# La Vista de la rontera



Center for Big Bend Studies • Sul Ross State University • Volume 25 • Summer 2015

## Pinto Canyor Research

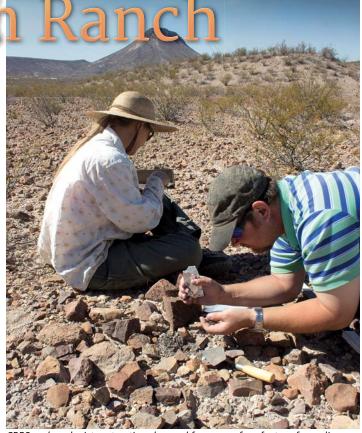
A primary anthropological theme addressed by the Trans-Pecos Archaeological Program (TAP) is behavioral variability across time and space in the greater Big Bend region. This central research issue is at the heart of recent CBBS efforts on the Pinto Canyon Ranch (PCR) in the Sierra Vieja and Chinati Mountains in Presidio County. The ever-growing number of Prehistoric, Protohistoric, Historic Indian, and Historic period archaeological sites (nearly 900 to date), coupled with archival research, is helping to provide the raw material for CBBS researchers working to understand diverse lifeways and the many intersections of culture and geography across the ranch and the broader study area.

A major milestone in PCR research is the ongoing campaign to build the **radiometric dataset**, now totaling 63 C<sup>14</sup> dates. Until recently, many of the carbon samples that have been analyzed in the course of excavation on the ranch returned relatively late

Above: Anthropomorphic design depicted on one of over 180 boulder petroglyphs in the PCR study area.



Prehistoric structural remnant at the Anillo Plata site. A charcoal sample from beneath one of the feature stones yielded a radiocarbon date of A.D. 1040–1220, which stretches the known timeframe for such wikiup-like structures in the study area.



CBBS archaeologists extracting charcoal from a surface feature for radiocarbon analysis.

dates—largely post A.D. 700. Recent changes in survey, testing, and sampling methodologies have focused on discovery of older archaeological deposits and, as a result, there are substantially more early (i.e., B.C.) dates in the PCR analysis. These include three Early Archaic dates between 6400 B.C. and 2700 B.C., and 13 dates covering portions of the Middle and Late Archaic periods between 2080 B.C. and A.D. 540. Such dates are more in line with the diverse temporally diagnostic artifact assemblage from the ranch where Archaic period dart points predominate.

Recent excavations at several sites that produced early dates are revealing exciting new information.



Charcoal samples prepared for dating.







Outside the National Archives i Washington, D.C.



Research room at the National Archiv in Washington, D.C.

records. Together, the images appear to represent a multicul-

tural iconographic expression that spans a yet-undefined range of time. Based on stylistic characteristics, many of the motifs seem clearly aboriginal, whereas the highly varied livestock brand and brand-like images may, in some instances, represent native mimicry of Mexican and/or Anglo brands. There is also some evidence that later peoples (Indian, Anglo, or mestizo) may have continued the petroglyph tradition. Even while the various stylistic themes persevered, the value systems within which the icons were produced likely changed over time with evolving social and cultural contexts. Spatial and attribute analyses, as well as historical record searches in Texas counties and northern Mexico municipios, are underway to shed light on this highly unique, regionally distinctive petroglyph assemblage.

Research conducted in U.S. military records at the National Archives in Washington, D.C. and the archives at Fort Davis National Historic Site complement the archaeological record by substantiating relatively late Historic Indian activity in the area. Perhaps as a result of the increased military and civilian presence at La Junta (present Presidio-Ojinaga area), Indian activity may have been shunted further into the hinterlands—likely one reason Captain Robert Smither of the 10<sup>th</sup> Cavalry referred to the Chinatis and Sierra Viejas as the "run-way" of the Indians. In fact, early military maps show prominent Indian trails traversing both Viejo Pass and Pinto Creek. Local pioneer William Russell, in particular, suffered numerous Indian attacks upon his ranches in the area. As late as March of 1880, Indians raided Russell's

(Continued on page 14)

Significantly, the majority of radiocarbon dates recovered from PCR fall within the latter end of the culture history timeline—the Late Prehistoric (A.D. 700–1535) to Protohistoric/Historic Indian (A.D. 1535-1880) periods. Considering the dramatic cultural interactions that took place during these periods, against the backdrop of new lifeways and social systems (typified by the advent of agriculture and localized sedentism), these dates are especially intriguing. Dramatic changes in aboriginal lifeways during this time—increased population densities and attendant intergroup violence and warfare—are largely inferred from archaeological evidence from the region and across the state.

The arrival of Spanish and Anglo cultures had significant impacts upon the health, population, social dynamics, mobility, and nearly every other cultural sphere among native peoples.

past year the ranch owner, ranch manager, and CBBS field personnel have discovered over 180 boulder petroglyphs of a distinctive style



localized distribution. These pecked basalt boulders display a variety of themes, including anthropomorphic figures, geometric patterns, and a range of designs that resemble livestock brands—several of which have been identified in local county

Boulder

petroglyph.

Big Bend National Park Project Report Update

The Big Bend National Park (BBNP) Project report is nearing final edits and will soon be submitted for review. The 800-plus-page report details findings from a monumental archaeological survey conducted by the CBBS under cooperative agreement with the National Park Service. Over the course of 10 years, nearly 62,000 acres were intensively surveyed in 58 separate survey blocks across the park. A total of 1,566 prehistoric and historic sites were documented, providing invaluable data that bear on a number of over-arching research avenues—notably the different kinds, densities, distribution patterns, and condition of cultural resources within the park. In addition to recording thousands of thermal features and artifacts commonly found across the region, the project also resulted in the discovery of cultural features previously unknown to science, including a new thermal feature type; a Middle Archaic dart point cache; and a variety of zoomorphic, anthropomorphic, and abstract geometric petroforms (rocks purposefully arranged on the ground). Project discoveries include a number of odd tool forms, exotic ceramics, and artifacts representing the full sweep of human presence in the region. In addition to detailing the project findings, the report provides the most comprehensive regional culture history and history of investigations yet assembled and discloses the fascinating results of the most systematic, quantifiable analysis of survey data yet assembled in the Big Bend. The project stands as the largest of its kind ever conducted in the region, if not the entire state, and promises to serve as a critical archaeological reference for years to come.

Crew members document historic graves







Prehistoric and Early Historic unglazed earthenware collected during the BBNP survey.



Recording a peak-top stone enclosure.



Crew member documents a stone redoubt near the Rattle snake Mountains.



# More Investigations

In conjunction with the Lipan Apache Tribe of Texas, the Presidio County Historical Commission, and the Texas Historical Commission (THC), the CBBS has helped to secure recognition and protection of one of the earliest historic cem-



Local preservationist Enrique Madrid examines one of four raised sarcophagi at the cemetery.

eteries in the region. El Cementerio del Barrio de los Lipanes, located within a residential neighborhood in Presidio, is believed to have originated in the Protohistoric or Early Historic period—a time when Lipan Apaches still camped along the outskirts of La Junta villages. The cemetery was brought to the attention of the CBBS by local preservationist Enrique Madrid and Lipan Apache tribal representative Oscar Rodriguez. Despite the fact that the property contains some 45 burials, it has no marker, no boundary fence, and—due to erosion and construction—is suffering from neglect. Preliminary research revealed the cemetery was registered with neither the county nor the state and had never been recorded archaeologically, essentially leaving it unprotected. To address these deficiencies, the CBBS registered the site as a cemetery with the THC and conducted a detailed recording, which allowed it to be added to the Texas Archeological Sites Atlas. In November of 2014, through consultation with state, county, and Lipan Apache representatives, the cemetery was designated a State Archeological Landmark (SAL) which provides it with additional protection. Through this partnership with both private and state interests, the CBBS is proud to announce this important site has finally received the recognition it deserves as a historically significant cemetery and an integral part of the



A fallen fence around two sarcophagi demonstrates the cemetery's degree of

# Lipan Cemetery to Receive State Recognition Cultural Resource Management Archaeology in Brewster County

In the fall of 2014, the CBBS conducted an archaeological survey for a proposed construction project east of Alpine. Personnel surveyed approximately 720 acres resulting in the discovery and documentation of 24 archaeological sites along with 31 isolated occurrences and 6 lithic scatters. Twenty-two of the sites are prehistoric camps, one is a pair of probable historic rock features, and one is a complex of historic ranching features. The diversity of temporally diagnostic projectile points (including one Late Paleoindian and a number of Early Archaic specimens) and juxtaposition of sites—most of which contain plant-food processing features—in diverse geological settings provide new insights into archaeological patterns in a rarely studied portion of the TAP research area.

-Samuel S. Cason

### **Bison Remains along Independence**

Creek

The CBBS continues its partnership with the Nature Conservancy through investigations at the Logan's Terrace site on the Conservancy's Independence Creek Preserve (ICP) in the far eastern reaches of the TAP study area. In 2014, small-scale test-



CBBS archaeologist Richard Walter exposes bison bones along Independence Creek while local residents Logan and Lindy Wrinkle look on.

ing was carried out to determine the context and disposition of large mammal bones (Bison sp.) eroding from the banks of Independence Creek. During an earlier visit to the site, former CBBS director Bob Mallouf believed that the bones were eroding from a soil of considerable antiquity. While excavating three test trenches, CBBS archaeologists recovered two small pieces of charcoal from the bone bed, which were dated through funding generously provided by an ICP donor. Although both samples provided relatively recent radiocarbon dates (centered around A.D. 870), through close scrutiny of all available data, it appears these pieces of charcoal were either from a more recent occupation or from a natural fire and had "migrated" down into the deeper strata via bioturbation (e.g., rodents or root growth) or soil mechanics (e.g., cracks in expanding-contracting clay). Several

# across the Big Bend

pieces of bone were submitted for collagen AMS dating, but their preservation was insufficient for successful analysis. All evidence

to date indicate that the bones are considerably older than indicated in the charcoal dates. Other questions also remain, notably whether their presence is related to human hunting or if they died from natural causes. In hope of answering these questions, further excavation is scheduled at the site. -Samuel S. Cason

Texas Historical Commission Archeological Steward Evans Turpin inspects bison bone documentation.

# La Junta Heritage Association Restoration Project

In December of 2014, CBBS archaeologist David Keller and CBBS researcher Mattie Matthaei, constructed emergency shoring and conducted an assessment for a deteriorating historic adobe structure near the legendary confluence of the Río Conchos and the



Emergency shoring (center) and protective covering (corrugated tin, right) were installed to stabilize the structure and reduce further impacts. The wall collapse (below) represents an advanced stage of this historic adobe structure's deterioration.

Rio Grande. The property, previously the home of local artist A. Kelly Pruitt, is now managed by La Junta Heritage Association—a nonprofit based out of Presidio dedicated to preserving Pruitt's vision and legacy. In an effort to restore vitality to the Presidio Valley, the organization focuses on ecological conservation, sustainable agriculture, and cultural preservation. One of their pressing concerns is the ongoing impacts to several historic adobe structures on the property. During a meeting of the Board of Directors, Keller and Matthaei built a series of buttresses to brace cracked *vigas* (ceiling beams) and protected an exposed corner of the building from further erosion. In addition, they documented the structure with sketches and photographs and

produced a condition assessment and work plan for future preservation efforts. With the assistance of the association, we hope that funds can be raised that will allow for a full restoration of this and other historic structures on the site. In addition to furthering the association's objective to create a central office as well as an artist-in-residence facility, the project aims to preserve a key example of the important architectural history of the borderlands.

—David W. Keller



Unique mortared cobble façade on the "residence" that once housed migrant farm workers.

# **Archaeological Field School Reporting**

Over the last year, CBBS staff archaeologist Richard Walter completed the long-awaited report on the 2000 Texas Archeological Society field school that took place along Alamito Creek on the Marfa Plain. To be published in the Bulletin of the Texas Archeological Society/BTAS, this report documents the CBBS's first substantive archaeological investigation in this poorly documented portion of Presidio County. Field school participants recorded 23 new sites and performed test excavations at 5 sites, including the San Esteban Rockshelter (41PS20), a site reported initially in 1909 during the first archaeological expedition to the region by Charles Peabody. Highlights include historic remains associated with construction of the Kansas City, Mexico and Orient Railroad and sites associated with the Chihuahua Trail. Additionally, one Folsom period artifact (ca. 10,500 B.C.) was discovered, along with a variety of prehistoric features including middens, hearth fields, toolstone quarries, and rock rings that formed aboriginal house foundations. Part of the work performed during the field school constituted CBBS Cultural Resources Management Coordinator Sam Cason's Master's thesis at Colorado State University (Archeological Investigations at Perdiz Creek) which was published in BTAS in 2005. Another portion of the study area was documented by Brenda B. Whorton in an article titled The Davis Herrera Ranch Site (41PS622) Presidio County, Texas, which was published in the Journal of Big Bend Studies in 2007.

—Samuel S. Cason

The CBBS offers sincere thanks to the many foundations and individuals who have provided support to the organization over the years. While general thanks have been extended to all CBBS supporters in the past three newsletters, only the larger contributors were named in each of those publications. To provide heartfelt thanks to all, this year we list all contributors since 2009 based on a cumulative total.

### **Gold Donor** (\$10,000 and above):

Brown Foundation, Inc., of Houston, The Bryan, J.P. City of Alpine, Texas Coypu Foundation Cynthia and George Mitchell Foundation Duncan, Cam and Susan Duncan, Genevieve Lykes Fort, John F., III Joan and Herb Kelleher Foundation Nau, John L., III Permian Basin Area Foundation Richardson, Roxana **Semmes Foundation** Steele, Thad Summerlee Foundation, The Wayne and Jo Ann Moore Charitable Foundation

#### **Silver Donor** (\$5,000-\$9,999):

Alfred S. Gage Foundation Canon, George Dreiss, Meredith and Brown, David O. Duncan, Edgar and Linda Gray, Melanie Jeffrey, Mozelle Lawrence, Kim and Annchen Mills, Homer Negley, Leslie Orange County Community Foundation Roberts, Benny and Gena Wall, Robert and Dzubay, Toni

#### **Bronze Donor** (\$1,000-\$4,999):

Ashmun, Ann Schweppe Becker, Jed Blanton, Ira Brewster Co. Tourism Council Bush, President George and Laura

Carrington, William and Caroline Carter, Brad Century Trailer Company Cloud, Andy and Mary Cockrum, David and Sally ConocoPhillips Crum, Judge Tom and Mary Dimmet, Genevieve Lykes Douglas, Deborah and Fisher, Thomas Elfring, Steve Fannin, David Foster, William Greater Kansas City Community Foundation Harte, Houston Hudspeth, Claude

Korus, Iris Love, Ben Lowenfield, Sandra Main, Julia Mallouf, Robert J. Miller, Harry Ohl, Andrea Olsen, Paul and Kathleen Peterson, G.E. Pete Pospisil, JoAnn Pulitzer, Emily Rauh Roberts, J. Travis Rogers, Elizabeth Sain, Bill Sibley, Hiram and Liz Thomas, Ralph Turner, Norman West Texas National Bank Whorton, Brenda Wright, Bill Wulfkuhle, Virginia Yokubaitis, R.B.

#### Contributor (\$500-\$999):

Barton, Scott Clements Foundation Courson, Kirk Dian Graves Owen Foundation Durham, Kenneth Ely, Glen ExxonMobile Foundation Fowler, Michael and Cynthia Frederick, Charles Hill, Jean Johnson, Sis

### **Memorial Gifts** The Center would also like to acknowledge recent gifts in memory of:



Clemente



John N. Alvarado Jr. Blackman IV



Frank Briscoe



Cloud Jr.



Robert E.



Donnell



William C. Ellen Abbott Kelley



R.C. Oliver

### Ellen Sue Turner Memorial Fund



John B. Rayburn



Donald Reaser



Ellen Sue Turner



Darren Willis Wright

A memorial fund in honor of Ellen Sue Turner was established at the CBBS in January of 2014. Ellen Sue Turner, who passed away several years ago, made many contributions to Texas archaeology, including tireless research of the many projectile point types (dart and arrow points) in the state. The Ellen Sue Turner Memorial Fund supported the salaries of two very appreciative summer interns in 2014—Kiko Morlock and John Jorgensen. This fund is yet another way that Ellen Sue's name and legacy can contribute to the study of Texas archaeology. Please go to our website (http://cbbs.sulross.edu) to learn more about the fund or to donate. You can also use the CBBS store on page 15 of this newsletter to make your donation. Please call us at 432-837-8179 if you have any questions.

Leggett, Robert and Dee
Mitchell, George P.
Nemitz, Randall and Barbara
O Live Fund
Russell, Ruth Bowman
Selz Foundation, The
Spitzmiller, Olive
Tejon Exploration Company
Thomas, Robert
Tierra Grande Chapter, Texas
Master Naturalists
Tusch, Robert and Dee
Webb, William and Mary
Williams, Trudy Malek

### Sponsor (\$100-\$499):

Almaráz, Félix, Jr., Andrews, Dell Barnett, John Beard, Judge Val Black, Steve Bork, Albert Bowman, McLean Burke, Horace Burleson, Mickey Burns, Douglas Calaway, Malcolm and Anne Caldwell, Clifton and Shirley Caldwell, Neil Calgaard, Ronald and Gene Calhoun, Frank Carlson, Paul and Ellen Chambers, Clint Chambers, Johnnie Davis, Helen Eggleston, Bill and Peggy Elkins, Leslie Ersch, William Ferrante, Vince Foley, Patrick Fowlkes, John Fort Davis National Historic Site French, Jr., L.R. Galloway, Larry

Fort Davis National Historic Site
French, Jr., L.R.
Galloway, Larry
Gauss, Joe and April
Gorman, Frank
Green, Shirley
Grissom, Coleen
Hardy-Pittman, Jean
Harrell, Curt and Helen
Hendricks, Rick
Hendrix, Tres
Higgins, Larry
Hradecky, James and Jami
Hubbard, William B.
Hughes, Dan A.
Hunter, Fred
Jackson, Elizabeth
Jameson, Bryan

Jarrard, Robert

Johnson, Jerry Jones, Ralph Juarez, Nicandro Kelleher, Joan Kelly, Tynan Kendall, R.T. and Sallie Kenmotsu, Nancy Korbell, John and Bonnie LaForge, Ralph and Kay Lamkin, A.W. Lehman, Kim Lindholm, Ulric and Laura Lujan, Juan Lynch, Sandy Marie, Ruth McCoy, Brian McGrath, Beaty and Pierce McKnight, Lynda Morgan, R. Vic and Mary Jane Morgan, Zane Murrell, Jim and Mary Lynn Nesbitt, Geraldine Neville, Joyce O'Connor, Louise O'Connor, Ralph Powell, Richard and Barbara Reed, Ona B. Roberts, Ike Roberts, Tim and Little, Karen Russell, Barbara and Paul Sanders, Ron and D.J. Smith, Woody and Janie Stacy, Dennis Stephens, Jesse Stone, R.L. Stultz, Alice Sullivan, Jerry

Turpin, Evans Weedin, Jim and Teresa Wright, Fred and Cherry Wright, Richard Yturria, Mary

## Friends (Less Than \$100):

Alpine's Gallery Night, Inc. Anthony, Allen Arnold, David N. Aulbach, Louis Bales, Clementine Barkley, Vicki Bones, Mary Bruner, Thomas Burling, Charles Busby, Charles and Jennifer Carrico, James and Virginia Case, Jimmy Casey, Stephen Cole, Esther Ersch, Randy Fallwell, Kenneth Few, Joan Fisher, Janet G.E. Global Paint & Polymers employees Gardner, Robert and Wilminor Garza, Eugenio Gesick, Edward John Glaspy, Bill and Sugar Hancock, Richard Hickerson, Nancy Houston Livestock Show and Rodeo

Keck, Jesse Kelley, Elizabeth Korbell, Bonnie Bowman Law, Ken Merrill, Charles Mitchell, Mary B. Mulvihill, Ceci Miles Nettles, Linda Pattillo, Ronnie Pfiester, Jr., R. Edward Pullen, Bob and Anne Quiett, Ellis and Susan Rogers, Waid and Mary Rogers, Rose Mary Russell, Stephen R. Schneider, David and Doris Schultz, Gerald Schwartz, Stuart R. Scism, Victoria Seals, Jack Shannon, Mike Shelburne, Orville Shipman, Leo and Karin Skinner, Joe Sonnen, Charles Stallings, W.B. Stickney, Teddy Lou Taylor, Thomas B. Tout, Deborah Townsend, Platt Wakefield, Walter Weber, Edgar Williams, Douglas Worsham, Murray Worthington, Richard and Patricia



Hoyt, Cathryn

# TAP in Green Valley on the

### **Update on the Genevieve Lykes Duncan Site Investigation**

Over the last year, the Center's block excavation at the Genevieve Lykes Duncan (GLD) site (consisting of some 24 square-meter excavation units) has continued to provide significant new data about Late Paleoindian lifeways in the Big Bend. Several new features were exposed and excavation of 9,000-year-old Feature 2 (F-2) revealed novel behavioral patterns possibly unique to the period. In addition, through collaboration with Dr. Arlene Rosen of The University of Texas at Austin, exciting new information bearing on Paleoindian lifeways and their environment are coming to light.

As our excavation through the exceptionally hard Late Paleoindian deposits proceeded, we encountered occasional pieces of fire-cracked rock (FCR) that mark or approximate old living surfaces. Typically these fractured stones were isolates, but in two separate instances, small clusters or accumulations of FCR were uncovered. Significantly, both of these features (F-21 and F-23) are in close proximity and at elevations similar to the site's 11,000-year-old oven-like appliance (F-1). Since the stone types represented in each are nearly identical to those in F-1, we are interpreting these clusters as throw-out piles related to its multiple uses and rejuvenation.

The excavation of F-2, a small hearth/oven, revealed an unusual and unexpected find. Remains indicate that while the coals were still hot, the hearth was partially covered with a "cap" of clay sediment. The feature contains moderately dense FCR directly overlying a thick charcoal layer, with the burned clay (up to several centimeters thick) covering all but upper portions of most stones. This intriguing behavior suggests that either the cap

> was somehow related function (e.g., a used to parch temperature), simply an effort to coals to reduce after its use. In to determine a number of samples were from it

Samples from F-2 the site are currently for phytoliths and by Dr. Arlene Rosen. ings have revealed

and other areas of being analyzed starch grains Preliminary findthe presence of

to the feature's

o r

cooking surface

seeds at low

represents

smother the

fire danger

an attempt

its function,

sediment

collected

analysis.

that

similar antiquity in comparable environmental settings (i.e., ecotones at the juncture of foothills and lowlands), her expertise is particularly applicable. We

> to the project will significantly broaden research efforts at the

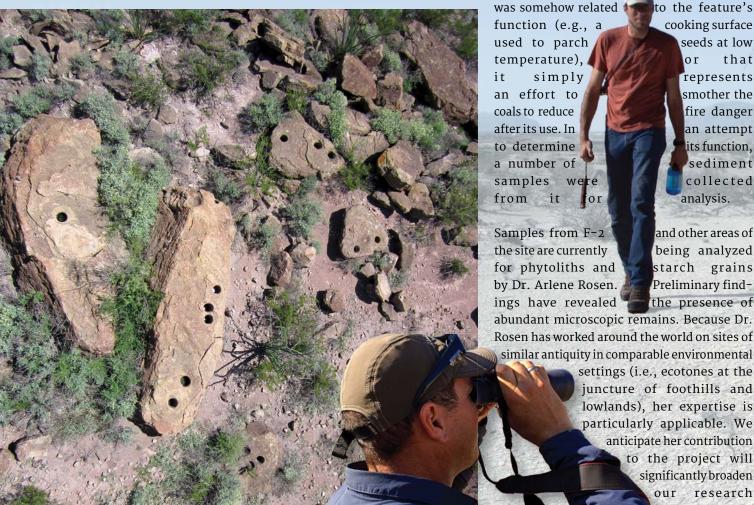
anticipate her contribution

providing information

on plant

GLD site by

Dr. Chet Walker watches a drone fl over the Charles Burr site.



Aerial image of the Charles Burr site showing mortar holes.

# 02 Ranch

remains within or adjacent to the various features—potential foodstuffs or materials related to processing activities (e.g., oven-packing materials)—that will bear on critical research avenues dealing with subsistence and paleoenvironmental reconstruction.

As the CBBS's initial block excavation at GLD winds down, it has become apparent that what makes the site so unusual and important is the many intact features it contains. Because these features and their contents are so well preserved, they provide the key to gaining a better understanding of Late Paleoindian behaviors at the site and across the region. Unfortunately, sheetwash and overbank flooding have compromised the spatial integrity of stone tools and other debris on the earliest living surfaces. As a result, information on artifact-feature associations, toolkits, and lithic technologies of the site's early occupants will be much less revealing. However, we are excited to begin excavation of F-10, what appears to be a well-preserved ca. 10,600-year-old feature. After this excavation is complete, an exploratory unit will sample deposits below F-1 to search for even earlier occupations at the site. Given the richness of our findings at the GLD site to date, we are hopeful of even greater things to come.

-William A. Cloud

## Other Investigations in Green Valley

As part of an ongoing collaboration, archaeologist and imagery specialist **Mark Willis** visited the 02 Ranch again in 2014 to conduct aerial photography and mapping of the **Charles Burr** site—a multi-component campsite that contains a variety of aboriginal

burned rock features, rock art, prehistoric stone enclosures, as well as numerous mortar holes, middens, and artifact scatters. Low altitude flyovers with an automated drone provided detailed images of features and landforms in addition to elevation data which will allow us to build contour maps and three-dimensional models of the site. As usual, Mark's work is eye-opening, because it reveals clustered archaeological features that help in delineating discrete occupational episodes at the site. Importantly, his imagery provides unique perspectives of archaeological phenomenon over large areas that are typically only viewed from ground level.

Archaeologist and geophysical scientist Dr. Chet Walker also revisited the 02 Ranch recently to shed light on Green Valley archaeology from the opposite end of the spectrum—below the ground. Using ground penetrating radar, Dr. Walker conducted a survey of the **Perdiz Trail** site—an intact Late Prehistoric period

Above: Drone aircraft used for aerial photos. Above left: David Yelacic stomping through Green Valley. campsite containing numerous Perdiz arrow points and other stone tools and debris evincing blade technology. The resulting analysis revealed a number of shallowly buried anomalies across the site (subsurface aberrations shown in the resulting radar images). It is these possible archaeological features the CBBS will target for the 2015 excavation season.

The Swallow site on the 02 Ranch was another focus of recent

field research. Representative of a site type found across the Big Bend region—aboriginal campsites situated amidst boulder shelters—the site was the focus of several detailed recording efforts by the CBBS in 2014. Large boulders are natural features long favored by native inhabitants because of the ready shelter they offered from the elements (especially the ever-present sun and wind), and often because they provided a suitable "canvas" for rock art. Such was the case at the Swallow site where numerous occupations occurred during which rock imagery was placed on several vertical boulder faces. Side-by-side boulders at the Swallow site host numerous small ground facets (called cupules) interspersed amongst abstract petroglyphs, including at least one vulva-like motif suggestive of fertility symbolism. Cupules, abstract petroglyphs, and vulva designs are found scattered across the Trans-Pecos and around the world, though all of these are rare or few in number on the 02 Ranch. Other features at the site include the remnants of stone cooking appliances (earth ovens and hearths), dense ashy middens, and alignments of stone that served as architectural elements (i.e., stone enclosures).

Elsewhere in Green Valley, the CBBS had the opportunity in 2014 to expand our exploration of the **02** Ranch on horseback with the help of SRSU graduate Todd Cantu. For several days, Todd provided outfitter expertise, several horses, and tack for a small team of archaeologists as they inspected the southern portion of

the ranch along drainages that had not been previously scrutinized for archaeological sites. Twenty-one new sites were recorded as a result of the reconnaissance,

(Continued on page 14)

O2 Ranch family members Cam and Genny Duncan investigate a structural pole support at the Swallow site. Inset shows close-up of petroglyphs at the site.

la Vista de la Frontera

# Guns of the Big Bend how did he obtain it? These are important details that help archaeologists and historians reconstruct the warrier's lifeway.

While ethnohistorical documentation and rock art reveal that historic Indians in the Big Bend carried weapons such as guns, bows and arrows, knives, hatchets, and lances, what do we really know about their preferences and sources for these weapons? Take Indian trade guns, for instance.

Matchlock firearms were brought to America by the first explorers, and while some of these guns fell into the hands of the Indians, it was the introduction of the flintlock musket between A.D. 1620 and 1635 that spurred an active trade in guns

between Europeans and Indians. By the 1700s, the Indian trade gun, a weapon manufactured in Europe specifically for trade to the Indians, had become an important economic factor in North America, with much of the heaviest trading occurring between 1770 and 1860. Trade guns, primarily of English, French, and Dutch manufacture, were filtering into the Southwest as part of the trade in furs, hides, and horses across the Plains. The Spanish, who were more interested in Indian laborers and their conversion to Christianity than in commerce, were understandably less inclined toward trade in guns with the Indians.

Although we can readily imagine a mounted Jumano, Apache, or Comanche warrior picking his way along a rocky desert trail in the Big Bend, our details concerning the weapons he might be carrying tend to be fuzzy at best, or seemingly lost to time. What kind of gun is he carrying, how old is it, who made it, and



Pictograph of person with flintlock musket. Meyers Spring, Terrell County, Texas.

construct the warrior's lifeway and, by extension, the lifeways of his culture. It is details, often laboriously obtained, that are the bread and butter of archaeological and historical inquiry.

In the case of guns, the details lie in the artifacts themselves. Unfortunately, discoveries of Indian firearms in archaeological contexts are rare. And even

when found in archaeological sites, wooden stocks are typically disintegrated and the remaining metal components—usually iron—tend to be fragmentary, deteriorated (rusted), or modified to the degree that analysis may be fraught with problems.

This writer is aware of four discoveries of Indian trade guns from archaeological sites of the Big Bend—two of which have been documented scientifically. These two retain attributes that allow us to infer their type, approximate age, and country of origin. Interestingly, both of these guns are attributable to a single type of flintlock trade gun—but at staggered periods in history. The oldest of these is from the Sierra Vieja in Presidio County and consists of a .58 caliber, 46" long smoothbore iron barrel with octagonal breech, brass buttplate, and brass trigger guard. Diagnostic attributes of this weapon indicate that it is an early (1750-1780), English-made, Northwest Indian trade gun, easily the most popular smoothbore

trade musket of the West.

The second gun, also a Northwest flintlock, is virtually complete with regard to its metal components. Found at a site on Terlingua Ranch in Brewster County, the gun consists of an iron barrel with octagonal breech, iron and brass trigger mechanism, iron lock, brass sideplate, iron trigger guard, and brass buttplate. It is a 36" long, .50 caliber smoothbore with octagonal breech, complete cock and lock, and fragmentary brass "serpent" sideplate—the latter being a trademark of this type of gun



Fragmented serpent sideplate from a Northwest trade gun. James M. Davis Collection.

and considered highly desirable by the Indians. Still firmly in place in the upper and lower jaws of the cock is a thin, well-made, amber-colored French gun flint. Unlike the earlier English gun described above, this flintlock is an American copy (Barnett style) of the Northwest gun, in this case probably manufactured sometime between 1820 and 1850.

The Northwest trade gun was made simple and uncomplicated—probably one of the reasons for its success. It had an oversize trigger guard that allowed for use with gloves or a two-finger trigger pull, the latter sometimes preferred by Indians when shooting from horseback. When the flintlock mechanisms or other parts became broken beyond repair, the Indians disassembled them and used the parts for other purposes. For instance, barrels might be segmented and used for tent pegs and hide fleshers, while brass buttplates were good source material for making ornaments and other items. While trappers, settlers, and most hunters probably recognized the versatility of the simple and inexpensive Northwest trade gun, it was specifically designed by Europeans for the Native Americans of North America and was apparently a notable weapon among horse nomads in the Big Bend.

-Robert J. Mallouf

#### References

Caldwell, Warren W. and others 1982 Indian Trade Guns. Pioneer Press, Union City, Tennessee.

Eddins, O. Ned

n.d. The Northwest Indian
Trade Gun. http://www.
thefurtrapper.com/trade\_
guns.htm

Mallouf, Robert J.

n.d. Notes Concerning a
Northwest Indian Trade
Gun and Other Metal Artfacts from Terlingua
Ranch, Brewster County,
Texas. Center for Big Bend
Studies file document,
March 2015.



Breech and trigger mechanism. Northwest trade gun, Terlingua Ranch.



Lock with attached serpent sideplate. Northwest trade gun, Terlingua Ranch.



Trigger guard with large bow. Northwest trade gun. Terlingua Ranch.

Exploring the Sierra Viejas with Jon Kalb

Jon Kalb, retired research paleontologist with the Vertebrate Paleontological Laboratory at The University of Texas at Austin, has been collecting fossils in the Sierra Vieja lowlands for more than a decade. A man with a notable past, he helped assemble the team that went on to discover the 3.3 million-year-old Lucy skeleton in the African Afar. Because of its remoteness and geological similarities, Kalb became interested in the highly faulted Sierra Vieja region that has been a mecca for paleontologists since the 1930s and that helped form the Cenozoic chronology of North America.

Over the last year, the CBBS has teamed up with Kalb and his retinue on several expeditions into these remote and unpopulated hinterlands. Over the course of five field excursions, CBBS archaeologists Sam Cason and David Keller documented 27 previously unrecorded prehistoric and historic sites including open camps, prehistoric food processing facilities, and toolstone quarries in addition to a pictograph-bearing rockshelter, a peak-top stone enclosure, and a Mexican Revolution-era cavalry camp.



Jon Kalb trailed by his crew in Buckshot Canyon.

In examining these sites, a number of patterns were observed that are rare or unknown in other parts of the Big Bend. One is a unique behavioral expression seen at several food processing sites where ring middens contain discrete piles of burned rock, possibly representing separate episodes from the same feature or, alternatively, separate thermal features clustered around common activity pattern of prehistoric area. Another is a localized lithic quarrying centered "blisters"—bulging bedrock grained rhyolite composed of Buckshot ignimbrite. In addition to these prehistoric sites, Camp Evetts-Cavalry camp in the Sierra Vieja country Mexican Revolution—was mapped and for the first time, shedding new light on this forgotten piece of local history.

Accompanying legendary Kalb and his crew in search of ancient fossils and unique archaeological sites among the brilliantly banded badlands would be a newsworthy endeavor in itself. But the effort has also brought new archaeological findings to light and extends the CBBS's reach—long active in the southern portion of the range—into the rugged northern stretches of the stunning Sierra Vieja lowlands.

—David W. Keller

piles of burned rock, cleanout

CAMP EVETTS

Presidio County, Texas

SITE MAP

Acommon activity
attern of prehistoric
around volcanic
exposures of finemetamorphosed
documenting
the main U.S.
during the
recorded

Serew in
Decological

Metal artifacts from Camp Evetts and a map of the site.

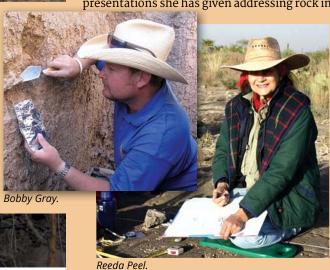
# Personnel

Several significant personnel changes to the CBBS research team were made over the last year. First, we are happy to be joined by John Jorgensen, a Sul Ross State University undergraduate and CBBS work-study student who has contributed to several recent survey and excavation projects. Our many thanks go out to John for his hard work, dedication, and significant discoveries made while with the CBBS. Second, Kendra Luedecke DuBois, a Sul Ross graduate and attendee of the 2002 SRSU/CBBS archaeological field school, has rejoined our team in a part-time capacity as a laboratory technician and coordinator. Following her graduation in 2003, this homegrown archaeologist served as laboratory manager for a consulting firm in Austin (TRC Environmental), and we are happy to have her back at the CBBS.

John Jorgensen excavating at the GLD site.

Robert "Bobby" Gray, after having served as a full-time CBBS archaeologist for roughly 10 years, has taken another position closer to his home in Fort Davis. Fortunately, Bobby maintains strong archaeological research interests and will continue to work with the CBBS on a part-time basis, sharing his many skills that contribute to our efforts. In addition, Reeda Peel, CBBS Rock Art Coordinator since 2008, retired at the end of 2014. Reeda has been a longtime contributor to CBBS investigations (spanning ca. 15 years), and her considerable experience and expertise is evident in the variety of publications, technical illustrations, and array of presentations she has given addressing rock imagery in the Trans-

> Pecos. Reeda left an indelible artist's stroke on CBBS projects and was instrumental in the development of the eastern Trans-Pecos rock art database currently under construction. We wish Reeda a happy, well-deserved retirement!



Looking northward across the Purple Basin to El Pelon.





La Vista de la Frontera is the annual newsletter of the Center for Big Bend Studies of Sul Ross State University. Address correspondence to the Editor, Center for Big Bend Studies, Box C-71, Alpine, TX 79832, or cbbs@sulross.edu.

Editing by William A. Cloud and Susan Chisholm. Graphic design by Letitia Wetterauer.

#### **CBBS Advisory Council**

Chairman: Tom Crum, Granbury Director: William A. Cloud, Alpine

Félix D. Almaráz Ir. Rick Hendricks San Antonio Santa Fe Jed Becker Jerry Johnson El Paso Alpine

J. P. Bryan John Klingemann Houston San Angelo Paul Carlson Ben Love

Ransom Canyon Marathon Ken Durham John L. Nau, III Houston

Alpine David Fannin Marfa

Iohn Fowlkes Marfa

Pete P. Gallego Alpine

William Wright Abilene

> Ex Officio from SRSU, Alpine:

Bill Kibler Melleta Bell Jim D. Case James W. Downing Liz Jackson Mark S. Saka

Honorary Members:

Lonn Taylor William C. Foster Rubén Osorio Zuñiga Neil Caldwell Claude B. Hudspeth

Pinto Canyon Ranch Research, continued from page 2.

PCR owner Jeff Fort stands behind a newly discovered boulder petroglyph.

Ranch at Ruidosa, killing one worker and kidnapping a young boy before disappearing into the Chinati Mountains. Despite being pursued, they were never caught.

The Late Prehistoric and Historic Indian periods were times of rapid cultural change in the Big Bend and across the American Southwest. But on the PCR, these periods may hold special significance considering the area's unique geological, hydrological, and geopolitical distinctiveness—one that arguably extends into both the prehistoric and historic cultural record. As such, Pinto Canyon and the southern Sierra Viejas represent a special stage for both ancient and modern plays of intersecting culture.

> —Samuel S. Cason and David W. Keller

#### **Texas State University System Board of Regents**

J. Travis Roberts Jr.

David G. Rogers

J. Tillapaugh

Marathon

Alpine

Odessa

Dr. Jaime R. Garza Chairman San Antonio

Ms. Rossanna Salazar Vice Chairman

Mr. Charlie Amato

Austin

San Antonio

Mr. Kevin J. Lilly Houston

Mr. Ron Mitchell

Horseshoe Bay

Mr. David Montagne Beaumont

Mr. Vernon Reaser, III Bellaire

Mr. William F. Scott

Nederland

Ms. Donna N. Williams Arlington

Ms. Anna Sandoval Student Regent Alpine

Dr. Brian McCall Chancellor Austin

#### Mission

The Center for Big Bend Studies fosters interdisciplinary scholarship of the diverse prehistoric, historic, and modern cultures of the borderlands region of the United States and Mexico, with emphasis on the area encompassed by Trans-Pecos Texas and north-central Mexico. The Center is committed to the recovery, protection, and sharing of this region's rich cultural legacy through dynamic programs involving research, education, public outreach, and publication.

> Volume 25, Summer 2015 cbbs.sulross.edu cbbs@sulross.edu

TAP in Green Valley on the 02 Ranch, continued from page 9.

including buried prehistoric thermal features, surface hearths, artifact scatters, and middens. We thank Todd for his contributions to our research and, considering the success of this initial effort, are looking for additional opportunities to employ such methodology.

Texas State University (TSU) graduate student and CBBS research associate David Yelacic expanded his geoarchaeological investigation of Green Valley in 2014, building on findings from his previous forays and those of mentor Charles A. Frederick, as well as the legendary 1939-1940 collaboration between geologists Claude C. Albritton and Kirk Bryan, and archaeologists J. Charles Kelley, T.N. Campbell, and Donald J. Lehmer. Similar to the late-1930s interdisciplinary team, Yelacic's goals are to identify sequences of soil stratigraphy that



SRSU graduate Todd Cantu.

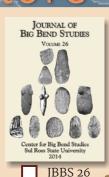
demonstrate patterns of landscape formation (and degradation) in various settings across Green Valley and correlate those soil strata with archaeological materials and time periods. Through such correlations, we hope to better understand the relationship between landforms and human behavior, as well as how natural processes affected archaeological sites after they were abandoned. Ultimately, results of David's research will provide valuable contextual information to complement ongoing archaeological research in Green Valley.

-Samuel S. Cason

### Journal 26 Now Available

Some of our recent journals are listed here. The abstracts can be read on our website, cbbs.sulross.edu.

\$15 each (plus \$3 shipping for the first book and 50¢ for each additional book)











### **CBBS Caps**

Brushed washed dark khaki, 100% cotton twill cap embroidered with the CBBS logo. Casual, unstructured design, 6 panels, pre-curved visor, adjustable Velcro closure. One size fits most.

**\$15 each** (plus \$1 shipping per cap) Qty\_

**CBBS Challenger Grande Mug** 

These 14 oz. ceramic mugs have a classic simple style with a bright white glossy finish and large comfortable handle. The mugs are dishwasher safe and have the CBBS logo on two sides.

**\$15 each** (plus \$1 shipping per mug) Qty\_

### **CBBS T-Shirts**

Featuring rock art from the Big Bend's Tablecloth Rockshelter, the CBBS t-shirts were designed by our former graphic illustrator, Avram Dumitrescu, and are produced in Alpine, Texas. Available in green or khaki, adult sizes S, M, L, XL, XXL and youth sizes S, M, and L.

•		-		
T-shirt #1	Size	Color:	khaki	green
T-shirt #2	Size	Color:	khaki	green
T-shirt #3	Size	Color:	khaki	green

**\$15 each** (plus \$1 shipping per t-shirt)



### Membership Levels (June 1-May 31 membership year)

Studen (first year	t \$20 Individual \$35	Family \$50	Institutional \$50	Lifetime \$1,000		
Donati	ons					
In addition to my membership, I support the work of the Center for Big Bend Studies with my tax-deductible contribution to the FRIENDS OF THE CENTER FOR BIG BEND STUDIES.						
\$	GOLD Donor <b>*</b> (\$10,000 a	and above) \$	CONTRIBUTOR (\$	500-\$999)		
\$	SILVER Donor* (\$5,000-	-\$9,999) \$	SPONSOR (\$100-5	\$499)		

\$ \_\_\_\_\_BRONZE Donor\* (\$1,000-\$4,999) \*Donation of \$1,000 or more gives Donation to the Ellen Sue Turner Memorial Fund. you a Lifetime Membership

\$ FRIEND (\$5-\$99)



**CBBS SRSU** Box C-71 Alpine, TX 79832



Order by Phone M-F, 8 to 5 (432) 837-8179



cbbs.sulross.edu/ store.php

### **Total Order**

Merchandise total Donation \_\_\_ Membership Total Pay by Check Visa/MasterCard Signature \_\_\_\_\_ \_\_\_\_\_ Exp. Date \_\_\_\_\_ Name as it appears on card \_\_\_\_\_ \_\_\_\_\_\_ Phone \_\_\_\_\_ Card Number \_\_ Shipping Address \_\_\_\_\_ \_\_\_\_\_\_ State \_\_\_\_\_\_ Zip Code \_\_\_\_\_

Order merchandise, pay membership, or donate online at: cbbs.sulross.edu/store.php



Center for Big Bend Studies Sul Ross State University Box C-71 Alpine, Texas 79832

#### cbbs.sulross.edu

Address Service Requested 232267-121700-60-RES



Non-Profit Org. U.S. Postage PAID Alpine, Texas Permit No. 2

