

# Friends of the Randell Research Center

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## Pineland Mystery Bone is from Monk Seal *Now-extinct Animal was at Pineland 1,650 Years Ago*

by Karen J. Walker

**Exciting archaeological** discoveries often happen long after the excavation tools are put away. This is one reason why museum collections are so important. A case in point: In 1990, volunteer excavators at Pineland's Operation H unearthed a two-inch-long, odd-shaped bone from a large mammal. "Probably one of those funny ankle bones from a deer," one might have said to the other. This would have been a reasonable guess, because bones of white-tailed deer are usually the only large-mammal bones found at Pineland. The odd bone was placed in a bag with many other bones — mostly from fish — and sent to the field lab. There, another volunteer cleaned the bones and yet another cataloged them. Later the bag made its way to Gainesville and settled in the basement of the Florida Museum of Natural History. Not chosen for immediate analysis, the bones were carefully stored for future research.

Some years later, a UF Anthropology student was assigned to search through the bag (and many others) to study the deer bones. When he compared the odd bone to those from a modern deer skeleton, there was no match. If it wasn't deer, what was it? A comparison with all other possible candidate skeletons ensued. There were no matches, at least not at the Florida Museum.

I suspected that we had a bone from a Caribbean Monk Seal, the one Florida mammal for which the museum has no representative skeleton. Sadly, this native, tropical seal became extinct in the mid twentieth century, and only a few individuals were ever collected for study. An internet search determined that the closest skeletons were in Washington D.C. at the Smithsonian's National Museum of Natural History (NMNH). To confirm the identification, we would have to compare our bone with theirs. Meanwhile, more similarly odd-shaped bones surfaced in an old collection from Sanibel's Wightman site.



Four views of the fourth left metatarsal from Pineland's Caribbean Monk Seal (*Monachus tropicalis*). The bone is 4.98 cm (1.96 inches) long; catalog #90-6-17-1 (drawing by Sue Ellen Hunter).

Finally, an opportunity for a trip to the Smithsonian presented itself. In September, 2004, collections manager Charley Potter guided Bill

Marquardt and me through the NMNH's skeletons as we worked to identify the Pineland and Wightman bones. We quickly saw that our Pineland bone was indeed from a Caribbean Monk Seal — specifically, it was the fourth metatarsal from a left hind

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Inset: Drawing of a Caribbean Monk Seal (image courtesy National Oceanographic and Atmospheric Administration).

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Artist's rendering of a post-storm scene at Pineland with a drowned monk seal on the beach (illustration by Merald Clark, developed for Calusa Heritage Trail).

flipper. Most of the Wightman bones were fragmented and more difficult to identify, but as luck would have it, Peter Adam, a University of California scientist proficient in monk seal osteology, was present that day. With his help, we identified about a dozen of the bones, all likely from one individual.

So, how and when did an isolated monk seal bone come to rest at Pineland? The bone lay between a late Caloosahatchee I period Indian midden (about 1,650 years old) and a layer of mangrove muck. Above the muck is a younger Caloosahatchee IIA period midden (about 1,450 years old). The muck layer occurs across much of the Pineland site at

nearly the same elevation. In several excavations, the layer was underlain by a thin, intermittent layer of articulated sea shells, bones, and sea urchin parts — the remains of animals that are often carried in by a storm surge. These are about 1,650 years old, indicating that the storm may have impacted the people who lived there. Bones of at least one loggerhead sea turtle and one bottlenosed dolphin indicate that the surge was powerful enough to drown these animals—powerful enough also to

drown a seal. Human survivors of this storm might have taken advantage of the seal (and other food resources that the surge left behind), butchering it and leaving behind the back flippers. This is only one possible scenario, and artist Merald Clark depicted it for an interpretive sign, now installed along the Calusa Heritage Trail at Pineland.

Perhaps one day volunteer excavators will find more of the seal skeleton. For now, at least we know that monk seals once swam the waters near Pineland some 1,650 years ago.

## New and Renewing Friends of the RRC from January 1 to March 21, 2005

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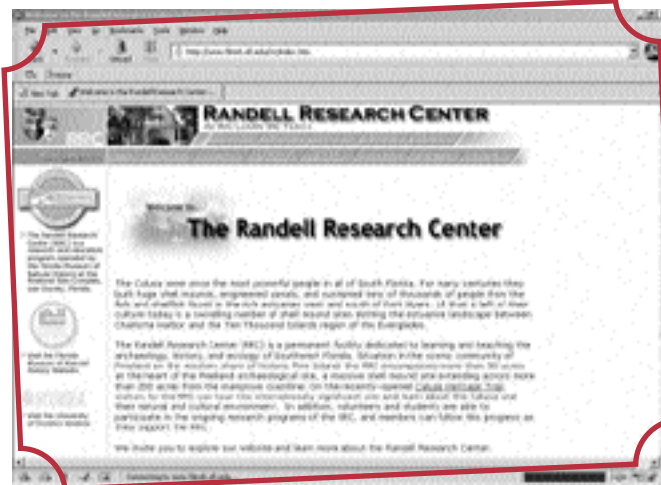
Joanne Cole

# RRC Website Now Online

by John Worth

**At long last** the official website of the Randell Research Center is online, providing visitors with a range of easily accessible information about the RRC and its programs, including current news and upcoming events. The site was originally designed by Amanda Jenkins of J and J Web Design on Pine Island, who additionally maintains the official website for the School District of Lee County. Considerable assistance was also provided by Sarah Fazenbaker, webmaster for the Florida Museum of Natural History, which hosts the RRC website. The Museum will continue to feature an extensive online web page dedicated to the Southwest Florida Project, including information about the RRC, but the new dedicated RRC page will appear at the following URL: [www.flmnh.ufl.edu/rrc/](http://www.flmnh.ufl.edu/rrc/)

The website includes information about visiting the recently inaugurated Calusa Heritage Trail, along with details about the mission and history of the RRC and its programs, the Friends of the RRC membership organization, volunteering at the RRC, and an order form for RRC books and merchandise. Online resources about local Calusa prehistory, history, and environment will be supplemented in coming months with new information, and the site also features a news page with links to past newsletters and press releases, photo galleries, and a page announcing upcoming events at the site and local



Welcome page for the new RRC website.

public speaking engagements across Southwest Florida. The site even includes an online form to ask questions or request additional information.

The RRC website will of course be an ongoing project, and will only expand and evolve from this point onward, but we are pleased to announce the launch of this new internet presence for the Randell Research Center. We welcome suggestions and ideas for the future development of our web page.

# Pineland Site Visitorship Soars on New Calusa Heritage Trail

by John Worth

**In the three months** that the Calusa Heritage Trail has been open daily to the public between 10 a.m. and 4 p.m., public visitation at the Pineland site has soared, with scarcely a day passing without visitors walking the pathways and enjoying the Southwest Florida winter climate. In the past, public tours were offered only once a week on Saturdays, or by appointment to other groups, but now that the site has regular hours and a self-guided walking trail, it is almost always being enjoyed by couples, families, or other small groups. The parking area is rarely empty, and many guests take advantage of the picnic area to have lunch under the blue skies and soaring ospreys. Public tours are still offered, now every Wednesday at 10 a.m. during "season" (January through April), and groups can also schedule tours at other times. Many guests at the Tarpon Lodge across the street also take the opportunity to walk the trail, which is as notable for its archaeological features and interpretive signage as it is for its natural beauty.

RRC Operations Manager Craig Timbes, ably assisted by volunteer Terry Pierce, is shepherding the site's rich natural vegetation through its gradual recovery from Hurricane Charley, and with their efforts the site is becoming ever more visitor-friendly, with broad open vistas of the site's mounds, canals, ridges, and abundant flora and fauna. Not only have both existing osprey nests destroyed by winds last summer been reconstructed and re-



Nesting pair of ospreys at Pineland (photo by Terry Pierce).

occupied by their inhabitants, but a third nesting pair of ospreys has set up housekeeping in a tree along the ancient Pine Island Canal, and all three nests are soon to be home to new hatchlings, which visitors can watch grow and eventually fledge this coming spring.

We invite all members who have not done so already to come and rediscover the Pineland site along the new Calusa Heritage Trail.

# New Map of Sixteenth-Century Pineland to be Presented

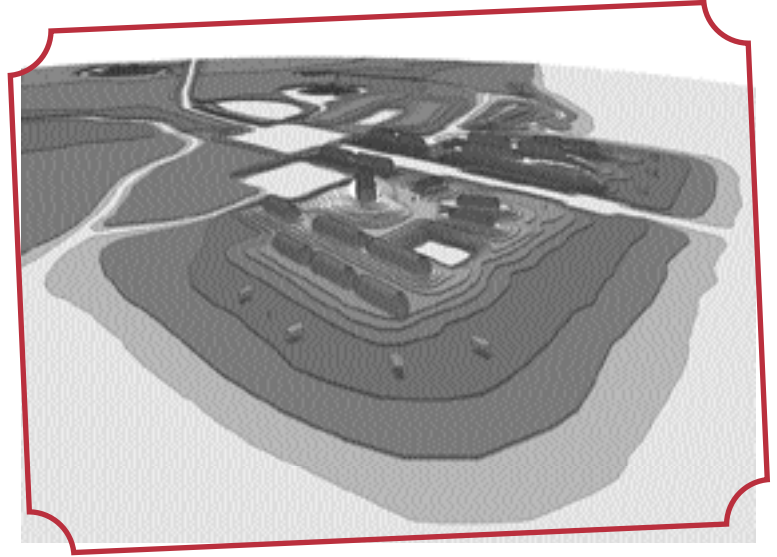
*New Information Makes for Revised Interpretation of Calusa Town*

by *Bill Marquardt and Karen Walker*

**On May 14,** 2005, at the 57th annual meeting of the Florida Anthropological Society in Gainesville, Merald Clark, John LoCastro, Darcie MacMahon, John Worth, and we will present for the first time a revised map and interpretations of what we think the Calusa town of Pineland looked like at the point of Spanish contact. Our new map is based on excavations, interviews, aerial photographs, and recently discovered documents.

In 1999, archaeologist Phyllis Kolianos found an unfinished Florida manuscript of Frank Cushing's in the Smithsonian's National Anthropological Archives. Contained within it was a much longer and more detailed description of Pineland than had been published by Cushing in 1897. Phyllis also traveled to the Southwest Museum in Los Angeles, where she found two sketch maps of Pineland drawn by Cushing. She found a third map of Pineland at the Brooklyn Museum of Art. The new documents are now available in a two-book set published by the University Press of Florida.

Thanks to Phyllis's excellent detective work, we all have much more information on what Pineland looked like just before the twentieth century began. Adding this new knowledge to our previous data, we now envision a much more complex Pineland site and a repositioned canal route. John LoCastro of Synergy Design Group digitized our new map and modeled it in three dimensions. This helped us to select views to be transformed by Merald Clark into scenes of sixteenth-century Pineland life. These are featured on the interpretive signs of the Calusa Heritage Trail (see *Friends of the RRC Newsletter* Vol. 3, No. 4, December 2004).



Three-dimensional interpretation of Pineland by John LoCastro, based on new topographic map drawn by Karen Walker and Bill Marquardt.

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news

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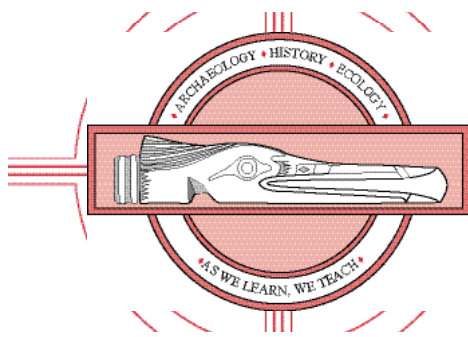
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# Friends of the Randell Research Center

Pineland, Florida • March, 2005

Phone (239) 283-2062 E-mail: johneworth@comcast.net

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Sincerely,

John E. Worth, Ph.D.  
Coordinator of Research Programs and Services  
Randell Research Center

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