

Notes from the ...Field

Excavations and Explorations in ... the Ancient Valley of Yellowhouse Draw

By Katherine Bell Ehlers, Senior Crew Chief



Figure 1. Opening shot of Area 6 for the 2013 field season, looking toward east wall.

Excavations continued at the Lubbock Lake Landmark during the 2013 field season, marking 76 years of exploration at the site. Field work focused within the old reservoir cut, in a meander of Yellowhouse Draw. The work planned for this season was structured around two major objectives. The first objective was to continue block excavations in the southern portion of Area 6, a serial bison kill and processing locale. The second objective was to clean and document the valley fill stratigraphy type wall that encases the depositional and cultural history of the Landmark. This sequence of sediments and soils covered all of the major cultural time periods of North America.

For the seventh consecutive season and 18th season overall, field work continued at Area 6. This area was well-documented, having undergone block excavation from the 1973 to 1983 field seasons, and then again from the 2007 field season through the current field season (Figure 1). The area was within the base of the ancient valley, where water historically was reliable. Where water was reliable, hunting also was reliable. Repeat kill and processing features that occurred in the area reflected this situation. Ancient bison kill and processing events throughout the lower sediments dated to the Paleoindian period (from about 10,800 - 8,600 years before present as expressed in this area).

Continued on page 3

Inside this Issue.....

Excavations and Explorations in the Ancient Valley of Yellowhouse Draw	Page 1
Investigation of an Early 20th Century Homestead 4JK8	Page 5
A Year in the Life of an Education Intern	Page 6
Dunbar College Preparatory Garden Project	Page 8
Documenting the Great Buffalo Hunts and Early West Texas Ranching on the Caprock's Eastern Edge	Page 10
Change is Constant	Page 11
Giant Tortoise Adds to the Exotic Animals of Macy Locality 100	Page 12
Stratigraphy at Whiskey Flats, A Late Holocene Bone Bed	Page 14
Dr. William Curry Holden's Daughter Makes Surprise Visit	Page 15

Excavations and Exploration ~ continued from page 1

Additional kill and processing events with modern bison and other game animals occurred in the upper sediments. These upper sediments dated to the Protohistoric and Historic periods, during the time of the Apache and then Comanche occupation of this region. The crew worked hard for six weeks, interrupted only for a few days by welcome rain (although unwelcome flooding in the area (Figure 2).

Four ancient bison kill events were identified in the excavations during the 1970s and early 1980s, and the field work renewed in 2007 explored the extent of these features to the south of the older excavation area. During the 2013 field season, work focused on bringing the excavation block down evenly below the Firstview period feature (dating to about 8,600 yrs BP) toward the Plainview period feature (dating to about 10,000 yrs BP). The sediment layer was quite thick (about half a meter [20 ins.] deep), and was dark gray and very clayey. The nature of the sediments reflected the marsh environment of the area during these time periods. Although work was between cultural features, valuable information on the nature of the marsh still was collected. Animal remains were abundant in these sediments and provided data that helped to reconstruct the environment, that in turn helps to determine how ancient people interacted with their environment and the resources that were available to them.



Figure 2. Flooding in Area 6, from above and toward east wall.

While part of the Landmark crew worked in the shaded excavation area, other crew members took to the daunting task of clearing and documenting the valley fill stratigraphic type wall. Stratigraphy refers to the layers of sediments that are deposited through time. Soils can form within these sediments. Soils form when the landscape is stable, or during periods when deposition and erosion of sediments are minimal. Soils also contain organic material and, therefore, can be radiocarbon dated. These dates bracket occupation times when artifacts and features are associated with the soils, as they are at the Landmark. The differences seen in the layers of sediment are due to many factors such as, how they were deposited (e.g., by wind or water) and the state of the overall environment. For the past 30 years, erosion has been taking



Figure 3. The stratigraphic type wall in the process of being cleared of slump.

its toll on the type wall (Figure 3). The objective this summer was to clean away 30 years of slump to uncover the entire expanse of the wall. The wall measured about 10-15 meters (32-49ft) high and more than 20 meters (65ft) long. The scope of the work was such that more than trowels and shovels were required - machinery was brought in by the Historic Maintenance staff to help dig away the bulk of the eroded, displaced sediments. Large peds, or intact portions of sediments, were able to be identified to their original stratigraphic designation. These peds were collected and water-processed in order to recover cultural and biological material that they may have contained.

Continued on page 4

Once the machinery came close to the wall, work had to continue more carefully with shovels and trowels to avoid hitting undisturbed sediment and possible features. Once the wall was exposed, the job of documenting it began. Documentation of the wall required identifying the major stratigraphic units, the substratigraphic units, local bedding (unique, localized expressions of the sediments that occur throughout the Landmark), and the soils formed within the sediments (Figure 4). These units and soils were known for the Landmark because of the many years of geological work done in tandem with the archaeological work. Once the known units were identified in the wall, photographing and profiling began. Profiling was done by mapping the wall onto graph paper to create a scaled version of the type wall. The amount of work required to clean the wall and to document the intricate depositional history of the Landmark was a monumental task that will continue next field season.



Figure 4. The type section after the bulk of the slump had been cleared away from the wall.

Thank YOU!

A big THANK-YOU to two generous benefactors who wish to remain anonymous and Scott Malone (Alaska) for support of the Landmark's regional research efforts. It is through such support that our research programs can be maintained and grow, expand educational and research opportunities for students, and help us fulfill the Landmark's mission.

Investigation of an Early 20th Century Homestead 4JK8

By Dr. Stance Hurst, Regional Research Manager

Along the edge of the Caprock at the Post research area, the research team discovered historic artifacts that date to the earliest part of the 20th century. Survey of the site revealed numerous artifacts that included parts of a stove, wire nails, horseshoes, wheels from a child's toy, cartridges, canisters, and dinnerware.

Also found was a rock collection of river cobbles procured from below the Caprock (Figure1). These cobbles were highly polished from the river and are the decorative types of rocks a collector would gather. All of the rocks were from the Potter member of the Ogallala Formation, a basal gravel layer that outcrops along the base of the canyons throughout the ranch area.

The types of artifacts found at 4JK8 were puzzling. These were not the kinds of artifacts normally associated with ranching activities. A search of the Texas General Land Office on-line database revealed that 4JK8 is situated on a section of land purchased in 1903 under the Four-Section Land Act. Changes in the land law in 1901 allowed settlers to purchase up to four sections of land if improvements were made to the land within three years' time.

In West Texas, the change in the land law had the effect of new settlers migrating to the region in an attempt to establish homesteads among the large ranches. The settlers at 4JK8 were surrounded by sections of land used as part of a larger ranch. The settlers occupied their section of land until 1914 when it then was sold to the surrounding ranch.

The archaeology at 4JK8 provides an important opportunity to document what life was like on the frontier. The site also will provide a glimpse of the interworking's of a family in the early days of West Texas.



Figure1. Rock Collection at 4JK8.

A Year in the Life of an Education Intern

By Jesse Beckham, 2013 Education Intern

Working at the Lubbock Lake Landmark has been a great learning experience. I have seen hundreds of students scrambling through the gallery and getting involved in programs. Coming in, I had little experience wrangling children, but by the time six weeks of summer youth programs were over, I might well have been wearing a 10 gallon hat with a lariat in hand.

With great direction from Susan Rowe and help from Anna Jolly (Helen DeVitt Jones Graduate Fellow for Museum Science), we developed *Avian Adventures*, a three day Spring Break Fest program and six weeks of Summer Youth programs in the summer. Our



Figure 1. Students participate in a Wagon Train.

summer programs proved to be a great undertaking. Registration opened in May and was full within a couple of weeks. My favorite week was *Gone to Texas*, focusing on Texas regions and overland travel to Texas in the 1800s. Activities included building cardboard wagons, making decisions about supplies to take along the journey, loading the wagons, and an overland travel obstacle course (Figure 1). The National Ranching Heritage Center loaned us a log cabin so the

campers could practice building a cabin structure.



Figure 2. Life as a Paleoindian, practicing traditional cooking methods.

Paleoindians, and went on Horned Lizard and bison hunts. Fear not, the bison hunt was a game of tag between ‘hunters’ and ‘preservationists’ (Figure 2).

In March, I attended the Informal Science Education Association of Texas annual conference in Port Aransas, Texas. The conference was a blast! The sessions and workshops proved very beneficial as activities from the sessions were implement into *Avian Adventures* during spring break. In addition to the ISEA conference, I had the opportunity to present posters at both the American Association for State and Local History and Mountain Plains Museum Association annual conferences in Birmingham, Alabama and Lincoln, Nebraska.

Although many great activities were planned for the first week, many went undone due to the inclement weather that shut us down for several days in early June.

Summer Youth programs were a great learning experience for both the participants and me. The amazing facts that some students shared were both entertaining as well as unexpected. Other program themes included *Women of the West*, *Mammoth-Bison-Horned-Lizard*, *Life as a Paleoindian*, *Adventures in Archaeology*, and *It’s an Insectival!* For *Women of the West*, local history reenactor, Henry Crawford, spoke to the students about Buffalo Soldiers decked out in period uniform. We made beef jerky as

Continued on page 7

A Year in the Life ~ continued from page 6

I also had the opportunity to serve as a judge for the South Plains Regional Science and Engineering Fair, South Plains Regional History Day, and later served as a preliminary judge for National History Day state competition. This internship certainly has given me great learning opportunities. There have been difficulties, bad weather, wild campers, and many challenges, but it has been a great learning experience. I will admit I may not have survived some days if it was not for Susan Rowe getting me back on track and pointing me in the right direction or Anna Jolly being a great mind when mine seemed to go blank, many thanks to the both of you. Thank you to the Helen Jones Foundation, Inc. for this great internship opportunity. And a big thanks to all the campers and visitors who gave me the opportunity to share and learn with you. I hope you all had a good time and learned a lot! (Figure 3).



Figure 3. Summer Youth celebrate Flag Day.

Dunbar College Preparatory Garden Project

By Anna Jolley, Helen DeVitt Jones Graduate Fellow for Museum Science



Figure 1. Students as gardeners.

In the Education Division of the Lubbock Lake National Historic Landmark, one of our main goals is to bring children outside and to encourage a love of the natural environment. Too many children, especially those in urban areas, spend very little time outdoors exploring the many opportunities for learning and play that nature has to offer them. For this reason, we reached out to a local middle school on Lubbock's East side in order to bring a deep appreciation for nature from us at the Landmark to children in the city. Beginning as a service learning project in Susan Rowe's Heritage Education graduate class, and coming to fruition last January, we have been working with a 6th grade science teacher and her class at Dunbar Middle School to develop a school garden (Figure 1).

Dunbar College Preparatory has about 430 students, 90% of which qualify for free or reduced lunch and 50% of which are considered at-risk. The atmosphere at the school is tense, with raucous students spilling into the hallways during class changes and teachers standing watch, ready to stop a breakout fight or to herd stragglers into their classes. Even when the halls are empty, the shouts of teachers can still be heard, threatening disciplinary action to rowdy students. As young people with little experience in this kind of setting, we were, at first, somewhat intimidated.

Located near the front of the building sits a large outdoor courtyard, surrounded on all sides by the classrooms and hallways of the school. It was in this courtyard that our work was to be done, and we had our work cut out for us. When we began the project, the courtyard was scrubby and overrun with unwanted plants, though a few lettuce, broccoli, and asparagus plants from previous gardening attempts had stubbornly taken root and refused to succumb to Lubbock's less than favorable weather. A shed filled with shovels stood in the corner, waiting for us and our students to break the ground and unleash its dormant potential.

Our class consisted of 15 students in a 6th grade science elective. They greeted us warily, keeping us at a distance with sharp humor and flippant attitudes. The teacher we worked with, Jo Unrein, warned us that this class was one of the hardest she had dealt with, and not to be surprised if our results were limited. We forged ever onward, however, with lesson plans about types of vegetables and composting while the weather was still too cold for planting. We were asked, in earnest, if an orange was a vegetable or a fruit. After visiting the school twice a week for a month or so, our first real breakthrough with the students came when they began to see growth in the beans they had germinated in plastic bags.



Figure 2. Learning the science of plants in the classroom.

Continued on page 9

Their excitement at the fresh green leaves, pride in the long spindly roots, and wonder at the mold that had begun to grow on some of the beans helped to ease our distress and self-doubt in the project. We thought, we may cultivate something here yet.

The next months were spent working in the courtyard, weeding, turning earth, and planting seeds. We had the brief but indispensable help of Delbert Dyche, a master gardener, who showed us the best way to build rows for plants and trenches for watering. We even managed to secure funding for supplies from the Nutrition, Physical Activity, and Obesity Prevention Grant thanks to Annette Boles at the Texas Tech Garrison Institute on Aging. The students thrived in the garden; they began watering, weeding, and tending to the compost pile without being asked. They delighted at new plant growth, squealed at the insect and animal life that visited us (including our resident mama bird), and took great pleasure in taste-testing unearthed vegetables. Students who were disruptive and disrespectful in the classroom were well-mannered and purpose-driven in the garden. It was amazing to see the students transform along with the growing plants.

At the end of the semester, we made a huge salad with our harvest: romaine lettuce, red lettuce, radishes, carrots, and onions. With the help of a little ranch dressing, all of the students ate salad, some even going back for seconds! Their initial mistrust was replaced with familiarity and disappointment at the closing of the project for the semester. At times during work on the garden, we felt that it was more of a learning experience for us than it was for the students, although we were proud of the progress we had made. We plan to continue working in the garden with Mrs. Unrein's classes, growing new vegetables and inspiring confidence and a love for the natural world in more students at Dunbar Middle School.



Figure 3. Fruits of their labor.

Documenting the Great Buffalo Hunts and Early West Texas Ranching on the Caprock's Eastern Edge

By Dallas Ward, Research Aide



The Lubbock Lake Landmark's regional research program continued work on a half-dugout at the Post research area in Garza County, Texas. The site, known as 4JK5, has two structures present. Both structures are constructed of Triassic age sandstones locally procured from a nearby outcropping. The first structure has a distinctive sandstone wall that is a possible chimney. Several units have been opened around it in the hopes of finding clues as to the structure's use and age. Initial investigation has uncovered a few ceramics, glass shards, and cut nails all of which are consistent with a late 19th century occupation.

Figure 1. Excavating the sandstone slab wall at the second structure of 4JK Locality 5. The second structure is to the west of the first structure across an eroded cut bank. This structure is also a half-dugout with a distinctive wall (Figure 1). Several excavation units have been placed at this structure in order to investigate the boundaries of the structure, locate the occupation floor, and collect any artifacts that might appear in the sediment. Objects recovered in excavation include plain white-ware ceramics, glass shards, cut nails, bone, and a couple of .50 caliber cartridges. Although the floor has not been reached, eight courses of stone have been uncovered in the walls that make it almost as deep as a full meter (3.28ft) in places.

In addition to the excavations, a pedestrian survey has uncovered a significant assemblage of objects. Some examples from the survey include cut nails, cartridges (calibers ranging from .22 to .50), a brass rifle stock butt-plate, hole-in-cap cans, wire, a pocketknife, horseshoes, mule shoes, pieces of spur cuffs, a horse bit, and a branding iron. Initial artifact analysis indicates a date range of the late 1870s to around the early 1890s, the earliest of which is associated with the great buffalo hunts during the 1870s.

Multiple occupations of the dugout site are indicated in the artifact assemblage. The .50 caliber cartridge is a Sharps 50-90 center fire and the brass rifle stock butt-plate is most likely a Sharps or a Springfield, both of which indicate the use of a buffalo hunter's gun. The material denotes a late 1870s buffalo hunter occupation at the site. The branding iron is indicative of a ranching occupation and clearly exhibits a J-H-L connected brand. The brand has been found in the Borden County brand book and registered to a known area rancher of the historic period. Additional cowboy items include the presence of horseshoes, a horse bit, two separate pieces of spur cuff, and several .45 long Colt cartridges.

Investigations at 4JK5 will continue into the next field season. Off-season archival research is focusing on area buffalo hunts and local ranching within the region. Research objectives include understanding the past and regional heritage, determining who built the structures as well as their original intended use, and historic re-uses of the structures.

Change is Constant

By Deborah Bigness, Manager of Site Operations

Change is constant. At times, we plan for change, and then nurture it as it progresses. At other times, change comes suddenly, driven by unplanned events. The Landmark has seen its share of both in recent days.

Fire is an increasingly important tool in the proper management of the Landmark's 335 acres. It is nature's way of cleaning the prairie and reinvigorating its abundant plant life that in turn, nourishes so many of the native animal species. Native Americans understood this, and historically used intentional fires as a tool. Author Julie Courtwright, in her book *Prairie Fire, A Great Plains History*, notes that "Prairie fire is as fundamental to the Great Plains as the sun, soil, wind, grazers, and grass.

The prescribed burns at the Landmark have reduced the number of invasive species, making space for a greater abundance of the native species of the prairie environment. The changes wrought by fire take time to become visible and patience to observe (Figure 1).



Figure 1. Prescribed burns are used to reinvigorate the prairie.



Figure 2. A felled tree along the Archaeology Trail.

As Night Hikes and other evening events resume this spring, take a moment to notice how striking the Robert A. "Bob" Nash Interpretive Center now is in the evening twilight. Stephen Howard and the crew of the University's Electric Shop have upgraded the outside lights with the latest technology and the results are eye-catching (Figure 3)! The Landmark has benefitted from their assistance, and that of all of the campus departments that responded with support after the storm. The author and playwright George Bernard Shaw said that "progress is impossible without change." Whether originally planned or not, the recent changes at the Landmark are certainly progress.

The violent storm that occurred on the night of June 5th was one of those unplanned events that bring change. Acres of flooded areas, small rivers of rushing water, roads and driveways blocked by felled trees, structural damage to some of the buildings, and no telephones or power greeted the Landmark staff when they arrived the next morning (Figure 2). Because of the scope of the damage, the Landmark remained closed for several days until any potential danger to visitors from falling trees or debris was eliminated, and that everyone could safely access each of the trails. The immediate clean up took several weeks, and repairs and reconstruction are ongoing.



Figure 3. Bob Nash Interpretive Center after dark.

Giant Tortoise Adds to the Exotic Animals of Macy Locality 100

By John Moretti, Senior Crew Chief and Research Aide

The 2013 field season marked another summer of exciting discovery at the late Pleistocene Macy Locality 100 (Figure 1). This year represented the 5th consecutive season of annual excavations at the ancient locality in Garza County, Texas. Over these past several seasons, Lubbock Lake Landmark field crews accumulated evidence of the past environment and animal communities that existed at the southeastern edge of the Llano Estacado. The remains of a diverse array of animals recovered from Macy 100 were associated with radiocarbon dates between 12,190 and 10,730 yrs. B.P. During the 2013 field season, the field crew focused their efforts on the continued excavation of the main area as well as excavation of a new area containing an extinct giant tortoise.



Figure 1. Macy Locality 100 (foreground), with the tortoise excavation in the background.



Figure 2. The field crew straining to drag the tortoise plaster jacket out of its excavation.

Late summer 2012, portions of an extinct giant tortoise shell were discovered eroding out of a cut-bank exposed in a modern drainage channel, upslope from the main Macy excavation. The recovery of this tortoise became the primary objective of the work at Macy 100 this summer. The field crew removed overburden with shovels to reach the layer of sediment containing the tortoise remains (Figure 2). They then began the slow work of exposing the tortoise with wooden picks and brushes. The sediment containing the tortoise segments did not correlate to the sediments present in the main area. Therefore, the age of the

tortoise could not be immediately

assessed, yet some clues suggested a late Pleistocene age. Tortoises were present in North America for many millions of years and were common members of numerous past faunas. Several giant tortoise species were present throughout the Pleistocene. The giant species, of the genus *Hesperotestudo*, would have very much resembled the large and lumbering tortoises of the present-day Galapagos Islands. Like these modern cousins, the extinct species were truly enormous with shells 2-5+ feet in diameter. A segment of shell from the main excavation area of Macy 100 represented a giant tortoise species, as did a few shell segments at Lubbock Lake. While these segments demonstrated the existence of giant tortoises in the ancient grasslands of the Llano Estacado, they were not complete enough to allow for a species identification.

Continued on page 13

Therefore, last summer's discovery of additional, potentially late Pleistocene, tortoise material created the exciting potential for obtaining new clues to the identity of the giant tortoises of the Llano Estacado. In the field, tediously careful work uncovered several segments of tortoise shell, extending nearly three feet into the cut-bank from where the original segments were discovered. At first, just portions of shell were uncovered but as work progressed, one segment led to another, then another. As they curved around into a circle, it became clear that an entire giant tortoise shell, three-feet in diameter, was present. The appearance of the shell, as well as the layers of sediment around it, suggested that the specimen was roughly late Pleistocene in age. The shell largely was articulated, not scattered in pieces, and the presence of bones called dermal scutes, representing tortoise limb armor, indicated that portions of the skeleton of the tortoise may still lie within the preserved shell. The largely intact condition of this specimen made it a significant discovery from any period of antiquity, but its potential late Pleistocene age gave it added importance.

With excitement high, work began on removing the giant tortoise. Rather than removing the specimen in pieces, the shell was left encased in sediment and the whole package wrapped in multiple layers of burlap strips and 150lbs of heavy-duty, fiberglass-reinforced plaster. The result was an enormous, 3 1/2 foot wide, 800-1000 lb block of sediment and tortoise contained in a rigid-hard plaster jacket (Figure 3).

After hours of preparation, and waiting for days for a late summer storm system to clear, recovery of the plaster jacket finally was imminent. A steel plate was driven underneath the plaster jacket, and 8-10 members of the field crew struggled even to drag the massive jacket several feet to where it could be loaded into a small trailer pulled by an all-terrain vehicle (ATV). Once onto the trailer, the hardest work was over and the ATV delivered the jacket to the Landmark's pick-up truck, and the truck transported it to the Museum where it was unloaded using a small fork-lift.

Successfully collected, the behemoth jacket containing one of the most important tortoise specimens from the Southern High Plains awaits laboratory work that will stabilize and remove the fragile shell and bone from the jacket. Although by the end of the summer the identity of the tortoise species and its age remained unclear, the specimen and the sediment contained within the plaster jacket held the clues to answer both questions.

Abundantly clear, however, was another long and hot summer in the West Texas sun at Macy Locality 100 had culminated in yet another terrific example of the exotic animal life from this region's ancient past.



Figure 3. The giant tortoise safely loaded onto an ATV trailer for transport..

Stratigraphy at Whiskey Flats, a Late Holocene Bone Bed

By Keith SoRelle, Research Assistant

The Landmark's regional research team investigated Mustang Pond this past summer, a locality within the valley of Mustang Draw in southern Martin County, Texas. The Arena site, an extensive rim site, overlooked Mustang Pond. Exploration during the 2012 field season revealed a valley margin campsite now named Whiskey Flats. That exploration included a soil profile containing a buried soil (stable landscape), in-situ modern horse bones, and a pedestrian survey that found a muscle shell and a lithic. A continuous source of spring fed water throughout the late Quaternary at Mustang Pond made it a persistent place on the landscape for ancient peoples to historic settlers. Although this spring fed valley provided water to peoples for centuries, irrigation techniques implemented during the 1920s and 1930s led to the disappearance of this water source.

Several years of investigation at the associated Arena site has yielded artifacts that range in age from late Paleoindian to Historic (10,000-150 yrs BP) and a large campsite area with numerous hearths and lithic debitage exposed through aeolian erosion. Hearths in the campsite date primarily to the Ceramic and Protohistoric periods.

During the 2013 field season, a cross section of the Mustang Pond stratigraphy was exposed across the draw through trenching in order to understand the paleoenvironment of Whiskey Flats better (Figure 1). Interpretation of the stratigraphy can be made to form a basis for past climates and landscapes. Six trenches were excavated within the valley axis, with only three being fully exposed to either the maximum depth of the backhoe or the water table (whichever came first). The stratigraphy at the Lubbock Lake Landmark and other sites within the regional draw system were used as comparison.

Each of the stratigraphic units had a general known age because of the regional dating of the valley fill sequence. The valley fill stratigraphy at the Landmark provided the model and is composed of strata 1 to 5 with 1 being the oldest and deepest buried, and 5 the top sediment and youngest unit. One or several strata may be missing at a particular spot in a valley as a result of its location on the landscape that determines deposition or erosion from aeolian (wind) or alluvial (water) elements.

Excavation of trench 1 was dug to the limits of the backhoe; stratigraphic units 3, 4, and 5 were exposed. Bison and modern horse bones were recovered at the top of trench 1 in stratigraphic unit 5. Trench 2 excavation immediately uncovered bison bones (Figure 2). When this occurred, the backhoe stopped and moved down the line a couple meters to continue trenching. After moving down the line several times and continuing to encounter bone each time, the backhoe operator moved on to the location for trench 3. In trench 3, more bison bone was unearthed and all backhoe operations were called to a halt until later in the week. With the exposure of in-situ bison bones, excavation units were placed in trench 2 to remove the bone in order to continue trenching.



Figure 2. Bison bone bed in situ.

What originally was thought to be day or two job turned into a week-long intensive excavation of a potential bison processing station. Nine units were set in place and excavated down evenly to allow for removal of bone that spanned more than one unit. At the end, 10 casts, 11 pedestals, and a large amount of stable bone were collected consisting of bison, modern horse, and coyote. Modern horse in the bone bed was a great surprise as the Landmark is the only site on the Southern High Plains to contain butchered modern horse remains (also a processing station). This means that the Mustang Pond processing station is Protohistoric to early Historic in age and most likely represents Apache occupation.



Figure 1. A backhoe dug trench exposing the stratigraphy.

Dr. William Curry Holden's Daughter Makes Surprise Visit



Dr. Jane Holden Kelly (left), University of Calgary, Alberta (retired) and Dr. Eileen Johnson (right), Director of the Lubbock Lake Landmark reminisce during Archaeology in Action Family Day.

Dr. Jane Holden Kelly, University of Calgary, Alberta (retired) surprised Dr. Eileen Johnson, Director of the Lubbock Lake Landmark, during the events of Archaeology in Action Family Day in July. Jane is the daughter of Dr. William Curry Holden, the founding Director of the Museum of Texas Tech University (then known as the West Texas Museum) and discoverer of Lubbock Lake. Jane began her archaeological career excavating in the Sierra Blanco region of New Mexico in the 1950s and at Lubbock Lake in the early 1960s, representing the Museum. Still active in research, Jane has spent the majority of her long career investigating the Ceramic-age Jornada Mogollon culture in New Mexico and the transition from Archaic to Ceramic lifestyles and technology in northern Mexico.



243631 B15001 400
Box 43191
Lubbock, Texas 79409

NONPROFIT ORG
US POSTAGE
PAID
LUBBOCK, TX
PERMIT #719

