



Vol. 23 No. 10

November 2007

## Backyard, Frontyard -- Everything Still in Place (Sort of): Archaeology in the Suburbs

Archaeologist Robert Austin will be speaking at the Wednesday, November 21 SWFAS meeting. Since 1997, archaeological research within a 1950s suburban housing development in St. Petersburg has contributed new information on the Bayshore Homes archaeological site and late Weedon Island occupation of the Pinellas peninsula.

Work at this mound and midden complex has benefited greatly from the interest and cooperation of local residents who live on top of much of this important site. Despite modern development, significant portions of the complex remain intact and recent surveys and test excavations have substantially expanded the physical boundaries of the site and provided new information on site chronology, subsistence, and site structure. Dr. Robert Austin will discuss this recent work and the important role that local residents and volunteers have played in furthering research and preservation efforts.

Robert Austin has worked as an archaeologist in Florida for nearly 30 years and presently is Vice President and Principal Investigator at Southeastern Archaeological Research, Inc. He received his M.A. in Anthropology from the University of South Florida and the Ph.D. in anthropology from the University of Florida.



*Archaeologist Robert Austin at the Bayshore Homes archaeological site.*

## October recap: Little Salt Spring terrestrial survey update by Steve Koski

With funding through the Division of Historical Resources matching grant program and University of Miami, Steve Koski directed a shovel and auger test survey with New South Associates of the 112.5 acre area surrounding Little Salt Spring (8SO18). The spring, located just two miles north of Warm Mineral Springs, was donated to University of Miami by General Development in 1982. Previous research was focused within the spring itself, found to contain Middle Archaic artifacts representing activity areas and burials (ca. 5000 to 7000 B.P.) Numerous wooden stakes were also identified on the lower slope of the basin 35 to 40 feet below

the surface. Underwater explorer Bill Royal discovered the site in 1959. Royal brought archeologist John Goggin and marine biologist Eugene Clark into the project who reported on the human remains. Carl Clausen became involved in the site when the state set up their first marine archaeological research facility in 1975. That same year, the famous 12,800 year old stake was recovered in an extinct tortoise and made the cover of Science magazine in 1979. The presence of a wetland slough containing Archaic Period burials (8SO79)

*See Little Salt, page 2*

## Marco Island: Art Interprets History

Marco Island's history, buried under bustling residential and commercial development, soon will be coming to light through artwork and public programs.

Archaeologist Michael Russo, PhD., well-known national expert on the Archaic shell ringed village and mound site discovered on Horr's Island in 1988 will join prominent artists Paul Arsenault and Stephen Muldoon for the debut of the art lecture series *Art Interprets History: Visions of Marco Island's Past* to be held on Tuesday, November 6, 2007. Dr. Russo will offer insights into the history of Horr's Island, the site of Archaic Indian occupation and pineapple plantation from 7 - 9 pm at the Mackle Park Civic Auditorium located at 1361 Andalusia Court in Marco Island. A field trip led by Dr. Russo to Horr's Island includes a guided tour to an Indian burial mound, shell ring and other historic sites including the remains of Captain Horr's tabby home, will take place on Wednesday, November 7 at 9:30 am. Both the lecture and tour are free and open to the public.

Michael Russo earned his PhD in archeology from the University of Florida in 1991. At that time, his

dissertation on the Archaic shell ringed village and mound site on Horr's Island was the earliest permanent settlement known on the North American coasts. Since then he has identified and studied other Archaic shell rings and mounds along the coasts of South Carolina, Georgia, Florida and Louisiana. He has written numerous articles and chapters on Archaic coastal settlement, and most recently wrote the National Historic Landmarks theme study for all Archaic shell rings and mounds. He led the team that placed the Fig Island complex in South Carolina as the first Archaic shell ring and mound identified as a National Historic Landmark (NHL). In the process, he has identified Horr's Island as a site of national significance needing NHL certification for its protection and recognition. He is currently working with local groups and agencies in the Marco Island area to begin the long process of listing the Horr's Island site as a National Historic Landmark. His talk will include a briefing on these efforts and provide an overview of the Horr's Island Archaic site, now famous in archeological circles.

The four-month series features renowned archaeologists Michael Russo, Robert Carr and William

Marquardt and maritime historian Robert Macomber discussing Marco Island's past and conducting guided field trips. Guest lecturers and artists will also work in partnership with the Collier County Public School to conduct programs and field trips to art classes. The series culminates with a month-long exhibition of the original artwork at the Art League of Marco Island in March 2008.

"Horr's Island is a rare place that has been inhabited for more than 5,000 years. This is one of the first occurrences of a permanent village with a ceremonial town center in North America," reports Dr. Russo. "The shell mounds are intact and serve as an immediate chronicle of life at that time. Before that, people were nomadic wanderers who gathered food and were ruled by consensus," he adds. Dr. Russo believes that temple and burial mounds at Horr's Island indicate a chieftain society and settlement undoubtedly due to the abundance of fish and shellfish as there was no need to wander to search for food.

*Art Interprets History* is a multi-phased project combining lectures and field trips with original art work representing scenes from Marco Island's history. The artists include: Senior Curator of the project, Paul Arsenault, Jonathan Green, Robert Charles Gruppé, Stephen Muldoon, and Rachel Kennedy.

Spearheaded by the collaborative efforts of the Marco Island Historical Society (MIHS) and the Art League of Marco Island, the series is designed to blend the humanities disciplines of history, archaeology, and anthropology with visual art to create awareness of the people and events of Marco Island's past just as Wells Moses Sawyer, a talented artist photographer, accompanied by Frank Hamilton Cushing on the Pepper Hearst Expedition to Marco Island in 1896, accurately recorded, by paint or photograph, the artifacts that were discovered.

"It is interesting to incorporate



*Painting of the Old Marco Inn, which will be displayed as part of the Art Interprets History series.*

## Little Salt, from Page 1

was demonstrated in the 1980s during the construction of Price Boulevard. The remaining intact area of the burial slough is now largely preserved through the efforts of members of the Warm Mineral Springs/Little Salt Spring Archaeological Society and TimeSifters Archaeological Society working with Sarasota County,

The Archaeological Conservancy, Selby Foundation, and the City of North Port to acquire 25 platted lots for an archaeological and ecological preserve. Currently, the University of Miami operates a research facility at the site directed by Dr. John Gifford, who teaches an annual course in techniques in underwater archaeology.

The terrestrial survey involved excavation in 2006 and 2007 including 425 shovel tests and 88 auger tests dug from 1-2 meters deep that further defined the geographical area and use of the site. Most of the recovered material included a sparse lithic scatter with dietary bone representing short term seasonal campsites, with an association noted between shallow limestone deposits and an increased density of cultural material. Analysis of the research results is ongoing, including a quarry cluster analysis of lithic material in an attempt to identify the source of chert used at the site. A smaller percentage of material was a black stone found within the spring over the last several years that appeared to coincide with a greater focus of activity based with more, larger flakes and greater diversity of tool types including retouched and unifacial scrapers and one projectile point. This material is hypothesized to represent an earlier occupation, potentially Archaic or late Paleoindian. The later deposits included the first Sand-tempered Plain sherd recovered at the spring in addition to one columella horse conch cutting-edged tool similar to others found underwater.



*Auger testing during the Little Salt Spring terrestrial survey.*

## Marco, from left

the ancients with this special Southwest Florida coastal landscape,” explains Arsenault. “Our artwork must be more interpretative because there’s only a few remaining photographs. The early village delineates the different areas of the village the hierarchy of working people in the back and the central court. It’s amazing that these people pre-date the Calusa Indians,” he adds. Arsenault is confident paintings from this series will help build momentum to raise additional funds for the Marco Island Museum.

Paul Arsenault began painting at the age of 16 when he won the Frank Vining Smith Award, competing with a number of adult painters. Following graduation from the Art Institute of Boston in 1973, he joined the Research Vessel Gosnold at Wood Hole Oceanographic Institute. Following the advice of legendary Florida landscape painter, A.E. “Beanie” Backus, to “Jump ship and start painting,” Arsenault set up his base

The Marco Island Historical Society is currently raising money to build a museum (and they’re hoping to bring the Key Marco Cat back home to Marco). Reports Betsy Perdichizzi, “The total we have raised to date is just over \$1.8 million. Outstanding, isn’t it? Our new goal for May 2008 is \$2.3 million.”

of operation for the past 30 years in Old Naples, Florida and established a summer gallery on Nantucket. His art work has taken him to over 35 countries and 5 continents. Paul’s art work hangs in museums, corporate collections around the United States. [www.paularsenault.com]

Based on Marco Island, Stephen Muldoon is a third-generation artist originally from Put-in-Bay, Ohio. He has been painting in oil since he was 16 and had his first one man

*See Marco, page 4*

## Other Local Events of Interest

SWFAS Board member John Beriault will be discussing the “Native Plants of the Calusa Shell Middens” on Thursday, Nov. 8 at 7 p.m. at the Rutenberg Facility, 6490 South Pointe Boulevard in Fort Myers for the Florida Nativa Plant Society.

The Florida Native Plant Society is also offering a **field trip to the Randell Research Center** on Saturday, Nov. 10 at 10 a.m., guided by knowledgeable archaeologists and botanists from the Florida Museum of Natural History. For info or to pre-register, please call Carolyn Murphy at 239/283-6266.

### SWFAS December Field Trip to Sanibel’s “Ding” Darling

As of press time, SWFAS is planning a trip to the J.N. “Ding” Darling National Wildlife Refuge on Sanibel for the December field trip; dates will be announced at the November SWFAS meeting.

“Ding” Darling offers superb wildlife viewing from the five-mile Wildlife Drive and observation tower. The Visitor Center has fascinating displays about local wildlife and habitat, as well as a replica of Refuge namesake, Pulitzer Prize-winning political cartoonist “Ding” Darling, who was the moving force behind the establishment of the Refuge. There was a significant shell mound complex at the Refuge’s western edge, and the Shell Mound trail winds around three low mounds. A larger mound on private property, the Wightman site, excavated in the 1970s and 1990s was part of this mound complex.

In the first half of the 20th century, an enterprising Sanibel resident had set up a tourist attraction on the mound site, calling it “mysterious island.” John Goggin visited it in the 1940s, noting the mounds and shell causeways. Little remains today except for the low shell mounds can be seen from the Shell Mound Trail.

As you drive through the Refuge, the impact of Hurricane Charley is also still very evident. The Shell Mound trail was formerly canopied by old-growth Black and Red Mangroves (reminiscent of the Mound Key water court); most of the trees were lost in Charley. Mangrove seedlings are springing up and nature is renewing itself.

### Marco, from Page 3

show at age 19. Stephen not only works on canvas painting in oils, but his work is well known on murals inside numerous homes. [[www.muldoonart.com/index.htm](http://www.muldoonart.com/index.htm)]

*Art Interprets History* is made possible through grants from the Florida Humanities Council (FHC), the state affiliate of the National Endowment for the Humanities and the Florida

State Division of Cultural Affairs and is proudly sponsored by M&I Bank Marco Island, Florida. FHC is an independent, nonprofit organization that funds public programs throughout the state of Florida. FHC funded programs explore Florida’s history, folklore, environment, literature, music and art. For more information, visit the Marco Island Historical Society website [www.theMIHS.org](http://www.theMIHS.org).

## Nominees for SWFAS 2008 Officers & Trustees

SWFAS Board members have submitted a list of candidates for the 2008 Officers and Trustees. The SWFAS general membership will vote at January’s monthly meeting, and nominations from the floor will be accepted until the vote.

- Kara Bridgman Sweeney
- Betsy McCarthy
- Jean Belknap

Last year of 3 year term:

- Jack Thompson
- Betsy Perdichizzi
- Liz Clement

### OFFICERS:

President: Theresa Schober

1st VP: Tom Franchino

2nd VP: James Oswald

Recording Secretary: JoAnn Grey

Treasurer: Charlie Strader

Membership Sec: Charlie Strader

Newsletter Editor: Karen Nelson

### TRUSTEES:

First year of 3 year term:

- Rebecca Austin
- Alison Elgart

Second year of 3 year term:

- John Beriault

To introduce new Board nominee Alison Elgart to SWFAS members, here’s her bio:

I received my B.A. from Binghamton University in upstate New York in 1991, where I majored in anthropology and minored in biology. My interests were in archaeology and physical anthropology. I attended an archaeological field school while I was an undergraduate, then I attended the Koobi Fora Field School in Kenya while I was a graduate student. My M.Sc. and Ph.D. are from Cornell University. I received my doctorate in 2000 from the Department of Ecology and Evolutionary Biology there, where I specialized

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## Geology Rules: The Physicists

By Jack Harvey

Geologists call things that are deposited at regular time intervals *rhytmites* and last time we talked about counting tree rings and varves. Keeping track of time seems to require counting. We count our pulse, days, moons, years, generations and dynasties. Do you suppose we could just, sort of, *weigh* something to learn how old it is? Silly question Jack; get back to business.

The pharaoh and tree ring chains were okay for pyramids and Anasazi dwellings, but hopeless for dating really old sedimentary rock. Yet geologists learned they could usefully classify sediment layers by the fossils they contained. Different layers had different groups of fossils, and layers were often named for the region where first studied. A limestone layer with distinctive fossils was identified in the Jura Mountains in France near Switzerland. They had no idea *when* the layer was deposited, so they just called it the Jurassic Period. When the same or very similar fossils were found elsewhere, their sediments were correctly believed to be from the same relative time period. That didn't stop geologists from trying to figure out the absolute ages of these named time periods and the earth itself, however.

Over the centuries, many estimates of absolute ages have been universally far too young. For example, in 1778, Georges-Louis Leclerc estimated the age of the planet by reasonably and correctly assuming it started as a ball of molten iron and calculated how long it would take to cool to its present surface temperature. He said this proved Earth was about 75,000 years old and he was then condemned by the French Catholic Church.

The sun was clearly radiating huge amounts of energy and its source was an equally huge puzzle. Immanuel Kant pointed out that if coal was the energy source, the sun could be no more than 1,000 years old, obviously

wrong. So where did it get its energy? In 1850, Herman von Helmholtz found a much larger source: the gravitational energy of in-falling matter. From this, he estimated the age of the sun at 40 million years.

When applying the pharaoh chain to Egyptian sediments, it was obvious that deeper layers are far older. In 1893 a U.S. Geological Survey scientist Charles Walcott estimated the total age of all layers of sedimentary rock on earth was 75 million years. Helmholtz's 1850 sun age estimate still stood because nobody could find a greater energy source. This would mean the oldest fossils were living 35 million years before the sun started to shine!

In 1891, a proper young lady from Poland, Manya Sklodowska enrolled at the Paris Sorbonne to study, of all things, physics. She struggled, succeeded brilliantly and in addition to a degree with honors, married Pierre Curie, becoming Marie Curie. You know the rest.

In 1891, a nerdy, opinionated German teenager enrolled in a progressive high school in Munich to study electrical engineering but clashed with teachers and skedaddled. Albert Einstein was in and out of several schools in his teens, eventually getting a degree in physics from the Swiss Institute of Technology at the age of 21. You know the rest.

Curie and Einstein never collaborated, aware of each other

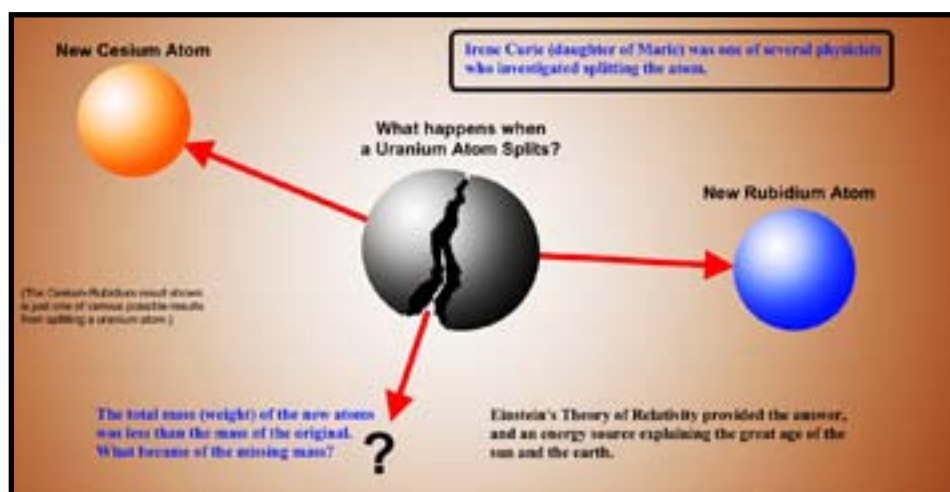
mostly through academic journals and the popular press. They nodded a few times at scientific meetings and Nobel Prize ceremonies, and there was at least one social meeting in 1913. But the combination of their work was more revolutionary than the exposition by Copernicus, Brahe, Kepler and Galileo of a sun-centered solar system.

Curie and Einstein weren't trying to solve the great dating puzzles of geology and archaeology but their work unlocked those and a whole lot more.

It wasn't until the early 20th century that the Curie understanding of radioactivity along with Einstein's Special Theory of Relativity disclosed an energy source to allow a great age for the sun and much of our rock. That's right – *energy* – what Kant and Helmholtz couldn't find enough of. Marie Curie's exposition of radioactivity backed up by Einstein's famous 1905 equation  $E=mc^2$  provided a plausible source of energy – radioactive energy - to keep the sun shining for a hundred times longer than Helmholtz's 1850 estimate.

Radioactive energy released inside the earth drastically slows its cooling, correcting LeClerc's 1778 earth age estimate of 75,000 years. This allowed geologists to consider that the planet might have an age of *billions of years*. Another loose end was tied up.

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*Splitting the Atom*

## Board, from page 4

in primate and human evolution. For my dissertation research, I studied mountain gorillas in Uganda.

After moving to Florida in 2000, I worked for the Archaeological and Historical Conservancy (AHC) for three years. While there, I excavated, analyzed human remains, and wrote reports. For a brief period in 2004, I was the City of Miami Archaeologist. Since then, I have been teaching anthropology and biology, first at Florida Atlantic University, and for the last two years, at Florida Gulf Coast University. I am in the biology department at FGCU, but I am collaborating with the anthropologists at FGCU.

Currently, I am studying the free-ranging squirrel monkeys in Naples and doing analyses of prehistoric human remains when the opportunity presents itself. I recently finished a couple of analyses of human remains and animal interments from the Miami Circle at Brickell Point.

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## Geology, from page 5



*Albert Einstein and Marie Curie, 1913*

But the epiphany that was radioactivity and conversion of mass to energy wasn't available to Cushing in 1895-96. And there was no way for him to relate Egyptian pharaohs to Calusa caciques. About all he had for absolute dates were the historical records of the early Spanish explorers.

Yet the revolution in physics that the Curies and Einstein triggered brought one blockbuster after another. Isotopes. Quantum mechanics. Heavy water. Atomic bombs. Polar ice submarines. And one day, someone asked: Do you suppose we could just, sort of, *weigh* something to learn how old it is? And the answer was yes.

### About SWFAS

*The Directorate:*  
President - Theresa Schober  
1st VP - Karen Nelson  
2nd VP - Tom Franchino  
Recording Secretary - Jo Ann Grey  
Treasurer - Charlie Strader  
Membership - Charlie Strader  
SWFAS Committees:  
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Lab - Jack Thompson

Hospitality - Jeanne Sanders  
Publicity - Kara Bridgman Sweeney  
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*

*Board meetings are held prior to the regular meeting on the third Wednesday of the month at the Bonita Springs Community Hall on Old 41 (by the banyan tree). All are welcome. Board meetings begin at 6:00; regular meetings begin at 7:30 (with coffee served at 7).*

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