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GENERAL MEETING

Saturday

November 17, 2012

12:30 pm at

Riverside Nature Center



Technology For Dating Ancient Rock Paintings

Study regarding method that allows archaeologists to date rock paintings. Rock paintings, or pictographs, are among the most difficult archaeological artifacts to date. They lack the high levels of organic material needed to assess a pictograph's age using radiocarbon dating, the standard archaeological technique for more than a half-century.

A highly sensitive dating method, called accelerator mass spectrometry, that requires only 0.05 milligrams of carbon (the weight of 50 specks of dust). That's much less than the several grams of carbon needed with radiocarbon dating.

The research included analyzing pictographs from numerous countries over a span of 15 years. It validates the method and allows rock painting to join bones, pottery and other artifacts that tell secrets of ancient societies, "Because of the prior lack of methods for dating rock art, archaeologists had almost completely ignored it before the 1990s. But with the ability to obtain reliable radiocarbon dates on pictographs, archaeologists have now begun to incorporate rock art into a broader study that includes other cultural remains."

Reprinted from *Science Daily*

HCAA Lithic Workshop Part II

(members only)

Speaker: Dr. Steve Tomka

Date: November 10th

Time: 9:00 am to 3:00 pm

at the

Y.O. Resort Hotel

& Conference Center

2033 Sidney Baker, just south
of IH10.

This will be a great workshop and
we look forward to seeing you
there!

(See page 2 for further info)

Our Speaker for November 17 Meeting is Bradford M. Jones

Bradford M. Jones earned a bachelor's degree in anthropology from the University of Texas at Austin and a master's degree from the University of Illinois Urbana-Champaign. For over 15 years he has been active in archeology, specializing in the archeology and history of Texas and the Andes with a focus on the late pre-Columbian and historic periods. Jones joined the THC in 2009 as the Collections Manager/Project Archeologist, coordinating the management over 300 site collections held by the THC, serving as an editor and contributor to the reports of investigations conducted by the THC at the *La Belle* shipwreck and Fort St. Louis/Presidio La Bahia sites, and participating in several field projects, most notably the excavations at the Bernardo Plantation Site and the grave of the Texas Ranger James Coryell. Since August 2011, he has also been reviewing projects in six of Texas' most urbanized counties as *Terrestrial Archeologist/Collections Manager*. Prior to joining the THC he worked as a project archeologist/principal investigator, lab director, and curation technician for cultural resource management projects in Texas. He also conducted surveys, excavations, and archival research in Peru and Ecuador. He has authored or co-authored numerous reports, articles, and book chapters on these projects.

The topic of his talk will be *A Pilot's Eye View: Enrique Barroto's Diary and the Archaeology of Coastal Texas in 1687*. The Spanish search for La Salle's French colony on the Texas coast in the late 1680s resulted in fascinating informal ethnographies of the southern and southeastern regions of Texas. Among these accounts is the diary of Enrique Barroto who piloted one of two *piraguas* that set out from Veracruz in search of La Salle on Christmas Day, 1686. Perhaps the most notable discovery of the voyage was La Salle's ship *La Belle*, but along the way they also interacted with various native peoples and communities from the Rio Grande to the Sabine. Using Barroto's diary as our guide, this talk will discuss the insights that his account brings to the people and material culture of late 17th century coastal Texas and the implications for the archeology of it.

Congratulations to Woody Woodward and Frank Binetti for ten years participation in the Texas Archeological Stewardship Network of the Texas Historical Commission. Both were "Jim Word Award" Recipients for their dedicated volunteer work in their own and many areas of the state. These awards were presented in Austin on September 19, 2012.

Frank is one of our newer members, but he is already involved in our field projects. Woody has been involved with HCAA since its founding. He has served in past offices of treasurer, vice president, president, field coordinator, helped write the Field Work Protocol and many, many other activities.

Kudos to both Frank and Woody!

Continued from page 1

LITHICS WORKSHOP II

HCAA will have another members only Lithic Workshop led by Dr. Steve Tomka on Saturday, November 10th, from 9:00 a.m. to 3:00 p.m., with 1 hour break for lunch. This workshop will be held in the Guadalupe Room at the YO Resort Motel, 2033 Sidney Baker St., Kerrville.

For lunch, you can either go through the buffet line at the motel (\$9.95 plus tip) and take the food back to the meeting room where they will have service for you, or go out elsewhere to eat.

We would like to have an idea of how many will be attending this workshop, so please reply to Kay Woodward if you think you will be able to be there.

Time Team's Final Dig

Tony Robinson's series 'that brought archeology to the masses' is ended by British television *Channel 4* after 20 years. The final series of Time Team will air next year with a program looking back at highlights from 250 episodes. However, *Channel 4* has commissioned four specials which will be broadcast in 2013 and 2014.



UPDATE on K1KR22

In early October, HCAA wrapped up its 2012 investigation – Phase 1 – of the site at 41KR22. Field work Phase 2 was initiated for one day only as rain soon set in. The field work will resume after hunting season – in early 2013. To date, 2,055 artifacts have been discovered, described and recorded. The cultural features and materials included burned rock middens; isolated finds, lithic quarries and scatters. Prehistoric artifacts have included patinated crested blades and flakes and fluted projectile points. Tools included edge modified flakes, scrapers, choppers, burins, knives, awls, and a drill. Quarry items included cores, preforms, bifaces, and uniface lithics. Flakes were primary, secondary and tertiary, some util-



ASH FROM MIDDEN #1 AT 41KR22
PHOTO COURTESY OF STEPHAN BISHOP

ized. Also recovered were bone fragments and charcoal. Historic items include purple glass sherds, aqua glass sherds, stoneware sherds, china sherds, clear glass sherds, green glass sherds, blue glass sherds, iron stone sherds, milk glass sherds, pink glass sherds, Bristol Glaze sherds, buckshot, carbide battery posts, child's marble,



Jo Redden at 41KR22

fragment of a child's cast iron car (1928), chain fragments, machinery fragments, cast-iron stove (1888) parts and fragments, wire nails, fence staples, horse shoes, cookware parts, buckle fragments, iron plow-share, fencing, ruin of barn, ruin

of cattle dipping trough, and the old trail/road. The Field Crew has included Dr. Joseph Luther, Project Director; Kay Woodward; T.G. Woodward; John Benedict; Stephen Bishop; Terry McTaggart; Ed Rendon; Judy Carswell; Jim Weathersbee; Jose Contreras; Penny Bryan, Jimmy Hutto, Ron Ralph, Jo Redden and Randy Klein.



Kay Woodward and Ron Ralph at 41KR22

Texas Historic Overlay Maps

Texas Department of Transportation (TxDOT) created a GIS-based historic archaeological resource that helps avoid sensitive archaeological and cultural sites and guide field surveys.

For more than two years, the Texas Historic Overlay (THO) team solicited information from libraries, museums, and repositories and obtained maps. Maps were supplied in a variety of formats including scanned hard copies, photographic reprints, microfilm, digital photography, and tracings of hard-copy maps on vellum.

Completed in early 2007, the THO is integrated into TxDOT's existing statewide GIS, which is built on ArcGIS. All selected historic maps were georeferenced using vector registration overlays representing historic coordinate systems or geographic features with resulting images in GeoTIFF and MrSID formats.

One of the greatest challenges in the THO effort was georeferencing all maps to a common coordinate system. Unfortunately, most georeferencing software is designed to transform coordinates for U.S. maps that are created with the North American Datum of 1927 (NAD27) or more recent horizontal datums.

Most antiquated datums used by the historic maps selected for the project are actually a datums that use the Clarke 1866 ellipsoid. The exceptions to this generalization are the Walbeck 1820 ellipsoid and the Bessel 1841 ellipsoid. In 1870, the U.S. Coast Survey adopted the Clarke 1866 ellipsoid for use for geodetic purposes including mapping. This ellipsoid was used as a local datum until the adoption of the first geodetic datum of the United States, the U.S. Standard Datum of 1901. In 1913, the U.S. Standard Datum was renamed the North American Datum (NAD) with its adoption by Canada and Mexico.

Many maps selected for use in THO use a datum predating NAD27. Of the 3,318 source maps, 745 used an antiquated datum such as the North American Datum

(1913), the U.S. Standard Datum (1901), or other datums available prior to development of regional geodetic datums.

To transform a coordinate system to the selected common coordinate system, mapping experts developed three-parameter Molodensky transformations for each historic datum encountered. The process works by calculating the shift along the x-, y-, and z-axes from one system to another. To calculate this shift, the team undertook a substantial research effort to find coordinates for features represented in historic and modern form.

Jim Abbott, project manager for the TxDOT Environmental Division, said, "The ability to access and compare historic maps at the desktop provides us with a powerful tool for cultural resource planning. With the Texas Historic Overlay, we can quickly and consistently locate and avoid possible historic archaeological sites that otherwise might be missed in planning for highway projects."



Excerpted from article By Ty Summerville, Geospatial Project Manager

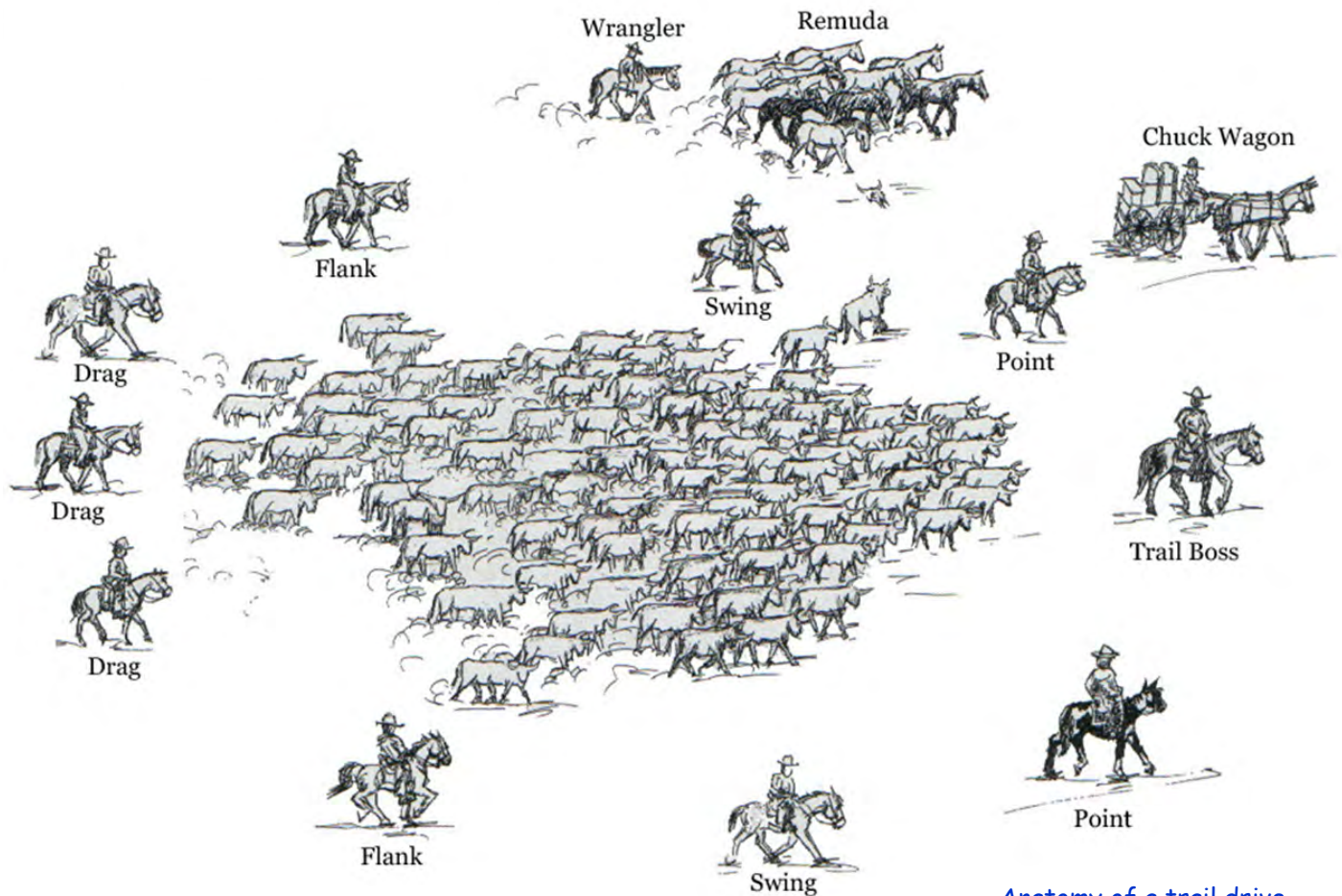
Upcoming Events:

- **HCAA Lithics Workshop II Nov 11, 2012 at YO Hotel & Conference Center. 9 to 4 pm**
- **Archaeological Institute of America - Southwest Texas Archaeological Society: lectures series on archeology topics around the world. See Website for lecture schedules and subjects. Website: <http://aiaswtas.org/>**

For articles, updates, and links
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on facebook

The Chisholm Trail



Anatomy of a trail drive

The Chisholm Trail was the most important route for cattle drives leading north from the vicinity of Ft. Worth, Texas, across Indian Territory (Oklahoma) to the railhead at Abilene. It was about 520 miles long and generally followed the line of the ninety-eighth meridian, but never had an exact location, as different drives took somewhat different paths. With six states enacting laws in the first half of 1867 against trailing cattle north, Texas cattlemen realized the need for a new trail that would skirt the farm settlements and thus avoid the trouble over tick fever. In 1867 a young Illinois livestock dealer, Joseph G. McCoy, built market facilities at Abilene, Kansas, at the terminus of Chisholm Trail. The new route to the west of the Shawnee soon began carrying the bulk of the Texas herds, leaving the earlier trail to dwindle for a few years and expire.

The typical drive comprised 1,500-2,500 head of cattle. The typical outfit consisted of a boss, (perhaps the owner), from ten to fifteen hands, each of whom had a string of from five to ten horses; a horse wrangler who handled the horses; and a cook, who drove the chuck wagon. The wagon carried the bedrolls; tents were considered excess luxury. The men drove and grazed the cattle most of the day, herding them by relays at night. Ten or twelve miles was considered a good day's drive, as the cattle had to thrive on the route. They ate grass; the men had bread, meat, beans with bacon, and coffee. Wages were about \$40 a month, paid when the herd were sold.

What is left of a cattle drive archeologically speaking? There are still visible remains of the famed Chisholm Trail etched by the hooves of millions of cattle near Monument Hill in Oklahoma. This was a landmark visible to trail hands more than twenty miles away. The ruts are located in and near Duncan, OK.

Archeology Fun Facts

- Native Americans did not use the bow and arrow until about 1,500 years ago — earlier hunters used spears.
- The horse was introduced to American Indians by the Spaniards after 1500.
- Bison (or American buffalo) were hunted by Native Americans on foot long before the horse was introduced into the New World.
- The Karankawa of the Texas coast spoke a language related to Indian languages of the Caribbean region.
- Prehistoric tribes in Texas traded for turquoise and obsidian from New Mexico, shell from the Pacific and Atlantic coasts and exotic stone from as far away as Minnesota.
- A stone quarry in Texas was used for millennia by inhabitants of the southern Great Plains and is now a national monument — Alibates National Monument — in the Amarillo area.
- In addition to projectile points (stone points for arrows and spears), Native Americans used stone, bone and shell for knives, drills, axes, awls, hoes and grinding implements.
- Prehistoric people in Texas used plant fibers to make baskets, mats, sandals and other useful objects. Well-preserved woven sandals have been found by archeologists in the dry rock shelters of southwestern Texas.
- Some of the most impressive prehistoric rock art in North America is found in Texas — visitors can see excellent examples at Hueco Tanks and Seminole Canyon State Historic Sites.
- Not all Native Americans lived in tipis. Many villagers lived in thatched or adobe houses, and many nomadic groups lived in brush- or hide-covered shelters or rock shelters.
- Corn has been cultivated in Texas for at least 2,000 years. Beans and squash were other staple foods of the early Texas agriculturalists.
- The accounts of early explorers help archeologists understand many sites. Much that we know about the historic tribes of southern Texas comes from the accounts of Cabeza de Vaca, who was shipwrecked on the Texas coast and traveled through southern Texas and northern Mexico for eight years, from 1528 until 1536.
- The first black explorer in Texas was Esteban, a Moor who traveled with Cabeza de Vaca.
- The Tigua tribe came to the El Paso area from New Mexico in the 1680s, and some of their fields have been in continuous cultivation since that time.
- The Alamo is a Spanish mission and was the first mission established in San Antonio, in 1718.
- The first ranches in Texas were the 18th-century Spanish mission ranches along the San Antonio River, where mission Indians tended the livestock.
- As many as 90 percent of the recorded archeological sites in some areas of Texas have been damaged or destroyed.

Source Texas Historical Commission website

Welcome to the Future or when did my phone turn into a Star Trek Tri-corder?

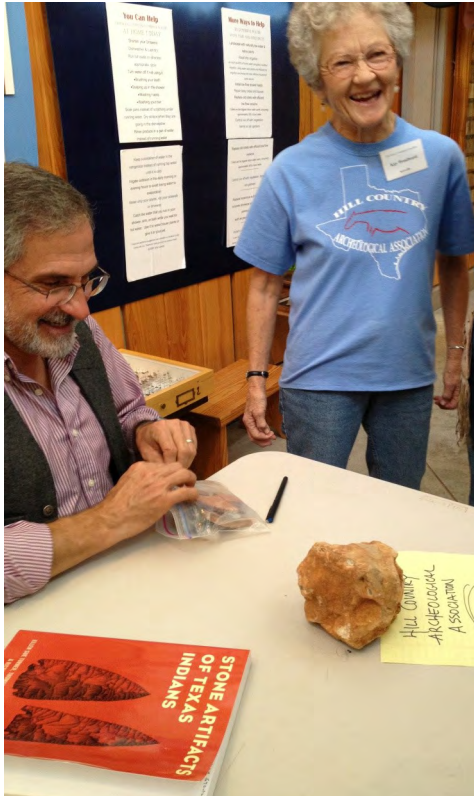
Joe offers his recommendations for best apps to do field reports and document archeology sites :

My Favorite Archeological Apps for the iPhone

1. CAMERA+
2. THEODOLITE
3. PRO COMPASS
4. ELEVATION
5. CONVERT UNITS
6. GEO MEMO
7. GOOGLE EARTH
8. GEO MEASURE
9. ELEVATION CHART
10. ARC GIS

By Joseph Luther, Ph.D.

Presumably all available at your iTunes website



Kay Woodward with speaker Steve Tomka



President Ron Holm did the introductions and also introduced us to his friend below.



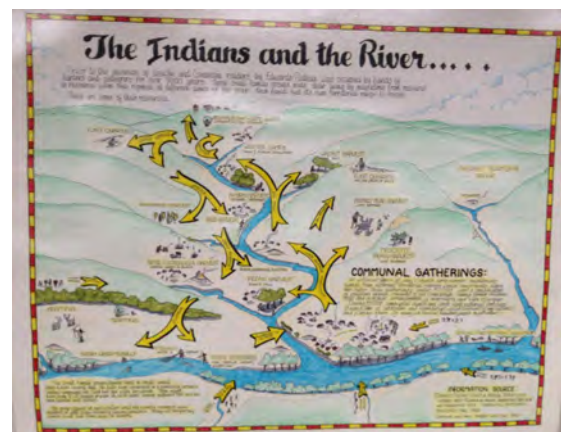
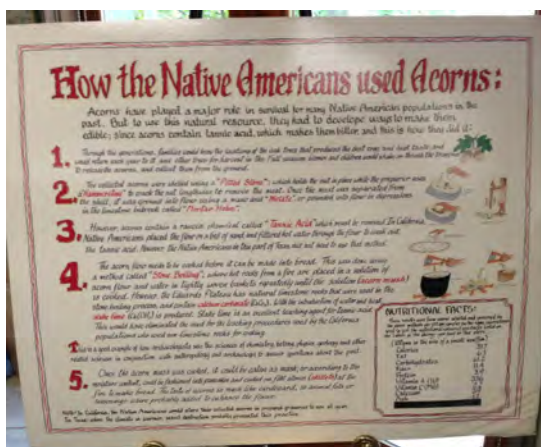
John Benedict (right)



Steve Black, speaker, and interested attendee

Scenes from Rendezvous on the River 2012

Our yearly activity to celebrate archeology and continue outreach to the community regarding the importance of preserving our heritage was held last October. Speakers Steve Tomka and Steve Black gave excellent presentations. The community was encouraged to bring in artifacts and/or "strange rocks" for identification. We are fortunate to have members of the HCAA expertise in both archeology and geology to provide this service.



Informative Displays

HILL COUNTRY
ARCHEOLOGY
ASSOCIATION

HCAA BOARD WILL
MEET SATURDAY
MORNING,
NOVEMBER 17,
2012 AT 10:00
A.M. AT RIVERSIDE
NATURE CENTER.
MEMBERS ARE WEL-
COME TO ATTEND.

HCAA
P.O. Box
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KERRVILLE, TX
78029-0393

Help yourself and the HCAA while you shop for new and used books on all aspects of archeology. When you go to our HCAA web site, <http://www.hcarcheology.org>, you will find a link to Amazon.com to help you browse for and purchase books.

The link is: [Archeology Books Available Here](#)

A REMINDER

The HCAA is thankful that many landowners allow us to survey their property for archeological sites. We should constantly remind ourselves:

All artifacts found on their property belong to the landowner. HCAA members keep no artifacts.

If an archeological site is identified on the landowner's property, the location of the ranch should remain confidential.

We visit a property only with the owner's permission.

We do not hold a land-owner liable for injuries which occur while on their property.

We encourage and enjoy the participation of the landowner in our activities.

PLACE
POSTAGE
HERE

ADDRESS CORRECTION REQUESTED