



WMS/LSS ARCHAEOLOGICAL SOCIETY NEWSLETTER

Vol. 33, No. 5 NOV/DEC and Vol. 34, No. 1 JAN/FEB 2023

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 at 7:00 PM (except June, July and August). **We will meet in person January 10th and February 14th** at the North Port Community United Church, located at 3450 S. Biscayne Blvd. (see article on page 2 for the new building location on the church property) Face masks are optional. For those who cannot make the meetings, we will also hold via Zoom, but please try and make the in-person meetings!

Cut and paste the following Zoom links to the January 10 and February 14 meetings. January Meeting link is:

<https://us02web.zoom.us/j/81592648474?pwd=UEVHbzgzazh4d0hJd1RGVWNSREpndz09>

The February 14 meeting Zoom link is:

<https://us02web.zoom.us/j/87496842146?pwd=V1oxR0k1OVNUY090Sk5QaElsWGNqdz09>

THE ANTHROPOGENIC MOVEMENT OF LIGHTNING WHELK DURING THE ARCHAIC: A WELL-TRAVELED MOLLUSK

by Michelle Calhoun

We welcome the return of New College of Florida graduate and independent researcher, Michelle Calhoun on January 10 with expanded research on shell tools and trade networks.

Lightning whelk is a fairly common sight on our southwest Florida, Gulf coast beaches. In fact, eastern Gulf of Mexico lightning whelk population studies show that 82% can be found between Charlotte Harbor and Ten Thousand Islands.

Interestingly, the shells of this particular mollusk were sought out in vast quantities starting around 8,000-10,000 years ago, formed into various forms of what are known as gorgets, and were interred with Native Peoples as far north as Canada. (Continued, see "Lightning Whelk" page 2)



We welcome back New College graduate Michelle Calhoun

NEW YEAR WISHES FROM THE WMS/LSSAS PRESIDENT, KATHY GERACE

Happy New Year to all our members and friends! As we begin our 2023 year, I want to welcome you to the Warm Mineral Spring/Little Salt Spring Archaeological Society. We are excited to once again be able to hold in-person meetings and are planning a year of excellent speakers and exciting field trips.

Hurricane Ian threw us off course in late September through December, with many of our members and board suffering considerable property damage, some quite severe. Our regular meeting place at the North Port United Community Church on Biscayne Blvd. is still not open, but we plan to meet in another one of their buildings in January and hopefully February (see article on page 2). The mess from Ian resulted in the cancelation of our October–December meetings and delay of our November/December newsletter, but we're getting back on track.

Hope you will join us in as many of these as possible, and we look forward to seeing you in person. We live in an area with its own unique past, and we want to share it.

We have a wonderful Board of dedicated individuals, so plans are underway to provide you with great monthly speakers, who can be heard at our in-person meetings or via Zoom.

We hope you can join us in person at our January 10 and February 14 meetings. We would like to kick off the season by seeing familiar happy faces again! Face masks are optional and social distancing should not be a problem for those who still have concerns, and we will also provide the meeting via Zoom.

Please see the cover page to meeting location and Zoom link.

LIGHTNING WHELK (continued from Page 1)

Calhoun's presentation will discuss the significance of this carnivorous, bottom-dwelling gastropod to Archaic and subsequent Native Peoples (ca. 8,000-1,000 B.C./ 10,000-3,000 B.P. to present), the routes most likely taken by those moving the shells, and an understanding of who these people likely were and what their purpose was in transporting these shells over such immense distances. These routes snaked all across the eastern U.S., even reaching into Texas. The shell tool assemblages of Texas and Florida during the Archaic show an undeniable connection. So too do the freshwater shell mounds of the Green, Cumberland, Tennessee, Tombigbee, and Ohio River valleys (Shell Mound Archaic) to those Archaic marine shell heaps and rings of the central to eastern Gulf of Mexico.

This work is still in progress after nearly four years of almost continuous research into, first, columella and gastropod tools, then into the movement of the sandal-sole type, and also of other whelk shell gorgets across eastern North America. These insights come from a fairly comprehensive literature review spanning forty states and five Canadian provinces, dozens of academic publications, paper and poster presentations, over 200 journals-both avocational and professional, cultural resource management (CRM) reports, informants from local archaeological societies, conversations with subject matter experts, and Indigenous histories.

Michelle Calhoun received a Bachelor of Arts degree in Anthropology from New College of Florida in 2021 with her undergraduate thesis titled "An Analysis of Prehistoric Shell Tools (Columella Tools and Gastropod Hammers) from Snake Island, Sarasota County (8So2336)." New College of Florida, Professor Anthony Andrews, PhD. was her advisor and the analysis and research was conducted at Sarasota County Historical Resources in collaboration with Sarasota County archaeologist Steve Koski. She presented the research to the WMS/LSSAS in 2020 and at the May 2021 Annual Conference of the Florida Anthropological Society, co-authored with Steve Koski. Since then, the scope of her research has expanded through additional work conducted on the whelk shell assemblage from the Bayshore Homes Site (8Pi41) in Tampa, for Dr. Robert Austin of the Alliance for Weedon Island Archaeological Research and Education, Inc.

Hopefully, any insights gleaned from this research will be a useful addition to the existing knowledge of this enigmatic period of North American history.

FEBRUARY 14 MEETING

The speaker February 14 meeting of the MMS/LSSAS will be announced via a special email notice in the latter part of January. Scheduling had been disrupted due to Hurricane Ian, not to mention two years of Covid, and we hope to get back to some resemblance of normality in 2023. Thank you all for your support!

DIRECTIONS TO THE JANUARY AND FEBRUARY MEETING ROOM

Due to hurricane damage of our regular meeting room at the North Port Community United Church, we will be meeting in their Fellowship Hall instead. While this room has also suffered damage, it is usable, and easy to find. It is not in the same building where we have always met, but in the building next door. You can still park in the same parking lot, but do so at the far end, where you will find a sidewalk going along the end of the unusable building to the one next door. Along the side of the next building, you will find a double glass door, which will bring you into the room we will be temporarily using.

WHAT SITES DO WE SAVE? TOPIC OF SEPT 13TH IN PERSON AND ZOOM MEETING, SPEAKER RACHAEL KANGAS, MA, RPA. By Judi and John Crescenzo

On September 13, 2022, Rachel Kangas, MA, RPA, presented by Zoom and in person, "What Sites do we Save? Climate Change and Cultural Sites." Kangas is the Regional Director of West Central and Central Florida. She earned an MA from the University of Central Florida, is on the Registrar of Professional Archaeologists (RPA), and has focused on dives for the American Academy for Underwater Sciences (AAUS). As part of the Florida Public Archaeology Network (FPAN) she promotes public understanding of archaeology through presentations and activities.

Climate change is not new, but some other factors are. During the Pleistocene epoch 2.5 million years ago, the earth warmed and ice caps melted, creating high water levels. This process of warming and cooling has been going on forever. The earth was very warm and water was high about 125,000 years before present. At that time, Florida had little dry land and was more like an island chain.

At the end of the last ice age 10,000 years ago, more dry land appeared when the oceans shrank.



Rachael Kangas accepts our WMS/LSSAS tee-shirt from President Kathy Gerace.

Carbon levels were the lowest 800,000 years ago. Data was collected from ice cap core samples and graphed. Scientists studied the bubbles contained in the cores because they were part of the atmosphere. A graph shows rises and dips in carbon levels. Today the carbon numbers are higher than ever before. The previous highest carbon dioxide level was 300 ppm, but today it is 414.7 ppm, a new record and cause for concern.

If current trends continue, sea levels will rise six feet in the next 80 years. Florida has the second most coastline of any state, and flooding will impact all major cities on the west coast. Problems arise when sea level is caused by climate change. Cultural sites may be lost, so resources must be prioritized to make good decisions. Citizens are encouraged to protect cultural resources through climate studies and plans. Talking with local representatives can lead to prioritizing and saving cultural sites.

Kangas has been working with FPAN and the Gulf Coast University to assess the vulnerability of cultural sites in Collier County. Land managers and local leaders chose ten case study sites and scored them. There are 1,557 cultural sites listed in the Florida Master Site File. Adaption of Coastal Urban and Natural Ecosystems (ACUNE), a web-based mapping tool, accurately shows the vulnerability of Collier County to inundation from sea level rise, tides, storm surges, and waves. In the Marco Island area in 2020, 267 sites were identified as impacted by sea level, and by 2030 it is expected that the number will rise to 318 sites.

The study focused on ten publicly accessible sites that people feel the most connection with in Collier County. Maps representing thirteen floods were constructed. One site is the Ochopee Post Office, which has been flooded in nine scenarios or 69% of incidences. If no action is taken, losses will occur environmentally (habitat and species), socially (well-being and archaeological sites), and economically (jobs and tourism.) The problem of the Ochopee Post Office can be resolved by moving the building, but shellwork sites cannot be moved and are very sensitive to flooding. For example, the Dismal Key Shellwork site could still be researched after sea level rise, but it would be more expensive and difficult.

Vulnerability and consequence scores for each site have been determined. This scoring method can be used on any site, in combination with any flood projection maps, and is easily updated with better tools, such as ACUNE. It is recommended that each county prepare cultural resource assessments. Diverse and equitable representation should be discussed with elected officials. Prioritization of cultural sites and the wise use of resources will help protect vulnerable sites.

FIELD TRIPS

Still in the planning stages is a walking tour of downtown Punta Gorda to see the murals, led by the president of the Punta Gorda Mural Society; we still hope to get out to Egmont Key at the mouth of Tampa Bay. We are not sure of the state of the damage and clean up at the Randell Research Center at Bokilia on Pine Island and Useppa Island, so the trips may need to be postponed until late 2023 or 2024.

Coming up is the Silver Springs Knap-in at the Silver Springs Museum at Ocala National Forest, which is always a good time (see following article on page 4. We are also participating at History Day at Phillippi Estate Park in Sarasota March 25 where we will have a tent and exhibit tables set up. The event is hosted by Phillippi Estate Park and the History Preservation Coalition of Sarasota County. More information will be in the March/April WMS/LSSAS Newsletter. To know more about the History and Preservation Coalition of Sarasota County, visit: <https://historicpreservationsarasota.com/>.

HURRICANE IAN AND LITTLE SALT SPRING

by Steve Koski

On the afternoon and evening of September 28, and morning of September 29, 2022, Ian, a category 4 hurricane, made landfall in SW Florida in the areas of Sanibel Island, Boca Grande, Captiva Island, Ft. Myers Beach, and other coastal and inland communities as it moved north, Ian caused catastrophic damage to those coastal communities from wind and coastal flooding not seen in decades. South Sarasota County and North Port also received a direct hit. In the direct path was the University of Miami-owned Little Salt Spring. As the hurricane approached, we entered the eye wall in the central northeastern portion of the storm, it then stalled, moved to the east, then moved north, and we rode the entire western eye wall to the very end, a six-hour a journey. Those affected communities were subject to hours of torrential rain and sustained category 3 hurricane winds, resulting in severe coastal and inland flooding.



In the direct path of hurricane Ian as we entered the eye wall of the storm at 3:20 PM 9/28/22, it stalled, moved east, and we maintained our western and southern ride for the next five to six hours until leaving the far southern end of the eye wall as it began to collapse. The point just under the "F" of Fort Myers in the eye is the tip of Bokeelia on Pine Island with Boca Grande Pass to the west also in the eye of the storm.

Local UM LSS site manager Steve Koski was the first to make a site assessment late Thursday morning following the storm. Prior to the hurricane, the property was secured as best possible to reduce damage from flying objects. With one 1996 manufactured home, two single-wide 1975 trailers from the Clausen years, and a 1986 double-wide office/trailer used as a student dorm, there wasn't much else to do. The dock was secured, trash barrels, grill, propane tanks, etc. were tied down, equipment moved from the lab to the conex container and the property was evacuated. All specimens and artifacts are safely stored at the Anthropology Department at the University of Miami.

On September 27 at 7:30 PM, Koski reported to Atwater Elementary School for his Sarasota County emergency evacuation shelter role, where he spent the next 38 hours in lockdown (he worked in the pet section of the shelter). Koski left the shelter under mostly sunny skies around 10:30 AM Thursday morning September 29. With canals flooded and some roads washed out, and massive flooding from more than 20 inches of rain in seven hours, he made his way to LSS off Price Blvd. He expected to see catastrophic damage. How could there not be after the last several hours of hurricane force winds?

Upon arrival, Koski had to drive through several inches of water as the sloughway crossing Price Blvd. was flooded with more than 12 inches of water. The road was flooded from the Myakkahatchee Creek and a main canal to the north, and the water continued to rise for more than 24 hours after the storm.



Looking left (east) from Hyder Terrace on Price Blvd., across from the gate to LSS (9/29/22).

At the front gate, Koski observed snapped trees, felled palms, flooded fields and hammock. The area was littered with debris. He stopped twice to drag felled branches and had to chainsaw his way past one section with a felled oak. Through all the hurricanes witnessed in the last 30 years, including Charlie, Wilma, Irma, and several more, Ian was by far the worst damage seen. Surely there would be nothing left of the research compound, he thought, as he meandered his way up the driveway. But, to his shocking surprise, all the trailers were intact, but how could that be with all the wind and tree damage? There is not a good explanation other than the hammock around the spring protected the buildings.



View from the beginning of the driveway to LSS Entrance drive into the research compound and gate to LSS. A massive amount of leaf litter is scattered along the driveway and inner compound, and path to spring, all cleared, raked, and mowed by mid December.

One by one, he entered the trailers. First the residence double-wide mobile unit where he lived from 2004 to 2013. The roof had been re-shingled less than a year ago and not one shingle blew off. The skirt was completely gone, and the back staircase rolled a few times, but no windows were broken and no leaks observed. The building seemed sound. Even the two 1975 trailers held up, one with no leaks, the other with water intrusion from the side with a boarded-up window. Much of the framing in the 1986 double-wide office trailer is punky, but the trailer remained with minimal leakage from the ridge plate that peeled open a bit. The tractor shed was blown off the tractor and landed several meters away, the lawnmower shed blew over the 6' fence and in pieces, the roof of the 1975 shed used to keep the new mower was blown off, and the corrugated clear plastic roof over the spring-side Chickee was ripped off, but that was it. A ton of clean up, that continues, but not catastrophic.



The staircase was ripped off the 1996 unit and its skirt sections everywhere. The roof of the c. 1975 newly-remodeled mower shed lies beside it.



Looking toward spring from front of Chickee (photo 9/29/22). Water level returned in three to five days and the general appearance back to normal by October 30, minus many beautiful oaks, bays and palm trees.

The spring flooded and completely filled the hammock, and there were felled palms, snapped oak limbs and detritus everywhere. The University of Miami sent a crew with chainsaws and a chipper for a day to remove the felled trees in the driveway, inner compound and spring path, and Koski, with a dedicated crew from the WMS/LSSAS and Friends of LSS spent the past 12 weekends cleaning up. There is still much more to do, but the research faculty is cleaned up and the pristine water is almost crystal clear this time of year with a flow of from 6,000 to 9,000 gallons of water a day (1.5 cfs), a large third magnitude, flowing into the creek that meanders through more than one-half kilometer of the UM research facility. There is still much to do, but the LSS Research Facility will be ready for a UM science diver re-breather training class held at the end of January and archaeological research is being planned for fall semester 2023.



New Year's Day at Little Salt Spring (photo by Steve Koski)

12TH ANNUAL SILVER RIVER KNAP-IN, STONE TOOL MAKING, AND PREHISTORIC ARTS FESTIVAL TO BE HELD FEBRUARY 18 AND 19.

If you have never attended the Silver River Annual Knap in, here's yet another opportunity! Several of our WMS/LSSAS members have gone to the Knap-in over the years, and member Roger Hostetler, stone tool making extraordinaire, will be there as a participant. It's always a great time and once on site, a visit to the museum is free. There are numerous activities for young and old that, include primitive arts, crafts and prehistoric and historic tool manufacture and sales. Quarry stone is available from all over the south east and west for purchase for those knapping enthusiasts. Seminole canoe-making, hide-tanning, cracker camps, an early Florida homestead, trail rides, food vendors, and a lot more is planned. One year, some members spent the night and kayaked a stretch of the crystal clear Silver River to the Ocklawaha in Ocala County. For more info. on the Knap-in and museum, directions, etc. go to: www.silverrivermuseum.com, then click special events.

12th Annual
Silver River Knap-In
Stone Tool Making & Prehistoric Arts Festival



February 18-19, 2023
9 am to 4 pm

Silver Springs State Park, Ocala, FL

Admission \$8
Kids 5 and Under Free



Paints by Woody Blackwell

Painting by Mickey Summers

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| <ul style="list-style-type: none"> Stone Tool Making Bow and Arrow Making Pottery Making Bone and Shell Carvers Buckskin Leather Making Bakery and Cordage Making | <ul style="list-style-type: none"> Traditional Archery Range Dugout Canoe Carving Indian Artifact Displays Archaeology Talks by Experts Tram Tours of State Park Food and Craft Vendors |
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www.SilverRiverMuseum.com (352) 236-5401

OPINION ON WARM MINERAL SPRINGS: Bill Goetz Warm Mineral Springs To Be Given Away To Developers:

Just from ticket sales for swimming; Warm Mineral Springs has been historically profitable even before the current facilities were designed by Sarasota School of Architecture's Jack West, and built to house the State of Florida's Quadricentennial

Celebration in 1959. As the only hot springs on the Floridian peninsula; it is a geological wonder. It has been drawing people and animals to its waters for over ten millennia, and preserving their remains in its constant temperature and anoxic waters; making it an archaeological and paleontological wonder as well. Both Warm Mineral Springs and Little Salt Spring have had hundreds of television programs, magazine articles, and scientific journals published about their historical, cultural, and natural significance. These amazing places give our city a sense of place and provide an identity for our city.

The limestone karst that is under our feet forming the spring vents that feed the cenote at Warm Mineral Springs is very brittle which is why it has lots of voids and pockets of ground water that form our aquifer and the very existence of these super-massive sinkholes our region of Florida is known for like Warm Mineral Springs, Little Salt Spring, Nona Spring, Deep Hole, and Leeland Lake. Florida has a history of springs going dry due to large earth shaking development occurring near their spring-heads.

In July of 2014 the North Port City Commission decided against having the city's most unique cultural and natural treasure destroyed by over development. At the time Warm Mineral Springs was owned jointly by Sarasota County and the City of North Port, and had been since 2010.

The Sarasota County Commission voted unanimously for supporting a proposal by Jebco Ventures Inc. and Angel Shot LLC to secure a loan for thirty four million dollars to develop our public property with condos and a hotel for their profit. The City of North Port would not agree to this and a rift in mutual agreement between the commissions that eventually came to the county selling the city their portion of the property.

Over the years since the city has hosted several public meetings so that the stakeholders (the taxpayers of North Port who own Warm Mineral Springs) and the general public could have their say about what was wanted on the property, and there was a general concession being no large scale development that could put the springs in danger. We settled on a plan and we all thought it was all agreed after securing the 9 million that was estimated for restoration of the historically significant facilities.

Then all of a sudden we find out that the current commission plans on giving away our most celebrated cultural and natural treasure to an LLC who has only been an active corporation since it filed with the state on September 7th of this year, five days before the meeting where this commission handed them our treasured property, along with the 9 million dollars that we put aside for the restoration. The fact that it is a "limited liability" corporation they formed says a lot as no one will have to take responsibility for any mass destruction once they ruin what makes Warm Mineral Springs so special. On the map of potential destruction that staff has provided for us; it shows the plans for the hotel right over top of the vents that come into the very bottom cave on the north wall of the cenote. I serve on and have served on boards and committees with all of the

architectural, archaeological, geological, and paleontological experts on Warm Mineral Springs. I have asked all of them if they had been consulted by staff or any representative of WMS Development Group LLC, and everyone said no, so no real experts that have studied Warm Mineral Springs for decades have been contacted about any of this.

-Bill Goetz



WMS aerial photo from 1974 (provided by Bill Goetz)

2022/2023 WMS/LSSAS OFFICERS

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