

# OCTOBER - 2015



## October Program

October 21 - at 6:00 PM - Selby Library,  
1331 First St., Sarasota 34236

### **The Future of the Past: How Virtual Technologies Are Changing Archaeology**

**Edward Gonzalez-Tennant, Ph.D**  
*(Digital Archaeologist)*



What is the future of the past? This talk discusses how the interactive and immersive aspects of virtual reality, video games, and online worlds benefit the public's engagement with and understanding of the past. Dr. Gonzalez-Tennant will highlight how these emerging technologies are changing archaeology with case studies drawn from Florida and the Caribbean, including Rosewood, Kingsley Plantation, and an upcoming serious game exploring St. Augustine's 450-year history. Dr. Gonzalez-Tennant earned his PhD in 2011 for his pioneering work on the application of virtual technologies to reconstructing the destroyed community of Rosewood in Levy County. He has conducted research on five continents and has published widely on the use of virtual technologies, computer mapping, and new media within archaeology.



### *Notes from a Time Sifter*

## **LiDAR, GPR & Magnetometers**

Every archaeological excavation uncovers things that we do not know. Sites are not always easy to find, and some, when discovered, are often difficult to understand. Fredrik Hiebert, archaeologist for National Geographic, believes that because of new methods and technology, archaeologists will find new sites and solve many unknowns during the twenty-first century. The October, 2015 issue lists seven of these.

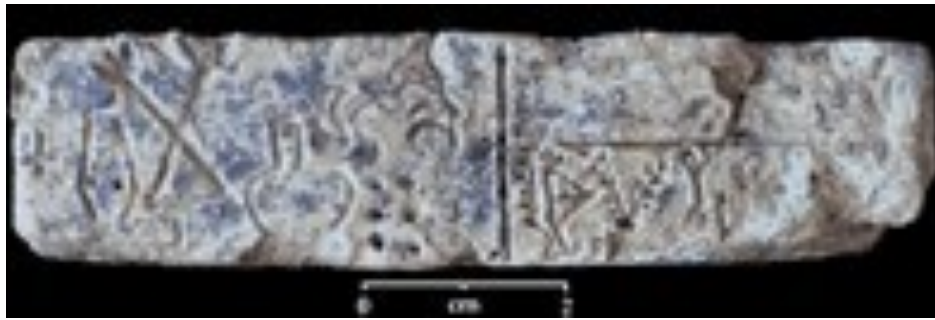
(1) Using LiDAR (Light Detection and Ranging), Hiebert believes that we will find unknown cities and civilizations of Central and South America that are now covered with dense jungle. LiDAR "sees" under the overgrowth to reveal buildings and foundations. Some remains have already been discovered with LiDAR (see MIT Technology Review, 6/26/15) that amazed archaeologists, and there are probably many more to be found. In addition, GPR (ground

penetrating radar) allows archaeologists to "look" underground, no digging required. GPR can survey very large areas for small features like tombs.

(2) Hiebert speculates that the "lost" tombs of Alexander the Great and Genghis Khan could be found using GPR.

(3) The tomb of Qin Shi Huang Di surrounded by terracotta soldiers is known, but the artifacts are

fragile so there is a reluctance to allow the opening of the tomb. GPR and magnetometers (instruments for detecting the presence of ferrous or magnetic materials) can survey the interior of the tomb, and robotic devices can actually enter the tomb without harming the artifacts.



(nationalgeographic.com)

(4) We cannot yet decipher the Minoan writing system called Linear A, (Sir Arthur Evans) so we do not know what language they were speaking. If we knew, we could tell where they came



(nationalgeographic.com)

from and what they were thinking. "Big Data," a computer program invented by Jeff Jonas (*National Geographic*, 5/6/14), and IBM's Watson ([ibm.com/smarterplanet/us/en/ibmwatson/](http://ibm.com/smarterplanet/us/en/ibmwatson/)) can find connections that might allow us to finally read Linear A. That would

match the knowledge we have from Egyptian hieroglyphics deciphered by Jean Champollion, and the cuneiform of Mesopotamia that Henry Rawlinson figured out how to read.

(5) These computer analysis programs that can synthesize geographical and archaeological data could also help in understanding the purpose of the Nazca lines in Peru

Hiebert thinks that even global warming will help uncover unknown data. The ice sheets and glaciers are melting, exposing things that have been frozen for thousands of years.

(6) A forty-thousand year old Ice Age mammoth was found in a receding glacier in Siberia in 2007.

(7) New Viking sites are being revealed along the Canadian

coasts where temperatures have risen. Hiebert believes more will be exposed and that these could change the history of the "discovery" of America.

Fredrik Hiebert sees an exciting future for twenty-first century archaeologists. The October, 2015 issue of the *National Geographic* magazine presents the story with its usual fantastic pictures. The *National Geographic* Society was founded in 1888. The first wildlife pictures were published in their magazine in 1906, and in



National Geographic, May 2009)

1912, they gave an archaeology grant to Hiram Bingham to excavate Machu Picchu. They have continued to support scientific adventures, including archaeology, ever since. We hope they continue forever.

## Last Month ...

Last month we had beautiful reconstructions of ancient Greece costumes. This month we have reconstructions of another kind - the virtual. Both help us have a better conception of the past. Don't miss this international scholar and his cutting-edge work.

Hope to see you soon!

**Sherry Svekis, President**

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**✦ GRAND OPENING ✦**  
**WEEDON ISLAND CANOE EXHIBIT**  
**“NAVIGATING TAMPA BAY'S MARITIME PAST”**

**Saturday, October 17, 2015, 10 AM – 3 PM**  
**Weedon Island Preserve Cultural and Natural History Center**

For over a thousand years, an ancient dugout canoe lay buried under mangrove peat near a shoreline on Old Tampa Bay at Weedon Island Preserve. Since its discovery in 2001, archaeologists have investigated, excavated, analyzed, and conserved this ancient treasure. Now the 1,100-year-old canoe is on display at the Weedon Island Preserve Cultural and Natural History Center in an exciting new exhibit, "Navigating Tampa Bay's Maritime Past." The Public Grand Opening of Florida's longest, (40 feet), and only saltwater dugout canoe is Saturday, October 17, 2015 from 10 AM until 3 PM. Come talk to the experts from the Alliance for Weedon Island Archaeological Research and Education (AWIARE) and learn about this amazing discovery and how it expands our knowledge of the prehistory of the Tampa Bay region.

Florida Public Archaeology Network West Central Region will provide additional archaeological activities and fun for the entire family as we celebrate the Grand Opening of "Navigating Tampa Bay's Maritime Past" and International Archaeology Day at Weedon Island Preserve Cultural and Natural History Center, 1800 Weedon Drive NE, St. Petersburg, Florida, 33702.



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# Speakers & Events Calendar

All to be held at 6:00 PM  
Selby Library, 1331 First St., Sarasota 34236

## November 18

### **The Pre-Columbian Maize Deity: Art Historic Evidence for a Yucatan-Florida-Caribbean Connection**

*Sandra Starr, M.A., Starr Research  
Senior Researcher, Emerita  
Smithsonian National Museum of the American Indian*

## January 20

### **Archaeology Year in Review**

*Darwin Smith, Vice President, Time Sifters*

## February 17

### **CSS Georgia: The Ladies Ironclad**

*Michael L. Jordan, President, Cosmos Mariner Productions*

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