



Vol. 26 No. 1

January 2010

## Ann Cordell on St. Augustine Pottery on January 20

At the January 20 SWFAS meeting in Bonita Springs, Ann Cordell of the University of Florida's Florida Museum of Natural History will talk about her work with Kathleen Deagan on 16th century pottery from the Fountain of Youth Park Site in St. Augustine. The meeting begins at 7:30; coffee and snacks are available at 7.



Ann Cordell

In "Paste Variability and Clay Resource Utilization in 16<sup>th</sup> Century Aboriginal Pottery from the Fountain of Youth Park Site, St. Augustine, Florida," Cordell will discuss her analysis of this early contact period Native American pottery. Several seasons of excavations at the Fountain of Youth Park site, under the direction of Kathleen Deagan, have yielded a diverse assemblage of early contact period Native American pottery. This pottery consists mainly of St. Johns wares, grit and sand-tempered

possible San Marcos wares, and grog-tempered San Pedro wares.

Pottery samples were selected from closed context 16<sup>th</sup> century deposits at the site for analysis. Technological and petrographic analyses were undertaken to document paste variability and resource differences or similarities among the categories. Local clay samples were analyzed for comparison.

Ann S. Cordell is a staff archaeologist at UF's Florida Museum of Natural History in Gainesville, FL. She manages FLMNH's Ceramic Technology Laboratory and conducts pottery analyses for FLMNH curators. She has studied prehistoric and historic aboriginal pottery from Florida, the southeastern US, and the Caribbean, with a specialization in petrographic analysis.

## FPAN Talk about the Santa Fe Trail on January 11 on Sanibel

"Santa Fe Trail Archaeology" will be the subject of a talk presented by the Florida Public Archaeology Network (FPAN) at SCCF (Sanibel-Captiva Conservation Foundation) on January 11, 2010 at 5:30 p.m. Speaking will be Dr. Bonnie Clark, an associate professor at the University of Denver and Dr. Minette Church, associate professor and chair of anthropology at the University of Colorado, Colorado Springs. The lecture will be free and the public is welcome.

The Santa Fe Trail was one of the most important international trade and travel corridors of the 19th century. Written histories of the Santa Fe Trail tend to focus on the American side of that history and on those who traveled the



San Patricio Ranch in Colorado

trail. Archaeology of the sites associated with the trail tells a complex and multicultural history, one that reveals the important role of those who resided and worked along the trail.

Dr. Bonnie J. Clark has been using archaeology to tell a more inclusive history of the American West for 20 years. Dr. Clark is an associate professor  
*See Santa Fe on Page 3*

## Upcoming at SWFAS

### **February -- Tribal Archaeology: Culture and Science Deep within Florida's Interior**

Dr. Paul Backhouse will talk about the recent work at the Fort Shackelford site on the Big Cypress Seminole Reservation and about other new research initiatives at the Tribal Historic Preservation Office (often referred to by the acronym THPO) of the Seminole Tribe of Florida. THPO staff completed more than 400 separate archaeological investigations during 2009. Paul Backhouse is the Deputy Tribal Historic Preservation Officer for the Seminole Tribe of Florida. More info in the February newsletter.

### **March -- Irish Settlement and Identity in Nineteenth Century Texas**

The March 17 SWFAS meeting will feature a presentation on Irish Settlement and Identity in Nineteenth Century Texas by Julie Richko Labate, M.A. R.P.A. Labate focuses on the circa-1830 migration of Catholic families from Ireland to the then-Mexican province of Texas. Many of the settlers shifted allegiance to the short-lived Texas Republic and then to America and many died at the Alamo. Julie is a Ph.D. candidate with University College Dublin in Dublin, Ireland. More info in upcoming SWFAS newsletters.

## Digital Archaeology: Seeing Underground

By Jack Harvey

Where should the archaeologist place the tip of her trowel in order to unearth important artifacts? Educated and informed guesswork may best describe how it is usually done. Dig and hope. But wouldn't it be great if we could see through soil and learn what lies beneath before we dig? To do this, the archaeologist dons a special computer driven digital viewer that provides a 3D view turning the soil beneath her feet as transparent as air. She sees each shell, bone, tool, sherd and bead where it lies deep under the surface.

It is immediately obvious exactly where and how far to dig to retrieve the most interesting objects, or to avoid digging in sterile areas. Fire pit ash lenses are smoky hazes with black bits of charcoal hanging within. The water table is a green tinted layer beneath the transparent soil. The top 10 centimeters of soil may contain numerous objects of little interest. So with a few taps on the portable keyboard controlling her digital viewer, the archaeologist renders them as transparent as air, allowing a clear view of the older items beneath.

Of course the digital scan data generating her 3D view into the ground can also be viewed as vertical slices or soil profiles, so that soil type layers are easily noted. These profiles can be done along any line, all without actually digging a trench. If it appears that a profile along a slightly different line will provide a clearer view, it is generated with a few more keyboard taps.

Computer analysis of the digital image of each underground object classifies it as shell, bone or ceramic and each class is given a distinctive color: red for bone, blue for ceramic and yellow for shell. Each object is an entry in the computer database and is automatically assigned a unique artifact number with computer estimated dimensions and weight. These auto-assigned artifact numbers appear beside the objects in her 3D viewer display.

When this precise survey is done prior to actual soil removal, an occasional human skull may be seen and the

proper statutory actions taken without exhumation. If deemed worthy of detailed study, precision *tomographic side scans* of the aboriginal skeleton using synthetic aperture technology will yield accurate measurements and photographs of each bone without disinterment. Archeological investigation of other areas of the site can then proceed without fear of disturbing a human burial.

Later, when the initial walk-around site survey is completed and the actual test unit locations determined, the student and avocational archeologists will use their 3D viewer displays to guide their trowels and soil brushes to expose individual artifacts. As each is removed and placed in a small plastic bag, the tiny printer in the field keyboard extrudes a slip of waterproof white plastic with the imprinted artifact number to be included in the bag. Since the computer already has the precise GPS location (X, Y and Z coordinates) of the artifact in the database, this doesn't need to be written on the plastic bag.

*Hold on there, Jack!* Quit dreaming. Ground-penetrating radar is nowhere near ready to do what you describe. The basic problem is that radar signals being used are extremely poor at penetrating typical soils, reaching down only a couple of meters at best. Moreover, very short wavelength signals needed to get high resolution for typical artifact sizes will penetrate only a few centimeters.

Current equipment does not display images of objects in the ground. Instead, a trained operator must interpret charts resembling ripples on a pond. Identifying human skulls is quite beyond present capabilities. At best, a blur might be seen that could also be a stone or tree stump. And the technology certainly can't determine if a reflection is from shell, ceramic or bone.

If ground-penetrating radar is so poor, how come it is used? Perhaps because it is good enough for its real money-making market – the construction industry. Contractors, particularly road builders, need to know what their earth-moving machines are going to hit when they start opening up the earth. Pottery sherds are of no concern, but finding buried sewer lines and storm drains are vital because damage to them can be very

*See Radar, right*

## December Field Trip to Ah-Tah-Thi-Ki



*Top left: Our museum guide (right of center in black) lectures on the importance of cattle ranching to the Seminole Tribes.*

*Above right: Our boardwalk guide (center in blue and black) prepares to lead us around the 1-mile boardwalk through the cypress dome, explaining the many native flora along the way.*

*Left: Halfway along the boardwalk, we stopped to visit active native craftwork by a member of the Wind Clan.*

*Photos courtesy Jack Harvey*



### Santa Fe-- from Page 1

at the University of Denver and an advisor to the Colorado Historical Society. Dr. Minette Church earned her Ph.D. at the University of Pennsylvania in 2001. She is currently associate professor and chair of anthropology at University of Colorado, Colorado Springs. Church is a past-president of the Colorado Council of Professional Archaeologists. Her research focus has been on the nineteenth and early twentieth century United States West, where she explores the many,

dynamic cultural interactions that took place along the Santa Fe Trail.

SCCF is located at 3333 Sanibel-Captiva Road on Sanibel; for info on the program, please call Steve Archer, director, Southwest Regional Center of FPAN at 239/765-0202 ext. 152 or e-mail [sarcher@fortmyersbeachfl.gov](mailto:sarcher@fortmyersbeachfl.gov). FPAN's web site is [www.ftpublicarchaeology.org](http://www.ftpublicarchaeology.org).

### Radar-- from left

expensive. Small water pipes and electric cables can be invisible to ground-penetrating radar. Although steel water pipes can sometimes be detected magnetically and live electric wires can emit signals that show their presence, detecting these is of little use for evaluating a potential archaeological site.

Seeing underground is currently a bit like trying to peer through dense brush. But there is hope. Remember *synthetic aperture* (side-scan) sonar detection of mid-ocean ridges and *computed tomographic* (cat or CT scan) views of internal body

parts? The ground-penetrating radar being used to support the construction industry does not fully exploit synthetic aperture and tomographic digital technologies and hence uses the wrong wavelength for best penetration. A combination of radio, sonic and magnetic detection could produce far better results than the simple devices good enough to find large sewer lines. The trick is funding the development of equipment that meets archaeological needs. The good news is that the computer-driven 3D display described above can be tried today at your local movie theater.

**REGISTRATION FORM**  
**2010 Florida Anthropological Society Meeting**  
**May 7-8, 2010**  
**Historic Fort Myers, Florida**

Name (please type or print): \_\_\_\_\_

Institution: \_\_\_\_\_

Address: \_\_\_\_\_

Work phone: \_\_\_\_\_ Home or cell phone: \_\_\_\_\_

E-mail address: \_\_\_\_\_

FAS member? Yes \_\_\_ No \_\_\_ Chapter Affiliation: \_\_\_\_\_

1. Full Registration (until April 7, 2010\*) \_\_\_\_\_ \$50  
 Student registration (until April 7, 2010\*) \_\_\_\_\_ \$30

2. FAS Reception at Mound House \_\_\_\_\_ Free  
 Friday Evening, May 7, 2010, 6:30p.m.-8:30p.m.  
 FAC Stewards of Heritage Awards Presentation  
 Bus departs from Harborside, Downtown Fort Myers

3. FAS Banquet in Historic Fort Myers \_\_\_\_\_ \$50  
 Saturday evening, May 8, 2010  
 Keynote speaker: Dr. Jerald T. Milanich

4. Workshop on Flatbed scanner use for artifact imagery, led by Louis Tesar \_\_\_\_\_ Free  
 Friday Afternoon, 3:30p.m. -6:00p.m.  
 Seven Seas, Southwest Regional FPAN Center, Fort Myers Beach

5. Calusa Heritage Trail, Randell Research Center at Pineland \_\_\_\_\_ \$15  
 Sunday Morning, May 10, 9:00-Noon  
 Bus Departs from Harborside, Downtown Fort Myers

6. Ah-Tah-Thi-Ki Museum, Big Cypress Seminole Reservation \_\_\_\_\_ \$20  
 Sunday, May 10, 9:00a.m.-3:00 p.m.  
 Bus Departs from Harborside, Downtown Fort Myers  
 (includes box lunch)

**Registration and payment due by April 7, 2010**

7. Donations to FAS 2010 Annual Meeting are most welcome. Thank you! \$ \_\_\_\_\_

8. Total Amount Enclosed \$ \_\_\_\_\_

**Mail form with check payable to SWFAS to:**

Southwest Florida Archaeological Society

Attn: FAS 2010 Conference

P.O. Box 9965, Naples, FL 34101

E-mail questions to: [theresa@fortmyersbeachfl.gov](mailto:theresa@fortmyersbeachfl.gov)

\* For on-site registration, \$5 will be added to the conference registration fee.

## 2010 FAS Annual Meeting To Be Hosted by SWFAS

The Southwest Florida Archaeological Society (SWFAS) is excited to host the 62nd annual FAS meeting on May 7-9, 2010 at the Harborside Event Center in Fort Myers. Accommodations for FAS 2010 will be at the new Hotel Indigo, just a block from the Harborside Event Center and a short walk to the Caloosahatchee River. The Hotel Indigo is a 67-room boutique hotel that opened in 2009, with a bar, restaurant and rooftop pool and fitness center located at 1520 Broadway, Fort Myers, FL 33901. Reservations should be made directly with the hotel at 877-270-1389 or [www.hotelindigo.com/fortmyersfl](http://www.hotelindigo.com/fortmyersfl). Special conference room rates for FAS attendees start at \$99 a night for Thursday and Friday and \$89 on Saturday, plus applicable taxes. Street parking is available at no cost or \$14 per night in the parking garage. Please mention the Florida Anthropological Society room block when calling for reservations. Room rates are held through April 7, 2010.

Friday, May 7: Meetings for FAS, FAC and FPAN boards, committees and membership are scheduled for Friday morning and afternoon in Harborside Event Center meeting rooms. On Friday afternoon, Louis Tesar of the Bureau of Archaeological Research will present a workshop on how to prepare high quality digital images of artifacts for publications, posters, and presentations using a flatbed scanner. The workshop will be held at the historic Seven Seas building at Newton Park in Fort Myers Beach, the new home of the Southwest Regional Center of the Florida Public Archaeology Network. The Friday evening reception will be at the Mound House on Fort Myers Beach with an

*If you would like to volunteer to help with FAS 2010, we need you! Please call (239-784-3014) or e-mail ([katiesbetz@gmail.com](mailto:katiesbetz@gmail.com)) Katie Betz and let her know.*

opportunity to view the newly completed walk-in shell mound exhibit.

Saturday, May 8: Papers and posters will be presented morning and afternoon at Harborside Event Center. The deadline for abstracts and poster proposals is February 12, 2010. Vendors with books and other wares will be available at the event center. Lunch is on your own on Saturday and many small restaurants are nearby, or pick up a sandwich and stroll by the river. The FAS Annual Business Meeting and FAS New Board Meeting will follow the paper sessions on Saturday. The Saturday night banquet will feature speaker Dr. Jerald T. Milanich, Curator Emeritus in Archaeology at the Florida Museum of Natural History. Please sign up for the banquet when you register by April 7, 2010. Field trips to sites including the Randell Research Center at Pineland and the Ah-Tah-Thi-Ki Seminole Museum are planned for Sunday, May 9.

Any questions or concerns? Contact: Theresa Schober at (239) 765-0865 or [theresa@fortmyersbeachfl.gov](mailto:theresa@fortmyersbeachfl.gov).

The registration form is enclosed within this newsletter. Please observe the deadlines and contact SWFAS at the above mailing and e-mail addresses with any questions concerning these deadlines and possible extensions of the printed dates.

### ***Florida Anthropological Society Student Paper Competition***

Undergraduate and graduate students currently enrolled in degree-granting university programs are encouraged to compete for a prize. The student must submit a paper of original research that contributes to our understanding of Florida's history or prehistory. Contestants must submit three (3) copies of their paper and make an oral presentation at the FAS meeting. The oral presentation must be drawn from the written paper. The written paper cannot exceed 2,500 words and must be typed and double-spaced.

Postmark deadline for student papers is March 15, 2010.

Student papers and oral presentations will be judged on writing quality, overall presentation, quality of arguments and supporting data, and contribution to our understanding of Florida's past. Prizes will be awarded at the awards ceremony during the Saturday evening banquet.

A three-person committee will judge the papers using the following criteria:

#### I Written Presentation

- Organization of paper: Must be clearly written in a coherent, logical and organized format
- Development of ideas/thoroughness of research: Must demonstrate substantive knowledge of topic
- Significance of research / contribution to the field

#### II Oral Presentation

- Organization of presentation: Must present ideas in an organized and coherent format
- Communication skills: Must articulate and express ideas clearly and intelligibly
- Appropriate and effective use of technology, if appropriate

All students entering the competition must complete and submit the meeting registration form by February 12, 2010 accompanied by a check for the \$30 registration fee payable to SWFAS.

## SWFAS 2010 Nominations for Officers & Trustees

Nominating committee: Charlie Strader, Tom Franchino

- General membership to vote at January's monthly meeting, which serves as SWFAS annual business meeting.
- Nominations from the floor can still be accepted until vote.

### OFFICERS:

President: Annette Snapp

1st VP: Tom Franchino

2nd VP: James Oswald

Recording Secretary: Kathryn Betz

Treasurer: Charlie Strader

Mbr. Sec: Charlie Strader

(Newsletter Editor, not a Board position: Karen Nelson)

### TRUSTEES:

First year of 3 year term:

- Theresa Schober
- Steve Archer
- Matthew Betz

Second year of 3 year term:

- Jack Thompson
- Betsy Perdichizzi
- Liz Clement

Last year of 3 year term:

- Rebecca Austin
- Alison Elgart

### About SWFAS

#### *The Directorate:*

*President - Theresa Schober*

*1st VP - Tom Franchino*

*2nd VP - James Oswald*

*Recording Secretary - vacant*

*Treasurer - Charlie Strader*

*Membership Secretary - Charlie Strader*

#### *Trustees:*

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

#### *SWFAS Committees:*

*Field - John Beriault*

*Lab - Jack Thompson*

*Hospitality - volunteer welcome!*

*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).*

## January 2010 Newsletter

**The Southwest Florida Archaeological Society**

**P.O. Box 9965**

**Naples, FL 34101**