The Newsletter of Lubbock Lake Landmark
Fall 2006

Notes from the field:

Changes across the Landmark landscape

Benjamin Franklin said, "Without continual growth and progress, such words as improvement, achievement, and success have no meaning." Continual growth, progress and improvement have certainly been in evidence at the Lubbock Lake Landmark during the summer months, and will continue to be very visible for the next two years.

Construction began in May on the expansion of the Learning Center, located on the south side of the building. The Learning Center is not only home to the education staff, but also serves as the Landmark's primary meeting space. In addition to a busy schedule of classes taught by the Landmark staff, the Learning Center allows for collaborations with other University departments, the Summer Educators Academy, and meetings of such organizations as the Texas Historical Commission, Texas Master Naturalists, and the Texas Plains Trail Region.

When the expansion is completed in January 2007, the additional 1200 square feet will more than double the space of the existing facility. For the foreseeable future, the changing exhibit gallery will be used for classes and public programs, but the main galleries are still open to the public. The expansion of the Learning Center has temporarily altered the access to our trails, but they also are open and available to visitors.

Beginning in October, the operations staff will begin the final phase of construction on the Llano Estacado Wildflower Trail. The Landmark's newest trail is located just west of the Nash Interpretive Center. When it is completed, the one-half mile boardwalk will be ADA accessible, and offer visitors information about the natural landscape of Yellowhouse Draw that can change with the seasons as the plant life and landscape changes. The construction of this final phase of the project has been funded, in part, by a grant from the Texas Recreational Trails Fund of the Texas Parks and Wildlife Department. Platforms placed strategically around the trail will provide a place for classes to meet, or for visitors to relax and take in the beauty of the Draw.

Great progress has been made this summer on the ongoing task of rebuilding the fence surrounding the Landmark. With over four miles of fence, this multi-year project is now approximately 70% complete. Be sure to read Scott's article on barbed wire in this issue for more on the history of the wire that helped settle the West! Also, a new cedar post fence has been installed on Landmark Drive in front of the Interpretive Center matching the one by the non-public drive on Landmark Lane. The next time you visit the Landmark, take time to notice all of the changes taking place signifying our growth and progress.

in this issue:

Deborah Bigness
Manager of Site Operations

Notes from the field...

Museum of Texas Tech University
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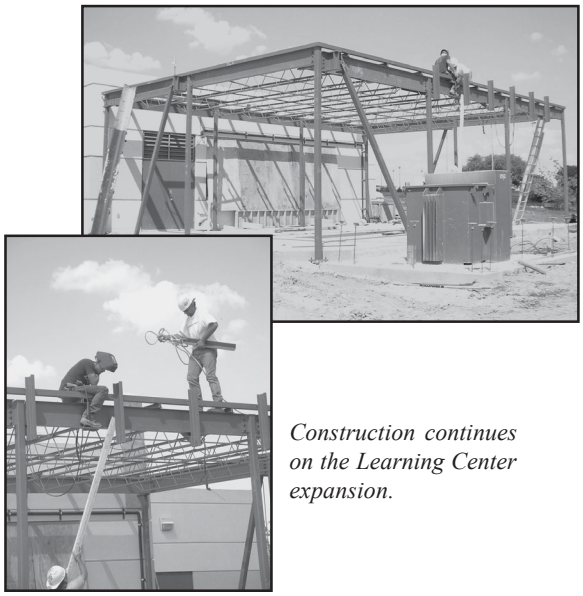
Fence me in! cont.

historically were made from cedar that was either cut on site or hauled in from wagons. Several types of hand tools also were developed to aid in the building process, such as bull nose fence pliers, fence stretchers, and post hole diggers. Other than barbed wire, fence staples and tie wire also were used. Most of the perimeter fence at the Landmark has been a refurbishing effort except for a mile-long stretch at the northern boundary of the site. This portion had to be completely rebuilt. The Landmark could not use cedar for line posts because of the digging impact to an archaeological site. Therefore, t-posts were used as line posts and pipe corners were constructed to help minimize the amount of ground disturbance. Cedar stays were used as stay posts to add a more desirable and historic look to the new fence.

Today, we have machinery and planetary augers to help with the digging and construction of barbed wire fences, but make no mistake about it, the work is still as grueling. The Landmark is not fencing in cattle or sheep. Our fences are simply here to serve as a boundary. Within this boundary though, are years of history that should be protected, researched, and admired by all who desire it.

Scott Trevey
Historic Maintenance Supervisor



Construction continues on the Learning Center expansion.

Contributors to this issue of *Notes from the field . . .*
Emily Arellano, Paul Backhouse, Katherine Bell, Deborah Bigness, Blake Morris, Susan Shore, Scott Trevey, Amy Whynott
Photography: Tara Johnson Backhouse, Deborah Bigness, Susan Shore

ecological reflections . . .

Disturbance, succession, and climax at Lubbock Lake Landmark

American naturalist Aldo Leopold wrote that "a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends to do otherwise." Sometimes it is very difficult to determine what is the right thing or the wrong thing. In an ideal world, at least in terms of ecosystems and habitat, we can leave nature alone and let the system work on its own. Nature in balance right? Well, nature is never really "in balance." It is highly dynamic. In plant ecology, the concepts of disturbance, succession, and climax help us to understand and explain these dynamic systems.

Disturbance occurs in nature with or without human interaction. One of the most commonly used examples of a disturbance would be a forest fire. After the fire, exposed soil and more sunlight gives a competitive advantage to annual plants that can take advantage of the increased sunlight and exposure. Through several seasons of growth, the annual plants give way to biennial and perennial plants and eventually the forest returns to a state of climax, until the next disturbance occurs.

When exotic and introduced species are present in an ecosystem such as at the Lubbock Lake Landmark, things become more complicated. In the 1930s, springs were dredged, severely disturbing the ground. The Siberian elm (*Ulmus pumila),* often mistakenly referred to as Chinese elm (*U. parviflora),* was planted in order to beautify and provide shade to the reservoir area. Another exotic species, the salt cedar (*Tamarix spp.),* originally imported to the United States as an ornamental tree because of the beautiful flowers, has become established in the reservoir area. The salt cedar probably was not intentionally introduced at Lubbock Lake but its seeds were blown in by the wind. One salt cedar can produce 500,000 seeds and use 300 gallons of water per day. These and other exotic species now make up the majority of the species that populate the distinct ecological community often referred to as the reservoir area.

The fact of the matter is that these exotic species have probably reached a fairly stable state that might be called a climax community. That community is home to foxes, deer, and many species of birds, such as orioles, that otherwise would not be here. The problem is that the native plants such as black willow, sedges, and bulrushes are being squeezed out. If left unchecked, the elms, and especially the salt cedars, probably will completely wipe out what is left of the original plant community. This situation in itself is not necessarily good or bad. Native cottonwoods, willows, rushes, and grapes still flourish at other places on the Southern Plains. As we think about how to approach restoration of a prairie ecosystem, the consequences of what has been put in place over the past 70 years also needs to be considered. Eradication of the elms and salt cedar would result in countless thousands of tons of wood that would be impossible to dispose of or burn. Secondly, we may be creating a new "disturbance" of mammoth proportions, as we have no way of knowing what kinds of new problems might be created. Hopefully, things can be done to preserve the original inhabitants of the reservoir area, without destroying the habitat or disturbing intact archaeological sediments. That's probably the subject of another article, but it's something to think about.

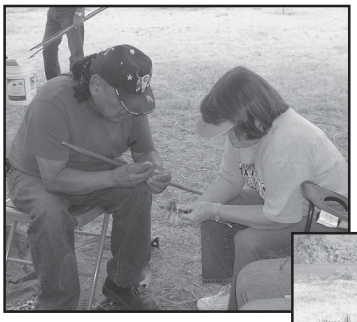
> "We cannot solve the problems
> we have created with the same
> thinking that created them."
> – Albert Einstein

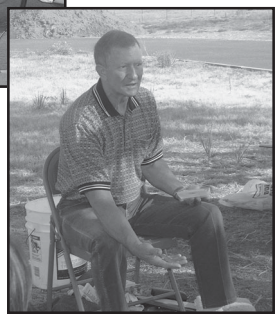
Blake Morris
Historic Maintenance Technician

Historic Maintenance Supervisor Scott Trevey works on rebuilding the Landmark's northern perimeter fence.

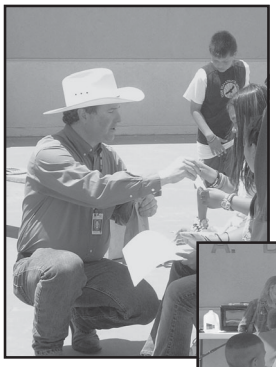
public programs . . .

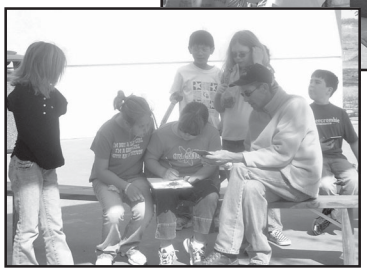
It's exciting to watch construction progress on the expansion of the Learning Center, but for awhile it puts us in a bit of a bind. The entire space will be reconfigured, and as a consequence, we are clearing the current space. The education collection and other items in the Learning Center will be temporarily housed in other parts of the building. In other words, for a little while, we are full! That means postponing our annual Celebration Week in October. But, we'll still be providing guided tours for groups, our exhibits are open, and the trails are looking great thanks to our recent rainfall. We hope you will continue to take advantage of the opportunities the Landmark provides, and look for great new offerings in the Spring!





Ray Olachia (above) and Ivan Imel (right) worked with teachers in our Summer Educators Academy to learn more about Native American arts and traditions.





Historic Maintenance staffers Blake Morris (left) and Scott Trevey (below) help students learn about fire ecology during Environmental Awareness Week in May.

historic maintenance . . .

Fence me in!

Have you ever wondered why we have fences? I've pondered this question many times when the temperature is 98 degrees and beads of sweat are dripping off of my eyebrows as I'm building one! Let's explore why we have fences and why they are important to the Lubbock Lake Landmark.

Fences are important for several reasons. Some fences are constructed to keep people or animals in or out of a particular space. Other fences lay out a distinct boundary to show ownership. Some are constructed for nothing more than aesthetics to a desired landscape.

Historically, New Mexican sheepherders called pastores built some of the very first fences here on the Southern High Plains of Texas during the late 1800s, just prior to the cattle ranching era of West Texas. These fences, or corrals, were relatively short and constructed out of caliche stones, and used in the sheep herding process. In time, other types of natural materials were used in the construction of fences such as cedar. Today, many types of materials are used for building fences. Fabricated types of lumber and plastics can be used, with several styles and designs of hardware, as well as natural materials.

More than 100 years ago, Joseph Glidden invented a unique style of barbed wire that enabled ranchers to contain their livestock and to also show their specific range and boundaries. Barbed wire put an end to the open range. Here at the Landmark, we are still finding remnants of some of these older-styled barbed wire fences.

The historic maintenance crew at the Landmark put together a plan to refurbish a modernized style of a barbed wire fence. Why the barbed wire? Barbed wire plays a role in the history of the ending of the open range era, of which the Yellowhouse Draw system was a part. Our process of construction is similar, not exact, to the barbed wire fences of yesterday. All of the original barbed wire fences were solely built by hand. All of the corner posts and line posts

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2006 Field research: explorations near and far

PLK-Localities: POST

One month of fieldwork out on the ranch near Post yielded some spectacular archaeology. The second season of research concentrated on the detailed analysis and limited testing at the two sites previously identified during the 2005 field season. Despite the heat, a great deal of research was achieved. Highlights included the excavation of an intact hearth feature in the Juniper canyonlands at PLK-Locality 19; the recovery of several pottery sherds and identification of intact subsurface deposits at PLK-Locality 1; the identification of a previously undocumented lithic toolstone (Macy quartzite); and last but not least, the recording of five hearth features at PLK-Locality 4, one of which with possible charred macro-botanic material still in the feature. The 2006 field season was aided significantly by a Scholarship and Creative Activity in the Arts and Humanities grant from Texas Tech University.

Regional research crew members Amy Vogelsburger, Katherine Bell, and Doug Cunningham recording a large hearth feature at PLK-Locality 19.

Crew members receive some additional help with test-unit excavation at PLK-Locality 1.

Doug Cunningham uses a handheld GPS device to record the distribution of surface cultural material at PLK-Locality 1.

41LU1 Area 10: LUBBOCK LAKE LANDMARK

It has been six years since the last excavations at 41LU1 Area 10. The incredible archaeological sequence of overlapping hearth features and connecting occupation floor is unique in the regional record. The condition of the area appears to have fared well over the last six years and excavations resumed where they had left off in 2000. The small 2006 field crew has concentrated on the investigation of the occupation floor portion of the site. Excavation has focused on a small wood hearth that was in use around 600 years ago. The high frequency of tiny lithic artifacts that have been recovered within this hearth suggests that the area around the feature was kept clean. This situation implies that we may well be excavating the living surface within an ancient structure. If this interpretation is correct, then the area is especially significant in the regional record as very little evidence exists of the types of structures people built during this time. Much more research needs to take place at Area 10 and plans are to continue the explorations of this important area.

Paul N. Backhouse
Research Aide

A closer look at interning

I arrived for my first day of work at the Lubbock Lake Landmark on January 4 with high hopes and butterflies in my stomach. It was the beginning of my museum education internship and the end of my career as a graduate student. I did not know what would come out of the experience; I only knew the expectations that I had. The role of educator was not something new to me. I had already gained some experience from my previous jobs as an educator to children from working as a camp counselor, student teacher, even as an educator in another museum. So what was I hoping to learn from doing an internship at the Landmark? Initially, I came in with several goals. I wanted to see an accomplished and experienced museum educator at work, to gain some experience as a writer, see the grant writing process in action, and learn how to best employ all of our valuable volunteers. I also wanted to continue in my role as an educator.

The Landmark has employed interns for many years. The role of intern benefits both the institution and the intern themselves. One primary role of an internship is to provide an opportunity to gain experience in your chosen field and to gain some "real-world" knowledge. This aids students in dealing with real situations that may never come up in the classroom. Knowledge from experience is something that cannot be taught in school and can be the deciding factor in many jobs. An internship also allows the student to develop a network of colleagues through community events and professional development activities. I have been lucky enough to participate in the Lubbock Arts Festival and have also attended conferences such as the Informal Science Education Association and the American Association of Museums. Through activities such as these, I have met many individuals in the museum profession and have learned about current issues facing museums.

Having an internship program at a museum can benefit the institution as well. As the museum profession is constantly evolving, a student can share new knowledge with the employees. As new theories and technologies evolve, interns can help to implement new practices to keep the institution up-to-date. Having a different intern every year can also keep public program activities new and different for visitors. Interns may have a different perspective from seasoned employees and this can keep new ideas moving throughout the institution.

Now it is the fall and my internship has entered into its final months. Many of the goals I had in mind have been not only been accomplished but have exceeded my expectations. I have been able to write several articles, including two for the this newsletter and some for *The Social Studies Texan*, an official publication of the Texas Council for the Social Studies. I have had lots of great experiences working with our wonderful volunteers and have been able to utilize them many times over the past months. I also have learned how to cope with situations I did not expect, such as the construction on our building. The Learning Center is being expanded and through this I have learned flexibility in different situations, including relocating some of our summer programs.

Finally, it has been an incredible learning experience for me to be able to work with an experienced museum educator. What I have learned through this first-hand experience is something completely different from what I learned in the classroom. Above that, I have been able to take part in my first passion: teaching children. I have had many opportunities to teach programs to children of all ages and even to families. I also have had a part in outreach to area schools through the development of traveling trunks. Overall, this internship has taught me a lot about my profession and has also given me valuable experience that will aid me for years to come.

I am just one of many who have participated as an intern with the Lubbock Lake Landmark. I have noticed that once done with their internship, many go on to bigger cities, bigger institutions, and bigger responsibilities. They all have, in their own ways, made an impact away from this museum and I know that this is a result of what they have learned during their experience here. I only hope that when my time here is up, that I will be able to represent the Landmark in the same way.

Emily Arellano
Museum Educator

Shown left to right:
Figure 1. Removal of the arroyo bank at Roland Springs Locality 1.

Figure 2. Community volunteers water washing matrix at Roland Springs.

Figure 3. Interns jacketing the neck vertebra at Roland Springs Ranch.

ROLAND SPRINGS RANCH

Work continued in July on the Roland Springs Ranch east of Snyder. This paleontologcial locality (may date to the middle Pleistocene) is situated on Turtle Creek, an ephemeral contributor to the Clear Fork of the Brazos River. A trackhoe was used and last year's small excavation block was expanded to almost three times the size (Figure 1). The landowners provided trailers for living accommodations for the crew on the property, a lab, and a variety of equipment and services, including recruiting local community volunteers.

Last season generated over 7000 specimens representing 30 different animals. This season's fieldwork lasted the entire month and generated nearly 4000 specimens and expanded the representative species list to 45 different animals. Two units that were opened last year were reopened along with three new units. All sediments generated were washed and sorted at the site (Figure 2). Among new animals recovered this year were a large cat, antelope, bat, an assortment of rodents, and small carnivores along with the ever-present tortoise and turtles.

Three specimens were extremely fragile and required plaster jackets to get them safely back to the Landmark's lab (Figure 3). Placed in the jackets were a large fibula, a complete turtle plastron (belly portion of the shell), and a fairly large neck vertebra.

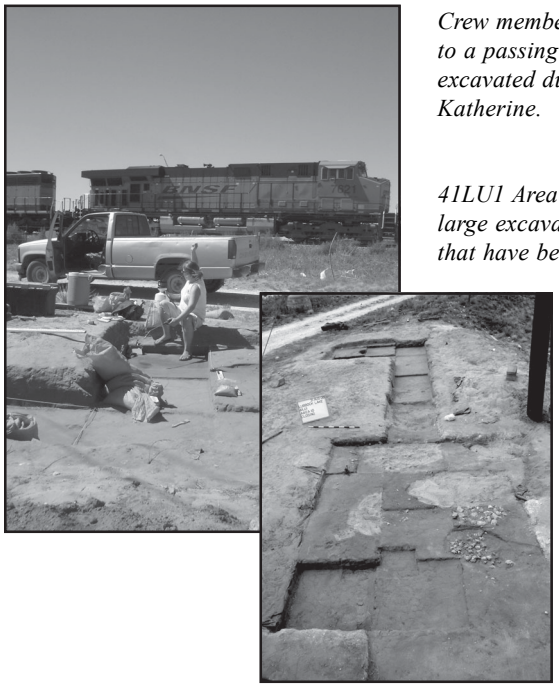
The crew returned to the Landmark at the end of the month and a complete inventory was generated. Conservation efforts on the material began with the excavation of the plaster jackets. In the fall, the specimens will undergo stabilization treatment. After stabilization, the material will be cleaned, cataloged, and labeled. Then the collection will be ready for more detailed identifications and analysis.

Amy Whynott
Intern/Technician I

Thank you – to Rick Bigham and Bigham Automotive for the loan of a travel trailer over the summer. Because of his generosity, our Volunteer Coordinator had a comfortable, and most importantly, cool place to live when the crew was on hand during field season. We appreciate his helpfulness with this very important project.

regional research program . . .

2006 Field research: explorations near and far



Crew member Katherine Bell gives a traditional Area 10 greeting to a passing train; note the basin-shaped hearth feature being excavated during the 2006 field season in the unit to the right of Katherine.

41LU1 Area 10 viewed from the east; note the large excavated hearth pits in the foreground that have been filled with sand for protection.

SAN JON, NEW MEXICO

The 2006 field season began with the yearly trip to San Jon, New Mexico. The Lubbock Lake Landmark regional research crew traditionally has started its summer field season in San Jon for several years. It is much anticipated as a chance to camp out, enjoy the outdoors and the company of the crew, and as a time to work at a famous and always interesting site. The San Jon site is located on the western edge of the Caprock about 40 miles east of Tucumcari, New Mexico, amid cows, cactus, and amazing sunrises. The strata at San Jon are well defined, and represent many cultural time periods of the Southern High Plains. Material at San Jon dates back to over 10,000 years before present. The site has several defined areas, each defined by a unique feature. Some of the areas include campsites and bison kill sites.

This summer, the time had come to survey the entire 550 acre property to view erosional activity, look for new areas, and generally reassess the site's condition. Armed with the vigor of a new season and the Trimble 5800, the three-person crew set out to survey the entire site. The Trimble 5800 is a roving data collector that connects to a base station via satellites, allowing the surveyor to carry it over a wide area and instantly record the position of artifacts to sub-centimeter accuracy. Each day, the crew systematically walked the property, thoroughly covering almost 100 acres a day. Over 600 artifacts were mapped, collected, and brought back to the Landmark for processing.

During the survey, the crew found some very exciting new things. One was a concentration of lithic tools, and another was intact hearths. These types of features provide invaluable information on how people lived and possible material to use for dating purposes. When these exciting features were identified, a unit was set around them and points taken with the Trimble. They then were photographed in detail so that they could be superimposed onto a map, using the known points as a guide. Plans are for the crew to return next summer to investigate these features in order to gather contextual information such as how old the features are, how far they extend, and their relationship to the rest of the site and the Southern High Plains in general. The discovery of new features and high number of artifacts show that San Jon is still yielding valuable information and potential for future research.

Katherine Bell
Intern/Technician I

The crew surveying at San Jon.

Crew members Katherine Bell and Joel Martinez setting up the Trimble 5800 in order to record and map all artifacts and features encountered during survey.