

# PASTIMES

Newsletter of the Panhandle Archeological Society

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The Panhandle Archeological Society will hold its next meeting on Wednesday March 16, 2011, at 7:00pm, at the Wildcat Bluff Nature Center Science Building, 2301 N. Soncy Road, in Amarillo, Texas. Our program will be presented by Paul Katz.



## Irish Antiquities and Archaeoastronomy

The Land of the Little People is characterized by giant monuments of stone built throughout prehistory and history. This talk will take you on a 5000-year tour of the Irish countryside, beginning with the decorated high crosses and round towers of the Early Christian period and proceeding back in time to the late Stone Age passage graves built inside huge mounds. Some of these passage graves were aligned to capture the light of the rising sun on the day of the equinox or the solstice. The excavation and restoration of Newgrange Tumulus, a World Heritage Archaeological Site built around 3200 B.C., will be given particular attention. Newgrange is the largest and most well-known of the Irish passage graves and it was here that the astronomical phenomenon was first recognized.



Paul Katz

Dr. Paul Katz is the Curator of the Texas Pharmacy Museum, a part of the Texas Tech School of Pharmacy in Amarillo, and an Associate Professor in the Department of Pharmacy Practice. He has held this position since 2000. On a part-time basis Dr. Katz operates PRIAM, a cultural and natural resources consulting firm based in Panhandle, Texas started by his late wife Dr. Susana Katz.

Dr. Katz has a bachelor's degree in Art History from Swarthmore College and three graduate degrees in Anthropology from the University of Kansas. Since then, he has conducted fieldwork, taught at the college level, curated collections, and directed museums in Kansas, Washington, Illinois, and Texas for 40 years.

Before moving to the Texas Panhandle in 1991, Dr. Katz was Director of the Kampsville Archaeological Museum, a component of the Center for American Archaeology in Kampsville, Illinois for five years. More recently he was Director of the Carson County Square House Museum in Panhandle, Texas, a position he held for eight years. He is a past president of the Northwest Texas Museum Association. He is currently President of the Panhandle Archeological Society and President of Friends of Alibates Flint Quarries National Monument.

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## Panhandle Archeological Society

### Minutes of the February 16, 2011 Meeting

President Paul Katz called the meeting to order at 7:20 p.m. at the Wildcat Bluff Nature Center. 15 members and three guests were in attendance. These included Rozanna Pfeiffer, Chief of Interpretation at Lake Meredith and Alibates; Richard Walters, Center for Big Bend Studies in Alpine; and Becky DeLeon, science teacher at Lamar Elementary School in Amarillo.

The minutes of the January 19, 2010 meeting were approved unanimously; motion by Jeff, second by Gerry.

Lisa gave the Treasurer's report. The current operating balance is \$1,924.24.

Rolla gave the Publication Committee report. The current checking account balance is \$2,620.04, plus \$5,000 in a CD. Jeff will be scanning the two Pollyanna Hughes manuscripts, and Scott and Joe D. will evaluate them for possible publication.

The 2011 Studer Banquet will be held on Saturday, December 17th from 6:00 - 10:00 in Hazlewood Hall at the Panhandle-Plains Historical Museum. It will be catered by the Stockyards. Despite these changes, the cost to members will remain the same. Scott moved to formally approve this, seconded by Stacy. Approval was unanimous.

The Pastimes editorial staff has prepared another excellent issue. All but 14 were distributed electronically, including all the complimentary issues. The remaining 14 were copied and mailed by Dick Carter, using addresses provided by Lisa. All involved were thanked for their efforts.

The PAS website is difficult to find. Bob Wishoff, the webmaster, informed us that it will take time for the URL to appear in search engines. At this time, we appear as #8 on IE and not at all on Google. The web page can be accessed at: <http://www.txpanhandlearchaeology.org>. It is recommended that this be bookmarked.

Rolla reported that the 2011 Southwestern Federation of Archaeological Societies annual symposium will be hosted by the Concho Valley Archaeological Society on Saturday, April 9 at Fort Concho. Joe. D. will probably present the PAS paper. Rolla and Paul are planning to attend as well.

Scott reported that the 2011 CAR Field School will be held from May 23 - June 10. The first two weeks will investigate prehistoric sites, including Eastview and Chill Hill. The third week will be devoted to metal detecting at historic sites. Registration is free to PAS members, and a catered meal plan is available. The enrollment is limited to 50.

Scott also reported that there will be a Stone Age Fair at the museum in Perryton on Saturday, April 23rd from 10:00 - 5:00. Local collections will be displayed, including some exceptionally large and fine Paleoindian collections. The public will have an opportunity to have artifacts identified and to meet local collectors. The PAS will have a table for the sale of its publications.

Ms. Becky DeLeon, a science teacher at Lamar Elementary School in Amarillo, requested the participation of PAS members in the annual Science Day at Lamar on April 15. Other representatives of the natural and physical sciences participate (e.g., chemists, geologists), but archaeology has never been represented. Each discipline is given a classroom, and groups of ~ 22 students rotate every 30 minutes from 8:30-2:00. During the discussion, suggestions were made to have several stations, demonstrating such prehistoric activities as pottery making, tool making, and corn grinding. Scott suggested making paintbrushes out of yucca fiber and then having the students paint prehistoric rock art designs using projected examples. This idea has the advantages of involving the students in a hands-on activity and minimizing the strain on the volunteers. The members voted to participate, with the actual activity(ies) to be decided at the March meeting.

Paul announced that the next meeting will be held on Wednesday, March 16 at 7:00 p.m. at the Wildcat Bluff Nature Center. The guest speaker will be Paul Katz, who will present a special St. Patrick's Day talk on Irish antiquities and archaeoastronomy. Joe Cepeda will speak on April 20 about the geology of the Texas Panhandle, and Gerry Schultz will speak on May 18 about the paleontology of the Texas Panhandle.

The featured speaker for this meeting was Dr. Dan Kerr. He spoke about his ongoing research into the activities of the Pastores, in particular the extensive and influential Romero family.

The meeting adjourned at 8:55 p.m.

## Landis Property Excavations Yield Insights Into Late Archaic and Protohistoric Camps on Southern High Plains

J. Michael Quigg  
TRC Environmental Corporation, Austin

Two well-defined cultural components near Amarillo, Texas, were investigated by the TRC Environmental Corporation and have yielded important information about the people who inhabited the Southern High Plains periodically over the last 2,500 years. Data recovery investigations were conducted at three archeological sites (41PT185, 41PT186, and 41PT245) on the Landis property in Potter County, just west of Amarillo. The three sites are within a 1.6-km-long, north-to-south section of upper West Amarillo Creek. This property was previously managed by the U.S. Department of the Interior's Bureau of Land Management (BLM), which funded these investigations. TRC, under contract to the BLM, conducted the fieldwork during fall 2007 and fall 2008 (Quigg et al. 2010). The cultural resource investigations were prompted by the transfer of these federal lands to the private sector, and were required under Section 106 of the National Historic Preservation Act of 1966 and the U.S. Code of Federal Regulations at 36 CFR Part 800.

The two-phase data recovery program conducted by TRC allowed for additional site assessments prior to full-scale, horizontal block excavations. TRC's initial assessment in fall 2007 isolated specific areas within each site that appeared to have the best potential to yield significant information that would contribute to understanding past events. During that time, a detailed geospatial investigation was conducted to identify, document, and define the natural depositional processes in that part of the West Amarillo Creek valley. This was done through the excavation of 47 backhoe trenches across the Landis property, both in known sites and across selected terraces. A very complex Holocene alluvial history, represented by at least six depositional units (designated A through F), was documented. The alluvial fills were nearly 6 m thick. Fill thicknesses varied considerably, with most at least 4 m thick. About 60 percent of the Holocene record, the last 10,000 years, is represented in the project area. Specifically, a period of nearly 4,000 years, between (roughly) 8200 and 4300 B.P. during the mid-Holocene, was not represented in the depositional sequence in this part of the valley.

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Figure 1. Unwashed Late Archaic Projectile Points from Locus C at the Pipeline site (41PT185).



The second season's excavations during fall 2008 focused on two sites. Locus C, at 41PT185, the Pipeline site, was investigated with a 285 m<sup>2</sup> excavated block that targeted a shallowly buried, sloping Late Archaic component. The horizontally extensive component actually represented two discrete Late Archaic occupations located side by side in the same vertical zone. The more recent occupation toward the northern end of the excavation block was radiocarbon-dated by four, <sup>13</sup>C-corrected samples to roughly a 200-year period between 1550 and 1750 B.P. The older event, primarily across the middle and southern end, was radiocarbon-dated between 2240 and 2540 B.P. based on 10, <sup>13</sup>C-corrected radiocarbon dates. As a whole, this Late Archaic component yielded 21 dart point fragments (Figure 1), 21 bifaces, 10 grinding slabs, eight scrapers, one mano, roughly 2,500 pieces of lithic debitage, more than 5,000 bones, nearly 4,300 burned rocks, and 22 cultural features. The features were dominated by burned rocks and included a few in-situ heating elements (Figure 2), many burned-rock discard piles, and a bison skull. Almost no macrobotanical remains were preserved; therefore, most radiocarbon dates were mostly derived from bison bones. One unique biface was a nearly complete corner-tang knife made of Alibates and found under a 30-cm-diameter natural rock. The chipped stone tools and debitage were dominated by Alibates, with some Tecovas material and a few obsidian flakes. The horizontal artifact and feature distribution revealed general camp activities that centered on processing bison meat and bones as well as cooking with burned rocks; no evidence of structures was observed. Of significance, starch grain analysis revealed that wildrye grass (*Elymus canadensis*) seeds were collected, ground on the grinding slabs, and then boiled using the burned rocks. Both Late Archaic occupations occurred during the fall, when bison meat and grass seeds were collected and processed in preparation for the long winter ahead. The two nearly identical occupations document repeated use of this specific locality and the valley during the fall for the collection and processing of the same two primary resources.

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Figure 2. Intact Late Archaic Heating Element (Feature 8) in Locus C at the Pipeline Site (41PT185).

At 41PT186, the Corral site, one low alluvial terrace within the larger site revealed an isolated and sloping occupation surface that varied in depth from 80-to-100 cmbs at the top of a buried soil. This well-defined and deeply buried occupation was targeted, and a 144-m<sup>2</sup> block was hand-excavated. The occupation was directly dated by three, 13C-corrected radiocarbon dates to between 200 and 300 B.P., documenting a rare Native American Protohistoric event. This isolated event yielded very limited cultural materials in terms of quantity and diversity, but the horizontal distribution of the five intact features and two knapping areas sheds considerable light on human behavior during this period. The features included two well-defined, charcoal-filled basin heating elements (hearths), a 1-m-diameter ash dump from the heating elements, a 20-cm-diameter cache of four end scrapers, two edge-modified flakes, and two unworked flakes. Two separate lithic concentrations revealed two isolated knapping areas where end scrapers were manufactured, one next to one of the heating elements. No bifaces or diagnostic points were recovered, only six end scrapers, one metal tinkler cone, a few scattered burned rocks, and animal bones. The relative lack of metal objects was surprising, since metal objects had been in the region for at least 300 years. Butchered bison and deer bones document the meat resources procured. Starch grain analysis on a limited suite of artifacts revealed that Canadian wildrye grass (*Elymus canadensis*) was also part of the subsistence base. Alibates dominated the lithic debitage.

Investigations at 41PT245, the Pavilion site, targeted a sparse, roughly 1200 to 1400 B.P. occupation during data recovery; however, the limited returns cut short the planned hand-excavation. The remaining efforts were shifted to the other two sites.

During the data analyses phase, numerous technical analyses were conducted on suites of samples to gain greater insights into past events. To document the specific ages of the features and events, 51 radiocarbon dates were obtained on wood charcoal and bison bones. Other analyses included sourcing the 14 obsidian flakes from the Late Archaic component (performed by the Berkeley Archaeological XRF Lab) and chert-sourcing studies by the University of Missouri Research Reactor (MURR). The latter involved Alibates and Tecovas materials that were examined through instrumental neutron activation (INA) analyses. The results indicate these two materials can be separated into distinct rock types.

In addition, Dr. Linda Perry, a research collaborator at the Smithsonian's National Museum of Natural History performed starch grain analyses on burned rocks and stone tools to identify what plant resources were present and used; Dr. Bruce Hardy, an associate professor of anthropology at Kenyon College, conducted high-powered use-wear studies on the chipped stone tools to help define function; Dr. David Robinson, an independent consultant in Austin, handled petrographic thin-section analysis on ceramic sherds to help identify what materials were used in their construction; MURR conducted INA analyses on ceramic sherds to determine their chemical signatures and their homogeneity; and Dr. Mary Malainey and Timothy Figol, independent consultants in Winnipeg performed chemical (lipid residue) analysis that targeted burned rocks to help identify what foods were cooked by these rocks.

Part of these investigations also analyzed a 5-m-tall deposit of alluvium in the bottom of the valley to examine the depositional and environmental conditions that existed over the last 2,000 years, a timeframe that generally corresponds with the occupational history of the sites (Figure 3). To help interpret these deposits, a variety of technical analyses were conducted, including but not limited to pollen and phytolith analyses, diatom analysis, stable carbon isotope analysis, and snail and shell identifications. This multidisciplinary approach toward one depositional unit (Unit D), that dated roughly between 2000 and 430 B.P., revealed that West Amarillo Creek alternated between a flowing stream with a sandy channel and a periodically dry pond/marsh. The first 500 years of the deposits, dating roughly between 2000 and 1500 B.P., were characterized by a cool moist climate that gradually changed to warm, dry conditions.

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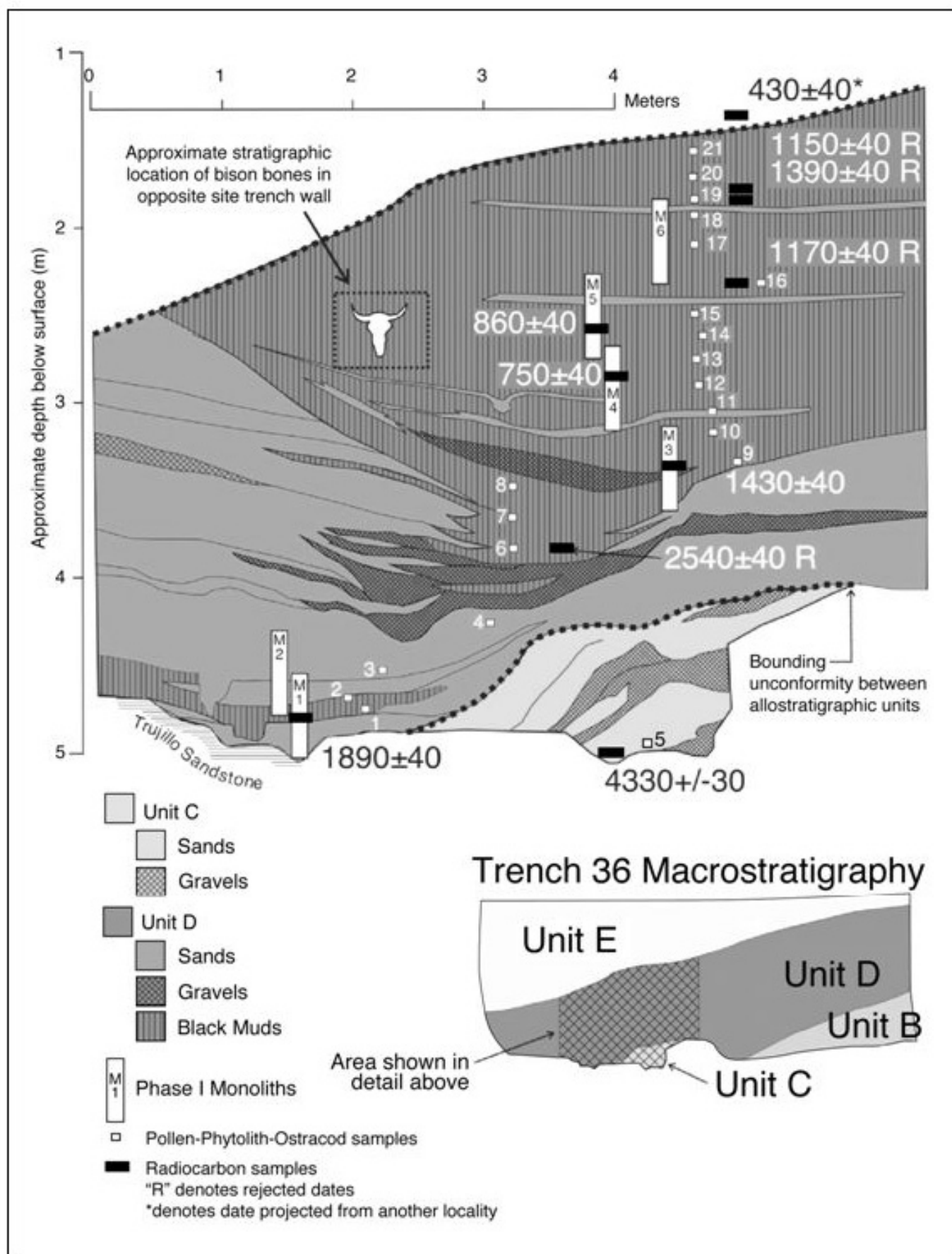


Figure 3. Five-m-Tall Alluvial Deposits used to Reconstruct the Paleoenvironment over the Last 2,000 Years.

In summary, the 2008 investigations encompassed about 451 m<sup>2</sup> of hand excavations. Two of the three targeted blocks yielded two intact and well-defined cultural components—a Protohistoric and Late Archaic—and significant data used to address research questions. The rare Protohistoric assemblage was meager by all accounts, containing only a single metal object with an otherwise limited prehistoric tool assemblage; however, the identified cultural features reveal a continuation of similar activities often documented in earlier prehistoric hunter-gatherer sites. The exceptional horizontal distribution of the features provides insights into human behaviors—for instance, knapping activities next to heating elements, cleaning and discarding ash from heating elements, and intentionally clustering bison bones.

The Late Archaic component adds considerable knowledge to our understanding of human populations in the Southern High Plains. The documentation of people collecting, grinding and boiling wildrye grass seeds is a first for this time period in this area. The detection of this gathered-grass-food resource reveals at least one plant that was part of the diet in addition to bison meat, marrow, and grease. Microwear analysis of a selected stone tool assemblage reveals an interesting tool-hafting technology during the Late Archaic. The horizontal distribution of the burned rocks indicates an association between the heating elements and the discarding of used rocks. The paleoenvironmental data derived from the intensively sampled 5-m deep alluvial deposit refines our understanding of the fluctuation of the environment over the last 2,000 years.

Highlights of the field investigations and laboratory analyses can be viewed in an exhibit in (*Texas Beyond History*) web page, under Landis Project located in the Texas panhandle. From this same web page one can download the entire two volume report. The report can also be found on Bureau of Land Management [www.blm.gov/wo/st/en.html](http://www.blm.gov/wo/st/en.html).

#### Reference

Quigg, J. Michael, Charles D. Frederick, Paul M. Matchen, and Kendra DuBois  
2010 *Landis Property: Data Recovery at Three Prehistoric Sites (41PT185, 41PT186, and 41PT245) in Potter County, Texas*. TRC Technical Report 150832. Manuscript on file, TRC Environmental Corporation, Austin, and Bureau of Land Management, Santa Fe.



## PAS Member Highlight

**1. Member's Name** Mary Ruthe Carter

**2. How long have you been a member of PAS?** Since it's inception-1959 and of Norpan in 1957.

**3. What first sparked your interest in archaeology?** An uncle in Cimmaron Co, Ok kept turning up artifacts in his field in the 30's. Later I read Novels by S.S. VanDine set in Egypt that whetted my interest.

**4. What is your best find or most interesting moment with PAS or with archaeology in general?** Probably seeing the fingerprints someone hundreds of years ago left on a hearth rim. It was also exciting to dig with Waldo Wedel and to meet other professional archaeologists and hear them talk informally.

**5. What would be your vision for PAS in the next ten years?** That it would involve young people who would be inspired to make archaeology their profession.

**6. Tell us a little bit about yourself?** I'm an 81 year old Great-Grandmother. I taught English 20 years and then supervised English teachers for 8 more years. I like all sorts of needle work. I like to cook. I have a B.A. from Panhandle State University and a M.A. from WTSU. Have done graduate work at Indiana State and Texas Tech.



Mary Ruthe Carter

### CAR 2011 Field School

Courson Archaeological Research will be conducting it's 2011 Field School from May 23rd to June 10th. The first two weeks will be field excavations of Antelope Creek phase sites near the Canadian River, and the third week will consist of metal detecting historic period sites. PAS members may attend at no cost, other than catered meals if desired. For more information, check our website: [coursonarchresearch.com](http://coursonarchresearch.com)

**"Can You Dig It?: Exploring and Growing at the Buried City"**. Television Show on PBS KACV channel 2.1 **March 7, 2011 8:00 PM**

This show will also air on **March 11 at 4:30 PM** and on **March 13 at 12:00 PM**

### Upcoming Events, and Announcements

- **33rd Annual Flint Hills Conference** Wichita State University, March 25th-26th, 2011. For more info. contact: [donald.blakeslee@wichita.edu](mailto:donald.blakeslee@wichita.edu)
- **Society For American Archaeology SAA 76th Annual Meeting.** Sacramento, California March 30th - April 3rd, 2011
- **Southwest Federation Of Archaeological Societies**, April 9th, 2011, San Angelo, Tx.
- **Perryton Stone Age Fair.** Museum of the Plains, Perryton, Texas. April 23, 2011 10:00 am - 5:00 pm





Bring Your Artifact Collection to the

# 2011 PERRYTON STONE AGE FAIR

April 23rd from 10:00 AM to 5:00 PM

Museum of the Plains 1200 N. Main,  
Perryton, Texas 79070

Admission is Free!

No Buying or Selling of Artifacts Permitted

For More Information or to Reserve Table Space  
to Display Your Collection Contact Courson  
Archaeological Research at (806) 434-0175  
or [www.coursonarchresearch.com](http://www.coursonarchresearch.com)