



WMS/LSS ARCHAEOLOGICAL SOCIETY NEWSLETTER

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A 501(c)3 Corporation and Chapter of the Florida Anthropological Society

The Warm Mineral Springs/Little Salt Spring Archaeological Society meets the second Tuesday of the month (except June-August) at 7:00 PM, at the North Port Community United Church of Christ located at 3450 Biscayne Blvd. Meetings are free and open to the public. Our next meeting after May 14 will be September 10, 2013

**THE MULTIPLICITY OF HERITAGE AT WARM
MINERAL SPRINGS TOPIC OF MAY 14 MEETING**

New College student Jodi Johnson will present "The Multiplicity of Heritage at Warm Mineral Springs" at our May 14 meeting.

Warm Mineral Springs is a significant and complex heritage site. Layer upon layer of history, dating back to the paleo and archaic periods and extending well into current times, can be found in coexistence at the spring. Since its archaeological discovery in 1950's and the subsequent discoveries of paleo and archaic human remains and artifacts through several archaeological excavations, it has fluctuated between intense scientific scrutiny, development, and abandonment.



New College student Jodi Johnson

The spring has been home to a working spa since the 1950's and continues to be a significant health and wellness destination. It provides a social gathering site for international travelers and is primarily used by the county's Eastern and Central European population. Warm Mineral Springs again finds itself at the center of an archaeological, heritage, and development crisis. In 2010, Sarasota County and the City of North Port jointly purchased the spring and have since spent two years in dialogue about the future of the site. Warm Mineral Springs has the opportunity to be preserved and sustainably developed, and, in doing so, also has the opportunity to be a model for future complex heritage sites within Florida, offering new ideas and fresh approaches to heritage preservation for the state. But to do so requires a critical look at the entire heritage present at the site and a consideration of how multiple levels of heritage play out at one place.

Jodi Johnson is a thesis student at New College of Florida, where she is studying anthropology with a concentration in heritage-site management. She is a North Port resident and a member of the Sarasota Historical Commission, Vice-President of the Warm Mineral Springs/Little Salt Spring Archaeological Society, and President of the Ancient Waters Foundation. She has done work at the archaeological site Stobi in Macedonia, an effort to preserve and conserve 6th-century Roman mosaic floors.

She is preparing to begin an internship with the Seminole Tribe of Florida in their Tribal Historic Preservation Office. Let's all welcome her on May 14.

CAVE-DIVE EXPERIENCES SHARED AT APRIL MEETING

By Judi and John Crescenzo

On April 9, 2013, underwater-cave explorer and publisher of *Advance Diver* magazine Curt Bowen shared riveting videos of his fascinating adventures in springs, sinkholes, and caves across North, Central, and South America. Accompanying him was one of his team members, Walter Pickel, who videoed the presentation. North Port Mayor Linda Yates was also one of the nearly 100 persons who attended the standing-room-only event.

As the 1996 Team Coordinator and Cartographer for the Warm Mineral Springs (WMS) Exploration and Mapping Project, Bowen was warmly welcomed back for an exciting evening of dramatic music, images, and discovery. Bowen's videos provided close-up views of adventures with his ADM Exploration Team, who dare to go "where no man has been before."



President George Haag, presents Curt Bowen (left) and Walter Pickel (right) with two of our world famous tee shirts

Bowen's video on cave explorations included a 2011 trip to a Yucatán, Mexico cenote, where Bowen and his team shared their knowledge of rope rigging and photography with the Mexican Archaeology Department. Mexican underwater archaeologists, conservationists, and architects checked the Bowen survey. Among the discoveries were a braided Mayan pot with a long spout used for serving chocolate and a carved ceramic face that had probably broken off a pot, rolling into the cenote.

Mayan human remains were also noted but not

disturbed.

At Phantom Cave in Phantom Cove, Texas, Bowen's team explored a shallow cave thought to be only 45 feet deep. However, the team ended up diving to 462 feet before reaching the bottom. A cartographer dropped a guideline into the cave, used a compass for direction, and took depth and distance readings. These data were put into a computer program to produce a map of the cave. After the wet survey was completed, the team also surveyed dry portions of the site. Based on this new information, Phantom Cave is now known as the deepest cave in the United States. Other underwater explorations took place at Crocodile Cave in Abaco, Bahamas, where a giant land tortoise was discovered. In the Dominican Republic, the first Dominican primate skull was found, and in Guatemala, Mayan art was uncovered.

There are many deep underwater sites in Florida, including the geothermal cave at WMS at a depth of 240 feet, Little Salt Spring at 247 feet, the Deep Hole at Myakka State Park at 131 feet, Arcadia Deep Lake at 297 feet, and Leeland Lake of Lehigh Acres at 181 feet. Other lakes include a Big Cypress National Preserve lake, Emerald Sink in Orlando, Sulfur Spring in Tampa, and many more, mostly located in central and northern Florida. Bowen noted that North Port's WMS is one of only two geothermal caves in Florida; the other is offshore.

Bowen's next video provided footage from WMS dives in 1956 and 2011. In 1996 to 1997, a 360-degree underwater survey was conducted from the surface to a depth of 240 feet. The team installed a stationary central vertical line, which was used to attach the survey tape. In all, 191 separate measurements were taken. Footage from 1996 showed the bottom of WMS with its main hot-water vent in a small cave at about 228 feet. The water temperature in that area is 100 degrees. Because hot water boils through a vent into a small room, the temperature is too hot for divers to remain more than 30 minutes. Video taken by divers on the ascent gave the audience a view of the murky conditions encountered on the way out of the spring. The 1996 video shows that conditions in the spring have not changed since 1956.

During a question-and-answer period, North Port's springs were addressed. Bowen stated that if granted permission to dive at WMS again, he could leave sensors in the spring to collect data for years, and his services would be offered for free. Bowen also announced that he and his team are working on an exciting new television series, *Cave Hunters*, that is hoped to be aired on Animal Planet in the fall of 2013. In this program, the team will be filmed as they continue to explore where "no man has been before."

BIOLOGICAL VARIATIONS IN ARCHAIC POPULATIONS TOPIC OF MARCH 12 MEETING

By Judi and John Crescenzo

On March 12, 2013, University of Florida PhD candidate Maranda Almy Kles presented "Interpreting the Biological Variation of Florida's Archaic Populations—Where do Warm Mineral Springs and Little Salt Spring Fit?" For her report, Kles used craniometric variations and biological histories of several Floridian populations from the Early and Middle Archaic.

Only a few studies have been completed regarding native peoples of the southeastern United States. One report on the Woodland Mississippian group has revealed a transition in ideology, but it does not show the migration of people. Likewise, the Hopewell Interaction sphere shows an exchange of goods and ideas, but not the intermarriage of people.

During her Florida research, Kles consulted the 1922 Hriacka study of a robust, long-headed people who were replaced by a round-headed population. Kles also read the work of Stojanowski, which covered the missionary stages, including both pre- and post-European contact. Differences between the people of north and south Florida were shown.

Kles went further into depth in her studies, noting that the Early Archaic Paleoindians who lived at Warm Mineral Springs had flexed burials on ledges 10,000 years ago. The Windover site contains flexed group burials, using stakes to hold bodies in place. During the Mid-Archaic, when Little Salt Spring was occupied, bodies were extended and staked or put into burial structures.

At the Bay West site, bodies were possibly staked, while at Republic Groves bodies were flexed and possibly staked in the peat. At the Gauthier site, bodies were flexed and buried in groups near ponds. During the Late Archaic at the Bird Island site, no large water source was available, and flexed bodies were placed in single graves.

To collect data, Kles measured skulls with calipers and a mandibulometer (say that three times fast) to determine whether the environment or genetics played a role in head shape. Through craniometrics, she showed that genetics, not the environment, was most important in skull variations. Patterns of variation reveal that groups that interacted became more similar over time.

Statistical methods used include PCA, which is an unbiased projection where variables are studied without any knowledge about the people. In DFA studies, the origins of the people are known, so group differences are maximized. In the R-matrix analysis, location of origin is known, showing genetic distance and gene flow. In these studies, WMS stands out as distinct from other sites, as



Maranda Almy Kles receives our world famous tee-shirt from President George Haag

does Bird Island and others overlapped. When the WMS and Bird Island groups are removed from the studies, LSS falls in the middle of everything.

According to PCA patterns, while WMS stands out as unique, LSS shows a close relationship with the Bay West population and Windover. In the R-Matrix analysis showing gene flow and biological distances, WMS again is distinct from other groups, while LSS has variables like other sites. WMS has low variance and its people were similar to each other. LSS people were more different from each other, possibly due to a higher number of people or a more diverse population. The Windover, LSS, Bay West, and Gauthier peoples consistently look very much alike, with very little variation among them. WMS and Bird Island populations are very distinct, as is the Republic Groves group.

The people at WMS were Paleoindians and had different burial patterns above water or in cave-like structures. Studies show that Bird Island was a new population that may have immigrated from Georgia or Alabama, as they brought along soapstone vessels found in those regions. It was also a new practice to have single, extended-position burials that were not near a large water source. The core Archaic populations of Windover, LSS, Bay West, and Gauthier were probably descendent-group relationships, which moved around the state. There may have been an East-West pattern to the biological variation due to different trade routes along the coasts, but this theory requires further testing.

The Republic Groves site is odd in that it looks like other archaeological sites, with pond burials, stakes, stone tools, and trade items, but biologically the people are different. However, as only 1% of the graves have been

excavated, perhaps this is not a representative study. They may also have had different trade routes because they were in the middle of the state, or perhaps they were a splinter group moving away from Bay West.

In conclusion, variations in the sites and a core population of 4000 years of burials in six Early and Mid-Archaic Florida sites have shown that WMS populations were the first to live in the state, and LSS peoples moved in later. The Bird Island population is most closely biologically related to later cultures, like Manasota and Weeden Island. Future studies should include: 1) an intra-site analysis of Windover, Gauthier, and Republic Groves, 2) a determination of the provenience of LSS, i.e., basin vs. slough, etc., and 3) a comparison to other Archaic populations of the Southeast.

SARASOTA COUNTY PROCLAIMS APRIL 22–29 LITTLE SALT SPRING APPRECIATION WEEK

At the Friends of Little Salt Spring General meeting on April 22, County Commissioner Christine Robinson, who represents North Port, presented FLSS President Lawry Reid and WMS/LSSAS Vice President Jodi Johnson a proclamation declaring April 22–29 Little Salt Spring Appreciation Week! She joined the FLSS and was presented with a FLSS hat, which she was quite excited about.



Sarasota County Commissioner Christine Robinson presents Friends of LSS President Lawry Reid and WMS/LSSAS Vice President Jodi Johnson the LSS Appreciation Week Proclamation April 22

Also in attendance was Jeff Moates, Director of the Florida Public Archaeology Network, USF, who discussed what FPAN was all about. To find out about FLSS, check out www.flpublicarchaeology.org/.

During the meeting, past Membership Secretary (and 2013 Citizen of the Year) Jill Luke and past President Dave

Runfeldt were presented a Certificate of Appreciation for their service.

Then on April 24, the proclamation was read again at the County Commission meeting. Present at the reading of the proclamation were Lawry Reid, Manuel Verdager, Gary Sanderson and his wife, Karen Binkoski, and Steve Koski. During the reading and presentation of the proclamation, Christine wore her FLSS hat that she received at the April 22 meeting, as did Lawry Reid, Gary Sanderson, and Steve Koski! The meeting was televised on the Sarasota Cable News Network and is available for viewing at the County website at the April 24 Commission-meeting video link.



Commissioner Robinson presents the LSS Appreciation Week Proclamation again at the April 24 Commission meeting to FLSS President Lawry Reid, Vice President Manuel Verdeguer, WMS/LSSAS board member Steve Koski and FLSS board member Gary Sanderson.

The Proclamation:

Whereas, Little Salt Spring is an outstanding cultural and natural resource of national significance listed on the National Register of Historic Places and is an eligible National Historic Landmark; and

Whereas, Little Salt Spring is a time capsule of information pertaining to Florida's earliest human visitation and paleo-environmental conditions from the late Pleistocene Paleoindian Period through the Middle Archaic Period 12,000 – 6,000 radio carbon years before present; and

Whereas, the University of Miami, through Professor Gifford, Ph.D., has provided 20 years of research at Little Salt Spring; and the volunteers of the Friends of Little Salt Spring and of Warm Mineral Springs/Little Salt Spring Archaeological Society support the University in its education and research at Little Salt Spring.

NOW, THEREFORE, WE, THE BOARD OF COUNTY COMMISSIONERS OF SARASOTA COUNTY, FLORIDA

do hereby proclaim the week of April 22-29, 2013 as
Little Salt Spring Appreciation Week
 in Sarasota County, and call upon all citizens to recognize
 the importance of Little Salt Spring.
 Presented this 22 day of April 2013



LSS NEWS

LSS Site Visit: UM Dive Safety Officer Rick Gomez was at LSS with his Science Diving Class over the weekend of April 13 to let his students experience a dive in a Florida spring. LSS is one of several underwater environments in which students make dives to introduce them to the variety of conditions into which their research may take them.



UM Science Divers Visit LSS in April

Steve Koski gave them a discussion of underwater archaeological mapping techniques and showed them some of the artifacts and specimens that have been recovered from the site. You can see by the photo that they enjoyed

the experience, as do all Dr. Gifford's underwater-archaeology students who visit in January.

Orchid Documentation: Steve Koski had some help documenting a species of orchid at LSS for a few hours over a couple of Saturdays in April and March by volunteers from the WMSLSSAS and FLSS. Members Pat Peterson, Eric Peterson Matt Fenno and Bill Goetz helped one Saturday and Jodi Johnson, Paul Rossi and Bill Goetz assisted on another Saturday. There are five species of ground orchids that have been documented on the 112-acre property; some are quite common, others quite rare. Three species are protected and one has never been found north of the Fakahattchee Strand in Collier County.

Funny thing about most native ground orchids, they have a very limited range and quite sensitive to environmental changes. Trying to transplant most species almost always results in failure because those specific conditions are related to the success of a colony, and in most cases, transplanting is illegal. Even seed dispersion in another area does not generally lead to successful germination because of those specific conditions, which could be as simple as an endemic fungus in the soil that facilitates germination.

ANNUAL FAS MEETING TO BE HELD IN ST. AUGUSTINE MAY 10-12

FAS January 2013 Newsletter

The St. Augustine Archaeological Association is hosting the FAS Annual Meeting on May 10-12, 2013.

The theme "Ponce to The Ponce" has been chosen in recognition of Ponce de León's 1513 landing and "Viva Florida 500" and the location of this year's meeting in Henry Flagler's former Ponce de Leon Hotel. The hotel opened 125 years ago and is now Flagler College.

The Friday-evening reception will be held at the 1565 settlement and more than 50 years of archaeological Fountain of Youth Park, the location of Pedro Menendez's excavations. Flagler College's Hotel Ponce de Leon, a designated National Historic Landmark, will be the setting for the paper presentations on Saturday. During the long lunch break, historic downtown tours will be offered. Each will give participants a glimpse of St. Augustine that few visitors get a chance to see. Box lunches will be available for those wishing to take advantage of all the tours. The Saturday-evening banquet, with Dr. Deagan as the keynote speaker, will be held in the Ponce de Leon Dining Room at Flagler College. Prepared by Chef David Bearl, AAC, the buffet menu will be similar to that enjoyed by the hotel's guests on opening night in 1888.

On Sunday, an early-morning boat ride aboard the *Victory III* around Matanzas Bay and a late-morning tour of the Lighthouse Archaeological Maritime Program (LAMP) facilities at the St. Augustine Lighthouse are offered.

For registration and hotel accommodations and schedule of events, visit FASweb.org and click on Annual Meeting.

WMS/LSSAS EVENTS

By Steve Koski

March and April were quite busy months indeed.

Saturday, March 9, several members went to Calusa Heritage Day at Pineland on Pine Island. There was quite a line-up of speakers this year, starting off with Dr. Jerald T. Milanich, UF professor and Curator Emeritus, who spoke on "The Calusa Indians amid Latitudes of Controversy: Charting Juan Ponce de León's 1513 Voyage to Florida." Followed by Dr. William Marquardt, Director of the RRC, on "Calusa at Contact: Archaeological Understandings." Followed by Steve Koski, UM Research Associate at Little Salt Spring, on "First Arrivals, Florida's Paleoindians: How We Know What We Know."

Followed by artist Merald Clark on Florida's pre-Columbian masks. Numerous displays and educational tables were part of the day, as well as tours of the Pineland site.

Saturday, March 16, the WMS/LSSAS and FLSS participated in a collaborative display at the fourth annual Archaeology Festival at New College, hosted by New



Manuel Verdeguer and Steve Koski at New College Arch Fest.

College Public Archaeology Lab and Time Sifters Archaeological Society for Florida Archaeology Month. What a beautiful day!

Many other historic-preservation-minded groups were there as well, such as the Florida Public Archeology Network, West Central Region, Around the Bend Tours, Sarasota Historic Preservation Commission, and Historic Spanish Point, to name a few. Some of the New College

archaeology projects were featured by students; tours of the lab were available; atlatl demonstrations, blacksmith demonstrations, and much more occurred. Lithic technologist Roger Hostetter set up a table with his stone- and bone-tool reproductions, and demonstrated stone-tool-manufacture techniques. Sarasota Historical Commission member Bill Goetz was one table over with the newly painted WMS Historic Marker. The marker will soon be reinstalled and there will be a rededication ceremony at WMS sponsored by the Sarasota County Historic Commission and hosted by the WMS/LSSAS; the date to be announced.



Bill goetz distributes SHC info, Ryan Murphy from Historic Spanish Point in background

The WMS/LSSAS brought posters, newsletters, free publications, selected artifacts, and the saber-cat reproduction (similar to the one found at Warm Mineral Springs in the 1970s). Judi and Sandra set up their Indian-twine manufacture-and-bracelet table, where both children and adults made bracelets from the handmade twine, using beads provided by the Society.

New College professor and archaeologist Uzi Baram welcomed all in an opening ceremony, followed by keynote speaker Randall Daniels on "Carriers of Traditions for the Apalachicola." All quite fun and informative!

Saturday, March 23, 15 members took a field trip to the Blueberry site, located on the eastern edge of the Lake Wales Ridge in Lake Placid, Florida. The site is located in a beautiful undisturbed portion of an orange grove, owned and protected by Ann and Charles Reynolds. Dr. David Butler, our February 2013 speaker (see the WMS/LSSAS March/April 2013 newsletter), was working at the site that weekend with Mathieu Fenno and a few volunteers, who took time out to further explain details of the site and setting, and described what has been previously found in the areas they have been working. Ann, always the

gracious hostess, gave us an informative overall historic background and tour of the middens and mound areas. Several attendees were then treated to lunch by our hosts at a local restaurant. Thank you!

This was really another fascinating field trip and we greatly appreciate Ann, Dave, and Matt for their time on this beautiful day!



WMS/LSSAS members and Friends at the Blueberry site

Saturday, March 30, several members visited De Soto National Memorial on the south bank of the Manatee River in Bradenton. The De Soto National Monument is a National Park comprising approximately 26 acres in Manatee County, situated on a spit of land at the mouth of the Manatee River in Bradenton at its confluence with Tampa Bay, with over 3000 feet of shoreline. The park commemorates the ill-fated expedition of Hernando de Soto. While de Soto was present on horseback with other Spanish-period re-enactors, there were also re-enactors from other historic times, many representing periods of conflict such as the Seminole Wars, Civil War, WWI, WWII, Korea, and Vietnam.



Hernando de Soto at De Soto National Monument

Saturday, April 6, a few members met at Myakkahatchee park in North Port for a stone-tool-manufacture demonstration and workshop by Roger Hosteller. Another absolutely beautiful day and setting under the oak canopy of the park near the Myakkahatchee Creek. Roger explained the lithic-technology techniques, such as percussion and pressure flaking; tools used for various techniques; types of chert available in Florida and other parts of the US; and benefits of heat treating. Roger also demonstrated the techniques he uses on several types of chert. A few present tried to make a few items, and we found it is about as difficult as it looks. Roger said that once you break up about a ton of material you get pretty good. Thanks, Roger. That was an informative and fun morning!

WMS/LSSAS MEMBER HERBIANA LUDWIG SPOKE ON HER PATAGONIA TRIP AT MANASOTA BEACH CLUB LUNCHEON

On Monday, April 29, WMS/LSSAS member Herbiana Ludwig spoke on her 2012 trip to Patagonia on the National Geographic ship *Explorer* at the Luncheon Speaker Series at the Manasota Beach Club: <http://manasotabeachclub.com/>. Steve Koski attended the presentation held at the beautiful setting on the Gulf-side deck of the Club, which began with a gourmet lunch followed by the presentation.

Herbiana gave details of the many ports visited and side trips taken, and discussed the inhabitants encountered by the first Europeans who explored and settled the southern end of South America and the southern extent of the Andes Mountains in Argentina and Chile.



WMS/LSSAS member Herbiana Ludwig at Manasota Beach Club Luncheon

The name Patagonia comes from the word *patagon*, used by Magellan in 1520 on his circumnavigation of the

world to describe the native people he encountered, who were said to be twice the size of normal people. They are believed to have been the Tuhuelcehes, indigenous people to the region. Later visitors also described them as giants, up to 12 feet tall. It appears that these early descriptions were highly exaggerated; however, their average 5'11" may have seemed quite large to the average 5'1" European.

Geographically, the area is diverse and beautiful, with steppe-like plains, terraces, freshwater lakes, estuaries, mountains, and glaciers that encompass the region. The area is rich in history and culture, the earliest archaeological evidence dating at 10,000 to 12,000 BC, with the first recorded visit in 1520 on the voyage of Magellan, followed by numerous explorations and founding of settlements. Her presentation was accompanied by her scrapbook of the trip and a poster board with illustrations and photos, followed by a showing of a professional video taken on the trip and shown in the MBC library. Based on her knowledge of the area and enthusiasm, it must have been quite a trip! Well done, Herbiana. Hopefully, you'll be willing to present on your Patagonia trip at one of our upcoming meetings.

Editors note: That's all for these eight pages. I know I missed something and there were so many more great

photos, so stay tuned for our Sept/Oct NL that will be out the first week in September, and possible an e-news prior to any other events. Have a great summer and thanks for your support!

2013 OFFICERS

PRESIDENT...George Haag (georgehaag1@gmail.com)
 VICE PRESIDENT.....Jodi Johnson (jodi.johnson@ncf.edu)
 SECRETARY.....Hilda Boron (941.426.1719)
 MEMBERSHIP.....Linda Massey (lmassey628@msn.com)
 TREASURER.....Kate Cattran (Roleencattran@aol.com)

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Newsletter Editor: Steve Koski (941)423-0835,
skoski@rsmas.miami.edu; Media Correspondent: Linda
 Massey, lmassey628@msn.com; Librarian, Lorraine
 Hawkins (941)743-6919, landhawk@aol.com

WARM MINERAL SPRINGS/LITTLE SALT SPRING ARCHAEOLOGICAL SOCIETY

P.O. 7797 North Port, Florida 34290

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