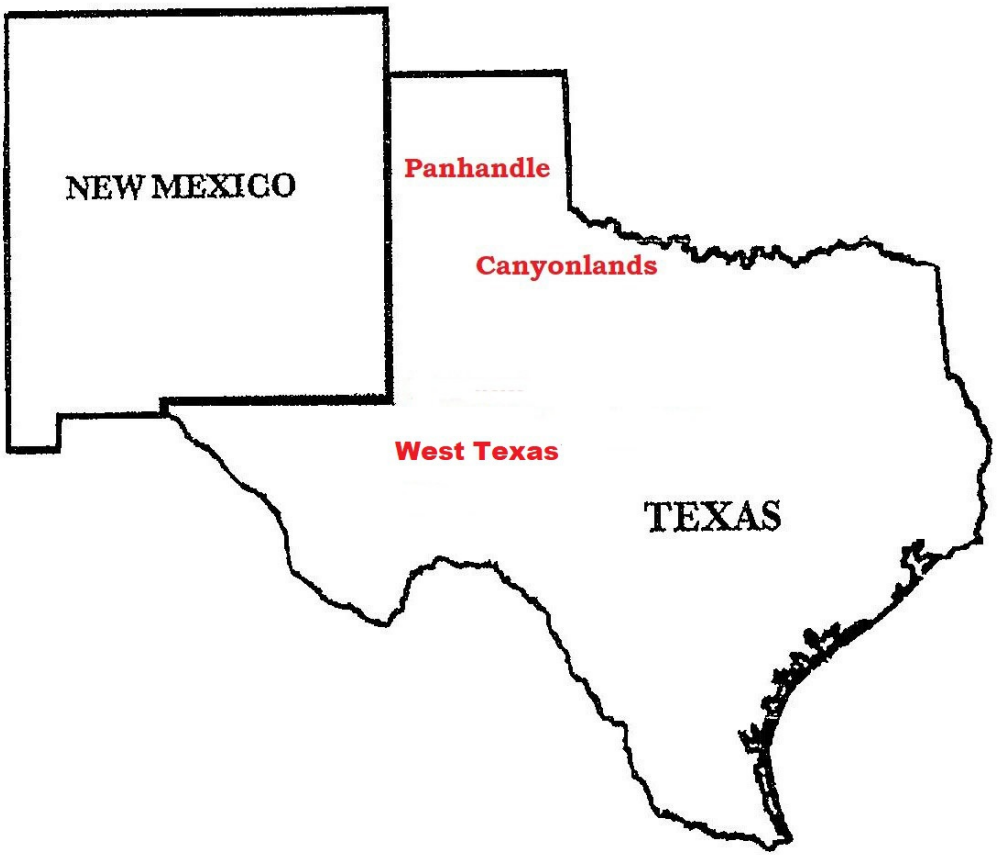
TRANSACTIONS
OF THE
57TH
REGIONAL ARCHAEOLOGICAL SYMPOSIUM
FOR
SOUTHEASTERN NEW MEXICO
AND WESTERN TEXAS



2024

TRANSACTIONS OF THE 57TH REGIONAL ARCHAEOLOGICAL SYMPOSIUM FOR SOUTHEASTERN NEW MEXICO AND WESTERN TEXAS

The 57th Annual Symposium was held on April 22, 2023 at the Comanchero Canyons Museum in Quitaque, Texas, hosted by the Canyonlands Archaeological Society.

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TRANSACTIONS OF THE 57TH REGIONAL ARCHAEOLOGICAL SYMPOSIUM FOR SOUTHEASTERN NEW MEXICO AND WESTERN TEXAS

PAPERS

BUTTERFIELD OVERLAND MAIL'S ANTELOPE SPRING STATION

Tom Ashmore and C.A. Maedgen

7-mile Mesa (northwestern end). (Photograph courtesy of C.A. Maedgen.)

Abstract

In August, 1859, the Butterfield Overland Mail company decided to forego the northern route along the east side of the Pecos River to New Mexico and on through the Guadalupe Mountains to El Paso and begin operations from Horsehead Crossing across the Pecos River west to Fort Stockton. The change was made for several reasons: 1) to add Forts Stockton, Davis, and Quitman to the mail route; 2) better water sources; 3) more passengers/mail; and 4) better protection by the military.

In order to accomplish this, a new stagecoach station needed to be built. This station was never listed on the existing company schedules since it was put in so late in the route's existence. It was given the name of the nearby spring – Antelope Spring Station. An archeological recording of this station was never conducted until this last year. We will give a thorough description of the station, the layout, and all the work involved with this unknown historical site, as well as the road that followed the Comanche Trail.

History

Coaches could not cross the muddy and deep Pecos River. So, they arrive on each side of the ferry points. Passengers and mail would be ferried across using a small skiff-type boat (Dearen 1996, 2016; Ely 2016). The skiff probably was connected to a rope line to keep it from being swept downstream by the strong current. The station continued to operate along this route and using this methodology from this point on.

In order to verify the wagon road from the stage station was for the ferry crossing, a review of any wagon trail on the other side of the river was required. The result was that a wagon trail can be seen in historical satellite imagery departing the established Fort Stockton Road before it reaches Horsehead Crossing proper and heads straight to the west river bank, directly opposite from the wagon trail turnaround on the east side (Figure 1).

On the east side of the river the road came from the stage station to a turnaround area. The coach drove along the river bank in a kind of loop around and then back to the station.

Figure 1. Roads from the Fort Stockton road and the stage station leading to opposite sides of the Pecos River.

Fort Stockton Road

After the stagecoach left the river it quickly merges into the Comanche Trail that had been used for the previous 70-plus years to run their stolen horse herds in the winter or spring up to northern Texas. It then runs seven miles in a straight line west to a minor plateau. The Comanche Trail made a ready-made road all the way to Comanche Spring, which is what Fort Stockton was built around. The trail leading to the plateau is approximately 30 feet wide and the six-foot wagon wheel ruts running down the middle can still be seen from above in some sections (Figure 2).

As the trail comes to the plateau, it climbs a wide draw leading 120 feet up to the flat before heading on to Fort Stockton. This draw makes an easy climb in two 60-foot sections (Figure 3).

We can verify this is the correct road through an 1867 military map that annotates the two elevation changes at this point (Figure 4). The map was created by Brevet Lieutenant Colonel E.J. Strang during his expedition from Fort Stockton to Fort Chadbourne.

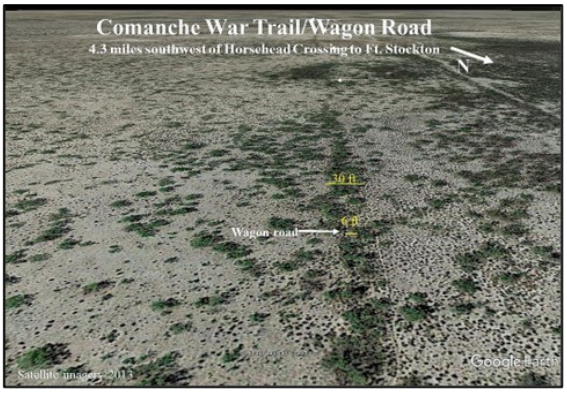

Figure 2.

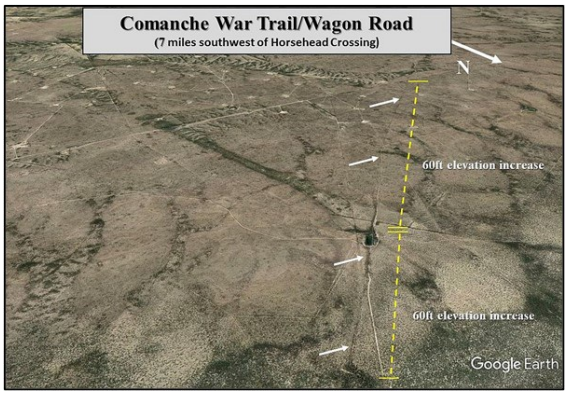

Figure 3.

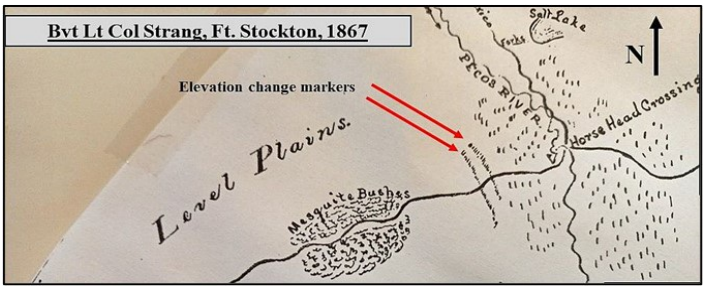

Figure 4. Original map from national archives.

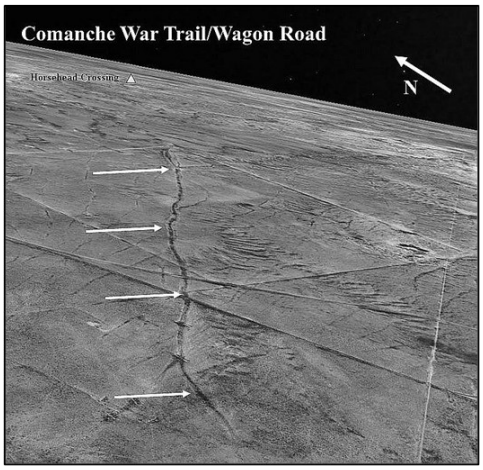

Figure 5. Butterfield trail from Horsehead Crossing (top left) coming west.

After the Comanche Trail moves on to the plateau proper, it becomes very apparent from above (Figure 5). The trail becomes wider and the after-growth brush is thicker. The width ranges from 80 to 130 feet in this area and the scar is very distinct. In a close up view you can also see the wagon road continuing down the middle of it.

When it reached the plateau, they were 16 miles from the stagecoach station, making it a 23-mile one-way journey (Figure 6). This was always done in the middle of the night, arriving at the Pecos River around 3:00 a.m. and departing around 4:00 a.m. The stagecoach station was never listed on the existing company schedules since it was put in so late in route's existence. It was given the name of the nearby spring – Antelope Spring Station.

Although the station is only 260 yards from the main wagon road, it was accessed from the main road by service roads to the north and south, making a large triangle to the station. The northern service road is one third of a mile and the southern is a half mile to the main wagon road (Figure 7).

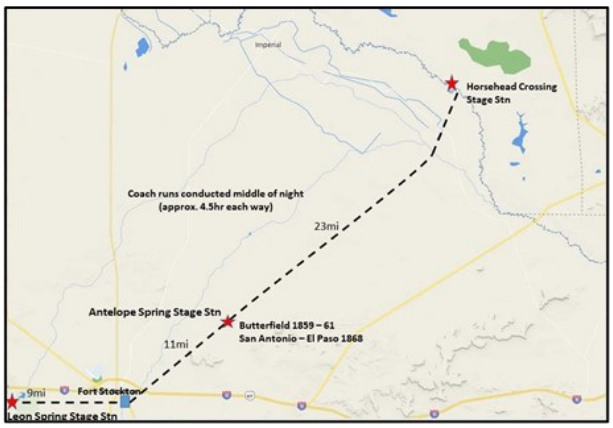

Figure 6. Main stage stations and distances.

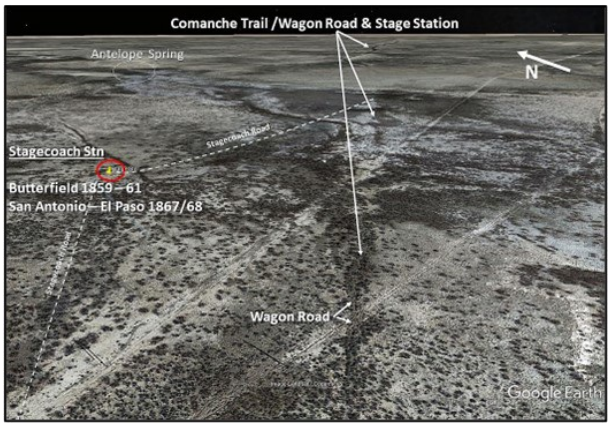

Figure 7. Main wagon road and stagecoach station.

The location of this station is unusual, being just 11 miles from Fort Stockton and 23 miles from the Pecos River. It was undoubtedly chosen due to the location of the spring. There was no other known water source on this road at the time and the animals, stressed with such a long journey, were at their limit of endurance for the round trip, even at a walking pace in the middle of the night. But another reason for this location is the distance between stations for changing mule teams. Fort Stockton was not an actual swing station. It was a drop off and pick up depot only. Leon Springs was the next actual swing stage station for the Butterfield route, being only nine miles from Fort Stockton. That makes the distance a proper 20 miles for a team changing station.

As the stagecoach came in or departed to or from the north, the road crossed a water ditch built from the spring runoff (Figures 8, 9). This was an item of interest to find out what exactly they did to ensure an easy crossing and maintain the water flow through the ditch. The purpose for this ditch was water for the station and will be explained in detail in the next segment of the report.

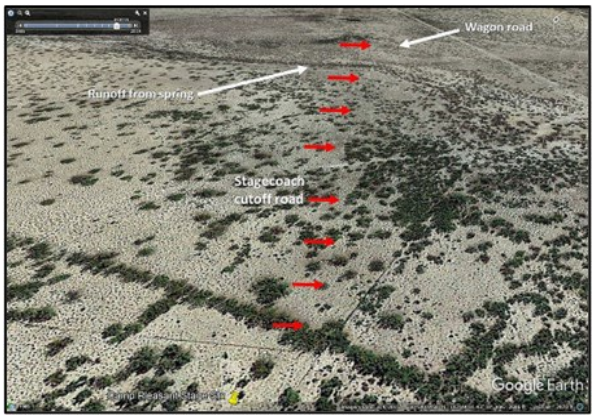

Figure 8. Stagecoach service road to/from the north.

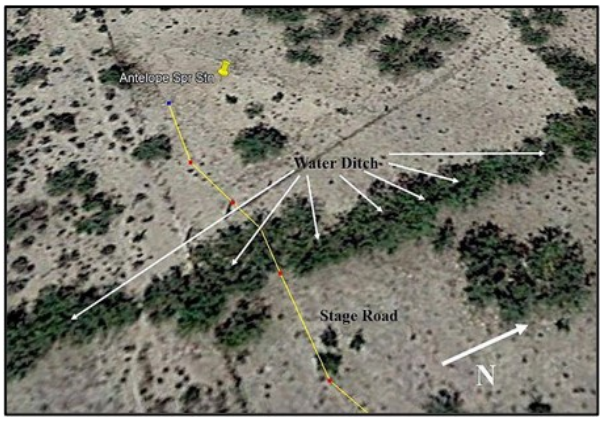

Figure 9. Stagecoach road coming from the north across the ditch.

Although many of the wall stones had been bulldozed and pushed through this area to an eventual stone pile, we found several in-ground stones in a parallel line to the former water ditch were found on the south side of the ditch exactly where the crossing was. Although the ditch is completely filled in now from all the vegetation growth and bulldozing, an overhead analysis of the core area (as can be seen in the image below as a dark line in the middle of the bushes) indicates it was three feet wide. Thus, wagon wheels would have been able to cross with a line of stones on each side and a line of stones in the middle of the ditch, protecting the ditch structure and allowing water to flow through (Figures 10, 11).

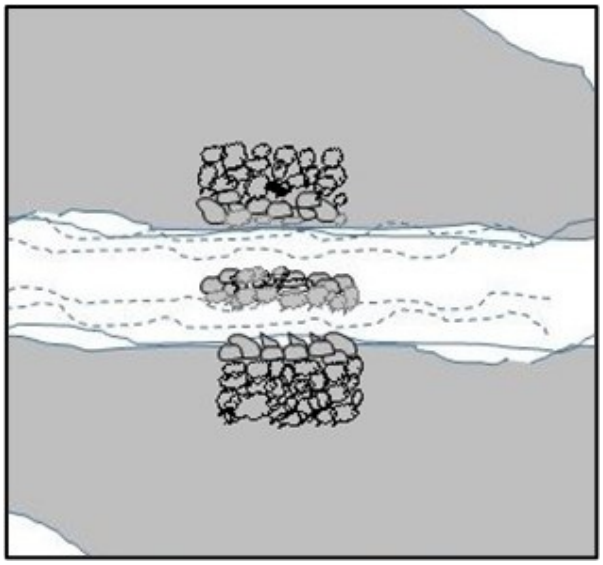

Figure 10. Probable ditch crossing design.

Figure 11. Wagon crossing point.

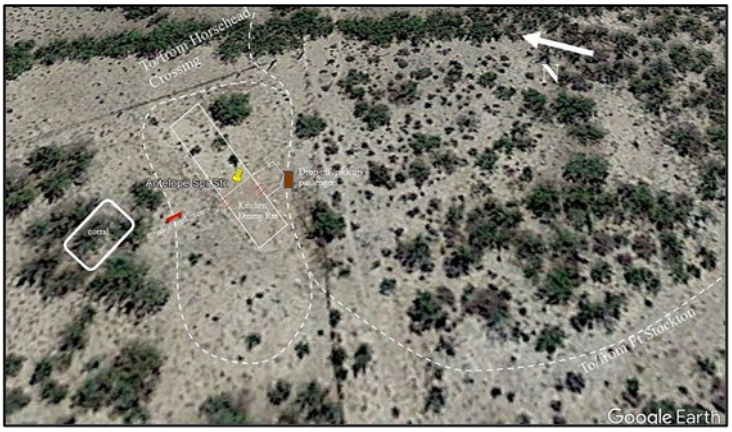

Figure 12. Entrance/exit roads to and around stage stop.

The arrival or departure to the southern portion of the wagon trail did not cross over the ditch. Instead, they entered and exited south, skirting and avoiding the ditches. Both roads came to a stop on the south side of the building. On the south side of the building is the foundation for a large porch. It measures 4x3 yards, with a corner cut as an entrance step. This is where passengers were dropped off and picked up on departure. A trace of wagon tracks can be seen leading from the north across the ditch and from the south leading right up to the porch entrance. After dropping off passengers, the coach would be driven around to the other side of the building, near the corral, where the teams would be switched out (Figure 12).

The Way To Get Water

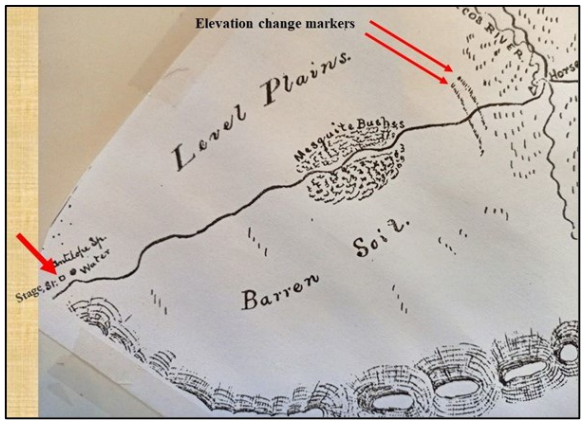

Figure 13. Brevet LTC. E.J. Strang map, 1867.

One of the most important things about this station is how they developed drinkable water. The station was a short distance from Antelope Spring. This spring was documented by both a wagon train journal in 1868 and a Fort Stockton military report by Lieutenant Colonel Thomas Hunt in 1869 (Ely 2016). Brevet Lieutenant Colonel E.J. Strang annotated both the station and the spring on a topographic sketch map in 1867 (Figure 13). His extremely accurate map shows the spring approximately 0.8 of a mile from the stagecoach station, which matches up with our Google Earth measurements. Although later survey maps depict a nearby Bonita Springs, that spring did not exist at the time, and when the survey maps were created, Antelope Spring was dried up and not depicted. Bonita Springs is now also dried up. All water in this area is now brought up by wells and pumps.

Antelope Spring was known to be a very heavy alkaline water spring. According to the 1868 wagon train account, the water was "so salty" they "could hardly cook with it." And the military report from that period indicated the spring was "very strong alkaline, grass the same." (Ely 2016) Thus, this was the critical problem for the station personnel to overcome since it was the only known source of water at the time.

It appears the station location was chosen due to both the spring runoff direction and far enough away from the wide swath of area the spring runoff covered. In a heavy rain period the location needed to be far enough away from the maximum runoff width so as not to be flooded.

From a long line of bushes coming from the end of the spring gully runoffs, we determined they dug the water ditch to tap into the spring's runoff water (Figures 14, 15). The ditch runs 530 yards, past the station, and makes a 70-degree turn to flow another 15 yards into a holding/settling pond. The settling pond was 30 yards long and opened into a trapezoidal shape, expanding from 5 to 10 yards in width, making it around 50 square yards. From the opposite end and a corner of the pond, another ditch ran 20 more yards to a final extraction pool (Figure 16). To this day that extraction pool is still 18 inches below the surrounding surface. Although some of it is filled in and it is now filled with bushes, we estimate the extraction pond covered about 8 square yards and was probably 36 inches deep. The holding/settling pool has filled in but to this day no vegetation will grow on that soil. A wagon trail runs up to the extraction pool, makes a loop and runs back to the back door of the station.

The ditch not only delivered the water but provided the process of aeration, a well-known technique with ranchers in this area for cleaning highly alkaline spring and well water. In water treatment, the aeration process brings water and air into close contact by exposing drops or thin sheets of water to

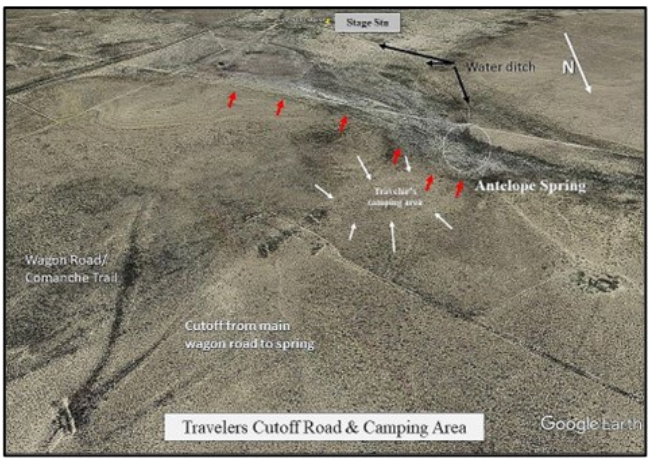

Figure 14. Looking from north to south: wagon traveler's cutoff road to the former Antelope Spring. (Note: the camping circular loop can still be seen).

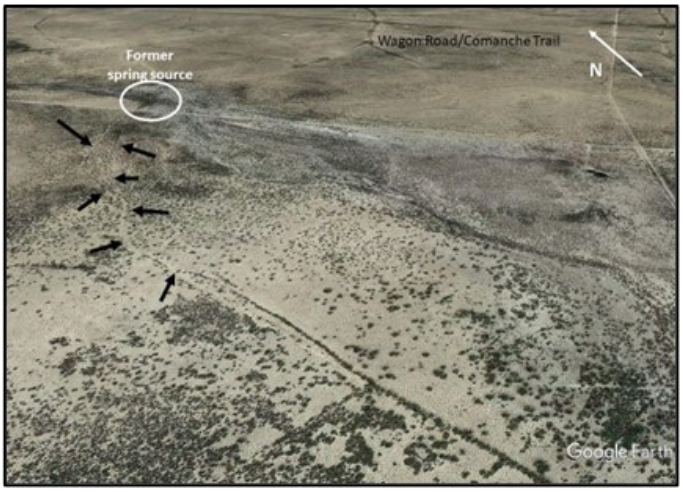

Figure 15. Looking from south to north: Antelope Spring gully runoff and the beginning of the ditch.

Figure 16. Water ditch, settling pond, and extraction pond.

Figure 17. Offshoot ditch to animal watering pond.

the air or by introducing small bubbles of air and letting them rise through the water. Sweeping or scrubbing action is caused by the turbulence of water and air mixing together. This removes undesirable gases such as hydrogen sulfide and methane. The scrubbing process caused by the turbulence of aeration physically removes these gases from solution and allows them to escape into the surrounding air. The settling pond is then used to remove heavier minerals such as iron and manganese. (Extension 2019; MECC 2004) If needed, further desalination filtration might have been used for human consumption. Two ancient methods could have been used. One was boiling water to steam and collecting the steam runoff, and another was to filter the water with wool as a dipping wick, which was used as far back as ancient Greece for trapping salt. (Encyclopedia.com 2018)

Prior to reaching the large settling pool beyond the station, there is one small offshoot ditch that is 20 yards long, running at a 90-degree angle off the main ditch (Figure 17). At the end of this offshoot ditch is a small pond. This pond was very likely the pond used for watering the stagecoach station mules. It measures 5x7 feet and is only 35 feet from the station corral. A slight ground scaring can be discerned between the two areas. More recent working pens are also nearby. Since the offshoot ditch does not go directly to the pens, it is reasonable to assume the rancher that constructed those pens did not create the ditch, but also used it in the later period of ranching. This later set of working pens were for the large Seven-D ranch, which went through a series of owners around the turn of the century. Although these are now abandoned metal pipe working pens, they were referenced as used to cut the drift cattle out during the period of Mussey and Presnall ownership (1887–1890), and the location was said to be next to the old stage station. (Smith 1995; Williams 1982) A clear track can be seen leading from the pond 110 feet to a metal watering trough at the corral.

Two Stagecoach Lines, One Station

The area in and around the former building is littered with dishware and glass, much of it probably from a later period than the Butterfield Overland Mail due to the fancy designs and colored dishware. This analysis comes from our previous excavations of three Butterfield Stagecoach stations in West Texas that were abandoned and never reconstituted as a station (Ashmore 2016). All Butterfield period dishware was very common with little design. Station managers were honing out very crude living conditions in a barren and hostile country at the time.

This more elaborate dishware can be explained by the fact this station was reused after the Civil War by the San Antonio to El Paso Upper Road Stage Line, also referred to as the Ben Ficklin Stage Line. The contract began in July 1867, but the first stage ran the Lower Road in October because the Upper Road was not yet ready. The Upper Road Stage Line used the same route to Fort Stockton as the old Butterfield Mail route. This means Antelope Spring Station was probably in the restoration stage beginning shortly after July 1867. The Upper Road line began in March, 1868. On June 3, 1868, T. G. Williams, the agent in San Antonio, announced express mail service through to El Paso in 6½ days. The stage left San Antonio on Mondays, Wednesdays, and Fridays at 8 a.m. (Mullins).

However, the Indian problems became so acute at Horsehead Crossing (and probably at this location as well) in the 1867-68 period that the commander at Fort Stockton ordered a new river crossing be

created 35 miles further downstream. The alternate location became known as Camp Melvin/Pecos Station. Camp Melvin was the military detachment stationed there. The new stagecoach crossing point was originally just upriver at a site nicknamed Ficklin's Ferry in the fall of 1868. Later, the entire operation moved to Pecos Station/Pontoon Crossing/Camp Melvin, one mile down river. (Smith 1995) So the Antelope Spring station was probably only in use for about six months or less, but likely occupied as it was being restored. It was not unprecedented to reuse a former Butterfield Station. Head of the Concho Station, 75 miles east of the Pecos River, was also reused by this same stagecoach line.

We found one critical piece of evidence on our reconnaissance that supports this theory. A small piece of stoneware was found in the middle of the station in the room that was probably used to entertain passengers with meals (Figure 18). This room is the same size and same location within the building as the one at Fort Chadbourne, which was found to be a similar passenger meal and kitchen area. The artifact is a small piece of stoneware with a maker's mark from the Clementson Brothers of Hanley, England. This maker's mark was only in existence from 1865 to 1910 (Birks 2023). This fits perfectly for the period of the San Antonio to El Paso (Mullins and Mullins 2020) Stage Line initial period of 1867/1868. This would have been a prize possession of the station manager and an extremely unfortunate accident, but very fortunate for our research.

Figure 18. Stoneware found within the station walls.

Station Construction

This station was constructed much like the station at Fort Chadbourne, which we excavated in 2008 (Riemenschneider 2008) (Figures 19, 20). The Fort Chadbourne station was a major station on the Butterfield route. Antelope Spring construction appears to have used the same design. In fact it was the exact same length, but five feet narrower. The internal rooms are also very similar in layout. Using conversions we were able to determine the station was designed in yard measurement, a common building measurement at the time. The folding yardstick was the most common tool for this type of work. For this reason we are using their measurement method of yards throughout this report. The station measures 27x6 yards.

Figure 19. Wagon route into and around the station.

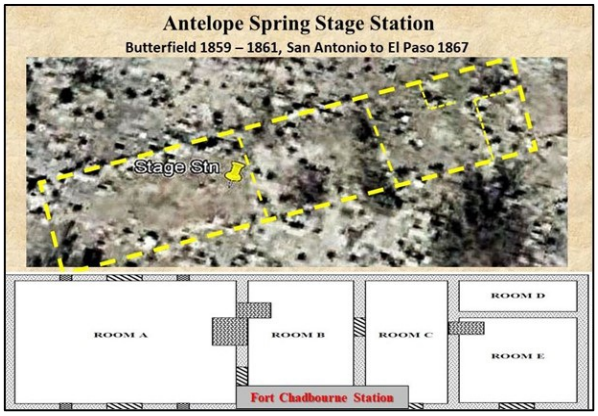

Figure 20. Comparison of the Antelope Spring and Fort Chadbourne stations.

Passengers would have been dropped off at a south-side porch leading into the room listed in the Fort Chadbourne excavation layout as Room A. This is the same room the critical piece of stoneware was found. Although only the base of the walls remain, a large pile of wall stones were piled 30 yards away and then abandoned at some time in the past (Figure 21). We found the stone pile mixed with many pieces of glass and dishware from the building, indicating it was bulldozed. It is likely the bulldozing was done post-WWII when bulldozers became commonly available through army surplus. In the later period of the 50s, even though the nearby road may have been abandoned, the railroad was in operation and runs right by the site a quarter mile away. This abandoned site was probably well known to most people in the area at the time. The West Texas section of this railroad runs from San Angelo to Fort Stockton and eventually on to El Paso. It runs through all the major towns along the way and is still in use today. Family memory of the current owner is that the rail line was used by travelers walking the tracks to Fort Stockton.


Figure 21. Station wall stones bulldozed into a pile.

Artifacts

There are still numerous artifacts in and around the building foundation (Figure 22). Much of it, however, was moved along with all the other stones into the stone pile nearby. The artifacts consist of dishware and glass from bottles. No metal detection was conducted at this site, but no surface metal objects were found. The site has been visited by many visitors over the years, and there was probably much more in previous times.

Figure 22. Selected artifacts.

Conclusion

We originally thought this station was a minor swing station, providing little for the passengers as they made a quick mule team change. However, Antelope Spring Station was built with a major effort. They used the design of the Fort Chadbourne station, which was a major station on the mail line. It was the same length and only slightly narrower. And it was made of large stones that had to be quarried and brought to the site. Secondly, they undertook a monumental water project to bring water to the site from just under a mile away. The water ditch was approximately a yard wide and ran for 565 yards. They also constructed a large settling pond that measured out to 50 square yards and an extraction pond that measured to about eight square yards. All this was to ensure the alkaline spring water was sufficiently aerated for animals and humans. Once at the final destination the water had to be bucketed into a wagon water barrel and moved to the station. We also found that this location of the station fit in correctly with the distance between fully outfitted stations when you consider Fort Stockton was only pick up and drop off depot at the fort. Thus, this was not a minor swing station, but a fully outfitted line station where passengers could rest and receive a meal.

The station ran as a Butterfield Overland Mail station for around 20 months, being closed, along with all the other stations, in April 1861, due to the onset of the Civil War. It was then revitalized to be a station for the San Antonio to El Paso Stage Line. This was another major undertaking, to be sure. Its first mail run for that stage line was in March, 1868, only to be once again closed in the fall of that year as the U.S. Army ordered the river crossing to be moved from Horsehead Crossing to what became Pecos Station/Pontoon Crossing/Camp Melvin.

References Cited

Extension
2019 *Drinking Water Treatment–Aeration*. Electronic document. https://drinking-water.extension.org/drinking-water-treatment-aeration.

Mountain Empire Community College (MECC)
2004 *Aeration*. Electronic document. https://water.mecc.edu/exam_prep/aeration.htm.

Ashmore, Tom
2016 *The Butterfield Trail Through the Concho Valley and West Texas*. Amazon Kindle.

Birks, Steve
2023 *A-Z of Stoke-On-Trent Potters: Joseph Clementson*. http://www.thepotteries.org/allpotters/272.htm

Dearen, Patrick
1996 *Crossing Rio Pecos*. Texas Christian University, Fort Worth.

2016 *Bitter Waters, the Struggles of the Pecos River*. University of Oklahoma, Norman.

Encyclopedia.com
2018 *Desalination*. Electronic document. https://www.encyclopedia.com/science-and-technology/technology/technology-terms-and-concepts/desalination-water.

Ely, Glen S.

2016 *The Texas Frontier and the Butterfield Overland Mail, 1858-1861*. University of Oklahoma, Norman.

Mullins, Philip, and George Mullins

2020 Chapter 7: West Texas after the War, 1866–1872. Ficklin Mail Service, 1866-1872. In, *The Alamo Keeper: Thomas C. Rife, 1823-1894*. Self-published. Austin, Texas. Electronic document. http://thomasrife.com/part-seven/ficklin-mail-service.

Riemenschneider, Larry

2008 *Archeological Investigations Fort Chadbourne (41CK129) Butterfield Overland Stage Station, Coke County, Texas*. Fort Chadbourne Foundation. Manuscript on file, Fort Chadbourne Archives, Bronte, Texas and the Tom Green County Library, San Angelo, Texas.

Smith, Julia C.

1995 *Camp Melvin*. Texas State Historical Association, Handbook of Texas Online. Electronic document. https://www.tshaonline.org/handbook/entries/camp-melvin.

1995 *Seven-D Ranch*. Texas State Historical Association, Handbook of Texas Online. Electronic document. https://www.tshaonline.org/handbook/entries/seven-d-ranch.

Williams, Clayton

1982 *Texas' Last Frontier, Fort Stockton and the Trans-Pecos, 1861–1895.*Texas A&M University, College Station.

MEYERS SPRING (41TE9) CONQUISTADOR PICTOGRAPH

Tom Ashmore and C.A. Maedgen

Abstract

A small pictographic image on the vast 100-foot story wall of Meyers Spring in the Lower Pecos region of Texas, near the Rio Grande River (Figure 1), is very likely an overlooked depiction of the first contact between Lower Pecos Indians and sixteenth century Spanish Conquistadors. The depiction is not very large and has been overlooked over the years, probably most viewers assuming it is depicting an Indian warrior due to the shield being held. However, there are multiple aspects of this image that do not match for any Indian tribe and do match for the Conquistadors. This report will give a detailed analysis of the pictograph to explain the probability that it is, in fact, an Indian depiction of Spanish Conquistadors and may represent the first contact between the Jumano Plains Indians and the Spanish Conquistadors in Texas.

Figure 1. Location of Meyers Spring.

The Pictograph

What first brought this to light was a high resolution rendering of the pictograph by a specialized fabrication company working with the landowner to create a laser cutting of the pictograph for a replica in steel (Figures 2, 3). In order to do this some of the fuzzy outlines needed to be better defined better for the laser cutting. It was this newly defined rendering that brought out the details that were needed to realize the likely intentions of the original artist in describing an event to be documented.

Figure 2. 3D image of wall created by the Shumla Alexandria Project and presented on sketchfab.com. The pictograph is in the black square.


Figure 3. Steel fabrication after detailed rendering (Production Manufacturing, El Paso, TX).

The first item in the image that jumps out at the viewer is the item being held in the left hand. This item closely resembles the Spanish matchlock *harquebus*, also known as the *arquebus* or *hackbut*. These were common with the Spanish Conquistadors during their exploration of the North American Southwest. The harquebus or arquebus was invented in Spain in the mid-15th century and used up to the late 17th century. The effective range was 100 meters. The gun stock in the pictograph indicates this is one of the oldest of the harquebus designs, dating to the late 16th century (Figures 4, 5). It was shorter and lighter than the early European design at around 46 inches. Current replicas fire a .57 lead ball. (Wikipedia contributors 2023)


Figure 4. Spanish foot soldier carrying a harquebus. (Engraving by Cesare Vecellio, 1590).

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Figure 5. 16th century harquebus with similarities to the pictograph.

One archeologist referencing the image in a 1938 overview of the panel of pictographs believed it might be a club or rabbit stick (Figure 6) (Jackson 1938). However, rabbit sticks were not carried with a shield, and they were only around 1.5 feet in length, whereas the object in hand is at least 3.5 feet long.

Figure 6. Hopi rabbit stick (Penn Museum).

Additionally, there is a depiction on the same wall of an actual rabbit hunt with a rabbit stick (Figure 7). This one has also been overlooked, located just above the more famous picture of a Spanish priest and mission (Figures 8, 9). It clearly shows an Indian getting ready to throw a rabbit stick, and he has a throw net in his other hand. This can be used to clearly define the difference in the two images.


Figure 7. Indian with a rabbit stick and throw net.


Figure 8. Location of the Indian with the rabbit stick (inside black square).

Forrest Kirkland also included both of these images in his rock art depictions of the Meyers Spring wall, but he did not attempt to interpret the images. A second rabbit stick hunt pictograph is in the Kirkland depiction right below the Conquistador (Figure 10). That one is now severely faded on the wall due to weathering over the years (Kirkland and Newcomb 1967).

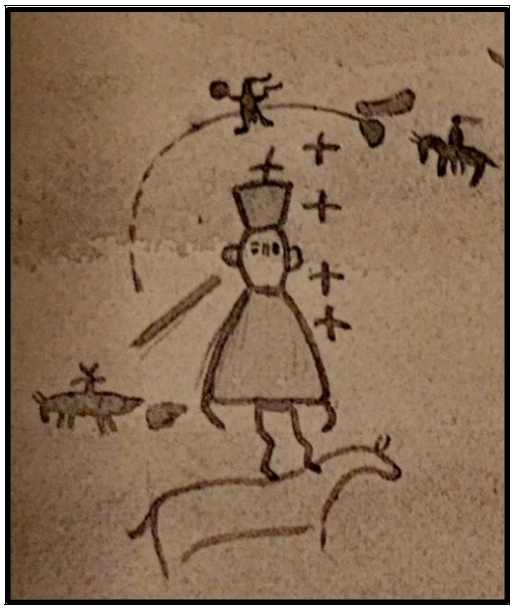


Figure 9. Forest Kirkland depiction.


Figure 10. Forest Kirkland depiction.

The second item in the pictograph image that stands out are the boots. Whoever made this drawing went to the trouble of including this detail. These loose type boots are not what Indians wore. They wore tight leather legging-type boots or just moccasins. But the boots in the image are the type of boots worn by the Spanish Conquistadors, as shown in Figure 11. Additionally, the full length outfit in the pictograph depiction was not common to the male Indian, especially in war fighting mode. However, as can be seen in the Conquistador rendering it was a common type of outfit for the Conquistador.

Figure 11. Spanish Conquistador depiction.

Although shields were something carried by certain Indian tribes, they were also a known defensive weapon carried by Conquistador cavaliers (horsemen). They used an *adarga*, a hard leather shield originally created by the Moors and frequently used by the Conquistadores in the Americas (Wikipedia contributors 2023). The adarga was made in two pieces (Figures 12, 13), similar to the two pieces depicted in the pictograph.


Figure 12a. 16th century adarga, front (Metropolitan Museum of Art).


Figure 12b. 16th century adarga, rear (Metropolitan Museum of Art).


Figure 13. Conquistador cavalier with adarga.


Figure 14. Spanish Conquistador morion comb helmet (ca. 17th century) (Wikipedia).

The pictograph appears to be a representation of two different types of soldiers in one depiction. The harquebusier were the men who carried the harquebus, but the cavaliers were the ones who carried the adarga.

The pictograph also shows something on top of the head. This is probably an attempt to depict the Conquistador morion comb helmet. The object in the pictograph flares out somewhat and appears to be trying to depict the 'comb' on top of the helmet. However, it could also be representing feathers on top of a helmet, similar to the 1590 engraving shown in Figure 4.

Another important and related item on the pictograph wall is a depiction of a horse beside the Conquistador (Figure 15). Note that it is painted in the same pigment. The exaggerated neck is a solid indication that this is intended to be a horse. The snout may have been spalled off slightly. At this period in the Trans-Pecos Indian homeland the horse was probably a completely new sight and would have been worthy of being included in a depiction story.

Figure 15. Horse depiction next to the Conquistador.

Jumano: The Trans-Pecos Indians

The Jumano were mentioned by name in Spanish documents beginning in 1583 and continuing until around 1750. The written record shows that they were mobile hunter-gatherers in the Trans-Pecos region who frequently moved and often traveled great distances. (Texas Beyond History contributors 2008) They followed and hunted the bison herds and were traders with regions far and wide from their home territory.

Figure 16. Jumano Indians hunting bison (Feather Radhas, artist).

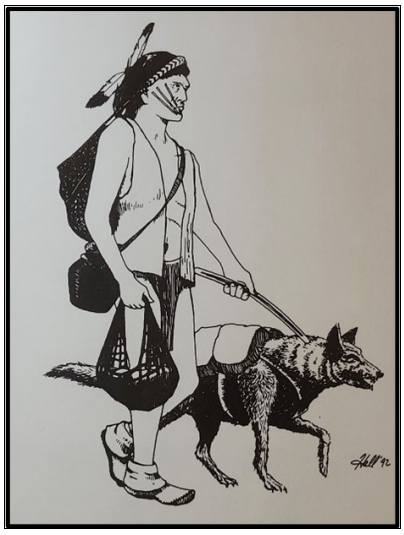
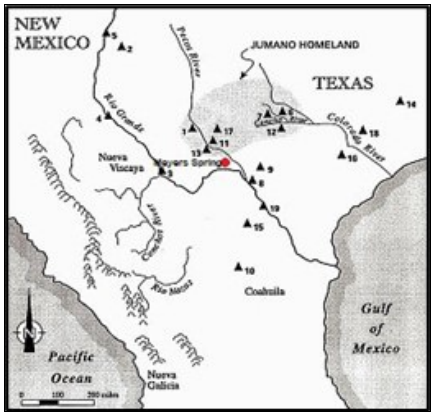


Figure 17. Jumano trader, ca. 1580 (Andrew Hall, artist).



The main Jumano home area covered territory from the Rio Grande River, east of current Del Rio, to the region beyond Presidio on the river to the west. Their northern border was to the north of the confluence of the Concho and Colorado Rivers on the east and the Pecos River to the west. Meyers Spring sits right in the middle of the home area.

Figure 18. A map of the original homeland of the Jumano Indians based on early encounters with Spanish explorers. (Image courtesy of Texas Beyond History).

The Conquistador Expeditions – First Contact

There were essentially four Conquistador expeditions into the American Southwest between 1540 and 1598. (Bullock 2023) This does not include the account of Cabeza de Vaca who was in a survival mode and in a state of destitution throughout his journey from one Indian tribe to another and with a loss of almost all his men as he moved through what is now Texas before finding his way into Mexico. One additional expedition that was not considered a Conquistador expedition but did cross through the Lower Pecos and Trans-Pecos regions in 1590 was Gaspar Castaño de Sosa.

In 1589 de Sosa, unable to obtain official permission for the expedition and fearing he would be arrested departed without permission on July 27, 1590 from Almaden (now Monclova, Coahuila), intending to settle in New Mexico. Thus, his journey had characteristics of both a flight from prosecution and an exploration. Accompanying de Sosa were the 170 Spanish inhabitants of the town, presumably including most or all of the converso settlers and his soldiers. The prospective settlers took with them a large number of livestock and carried their possessions in a slow-moving wagon train. Unlike most Conquistador expeditions, no Catholic priests accompanied this expedition. De Sosa crossed the Rio Grande River in the current Del Rio area and proceeded to move north up the Pecos River on the east side and then continued to Santa Fe. (Chipman 2020; Schroeder and Matson 1965; Tempkin 2010).

The Antonio de Espejo expedition was the first actual Conquistador expedition to pass through the Trans-Pecos region. In November 1582, de Espejo set out from Nueva Vizcaya, Mexico, to search for some friars who had traveled to northern New Mexico to convert the Indians there and were rumored to have been killed.

When de Espejo's expedition began in 1582 it included 15 soldiers and 115 horses and mules. Their initial route marched north down the Rio Conchos River to the Rio Grande River and from there followed the Rio Grande to Santa Fe. Although this route took them past southern Jumano villages along the inhabited Rio Conchos and Rio Grande Rivers it took them far west of the Trans-Pecos region and the heart of the Jumano nation.

Figure 19. Early American Conquistador/Fray explorers. Antonio de Espejo's route is in blue.

In the description of the travels their journal referenced using the harquebus to either intimidate or in actual combat seven separate times. It is also notable that the journal describes all the male Indians they encountered along the way as either naked or nearly naked. This is dramatically different from the clothing depicted in the pictograph. These descriptions came from the journal of the travels by Antonio de Espejo's journalist, Diego Perez de Luxán, as they made their way past one Indian settlement after another on their way north. (Luxán 1967).

Espejo learned early in his expedition that the two friars had been killed by members of the Tiguex tribe in present-day northeastern New Mexico. Nevertheless, he continued on and explored the areas to the north and east. He pushed into Tiguex territory, then headed east until he reached the Pecos River for their return to Mexico. He and his men followed the Pecos River south and crossed into present-day Texas where they were welcomed in May, 1583 by three Jumano Indians out hunting. The Jumano informed Espejo the Pecos River would take them far from their destination of the Rio Conchos River and agreed to act as guides, leading them through the Trans-Pecos region and back to the Rio Grande.

From there the Jumano Indians guided him and his men along what is now Toyah Creek, through Balmorhea, and on up Limpia Canyon by the sites of present Fort Davis and Marfa and down Alamito Creek to the Rio Grande.

Conclusion

Both the Castaño de Sosa and Antonio de Espejo expeditions carried the same weapons - indicated through their journals - and both encountered the Trans-Pecos Jumano Indians in the same general area of the Pecos River plains area, near their bison hunting grounds. However, the Espejo expedition is the accepted first-contact between Spanish Conquistador and Trans-Pecos Jumano Indians.

The pictograph details match all the aspects of a Conquistador representation. The weapon being held matches properly the earliest period of the harquebus and the Conquistador exploration period in the Southwestern portion of the "New" America. That, along with the additional depiction of the horse beside the Conquistador, supports this as being a Trans-Pecos picture story of the first contact between European Conquistador explorers and Indians. In our research this is the only known pictograph in Texas of this early contact of these two peoples, making it one of the most important images of early Texas history.

References Cited

Blake, Robert B.

1995 Espejo, Antonio de. *Handbook of Texas Online*. Electronic document. https://www.tshaonline.org/handbook/entries/espejo-antonio-de.

Bullock Museum

2023 Conquistadors. Electronic document. *Discover Texas History Online: Campfire Stories.* https://www.thestoryoftexas.com/discover/campfire-stories/conquistadors.

Chipman, Donald E.

2020 Castaño de Sosa, Gaspar. *Handbook of Texas Online*. Electronic document. https://www.tshaonline.org/handbook/entries/castano-de-sosa-gaspar.

Jackson, A. T.

1938 *Picture-Writing Of Texas Indians*. Bureau of Research in Social Sciences, Study No. 27. University of Texas Publication No. 3809. Austin.

Kirkland, Forrest, and William W. Newcomb

1967 *The Rock Art of Texas Indians*. University of Texas, Austin.

Luxán, Diego Pérez de

1967 *Expedition Into New Mexico Made by Antonio de Espejo, 1582-1583, as Revealed in the Journal of Diego Pérez de Luxán, a Member of the Party*. Reprinted. Arno, New York. Originally published 1929, George P. Hammond, ed., University of Michigan, Ann Arbor.

Schroeder, Albert H., and Daniel S. Matson (eds.)

1965 A Colony On The Move: Gaspar Castaño de Sosa's Journal, 1590-1591. School of American Research, Santa Fe, New Mexico.

Temkin, Samuel

2010 Gaspar Castaño de Sosa's "Illegal" Entrada: A Historical Revision. *New Mexico Historical Review* 85(3):259–280. Electronic document. https://digitalrepository.unm.edu/nmhr/vol85/iss3/3.

Texas Beyond History contributors

2008 Who were the Jumano? Electronic document.

Wikipedia contributors

2023 Adarga. *Wikipedia, The Free Encyclopedia*. Electronic document. https://en.wikipedia.org/w/index.php?title=Adarga&oldid=1153118260.

2023 Arquebus. *Wikipedia, The Free Encyclopedia*. Electronic document. https://en.wikipedia.org/w/index.php?title=Arquebus&oldid=1161988747.

THE NATURAL HISTORY OF THE 1820 LONG EXPEDITION TO THE ROCKY MOUNTAINS

Joseph C. Cepeda

Abstract

Major Stephen H. Long's 1820 expedition to the Rocky Mountains began June 6 on the banks of the Missouri River north of present-day Omaha, Nebraska, and followed a westerly path to the Front Range of Colorado, then south to the Arkansas River. At Rocky Ford, Colorado, the party divided into two groups. The main part of the expedition went south to the Canadian River, which they followed across eastern New Mexico, the Texas Panhandle, and across Oklahoma. The principal scientific personnel were Edwin James, botanist, geologist, and surgeon, and Thomas Say, zoologist.

Edwin James collected about 700 species of plants, of which about 140 were new species. Some of the notable plants he collected that were new to science are the Colorado columbine *(Aquilegia coerulea*), Narrowleaf cottonwood (*Populus angustifolia*), Sand sagebrush (*Artemisia filifolia*), and Mesquite (*Prosopis glandulosa*).

Scientists on the expedition also described 10 new species of mammals, including the Coyote, Swift fox, Golden-mantled ground squirrel, two species of bats, and 10 new species of birds, including the House finch, Western kingbird, Lark sparrow, and Rock wren.

Origins of the Expedition

The expedition was originally authorized in 1818 by Secretary of War John Calhoun as the so-called "Yellowstone Expedition" to establish a military presence on the upper Missouri River (Beidleman 1986). The original objective was to travel up the Missouri River and construct a fort at the confluence of Missouri and Yellowstone rivers, on the northern frontier. The military half of the expedition, which preceded the scientific group up the Missouri River, only made it to the vicinity of Council Bluffs, where they made preparations for the coming of winter. The scientific contingent, including Major Long, arrived in the vicinity of Council Bluffs shortly thereafter and prepared to spend the winter at Engineer Cantonment. However, Major Long left the expedition at this time to travel back east, and two of the scientists left the expedition. Edwin James replaced both Augustus Edward Jessup as geologist and William Baldwin as doctor and botanist.

During the winter of 1819–1820, Congress decided to abandon the project and withdrew funds for the military portion of the expedition, leaving only enough money for the scientific corps. That winter more than 100 men of the military portion of the expedition died from scurvy, and the military component of the expedition was disbanded. The expedition’s destination was changed to the headwaters of the South Platte River, the Front Range, and the Arkansas and Red rivers, and its purpose was changed to scientific investigations.

Engineer Cantonment was located five miles south of Council Bluffs, on the west bank of the Missouri River and about 1/2-mile upstream from Fort Lisa. Engineer Cantonment was named for the steamboat, Western Engineer, built in Pittsburgh and specially designed for the scientific part of this expedition.

There is no record that Engineer Cantonment was ever used after 1820, and its location was lost until, in 2002, the Nebraska State Historical Society initiated an archeological survey of the greater Omaha area. Using Titian Peale's sketches of the camp and its surrounding area, they were able to locate the camp. Significantly, because Peale's drawings were made during the winter when the trees were bare, the background topography in the sketches was crucial in successfully locating the site. Excavations at the site produced fragments of porcelain tableware, wine bottles, and ceramic tobacco pipes. The site was added to the National Register of Historic Places in 2015.

Expedition Personnel

The party of 20 set out from Engineer Cantonment on the shores of the Missouri River on June 6, 1820. Twenty-eight horses and mules had been provided, one for each individual of the party and eight for carrying packs.

The principals scientists and engineers were,

- Major Stephen H. Long, Topographical Engineers, commanding the expedition. A graduate of Dartmouth College, he had helped in the construction of Fort Smith in what was then the Arkansas Territory.

- Captain J. R. Bell was the journalist for the expedition, and W. H. Swift was listed as the Assistant Topographer.

- The two scientists on the expedition were Thomas Say, a zoologist, and Edwin James, who was listed as the botanist, geologist, and surgeon. James was only 23 years old and had graduated from Middlebury College in 1816. This assignment to the expedition represented his first opportunity to visit regions outside of the Northeast (Sweeney 2005). James used Major Long's notes taken during the expedition to write what became the official journal of the expedition, *Account of an Expedition from Pittsburgh to the Rocky Mountains, Performed in the Years 1819 and 1820*, printed in London in 1823.

- The two artists/naturalists were Titian Peale, listed as Assistant Naturalist, and Samuel Seymour, Landscape Painter.

Other members of the expedition were Stephen Julien, Interpreter (French and Indian); H. Dougherty, Hunter; D. Adams, Spanish Interpreter; Z. Wilson, Baggage Master; and Oakley and Duncan, Engagees. There were also Corporal Parish and six U. S. Army privates. In addition, two Frenchmen joined them at the Pawnee villages to serve as guides and interpreters.

Along the Platte River and the Front Range

Upon leaving Engineer Cantonment, the expedition followed an Indian trail generally westward that led to the Pawnee villages on the Loup River, then, on June 14, traveled south to the Platte River. The expedition then followed the Platte and South Platte all the way to the Front Range (Figure 1). On June 30 they got their first view of the Rocky Mountains, and noticed a "high peak" in the range which they believed to be Pikes Peak. Today this peak is known as Long's Peak in present-day Rocky Mountain National Park.

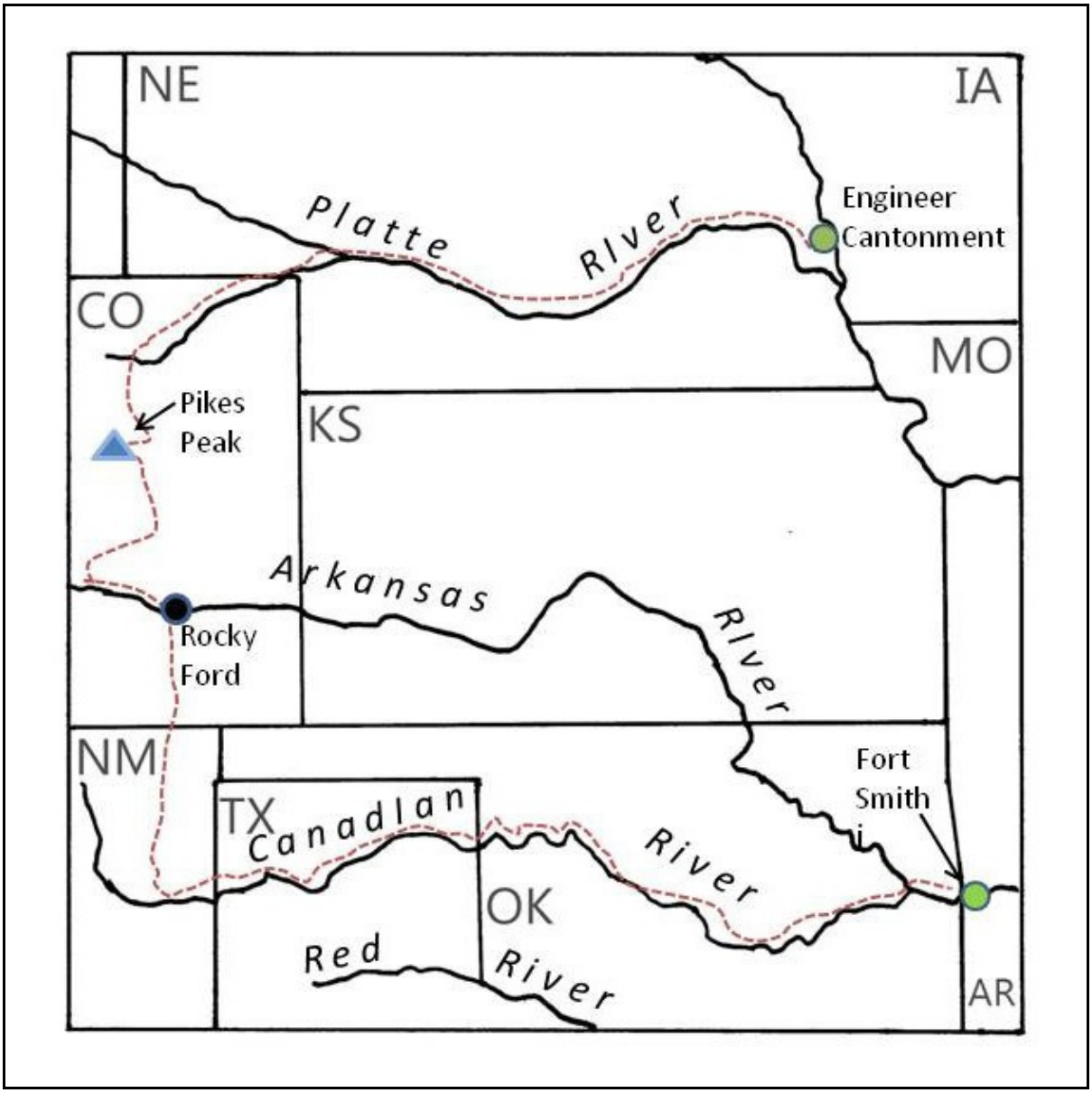


Figure 1. Route of the 1820 Long Expedition

By July 6 they were a few miles southwest of present-day Denver and spent the next two days exploring the canyon of the South Platte River. It was here in the foothills of the Front Range that James describes the impressive geologic structures formed by the uplift of the Rocky Mountains and correctly ascribed the tilting of the sedimentary beds to the uplift of the Front Range. They would follow these tilted sandstone beds southward along the base of the Front Range almost to the Arkansas River (Figure 2). Then the group began their journey south along the base of the Front Range.

On July 12 the expedition camped on the banks of Fountain Creek in what is today the south edge of Colorado Springs. The next morning Edwin James, accompanied by William Swift, Joseph Bijeau, Zachariah Wilson, and Joseph Verplank, headed for Pikes Peak. On July 14 Edwin James, Wilson, and Verplank completed the ascent of Pikes Peak. Most of the plants collected on the ascent of the peak proved to be new to science.

Down the Arkansas and Canadian Rivers

Figure 2. On July 11 the expedition traversed the area of the Garden of the Gods and camped at the base of Cheyenne Mountain, shown on the right side of the photograph.

Figure 3. View of the eastern plains of Colorado south of Rocky Ford.

On July 19 the group began its journey down the Arkansas River. Edwin James notes in his journal,

> July 19th. This morning we turned our backs upon the mountains, and began to move down the Arkansa[s]. It was not without a feeling of something like regret, that we found our long contemplated visit to these grand and interesting objects, was now at an end. One thousand miles of dreary and monotonous plain lay between us, and the enjoyments and indulgences of civilized countries. This we were to traverse in the heat of summer...

On July 22 the expedition camped on the Arkansas River near the site of present Rocky Ford, Colorado and prepared to split up the group. Half of the group would continued down the Arkansas to Fort Smith, and the other half would head south (Figure 3) in search of the headwaters of the Red River, and then follow the river eastward.

On July 24 Major Long, accompanied by James, Peale, and seven other men headed south towards the Red River. Captain Bell and the rest of the men continued east down the Arkansas River toward Fort Smith.

Eastern Colorado, Eastern New Mexico, and the Texas Panhandle

The portion of the route between Rocky Ford and the Canadian River in eastern New Mexico has been the most difficult to trace because of the lack of distinctive markers along the route. However, two University of Oklahoma botanists, using the notes of the expedition and aided by drawings by the expedition's artists—not to mention a lot of driving and legwork—have determined that the group followed Chacuaco Creek in southeastern Colorado (Goodman and Lawson 1995). They crossed the Colorado/New Mexico line a few miles east of present-day Branson, Colorado, then followed Ute Creek southward to its junction with the Canadian River, which they mistook to be the Red River. The group reached the Canadian River near present-day Logan, New Mexico, on August 4. They then followed the Canadian River eastward. It was only several weeks later when they were in eastern Oklahoma that they realized their error.

On August 5 the group entered the Texas Panhandle and followed the Canadian River across the Panhandle.

The group crossed the 100th meridian into present-day Oklahoma on August 18. On September 10 the party reached the confluence of the Canadian River with the Arkansas River, at which point Long realized that the river they have been following was not the Red River, but the Canadian River. Three days travel down the Arkansas and a ferry ride across the Arkansas and they were at Fort Smith. Captain Bell's party had arrived at Fort Smith on September 9.

Plants Collected in Eastern New Mexico and the Texas Panhandle That Were New to Science

Because James did not note the location where he collected many his plant specimens, we are not certain where some of his specimens were collected. Some of the plants are mentioned in his diary, and Goodman and Lawson (1995) determined the approximate collection locality from where the party was on that date.

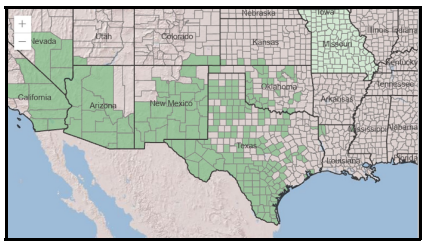


Figure 4. Present-day distribution of mesquite. From the USDA Database, 2023.

The first mention of Honey mesquite (*Prosopis glandulosa*) is on August 2, when the party was along Ute Creek, in Harding County, New Mexico. James mentions the plant again on August 5, along the Canadian River, where he notes the "considerable quantity of saccharin matter that was pleasant to the taste". The mesquite pods were used as food by the party. The likely location where the plant was collected, along Ute Creek, is near the present-day northern limit of the plant's range (Figure 4).

Stinging nettle (*Cevallia sinuata*) is described by James in his diary for August 7, when the party was along the Canadian River in Oldham County, Texas. Another plant mentioned in the *Account* on this date is Cocklebur (*Xanthium strumarium*), which occurs in riparian areas throughout the Panhandle.

False indigo (*Amorpha fruticosa*) occurs on the Platte, Arkansas, and Canadian Rivers, and James notes *Amorpha* species on several occasions: June 18 on the Platte, July 21–23 on the Arkansas, and August 5 on the Canadian (Goodman and Lawson 1995).

Sand sagebrush (*Artemisia filifolia*) is the iconic and abundant plant of the sandhills of the Great Plains and could have been collected almost anywhere along the route, although Goodman and Lawson (1995) note that it occurs most abundantly in the Texas Panhandle and that this is the most likely collecting site.

Soapweed yucca (*Yucca glauca*) is the ever-present yucca of the plains grasslands. James mentions yucca on June 20 when the party was camped in Dawson County, Nebraska and again in August when they crossed the Texas Panhandle.

Broomrape (*Orobanche ludoviciana*) is a rarely seen plant that is parasitic on Sand sage, Cocklebur, and Baccharis, especially on sand dunes and river sandbars (Correll and Johnston 1979). It produces showy purple and yellow flowers (Figure 5). James describes this plant as being "nearly a foot high" on August 6 when the party was camped on the Canadian River in Oldham County, Texas (Goodman and Lawson 1995).

Figure 5. *Orobanche* sp. Photograph taken in Palo Duro Canyon.

Winterfat (*Krascheninnikovia* [formerly *Ceratoides*] lanata) is a species that still grows along the banks of the Canadian River in Potter County, Texas. Although it could have been collected in Colorado, New Mexico, or Texas, Goodman and Lawson (1995) note that James mentions several chenopods on August 12 when they were camped on the Canadian River about 16 miles northeast of Borger, Texas.

Four-winged saltbush (*Atriplex canescens*) is a shrub that occurs throughout the southwest in hot, arid places. It is found in the Texas Panhandle, and Goodman and Lawson (1995) believe that it is one of several species of *Atriplex* that James noted on August 12 when the group was on the Canadian River in Hutchinson County, Texas.

Plains zinnia (*Zinnia grandiflora*) is the hardy, low-growing flowering plant of the plains. James collected this plant in late July through mid-August (Goodman and Lawson 1995), probably from somewhere between southeastern Colorado, eastern New Mexico, or the Texas Panhandle where it blooms all summer long.

Figure 6. Buttonbush blooms. Photograph taken in Palo Duro Canyon.

Buttonbush (*Cephalanthus occidentalis*) is a plant that occurs along rivers and streams across the eastern United States. It is also found in Palo Duro Canyon (Figure 6), at the extreme western limit of its range, and along the Canadian River in the eastern half of the Texas Panhandle. Goodman and Lawson (1995) note that on August 15, when James notes this plant in his diary, the party was traveling through Roberts and Hemphill counties, Texas.

Although Soapberry (*Sapindus drummondi*) occurs throughout Texas, the plant was collected on August 3 in Harding County, New Mexico (Goodman and Lawson 1995). This small tree occurs from Florida to Arizona and produces berries that turn a golden yellow during the winter (Figure 7).

Figure 7. Soapberries in Palo Duro Canyon.

Summary of Scientific Results

Edwin James returned from the expedition with about 700 species of plants. About 140 of these were new species and were subsequently described by either James himself or by other botanists. In addition, the explorers collected and/or described many species of birds, mammal, and reptiles on their trek across five states. However, for some of the species we have only a description because the actual specimens did not make it back east. For example, regarding the Swift fox, James writes,

Figure 8. Swift fox. Photograph by Ryan Moehring, USFWS. Downloaded from Flickr.com on September 29, 2023

> It is very much regretted, that although two or three specimens of it were killed by our party, whilst we were within about two hundred miles of the mountains, yet from the dominion of peculiar circumstances. we were unable to preserve a single entire skin; and as the description of the animal taken on the spot was lost, we shall endeavour to make the species known to naturalists, with the aid only of a head and a small portion of the neck of one individual, and a cranium of another, which are now before us.

Birds, Mammals, and Reptiles New to Science

- Band-tailed pigeon
- Swift fox
- Golden-mantled ground squirrel
- Rock squirrel
- Colorado chipmunk
- Least shrew
- Small-footed mouse-eared bat
- Great Plains toad
- Eastern collared lizard
- Coyote
- Lazuli bunting
- House finch
- Lark sparrow
- Lesser goldfinch
- Cliff swallow
- Orange-crowned warbler
- Rock wren
- Western kingbird
- Blue grouse

The Band-tailed pigeon, Lazuli bunting, Lesser goldfinch, Orange-crowned warbler, and Blue grouse are either year-long residents in the mountains or would be in the mountains at the time that the expedition was in the vicinity of the Colorado mountains. The bunting, goldfinch, and warbler are commonly spotted in the Texas Panhandle during migration.

The House finch, Lark sparrow, Cliff swallow, Rock wren, and Western kingbird are common birds on the plains, including the Texas Panhandle. Some, like the Rock wren, are year-round residents, but the others migrate south to central Mexico and Central America for the winter. The Lark sparrow (Figure 8) which is very abundant in the Panhandle, has a very large areal distribution during the summer and was actually collected by expedition members along the Missouri River in 1819, while going upriver from St. Louis.

Figure 9. Lark Sparrow. Photograph taken at Buffalo Lake National Wildlife Refuge, Randall County, Texas.

Perceptions of Climate on the Great Plains

Members of the Long Expedition had some fairly strong opinions about the territory that they traversed during the summer of 1820, especially the Great Plains portion. J.R. Bell, in his description of the "Great Desert at the base of the Rocky Mountains", notes that it,

> "…has an average width of five or six hundred miles, extending along the base of the Rocky Mountains from north to south… consisting entirely of granitic sands, or of secondary aggregates made up of the detritus of that great chain of primitive mountains.

Thomas Say goes a little more extreme, saying, "The region within 500 miles of the Rocky Mountains was totally unfit for the tillage of civilized man".

The map included at the back of Bell's journal labels this area east of the Front Range as a "Great Desert". So one of the more lasting impressions to come out of the Long Expedition was the idea that the Great Plains was a great desert unfit for agriculture or habitation. Some of these attitudes may have derived from the contrast between the more arid Great Plains compared to the well-watered and forested regions of the eastern part of the country. But a contributing factor may well be that in the year 1820 the Great Plains and the Southwest were in a moderate to severe drought which increased in intensity through the decade (Evans 1997).

Tree ring data were used to reconstruct drought periods since 1700. Drought epochs lasted between five to 10 years. Over the period between 1700 and 1997, the drought of the 1930's on the Great Plains was equaled or surpassed in severity only by the droughts of the 1750's, 1820's, and the 1860's (Stockton and Meko 1983). But the lasting impression is that the Long Expedition became the author of the "Great American Desert" myth (Goetzmann 1959).

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References Cited

Beidleman, Richard G.
1986 The 1820 Long Expedition. *American Zoologist* 26:307–313.

Correll, Donovan S., and Marshall C. Johnston
1979 *Manual of the Vascular Plants of Texas*. University of Texas at Dallas.

Evans, Howard E.
1997 *The Natural History of the Long Expedition to the Rocky Mountains*. Oxford University, U.K.

Goetzmann, William H.
1959 *Army Exploration in the American West, 1803–1863*. Yale University, New Haven, Connecticut.

Goodman, George J., and Cheryl A. Lawson
1995 *Retracing Major Stephen H. Long's 1820 Expedition*. University of Oklahoma, Norman.

James, Edwin
1823 *Account of an Expedition from Pittsburgh to the Rocky Mountains, Performed in the Years 1819 and 1820*. Longman, London, U.K.

Stockton, Charles W., and David Meko
1983 Drought Recurrence in the Great Plains as Reconstructed from Long-Term Tree Ring Records. *Journal of Applied Meteorology and Climatology* 22:17–29.

Sweeney, Kevin Z.
2005 Wither the Fruited Plain—The Long Expedition and the Description of the "Great American Desert". *Great Plains Quarterly* 25:105—117.

THE DISTRIBUTION OF PROTOHISTORIC SITES ON THE TEXAS SOUTHERN PLAINS AND THE IMPLICATIONS FOR CORONADO'S 1541 ROUTE

J. Brett Cruse

Abstract

An examination and analysis of the archeological site records for 60 counties within the Texas portion of the Southern Plains resulted in the recognition of many more Protohistoric sites within the region than previously identified. The distribution of the 221 identified sites generally corresponds with the recognized Tierra Blanca and Garza complexes in Texas and the Wheeler phase in western Oklahoma, and sheds additional light on where Protohistoric base camps and hunting camps are located. The data supports the contention that the Tierra Blanca complex and the Garza complex match the ethnographical Querechos and Teyas, respectively, who were encountered by the Coronado expedition on the Southern Plains in 1541. That most of the identified Garza complex base camps are located within Yellow House Canyon suggest this was likely the first "barranca" reached by Coronado, and that nearby Blanco Canyon was the second “barranca” encountered by the expedition. Together, the sites within these canyons likely represent the region the Spaniards called "Cona."

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LOOKING FOR THE GOOD CREEK STORE

Rick Day and Duane Johnson

Abstract

While riding horseback along Good Creek, Duane Johnson discovered what he thought at the time was an old buffalo hunters camp. The camp site he found contained an apparent collapsed rock chimney, wagon parts, and old cartridge cases, among other things. Years later while researching an old trail, " The Buffalo Road", he ran across a reference to the "Good Creek Store". This was a buffalo hunters supply store that existed in the area where the Buffalo Road crossed Good Creek and close to where he had found the rock chimney. Duane invited the Canyonlands Archeological Society to help investigate the site further. After mapping the site and conducting a shallow metal detecting survey, it appears likely that the site does represent the old buffalo hunters supply store. This site is an important addition to understanding buffalo hunting in Texas in the late 1870's.

Introduction

In 2019 Duane Johnson, an historian from Crowell, Texas, attended a Canyonlands Archeological Society (CAS) meeting. While at the meeting Duane inquired about the CAS assisting him in an investigation of an archeological site in Foard County. Duane is active in studying and documenting historic trails of the South Plains region. One of these trails, called the "Buffalo Road", goes through his ranch (Figures 1, 2). The Buffalo Road was important in the movement of buffalo hunters to the killing fields and freighting buffalo products (hides, meat, and bones) from the TeePee City junction of the Rath Trail to the railhead at Henrietta. For example, in 1878 A. B. Cooper left TeePee City and was often gone for six weeks at a time freighting hides while his wife kept their store (Marisue Potts, personal communication 2023).

For years, Duane and his mother, Mrs. Virgil Johnson, have researched literature and mapped the location of this trail along with many other trails. On one occasion, while reading *Romance and Dim Trails* by Katherine C. Douthitt, Duane came across an interesting passage involving the Buffalo Road (Douthitt 1938:97). Joe Douthitt, Katherine's father, had been on a buffalo hunting trip out on the plains in 1877. As Joe followed the buffalo road on his return trip home, he mentions a store at the crossing on Good Creek, in Foard County, Texas. Good Creek runs through an area that Duane had permission to investigate. Being familiar with the Good Creek crossing area, Duane was aware of an unusual concentration of rocks he had long thought to be the remains of some sort of early structure. The presence of what looked to him to be the remains of a chimney fireplace, and the fact he had found metal artifacts lying on the surface, strengthened this belief. After reading the above-mentioned passage in Douthitt's book, he wondered if the rock concentration on Good Creek could be the store of which Joe Douthitt had spoken about. After a visit to the site by Duane and members of CAS (Figure 3), we agreed to assist Duane in his investigation of the possible 1877 store location.

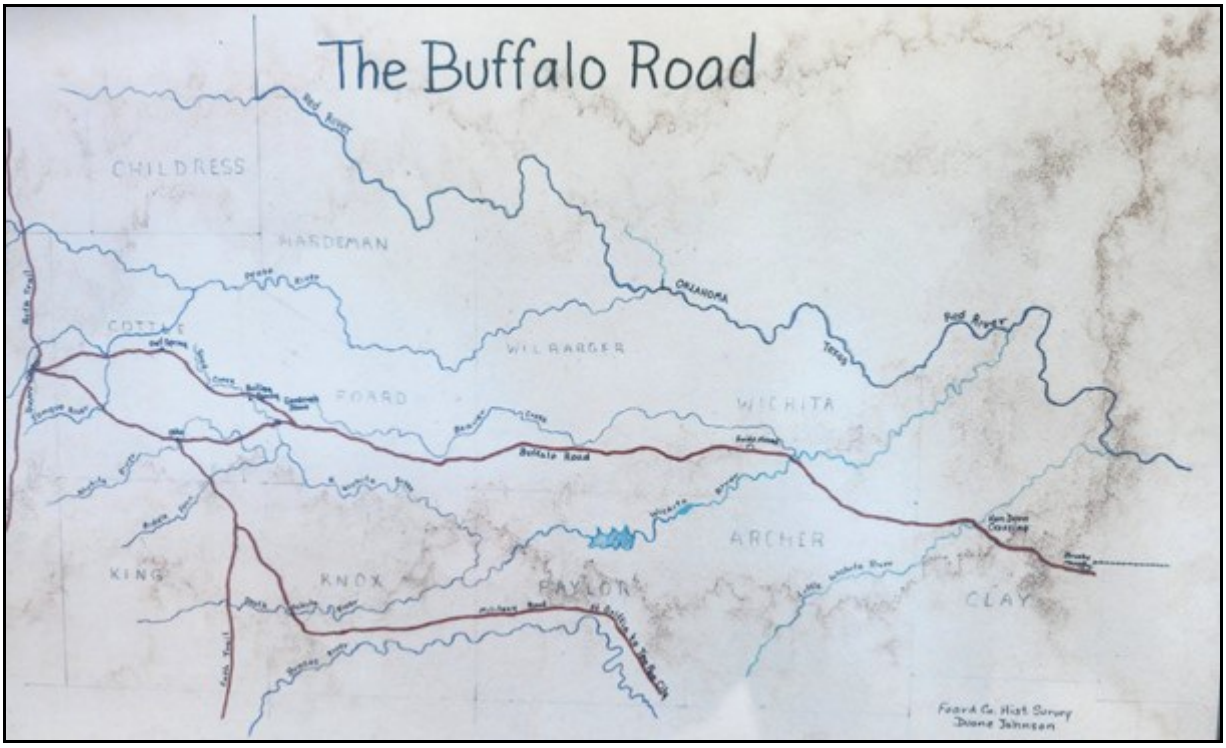

Figure 1. The Buffalo Road.

Figure 2. The red line indicates the Buffalo Road and the white square indicates the rock concentration on Good Creek.

Methods and Survey


Figure 3. Rock concentration.

After visiting the site, Johnson and members of Canyonlands Archeological Society (CAS) decided that the CAS would do a metal survey of the site. A grid system, covering an area of 576 square feet, was laid out over the rock concentration. The 576 square-foot-area was then subdivided into 36 four-foot grids. Each four-foot grid was outlined using plastic stakes and survey lines. Identification letters, A through Z, with additional grids using letters AA through JJ, were assigned to each 4x4 foot grid (Figure 4). The grid system was placed over the entire rock concentration, with the northwestern corner of Grid A as the datum point. The artifacts were recorded using UTM coordinates. Once the stakes and survey lines were set up, members of CAS mapped in the surface concentration of rocks on the site. Then a surface-to-shallow depth metal survey was conducted. Using metal detectors, artifacts were first located, then flagged with survey flags, then bagged with identification numbers. GPS coordinates were taken for each artifact so the artifacts could be recorded on an artifact scatter map (Figure 5). In addition, the area outside the rock concentration was also metal surveyed. Due to cactus and mesquite thickets surrounding the site, a grid system was not set up for the metal survey outside the rock concentration. Instead, the metal survey was conducted randomly and generally within 100 feet of the rock concentration. The artifacts found outside the rock concentration were flagged, bagged, recorded with GPS coordinates, collected, identified, and later mapped.

Once we identified the metal artifacts and made the artifact scatter map, there were four questions we hoped to be able to answer that would help determine if this site was indeed the store referred to in the material Johnson had read.

Question #1 - Were the artifacts found of the correct age to fit Joe Douthitt's 1877 reference to the store at Good Creek?

Question #2 - Would artifacts be found that would be consistent with what one would expect to find in a buffalo hunters supply store?

Question #3 - Do the artifacts found at the rock concentration area point toward another activity that might suggest the site served some other function than that of a trail store? For example,

finding farm-related artifacts along with more domestic material could suggest an old farmstead or homestead. Finding more barbed wire fragments, fence staples, or other ranch related articles could suggest an old ranch line camp.

Question #4 - How would the artifacts found within the rock concentration compare to the artifacts found outside this concentration? Would the artifacts found inside the rock concentration suggest activities that might be more indoor in nature? If so, this could indicate the presence of a structure. Consequently, do the artifacts found outside the rock concentration suggest more outdoor activities as they relate to the other artifacts?

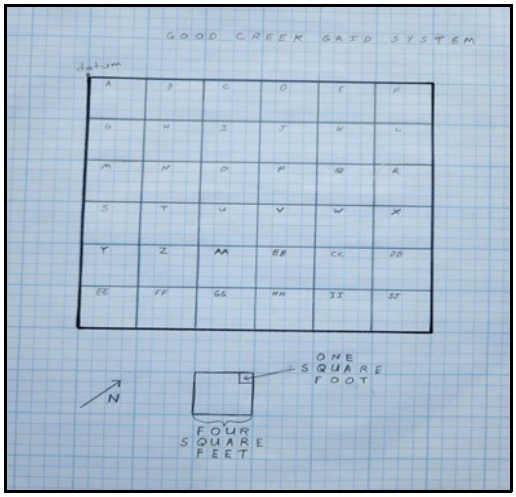

Figure 4. Rock concentration grid system.

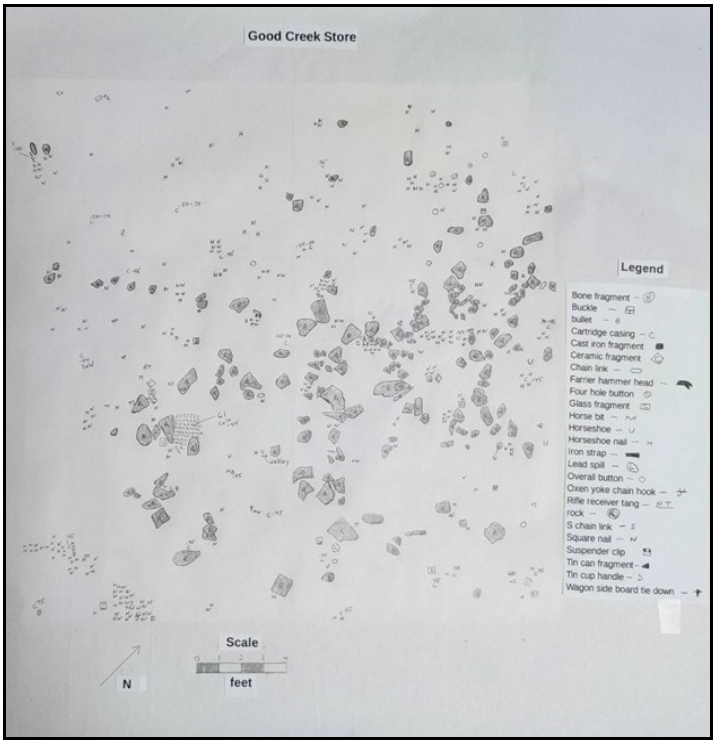

Figure 5. Artifact scatter map.

Artifact Identification and Age Table

The artifacts were divided into two categories: artifacts found within the rock concentration and artifacts found outside the rock concentration. We wanted to compare the two groups and see if there was a difference in numbers or types of artifacts. By comparing the two groups, it was hoped a clue to the past activities or use of the rock concentration area would be discovered.

Differences in the two artifact groups could be helpful in understanding the site. Below are tables of artifacts found inside the rock concentration and outside the rock concentration. Cartridge cases represented a very large portion of the artifacts we found. Cartridge cases are also relatively easy to date. For these reasons the cartridge cases are listed in separate tables, one for cases found inside the rock concentration (Table 1), and a second table of artifacts found outside the rock concentration (Table 2). Other artifacts are listed in separate tables (Tables 3, 4).

Table 1. Cartridge Cases Found Inside the Rock Concentration

Cartridge	Age	Primer	Gun type	Number found
.44 Webley	1860's - 1880's *	Centerfire	Pistol	1
.44 S&W	1870 - 1880's *	Centerfire	Pistol	1
.44-40	1873 - 1880's *	Centerfire	Rifle and Pistol	3
.45 Colt	1873 - 1880's*	Centerfire	Pistol	81
.45 - 70	1873 - 1877 *	Centerfire	Rifle	1
.50 - 70	1860's - 1878 *	Centerfire	Rifle	2

Underlined cartridges are cartridges normally used for buffalo hunting.

Dates with (*) represent metallic cartridges that manufacturers would have started producing in the 1860's and 1870's but would not have been head stamped until the late 1870's to mid 1880's.

References: Barnes 2006; Hawks 2012; Smith 2001.

Table 2. Cartridge Cases Found Outside of Rock Concentration

Cartridge	Age	Primer	Gun type	Number found
.32 short	1860's - 1970's	Rimfire	Rifle and Pistol	2
.32 long	1860's - 1920's	Rimfire	Rifle and Pistol	6
.38 short	1860's - 1940's	Rimfire	Rifle and Pistol	1
.44 Henry	1860's - 1930's	Rimfire	Rifle and Pistol	4
.44 - 40	1873 - 1880's*	Centerfire	Rifle and Pistol	6
.44 - 77	1869 - 1880's*	Centerfire	Rifle	1
.44 S&W	1870 - 1880's*	Centerfire	Pistol	4
.45 - 70	1873 - 1877*	Centerfire	Rifle	4
.45 Colt	1873 - 1880's	Centerfire	Pistol	78
.45 Schofield	1875 - 1880's	Centerfire	Pistol	2
.50 - 70	1866 - 1878*	Centerfire	Rifle	14
56 - 56	1865 - 1920's*	Rimfire	Rifle	4

Underlined cartridges are cartridges normally used for buffalo hunting.

Dates with (*) represent metallic cartridges that manufacturers would have started producing in the 1860's and 1870's but would not have been head stamped until the late 1870's to mid 1880's. With the exception of some rimfire cases with "H", the cartridge cases listed in the above tables have no head stamps. The lack of head stamps date these cartridge cases somewhere between the late 1860's to the mid-1880's, depending on the maker of the cartridge case (Hildebrand 2019, Shuey 1999). Rimfire cartridge cases that are head stamped with the "H" stand for Tyler Henry and were made throughout the manufacturing period for some rimfire cases.

References: Barnes 2006; Hawks 2012; Smith 2001.

Table 3. Additional Artifacts Found Inside Rock Concentration

Artifacts	Age if known	Number found
Bullet, possibly carved		1
Lead spills		2
Receiver tang fragment, 74 Sharps ?	1870's	1
Horseshoe nails		18
Horse bit		1
Horseshoes		2
Harness buckle		1
S-link		1
Chain link		1
Farrier hammer head		1
Ox or horse yoke hook		1
Side board tie down		1
Iron strap fragments		8
Square nails	Early 1800's to early 1900's	218
Cast iron pot fragments		2
Tin can fragments		2
Glass fragments		16
Ceramic fragments		5
Buttons, 4- hole		4
Overall buttons		5
Suspender buckle		1
Tin cup handle		1

References: Dixie Gun works 2023; Lee 1968; Visser 1997.

Table 4. Additional Artifacts Found Outside the Rock Concentration

Artifact	Age if Known	Number Found
.44 percussion ball	1700's to late 1880's	2
.44 bullet - barthalow	1860's to 1880's	1
.44 bullet - Sharps ?	1860's to 1880's	1
.50 bullet- Sharps ?	1860's to 1880's	1
.50 - 70 bullet, unfired	1860's to 1880's	1
Gun screw, wood screw		1
Lead spills		5
Tin lid, primer can lid ?		1
Horse shoe nails		7
Horse shoes		3
Horse bits		2
Leather rivets		5
Iron strap fragments		8
Harness buckle	—	1
Wagon board stay		1
Square nails, machine made	1810's to early 1900's	39
Cast iron pot fragment		1
Fish hook		1
Tag, brass	embossed 1876	1
Tin can fragments		13
Leaded cans	Early 1800's to early 1900's	2
Buttons, 4-hole		3
Overall buttons		1

References: BLM n.d.; Hildebrand 2019; Lee 1968; Visser 1997.

Discussion

Once the artifacts were identified and mapped, the four questions mentioned earlier could be addressed.

Question #1 - Are the artifacts found of the proper age to match the 1877 time period of the store referred to in Katherine Douthitt's book?

This was probably the easiest question to answer, and the answer was definitely yes. Dateable artifacts, mainly the cartridge cases, fit well into the 1877 timeframe. Cartridge case head stamps, or as in this case the lack of head stamps, can be dated. It is generally thought that all U.S. cartridge manufacturing companies started head stamping their cartridge cases somewhere between the late 1870's to mid-1880's (Hildebrand website, Shuey 1999). Two hundred and fifteen cartridge cases were found on the site area. Two hundred and seven of the cartridge cases are all lacking head stamps. This would place these cartridge cases easily in the 1877 time frame. Eight cases had the Henry "H" headstamp and were all rimfire.

Since the "H" was head stamped starting in the 1860's and then used even to the early-to-mid 1900's (Hildebrand website, Shuey 1999), these cases as well can be placed in the 1877 timeline. With the exception of a few modern shotgun shells and .22 cases, not one single case with a modern head stamp was found.

Question #2 - Could the artifacts found at the site reflect what one would expect to find in an 1870's store?

Since the store was located on the buffalo road, it would seem logical that buffalo hunting ammunition should be sold at the store. If this is a true assumption, then one would expect to find cartridges commonly used during the 1870's for buffalo hunting. Two hundred and fifteen cartridge cases were found on the site (Tables 1, 2), and 39 cases were found that are commonly thought of as being effective for hunting buffalo (Barnes 2006, Hawks website, Smith 2001). It should be kept in mind, however, that any of the cases found could possibly have been dropped previous to or after the date of the rock ruin. Excavation of the site would shed more light on the context of these artifacts.

Question #3 - Do artifacts found suggest some other activity that might lead away from the idea of the site being a trail store?

No artifacts were found that suggested farming, such as early implements. No fence staples or fragments of older types of barbed wire that one might expect to find in a ranch line camp site were found. Only very modern barbed wire was occasionally found. The artifacts found were not of an overly domestic nature. The vast majority, if not all, of artifacts could be grouped into four categories: ammunition, horse tack, mens' work clothes (overall buttons), and square nails. The site had very few glass and ceramic fragments and no china. No artifacts were found that one would expect to typically associate with women or children. The artifacts found don't fit well with the trash and lost articles one would expect to find in a family homestead. If we conclude

that the site is not likely a farm, ranch line camp, or family homestead, then the idea of the site being a buffalo hunter supply store is strengthened, especially when one takes into account the types of artifacts that were found.

Question #4 - Did the artifacts found inside the rock concentration suggest indoor activities had taken place there? Would artifacts found outside the rock concentration suggest activities that were more outdoors in nature?

Sixteen glass fragments and five ceramics fragments were found in the rock concentration. These fragments represented at least six different broken vessels. Glass is commonly found close to structures where people gather. Usually glass and ceramic fragments lessen as one moves further out from a visited structure. No glass or ceramics were found outside the general area of the rock concentration.

Nine buttons were found in the rock concentration. Eight buttons were found relatively close together in the northeast quarter of the gridded area, suggesting an article or articles of clothing had been abandoned or stored in that area. This could indicate the presence of a structure. Outside the rock concentration, four widely scattered buttons were found. This widely scattered lower number of buttons could indicate normal button loss during outdoor activities.

Two hundred and eighteen square nails were found within the rock concentration, with only 39 nails found outside the concentration. The far greater number of nails in the rock concentration would be expected within a structure where nails would be needed for support poles and shelving. Less nails should be expected outside a structure.

One very interesting find was that of a group of 61 Colt .45 cartridges casings. The cases were found in an area less than one square foot. The cases were roughly stacked on top of each other, giving the impression that they once were in some sort of container, which had deteriorated in the past, leaving the casings behind. The 61 cases appeared to be in different stages of reloading. Twenty of the cases had been fired, with firing pin marks clearly visible on the fired primers. Twenty-eight of the cases appear to have been fired but were missing their primers, suggesting the primers had been extracted. Thirteen of the cases had intact unfired primers. All of these cases were for the most part in contact with each other but randomly mixed in the concentration. No bullets or lead was found in proximity to the cases. This activity of extracting and then reloading primers into previously fired cartridge cases would likely be done indoors on a workbench of some sort. Reloading cartridges would seem to be a good example of an indoor activity.

These examples listed above involving the locations of glass and ceramic fragments, buttons, and cartridge case reloading activity are all circumstantial as far as proving the rock concentration is the remains of a built structure. However, it would seem these examples are good indications that a structure did exist here.

One more bit of evidence is the presence of a fire pit Johnson definitely saw when he first discovered the site in the 1960's. He said the ash deposit was very evident and easily seen and

looked like the remains of a fireplace. Unfortunately, 50 years later the deposit is no longer visible from the surface. No evidence was seen during our investigation, but ours was only a surface survey and the evidence for a fireplace would require an excavation which we didn't undertake. A future excavation would undoubtedly reveal much more about the site.

Conclusion

So the question is, does the rock ruin located at the crossing of the buffalo road represent the 1877 Good Creek Store referenced in the Douthitt account? The age of the dateable artifacts can easily be placed with the 1877 time frame mentioned in the article. The rock concentration area does contain artifacts, such as square nails, glass, ceramics, buttons, and large out-of-place stones that do suggest some sort of structure was built there. The artifacts found don't suggest farming or ranching activities or a family household location. There are many varieties of cartridge cases found, with a minimum of at least eleven different kinds of firearms used. Five cartridge case types commonly used in buffalo hunting rifles were found. Good examples of rifles that might use this ammunition are .44, .45 and .50 caliber Sharps, .45 and .50 Springfields, .44 Winchesters, .44 Henry and Spencer rifles (Table 5). These buffalo hunting cartridge cases, as well as the other period cartridge cases, would be expected to be traded for and used in and around a store site in the 1870's. Considering no other early site location has been located within the area of the junction between Good Creek and the Buffalo Road, it seems very likely the rock ruin Johnson located is the store mentioned in Kathrene Douthitt's book. It should be kept in mind this was a limited investigation, and an actual excavation of the site would shed much more light on the history of the site. However, based on the location of the site and what was found, we believe this is the location of the Good Creek Store.

Table 5. Common 1870's Buffalo Hunter Cartridges

Cartridge	# Found
.44-40	9
.44-77	1
.44 Henry	4
.45-70	5
.50-70	16
.56-56	4

References: BLM n.d.; Hildebrand 2019; Lee 1968; Visser 1997

References Cited

Barnes, Frank C.
2006 *Cartridges of the World.* 11th edition. Krause, Iola, Wisconsin.

Dixie Gun Works
2023 Photograph of a Sharps Receiver. Item #CR1331. Electronic document. https://www.dixiegunworks.com

Douthitt, Katherine C.
1938 *Romance and Dim Trails: A History of Clay County*. William Tardy, Dallas, Texas.

BLM National Training Center
n.d. *Historic Artifact Identification Guide.* Electronic document. https://www.ntc.blm.gov/krc/system/files?file=legacy/uploads/22015/ HistoricArtifactIDGuide.pdf. Accessed 7/24/2023.

Hawks, Chuck
2012 *Buffalo Cartridges of the Frontier.* Collector's Corner, part of The Definitive Firearms Site. Electronic document. https://chuckhawks.com/buffalo_cartridges.htm.

Hildebrand, Guy
2019 *Cartridge Collector.* Electronic document. The Cartridge Collector's Exchange, Cartridge by Calibre. https://www.oldammo.com/picindex.htm. Accessed 4/10/2023.

Nelson, Lee
1968 *Nail Chronology as an Aid to Dating Old Buildings.* American Association for State and Local History, Nashville, Tennessee.

Shuey, Daniel L.
1999 *W.R.A. Co. Headstamped Cartridges and Their Variations.* WCF Publications, Rockford Illinois.

Smith, Clint
2001 *Buffalo Rifles of the Frontier.* Electronic document. https://www.thefreelibrary.com/BUFFALO+RIFLES+OF+THE+FRONTIER. -a078130019

Visser, Thomas D.
1997 *Field Guide to New England Barns and Farm Buildings.* University Press of New England, Lebanon, New Hampshire.

NEW INSIGHTS ON LUNATE STONES

Richard Walter

Abstract

This paper presents preliminary results of an on-gong study concerning lunate stones. These stones are defined as quarter moon-shaped, ground and polished objects that commonly exhibit a series of notches along the distal, convex margin. Lunate stones are in the same family as boat stones, banner stones, gorgets, and other ground and polished stones. They have been assigned to a taphonomic class called *problematical objects* or *paraphernalia*. Given their fine workmanship, considerable time and effort were invested to procure these objects. The majority of lunate stones are made of greenstone, a generic term loosely applied to greenish-colored metamorphic rocks of igneous origin. So far, this project has consisted of a detailed re-examination of the available data, a research survey to report previously unpublished data and/or new finds, and a case study of a lunate stone burial at the Lane site (41GR58). Final and preliminary results of the data review, research survey, and various analyses using multiple types of analytical instrumentation are presented and discussed.

CONTRIBUTORS

Tom Ashmore spent 22 years in the Air Force as a special intelligence analyst and taught intelligence skills for another 20 years at the Air Force Intelligence School at Goodfellow AFB. He was worked with the Texas Archeological Society for 15 years and headed up avocational archeological investigations for the Concho Valley and Iraan Archeological Societies. He is currently the president of the newly formed West Texas Archeological Society, a merger of the two former societies.

Joseph Cepeda retired from West Texas A&M University in 2020 after 43 years of teaching Geology and Environmental Science. He has written about the 1978 Flood Magnitude in Palo Duro Canyon and a book about the miners and their families of the Terlingua Mining District during its heyday. His interests other than geology include history, archeology, photography, and botany, and he has served as president of the Texas Audubon Society.

A native of Turkey, TX, **Brett Cruse** is the Chief Archeologist with the Historie Sites Division of the Texas Historical Commission in Austin. He received his bachelor's degree from West Texas State University and a master's degree in archeology from Texas A&M University. After working on various archeological field projects in the south, southwest, and eastern U.S., Brett joined the Texas Historical Commission in 1995. He was the Project Director of the Red River War Battle Sites Project from 1998–2008 and is the author of the award-winning book *Battles of the Red River War: Archeological Perspectives on the Indian Campaign of 1874*, published by Texas A&M University Press. Brett and his wife Meg make their home in Round Rock, TX.

Rick Day earned a degree in geology from Stephen F. Austin State University and a teaching certificate from Texas Tech University. A teacher for 34 years, he serves as an archeological steward for the Texas Historical Commission, Region 2 Director for the Texas Archeological Society, and is a founding board member and current president of the Canyonlands Archeological Society. He resides in Whiteflat, TX with his wife Susan, and in his spare time excavates in an early gin yard and the streets of the once booming village in his large back yard.

Duane Johnson is a descendent of early West Texas settlers. He grew up in and spent his working life in agriculture and livestock. He is a graduate of West Texas State University (today WTAMU). He has a wide knowledge of Texas and Southwestern history and is attentive to anthropological and archaeological observations that point to historical events. He pinpoints and illustrates old trails, roads, and habitations of Native Americans and early arriving individuals and groups. He is Chairman of the Foard County Historical Society and a member of the Canyonlands Archeological Society and the West Texas Trails Organization. He lives in Crowell, Texas with his wife Margie, his three children, and their families.

C. A. Maedgen graduated from SMU with a degree in Geology and an MFA in Communications. As an avocational archeologist, he has worked on historic and archeological sites at Forts Chadbourne and Concho, Butterfield Trail station sites, Horsehead Crossing, and Lower Pecos rock art. He has served as Region 10 Director for the Texas Archeological Society, president of the Concho Valley Archeological Society, and a board member of the Southwestern Federation of Archaeological Societies.

Richard Walter is an independent research archeologist and a retiree from the Center for Big Bend Studies, Sul Ross University, Alpine, Texas. Richard has well over 30 years' experience as a professional archeologist and has worked across the entire Greater Southwest.

57th SOUTHWESTERN FEDERATION OF ARCHAEOLOGICAL SOCIETIES SYMPOSIUM

April 22, 2023
Quitaque, Texas

Minutes of the Annual Business Meeting

Chairman Andy Burcham called the meeting to order at 12:00 p.m. The following persons were present:

Rick Day	Canyonlands Archeological Society
Marisue Potts	Canyonlands Archeological Society
Andy Burcham	Panhandle Archeological Society
Veronica Arias	Panhandle Archeological Society (alternate Board member)
Tom Ashmore	West Texas Archeological Society
Jack Lowder	Midland Archeological Society
Karen Lowder	Midland Archeological Society (non-Board member)
Barth Robbins	Midland Archeological Society

New and Old Member Societies

The board voted unanimously to approve the recognition of the West Texas Archeological Society. Tom Ashmore stated that this is not a new society, but the renaming of the Iraan Archeological Society. The renaming reflects the more regional aspect of the Society's focus and membership since local participation from Iraan has diminished.

Discussion ensued about the separation of the Midland Archeological Society from the SWFAS. Jack Lowder and Barth Robbins agree that Midland should withdraw from the SWFAS due to low participation. The bylaws of the SWFAS require that a society wanting to withdraw must provide written notification to the board. This notification is provided in a Postscript at the conclusion of these minutes.

Minutes of the Previous Business Meeting

Jack Lowder read the minutes of the previous board meeting. These minutes had been previously approved by the Board via email.

Treasurer's Report

Treasurer Jack Lowder provided the Financial Statement for the past year (4/7/22–4/22/23). In addition, he presented the past year's Checking Account Ledger, showing two transactions; a Listing of Dues and Transactions Paid per member society for 2010–2022; and an Historical Financial Summary for 1995–2023.

Old Business

Andy Burcham provided an update of the digitization of the collection of *Transactions* by UNT's The Portal to Texas History. He presented his communications with them of the past year. In their last email exchange in March, UNT stated that they anticipated completing their intake inventory within two weeks. Jack Lowder asked if he could make changes to a previously published paper from a proceeding that had already been submitted. There were formatting errors in the article that he wanted to correct. Other members pointed out that proceedings are imperfect as editing standards have been variable over the last 65 years. Andy stated that any corrections to previously published proceedings should have been made before the material was sent to UNT, so that window has passed.

The issue was raised of securing funding for the UNT digitization. A sum of $2,500 has been pledged ($1,500 from SWFAS and $1,000 from an anonymous donor). Since the digitization project will probably not be complete for the next two years, Jack Lowder was concerned if those funds would be available when UNT is ready to bill for the work. Tom Ashmore responded that the $1,000 from the donor is deposited in the West Texas Archeological Society's bank account. Jack said the board will eventually need to plan for the eventual dissolution of funding pertinent to the individual archaeological societies, as well as the SWFAS.

New Business

Andy Burcham stated that Board member Paul Katz had emailed out the Volume 56 of the *Transactions* to SWFAS a week prior. Due to size constraints, the proceedings were sent out as a Dropbox. While some Board members had no issues accessing the link, others failed to open it due to virus concerns.

Tom Ashmore moved that no new dues be collected by the SWFAS unless new business requires it. Rick Day seconded, and the board unanimously approved the motion.

The West Texas Archeological Society will host next year's 58th annual meeting of the SWFAS in San Angelo. Tom Ashmore noted that it would have been Iraan Archeological Society's turn to host, so it was appropriate for West Texas to take on the obligation.

Tom Ashmore brought up the need to recruit new archeological societies to maintain the viability of the SWFAS. He suggested possibly recruiting the North Texas Archeological Society, Central Texas Archeological Society, and another regional society. All are within 400 miles of Hobbs, NM. Although the SWFAS bylaws state that member societies must be within 300 miles of Hobbs, Tom suggested that the SWFAS amend their bylaws to a 400-mile radius, recruit new societies to join, and drop dues altogether.

Jack Lowder stated that the biggest responsibility for societies in the SWFAS is to host the annual meeting. Any societies interested in joining must understand that obligation. Currently, the only three societies able to host are the West Texas Archeological Society, Panhandle Archeological Society, and Canyonlands Archeological Society. Since the board meeting was

already running over time, Tom Ashmore said that this important discussion would resume via email.

Andy Burcham reminded members that editing Volume 57 of the *Transactions* was the obligation of the Canyonlands Archeological Society. He suggested that Rick Day try to get a copy of the presentations from the various speakers today. Rick responded that he would try; however, one speaker, Richard Walter, was a no-show and Brett Cruse already has plans for publishing his paper elsewhere.

The meeting adjourned around 1:40 p.m.

Marisue Potts, Recording Secretary

POSTSCRIPT to the Minutes:

On April 28, 2023, Barth Robbins sent the following letter to the 2023 SWFAS Board Meeting attendees via email. In accordance with SWFAS bylaws, the letter provided written notice of withdrawal of the Midland Archaeological Society from the Southwest Federation of Archeological Societies.

April 28, 2023

To the Southwest Federation of Archeological Societies:

In accordance with the SWFAS bylaws (stated at the SWFAS 2023 board meeting) the Midland Archaeological Society regretfully submits to withdraw from the Southwest Federation of Archeological Societies as an active Society.

Barth Robbins, Midland Archeological Society representative

SOUTHWESTERN FEDERATION OF ARCHAEOLOGICAL SOCIETIES

Financial Statement

April 22, 2023

Balance as of April 7, 2022	$3,627.04
Revenue:	
Book Sales	$0.00
Dues	$0.00
Total Revenue	$0.00
Expenses:	
Printing Bulletin	$0.00
Treasurer Expenses	$0.00
Secretary Expenses	$0.00
Sales Tax, Postage, Table Rent, & Supplies	$75.74
Total Expenses	$75.74
Balance as of April 22, 2023	$3,551.30

SOUTHWESTERN FEDERATION OF ARCHAEOLOGICAL SOCIETIES
Checking Account Ledger

SOUTHWESTERN FEDERATION OF ARCHAEOLOGICAL SOCIETIES					
Number	Date	Desciption of Transaction	Payment	Deposit	Balance
					$3,627.04
SC	6/28/22	Check Reorder	$38.94		$3,588.10
1001	1/5/23	Postage for Mailing Bulletins to Univ North Texas	$36.80		$3,551.30

SOUTHWESTERN FEDERATION OF ARCHAEOLOGICAL SOCIETIES
Dues and Transactions Paid

SOUTHWESTERN FEDERATION OF ARCHAEOLOGICAL SOCIETIES

Dues Paid

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Canyonlands	-	-	-	-	-	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	-	-
Concho Valley	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	-	-
Iraan	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	-	-
Midland	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	-	-
Panhandle	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	-	-
SENM	$10.00	-	$10.00	-	$10.00	$10.00	-	-	-	-	-	-	-
Total	$50.00	$40.00	$50.00	$40.00	$50.00	$60.00	$50.00	$50.00	$50.00	$50.00	$50.00	$0.00	$0.00

Payment for 10 copies of Transactions

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Canyonlands	-	-	-	-	-	$150.00	$150.00	$150.00	$120.00	$100.00	$110.00	-	-
Concho Valley	$45.00	$120.00	$120.00	$150.00	$30.00	$150.00	$150.00	$150.00	$120.00	$100.00	$110.00	-	-
Iraan	$90.00	$120.00	$120.00	$150.00	$30.00	$150.00	$150.00	$150.00	$120.00	$100.00	$110.00	-	-
Midland	$90.00	$120.00	$120.00	$150.00	$30.00	$150.00	$150.00	$150.00	$120.00	$100.00	$110.00	-	-
Panhandle	$135.00	$180.00	$120.00	$150.00	$30.00	$150.00	$150.00	$150.00	$120.00	$100.00	$110.00	-	-
SENM*	$45.00	-	-	-	$30.00	$150.00	-	-	-	-	-	-	-
Total	$405.00	$540.00	$480.00	$600.00	$150.00	$900.00	$750.00	$750.00	$600.00	$500.00	$550.00	$0.00	$0.00

* Exempt from payment of 10 copies of transactions during 2011 and 2012 in exchange for publishing transactions in 2011 and 2012.

SOUTHWESTERN FEDERATION OF ARCHAEOLOGICAL SOCIETIES
Historical Financial Summary

SOUTHWESTERN FEDERATION OF ARCHAEOLOGICAL SOCIETIES

Statement Year	Book Sales	Dues	Total Revenue	Bulletin Printing	Treasurer Expenses	Secretary Expenses	Misc.* Expenses	Total Expenses	Ending Balance
1995									2126.44
1996	621.67	50.00	671.67	922.73	0.00	9.62	223.80	1156.15	1641.96
1997	697.90	130.00	827.90	1210.90	0.00	74.16	163.70	1448.76	1021.10
1998	1026.53	10.00	1036.53	0.00	0.00	12.80	96.37	109.17	1948.46
1999	306.44	30.00	336.44	1250.00	6.40	19.20	97.08	1372.68	912.22
2000	758.55	70.00	828.55	1015.00	0.00	0.00	0.00	1015.00	725.77
2001	720.50	40.00	760.50	500.00	0.00	0.00	0.00	500.00	986.27
2002	553.20	50.00	603.20	0.00	0.00	0.00	0.00	0.00	1589.47
2003	711.00	60.00	771.00	625.00	0.00	0.00	20.00	645.00	1715.47
2004	581.00	50.00	631.00	781.25	0.00	0.00	24.29	805.54	1540.93
2005	290.00	70.00	360.00	425.00	0.00	0.00	0.00	425.00	1475.93
2006	506.26	50.00	556.26	870.00	0.00	0.00	0.00	870.00	1162.19
2007	316.00	40.00	356.00	475.00	0.00	26.85	0.00	501.85	1016.34
2008	232.00	40.00	272.00	375.00	0.00	0.00	0.00	375.00	913.34
2009	413.00	70.00	483.00	520.00	0.00	0.00	0.00	520.00	876.34
2010	508.00	50.00	558.00	700.00	0.00	0.00	0.00	700.00	734.34
2011	500.75	50.00	550.75	400.00	0.00	0.00	0.00	400.00	885.09
2012	642.00	40.00	682.00	0.00	0.00	0.00	0.00	0.00	1567.09
2013	545.00	50.00	595.00	0.00	0.00	0.00	0.00	0.00	2162.09
2014	600.00	40.00	640.00	420.00	0.00	0.00	0.00	420.00	2382.09
2015	156.00	50.00	206.00	150.00	0.00	0.00	0.00	150.00	2438.09
2016	900.00	60.00	960.00	900.00	0.00	0.00	0.00	900.00	2498.09
2017	750.00	50.00	800.00	0.00	0.00	0.00	0.00	0.00	3298.09
2018	750.00	50.00	800.00	750.00	0.00	0.00	0.00	750.00	3348.09
2019	627.00	50.00	677.00	600.00	0.00	0.00	0.00	600.00	3425.09
2020	500.00	50.00	550.00	391.60	0.00	0.00	0.00	391.60	3583.49
2021	550.00	50.00	600.00	529.20	0.00	0.00	27.25	556.45	3627.04
2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3627.04
2023	0.00	0.00	0.00	0.00	0.00	0.00	75.74	75.74	3551.30

* Miscellaneous Expenses includes Sales Tax, Postage, Table Rent, and Supplies.