

Notes from the ...Field



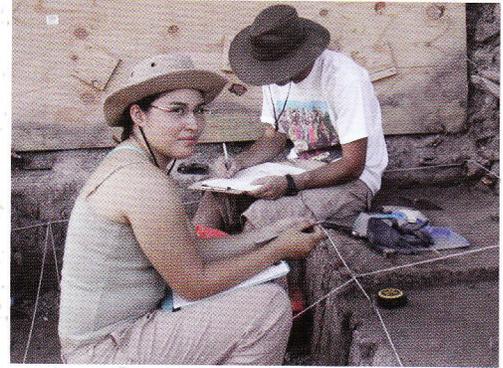
This Great-Horned owl is one of the Landmark's newest residents.

Owls Seek Refuge at the Landmark

As a nature preserve, the Landmark provides food, shelter, water, and space to many of the region's native animals. It is within our mission to preserve the natural heritage of the region, state, and nation. Through our Summer Youth classes, Springbreak Fest, and other programs, visitors are introduced to the region through hands-on activities and regular sighting of cottontail rabbits, mockingbirds, dragonflies, and mourning doves. On occasion, visitors can experience the coyote howls, horned-lizards basking in the sun, and bull snakes slithering across the trails. And now, through our partnership with South Plains Wildlife Rehabilitation Center, we can expect sightings of Great-horned owls. Because of the Landmark's status as a nature preserve, six Great-horned owls were released here in June. The small creatures residing here and the invasive Siberian elms, planted here in 1938, will provide these young owls with the food, water, shelter, and space they need to survive and thrive.

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Landmark field crew member Susan Monge

Upcoming Events.....

September

Saturday - 10

Life on the Plains ...Pastores & Ciboleros. Focusing on Hispanic shepherding traditions. 10 a.m. to 4 p.m.

Landmark After Dark ... Begins at dusk.

Sunday - 11

Discover ... the Pastores, presentation on the Hispanic shepherding traditions. 1:30 to 3:00 p.m.

October

Saturday - 15 & Sunday - 16

Life on the Plains...Saturday 10a.m. to 4 p.m. and Sunday 1 to 5 p.m.

Fall Fest 2011... Focusing on buffalo soldiers, Native American and Mexican traditions and cultures, storytelling workshops and demonstration. Family day for all ages with hands-on activities.

Lubbock After Dark ... night hike begins at dusk.

November

Saturday - 19

Life on the Plains...Settlement, 19th Century. Focuses on George W. Singer, trails and oral histories. Family day for all ages with hands-on activities. 10 a.m. to 4 p.m.

Sunday - 20

Discover ... **Oral Histories**; the art of oral history. For teens to adults. 2 to 4 p.m.

December

Saturday - 17

Life on the Plains Series... Finale. Focusing on history in the making, modern archaeology and the future of the Lubbock Lake Landmark. Family day for all ages with hands-on activities. 10 a.m. to 4 p.m.

Sunday - 18

Discover ... Continues, discussion about the preserve, land management and research. For teens to adults. 2 to 4 p.m.

A Firstview Find at San Jon

This past May, the Lubbock Lake Landmark regional research team spent a couple days at the San Jon site to finish stratigraphic mapping and survey. This work was supposed to be just a short trip to tie up a few loose ends to conclude 15 years of fieldwork for subsequent analysis and publication. While mapping in Area 1 of the site, however, a classic San Jon projectile point was found on the surface. The first field investigations of the San Jon site took place in 1940 and 1941. During the 1941 fieldwork Frank H.H. Roberts, Jr. from the Smithsonian found what he called a San Jon point (a name based on the small town located near the site) associated with extinct bison remains. This point had a square stemmed base and was lanceolate in shape. Another San Jon point was found in 1941 on the surface.

Both of the San Jon projectile points were manufactured from lithic material not found in the local area. The San Jon point associated with the bison was made from Alibates chert located 131 miles (211km) away near Amarillo. The San Jon point found on the surface was manufactured from Edwards Formation chert, located in the central part of Texas at a distance of 237 miles (383km).



Firstview Dakota quartzite projectile point found during May 2011 fieldwork at the San Jon site.

The San Jon projectile point found this year was made from Dakota quartzite, a material that outcrops

locally below the escarpment edge of the site. The use of a local material in the manufacture of a projectile point indicates these hunter-gatherers were incorporating local lithic materials to replenish stone tools lost or damaged that they had carried to the site. Resharpener along the projectile point's blade edge indicated it was used several times before it was lost or discarded for a newly manufactured point. Based on use-wear analysis of other Paleoindian points, projectile points often served as multi-functional tools used for a variety of tasks such as butchering. A use-wear analysis of the projectile point will need to be completed to determine the tasks for which this projectile point was used.

Although projectile points from the site originally were known as San Jon, they now are referred to as Firstview projectile points. At the Olsen-Chubbuck bison kill in eastern Colorado, 27 projectile points of the same style like the San Jon points were found. Based on a detailed analysis of the shape and technology of these projectile points and others found throughout the Southern Plains, the investigator of Olsen-Chubbuck (Joe Ben Wheat; he conducted the original excavations at Lubbock Lake in 1939-1941) in 1972 proposed the term Firstview to be used for this style of point. Radiocarbon dating of the bison bone bed at Olsen-Chubbuck demonstrated Firstview hunter-gatherers occupied the Southern Plains sometime between 9,400-8,300 years ago. The Firstview bison kill in Area 6 at the Landmark dated to ca. 8,600 years ago.

After 15 year of fieldwork, the loose ends still are not tied up at San Jon. With each passing year, rain and wind erodes deposits containing artifacts of the past peoples of the Southern High Plain. Only time will tell what new and interesting things will be discovered at the San Jon site.

Stance Hurst, Lubbock Lake Landmark Regional Research Field Manager

Tahoka Lake Survey



Bluff overlooking Tahoka Lake

The 2011 Lubbock Lake Landmark field season started in March with a pedestrian survey of Tahoka Lake. The survey was part of long-term research efforts at Tahoka Lake to understand how different peoples used this unique landscape. The survey was fruitful in addressing the research question and provided a much needed break from a very busy winter lab schedule.

Tahoka Lake, a privately owned property about 30 miles south of Lubbock, is one of 40 salinas on the Southern High Plains. Salinas are brackish water lakes. Mammoth Creek feeds into the north end of the lake, supplying fresh water along with other springs around the lake. This situation creates an ecosystem in which both fresh and salt water

are readily available. The lake serves as an important nesting ground for many migrating bird species. Fresh drinking water also attracts numerous other types of wildlife. Combined with a rich diversity of plant life, Tahoka Lake is a rich resource for peoples and wildlife to frequent.

Previous investigations at the lake included both survey and test excavation. The current survey reconfirmed that earlier peoples had utilized the entirety of the lake property. A lithic procurement and reduction area on the south end of the lake, opposite of where Mammoth Creek feeds into the lake, was a particularly important find. The area was approximately 492ft by 164ft (150m by 50m) and is situated between a high bluff overlooking the lake and the lake shore. Numerous Ogallala gravels eroding out of the bluff had been worked to a more manageable size in order to be transported to other sites in a more efficient and cost-effective manner. At these other sites (such as Lubbock Lake), they then were finished and used as tools. The predominant raw material type found in these gravels was Potter quartzite. Cobbles ranging in size from about 4 to 8in (10-20cm) were common in the area. Many of these cobbles showed signs of large flakes having been removed. The debris from this removal, along with a number of quartzite hammerstones used to remove these large flakes, also was found within the newly defined area.

Tahoka Lake has been defined as a unique spot on the landscape of the Southern High Plains. This spot, full of natural resources, was a reliable place for native peoples to find the resources they needed and for historic settlers to begin a life. The survey conducted this year helped reaffirm how unique the landscape is in terms of available resources and demonstrated how intensely humans have utilized the area for thousands of years.

Justin Moe, Research Aide

Amazing Summer Adventures

Whew...It's Hot! But not hot enough to stop 18, 4 and 5 year olds from "Going WILD" during the first week of Amazing Summer Adventures. With gigantic smiles on their faces and water bottles in tow, these students came face to face with a tiny cottontail bunny, observed a mockingbird resting in its nest, and touched a Mallard duck egg. Class time was spent learning about animals that live on the Landmark and how these animals survive. The students were eager to learn, touch, and discuss observations. Out on the nature trails, they made shapes using twigs, rocks, and other natural materials. They studied bird nests and created their own; and compared human foot prints to animal prints such as bears, bison, armadillos, and owls.



These 4-5 year olds went WILD during Amazing Summer Adventures

The "Going WILD" bunch was not alone on their quest for inquiry and fun. The Landmark's "A.M. Adventures" created their own style of learning too. During Eco-Art, students experienced nature through an artistic lens: Making and

using yucca-leaf paint brushes, the students got an understanding of how Native Americans and the first peoples used the resources available as a means of communication. By creating dyes and using plant fibers, they recorded daily events in nature journals. Lessons in entomology introduced learners to social insects, harmful insects, and predator-prey relationships among insect species. And, discussions about tradition introduced learners to storytellers, myths, legends, and ancient symbols.

The start of "Amazing Afternoons" at the Landmark had learners ages 8-10 taking a trip to the African Savanna where they discovered plants and wildlife. They found that plants and wildlife of the North American Great Plains had similar



Bison and Gazelle

characteristics. They were able to make these comparisons by participating in Animal Olympics, as they matched their skills to those of the wildlife on both continents. During these Olympics games, participants jumped like a mountain lion, ran like a cheetah, held their breath like a hippo, and stared like a Great-horned owl. Amazing Summer Adventures are weekly programs held during June and July each year.

Watch your mail and check our website for information about Prairie Explorers, the Landmark's new nature inquiry group for kids ages 7-12. Contact the Landmark education office at 806-742-1116 or by e-mail to landmark.education@ttu.edu for information.

Susan Rowe, Education Program Manager

The Landmark's Flora Adapt to Drought Conditions

The drought this year has been hard on the Landmark's ecosystem; the wildlife are stressed, the grass has yet to "green-up," and the forecasts of blowing dust are taking a toll on those of us working outside every day. According to the National Weather Service, we are experiencing an exceptional drought (the highest category), and the amount of rainfall since October 23rd (1.17in) ranks as the driest on record. With these parched conditions on the Southern High Plains, one would think that the Landmark wildflower diversity must also be suffering. But, after walking along the newly completed Llano Estacado Wildflower Trail, the count yielded over 30 species blooming. This showing is a testament to the



Indian Blanket (Gaillardia pulchella)



Buffalo Gourd (Cucurbita foetidissima)

Landmark's flora having adapted to these unpredictably harsh conditions. The splendor of seeing the basketflower growing five feet tall in recent years is not to be found; they are still abundant but drastically shorter. As for some of my other favorite annuals like the Indian blanket and Lemon horsemint, one has to look real hard and low. Several perennial species, however, do not seem to mind the drought, including Copper mallow, Scarlet globe mallow, Buffalo gourd, Engelmann daisy, Chocolate daisy, and Mexican hat. The most notable sight is the White prickly poppy that appears to be significantly more abundant this year.

May and June are typically the Historic Maintenance crew's favorite time of the year because of all the new growth and vibrant color on the Landmark. This year, what has been missed most is watching thunderstorms build on the western horizon. It is years like this that makes one appreciate the perseverance of the native flora, and look forward to the wetter years that are guaranteed to produce postcard pictures of this little prairie preserve.

Matthew McEwen, Historic Maintenance Technician



White Prickly Poppy or Cowboy Fried Egg (Aremone polyanthemos)

We Got Them Outside, Now What? : Ideas for understanding and interpreting nature and the Lubbock Lake Landmark



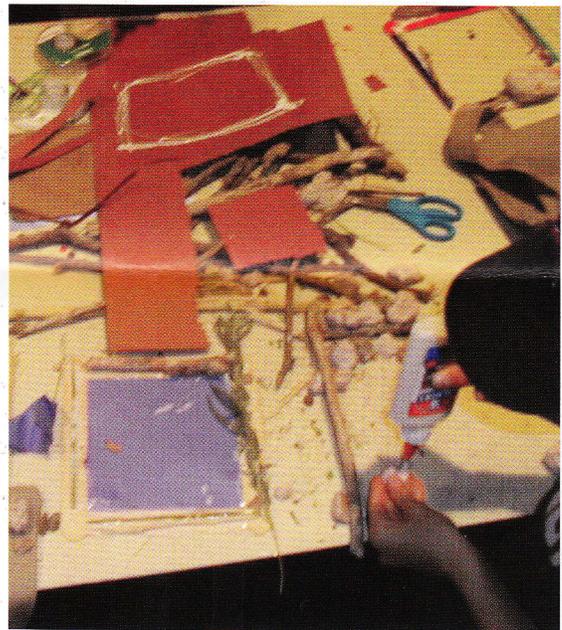
Students participating in a nature scavenger hunt found this Mallard duck egg.

In an effort to collaborate and support the Texas Partnership for Children in Nature we have developed programming and nature initiatives. A statewide and national movement aims to get youth outside, exercising, and exploring nature. Once the effort is made to get outside, the participants experience real learning and gain an understanding of the outdoors. Specific activities, guides, and programs have been designed to introduce children and families to the nature preserve with the opportunities to interpret and understand nature, ecology, and natural history. Programs throughout the year highlight different aspects of nature. And long term initiatives, accessed

throughout the year and independently of staff, allow visitors to have a wide range of options and activities based on learning style and interest.

As part of the initiative, we participated in a National Campaign to encourage outdoor activities called *Let's G.O.! (Get outside!)*. Let's G.O.! is a youth-inspired, youth-led, Children & Nature Network initiative to rally people of all ages to play, explore, and celebrate the outdoors. Our nature programs included a week-long Environmental Awareness Week, that focused on the turkey, vulture, citizen science, nature walks, and scavenger hunts. Visitors also were encouraged to start nature journals, read wildlife books, and participate in other outdoor activities.

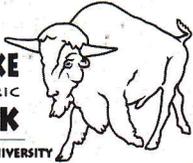
Using the Interpretive Center and the 337 acres of nature preserve, we have developed ways to allow visitors a richer and deeper experience with nature and the Lubbock Lake Landmark. Currently, we are applying the natural landscape and resources from the Landmark to dynamic, interactive, and educational long-term programming. We hope to influence our visitors' understanding of nature and create in them a willingness to get outside. That influence may encourage them to play a role in city and statewide efforts to develop programs, activities, and interpretation that will equip all age learners with tools to make their experiences in nature impactful and knowledgeable.



Picture frames made of found natural objects.

Erica Restum and Ardath Lawson, Museum Science Interns

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Notes from the Field:**

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Cynthia Garcia**

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Enjoying the hot Texas sun.



Jason Barela enjoys a Solar S'more.



Making Tack for the trail.