



## Notes From the Field

### *Regional Research Brings the Folsom Period Back to Life*

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Field research this past spring provided new and interesting insights into further understanding the Quaternary record of the Southern High Plains region. Landmark staff and field crew excavated a bison skull and continued research into hunter-gatherer occupations along the eastern Southern High Plains and conducted an annual survey of the Folsom age Adair-Steadman campsite. A few of the highlights from this past spring's Landmark field activities follow.

Last field season, Doug Cunningham (a member of the Post research team) discovered a bison skull eroding out of a bank at the base of Cowhead Mesa. Only a portion of the skull was exposed, and it appeared most of it was still intact. Recovering an intact bison skull would be important for research because they are diagnostic for determining the species of bison, and helpful for reconstructing changes in bison morphology. With this in mind, the Post field crew excavated the bison skull in March and discovered the skull was intact and in good condition. To preserve the entire skull without breaking apart during removal, the skull was encased in a plaster jacket and transported to the Quaternary Research Center for more careful excavation under controlled conditions.

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*Dr. Stance Hurst, Doug Cunningham, and John Moretti work to prepare the bison skull for a plaster jacket.*

#### Experience Lubbock Lake Landmark!

- Celebration 2008  
October 11-12
- Nature Trails
- Exhibit Gallery
- Sculpture Garden
- Gift Shop

Public Hours:  
Tues—Saturday 9am—5 pm  
Sunday 1—5 pm

## *Celebration Week Family Days... October 11-12, 2008*

Celebration Week is an annual event that began with the dedication of the Nash Interpretive Center in 1990, and highlights the cultural history of the region through time.

Join us as we discover just how interesting life can be without televisions, iPods, computers, and even cars! Jump in and get your hands dirty; you're guaranteed to have a great adventure!

*Check the website for up-to-date information!*

### *Demonstrations*

Traditional Native American Lifeways

Traditional Cooking (no metalware involved!)

Native American Stoneworks

Basketry Tradition and Materials

Pottery

Storytelling

*Try Your Hand at pottery, weaving, and much more!*

**Saturday, October 11, 10 am—4 pm**

**Sunday, October 12, 1—5 pm**



*Presenter Ray Olachia and an area teacher practice using the atlatl.*

## *Student Special Events—Book now!*



*Presenter Curly Bunting demonstrates traditional cooking.*

***Celebration Week,  
October 8-10 and 14-16, 2008  
Grades 4 and older***

Programs on Native American arts and lifeways emphasize the importance of understanding and preserving our cultural heritage.

*Call 806-742-1116 to register your class!*

## Back to Life

*continued from page 1*

Currently, Museum Science graduate student Cynthia Lopez is carefully excavating and stabilizing the skull within the plaster jacket as part of her Collections Management internship. Throughout the spring, Doug Cunningham continued to survey along the eastern Southern High Plains escarpment edge at the Post ranch. He found new localities for documenting past environments and archaeological sites for understanding how people adapt to environmental change. Several of these localities will be targeted for more intensive investigations during the summer field season.

Over Spring Break, the Post field crew intensively surveyed one of the archaeological localities, that of Macy Locality 4 -- a late Archaic-Ceramic (ca. 4000-500 years old) age campsite. The locality had hearth features and flaked stone artifacts attesting to past hunter-gatherer activities. Each of the artifacts was mapped in situ with a GPS to record the different types of activities that took place at the site. Ogallala Formation gravels at the site also were examined to ascertain the type of local rocks most suitable for making stone tools to compare with which rocks hunter-gatherers actually chose for



*Zaneta Martinez and Sophie Butler recording the types of stone within the Ogallala gravels at Macy Locality 4.*



*Excavation in progress at the Quaternary Research Center on the bison skull within the plaster jacket.*

manufacturing stone tools. Zaneta Martinez, a Geosciences graduate student on the Post research team, used her skills in analyzing the different rock types. Documenting the different types of local rock and where they are located is an important research objective for revealing hunter-gatherer settlement patterns in the region. In April, the field crew traveled to the Adair-Steadman campsite, located near Roby (Texas) to map the distribution of surface artifacts uncovered from last year's erosion. The survey recovered over 40 lithic artifacts attesting to the manufacture of Folsom age (10,900-10,200 years ago) tools. Each year's recovery of artifacts further adds to our knowledge of Folsom settlement patterns.

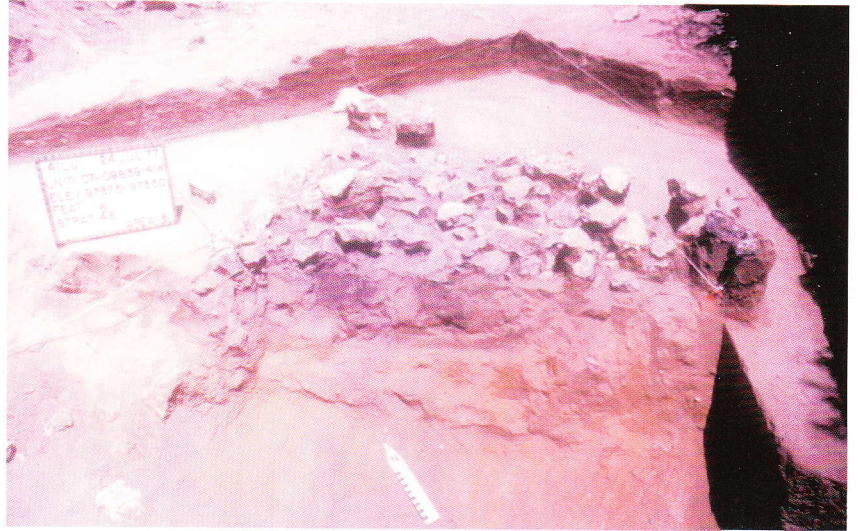
*Dr. Stance Hurst,  
Lubbock Lake Landmark Regional Research Field Manager*



*Setting up GPS Base Station at the Adair-Steadman site.*

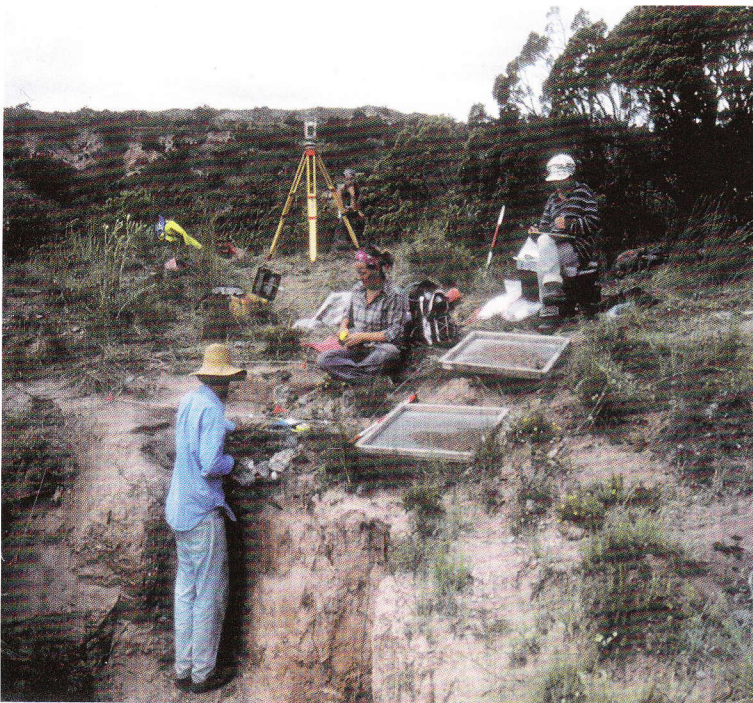
## *Fire Technology of the Archaic Period*

Ongoing research into hearths and fire technology in the region continued through the spring. Six previously excavated thermal features were selected for further analysis, based on their research potential. The features were located between the Landmark and an area southwest of Post, and display significant variability between construction types and materials used. Prior experimental and archaeological research by Landmark staff was used as the foundation for these continuing efforts. The baking oven excavated in 1977 at the Landmark was included in the study. Due to the



*Middle Archaic baking oven at the Landmark, with its cap of hearthstones over the basin.*

consistent excavation and recording methods used at the Landmark, this feature could be analyzed and recreated using the same methods applied to those excavated in the last couple of years. Lab analysis of these features began with taking every hearthstone individually and recording the weight, dimensions, color, and the percentage of the surface that is burned. The exact location of each hearthstone also was noted for spatial analysis. All information was entered into the computer to create a dataset that could be categorized and analyzed statistically in a number of ways. For example, densities of intense burning or larger hearthstones could be identified. From this information, it was possible to examine the construction of the hearth, what may have been cooked in it, and whether it was meant to be used only once or a number of times. The hearthstones also were mapped on the computer so that the distribution could be seen clearly.



*The Post field crew excavating one of the hearths analyzed from the Post ranch.*

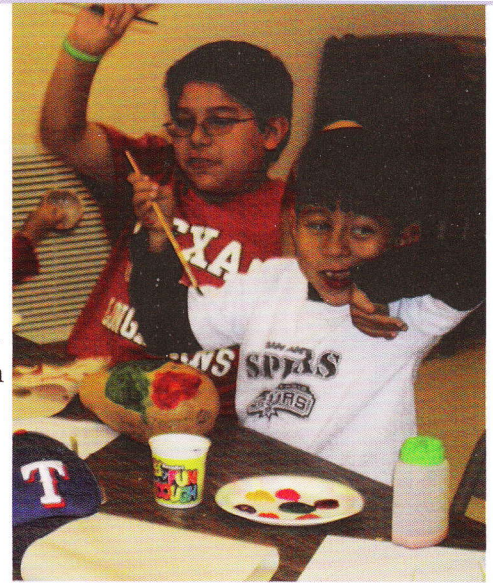
Two hearths analyzed from the Post area varied dramatically. The larger of the two features contained very large hearthstones in a deep pit, into which foodstuffs probably would have been placed and covered for baking. The smaller of the hearths contained more of a cap of hearthstones, representative of a roasting or baking surface. Both these hearths were radiocarbon dated to the Late Archaic period and indicate different cooking activities that may reflect diverse types of foodstuff being prepared.

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## *The Adventure Begins...an Intern's Story*

What would we do without change and adventure to make life interesting?

This question crossed my mind as I was visiting with Dr. Johnson about the responsibilities of an Education Intern. It was the desire for change and the appeal of adventure that brought me to Lubbock. The Landmark is an intriguing place as it is in constant change and offers unlimited adventure. I ran across this quote the other day, "*we will be known forever by the tracks we leave*" and thought how this is relevant to the research of the Landmark. I wonder if the ancient peoples who camped along the waters of Yellowhouse Draw thought about future generations and their life-ways. I was recently talking to a young visitor about the ancient bison. We discussed its many uses and decided that the bison was a necessary resource to the ancient peoples. I thought about the resources available to me at the Landmark today: a great library, an abundance of educational materials, the staff, the docents and Dr. Johnson. I consider the opportunity to work with such a diverse and



*Students Caleb Quintanilla and Christopher Valdez work on gourd containers.*

knowledgeable group of individuals an honor and privilege.

The museum educator plays a significant role in the interpretation of any natural or cultural historic site or museum. As the education intern, I have a unique opportunity to become a part of the interpretative process. This role is played out in a variety of ways: as a resource for area teachers, planning public programs, through outreach events, and programs for children. I continue, in the tradition of interns that have held this position before me, to be an active participant in that process. And, I enthusiastically strive to instill my appreciation, respect for the environment, and the cultural and natural history of the Lubbock Lake Landmark and the Llano Estacado.



*Taylor Tetens is planting her area of the Three Sisters garden*

During Spring Break, 15 students, ages 7-11, planted the Three Sisters garden. In traditional Native American agriculture, the Three Sisters are: corn, beans, and squash. The students exchanged ideas and learned about the importance of gardening. Working in teams, they planted heirloom painted corn, Hidatsa beans, and butternut squash. The garden is not only the spring break project but serves as an interpretative tool for Landmark visitors. The students will come back to check on their garden throughout the year, view the progress, participate in the harvest, and gain an understanding of self-sufficiency. Visitors will have the opportunity to increase their understanding of the cultural and natural history unique to the Southern High Plains.

This internship promises to be an incredible learning experience. What I will learn through this hands-on training is something I did not anticipate when I signed on as education intern last fall. I look forward to what the year will bring and plan to, as the ancient peoples did, depend on the resources of the Lubbock Lake Landmark.



*The Three Sisters garden in May.*

*Susan Rowe Museum Educator, Intern*

## *Staff and Volunteers focus on the Natural Environment*



*Native grasses flourish in areas once occupied by overgrown mesquite.*

The natural environment has been the focus of two very successful projects undertaken by the operations staff working with some wonderful volunteers. In last year's editions of *Notes from the Field*, we showed you members of the South Plains Chapter of the Texas Master Naturalists working on (and in!) the flowerbed by the Nash Interpretive Center. The native plants used in this effort are beautiful. The ideas and methods designed by Naturalists volunteers and the operations staff were so successful, that we are now expanding the project to include other beds around the Interpretive Center.

Many new things are in store for your next visit to the Landmark, no matter what part of our 300-plus acres you choose to explore. The removal of overgrown mesquite and the chemical treatment of invasive broomweed last fall freed space at the north end of the Landmark for more reseeded. Those efforts have yielded abundant fields of native grasses and wildflowers alongside the Nature Trail. Texas Master Naturalists volunteers also were instrumental in the construction and placement of four rainwater harvesters at the Landmark this spring. The harvesters collect rainwater and slowly dispense it so that it is available to the many wildlife species that inhabit the Landmark.

The Wildflower Trail at the Landmark, our newest way to explore Yellowhouse Draw, has been expanding foot by foot all summer. The boardwalk currently is 50% completed, and should be finished by the end of the year. The addition of benches, interpretive signs, and movable shade structures will conclude this long-term project in time for warm weather next year!

*Deborah Bigness, Manager of Site Operations  
Scott Trevey, Historic Maintenance Supervisor*



*Rainwater harvester supplies water for wildlife.*



*Staff members Daniel Kennedy and Garrett Odom extend the one-half mile Wildflower Trail—3.5 inches at a time!*

## Fire Technology

*Continued from page 4*

The large baking oven from Lubbock Lake Landmark demonstrated similar characteristics to the smaller hearth from the Post area, with a cap of burned caliche cobbles. The oven also contained a sandstone metate (grinding stone). This oven dates from the end of the Middle Archaic and may have been used for the roasting or baking of semi-succulents such as agave and yucca. Climatic information implied that this use may be the case as the dry climate in the Middle Archaic and the desert grassland at the time would have made these plants the most abundant, easily available foodstuffs. Perhaps, then, the smaller hearth from the Post area served a similar purpose. Research continues on these and other hearth features. The few already examined provide a basis from which both new and comparative information can be added, constantly building the knowledge and understanding of fire technology on the Llano Estacado and surrounding area.

*Sophie Butler, Research Technician*



*Excavation in progress of the hearth at Taboka Lake used in the analysis; note the rim of hearthstones around the edge of the basin.*

## GIS for Lubbock Lake Operations

Lubbock Lake Landmark now has a geographic information system to help with operations planning and management. As a spring practicum Patrick Tinsley, a doctoral student in the School of Architecture, gathered existing data from archives at the Museum and inputted the data into a geographic database. He also collected new data using a global positioning system receiver. Historic photographs from the archives were digitized, cataloged, and stored on computers at the Landmark so that they may be accessed easily for planning and educational purposes.

Old paper maps, too numerous to digitize, were documented and organized so as to be useful in Landmark operations. Patrick helped create a new geographic database for Landmark operations by mapping recent revegetation efforts and documenting the seed mixtures used. Also mapped in were historic structures, trails, and kiosks. Photographs were taken of the structures for documentation. Additions will be made to the database in the future as new revegetation efforts and other activities take place on the landscape at Lubbock Lake. The database will help in planning activities such as prescribed burning and will serve as a historic record of operations activities at the Landmark.

*Blake Morris, Historic Maintenance Technician*



*Detail of the reservoir at ground level with the work crew ca. 1930s.*

# Lubbock Lake Landmark

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[www.museum.ttu.edu/LLL](http://www.museum.ttu.edu/LLL)

Dedicated to the conservation and stewardship  
of cultural and natural resources



Lubbock Lake Landmark



## Landmark Sights of Spring

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Field*:

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Students ate Dirt-n-Worms during Springbreak Fest



Scott Trevey interacts with a few Landmark visitors.



Ladybugs basking in the sun.



A welcomed visitor to the Three Sisters garden.