in this issue:
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Construction of Destruction???

The Historic Maintenance program at the Landmark has set a constructive tone toward building and maintenance for the last several months. During April and May, six new camp tents for the summer volunteer field crew at the Landmark were constructed. Many thanks should be given to Mike Sanders, the Museum’s carpenter, for his expertise and work on these new tents.

Module building for the wildflower trail also has been a major item of construction at the Landmark. Approximately 120 modules have been built since the end of April. For those unaware of what a module is – a module consists of 5 pieces of 2” x 4” x 8’ L pressure treated joist, 27 pieces of 2” x 4” x 6’ L Trex brand decking boards, and 270-3” long deck screws. All of these materials are constructed to build an 8’ x 6’ boardwalk style decking (module). With these numbers in mind, a total of 600 joists, 3,240 decking boards, and 32,400 screws have been utilized to build only half the trail! The boardwalk will make the trail ADA compliant, and allow for installation of interpretive signage. National Trails Day, June 7, brought assistance from volunteers J.L. Pennington, Kim Shank, and Robin O’Shaugnessey. Their efforts are greatly appreciated. A big thanks to Blake Morris for having the patience to hand drill over 32,000 screws!! A special thank you also goes out to Mr. Jackie Cox at Stock Building Supply for his generous corporate assistance.

In the last update, several hundred acres of brush were to be treated chemically at the Landmark. This has been delayed until the 2004 growing season because of brush(wood) chipping that has been done this year, as well as, a new brush control device that the Landmark has acquired.

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Species Spotlight

*Berlandiera lyrata*  
Chocolate Daisy

The Landmark has not had any significant rainfall in the last 2-21/2 months. This lack of rain is why this particular wildflower stands out above the rest. The chocolate daisy is still producing yellow blooms across the Southern High Plains in the midst of a hot rainless summer. This hardy wildflower is found mostly on roadsides and dry rocky soils. The plant is relatively short, only growing to about 6-8 inches in height. If you're out on a hike and you sense that your smelling the scent of chocolate, it is probably the chocolate daisy. During October, when this perennial has finished blooming, a dried green bract is still left on the plant. Many people will use these stemmed bracts in flower arrangements. Native Americans used chocolate daisy as a spice in their foods.

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### Historical Maintenance Supervisor

Scott Trevey  
Historic Maintenance Supervisor

Looks like everything is being done on a BIG scale this year! Scott Trevey, Historic Maintenance Supervisor, stands beside one of many piles of woodchips created as a part of brush control (above), while Alex Brackenreed-Johnston, Field Crew Chief, undertakes exploratory investigation 15 feet below ground in the Yellowhouse System (cover).
Exploring the World Around Us

The Landmark is expanding opportunities for learning about and understanding ecological systems in their community. Activities such as Environmental Awareness Week each spring, Small Wonders (preK-grade 2), and nature trail hikes are the start of a comprehensive environmental education program aimed at visitors’ understanding of interrelationships and interactions among ecological and social systems and their components.

Each summer, A.M. Adventures classes give children ages 8-11 the opportunity to explore different aspects of cultural and natural history. This year, each of the six classes focused on a different group of animals that live, or once lived, on the Llano Estacado. Besides learning important facts, children viewed exciting videos, examined parts of animals like claws and fur, and got up-close and personal with some live animals. Here are a few facts you may not have known!

**Cool fox fact:** The gray fox is the only member of the canine family that is a true tree climber. This type of fox climbs trees to hunt and to escape predators.

**The real carnivores:** Compared to canines and bears, cats are true carnivores-almost 100% of their diet is meat. Though classified as carnivores, canines and bears tend to eat a combination of animal and plant food.

**A cougar by any other name:** Cougars are known throughout North America by a variety of names—Mountain Lion, Puma, Panther, Catamount, Painter, American Lion, Deer Tiger, and Mexican Tiger.

**Did you know:** There around 925 species of bats found throughout the world, and 25% of all mammals are bats! Only 3 species are vampires. The Mexican free-tail bat is native to the Llano Estacado.

**The most endangered animal in North America:** Black-footed ferrets used to exist in small numbers in western North America, from Canada down through Mexico. The ferrets only live in prairie dog colonies since 90-95% of their diet is made up of prairie dogs. Through captive breeding programs, 217 baby black-footed ferrets were reintroduced into parts of South Dakota, Montana, Arizona, New Mexico, Colorado, Utah, and Northern Mexico in 1998-1999.

**Texas Snake Fact:** About 31 non-venomous and 14 venomous species of snakes inhabit the state.

**Who knew?** Around 2,000 known species of praying mantis found throughout the world! Several occur in Texas, the most common being the Carolina mantid.

A “rabbit” that’s not a rabbit! Jackrabbits are kin to rabbits, but are actually hares. Hares are bigger than rabbits, live above ground all the time, and have young that are born fully furred and with their eyes open.

**Did you know?** Armadillos are close kin to the slowest mammals on earth—sloths! Armadillos also are closely related to anteaters. The nine-banded armadillo was not native to Texas, but moved into the state from South America in the 1850s.

**It’s a girl, a girl, a girl, and a girl!** Nine-banded armadillos always have identical quadruplets, either all males or all females.

*Cindy Sherman*  
Museum Educator
Continuing Archaeological Research

The Lubbock Lake Landmark regional research crew has been busy conducting investigations from San Jon, New Mexico to Lubbock Lake and the Yellowhouse System.

The ongoing investigation at the San Jon site is designed to broaden the depth of information on the Early Archaic for the Southern High Plains. In addition, this year an eroding deposit of late Pleistocene bone was explored that produced an assemblage of ancient bison and extinct horse material.

Investigation continued in the Yellowhouse System at several locations in order to assess archaeological potential and geomorphological data. Above and below water sub-surface testing was conducted and will continue at Canyon Lake 6 into autumn. Approximately 40 tons of sediments were removed stratigraphically in roughly 8 inch (15cm) deep samples. These are being water processed through nested screening to recover any cultural and natural history materials. This processing should take another three months to complete. Underwater testing has provided a wealth of information regarding the conformation of the valley and waterway through time.

Two new sites have been identified within the Yellowhouse System. The Alex site, on the upland rim, was identified during pedestrian survey. It is a campsite and the assemblage consists primarily of lithic debitage and hearthstones. The Hererra Site, within buried deposits on the valley margin, was found during geomorphological test trenching. The site is stratified, with several layers of cultural materials found in strata 5 and 4. Currently, the assemblage consists of lithic tools and debitage, hearthstones, and bone. The crew revisited 41LU119 at Mackenzie park for further investigations of this rim site and its Late Archaic to Ceramic age occupations.

At Lubbock Lake, the big attraction was again Area 13B where several lithic tools and a bison skull were recovered from the late Ceramic bone bed. This summer’s excavations revealed more of the microstratigraphy within the valley axis, providing additional information on the geomorphology of Area 13B between the valley margin and axis. The southern portion of the trench uncovered several bones in poor condition, that allowed the lab the opportunity to explore new methods and field techniques in the field preservation of fragile bones.

This autumn, the regional research crew continued exploratory investigations in the Yellowhouse System, from Mae Simmons Park to Canyon Lakes 3.

Sarah Willett
QRC Lab Coordinator
Celebration Family Days 2003
10AM-4PM, October 11 & 1-5PM, October 12

A Contrast of the Horse Soldiers of the
Red River War of 1874
written and performed by
Jimmy Northcutt and Billy Turpin
Saturday & Sunday at 2 PM

The Red River War of 1874 was a defining moment in the history of western Texas and the nation. It marked the virtual extinction of the southern herd of buffalo, the final subjugation of the powerful tribes on the Southern Plains, and consequently the opening of the Texas Panhandle to white settlement. The advent of the ranching era followed swiftly.

Jimmy Northcutt and Billy Turpin (Muscogee) present the story of the Red River War from different perspectives, those of Cavalry soldier and Southern Plains Indian, with the goal of developing awareness and respect for the Native American way of life on the Southern Plains and that of the horse soldiers of the US Cavalry as they endured the harsh and inhospitable conditions that they encountered on the campaign trail.

(Sunday program is an expanded version of Saturday’s one-hour program)

Lively Demonstrations
flintknapping • traditional cooking
• medicinal plants
• Native American textiles

Family Fun Activities
beading • basket making
textile weaving • spear throwing and more!!

Native American Lifeways
with Ray Olachia
To most visitors, Ray Olachia (Mescalero Apache) is no stranger. Ray has conducted public programs, teacher and student workshops, and staff development sessions at the Landmark for 13 years. We are delighted to have him join us once again during this very special week. Once you spend some time with Ray, you’ll never forget what you have learned!

Storytelling
with Eldrena Douma
Saturday at 10:30 AM, 12:30 & 3 PM
Sunday at 1:30, 3 & 4 PM

Eldrena Douma’s (Hopi, Laguna) experience as a storyteller began in her youth on both the Laguna and Hopi reservations. There, she listened to family members and tribal elders tell their stories and histories of their people and how they struggled to survive. Through her Siya (grandmother in Tewa), Eldrena gained a more personal appreciation for the oral traditions of telling stories and folktales. Today, Eldrena travels throughout the United States telling her well researched stories, as well as stories from her vivid imagination to audiences young and old.

Also at the Landmark this fall:
Girl Scout Programs - call the Caprock Council office at 806-745-2855 for additional information and troop registration.

South Plains Archeological Society Meetings
Sundays at 2:30 PM
October 5, November 2, December 7, 2003
January 11, February 8, March 7, April 4, May 2, 2004

Celebration 2003 programs are funded in part by grants from the City of Lubbock, as recommended by the Lubbock Arts Alliance, Inc.; and the Helen Jones Foundation, Inc.
Urban Greenspace: for your health

One of the goals of the Lubbock Lake Landmark is to promote the use of our facilities as an urban greenspace. But, what is an urban greenspace and how do they benefit our communities?

Historically, urban greenspaces most often were landscaped parks made available for use by city residents. Community leaders in Lubbock recognized the importance of parks early in our history. After acquiring such essential services as water and electricity, they began acquiring land in November of 1926 for what would become Mackenzie Park. Less than 20 years after the founding of Lubbock, the city had began to preserve part of our natural environment.

The term greenspace has become popular among urban planners and professional geographers, in part, because it denotes more than traditional parks. Urban greenspaces may be traditional parks, but they may also be trails for recreational use, migratory routes used by wildlife, or special features of the natural landscape that are preserved for future generations.

Research has shown that urban greenspaces contribute to our lives in several ways. Plants naturally create oxygen and help filter out pollutants. The protected areas of greenspaces provide natural buffer zones for streams, watersheds, and playa lakes, helping to promote water quality and control the dangers of flooding.

Perhaps most importantly, urban greenspaces contribute to knowledge, health, and well-being of urban populations. The ongoing archaeological research at the Landmark adds to our understanding of the history of this area and how people have adapted to the environment through time. The natural environment preserved at the Landmark is a valuable educational tool. Teaching of sciences such as geology or biology take on a fresh perspective and immediacy when there are excellent examples are just outside the back door!

It is always a pleasure to hear from visitors how much they enjoy walking the nature trail or seeing the native species blooming around the new wildflower trail that is still “under construction.”

At the Landmark “urban” means we are just minutes away from any home in the city, but ‘greenspace’ means that once you are here, the city seems miles away.

Deborah Bigness
Heritage Management Intern
Heritage Tourism: what does it mean for us?

What is heritage, and how does that connect to tourism? The National Trust for Historic Preservation defines cultural heritage tourism as "traveling to experience the places and activities that authentically represent the stories and people of the past and present." Cultural heritage tourism includes historic, cultural, and natural resources.

In recent years, heritage tourism has enjoyed growing success across the country. In Texas, the Texas Historical Commission has developed several initiatives to promote and encourage communities to become involved in heritage tourism. Most recently, a three year grant was awarded to the Northwest Texas Museums Association to assist in revitalization of the Texas Heritage Plains Trail, established by the Texas Department of Transportation in 1968. The Plains Trail covers a 52-county area, stretching from the Panhandle to Big Spring, roughly the size of the state of Indiana.

The goals of the Plains Trail are to:
• increase tourism at regional cultural and historic sites;
• assist in revitalizing local economies through regional marketing of heritage attractions;
• increase awareness of the importance of historic preservation and its relationship to the tourism industry; and
• foster effective tourism leadership and organizational skills at the regional level.

Lubbock Lake Landmark is uniquely positioned to play a leading role as participant and organizer in this program. Staff have been involved in initial organizing and grant-writing activities, and will continue their involvement on the Trails board of directors. Additionally, the Trail may provide opportunities for students in the Museum’s Heritage Management Program to work with regional communities to document, interpret, and market their heritage resources.

Look for more information about the Texas Heritage Plains Trail in the coming months. This endeavor is a community and regional partnership-building program that has room for nearly everyone - we hope you’ll become involved!

Get Connected!

Lubbock Lake Landmark is dedicated to creating programs and an environment that provide significant and creative experiences for all learners. Volunteers play a critical role in that experience. Their enthusiasm, expertise, and commitment to the Landmark and the community make visits enjoyable and memorable.

If you would like to learn more about volunteering at Lubbock Lake Landmark, call us at 806-742-1116, or email lubbock.lake@ttu.edu.

• Opportunities are available to serve in the areas of public programs, information services, trail and landscape maintenance, and in the research laboratory.
• Hours are flexible to fit your schedule.
• Many volunteer positions are trained on-the-job.
• Public program volunteers must complete a 20-hour training course.

The true strength of the Landmark is in its commitment to community participation - come and get involved!
SciSpeak

What’s it all mean?

Did you ever get the feeling scientists don’t speak the same language as the rest of us? Well they do. Often those “big” words are easy to understand if you just break them into smaller ones. Here are a few words you’ll find in this edition of Notes from the Field:

microstratigraphy:
- **micro** = tiny
- **strata** = layer
- **graph** = picture

Tiny layers of sediment that can be seen as part of a larger formation.

geomorphology:
- **geo** = earth
- **morph** = having form
- **ology** = the study of

The study of the form and development of the landscape.

pedestrian survey:
- **pedester** = going on foot
- **survey** = to look over; view

Looking for objects and artifacts by examining the surface of the ground on foot.

debitage:

The unused chips of stone or waste flakes which are the result of stone tool making.