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GENERAL MEETING

Saturday

September 21, 2013

12:30 pm at

Riverside Nature Center



Archeological Display Set to Open at RNC

The Hill Country Archeological Association and Kerrville Elks Lodge #2081 are sponsoring a "museum quality" archeological and paleo-environmental exhibit complex at the Riverside Nature Center in Kerrville beginning October 1st and continuing through December 31st of this year. The complex will feature a variety of exhibits designed to educate the public about archeology and the richness of sites within Kerr County and the region, and the information that these sites bring to the overall ancient history of this part of Texas.

Among the exhibits will be a 21 foot long by 7 foot high wall poster/panel exhibit which will visually present the different archeological periods for the last 12,000 years in Texas. It will discuss climates, buffalo populations, projectile point types, tools and life styles for Native Americans for each of those periods. Selected images to illustrate this information will also be included. A glass exhibit case will present a private collection of dart and arrow points and tools from Kerr County spanning thousands of years. Native plants and their uses by Native Americans, such as a food source, will be the subject of another wall ex-

hibit. It will also be accompanied by modern plant specimens and a scale model of a replicated stone earth oven which was used for cooking native plants. Replicas of atlatls and bows and arrows will also be on hand.

Two video screens will continuously play, exhibiting the top three "sites" for the Kerr County area. Silent video power points will detail the Gatlin Site (41KR621), found in 2004 and known to be one of the best Early Archaic Sites in Texas, and the Bering Sink Hole Site (41KR241), a unique 7500 year old Native American cemetery. The third silent video power point will detail the paleo-climate and paleo ecosystem and paleontological findings of Hall's Cave (41KR474) during the last 17,000 years. This site is widely regarded as the best in Texas, and one of the best in the world, for having a complete sedimentary record over the last 17,000 years. Remains of plants and animals, as well as the chemistry and mineralogy of the sediments themselves allow plausible predictions of past climates, vegetation and soil thicknesses within the Kerr County area.

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7,000 Years of Prehistory at Eagle Bluff

Speakers at the 9/21/13 HCAA Meeting will be presenting a recap of the 2013 TAS Field School. HCAA member, **John Benedict** will speak, as well as, **Terry Farley**, **Woody Woodward** (and any others who attended the field school and want to share a little of what they experienced and/or learned). The Texas Archeological Society 2013 field school, held June 15-22, near the city of Hondo was attended by more than 300 adults, students, children, and professional archeologists. They participated in excavations and surveys of prehistoric and historic sites in the area. Most of the archeological work focused on excavations at the Eagle Bluff site, 41ME147, a river terrace site on Hondo Creek a few miles north of the city of Hondo. This is the third year to hold the field school at this site. Dr. Tom Hester is the Principal Investigator. Different areas of the river terrace have been inhabited at various times over the past 7,000 years. The Toyah peoples are particularly well represented in several areas making the site especially valuable. Several HCAA members participated in these excavations. They will discuss their field school experiences and what was discovered while "getting down and dirty"!

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A third screen will present an audio/video of an actual archeological excavation in Kerr County by archeologists from the Hill Country Archeological Association. This will demonstrate to the public the professional standards that this association and others like it within the state, utilize in archeological work.



Kay Woodward receiving ten year service award as THC Steward

Your editor never gets tired of reporting on our esteemed member, **Kay Woodward** and her many achievements. This year at the 10th Fall Steward's meeting on the Texas State University Campus at San Marcos, Kay received the **Jim Word Award** for her ten years service as a Texas Historical Commission Steward, along with eight others from the state.

Her husband, Woody and their daughter Terry Farley were with her to enjoy the presentations and workshops. They were given guided tours of the Gault lab and the Center for Archaeological Studies.

Photo credit Terry Farley

Member Updates

Sylba Lee Storm, one of our long time HCAA members, will celebrate her 90th birthday this month. Some will recall Sylba Lee always a volunteer in the lab "kitchen" working when we served lunch during the early Archeology Fairs at RNC.

Some of our members plan on attending the TAS Annual Meeting in Del Rio the last weekend of October. They will spend Sunday viewing rock art. **Steve Stoutamire** will be going to see White Shaman, while **Woody**, **Kay Woodward** and **Terry Farley**. will tour Lewis Canyon.

OBSIDIAN SOURCING SPEEDS UP

SHEFFIELD, ENGLAND—Scientists at the University of Sheffield have developed a new way to determine the source of obsidian artifacts using a hand-held device that can be carried to archaeological excavations. Results are available in ten seconds, rather than the months or years it had taken in the past to match the ancient glass to its source volcano in the lab. "We're shifting chemical analysis from the realm of 'white lab coats' to 'muddy boots.' The more that archaeologists and specialists in various field can work together on-site the better," explained archaeologist Ellery Frahm.

CLOVIS POINTS SERVED MANY PURPOSES

COLUMBUS, OHIO--New research suggests that Clovis points, thought to have been crafted for hunting mammoths, actually served as all-purpose knives. When Mark Seeman was at Kent State University, he and his colleagues identified rabbits' blood residue on Clovis points from Ohio. Now Logan Miller of Ohio State University has examined ten stone tools under high-powered magnification, and found evidence that a Clovis point from Ohio was used to cut meat and soft plants, and another was used to kill an animal. "Such a versatile tool would have been handy for hunter-gatherers, who had to carry all their possessions around with them as they roamed across their Ice Age world," commented Bradley T. Lopper of the Ohio Historical Society.

LANGUAGE AND TOOL-MAKING EVOLVED SIMULTANEOUSLY

LIVERPOOL, ENGLAND—Researchers at the University of Liverpool have found that that the same brain activity used in speaking is used in the making of stone tools. The team reached the conclusion after using technology developed to test patients' language function after brain damage to analyze the brain blood flow of 10 expert flint knappers while they made stone tools. The fact that stone tool making uses the same brain patterns as speaking suggests that these two abilities co-evolved. "Nobody has been able to measure brain activity in real time while making a stone tool," says archaeologist Natalie Uomini. "This is a first for both archaeology and psychology."



At the last HCAA meeting **Rudi Winzinger** was awarded the HCAA 2013 Inspirational Award for his continuous support over many years as Board of Directors Member, Treasurer, Field Work Participant, Enthusiastic Archeological Digger and Surveyor and Inspiration to New Members.

Kay Woodward adds: "Rudi has been our Assn. photographer for years now and an excellent one too! We think highly of him for his dedication to HCAA - and he is wrong in saying he doesn't do field work, as he worked right with us on projects at Medina and Edward counties - we can count on both he and Jan to assist when they are not traveling to his home overseas or to the Southwest. A well deserved award, Rudi!!!!"

BOLIVIA'S SHELL MIDDENS ARE 10,000 YEARS OLD

BERN, SWITZERLAND--Soil samples collected from forest islands in Bolivia's western Amazon reveal that humans were living there as early as 10,400 years ago. Umberto Lombardo of the University of Bern and his team found freshwater snail shells in the older layers, and pottery, bone tools, and human bones in the outer layers. The mounds reflect a 6,000-year-period of human use. "We have discovered the oldest archaeological sites in western and southern Amazonia. These sites allow us to reconstruct 10,000 years of human-environment interactions in the Bolivian Amazon," Lombardo said. He thinks that these early Amazon residents may have moved away as the climate became wetter. Some had thought that the unusual mounds were formed by termites or erosion.

DATING NORTH AMERICA'S OLDEST PETROGLYPHS

WINNEMUCCA LAKE, NEVADA—Archaeologists have discovered a series of abstract petroglyphs in western Nevada are at least 10,500 years old and could possibly date to 14,800 years ago, making them the oldest known petroglyphs in North America. The team, led by Univer-

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HCAA Archeology Celebration at RNC will be on October 19, 2013

Every October is *Texas Archeology Month*. HCAA recognizes and supports Texas Archeology Month with an archeology program to bring awareness to the community regarding the rich archeology history in the Hill Country. This year HCAA will be having speakers, **Tom Hester**, and **Britt Bousman**.

The presentation begins at 10:00 AM when Tom Hester will talk about the TAS field school in Medina Co. near Hondo. At 1:00, PM Britt Bousman will talk about the Pleistocene and Early Holocene on Texas. We will have three flint knappers from the Gault program, Sergio Ayala, Tom Williams and Nancy Velchoff.



Gault site Clovis point.
Photo History Beyond Texas



Eagle Bluff site point
Photo by Penny Bryant

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sity of Colorado Museum of Natural History archaeologist Larry Benson, radiocarbon dated layers of carbonate underneath the petroglyphs, which ancient Native Americans incised into limestone boulders near the now-dry Winnemucca Lake. "Whether they turn out to be as old as 14,800 years ago or as recent as 10,500 years ago, they are still the oldest petroglyphs that have been dated in North America," says Benson. But knowing the approximate dates still doesn't give archaeologists insight into what the symbols represent. "We have no idea what they mean," says Benson.

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From *Archeology Magazine*

Sotol

Dasyliirion texanum Agavaceae Family



This spiny evergreen plant was an important food staple for the native peoples in the Lower Pecos Canyonlands and adjacent areas of the western and southern Edwards Plateau. Native peoples also made use several other sotol species that can be found to the west across much of the Chihuahuan Desert in

northern Mexico and the southern part of the American Southwest. The pulpy central stems or "hearts" of sotol plants were baked and then pounded and formed into chewy patties which could be dried and stored. This carbohydrate food source was probably a mainstay in areas where sotol grew in abundance.

Sotol is a evergreen rosette plant, with long spine-clad leaves that attach in a series of circular tiers around a shortened, central stem. Although sotol is sometimes called a "cactus" or an "agave," it is neither. Some botanists today classify it a member of the Nolinaceae family, like **beargrass**, while others place sotol in the Agavaceae family (e.g., Powell 1998), along with the true agaves such as **lechuguilla**. The tough fibers from sotol leaves were used for making mats and twine and its woody flower stalk was valued as a straight, lightweight wood useful for many tasks. Sotol seeds are also edible, and have been recovered from coprolites (preserved human feces) analyzed from dry caves in the Lower Pecos archeological region.

Weaving and basketry. Sotol leaves are an ideal material for weaving mats, trays, burden baskets, tumplines, and general purpose baskets (Andrews and Advasio 1980; McGregor 1992). Preparation of the leaves for weaving is simple. The leaf is either utilized whole, or split into narrow strips. In some cases, the marginal teeth (spines) are removed before the leaf is woven into a mat. In other cases the leaves with the marginal teeth

intact are woven into the basket or mat. In a comprehensive study on basketry of the region, McGregor (1992) identified sotol in mat and basket fragments. Often sotol was woven into baskets with other materials, including yucca fibers or strips of yucca leaves, agave fibers, or grass fibers.

Food. The plant's central stem is very fleshy or pulpy, and serves as a storage organ, containing both moisture and carbohydrates. The central stem, often referred to as the "heart," is edible, but only after it is baked in an earth oven for 36-48 hours. The very long cooking time is needed to break down indigestible long-chain carbohydrates and poisonous compounds, mostly saponins, which are a combination of a sapogenin, a steroid compound, and a sugar, usually glucose. The heat and steam generated by an earth oven, however, breaks down complex carbohydrates, splits the sugars from the steroidal compounds, breaks down the compounds, and leaves the pulpy central stem edible. Usually the cooked, fleshy pulp was pounded into thin patties and sun-dried. If kept dry, baked sotol patties can remain edible for months: chewy, but sweet and nutritious. It tastes like nutty molasses syrup.

Most researchers associate agave use throughout the Chihuahuan and Sonoran Deserts of northern Mexico and the adjacent American Southwest (including west Texas) with earth oven processing. It is, however, increasingly evident that both sotol and yucca were utilized as important food sources in the Edwards Plateau region. For example, San Angelo (or narrow-leaf) yucca [*Yucca reverchonii*], a plant with an inedible fruit, was identified from deposits at Baker Cave (Brown 1991). Both yucca and stool have been identified in abundance from Hinds Cave (Dering 1999). When baked in an earth oven the central stem of San Angelo and other related yuccas is edible and can be prepared much like sotol.

It is very likely that sotol and yucca were among the main food resources that were routinely cooked at many archeological sites in the western and southern Plateaus and Canyonlands. Over time, this process results in the accumulation of "burned rock middens," the highly visible, common, and easily identified prehistoric site feature in the region. Archeologists have recovered charred sotol and/or yucca fragments (leaf sections) from burned rock midden sites on the Edwards Plateau,

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such as the Honey Creek site. Unfortunately, it is almost impossible for paleobotanists (specialists who identify plant remains from archeological sites) to tell the difference between sotol and yucca from small charred fragments. Therefore, most of what we know about sotol and yucca use comes from the dry caves of the Lower Pecos area. One fascinating account of sotol baking comes from *The Life of F. M. Buckelew: The Indian Captive, As Related by Himself* (1925). Buckelew was captured as a 14-year-old boy by Lipan Apaches in 1866 near what is today Utopia, Texas on the Sabinal River. He lived with the Lipan for about a year in the western Edwards Plateau and further west in the Big Bend area before he escaped. His account describes in detail the preparation of the sotol "bulb" or central stem, in earth ovens. He describes large quantities of the sotol being cooked in a "kiln" covered with earth to make it airtight. The heated rock, he said, cooked the bulbs, which were then made into "bread."

Reprinted from Texas Beyond History

Upcoming Events:

- 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/>
- HCAA Display - OCT thru DEC, "17,000 YEARS OF LIFE IN THE HILL COUNTRY" begins at the RNC. Presented by HCAA in association and underwritten by ELKS LODGE #2081 KERRVILLE.
- HCAA Archeology Celebration at RNC on October 19, Interesting speakers *Tom Hester* 10:00 AM and *Britt Bousman* 1:00 PM, knappers and identification of artifacts.
- TAS Annual Meeting October 25 to 27 in Del Rio, TX.

Interested in Archeology?

Membership In HCAA brings opportunities to hear great speakers and training opportunities

The Hill Country Archeological Association is classified as a Section 501 (c) (3) organization under the Internal Revenue Code and all donations, including membership dues, are tax deductible.

Dues Schedule

- Student (full time only) \$10
- Individual, Institutions and Societies \$25
- Family \$30
- Contributing \$50
- Supporting \$100
- Life \$250
- Patron \$500

Business Class Membership:

- Business \$250
- Corporate \$500

Make Checks payable to Hill Country Archeological Association and mail to:

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Kerrville, TX 78029-0393

REGISTRATION FORMS CAN BE FOUND AT HCAA
WEBSITE

www.hcarcheology.org

If you are renewing please make note of any changes to your phone, address or email.

HILL COUNTRY
ARCHEOLOGY
ASSOCIATION

HCAA BOARD WILL
MEET SATURDAY
MORNING,
SEPTEMBER 21
2013 AT 10:00
A.M. AT RIVERSIDE
NATURE CENTER.
MEMBERS ARE WEL-
COME TO ATTEND.

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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