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CALENDAR

GENERAL MEETING

Saturday

January 21, 2011

12:30 pm at

Riverside Nature Center

HCAA NEWS



Rock art from the
Hatfield shelter 41KR493

Prehistoric Sources of Workable Flint in Southwest Texas

The Uvalde gravels in the western part of the region were heavily used by prehistoric peoples as sources of stones suitable for making tools and sometimes for cooking stones (heated rocks). The gravels are composed of various types of relatively hard rocks that withstood river transport over hundreds of miles. As such, they are rounded, relatively small in size, and have cortex (exterior rinds) that often vary in color and texture from the internal material. Typically, the cortex is much darker than the interior. Of primary use to prehistoric peoples were the various kinds of siliceous rocks including chert (flint), chalcedony, quartzite, agatized (petrified) wood, and jasper.

The majority of the pieces of siliceous rocks are pebbles and cobbles, but small boulders also occur in some deposits. Most of the cobbles are relatively small, and usually no more than 6-8 inches (15-20 cm) in maximum dimension. Most pieces are tough and relatively coarse-grained, and they often contain folds, voids, and other kinds of internal "flaws," as seen from the flintknapper's point of view. In other words, most pieces of ancient gravel do not have ideal characteristics for flintknapping. Still, there are larger pieces of fine-

grained materials that are quite suited for making large stone tools, but ideal pieces are relatively hard to find in most exposures. As a consequence, virtually every upland gravel deposit that has been exposed within the past 13,500 years has been picked over time and time again by tool-makers in search for the elusive—the best "rock-knocking" cobbles. This "high-grading" process is quite familiar to modern flintknappers and anyone else who has searched gravel deposits in hopes of finding a particularly well-suited piece of rock, the ideal needle in a rocky haystack. There are also concentrations of certain materials in some exposures.

For instance, in northwestern Duval County fairly large pieces of high quality gray quartzite are present in an obvious prehistoric quarry ("lithic procurement") site. This site (41DV134) has an apparent outcrop of embedded boulders of a fine-grained quartz arenite, light gray in color. Nearby was a smaller outcrop of a yellow-brown quartz arenite that seemed to be of somewhat inferior quality. Some would call both materials "sugar quartzite" because flaked pieces sparkle in sunlight and sometimes seems to have sugar-like particle inclusions.

Continued on p. 8

Presentation for our January meeting will be about the "Archeology and Chert Resources of a 700 Acre Area in Central Kerr County".

During 2010 and 2011 a series of archeological surveys were performed in an approximate 700 acre area, south of the Guadalupe River in central Kerr County by members of the Hill Country Archeological Association.



We welcome as our presenter, **PAUL STEPHEN STOUTAMIRE**. Steve grew up on a farm near the town of Quincy, in the Florida panhandle and graduated from Quincy High School in 1968. After receiving a basketball scholarship to North Florida Junior College, he received AA in 1970, BA (Anthropology) from Florida State University, 1972

and MS (Geology) from Texas Tech University, 1975. He enjoyed an extensive career as an oil and gas exploration geologist in the Permian Basin of West Texas/New Mexico and Arkoma Basin of Arkansas. Employed initially as an exploration geologist, he went on to become a manager of a mid-continent division. He concluded his tenure in the oil field as a regional manager of West Africa, and he retired in 2007. Organizations recent past and present include American Association of Petroleum Geologists, and their Visiting Geologist Lecture Program, Qualified as a Certified Petroleum Geologist, Houston Geological Society, Society of Exploration Geophysicists, Hill Country Geoscientists Association, Hill Country Archeological Association (president 2010 and 2011). Interests include archeology, geology, paleontology, ranching, hunting, fishing and reading.

2012 Field School

The 2012 TAS Field School will be held north of Del Rio on June 9 through 16. TAS will again be collaborating with the Texas Parks and Wildlife Department (TPWD) at TPWD's new addition to the Devils River State Natural Area, formerly the Devils River Ranch. The property is downstream from our 1989 Field School location in the original Devils River State Natural Area. Camp headquarters will be familiar, as we will be lodging in the San Pedro campground on Amistad Reservoir, about 30 miles south of Devils River Ranch, where we camped for the 1999 TAS Field School. In 2012 TAS members will help to identify the most significant sites on the new acquisition, so that TPWD can protect them before the park opens to the public in 2013. Margaret Howard and Luis Alvarado, are Co-Principal Investigators on this project. Registration is not set up at this time, but additional information is provided at txarch.org.

It is that time of year again!

January is the time to make your 2012 HCAA Dues payment. 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

Joe Luther, a historian and also a HCAA member has written a book entitled: **CAMP VERDE: TEXAS FRONTIER DEFENSE**. The book is now in press at The History Press, and will be at your bookstore this February.

Make Checks payable to Hill Country Archeological Association and mail to:
HCAA, P.O. Box 290393
KERRVILLE, TX 78029-0393

REGISTRATION FORMS CAN BE FOUND AT HCAA WEBSITE www.hcarcheology.org

Tool Kits for Archeologists by Ted Atoka.

When you keep tools together in a central location, they are much easier to find when needed. Archeologists use various pieces of equipment while conducting archaeological work, and frequently use tool kits that contain specialized tools. Some basic archaeologist kits have fewer than 10 tools, while other kits are more extensive and may contain more than 40 individual pieces. The type of tool kit an archaeologist uses is generally commensurate with the level of his knowledge and experience.



Basic Tool Kit

Tools that comprise a rudimentary tool kit are contained in a plastic tool box or rolled up in a tool kit "roll." The individual tools consist of a small pointed trowel, a pair of by-pass trimmers, a retractable ball point pen and notepad, North arrow pointer and scale, a metal probe and an ice pick. Also included is a safety knife with disposable blades, a permanent marker and a steel, metric ruler, as well as a round brush and a 2-inch flat brush.

Student's Tool Kit

A student's kit is more comprehensive and has a carrying bag with pockets and a selection of more advanced tools, the largest of which is a Marshalltown pointing trowel. Two measuring devices are included---a retractable measuring tape and an Imperial folding ruler---along with a pocket line level. The kit also contains a by-pass hand-held pruner. Other tools are a pair of 2-inch paintbrushes, a dustpan and hand-broom, and a 50-foot length of mason's line. A plumb bob is included for surveying. Supplementary items are a pen, notebook, gloves and a knee pad.

Intermediate Tool Kit

Kits designed for more in-depth archaeological use have even more tools. Added items are bamboo skewers, four metal probes, a Vernier caliper, tweezers, a 1/2-inch paintbrush, a measuring square and a set of 20 artist brushes. Also included is a pocket-type, multi-function, multi-tool set. Supplementary items include a pen that

writes in the rain, a black marking pen, transparent tape, a protractor and a clipboard with a selection of pencils and sharpener. The kit also contains 100 sheets of graph paper, a supply of paper clips, an eraser and a glue stick. A map compass is included for surveying use, as is international orange surveyor's flagging tape.

Professional Tool Kit

In addition to all of the previously mentioned items, a professional archaeologist's tool kit may contain a set of four files that includes a file, a magnifying glass, a bundle of wire stakes, an air puffer, five 2-inch brushes and a standard clipboard, as well as an aluminum, box-type clipboard. A few of these kits are extensive and are often contained in large metal toolboxes, some of which have drawers and individual compartments.

Supplemental Items

Tool kits often include items that are relevant to the area where the work is taking place. A metal detector helps to locate ancient metal relics, while a digital camera is useful for photographing items of importance. Of special value are an all-purpose first aid kit and a supply of bug repellent and sunscreen.

I DIG ARCHEOLOGY



Junior Jaunts

News about your HCAA Junior Archeologists



Although we had a small turnout at our first meeting on Saturday, January 7, 2012, they were enthusiastic and we had a great time!

First thing we learned is we are all a Crew and on first name basis with each other and work together at all times, as archeologists do. Then John (Benedict),

one of the leaders, presented a real cool 45-minute power-point show about things archeologists can find doing field work, how early Native Americans lived, what they had to do to eat, what their weapons were made of, and what they wore and what they made from plants around them. We got to handle and see all kinds of tools, like rabbit and digging sticks and neat sandals.

We had a quick outside exercise when we searched on our own outside for three historic things. Afterwards we looked for clues to explain what they were, how they were made and used. We learned what a feature was also. The main thing we learned from this was how archeologists look for clues in all their work, and we will also.

After more information from John about books and a good internet site, and Bryant (Saner) showing and telling us about some cool dart and arrow points in cases, Kay (Woodward) said we could go out and throw the atlatl and get our lunch since all of us were hungry. We were not to "just have fun only", but to learn how the Native Americans had to get food "or keep eating bugs or rats now that the bison and deer were here."

We went out where Woody (Woodward) had set up a target and it didn't take us long to become good at throwing the atlatl. We decided we could get some venison if we wanted to avoid eating yucky stuff for lunch!

We look forward to our next meeting on Saturday, March 3rd. when Bryant will be teaching us all about "Lithics", stone artifacts and points. We will **also** have fun using the Metric System as it is used in archeology

when we search again for some historic items. Our Handbooks will be ready too, so we look forward to getting those for our own study.

We think the Junior Archeologists Program is fun. We hope all the other Juniors will be there March 3rd also so we have a bigger crew.

Oh, Our leaders said we can attend the Hill Country Archeological Association General Meeting with our parents on the third Saturday of every other month, like January 21st, at 12:30 p.m. HCAA sponsors our Crew and they have good speakers and training like us too.

Well, see you on **March 3rd at 10:00 a.m.** at the Riverside Nature Center Lab.



Your Crew Buddies

Upcoming Events:

STAA Annual Meeting January 28, 2012 at 1:00 PM at Igo Library, San Antonio,

SWTAS Monthly Lecture series at Trinity Univ. Chapman Auditorium on Tuesday, January 31, 2012 7:30 PM in San Antonio

TAS Academy titled Lithics: Reading Stone Artifacts, February 4-5, 2012 . Classes will be held at Quality Inn in Uvalde, 920 E. Main , Registration deadline: January 22. <http://www.txarch.org/Activities/academy/aa2012/index.php> or call 800 377-7240

The Texas State Historical Association. One Hundred and Sixteenth Annual Meeting. March 1 - 3, 2012 Houston, Texas.

TAS Academy - Ceramics: The Stories Found in Pottery will be held at Texas A&M University in College Station on March 3rd and 4th, 2012. Dr. Harry Shafer and Marybeth Tomka. Registration deadline is February 22, 2012.

<http://www.txarch.org/Activities/academy/>

Texas Archeological Society Field School - Jun 09, 2012 - Jun 16, 2012. Devils River State Natural Area, south unit.

CONTEXTUALIZING ARCHAEOLOGY

by

Dr. John Olsen, UA Anthropology Department

Archaeology: the study of past human behavior through material remains.

Archaeology emphasizes *material* remains as opposed to documentary sources. Focus is on CULTURE as humanity's primary adaptive mechanism - explaining the dynamics of culture change is the goal.

Archaeology has a **diachronic** or time-transgressive (as opposed to a **synchronic** or static) perspective.

THE NATURE AND AIMS OF ARCHAEOLOGY:

Archaeology as Anthropology: Anthropology is the holistic study of humankind - its biological diversity and adaptations and its unique non-biological adaptive mechanism called *culture*.

Anthropology is a broad-spectrum approach to humanity, including biological anthropology (human paleontology and variation), linguistic anthropology, social or cultural (sociocultural) anthropology, and archaeology. (Archaeology is sometimes thought of as the "past tense" of cultural or social anthropology). Applied (or engaged) anthropology is a theme that runs throughout the discipline.

Various additional combinations of these traditionally defined subdisciplines are possible, e.g., biocultural anthropology, bioarchaeology, applied linguistics, etc.

Subsets of archaeology include: prehistory, historical archaeology (including industrial archaeology), classical archaeology, ethnoarchaeology, public archaeology (including heritage studies and cultural resource management).

Archaeology as History: Archaeology does seek to understand the "history" of the human experience, but it does so largely without the benefit of a documentary record.

99% of the human experience has taken place before the development of writing and, therefore, "history" in its usual sense.

Earliest artifacts (= earliest evidence of Culture):
2.8 million years ago (East Africa)

Earliest written records: ca. 3000 BCE (Mesopotamia, Iraq; earliest true history *much* later).

Earliest history in Australia, 1788 CE (*only*)!

Archaeology is the *only* means available to get at the 99% of the human story that took place before the invention of written documents.

CHRONOMETRIC ABBREVIATIONS:

- BP = Before Present (by convention AD 1950)
- BCE = Before the Common Era, preferred over BC (Before Christ) or ACN (ante Christum natum)
- CE = Common Era; now preferred over AD (Anno Domini, "In the year of the Lord," a contraction of Anno Domini Nostri Jesu Christi, "in the year of our Lord Jesus Christ")
- KYBP = Kilo Years Before Present (also KA, Kiloyears Ago and KYA or KYR, Kilo Years Ago)
- MYA = Mega (or Millions of) Years Ago (also MA, Megayears Ago; MYBP and MYR, Megayears Before Present)

Notes:

- BP, BC, BCE, and CE are always written *after* the date (e.g., 2500 BC).
- AD is always written *before* the date (e.g., AD 2004).
- RCYBP refers to "radiocarbon years before present." Since radiocarbon years ¹ calendar years, a calibration curve is used to establish the relationship between the two scales
- Some authors consider some of these abbreviations case sensitive (e.g., "bp" indicates an uncalibrated date while "BP" represents a calibrated date)

Archaeological dates are often reported in the Islamic world as BH (Before the Hejira) or AH (After the Hejira), referencing the Prophet Muhammad's departure from Mecca in September, 622 CE.

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Archaeology as Science: Since the aim of archaeology is the understanding of humankind, archaeology is properly classified as a *humanistic discipline*, and since it deals with the human past it is a *historical discipline*. However, many of the analytical and interpretive techniques employed by archaeologists derive from the *physical sciences*.

The Variety and Scope of Archaeology. Today, archaeology is a very broad discipline, encompassing a number of different "archaeologies" which are nonetheless united by the methods, theories, and practices.

There are also other ways of configuring the integrated science referred to collectively as Archaeology: *geographically* (Egyptology, Mesoamerican, Southwestern U.S.), *chronologically* (Paleolithic, Neolithic, Bronze Age), *by specialization* (environmental archaeology, underwater archaeology, ethnoarchaeology).

AIMS AND QUESTIONS: Reconstructing a static picture of the past is not enough!

The goal of archaeology is to interpret the past; in short, to explain change.

Thus, the ultimate goal of archaeology is EXPLANATION.

ARCHAEOLOGY'S TWELVE QUESTIONS

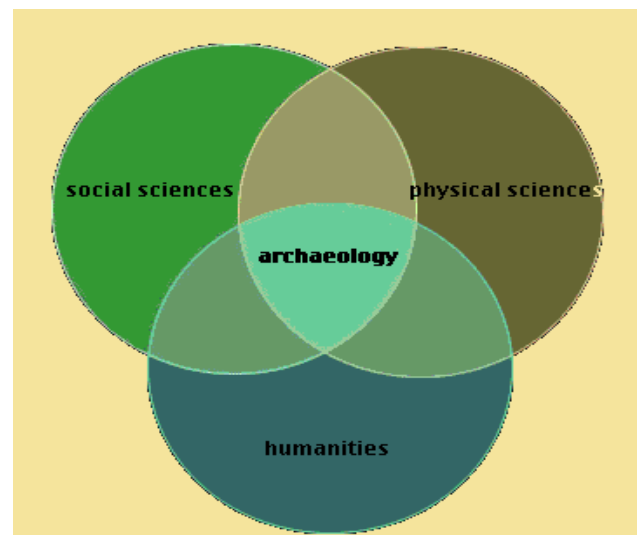
(and the principal means by which archaeologists address them...)

1. What is left?
(formation processes and the variety of the evidence)
2. Where?
(spatial concerns dealt with through *survey* and *excavation*)
3. When?
("absolute" and relative time; chronology and

dating methods)

4. How were societies organized?
(social archaeology)
5. What was the environment?
(environmental archaeology)
6. What did they eat?
(reconstructions of subsistence and diet)
7. How did they make and use tools?
(technology and typology)
8. What contacts did they have?
(reconstructions of trade and exchange)
9. What did they think?
(cognitive archaeology)
10. Who were they and what were they like?
(recognizing the individual in prehistory)
11. Why did things change?
(explanation in archaeology)
12. Whose past is it?
(archaeology and the public)

Archaeology rests at the nexus of three important realms in the Western intellectual tradition: the social sciences, the physical and natural sciences (especially the biological and geological sciences), and the humanities.



Honey mesquite

Prosopis glandulosa var. *glandulosa* Torr. Fabaceae (Bean or Legume Family)

Mesquite is a small tree or shrub, usually armed with straight, very stout spines that produces edible fruits called legumes, beans, or pods. A signature plant of the South Texas Plains, mesquite, perhaps more than any other plant, is characteristic of the region (Johnston 1963). This plant was used in many different ways by native peoples. Its nutritious pods were highly valued as an important food resource rich in sugar and protein, its hard wood was used for making tools, musical instruments, and fuel, and the plant had medicinal and ritual uses as well.

Archeological occurrence. Archeologists have not recovered much evidence for the use of mesquite as food in southern Texas, because very few sites have been excavated. Mesquite wood charcoal, on the other hand, has been recovered from several sites in southern Texas.



Mesquite wood and seeds have been recovered beyond the South Texas Plains, from archeological sites across the western half of Texas from the Nueces River drainage to the

Jornada to the Canadian River Basin. Mesquite seeds and bean fragments have been identified and dated from northern Texas sites in Roberts County along the Canadian River, and Garza County on the Caprock Escarpment (Dering 1994; 2005). In the Jornada Mogollon region mesquite has been recovered from several sites (Dering 2001; O'Laughlin 1980).

In the eastern Trans-Pecos, mesquite endocarps were recovered from the Tres Metates site, a rockshelter with dry deposits located in Presidio County. Mesquite seeds, endocarps, and pod fragments have been observed in dozens of rockshelters in the Pecos River area near the confluence with the Rio Grande (Alexander 1974; Dering 1999;

Irving 1966). Seeds have been recovered from a few coprolites (e.g., Williams-Dean 1978), but after the pod has been reduced to meal and consumed, evidence of mesquite consumption is difficult to detect. Swallowing the very hard seed would have been accidental.

Food. Mesquite pods are rich in carbohydrates and have a low moisture content, important qualities for efficient harvesting, processing, and storage. Hodgson (2001) reports that mesquite mesocarps contain about 32% sugars and 7% protein.



Many other assays include the seeds, which are high in plant protein (29-39%), but are not easy to process and are indigestible.

Historic and ethnographic records indicate that almost every part of the mesquite tree has a use. The Pima Indians of southern Arizona referred to the mesquite as the "tree of life" (Rea 1979). Unfortunately, descriptions of mesquite use in Texas are limited to relatively brief entries by priests or explorers, and ethnographic studies are lacking. This is primarily due to the fact that most Native Americans were driven out of the state by the 1850's, and most encounters between them and the Europeans during the 19th century were unfriendly.

Nonetheless, the few available historic records suggest that, throughout its distribution, mesquite was a vital resource for food, fuel, medicine, and implement-making. Cabeza de Vaca, traveling through either southern Texas or northern Mexico in the 1520's, is the first European to note details regarding the use of mesquite by Native Americans. While living among the Cuchendados, he observed the use of mesquite pods for food. A pit was filled with pods, which were pounded with a large wooden pestle the thickness of a man's thigh. The pod meal was then consumed raw, along with handfuls of earth that had been mixed with the

woody casings (Campbell and Campbell 1981; Krieger 2002). Consumption of large quantities of mesquite meal caused the abdomen to swell, probably a result of ingesting large quantities of fiber and long-chain sugars to the exclusion of other types of food. This is also recorded in Sonora by Pfefferkorn who describes a man whose stomach was so distended that his skin was stretched like a drum (Treutlein 1949). Most groups consumed mesquite flatcakes with other foods, probably to avoid a similar fate (Hodgson 2001:185).

Medicine. Mesquite gum, herbage, roots, and bark were used in medicinal applications. Leaves were often used in topical applications. Although any type of mortar or pestle combination probably was utilized to process mesquite, Bean and Saubel (1972) describe the use of wooden mortars made from either cottonwood or mesquite stumps. The stump was hollowed out with hot coals and the carbonized interior was scraped clean using chipped stone tools.

Several groups utilized mesquite wood for construction of implements, dishes, and structures. War clubs and atlatls, digging sticks, and pestles were fashioned from mes-



quite (Cosgrove 1947; Russell 1908). Vertical structures of pithouses, pueblos, and shade ramadas were constructed of mesquite, including posts, beams, and lintels (Felger and Moser 1985). Implements of mesquite recovered from Pecos River rockshelters include snares and

a rasping stick. Reprinted and edited from : Texas beyond History



Continued from p. 1 **UVALDE GRAVELS**

The gray arenite boulders showed considerable evidence of having had chunks removed and flaking debris littered the area. The yellow-brown boulders also had evidence of having had chunks removed. At a nearby campsite, there were numerous dart points (mostly rejects), biface fragments, and flakes made of the gray arenite, but none of the yellow-brown material. Smaller pieces of very similar arenite material, both gray and yellow-brown (some of which is quite flakeable) varieties, occur within ancient gravel exposures in northern Duval County and elsewhere in the South Texas Plains including central Live Oak County. To learn more about the Duval County quarry site, read the article in *La Tierra* noted below.

The "Uvalde" Gravels West of the South Texas Plains were major lithic resources for the prehistoric peoples of the region. Most of the tool-making materials are small and made of hard-to-knap materials, but these gravel exposures were dependable sources of smaller pieces of fine-grained materials large enough to create flake tools and small chipped stone tools. Other rocks found in these ancient gravels were sometimes used for grinding tools, hammerstones, and other useful artifacts. Some rocks were also used for hot rock cooking, although most were not well suited for this purpose.

Source:

Chandler, Charles K. and Leo Lopez 1992 A Quarry in Western Duval County. *La Tierra* 19(2):12-13.

Date of Jun 09, 2012 - Jun 16, 2012 and Site of Devils River State Natural Area, south unit chosen for TAS Field School 2012.

The 2012 TAS Field School will be held in collaboration with Texas Parks and Wildlife Department at TPWD's new addition to the Devils River State Natural Area, formerly the Devils River Ranch, north of Del Rio. Lodging space will be provided in the San Pedro campground on Amistad Reservoir, about 30 miles south of Devils River Ranch. More information will be posted as it becomes available,

HILL COUNTRY
ARCHEOLOGICAL
ASSOCIATION

HCAA BOARD
WILL MEET SATUR-
DAY MORNING,
JANUARY 21,
2012 AT 10:00
A.M. AT RIVERSIDE
NATURE CENTER.
MEMBERS ARE
WELCOME TO AT-
TEND.

JUNIOR
ARCHEOLOGY
MEETS
MARCH 3, 2012 AT
10:00 AM

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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