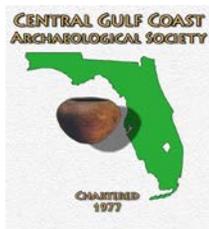

Central Gulf Coast Archaeological Society

A Chapter of the Florida Anthropological Society

www.cgcas.org



MONTHLY NEWSLETTER

January 2010



Editor: David Burns

January Meeting

Thursday January 21st

at

Weedon Island Preserve Cultural and Natural History Center
1800 Weedon Dr. NE, St. Petersburg, FL 33702

7 – 8 PM.

Using Prehistoric Archaeology to Study Modern Biodiversity



David Steadman, Ph.D. Florida Museum of Natural History, Gainesville

Throughout the world, the prehistoric peopling of islands led to the extermination of native species of reptiles, birds, and/or mammals. In many continental settings, such as North America, the arrival of humans into previously unpeopled region also seemed to have had dramatic effects on the indigenous flora and fauna. The variables that influence the rate and overall extent of the extinction on islands can be classified as physical, biological, or cultural. On many West Indian islands, bones of extinct species are known from pre-cultural sites but few if any archaeological sites. Using samples from many different archaeological and paleontological sites, he will talk about what happened when “we” showed up.

This program is co-sponsored by CGCAS and the Weedon Island Preserve Cultural and Natural History Center and is free and open to the public. Pre-registration is requested. Call 727-453-6500 to register and for further information.

Annual Christmas Party 2009



This year's Christmas Party was held on Sunday, December 13, 2009 at the home of Mac and Faye Perry, 8399 42nd Ave. N. St. Petersburg. There was a good turn out and we enjoyed the great food. Mac and Faye supplied the musical entertainment. The Indian Giver gift exchange was again a hit. We want to thank both of them for opening their home to us as well as their warm hospitality.

CGCAS Lecture Series for 2009-2010

We have another interesting line up of speakers for the coming year. All these presentations will be at the Weedon Island Preserve Cultural and Natural History Center. The dates are the second Thursday of the month with the lectures beginning at 7 pm. They are free and open to the public. Further information will be presented in future newsletters regarding each month's presentation.

February 18, 2010 – *Bob Carr, M.A.*, Bahamian and Florida Cultural Interactions in Prehistory through the Early 19th-Century

March 18, 2010 – *Bill Marquardt, Ph.D.*, Shell Mounds in the Southeastern U.S.: Middens, Monuments, Temple Mounds, Rings, or Works?

April 15, 2010 – *Alison Elgart, Ph.D.*, Life and Death in Southeastern Florida during the Late Archaic

It's Due Time

All memberships to CGCAS run from January to January. To join or renew your membership for the 2010 year, go to www.cgcas.org or mail your dues to: Membership Chair, P.O. Box 1563, Pinellas Park, FL 33780-1563.

Annual Picnic

This year's annual picnic is a few months away but we want you to mark your calendar to save the date. The picnic will be on Saturday, June 26, 2010 at Lake Seminole Park, 10015 Park Blvd. Seminole, FL, Park Shelter #12. There will be a Board of Directors Meeting at noon followed by the election of new Board Members. The picnic will start at 1:00pm. Bring a covered dish to share.

Bayshore Homes Up-date

We are busy washing the material from Test Unit 5 and will begin sorting material from Column Sample 4 soon.

We are doing this again at the Weedon Island Center on Saturday mornings starting at 10 AM. Watch your emails for updates. If you have not been a part of this before, you are invited to join us. It's fun and interesting too!

We Welcome our Newest and Youngest Member

On Christmas Day, Bart and Rori McLeod became the proud parents of a new son, Finn Cormac. All are doing fine and we congratulate them on their new addition to their family and ours.



Bart and Finn

DVD's Available for Viewing

As a reminder, DVD's of past speakers are available for checking out for viewing. So if there was a program you missed and really wanted to attend, here is your chance to see it. They are available to CGCAS members and can be borrowed at Weedon Island. See Chris Hardy about how to get a copy. Special thanks go to Tom and Marcie Connors for providing their expertise to make this possible.

List Server Available for Members

Recently a new service was created to help disseminate information to all members. Its intention is to announce upcoming events, information pertinent to members, informing them of new developments in archaeology.

It is requested that messages be kept within the above guide lines. Please be informed that responses to messages are sent to everyone on the list. If a response is intended to the sender only, it would be best to reply to their personal email address.

Also, the CGCAS membership list is available on the website www.cgcas.org. You will need the password to sign in to the member's only section. While there, check your information such as address and email address to insure that it is correct.

Everglades City Field Trip

CGCAS is planning a field trip to Everglades City, March 12, 13, 14 (Friday-Sunday). We plan to take an airboat ride through the everglades, tour Everglades National Park, and visit local attractions. There are several options for lodging. The Ivey House Bed & Breakfast has 10 bedrooms and a common area, plus two bathrooms, one for men and one for women (www.iveyhouse.com) at \$89.00 per night.

We are planning on renting a 15-seat van for the 4-5 hour drive. Cost per person to rent the van would be about \$30-40. We will meet at Eckerd College on Friday morning. You can leave your car on campus and pick it up when we return Sunday Evening. If you are interested in participating, contact Bob Austin at bob@searchinc.com by January 31st, so that reservations can be made. Let him know how many are coming, what nights you want to stay at the lodge, and whether you will be driving down or going in the van. If you decide to stay elsewhere, you will have to reserve rooms on your own.

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.



"Ground-Penetrating Radar searching for buried objects."

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 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.

2010 FAS Annual Meeting

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.

Check the FAS website www.fasweb.org for further information.

FAS Membership

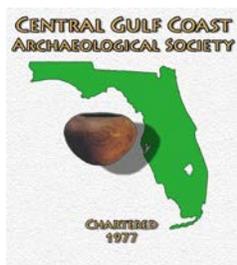
The Florida Anthropological Society (FAS) is open to persons interested in anthropology, archaeology, preservation of cultural resources and community education. Membership is made up of both professional and avocational archaeologists. Benefits of membership include the journal *The Florida Anthropologist*, the *FAS Newsletter* and participation in the annual meeting in May. More information and membership forms can be found on the web site www.fasweb.org or by writing to the Membership Secretary at P.O. Box 13191, Pensacola, FL 32591. Dues are: Student - \$15; Regular and Institutional - \$30; Family - \$35; Sustaining - \$100; Patron - \$500; Benefactor - \$2500 or more.

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The Society

Central Gulf Coast Archaeological Society (CGCAS) is an association of amateur and professional archaeologists and concerned citizens dedicated to the preservation and interpretation of Florida's great cultural heritage. CGCAS is a chapter of the Florida Anthropological Society (FAS) and is a state chartered non-profit organization. All contributions are tax deductible.



Central Gulf Coast Archaeological Society

P.O. Box 1563,
Pinellas Park, FL 33780-1563

Membership

Membership is open to anyone with a sincere interest in the cultural past of Florida and who is dedicated to the understanding and preservation of that heritage

Amateurs, professionals and concerned citizens are welcomed as members. Membership is yearly and all dues are payable in January. Contact Karin Lovik, 1225 Jeffords St., Apt 225A, Clearwater, FL.

Dues

Regular	\$20.00
Student	10.00
Family	25.00
Life	150.00