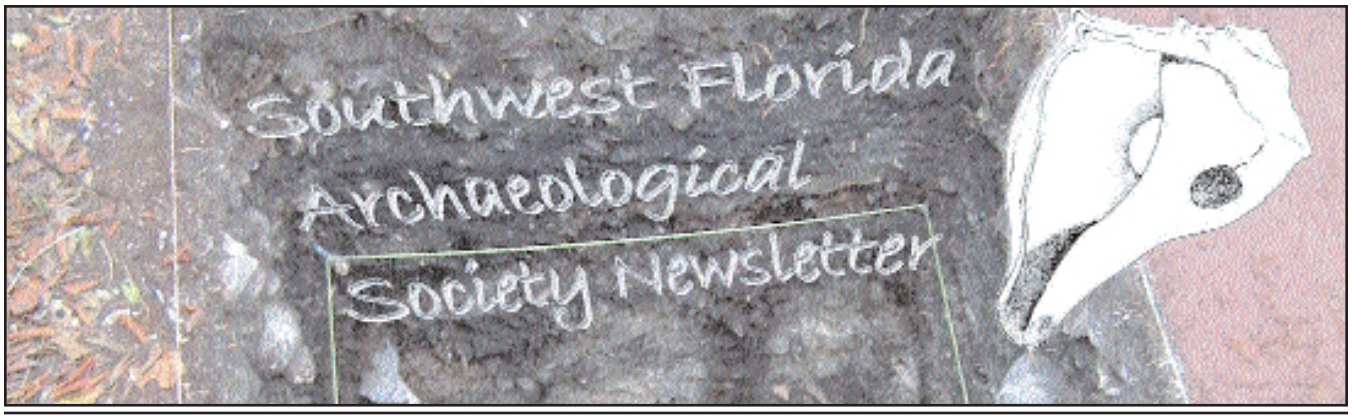

Vol. 22 No. 11 **December 2006**

December SWFAS field trip

- ***SWFAS will continue the tradition of having the December meeting be a special field trip. There will NOT be a meeting on the third Wednesday at the Bonita Springs Community Center.***
- ***There will also be no December Board meeting. The next Board meeting will be in January — at a new time — at 7 p.m., prior to the regular 7:30 monthly meeting, on January 17, 2007 at the Bonita Springs Community Center. All interested are invited to attend.***

December 3 - SWFAS Annual Picnic and Work Party

This year's annual picnic will be a BBQ and potluck get together at Charlie Strader's house in Bonita Springs, located on the upper Imperial River.

While enjoying good food and good company, we also plan to sort through material analyzed from a previous SWFAS excavation to determine its accession fate.

So, this will be a good time to see some local archaeological artifacts (the shells and pottery, not us old members) and learn from the professionals. The material to be sorted derives from an excavation conducted in 1986 by SWFAS at the 8LL709 Strader Site. The test pit into the midden located along the lower Imperial River went down to a depth of 12 feet and yielded a large quantity of cultural material.

SWFAS will provide/cook ribs and chicken and have cold drinks, plates, etc., available for all who RSVP. We also ask that you bring a dish to be shared. *Please call Charlie at 239/992-9660 to reserve and coordinate your delicious entry to the potluck.*

We hope all can attend the Sunday, December 3rd party, starting at 10:30 a.m.

Charlie's address is:
27655 Kent Rd
Bonita Springs, FL 34135
ph: 239-992-9660

Directions from I-75:
Exit at Bonita Springs (only one)
Go East (opposite to beaches and town) about a mile to Publix Grocery,
Turn left at light (north) on Bonita Grande,
Go about a mile to stop sign and,
Turn first left (west) on Terry St,
Turn first left (south) on Kent Rd, (road to the YMCA).
Continue past YMCA till road turns to right. Then first house on left, a white 2-story.

See more about the Strader site on page 2.

About the Strader site

Preservation efforts

By Charlie Strader

The Strader Site - 8LL709, the largest midden mound site in Bonita Springs, was nominated for public purchase this year to Lee County's Conservation 20/20 program. The seller's asking price for the less than 2 acre site was $6,000,000. The owner was willing to negotiate, but the price was a stumbling block. It appears that small, expensive properties create controversy within 20/20.

Committee members compared the amount of acreage such money could buy elsewhere. As growth in Lee County continues, this may cause shifting in their appraisals and priorities.

The nomination made it through initial and secondary review. Unfortunately, at the final review on November 3, it was not recommended for purchase. Concerns included the price and the lack of additional funding from the city of Bonita Springs. (Noteworthy is that Bonita Springs has contributed about $17 million to 2020 since becoming a city in 2000.)

20/20 also had management concerns for a small parcel in an urban setting. The Assistant City Manager of Bonita Springs, Barbara Barnes-Buchannan, attended the last two meetings and stated that the city would work with 20/20 regarding land management plans, and the city would assume restoration, land management, and oversight responsibilities. A major comment for rejection was that the property was not appropriate for 20/20. Proponents for purchase tried to show it was environmentally sensitive with its canopy of mature oaks and being vacant riverfront property, it was certainly endangered. It obviously met any archaeology resource criteria. As public property, it would also greatly contribute to the Lee County Calusa Blueway, and the city's Imperial River Flowway plans.

2020 only recently included archaeology in its ranking process. Thanks in a large part to the efforts of Dr. Bill Marquardt and Dr. Karen Jo Walker, with their lobbying and educational efforts. But evidently, even though it was illustrated that the property contained over 3,000 years of cultural and environmental history, it was not enough to convince the committee that purchase was justified.

I noted to the committee that those of us in archaeology regularly look back hundreds and thousands of years, so maybe that makes it easier for us to look far into the future. When we envision a Lee County of 50, 100 or even a thousand years from now - how important will it be then for the public to experience an Indian mound, replete with native vegetation, and have access to the lower Imperial River and lower Estero Bay?

I would like to personally thank several people for their efforts in trying to preserve the site for the public. Larry Lapin, the landowner for his willingness to nominate the property and his patience during the bureaucratic process. Cullum Hasty, the 20/20 member who persuaded the owner and got the site nominated. For attending and speaking at the 20/20 meetings, thanks go to John Beriault, Kara Bridgman Sweeney, and Theresa Schober. Also, from the city of Bonita Springs, three council members lobbied - Martha Simons, Alex Grantt, and Pat McCourt. Special thanks go to Barbara Barnes-Buchannan for all her past and future efforts.

All hope for public purchase of the site is not totally lost. The owner is willing to be patient a little longer. Now it is up to the efforts of the city of Bonita Springs to prioritize the importance of the site and pursue funding options (direct funding, outside grants, etc.) If additional or matching funds are found, 20/20 may reconsider the nomination favorably. So if you have comments (which are very important to send) you should address them to both the city of Bonita Springs and Conservation 20/20. Public ownership of this ancient river front site would be an invaluable asset for Bonita Springs, Lee County and the State of Florida.

If you have questions, you may contact Charlie Strader at 239-992-9660

Archaeological Investigations

By Theresa Schober

Initial archaeological testing of the Strader Site (8LL709) was conducted from February to April, 1986 under the supervision of John Beriault and George Luer. The almost two-acre site is beautifully situated on the south bank of the Imperial River, approximately one half mile east of its confluence with Fishtrap Bay. This low profile shell midden parallels the river for approximately 150 meters (460 feet) and today supports a mature oak canopy.

Despite its low profile, the Strader Site is believed to be continuously occupied from at least the Late Archaic times (4,500 to 3,000 years ago) until the Calooshatchee II period (ca. A.D. 1000). A 1.5-x-2.0 meter test unit, reduced with depth to a 1-x-1 meter unit revealed a deeply stratified site with abundant tools including shell anvils, pounders, and dippers, as well as bone beads intermixed with shell refuse and faunal remains. Upper midden layers containing pottery were found to overlay organic-rich midden layers without ceramics.

Glades Plain (or Sand-Tempered Plain) pottery first appears in the archaeological record around 2,500 years ago indicating an age for the earliest inhabitants of the Strader Site further back in time.

As the excavation reached the water table, a backhoe was employed to reach the bottom of the cultural deposits. Despite a nearly 3.5-meter (12 foot) test unit, cultural materials were still evident beneath the modern water table. Interestingly, near the surface of the water table and below, possible sherds of fiber-tempered pottery were recovered as well as potential post-mold features. Fiber-tempered pottery dates as early as 4,000 years ago. Once corroborated with radiocarbon dating and ceramic paste analysis, the Strader Site may be the longest continuously occupied site on the Imperial River.

SWFAS Board nominees

Nominations for Board members and officers will be voted on at the January 17, 2007 SWFAS meeting in Bonita Springs.

Following are the proposed nominees for the 2007 Officers:

President	Theresa Schober
1st VP	Karen Nelson
2nd VP	Tom Franchino
Recording Secretary	Jo Ann Grey
Treasurer	Charlie Strader
Membership Secretary	Charlie Strader

New nominees to the Board are Kara Bridgman Sweeney (FPAN archaeologist based out of the Randell Research Center) and Jim Oswald (long-time volunteer on numerous projects in the area). The current Board members will continue to serve on the Board.

Reminder
SWFAS membership dues are due January 1.
Individual - $20
Sustaining - $50
Family - $35
Student $15

All photos by Jack Harvey

Above: SWFAS Lab Rats assisted at the Mound House pool dig on Oct. 22. Left and left below: At the SWFAS Nov. field trip to Mound House, Director Theresa Schober discussed the stratigraphy of the mound. The lowest levels are estimated to go back about 2,000 years. It is theorized that the lower third or so of the mound is more intensively accumulated habitation debris, while the upper two-thirds are characterized by more rapid mound-building episodes. The mound was abandoned as a permanent habitation around 800 AD, although the areas at water's edge were used after that. Mound stratigraphy has also revealed that the mound was originally much higher.
The new concrete front wall and doorway of the walk-in mound exhibit are visible in the background in the lower photo, and Schober is standing slightly above the bottom layer of the mound and what will be the floor level of the exhibit.The half-height mound section at the middle left was removed by bulldozer and shovel on Nov. 17-18, with help from SWFAS volunteers. This back slope of the mound provided less information about human activity than the substantial excavation area to the east, but watching the bulldozer bite into and destroy two thousand years of human habitation — in seconds — was sobering. The concrete roof beams were laid on Nov. 21.

News from the area

Mound House archaeological exhibit ranked first by Florida Historical Commission

By Theresa Schober

In September, the Florida Historical Commission met to review and rank special category grant proposals from across the state for archaeological, historical renovation, and museum exhibit projects. A second phase request for $350,000 by the Town of Fort Myers Beach Mound House to complete the interior of the walk-in shell mound exhibit was ranked first priority for funding in next year's grant cycle. Although funds are not guaranteed until the governor signs the 2007-2008 budget, this grant pool traditionally receives $12.5 million in state general revenue. For the Mound House, this funding will support an opening of the underground exhibit by fall of 2008. The first phase of funding received in 2004 supported the removal of a swimming pool built into the mound in 1958, construction of a building shell to support the exhibit room and archaeological mitigation.

The Mound House Contracts Renowned Landscape Architects to Restore Grounds

By Theresa Schober

With assistance from a Department of Forestry Grant to the Town of Fort Myers Beach, the Mound House is planning a native plant restoration for the 2.77-acre shell mound. The project scope includes supporting a 1921 restoration of the William H. Case House that sits atop the mound as well as providing educational native plant trails that focus on prehistorically and historically utilized plant species and providing information on native plants that can be used in today's yards. A portion of the mound area will also be returned to unique shell mound vegetation. A key element of the landscape master plan will be combining aesthetic, educational, and historical goals with modern accessibility and security concerns.

To accomplish this significant planning task, the Town has contracted EDAW, Inc. of Atlanta. The project team from EDAW includes Landscape Architects David Sacks and Leonardo Alvarez with a combined 40 years experience including public gardens, parks, historical properties, and cultural landscapes. David received a Landscape Preservation Award from the Florida Trust for Historic Preservation (2002) for the McKee Botanical Garden in Vero Beach and a Design with Natives Award from the Florida Native Plant Society (2001) for the Boynton Mangrove Park, among other awards. Leonardo Alvarez received an Award of Excellence from the Miami Beach Preservation League (2004) for the Flamingo/Lummus Neighborhood Master Plan, a Preservation Award from the Historic Florida Keys Preservation Board for the San Carlos Institute Restoration, and two awards from the Florida Chapter of the American Society of Landscape Architects for his book entitled, *Places in Times: Historic Architecture and Landscapes of Miami.*

An intensive three-day public workshop will be held the week of December 4th to conduct interviews with stakeholders and to come up with alternative scenarios for landscape design. If you have an interest in contributing to the process, please contact the Mound House at 239/765-0865.

2006 The Year of the Museum

Governor Jeb Bush signed the "Year of the Florida Museum" on March 22, 2006. "Museums occupy a unique place in American society and culture. They are holders of our nation's most cherished ideas and possessions. They are places of discovery, exploration, and lifelong learning. They are places of social interaction, bringing us together to share common experiences and learn about our communities. They are places of knowledge and inspiration, showing us who we were, who we are, and what we can be. Museums tell our collective story and offer us an opportunity to gather together and to remember, learn, marvel, and delight."

"In Florida, Museums are significant resources for our State's number one industry, tourism," states Malinda Horton, Executive Director of Florida Association of Museums in her editorial for the FAM News, March 2006, No. 1 issue.

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Lab Rats viewed from above on Oct. 22 at Mound House.

Archaeological Currents

By John G. Beriault

Life has a way of drifting along and just as suddenly taking us to an unexpected place, like driftwood carried by currents landing at a strange shore many miles from the place of origin. In archaeology as in life there are questions of origin and influence – questions – here in South Florida – such as the advent of ceramics. Was this innovation brought to us from South America via the Caribbean? Was there contact at very early times with other areas of the continent, the world?

What cultural influences traveled the many miles across land and sea to shape the local Indian culture? How did exotic artifacts fashioned from greenstone, hematite, galena, quartz find their way to a land of recent sedimentary limestone, a place totally lacking naturally-occurring sources of this material?

The more "scientific" archaeology becomes, the more precise the tools and techniques become to answer some of these questions, but many of the mysteries remain concerning long-distance transport, and why things and ideas have turned up where they have.

I think the Florida Keys are the place where many of the mysteries have floated in. Some of the mysteries floated in on canoes or on sailing ships borne by strangers; others, well... just floated in... In another life, I'd have liked to prowl the beaches even a hundred years ago. Bottle collectors know this is the place to search, and I've seen bottles from Cuba and the Caribbean, not to mention many an odd bottle from the freighters passing on the offshore Gulfstream. Other "things" washing ashore are beautifully-carved canoes, carved santos (statues of the Virgin Mary, saints such as the militant Saint Michael), exotic woods, "sea beans," and pumice — lightweight volcanic stone from eruptions far across the world.

This is a phenomenon of long duration. Prehistoric Indians of South Florida saw strange objects washing in with the tide, and the effects on them and their culture may have been greater over many years than we can likely ever calculate. Who wouldn't consider a strange wooden "idol" washed up on a beach, and perhaps walk away with a new "idea" or even the thing itself, incorporating on some level this new perspective into the local culture?

We find the exotic pumice in our local sites. The material made a wonderful abrader, something hard to find locally in this land of soft stone. Occasionally this easy-to-shape material was turned into small objects of art. A pumice bird figure, likely that of a woodpecker, came from a burial mound in the Keys.

A less-obvious material, one that caused a site in Upper Key Largo to be carbon-dated to 100,000 years B.C., an impossibly early date, was bitumen or natural tar, coming perhaps from the tar pits of Jamaica. The local Indians likely used it for waterproofing basketry, or perhaps preserving cordage, and probably brought it from the beach to their village sites… causing amazing temporary concern among scientists trying to date material from those sites a thousand years later.

I've seen whole trees of close to one hundred feet in length washing down the Amazon River in Peru and the Usumacinta River in Mexico. Many of these had orchids and the odd collection of animals. On they floated, past me to an unknown destination. Over the millennia, some of this material, alive and dead, found its way to Florida and beyond, as did objects made by people hundreds or thousands of miles distant. Eskimos in the Arctic fashioned implements from tropical hardwoods washing ashore on currents as driftwood far from their place of origin.

Another small, much more local mystery — perhaps answered in a masterful paper by Randolph Widmer of the University of Houston — was the presence of mako sharks teeth at the Key Marco Site and elsewhere. The mako shark is a reclusive deep water shark that only approaches within a hundred feet of the surface at night. Even when the shark ultimately dies, the body sinks to the depths and does not apparently wash up on the beach. The teeth were not fossil, so where were the prehistoric Indians getting these teeth? Widmer's deduction was the Indians were fishing in the Gulf Stream at night using deep-water tackle, probably using canoes lashed together for stability. The teeth were then traded to our side of the peninsula. His arguments seem sound and can neither be refuted nor confirmed.

For decades archaeologists have tried to find irrefutable evidence for trans-Caribbean contact. Not too many years ago, some exciting finds on Everglades tree islands documented greenstone or hardstone petaloid (flower-petal-shaped) celts, the analysis of which indicated the material came from the Caribbean and Central America. The joy of this discovery was short-lived when it was also discovered these celts were being sold in Miami by *botanicas* (stores specializing in selling voodoo and herbal remedies) to people practicing Santeria (Cuban voodoo). These celts were emblematic of the God of Thunder and were left on altars — where else? on tree islands west of Miami.

So, new questions arrive with each strange object cast onto foreign shores; when did it get there; how did it get there; and why did it get there? Archaeologists always struggle with the "why" of the past. Why can be a query; expressed phonetically as "Y," it can be an element in an equation; even the shape of "Y" suggests divergence or convergence of a path to somewhere else, a leavetaking, and, more importantly, the potential arrival in a new and very strange place - the creation of yet another mystery…

Storter Historical Art Collection on View in Bonita Springs

The Storter Collection is on loan through February from the Friends of the Museum of Everglades City. The exhibit features 44 pieces of artwork and writing by pioneer Rob Storter of Everglades City and Naples. The collection was recently displayed at Rookery Bay in Naples and will travel to the South Florida History Museum in Miami next year. Storter, along with his granddaughter, wrote the book, *The Cracker In The Glades,* about his life growing up in the early 1900s in Everglades City. His cousin, Bertie Storter, was one of the first school teachers in Survey (Bonita Springs). Copies of his book and prints from the collection will be on sale to the public. Additionally featured at the hotel is a pictorial history of the fishing trade in Florida from the Calusa to modern times. The 16-panel display is on loan from Florida Gulf Coast University.

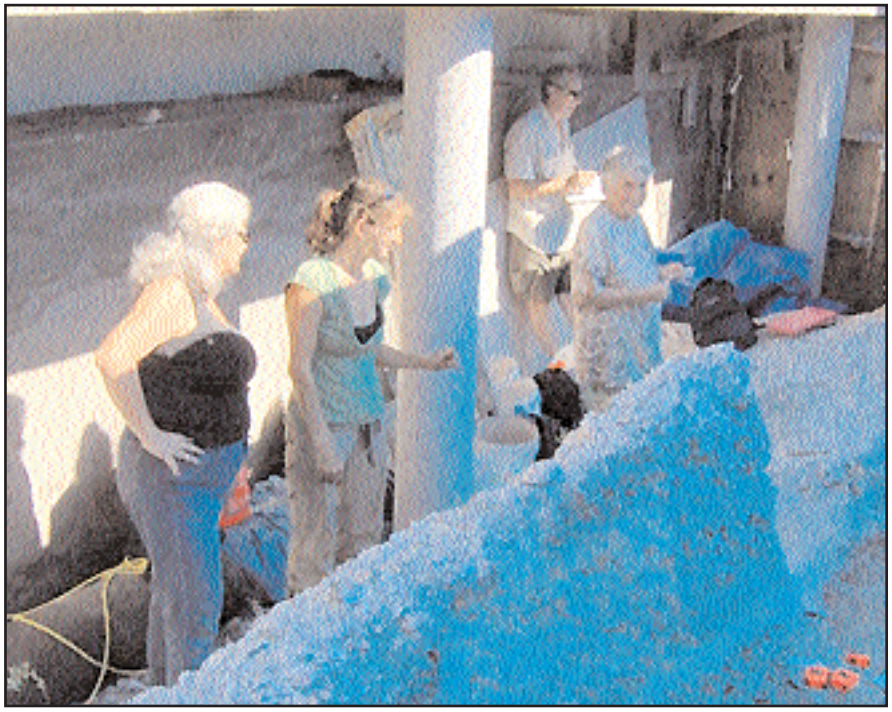
You are encouraged to also view all the new graphic displays of Bonita's early history and the history resource center located on the second floor. The public is invited to stroll around, look through a window into the past, and enjoy sunset in the park. Admission is free, although donations are appreciated. The Liles Hotel is located riverside in Bonita Springs on Old US 41. For more information, call 239-992-9660.

Bailey-Matthews Shell Museum Natural History Lecture Series

The Shell Museum's Lecture Series will showcase prominent southwest Florida scientists and natural history enthusiasts to provide up-to-date research to the broader community and increase awareness of the sensitive environment. For more information about this or any program at Bailey-Matthews Shell Museum, visit www.shellmuseum.org.

The series will run through May,

See NEWS, page 7



Schober with Lab Rats on Oct. 22 on the third side of the pool dig, opposite the long, high wall. This half-height wall was also removed to open up the space.

SWFAS members at the start of the November field trip, at the top of the mound with its magnificent bay view.

Geology Rules: Flatland Lakes

By Jack Harvey

A lake is a body of water surrounded by land, right? The surrounding land is necessarily as high as the surface of the lake; otherwise its water would run out. How does this land arrangement happen?

Humans and beavers sometimes build dams across the mouth of a valley, trapping the water flowing in a central stream. Occasionally, debris will clog a stream, blocking flow and forming a lake behind the debris dam. Additional floating debris adds to the dam and it may grow and persist for years until washed out by extreme rainfall.

If the terrain around a valley is mountainous, a landslide might throw a giant dam across the valley creating a large and deep mountain lake that lasts for thousands of years before erosion cuts a new streambed. In tectonically active areas, plates can fold resulting in low elevation areas completely surrounded by mountains, or volcanoes can throw up ash and lava that block the natural flow of rainwater. Where glaciers occur, the moving ice makes deep gouges in the earth blocked by the glacier terminal moraine. These blocked gouges form lakes. The great weight of continental ice sheets can randomly compress the land beneath them leaving depressions that become lakes.

So which of these events created South Florida's Grand Central Lake, Okeechobee?

Answer: None of the above.

The lake is on high ground at the center of South Florida. But how high? To give you an image, the average water level of Okeechobee is about as high above sea level as the railings around Naples Pier or Fort Myers Beach Pier. Really high water in the lake is about level with the roofs of the small huts on these familiar piers. This is the amount that the world ocean levels must rise in order to submerge the land surrounding Okeechobee in seawater. Daily tides are larger than this in some places.

So "high ground" is a relative term. As we discussed in "Alligator Bowling Alley," South Florida is remarkably flat.

South Florida is mostly cemented together by calcium carbonate, the mineral calcite, precipitating from seawater. Coral and shellfish help out. Erosion in the tectonically produced mountains of Alabama and Georgia washes quartz sand and gravel to the ocean shores where it is driven parallel to them by the littoral currents. Gathering into temporary barrier islands, the sand and gravel is cemented together by the precipitating calcium carbonate into the many forms of limestone, lime rock and marl we find in this land.

Seawater isn't the only source of limestone; it can also precipitate from certain spring waters. Ancient farmers in Mexico's Tehuacan Valley built earthen aqueducts for crop irrigation. The mineral springs they tapped contained much dissolved calcium carbonate that quickly precipitated in their aqueducts to form travertine, a form of calcite commonly seen in cave stalactites and stalagmites. In some cases the travertine grew as much as a centimeter a year so that after a few decades of irrigated farming, the earthen canals acquired a thick lining of stone.

This same process probably occurs within and around some of Florida's big springs such as Warm Mineral Springs and Little Salt Spring in Sarasota County near Northport. However, it isn't a major source of the limestone that is the bulk of South Florida terra firma. Most of that precipitates out of seawater and occurs below the ocean surface. Therefore the ocean surface must have been higher than the land around Okeechobee in order for calcium carbonate based terra firma to entrap the lake.

But when?

Geology sea level literature is full of references to the "Holocene highstand." Highstand is a peak in relative sea level and geologists generally agree that one occurred sometime in the last 8,000 years. (But that's about all they agree on and one says it's a myth.) The implication of a Holocene highstand is that sea level was higher in the recent past than it is now. We all generally recognize that during the last ice age. perhaps 20,000 years ago, sea levels were much lower (and Gulf Coast Florida shores were way farther west) than present coastlines because lots of ocean water was trapped in glaciers and ice sheets on the continents. However, what is often forgotten is that a global warm period occurred since the last ice age and seas may have risen higher than current levels. This is the Holocene highstand.

In order to really understand aboriginal life in South Florida, we need to know where shorelines were and when they were there. And because South Florida land is so flat, tiny variations in sea level make large shifts in shorelines. The various estimates of the elevation of the last highstand range from 0.5 meters (20 inches) to 8 meters (26 feet) and from 4,000 years ago to 6,000 years ago. Really high water in Okeechobee is about 5.5 meters (18 feet) above sea level. So this is within the range estimate for the last highstand and the land surrounding Okeechobee could have been under seawater 4,000 to 6,000 years ago. This tends to confirm the report of 6,000 year old limestone near the lake.

Yet we have many archaeology reports of human artifacts found near the current South Florida seashore and 5,000 or more years old. Could these have been left before the last highstand? Does this mean that aboriginals were here before it? And if so, does this mean that artifacts might be found under a layer of limestone left by that highstand? Next time, we'll look into this possibility.

By the way, I'd like to thank readers for their comments on this column.

NEWS
from page 6

with the tentative schedule as follows:

December 13, 2006 - Dr. José Leal, Director, Bailey-Matthews Shell Museum, "What is Malacology?"

January 10, 2007 - Dr. John Worth, Director, Randell Research Center, "Current Research on the Calusa"

January 24, 2007 - Dr. Gary Schmelz, Naples, "Marine Life of the Bahamas Islands"

February 7, 2007 - Dr. Aswani Volety, Associate Professor, FGCU, "Hogs on the Half-shell: The Use of Oysters in Environmental Restoration"

February 21, 2007 - Dr. Eric Milbrandt, Interim Director, SCCF Marine Laboratory "New Approaches to Predict Changes in Seagrass Health and to Restore Damaged Meadows"

March 7, 2007 - Steve Carbol, Environmental Education Manager, Conservancy of SW Florida, "Shore Birds of Southwest Florida"

March 21, 2007 - Joyce Matthys, Bailey-Matthews Shell Museum, "Filming Live Mollusks by the Shoreline: A Primer" [Edit note: Matthys has obtained fantastic footage of live shells, including an olive "leaping" underwater and shells mating; it is shown as part of the Shell Museum orientation program.]

April 4, 2007 - Dr. Gary Schmelz, Naples, "Exploring New Zealand"

April 18, 2007 - Dr. Jon Greenlaw, Bailey-Matthews Shell Museum/Archbold Biological Station, "Natural History and Global Warming in Churchill, Manitoba"

May 2, 2007 - Dr. Lisa Beever, Director, CHNEP, TBA

May 16, 2007 - Randy McCormick, Environmental Specialist, Rookery Bay National Marine Estuarine Reserve

About SWFAS

SWFAS web site: www.explorationsinc.com/swfl-archaeology

The Directorate:
President - Corbett Torrence
1st VP - Theresa Schober
2nd VP - Tom Franchino
Recording Secretary - Jo Ann Grey
Treasurer - Charlie Strader
Membership - Charlie Strader
SWFAS Committees:
Field - John Beriault
Lab - Jack Thompson
Hospitality - Jeanne Sanders
Education - Dr. John Worth
Publicity - Victoria Rans
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

Board meetings are the second Wednesday of the month at 7 p.m. at the Hampton Inn in Bonita Springs (except Dec. 2006, as noted above). All welcome. Member meetings are the third Wednesday at 7:30 (coffee served at 7) at the Bonita Springs Community Hall on Old 41 (by the banyan tree).

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