



# Concho Valley Archeological Society Newsletter

June 2011

## CVAS Meeting Presentation Highlights of the Mediterranean

*Our own Arnetta Cooper will present us with a photos from her recent trip to the Mediterranean this past April. The trip included Athens, Istanbul, Jerusalem, Cyprus, and the islands of Mykonos and Santorini. The meeting will be held on 23 June at 7 p.m. at the Forth Concho Historic Stables classroom.*



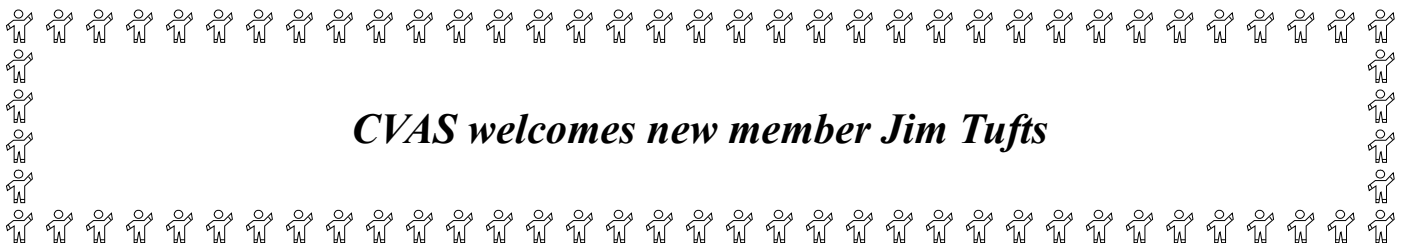
### July Picnic on June Meeting Agenda

Reminder to all our CVAS members. We will be having our annual July picnic in about a month or so and we will be talking about our plans at next week's meeting. There has been some talk about possibly changing the location of our picnic. Just talk so far. If you have ideas on what you would like please come to our next meeting. We will be firming up our plans and finalizing the arrangements. We hope to see you at our next meeting. Best wishes to all.....C.A.

***There are four 2011 SWFAS Booklets remaining which are available to members  
at \$ 12.00.  
(available at the meeting)***

- The Shifting Sands Folsom-Midland Site: To Flute or Not to Flute ~ Richard O. Rose
- The Barrett Scraper Preform Cache From the Jimmy Owens Site, 41FL81, Floyd Co., TX ~ Christopher Lintz and Rolla Shaller
- Archeology ss Tourism: the Unsuccessful Attempt by Texas to Acquire Saddleback and Landergin Mesa Villages as a State Park in Eastern Oldham County ~ Christopher Lintz
- Rock Art in Deadman Canyon Overhang 41VV1994 - Val Verde County, TX ~ Evans Turpin
- A Turtle Effigy Petroform in The Texas Big Bend (Abstract Only) ~ Richard Walter
- The Jumanos and The Lady in Blue ~ Bill Yeates
- Evaluating Subsistence Economies in the Jornada Mogollon Region: Current Trends and Perspectives ~ Peter C. Condon, Javier Vasquez, Luis Sierra, Linda Perry and Spencer Larson
- A Couple of Infamous Butterfield Stations, One in Texas, One in New Mexico ~ Claude Hudspeth
- Late Holocene Environmental Change Along West Amarillo Creek, Potter County, TX ~ Charles Frederick
- A New Look at the Merchant Site Through LA54834 (Abstract Only) ~ Jeff Pangburn
- Southeastern New Mexico Archaeological Research/Resource Center: Its Importance and Future ~ Calvin B. Smith
- A Lake Site in Andrews ~ Pinky Robertson

**See Marcia Esser at the meeting for purchase**



***CVAS welcomes new member Jim Tufts***

# What is Experimental Archaeology?

By Natasha Sheldon, Apr 6, 2011, [www.suite101.com](http://www.suite101.com)

Experimental archaeology is the term applied to the systematic testing of theories of how things were used, made or how people lived in the past. These tests involve exact replication of items or events, based on archaeological finds or historical sources. In this way, archaeologists can gain a better understanding of ancient technologies and societies and the evidence they leave behind.

Experimental or reconstructive archaeology can be divided into four broad categories: the replication of artifacts, technologies, activities and lifestyles, and the replication of destruction.

By replicating artifacts, archaeologists can discover exactly how items were made. For instance, Bronze Age style axes, swords and knives can be replicated by using reconstructions of original moulds found survive in the archaeological record. Alternatively, objects such as pottery, hand axes or flint tools can be reconstructed by using original artifacts as models.

Reconstructing articles also helps archaeologists understand how objects were used. According to Kevin Greene in 'Archaeology an Introduction', examining the patterns of wear and damage on a tool can offer clues about what objects were used for; as tools, weapons or as decorative pieces.

Archaeologists will often reproduce items such as axes and test them out in various different situations. Then the marks made by the activity are compared to the wear marks on the original tool, a process known as 'use-wear analyses. Broadly speaking, the activity that produces the closest match to the marks on the original is the most likely use of the tool.

In order to understand the technologies available to ancient societies and how labor intensive they were, archaeologists will often try to simulate industries from the past or attempt to reconstruct buildings and monuments in order to understand how they were built and the skills and organized labor involved. Their experiments will be based on known facts about the levels of technology available, either from the archaeological record or in ancient sources.

Various experiments have been carried out to try and work out how Stonehenge was built, in particular how the megaliths that make up the stone circle were transported to Salisbury Plain. The latest theory is based around cricket ball shaped spheres discovered near megalithic circles in Scotland.

Christopher Catling of Current Archaeology describes how researchers of Exeter University have used replicas of the balls to create ball bearing tracks to move stones. The balls were inserted into a groove running down the center of two parallel logs. The slabs were then placed on the balls and with a gentle push could be moved along the logs with ease. By leap frogging the logs, it has been estimated that only a few tracks would have been needed to move the stones around ten miles a day.

This theory, like the many others surrounding the stone circle, is only a possibility, as archaeologists have no certain record of the methods used. But in other circumstances, descriptions of ancient techniques exist, as well as the tools used during the period. This makes it is easier to reconstruct ancient technologies to fully appreciate the manpower and skill involved.

The reconstruction of a roman house at Wroxeter is an example of this type of experimental archaeology. Using only tools and materials used in Roman times, as well a Roman building techniques described by Vitruvius, a group of modern builders reconstructed a replica town house complete with bath suite and mosaics.

Such ventures not only helped bring the ancient technologies to life but also help inform archaeologists about the meaning of puzzling features on sites. For instance, a building could be surrounded by a series of inexplicable post holes. A reconstruction of the house will make it clear that scaffolding was necessary. Immediately, the feature is explained and will inform excavations of similar sites elsewhere.

A real appreciation of how people lived in the past can be achieved by the ultimate in experimental archaeology-a recreation of a whole society. Using all available information about buildings, technologies, clothes and lifestyle, a mocked up settlement can be reconstructed to gain a real feel for and gain new insights on a given time period.

Cinderbury Iron Age farm in Gloucestershire, UK is a reconstructed iron age settlement complete with roundhouses and livestock where 'residents' can experience what life was really like in the iron age by living and working the iron age way-wearing the clothes, cooking and working with iron age technologies.

Experimental archaeology can also be used to understand how things are destroyed, eroded and decay with time, which in its turn helps archaeologist understand sites they are excavating. Greene mentions how in Denmark, timber buildings were reconstructed and then burnt down to help the archaeologists understand similar burnt remains on a site.

Similarly, in the 1960s, a series of long term studies into the decay of earthworks was set up. Banks and ditches were built over chalk and sand at Overton Down in Wiltshire. Each earthwork was the same size and organic and inorganic samples buried in them. The experiment is on-going and will help archaeologists understand how time and nature can erode similar features and objects in the archaeological record.

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Natasha Sheldon studied Ancient History and Archaeology at Leicester and Bristol Universities in the UK. She was awarded the Arnold Wycombe Gomme prize for Ancient History and holds a BA honours in Ancient History and Archaeology and a MA in Ancient History and Historiography.

# West Texas prehistoric paintings get laser treatment

By MICHAEL GRACZYK, Associated Press, Published Monday, May 30, 2011

COMSTOCK -- A complex colorful mural painted on canyon walls some 4,000 years ago in West Texas is getting modern laser treatment as researchers try to unlock its mysteries and protect it from the unintended consequences of a nearby reservoir.

Panther Cave, among the best known of several hundred prehistoric pictograph sites that dot the rugged canyons along the US-Mexico border, is being scanned with lasers to produce a high-resolution 3-D image in efforts to gauge the mural's deterioration and detect images long ago erased by Mother Nature. They hope the project will help them preserve and decipher one of the oldest stories in North America.

"They are ancient texts, not just drawing on walls," says Carolyn Boyd, head of the Shumla School, an archeological research center working with state and federal agencies on the project. "We have knowledge now that these paintings are far more than graffiti. And with knowledge comes responsibility -- a responsibility to take care of it."

Carbon dating shows the Panther Cave paintings -- a combined 150 feet wide and 13 feet high -- were made by prehistoric Native Americans at the same time the Egyptians were constructing the pyramids. Some images have human characteristics, some are unknown and some are animal figures, including the cave's unmistakable signature 12-foot-long leaping red panther. The animal guards the hollowed out cavern overlooking the Rio Grande about 50 miles west of Del Rio.

The two-week scanning process, extending into early June, will eventually give researchers a precise base line to track what appears to be accelerated deterioration due to increased moisture from the Amistad Reservoir and insects building nests or burrowing into the porous limestone walls.

A camera about the size of a microwave oven passes over a 6- to 10-inch square per scan, collecting images accurate to 1mm. Color photographs are then overlaid on the images to give researchers a clear picture of how the site has changed over the centuries. Other images taken with color-sensitive photo equipment show parts of the paintings no longer visible.

"It's a powerful tool to see how the site has changed," said Christopher Goodmaster, an archaeologist and laser scanning specialist.

Goodmaster connects his equipment to a car battery for power and collects the individual images on a laptop computer. Like building a puzzle, he said he "mosaics it together to make sure we're getting it all."

The project is expected to help researchers determine how increased populations of wasps and environmental effects are changing the paintings over the years. Photos from earlier decades don't show the wasp infiltration, and some researchers speculate that the creation of the nearby Amistad Reservoir has made it easier for the insects to get their mud and make their nests here. The gigantic reservoir was created in 1969 when damming of the Rio Grande began flooding the steep canyons.

"If you have one under your house, you take a pressure washer and whack it off," said Jack Johnson, a park archaeologist for the Amistad National Recreation Area. "You can't do that here."

One wasp, known as a mud dauber, builds pipe-like nests of mud that attach to the surface of the painted walls and harden like concrete. If and when the nests fall, they can take the paint with it. The second, called a blue dauber, infiltrates the natural holes in the limestone -- smaller than the circumference of a drinking straw -- for its nest and then seals the hole with its plaster-like mud. When its offspring emerges, it breaks through the plaster that also takes with it the limestone surface -- and the paint -- around the edge of the hole.

"I just wish they'd go somewhere else," Johnson said.

Before Amistad was built, the floor of Seminole Canyon was about 300 feet below Panther Cave. Now the water is close. Although visitors only can reach the area by boat, they need to only climb a couple steel staircases attached to a dock to see it. The cave itself is corralled by a tall chain link fence topped by curled razor wire to deter vandals or souvenir seekers.



APPhoto

Archaeologist Carolyn Boyd inspects the signature red panther, a prehistoric painting that marks Panther Cave along the Rio Grande at Seminole Canyon State Park and Historic Site in Comstock. The panther painting is among a 150-foot mural made more than 4,000 years ago.

WE'RE ON THE WEB AT  
CVASSANANGELO.ORG

### Meeting Location

Please remember that our meetings are now in the classroom at the Fort Concho Living History Stables, **236 Henry O. Flipper St.** We enter through the side door.

## 2011 Membership Application

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

Zip \_\_\_\_\_ Phone \_\_\_\_\_

Cell \_\_\_\_\_

Family members \_\_\_\_\_  
\_\_\_\_\_

Email \_\_\_\_\_

I pledge I will not intentionally violate the terms or conditions of any current or future state or local statute concerning cultural resources or engage in the practice of buying or selling artifacts for commercial purposes, or engage in the willful destruction of archeological data, or disregard proper archeological field techniques

Signature \_\_\_\_\_ Date \_\_\_\_\_

Mail to: CVAS, 4801 Royal Oak Dr., San Angelo, TX 76904

<b>Individual</b>	<b>\$15</b>	<input type="checkbox"/>
<b>Family</b>	<b>\$20</b>	<input type="checkbox"/>
<b>Student or military N/C</b>		<input type="checkbox"/>

(active military only)