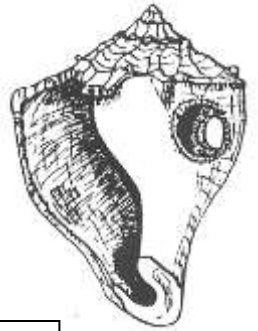


SWFAS

NEWSLETTER

THE SOUTHWEST FLORIDA ARCHAEOLOGICAL SOCIETY



JOHN G. BERIAULT, ACTING EDITOR

VOLUME 17, NUMBER 4

APRIL, 2001



Cooking at Chestnut Billie's Camp: This postcard from the c. 1920's shows the traditional spoke-wheel cooking fire –and- in contrast to the January Issue's contrived scene, is a great depiction of traditional Seminole life-ways

BARBARA SUMWALT GIVES SWFAS AN ACCOUNT OF FOUR IMPORTANT MEN IN HER LIFE

Barbara Sumwalt is one of those very rare people who can give an entertaining, captivating, and informative presentation without

slides. She proceeded to do this for our Society February 21st when she spoke of four important men – important to the history of Useppa Island and to herself

as the curator and director of the Useppa Museum. The gentlemen she spoke of were separated in age by a thousand or more years in time and only one is still, how should it be said, “walking the earth.” I won't tell you who these important men are (if you don't know, you need to come to the meetings), but visit the Useppa Island Museum and ask Barbara herself, she'll tell you...

Inside this Newsletter

- 1 We are Moving!**
Florida Gulf Coast University will be the new site of our General Meetings
- 2 Craighead Lab News:** Read Betsy McCarthy...
- 3 Happy Birthday Art!** (belatedly)...
- 3 JDPotI? Not I!** Due to CRS...Please Read!
- 5 Splashdown – Part Three!** Read Dr. Robert Gore...

THE DATE BOOK

April 11th SWFAS Board Meeting – Hampton Inn, Bonita Springs, 7:00 PM

April 18th , 2001 General Meeting – HELD AT FGCU MAIN CAMPUS – TAKE EXITS 19 OR 20 EAST OF I-75

About SWFAS

The directorate: President Betsy Perdichizzi, first vice president Don Taggart, membership secretary Charlie Strader, treasurer Charlie Strader, recording secretary Jo Ann Grey, directors Steve Tutko, Sue Long, Dottie Thompson, Jo Ann Grey, Charles Dugan, Jack Thompson, Tom Franchino, John Beriault and Charlie Strader.

The committees: Field: Beriault, 434-0624; Hospitality: position open; Membership: Charlie Strader; Publicity: Dottie Thompson, 597-2269; Sales: position open; Finances, Jack Thompson 597-2269, 774-8517; Lab: (774-8517), Art Lee, 261-4939, Walt Buschelman, 775-9734, Jack Thompson, 597-2269.

To Join: Address your check to the Southwest Florida Archaeological Society, P.O. Box 9965, Naples, FL 34101. Dues are: Individual \$20, Individual Sustaining \$50.00, Family \$35, Student \$15.

Any questions, comments, contributions to the Newsletter: John G. Beriault, acting editor, P.O. Box 9074, Naples, FL 34101-9074 or Email to: JGBeriault@aol.com.

DUES ARE DUE!

Friends, it's that time of year again to remind you that SWFAS membership dues are due and payable January 1st, 2001. We're not like the phone or power company – can't remind you by turning off the utility. We hope you will see this notice and sit right down and send us a check payable to the **Southwest Florida**

Archaeological Society, P.O. Box 9965, Naples, FL 34101-9965. As a group we've had a positive impact in informing people, preserving our historic and prehistoric resources, and just plain enjoying each other's company and having a good time! Please help us by staying with us and sending in your dues. Thanks!

Craighead Lab News - February 2001

By Betsy McCarthy

Good things are happening at the lab! The pottery workbook goes on and looks good for publication soon.

Art Lee and Lee Mitchell, the Museum Horticulturist fixed the drain for our sink in the lab. We are all overjoyed with the results! What a joy to have draining water!

Feb.1st we celebrated Art Lee's birthday with a cake (made by Jean Belknap's daughter, Toni) and ice cream. Toni Belknap is the pastry chef at Tony's Off Third. The cake was to die for. We even cleaned the pottery sherds off the table before we partied.

Lois Polewka has returned from the frozen north so the lab complement

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of workers is at a peak of seven.

A CONFESSION FROM YOUR ACTING EDITOR...Please Read!

Friends and fellow members, I'm having trouble insuring the very kind contributions many of you have been sending by email are getting placed in the proper issue of the Newsletter – and in a timely way. I think I'm getting "Oldtimers" Disease, better known as the CRS Syndrome (for "Can't Remember Stuff"). You can help assure I get your contributions in correctly by **saving and sending your documents with as fully and easily readable descriptive titles** as possible. Example: call the contribution, "**Jane Doe – Pottery Identification-May, 2001**" NOT "JDPotI".

Many of us got into the habit of using acronymous titles when computers (to save those precious bytes) only allowed a "Save As" Title of up to 8 or 10 characters. Most modern computers will

allow you much more scope as to what you title and save your piece. When I download, I don't always later remember WHAT it was you sent me several days or weeks previously. It sure would help me to insure I get your material into the Newsletter, and you can stop being mad at me for not including something I'm not only willing but **WANTING** to use! Thanks!

BIRDSHOT AND THE BEACHBALL. III.

From a satellite's eye-view, Lake Okeechobee, lying like a great blue eye gazing heavenward in the middle of the lower Florida peninsula, somehow seems out of place. To the casual but inquisitive observer this broad "hole in the

To reprise our earlier discussions, there is no doubt that some type of heavenly body slammed into the earth on the north coast of the Yucatan peninsula. Whether it was a solitary impactor, or was accompanied by others that fell later and elsewhere, remains undetermined. But consider this. If the Chicxulub asteroid (or another like it) had entered the earth's -atmosphere at a slightly different angle, and just about 45 minutes earlier, the resulting impact crater would have been excavated into the basement basalts and granites, and overlying limestones of a new, slowly emerging peninsula some 700 miles to the eastward--just about where Lake Okeechobee exists today. This putative impactor need have been only one-tenth the size of the Chicxulub asteroid to create a crater large enough to develop into a connected basin containing Lake Okeechobee and the Everglades. Well, sure--but what are the odds that this might have happened?



Some of us celebrated our favorite lab director's birthday in February. Looks like Art Lee was both surprised and happy "the lab rats" (as they call themselves) remembered him...

limestone" may seem too large, to circular, too "alien" to have been formed by the mundane and eons-long processes of karst geology. Not saying that it couldn't be formed that way, mind you; merely suggesting that it might have an origin other than simply via geological processes. So, let's explore the pros and cons of this possibility.

Actually, not as bad as one might think. In a universe of infinite possibilities the odds themselves remain infinitely possible at some particular time, and infinitely impossible at all other times.



POTSHERDS AND POTSHOTS... AN ONGOING SERIES BY ROBERT GORE

While these may not be the kind of odds you'd want to take to the Seminole Gaming Casino, they do

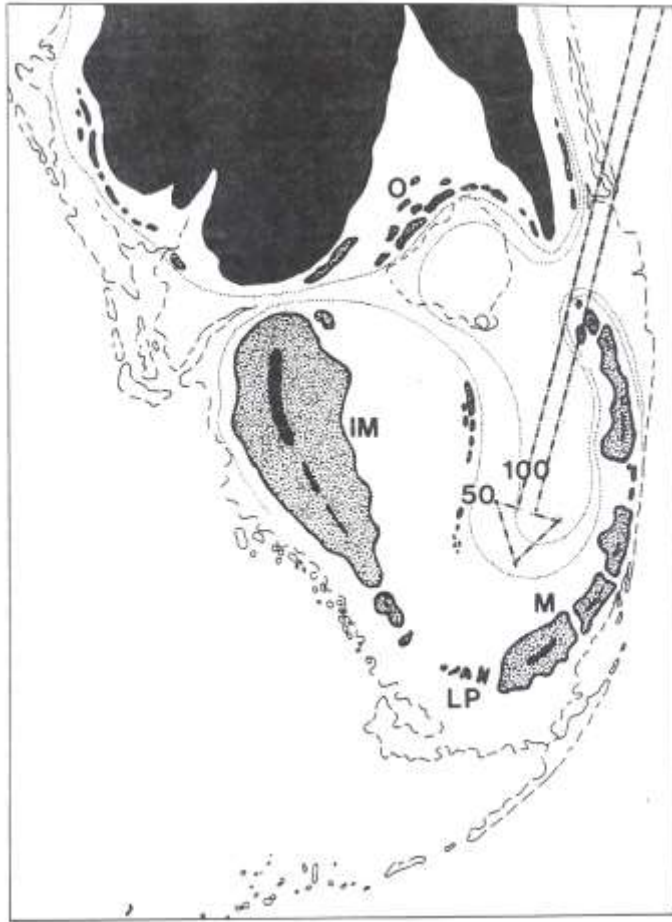


Figure 4. The Everglades "Pseudo-Atoll"--Site of an Okeechobean Impactor? Clockwise: O = "Okeechobee Reef Tract"; LO = Present day Lake Okeechobee; M = "Miami Reef Tract"; LP = "Long Pine Reef Tract"; IM = "Immokalee Reef Tract. Dotted line and arrow (by RHG) suggests region and direction of possible impact. Modified from Petuch, E., p. 103, in: T. M. Scott and W. D. Allmon, 1992. The Pliocene-Pleistocene Stratigraphy and Palaeontology of Southern Florida. Fla. Geol. Surv. Spec. Publ. No. 36.

address the probabilities. But it's still dicey. The Lake Okeechobee basin is more or less rounded, to be sure, and superficially resembles a crater. But hydrogeologists are convinced that the Lake's present configuration has more to do with hydrology and karst geology than

with asteroidology. Moreover, if present day Lake Okeechobee is indeed

a Platonian ideos for a past impactor, any evidence for an astrobleniitic event would now lie well hidden under the thousands of feet of sediment depositions that have accumulated just during the Pleistocene ice ages alone, never mind those from the earlier Cenozoic epochs.

Drilling for a putative buried impactor, or its effects, or its residue, would be very much like looking for a proverbial stony, iron, or iron-nickel needle in a very limestony haystack. The thing about needles in haystacks is that, regardless how small they are, you probably want to get them out (or at least render them harmless) before you feed the horses.

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In 1988, Dr. Edward J. Petuch, a respected geologist at Florida Atlantic University, summarized the origin of the Everglades geological region not as a shallow surficial feature and depositional basin (as had been previously suggested), but rather as a "pseudo-atoll" which:

“ . . . evolved from a subaquatic astrobleme in the Eocene, to an atoll of coral reefs in the Miocene and Pliocene to a giant freshwater lake in the Pleistocene.”

This brief hypothesis, buried among solid geological evidence being presented for the existence of an ancient Everglades reef tract, would be both remarkable and exciting if confirmed. The key words are "subaquatic astrobleme" and "pseudo-atoll."

What's the difference between a "true" atoll and a "pseudo-atoll?" Simple: a true atoll is formed as a ring of actively growing coral reef that develops around a slowly submerging dormant or extinct volcano. As the volcano subsides the reef corals attempt to maintain a certain optimum depth for their own survival by laying down layer upon layer of

erosions caused by rain. glacially induced

meltwater (remember the ice ages?), and other surface water processes associated with a down-warped peninsula, have laid down their own thick layers of sediments (most brought in from else-where) all across

limestone. It's sort of like sliding a ring off your submerging finger while you sit down in the bathtub. The ultimately submerged volcanic caldera (the volcanoes "mouth"), now filled with reefal limestones, eventually becomes a lagoon of South Pacific fame. A pseudo-atoll, on the other hand, would be a reef tract that had developed on top of one or more crater rims of a putative astrobleme. In this case, the "lagoon" of the Everglades would be formed by marginal reefs that had grown on top of the astrobleme rims, and no vulcanism would be associated with their occurrence. In fact, the last vulcanism that took place In Florida was more than 300 million years ago--and Florida wasn't even a peninsula, let alone Florida, at that time. (Figure 4]

The problem with investigating a possible astrobleme within the Everglades, or even nearby Lake Okeechobee, is also three-fold. First, the sea has come and gone numerous times over just the last two million years in the vicinity of the Lake, thus physically eroding or otherwise substantially altering the

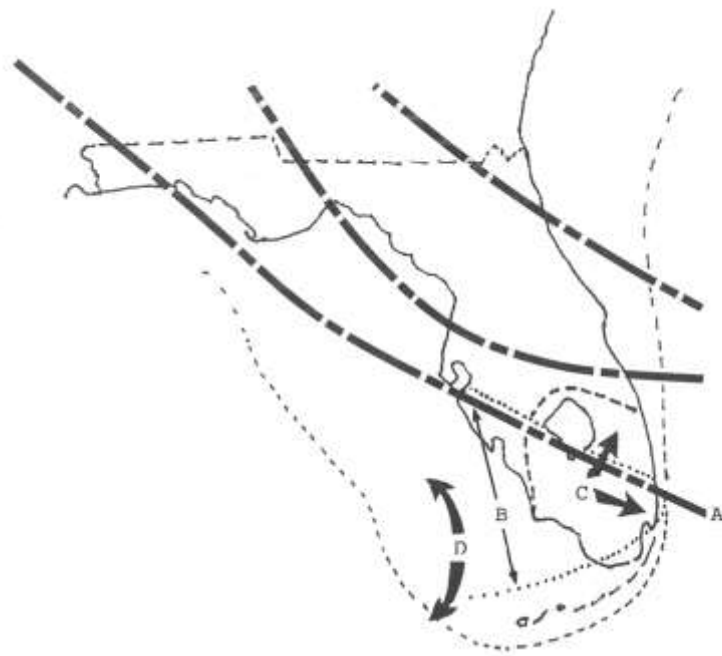


Figure 5. Composite Map of Mid- and Post-Jurassic Geological Features in South Florida. A) Bahama Fracture Zone; B) South Florida Embayment; C) Okeechobee Basin; D) South Florida Basin. Dashed lines = possible fault lines. Composite redrawn from figures in Randazzo, A. F. and D. S. Jones (eds.), 1997. The Geology of Florida. The University Press of Florida

The proof or disproof of this alleged starfall event might be thought relatively easy to obtain. It should be a simple matter to drill through the shallow limestone floor of the Everglades to determine: first, whether the underlying bedrock has been fractured or shattered by explosive compression from the incoming impactor; second, whether tektites or other explosive lithological debris lie in, around, or under the Everglades basin; and third, whether any possibly non-terrestrial fragments from the impactor can be recovered. That's the difficulty with most arm-chair science. It should be a simple matter--but it isn't.

strata in the area. Second, the same marine transgressions, and concomitant terrestrial

the Lake floor and surrounding Everglades. Third, because Florida Is a limestone-capped peninsula, this type of rock undergoes more substantial weathering, freshwater hydrological erosion, and seawater and wave-induced deformations than other rocks. Then there is all the bioturbation and alterations produced by the gazillions*

of shelly marine organisms that have lived, loved, and died over the past 50 million years. These activities actually end up destroying, or at least concealing, many of the earlier features of the proto-Lake Okeechobee and proto-Everglades, while at the same time altering the visible components of its more recent geological history. In short, if there is evidence that the original basin that eventually became Lake Okeechobee or the Everglades was an astrobleme, it would be very difficult to discover let alone discern. Not impossible, mind you--just very difficult.

**A gazillion is a bazillion squared.*

Some perfunctory shallow drillings were made at several locations around the Lake but revealed no anomalous rocks. On the other hand, the broader Okeechobee Basin (which includes the Everglades Basin) lies within an ancient geological depositional feature called the South Florida Embayment. This is presumably a fault-produced down-warping of the earth's crust that occurred on pre-peninsular Florida during late Mesozoic time when it was still undergoing its original formation. Other fault lines occur around the Lake Okeechobee Basin, and as far north as Indian River County, and extend southwestward offshore onto a submerged marine shelf called the Pourtales Terrace, itself a part of the older Floridan Plateau. While geologists have considered these features to be a consequence of tectonic processes associated with continental rifting and

seafloor spreading, the possibility (however remote) that they were induced (if not partially produced) by an extra-terrestrial impactor cannot be completely dismissed. However, the impactor, if it exists, would then presumably lie under three to five miles of limestones and basement granites and basalts and would be enormously difficult to detect, given the palaeo-geological history of the region. But this raises an interesting adjunct research possibility. [Figure 5]

The Chicxulub impact site, curiously enough, was known for at least a decade before it was brought to the attention of the scientific community. Hints based on gravity anomalies were known from 1962. This was because the data were locked up in proprietary studies conducted by a Mexican oil exploration company and thus remained inaccessible to non-petroleum geologists. In fact, the first scientific notice of the potential presence of the Chicxulub Impactor was published (some said "reluctantly") in a petroleum geology journal. Not the kind of magazine routinely read by asteroidologists--then.

Thanks to Ed Petuch's baseline studies and

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exhaustive field data it is also now generally acknowledged that the Everglades Basin was indeed at one time a large and flourishing ring-shaped coral reef that hung like a limestone gorget from the neck of Lake Okeechobee onto the breast of the south Florida peninsula. While this evidence is unequivocal, it remains at least conceivable that the ring-like coral formations that developed into a pseudo-atoll originally may have formed on the long-buried impact rings of an ancient meteor crater. If so, this crater, now hidden deeply and inaccessibly under the southern peninsula, might also have secondary and tertiary ring formations extending outward some greater distance from the original impact site, similar to those known from the Chicxulub crater. As stated, finding and discerning them would be a daunting task. Yet one wonders what the proprietary drilling logs and data from the several oil companies which explored in the Everglades for petroleum during the late 1940s and thereafter might reveal.

Next time: Stars that fell on Florida and Lake Okeechobee.

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Archaeology on the Web

By Linda Ballou

feedback at
tsimpson@luna.cas.usf.edu.

Florida Anthropological Society (FAS), Florida's statewide organization of archaeology and anthropology, has a presence on the Internet which includes SWFAS' very own web page.

The FAS Web site is in its infancy, Webmaster Terry Simpson says modestly, though he hopes to have many improvements in the not too distant future. The site exists through the courtesy of Dr. Nancy White at USF who has allowed FAS to use some of her space on the USF server. Simpson credits his daughter, Nina Powell, for doing the original set-up though he continues to make additions and enhance the site as he hones his skills.

Want to find out how to join the society, learn where and when the next annual meeting will take place, or see what activities FAS has scheduled? Simply click on the appropriate menu listing to access the information. Go to "Chapters" and you'll find a map locating the fifteen FAS chapters around the state. Click on SWFAS to get to our Web page featuring Betsy McCarthy's photo of the lab in Naples.

The site also includes links to other online sources of Florida-related archaeology and anthropology information. Check it out at <http://web.usf.edu/~fas>. Terry welcomes any comments or