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March 2011

March SWFAS at FGCU: David Southall on Jacques Le Moyne

The March 16 SWFAS meeting will be at Florida Gulf Coast University (FGCU), hosted by the FGCU Anthropology Club. The presentation will be in the Academic Building 5 (AB5), Room 112. There will be light refreshments at 7; the presentation will be at 7:30.

Our speaker will be David Southall, who will be talking about "Jacques Le Moyne: First European Artist to Visit North American."

Traveling to the New World with French Huguenot explorer and adventurer Jean Ribault in 1564, Le Moyne is the first artist to document these landscapes and peoples. Le Moyne drew pictures showing the lives and activities of the strange people he encountered, and barely lived to tell of his adventures. Today, his drawings are the best window to a time and people who have vanished. The presentation explains the style Le Moyne used and his contribution to our understanding of contact-period Native American cultures.

Speaker David Southall of the Collier County Museum is a true "Renaissance Man." From Buffalo, NY, he spent summers working on the family farm in Canada. He learned about seed selection, hybridization, beer making, food preservation, hunting, draft animals, and more. Always curious about the natural world, he learned about astronomy, photography, ornithology, and took a degree in Biology and received a Masters in Botany from Cornell. Scouting was

an important part of David's youth, and continues to be something he gives much of his time and expertise. Serving in Viet Nam, he recognized that his knowledge of the natural, botanical world, as well as the values learned in Boy Scouts, contributed to keeping him and many others alive. Upon coming to Florida, he established his own nursery. He became an environmental specialist and developed a consulting business which was involved in many development and preservation projects. David enjoys history and loves to teach and share what he knows.

FGCU map and directions are on Page 2.

**Don't forget - SWFAS
memberships expired in January!**

Dues are:

Individual - \$20;

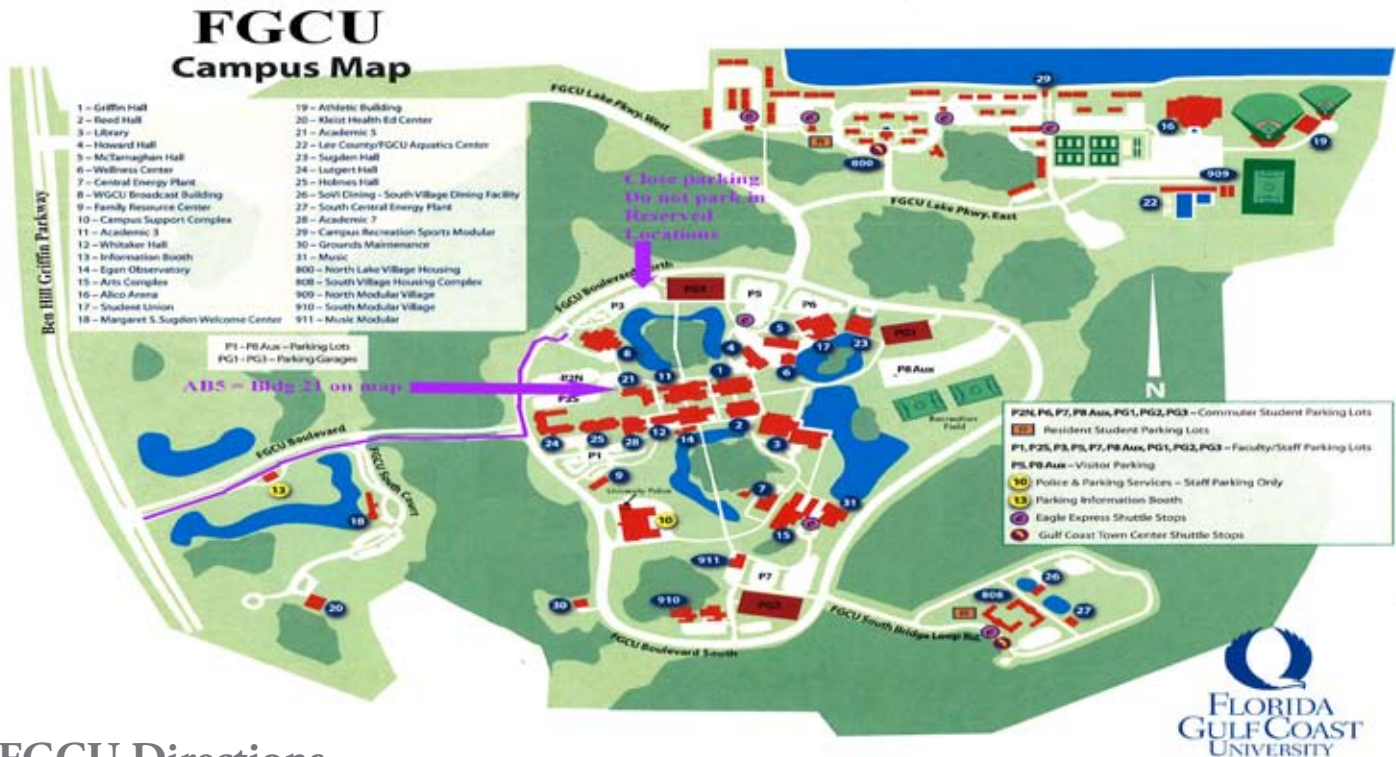
Sustaining - \$50;

Family - \$35;

Student \$15

SWFAS Newsletter by E-Mail

If you're online, you can get the SWFAS newsletter sent to you as a PDF via e-mail. Many SWFAS members have already made the switch -- it saves quite a bit on printing and postage costs. If you would like to get the newsletter by e-mail, please note it on the sign-in sheet, e-mail Charlie Strader (cesxplor@aol.com) or let Charlie, Annette Snapp or Karen Nelson know at the next meeting.



FGCU Directions

The easiest way to access the campus is at the main entrance off Ben Hill Griffin Parkway. (Ben Hill Griffin Parkway runs north-south between Alico Road and Corkscrew Road, near I-75.) Follow the purple line to the closest parking to AB5 which is shown on the map. The parking is next to the WVCU Broadcast Building (Building #8 on the map).

Do not park in reserved spots (those with signs reserving the spots).

There is a walkway between the Broadcast Building and AB5 (Academic Building 5).

Room 112 is on the ground floor near the restrooms and vending machines.

Randell's Calusa Heritage Day on March 12

The Randell Research Center's Sixth Annual Calusa Heritage Day is scheduled for Saturday, March 12, 2011. This popular event focuses on regional archaeology, history, and ecology with the theme this year being paleoethnobotany.

Art, music, and replicative technologies will be included. Activities for children and adults alike will be provided, and food and beverages will be available. Admission is \$5 per person; children under 12 are admitted free. All proceeds benefit the education and research programs of the Calusa Heritage Trail, Randell Research Center.

The day-long event (10:00 a.m. to 4:00 p.m.) will take place at the Pineland archaeological site complex (13810 Waterfront Drive, Pineland).

Artists participating include Peter Sottong, of Naples who creates extraordinary reproductions of Calusa masks, Felix Rodriguez, whose wooden canoe paddles are stunning in their detail, and David Meo, whose paintings grace new displays at the Ding Darling National Wildlife Refuge. "Calusa Tastings" will offer a chance to sample roasted oysters, grilled and smoked mullet, and papaya, and those sampling the fare will learn about the archaeological significance of these foods. Storytellers Gerald Hausmann and Gene Toncray will

join others to share tales and Carol Mahler, author of *Guy LaBree, Barefoot Artist of the Seminoles*, will be among the authors present. Speakers include John Beriault (10:30 a.m.), Lee Newsom (11:15 a.m.), Robin Brown (12:15 p.m.), and Bill Marquardt (1:00 p.m.).

Examples of native plants with information about their many uses by early and contemporary people will be featured in the native plant tent and vendors will be on hand selling native plants suitable for southwest Florida. Tours of the Calusa Heritage Trail, suitable for all ages and interests, will be offered. Additional walking tours focusing on native plants and wildlife will take participants off the main trail to little-visited areas. Experts from the Florida Museum of Natural History will be on hand with artifacts and information on the use of plants by the Calusa and their predecessors. A children's area will feature hands-on activities.

The featured speaker this year is Dr. Lee Newsom of Pennsylvania State University, who will speak on the use of plants by Native Florida people from 10,000 years ago to the present, with emphasis on her work at the Pineland Site. Dr. Newsom's scientific talk, entitled "Paleoethnobotanical Foundations of the Calusa Kingdom," will be held in the

Randell-- continued from left

RRC classroom at the Calusa Heritage Trail, beginning at 2 p.m. For this talk only, pre-registration is required by calling 239-283-2157. Dr. Newsom will also give a non-technical public talk at 11:15 a.m. in the Speakers tent.

Lee A. Newsom is an Associate Professor with the Department of Anthropology and a member scientist of the Institutes of Energy and the Environment at The Pennsylvania State University. Her research emphasizes Environmental Archaeology in theory and practice, drawing especially on insights from paleoethnobotany and island biogeographic theory to consider issues involving biotic resources and human social organization, plant domestication, the evolution and transformation of Caribbean garden systems, and the so-called “Columbian Exchange”, i.e. the global biotic interchange that had its inception in 1492. Her (2004) co-authored book with Elizabeth Wing, *On Land and Sea: Native American Uses of Biological Resource in the West Indies*, concerns Environmental Archaeology in the Caribbean. In 2002 Newsom was named a MacArthur Fellow and she has since used that award to foster a variety of projects and initiatives in the region.

Free parking provided across the street from the trail at the Pineland Marina. Access to the Marina will be via Pineland Road, north on Robert Road, and west on Caloosa Drive. Admission for the day is \$5 for adults, children under 12 free. All proceeds benefit the RRC’s mission to teach about and preserve our Calusa legacy. For additional information, 239-283-2157.

Big O Birding Festival

There is a tremendous opportunity for birders March 23- 26. Go for a day, go for the weekend. Bird on private lands and other areas that are normally not accessible. Aside from STA 5 and Fisheating Creek trips there are nature photography workshops, birding by ear classes,

boat trips along southern rim of Lake Okeechobee and an owl hoot.

This opportunity is also valuable for those who are not avid birder but want to better understand the precious natural resources of the Lake Okeechobee area. Ranches, cowboys and farmers all pitch in to help make this event a success. This is a great opportunity to learn more about Clewiston and the other Lake communities.

Please view all the recreational programs available by searching the website <http://www.bigobirdingfestival.com>.

A similar small town effort near Cape Canaveral had a modest start 20 years ago and now the Space Coast Birding Festival is one of the largest in the nation. Your participation can make a difference. Let’s help support this effort for the inland communities as they grow a new source of industry and income through ecotourism.

Digital Archaeology: Artificial Intelligence

By Jack Harvey

Tools are better than humans. If you don’t believe me, try driving a nail with your bare hand. A hammer is a simple tool far superior to a bare human hand for this. But if you want a hole in a board, the hammer or the hand won’t work. You need a drill. Tricky word, “better”.

My point is that I’m going to talk about using *artificial intelligence* (AI) for archaeology. It’s not science fiction and it’s not a replacement for human intelligence (yet) but in some cases AI may be “better” than human intelligence. Search engines such as Google are a kind of AI. They read the world’s literature and then try to guess which items will answer your question. Instead of answering your question, they tell you where to look for answers.

Just as the first primates to use rocks as hammers didn’t add hafts, we don’t know how AI will appear in archaeology. It’s a broad technology usable in many ways and only much experience will show how best to employ it for anthropology and archaeology. My ideas may not be the first ways it will be used. But if you ever Googled “Key Largo Incised”, you have already used AI for archaeology.

One of the major uses of AI is “pattern recognition”: Finding a pattern in data similar to patterns in other data. For us, the data may be images of decorated pottery sherds. Ancient pottery decoration styles tend to be local. So an

archaeologist studying ancient pottery from a dig knows the several dozen decoration styles common to the dig local area. But travel to a different locality and styles change.

The excitement occurs when an outlier is found - a sherd the archaeologist can’t identify. Where did it come from? The decoration style may be quite unfamiliar to the finder and her local colleagues. Literature searches don’t find it. Here is where a pattern recognition AI computer program may come to the rescue. Potentially a single program could recognize every known ancient pottery decoration style on the planet. In seconds it could compare the unknown sherd with tens of thousands of styles in a comprehensive database and name it, citing place and era.

Such a computer program seems like a marvelous tool, far “better” than a human at identifying a wide range of pottery decoration designs. But like a hammer or a drill, this tool is only useful for the task for which it is intended – ancient pottery identification by decoration pattern recognition. It won’t help a bit with identifying the clay source.

Which anthropology graduate student is going to write this computer program? Answer: none. AI will be the programmer. This is already happening in other technologies. Spotting patterns in data has many uses. AI engines for this typically *learn* what they are supposed to do by being

Continued on Page 4

Digital Archaeology continued from Page 3

trained. Thus the AI engine is not initially the needed tool, but by repeated trial and error learns to spot a particular pattern and its valid variations. The guiding human need not participate as if training an animal because the sherd image identification engine itself will make some of the variations in image orientation, scale, color and quality. The human's job will be to present a comprehensive database of decoration style images with multiple examples of the same style.

The result of the training will be a new database created by the engine telling itself how to make the nitpicking pixel comparisons needed to identify the input database examples. This new database can, of course, be exported to use in other computers, making them instantly as able to identify the decoration styles. Moreover, the internal database can be merged with another that has been trained for a different set of styles, eventually building an engine usable world-wide.

Legal system forensics has long been a leader in pattern recognition, with fingerprints being the textbook example. Handwriting analysis is being computerized and DNA matching is the gold standard. *Profiling* is a red flag when forensic pattern recognition starts being used for security. Not

surprisingly, controversy abounds with use of AI in criminal forensics, yet skill develops rapidly due to the controversy and this will facilitate AI application to archaeology. Indeed archaeology may be the epitome of scientific profiling.

It seems likely that pottery decoration style may be the archaeology lab technique where AI can be usefully applied within the next two decades. If it happens, it won't suddenly replace human identification of the local styles. Instead, it may serve as a cross-check, spotting obvious errors and helping to train students. But as described above, the AI computer may eventually be able to identify far more than just the few dozen styles in one locality. The AI report will not name a single style but instead list several styles in order of likelihood. Each likely style will be identified fully with examples and references, behaving like a skillful, thorough and hardworking assistant.

The AI engine trained for pottery style recognition then becomes a powerful tool able to name far more decoration styles than any single human. It becomes a tool "better" than a human. Which human will be first to make this new tool?

About SWFAS

The Directorate:

*President - Annette Snapp
1st VP - Meghan Prendergast
2nd VP - Alison Elgart
Recording Secretary - Kathryn Betz
Treasurer - Charlie Strader
Membership Secretary - Charlie Strader*

Trustees:

*Paul Backhouse, Matthew Betz, Liz Clement, Tom Franchino, Jim Oswald, Matthew Schuld, Betsy Perdichizzi, Theresa Schober
Trustee Emeritus: John Beriault*

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).

March 2011 Newsletter

The Southwest Florida Archaeological Society
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