, Betsy Perdichizzi, Jack Thompson*

### *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).*

## March 2008 Newsletter

**The Southwest Florida Archaeological Society  
P.O. Box 9965  
Naples, FL 34101**