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There will be no August SWFAS Meeting!!

The next meeting of SWFAS will be on Wednesday, September 19.

On September 19, Michael Wylde will be speaking about his work in Southwestern U.S. archaeology and pottery traditions. More info next month!

Archaeological Currents: To Do and To Be Done To...

By John G. Beriault

Having been involved in the field of Archaeology most of my life, I really can't say what the uninformed public thinks of the profession. I've heard many people say that Archaeology is "romantic," "exciting," "fulfilling" or several other positive adjectives, and it can be all that, I guess. I personally went from being a very-involved avocational archaeologist to a gradually more-informed professional. I always knew the work was strenuous, and probably not that remunerative. I knew it wasn't quite as bad as that time Indiana Jones had in Egypt chasing after the Ark, but knew I'd lose a lot of sweat, a moderate amount of blood, and maybe a few tears if I pursued my dream of making (or trying to make) a living being an archaeologist. I've found the profession personally rewarding... and at times a little uncomfortable and frustrating. I am still working on the final "chapters" of my career. That's one of the reasons I am writing some of these stories, to share some of what I have experienced so far.

I am technically a "contract" archaeologist. I (and the company I work for) do contract work for private and public interests on goal-oriented projects. Frequently, these are DRIs (developments of regional impact) answering the questions: what archaeological resources are there on a specific parcel; can they be preserved, or, if not, what can be done to mitigate if they are "impacted" (altered, destroyed)? But there are many other services we perform, things we do.

We (us archaeologists working in South Florida) "do" things, but we are "done to" as well. With the work -- the "gain" -- comes the "pain." What are the pains? Well, there's heat, as anyone working outside in the Summer can attest. And there's humidity that can amplify heat many times. There are insects: mosquitoes, sand flies, horse flies, fruit flies (or as I call them "dog anatomy gnats," referring to the parts of the dog attracting these bugs prior to them visiting you), ticks, wasps that feel like burning cigarettes when they sting, even those wonderful houseflies that bite! And, chiggers, or red bugs, which, like ticks, are not true insects, but who notices... And there are the centipedes, millipedes, spiders we dig up while excavating... The only "bugs" I enjoy are the large scarab beetles rolling up those large "beachballs" out of cow pasture "meadow muffins" and then fighting to see who the fortunate winning insect will be to roll it home into the hole. And once I had a gold-bug or "click" insect land on me. I put him in my shirt pocket till we finished the shovel test, then placed him on a twig so he could fly off. That's nearly the only "gold" I've seen while working as a professional archaeologist.

It's frequently wet in South Florida. Wonderful to spend the day wading knee deep (or more) through water, looking out for leaches, tripping over logs. Snakes (a whole 'nother category)... My first project, I stepped over a log, feeling my ankle pressing against something soft. Looked back, and watched a five-foot diamondback

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Geology Rules: Lakes From Space

By Jack Harvey

Yes, lakes can come from outer space. An alert reader pointed out I omitted one process that might have formed Okeechobee: A meteor or asteroid strike.

It has also been suggested as the origin of Barfield Bay on the southwest shore of Marco Island. Roundish Barfield Bay, shown in the aerial photo, is ringed by high ground that looks much like a crater rim caused by a large meteor impact. Only the rim on the southwest arc is missing and perhaps has been eroded away by Gulf of Mexico surf and tidal action. It's easy to imagine this is a multiple crater formed by an asteroid that split up before impact and seems a plausible explanation for the sharply rising high ground circling the bay in an otherwise

exceedingly flat landscape.

Drive north along Marco Island's Indian Hill Road, Caxambas, Inlet and Granada Drives. Turn east along Sheffield Avenue just south of San Marco Road. Go through the Key Marco gatehouse and follow Whiskey Creek Drive across the bridge to Horr's Island. Turn right on Blue Hill Creek Drive to its west end and you have traveled an almost complete circumnavigation looking down into Barfield Bay. Almost always travelling uphill or down, it's easy to feel you are on the jagged rim of a meteor crater, somewhat smoothed by millenniums of our sub-tropical rains.

The entire rim is now choice real estate and ancient Indians also preferred the breezy high ground with its better view of the sea. In September, 1994, 25 SWFAS

members investigated Satin Leaf (8CR766) on the east rim of Barfield Bay. One intriguing hypothesis from that dig is that it may have been an aboriginal shell tool factory 4,000 years before the current Shell Factory in Fort Myers. Did Satin Leaf have raccoons and excited kids like today's Shell Factory? There was plenty of raccoon evidence so I think we can assume kids.

This "rim" around Barfield Bay isn't unique on Florida's west coast. Similar configurations are seen at Cedar Key and Seahorse Key off Levy County north of Tampa and Horseshoe Beach off Dixie County farther north.

Even more remarkable are "Carolina Bays". Thousands of these elliptical features have been identified along the Atlantic seaboard from Florida to New Jersey. In aerial photos, they would seem obviously caused by a meteor shower and many contain lakes. Were Barfield Bay, the Levy and Dixie County keys, and the thousands of Carolina Bays created by giant fists from space? And Okeechobee is almost round too. Is it an impact crater whose rim has been eroded away?

There are many craters on earth that are definitely meteor impacts. Barringer Crater in Arizona is the best-known example in North America and a popular tourist stop, but there are many more. Another, far larger, is Upheaval Dome in Utah. Larger still is Deep Bay in Saskatchewan. Brent in Ontario is also larger than Barringer. And these are only a few of confirmed meteor craters in just North America. Not all are lakes, of course. Erosion can break the rim, allowing water to exit.

Besides being roundish with rims, impact craters have other distinguishing characteristics. The vast amount of energy released by the impact of a gigantic rock falling

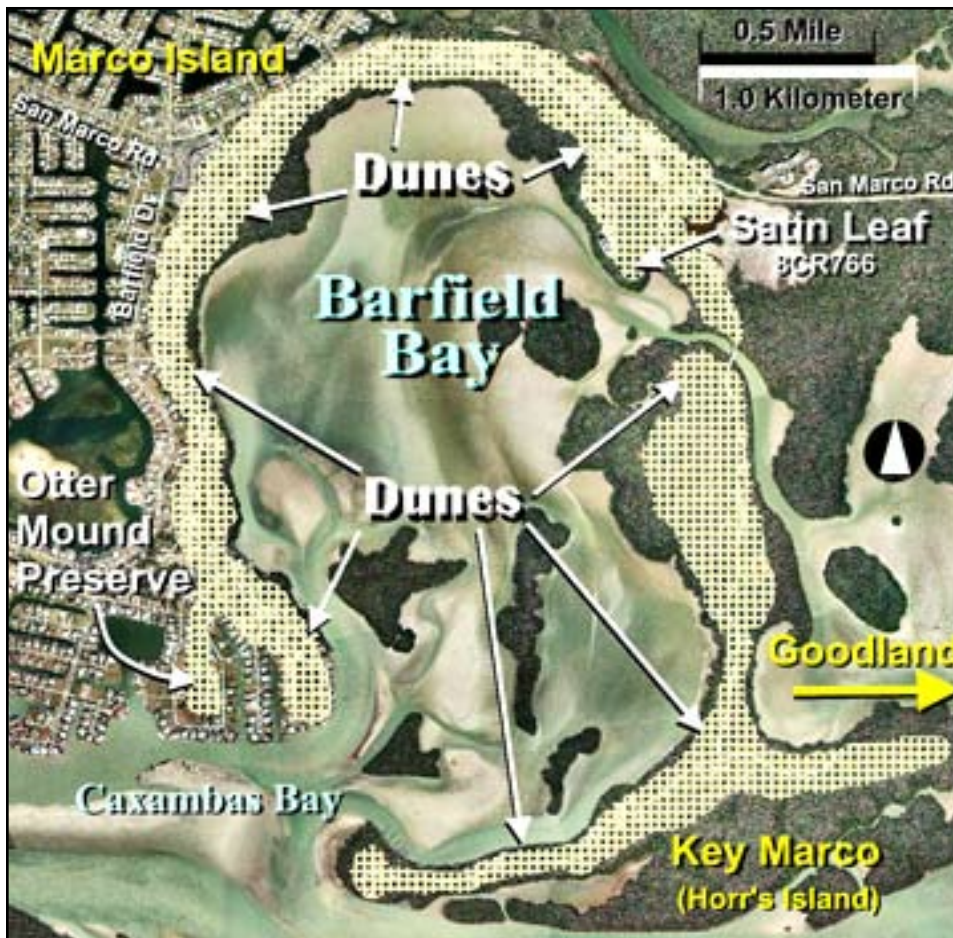


Photo credit: Barfield Bay by Collier County Property Appraiser
Barfield Bay with Dune Ring and Archaeological Sites.

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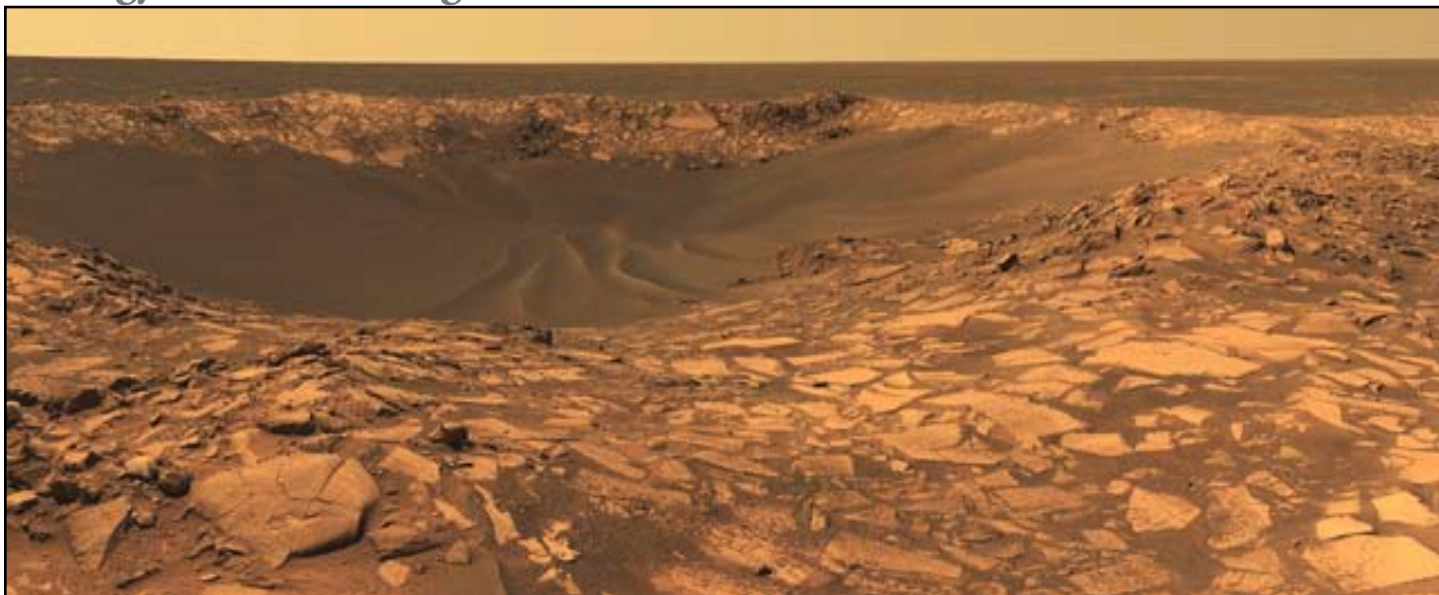


Photo credit: Beagle Crater on Mars by NASA/JPL – Caltech/Cornell/UNM.

Mars Rover Opportunity surveys Beagle Crater

from space not only blows a large hole in the surface but extremely high temperatures are generated. These melt and even vaporize soil and rock of any kind. The extreme temperatures and pressures cause special kinds of minerals to form.

Barringer Crater was clearly formed by the impact of an asteroid roughly 40 meters (130 feet) wide about 50,000 years ago. It was traveling at 12 kilometers per second (28,600 MPH) and had 150 times the energy of the Hiroshima atomic bomb. Little of the asteroid has been found, but the result of the high temperatures and pressures are seen in *shock metamorphism*, *diaplectic glass*, *shatter cones* and several other technical mineral features common around impact craters. There are even microscopic flakes of diamond formed by the extreme conditions at impact.

Opportunity, one of our robot geologists roving Mars,

took a photo of tiny Beagle Crater before surveying the mineralogy. The melted and shattered materials telling of the event are readily seen in this photo. (The crater is named for Darwin's ship, *HMS Beagle*.)

So far, these impact defining markers have not been reported around Barfield Bay or Okeechobee, or Florida's northern keys, or the ubiquitous Carolina Bays. Impacts are not their cause. And, sorry, the "crater rim" around Barfield Bay is just dunes built by shore winds.

Impact craters in South Florida are not impossible; we just haven't proved any so far. But the relative newness of South Florida land, coupled with being submerged by warm period high sea levels, covers most. But keep looking, please. What did our Indians make of them?

My thanks to Dr. Ron Echols for many pointers and papers.

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rattlesnake uncoil and slowly crawl away... I've been struck at by several cottonmouth water moccasins, or watched them cock that head back against their coils showing that open death-white mouth of theirs. Stood in a grass marsh and tiptoed around three or more busily-buzzing dusky pygmy rattlesnakes. Watched a very large coral snake that was kind of unhappy rear up, slightly flare his head, and then shake it slightly back and forth, as if to say "no, no, no...no, no, no..."

Then there are cows, steers, bulls. People may wonder why Bossy is a menace. Sometimes cows, and certainly bulls, have bad days. You get chased, and anything, non gender-specific, that weighs over a thousand

pounds and has two-foot long horns, and is charging you...well, you have to respect that critter and hope there's a fence or a tree to get behind... and barbed wire fences are hard things to jump, when you're an "old guy."

People and their dogs can be dangerous. If you are in their territory, many lack that sense of "friendly" inquiry. When you see a sign that says "If you believe in Life after Death, Come on in...", or "My Doberman Pinscher can make it to the fence in 5 Seconds, Can You?" or "Forget the Dog, Beware the Owner" or "Trespassers will be Violated," you have to believe there could be a potential failure to communicate...

People frequently ask me, "what is the

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most exciting thing you've found?" Depending on when they ask me that question. I might reply, "that I'm still alive at the end of the day..."

My worst day was working on the local Indian Reservation the day after 9/11. My young co-worker had taken off his white tee shirt, and was wearing it on his head like a piece of Arabian headgear. Supposedly, all the cattlemen of the area had been warned we were out there working, but the Indian lady who saw us out there, saw some "suspicious" characters wearing Middle-Eastern garb, burying what looked like explosives in her cow pasture.

We were surrounded by the entire reservation police force, five patrol cars converging on us from all angles. After explaining who we were, and being thoroughly "checked out," I was opening a farm gate and got stung on the right forearm by three or more

paper wasps who had a nest inside the gate railing.

Next, we walked 10 miles through swamp and pastureland in the heat, digging test holes. Next, got bitten by innumerable deer flies you always find in pastures. Next, forded several water hyacinth-filled canals and sloughs, chest-deep, watching for the odd water moccasin. Next, had some young gal on an ATC drive up and threaten to have her husband come kill us. Next walked the six miles back to the last place we left the vehicle, wasp-stung arm swollen twice its size, squashing along in wet boots with that blister growing each step. And we didn't find a single site or artifact, we just found out where the sites "weren't." The thing I like about archaeology is the romance, but I do feel love-starved at times...

About SWFAS

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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 held prior to the regular meeting on the third Wednesday of the month at the Bonita Springs Community Hall on Old 41 (by the banyan tree). All are welcome. Board meetings begin at 6:00; regular meetings begin at 7:30 (with coffee served at 7).

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