"The Dirt on Ancient Water Management in Mesoamerica" at SWFAS November 17

Water management is an ongoing issue in Florida, but humans have been attempting to control water long before the first dredge arrived in Florida. At the November 17 meeting of the Southwest Florida Archaeological Society Zaida Darley of the Florida Public Archaeology Network will discuss ancient water management in Mesoamerica. The presentation will be held at the Bonita Springs Community Hall at 27381 Old U.S. 41 (by the banyan tree). It is free to the public. The meeting begins at 7:30; refreshments are available at 7. Call 239-992-9660 for more information.

Darley's talk will address how early Mesoamerican peoples managed their limited water resources in the Maya Lowlands, focusing on the site of Palmarejo in Northwest Honduras. Due to long periods of drought, population centers within the Maya Lowlands developed innovative ways to meet water demands. Archaeologists have traditionally concentrated on ancient water management at prominent Maya sites such as Tikal in Guatemala. Few archaeologists, however, have explored how smaller sites, especially those sites not affiliated with the Maya, survived extensive periods of drought. Darley will discuss recent archaeological research at the non-Maya site of Palmarejo which has revealed an unexpected degree of water management complexity for such a small "suburban-like" site.

Darley serves at Outreach Specialist for the West Central Region of the Florida Public Archaeology Network. She has earned a Bachelor's degree in Anthropology and a Master's Certificate in GIS from the University of South Florida. Darley is presently working on her Master's in Applied Anthropology from the same university

Upcoming at SWFAS

DecemberPicnic - Saturday, December 4

The SWFAS December outing will be the first Saturday in December, the 4th, from 11 a.m. - 3 p.m. with a return to Randell Research Center. Our host will be RRC's new Coordinator for Tours and Special Events, Cindy Bear. Details are still being worked out but Cindy will give an update about what's happenning at Randell, and then we'll have a short tour. Be sure to bring along a picnic lunch.

Cindy Bear's first involvement with public archaeology came during her 20 year tenure as a resource teacher with the Environmental Education Program of Lee County School District.

January: Native American Medicinal Plants

Michele Williams, Ph. D., RPA is the Director for the Southeastern Region of Florida Public Archaeology network at Florida Atlantic University and her specialty within archaeology is the use of plants by prehistoric Native Americans.

February: Spanish Fishing Ranchos, with Meg Stack

March: Barron Gift Collier 1873-1939

David Southall, Curator of Education of the Collier County Museum, will talk about the life of Collier's County's founder.

Mammoth Skeleton Found in Hardee County

The skeleton of a Colmbian mammoth, a species believed to have died off in Florida 11,000 years ago, has beenfound in Zolfo Springs in Hardee County. The fossils will be housed and studied at the Florida Museum of Natural History.

Read more about the find at: *http://www.heraldtribune.com/article/20101029/ARTICLE/10291043/2416/NEWS.*

The story also notes that in 2009, fossil collector was cleaning off a 15-inch-long bone found at Vero Beach when he discovered it had an etching of a mammoth on all fours, complete with curved tusks.

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.

Winter Solstice Cruise to Benefit Randell Offered by Captiva Cruises

Captiva Cruises will be hosting this special cruise to celebrate the winter solstice on Tuesday December 21st, the shortest day of the year, and to benefit The Randell Research Center (RRC). This cruise will depart from McCarthy's Marina on Captiva and travel the waters of Pine Island Sound. We are thrilled that Emmy Award winning and Grammy nominated flutist and composer Kat Epple will be performing for us during this Winter Solstice Benefit Cruise. Kat's music will be interspersed with an interpretive narrative defining the winter solstice as well as identifying and discussing planets and stars. Mysteries and features of our night skies will be pondered as we cruise under the magic of a full moon. Long before people started celebrating Christmas or Hanukah, ancient cultures celebrated the winter solstice and the coming of more daylight. Being out on the water at night is an incredible experience, join us and share in this timeless and universal fascination of our night skies. This Special Winter Solstice Cruise benefiting the Randell Research Center will be on Tuesday December 21st from 7:30 pm to 9:30 pm and cost $65/person. A full service cash cocktail bar will be available on Captiva Cruises' Lady Chadwick, and light hors d'oeuvres and wine will be complimentary.

The Randell Research Center (RRC), a program of The Florida Museum of Natural History, is dedicated to learning and teaching the archeology, history and ecology of Southwest Florida. The RRC has established and maintains the Calusa Heritage Trail around the internationally significant Pineland archeological site, a massive shell mound site encompassing more than 200 acres along the mangrove coastline of Pine Island.

Kat Epple, uses her music in her work towards environmental and humanitarian awareness. She has amassed a large collection of flutes from cultures around the world, which she features in her original compositions and CD albums. Her music has been described as celestial, yet earthly, primeval, and innovative. Kat specializes in "Calusa Inspired" music, and created the music for many Calusa documentaries, including "The Domain of the Calusa", and the dance performance "Calusa" with the David Parsons Dance Company.

Reservations required. Call Captiva Cruises at 472-5300.

Digital Archaeology: Data Entry

By Jack Harvey

Computers are great at giving precise numerical answers, right? They calculate our paychecks, carefully taking out tax withholding, FICA, IRA, 401(k) and pension plan contributions. Then they print a check giving us what's left. And somehow, these numbers are all different on another person's paycheck. Amazing.

But there's a nasty little problem called GIGO – Garbage In, Garbage Out. Although the computer never makes an arithmetic error, it must be told exactly what your salary is, how many dependents you have, and what your elective deductions are. If this input isn't right, it's garbage and the resulting computer output is also garbage – GIGO.

In most cases, GIGO is caused by human error. Anytime data goes into human eyes to the brain where it is converted into motor nerve impulses causing finger movements, typos happen. With all the competing noise that a brain deals with, it's wonder what we write or type is ever correct.

This problem has plagued us ever since we invented writing – our writing sometimes doesn't say what we mean. When archaeologists type into a computer they should know that there is a long history of dealing with the Garbage In problem. I'm not talking about archaeological errors such as misidentifying material. We need to know how to spot typos as simple as interchanging digits in a weight. There's a lot of expertise developed for non-archaeological computer applications that can be applied in our field.

Back in the days when most accounting data was punched in tab cards to be fed into the computer, we used a step called verify. Data were typed twice – once to punch the card and then again to check that the data equaled the card punches. If the data didn't match, the machine locked and the key punch operator had to resolve the error before continuing. An

Typical laboratory identification form has erasures, overstrikes and blurs leading to errors entering data into a computer database.

important principle was that the two steps were done by different operators. Thus two different people had to agree on interpretation of the raw, often handwritten, input sheets. This greatly reduced the normal human typos that occur when data is typed for use in a computer and our paychecks were usually correct.

But tab card punches and verifiers are long gone. Today we need to rely on proofreading. We should print the data we type into the computer and then another person should compare what has been put in the computer database with the original laboratory identification forms. Where it doesn't match, the database is corrected.

Original lab identification forms are often rather messy and people may want to make clean copies of the originals. This will introduce more Garbage In so it is important that proofreading be done against the originals, not the clean copies.

The proofreading step requires the computer database be organized similar to the lab forms instead of as summary tables for publishing. A typical way to do this is to build the database as a list where each line or row of the list corresponds to a single lab ID form or aggregation. In the case of a spreadsheet computer program like Excel, this means each lab aggregation will be a row with a

column for each form datum such as provenience, material, species, MNI, weight, count, etc. It's useful to add a unique page number to each lab ID form and include it as a list column in the database. The page number then ties the row to a particular ID form for the vital proofreading step.

For record oriented database software such as Access, the same general rules apply with each database record corresponding to a single lab aggregation. After data entry, Access will be used to print a list that can be easily matched with the lab ID forms for proofreading.

What good are these databases that look like the lab data instead of the summary tables you really want? For example, you want to show the total ceramics found by type and test unit. With Access, you will specify a report that adds up all the relevant data and displays it in your desired format. With a spreadsheet program such as Excel, you will use the pivot table. These summaries will be free of simple human errors (GIGO) introduced if you try to build the wanted table with a pocket calculator. Furthermore, if late data or corrections are added to the database, they can be automatically included in all summary tables you previously specified.

Checking your database using a

Digital -- continued from Page 3

different eye/brain set than typed it is a fundamental rule handed down from the past that you should follow. But your keyboard is connected to a computer, not a dumb old keypunch. The computer can apply logic rules to entry data. For example, if a spreadsheet column is supposed to contain MNI data, you can enable a warning if you accidentally key in a weight with a decimal point, or a text string identifying species. Learn to use these data validation tools. Use the Help facility for whatever database software you are using to learn about them and how to apply them to minimize GIGO.

Ahem. I notice that only two people are still left reading this incredibly boring and tedious saga. Thanks for your patience and be assured that I've been as bored writing it as have the readers. Archaeology is full of delightful Aha! moments when we discover amazing artifacts in the rubble, but we still must fight GIGO. However, there's a bright future. I'll talk about that next when we learn how to eliminate human error.

November 2010 Newsletter

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