

Desert Tracks

Publication of the Southern Trails Chapter
of the Oregon-California Trails Association

September 2022



View on the Gila River

by John Russell Bartlett, 1852

**the Great Bend of the Gila Conservation Act
introduced in U. S. Congress, August 2022**

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Publication of the Southern Trails Chapter of the Oregon-California Trails Association

Past issues can be found via a link on the Southern Trails Chapter website southern-trails.org.

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Table of Contents

Thoughts from the Editors (Judkins and Miller) 1
About the Writers. 3
Following the Comanche and Butterfield Trail from Space (Ashmore). 4
Trail Gathering in Tombstone Pictorial. 13
The Mystery of Four Rock Cairns at Dragoon Station (Ahnert). 14
Update on Coronado Discoveries in S. Arizona (news). 22
Raphael Pumpelly Travels the Devil’s Highway in 1861 and 1915 (Storms). 24
Walking in the Mud 12,000 Years Ago. 45
Stuck in the Mud (Miller) 45

On the Cover:

View of the Gila

by John Russell Bartlett, 1852

the Great Bend of the Gila Conservation Act

introduced in U. S. Congress, August 2022 (see page 2)

original in John Carter Brown Library, Brown University, Providence, Rhode Island

Thoughts from the Editors...

One of the purposes of a “Thoughts from the Editors...” column is to have space to make apologies for sloppy editorial mistakes. In this case, it involves the author of the “Foster’s Hole Revisited” article in the February 2022 issue -- Rose Ann **TOMPKINS**. First, I should have noted in that issue’s “About the Writers...” section that Rose Ann was not just a “long-time member” of the Southern Trails Chapter, but a **charter** member of the STC. Second, not only has she published numerous previous articles in *Desert Tracks*, she was the Editor of the first version of this publication, a chapter newsletter called *Arizona Trails*. And third, I misspelled her last name, inserting an extraneous and improper “H” (although I did manage to spell it right under the article title on page 6), and, thankfully, I did spell her first name properly, even if there are several ways I could have messed that up also. I apologize for these errors, and certainly intended no slight or disrespect. (Note that in this paragraph I have referred to “I,” because these errors were not made by the “Editors” (Judkins and Miller), but by Judkins alone.

The Great Bend of the Gila Conservation Act was introduced on 8-16-2022 in the U. S. House of Representatives by Congressman Raúl Grijalva of Arizona, who is also Chair of the House Natural Resources Committee. Congressman Grijalva has clearly demonstrated his ability to package several related bills together in order to gain support from the Representatives of other states and to secure its passage. The bill, HR 8719 of the 117th Congress (2021-2022) currently has 11 co-sponsors and has been referred to the House Natural Resources Subcommittee on Indigenous Peoples of the United States and the House Natural Resources Subcommittee on National Parks, Forests, and Public Lands. The bill calls for the establishment of two conservation areas, one being the "Great Bend of the Gila" and the other the nearby "Palo Verde National Conservation Area." The Great Bend of the Gila National Conservation area consists of 329,310 acres of land administered by the Bureau of Land Management, as generally depicted on the Great Bend of the Gila Map. The purpose of the Act is to conserve, protect, and enhance for the benefit and enjoyment of present and future generations the Indigenous ancestral, archaeological, cultural, historic, geologic, hydrologic, natural, recreational, educational, and scenic resources of the Conservation Areas. The area begins well north of the town of Gila Bend along the south-flowing stretch of the Gila River, including a large mountainous area of wilderness to the west, and the Painted Rocks and Sentinel Plains areas to the west of the town of Gila Bend. An official map of the proposed Conservation Area will be published soon (see the front cover).

More Footprints, have been found in the Salt Desert of the western Utah Test and Training Range North Area of Hill Air Force Base. The precise location has not been disclosed, but the site of 88 human footprints is apparently in the general vicinity of the track of the 1846 Donner-Reed party, which goes through Donner-Reed Pass in the Silver Island Mountains and 12 miles further west to the Donner Spring at the east flank of Pilot Peak, straddling the Utah-Nevada border. The footprints are of adults and children and are estimated to be 12,000 years old. This discovery of even more very early "desert tracks" was made in July 2022. This discovery brings to mind not only the other set of even older human tracks found at White Sands in 2020 (see pg 7 of the February 2021 issue of *Desert Tracks*), but also brings back memories of an expedition to the area made by co-editor David H. Miller in 1955. David was only 15 years old then, and accompanied his father, Dr. David E. Miller, who was at the time a historian at the University of Utah. The Donner-Reed party had a very difficult trek through the Salt Desert flats, lacking water and getting the wagons bogged down in the sub-surface mud. The 1955 Miller expedition went there to try to find their abandoned wagons. The Miller expedition and the July 2022 discovery of the 12,000-year-old human tracks are all linked in that they occurred on the same salt and mud flat area to the west of the Great Salt Lake. Since all three groups (the Pleistocene-era inhabitants, the 1846 Donner-Reed party, and the 1955 Miller expedition) dealt with the mud there, we have decided to write a bit more about all of this. See pages 45-48 of this issue, and Dr. David H. Miller's article, "Stuck in the Mud."

"Trail Gathering in Tombstone," January 24-27, 2023.

An annual membership meeting will occur along with a "Trail Gathering" (conference) in Tombstone, AZ January 24-27, 2023. The Trail Gathering will include lectures and presentations as well as several field trips to nearby Southern Trail locations. Watch for further details to be announced on the Southern Trails Chapter web site (<http://southern-trails.org/>), on the "Southern Trails Chapter of OCTA" Facebook page, on the "OCTA e-News," and in a planned information sheet to be e-mailed to the Southern Trails Chapter membership. See page 13 for a pictorial of planned field trip sites.

Sometimes having a broad perspective of an issue is a wise approach. Here at *Desert Tracks* we often like to take the **broad definition of “Southern” Trails**. For instance, the Donner-Reed trail referred to above is not exactly "southern," but some branches of the California Trail, just east of the Hastings Cutoff, were used to go even farther south on the "Mormon Trail" to the Mojave Desert of Southern California. The Mormon Trail, at least, is a feeder trail of sorts, connecting into the main network of "southern

Thoughts from the Editors...

trails," in the same manner that the Santa Fé Trail feeds into the main "southern trails" in New Mexico. While we are at it, we will lay claim to the Old Spanish Trail from Abiquiu near Santa Fé, going from New Mexico to Colorado and Utah, then to Southern California, as a "southern trail." This issue also has an article on the "Devil's Highway" of extreme southwestern Arizona, a "southern trail" that is further south than the usual Gila River Route, a trail used by countless "Sonoran 48'ers" and some American 49'ers. And in the next issue we anticipate publishing an article by Dr. David H. Miller and Dr. Harry Hewitt on the "Devil's Backbone," across the Sierra Madre even further south in Mexico, on a route used by some Americans in 1849 to travel from south Texas to Mazatlán, before they continued on to the gold fields via sailing ships. The Miller-Hewitt article was earlier promised for this issue, but we have chosen to delay it to the first issue in 2023. So, expect more in the future of this wide view of what we mean by "southern trails," a vast network of trails in the west, going overland from Arkansas and Missouri and via sailing ship to Texas, and including Oklahoma, Texas, New Mexico, Colorado, Utah, Arizona, Chihuahua, Sonora, Baja California, and Alta California.

Other **articles in this issue** include one by Tom Ashmore on satellite views of the Comanche War Trail in the area near the Horsehead Crossing of the Pecos River in West Texas, a concluding article by Gerald Ahnert on the rock cairns at Dragoon Springs Stage Station in Arizona east of Tucson, and an update on the continuing and remarkable series of recent discoveries of Coronado-era artifacts in Southern Arizona.

Regarding the **recently-discovered Coronado-era Arizona artifacts**, I want to say that skepticism is a healthy quality to have when doing science and history, and in other aspects of life like viewing something on social media, or watching the news. Too often, stories get started one way or another and are perpetuated through time, even if not based on fact and clear evidence. Such skepticism led editor Judkins to be very slow to consider a radically-different view of the route of the Coronado Expedition of 1540. The view held by virtually all Coronado scholars over the past 50 years or so is that the route went from Sinaloa into Sonora, ascended the Sonora River Valley, crossed into Arizona likely along the north-flowing San Pedro River, and departed toward the northeast at some point possibly near today's Tombstone, perhaps skirting the western slopes of the Chiricahua mountains, then turning north, maybe in the Doubtful Canyon area near today's

I-10 and the AZ-NM border. The trail then went directly north to Zuni, NM. This route theory was nearly universally adopted, despite being based only on interpretation of the expedition records and little hard evidence. At two meetings in January and February 2022 Dr. Deni Seymour, an Arizona archaeologist, announced at the Tubac Presidio State Park that she and her associates had discovered a large number of artifacts that are of the type generally recognized as being associated with the 1540 Coronado Expedition, but the site of these artifacts was in the Upper Santa Cruz River Valley of Southern Arizona, well west of the route generally recognized as used by Coronado. Over a hundred "gable-head" nails (also known as "caret-head") and a number of copper crossbow bolt heads were found. Very remarkably, they also found a small-bore "wall cannon" of a type used in the 1500's. How did these artifacts come to be at a location about 50 miles or so west of the San Pedro River?

Records of the Coronado Expedition frequently note that as they moved slowly north the expedition was sending out lookouts to the west to try to connect with the supply ships sailed by Hernando de Alarcón, which were to ascend the Gulf of California. Alarcón did, in fact, sail his two ships up the Colorado River, perhaps to around the area of its junction with the Gila River at a spot that would later become Yuma. There is some indication in the Coronado records that the expedition intentionally kept as far west as they could, in order to connect with Alarcón. They established a way-station of sorts, were some members remained, perhaps to re-supply the expedition. That way-station was named Suyá, also known as San Geronimo III. Most Coronado scholars believe Suyá was to the south and west along the Rio Sonora. Is it possible that the recently-discovered Santa Cruz River site is Suyá?

Since the January announcement of the discovery of the many artifacts at the Santa Cruz River site, Dr. Seymour has continued her search for Coronado artifacts, and has, as of the end of September 2022, now located multiple other sites containing small numbers of Coronado-era artifacts, such as gable-head nails and medieval-style muleshoes. These additional sites are all to the east of the Santa Cruz River in several different west-east valleys, with water sources. One such site might be the place where the trail from the Santa Cruz intersects with the San Pedro River. See an update on these discoveries on pages 22 and 23.

ABOUT THE WRITERS...

Tom Ashmore has a 22-year background in military special intelligence with the Air Force, followed by another 20 years teaching at the Air Force Intelligence School in Texas. He later worked in avocational archaeology in West Texas. Ashmore developed a methodology to follow the Butterfield Trail by using both historical documents and Google Earth imagery interpretation, followed by confirmation by archaeological investigations. In this way he has rediscovered three stagecoach stations whose locations were lost to history. He is a member of the West Texas (formerly Iraan) Archeological Society, and board member of the Southwest Federation of Archeological Societies. He wrote the book *The Butterfield Trail Through The Concho Valley and West Texas*. He has recently worked on imaging and locating the Comanche War Trail and the wagon road between Horsehead Crossing of the Pecos and Fort Stockton/Comanche Spring, which he reports on in this issue. He has published three previous articles in *Desert Tracks*.

Gerald T. Ahnert is an expert on the Butterfield Overland Mail in Arizona. Ahnert has published numerous articles on the Overland Mail. In this issue he writes about a penknife he found on the trail and about how people wrote on the trail, about the technique of “turnpiking” (a method to shape trails for better drainage and erosion control), and about the graves at Dragoon Springs Station. Ahnert continues to spend several months in the field on the Butterfield trail in Arizona each year. He recently finished revisions for the third edition of his book, *The Butterfield Trail and Overland Mail Company in Arizona*, soon to be “in press.”

Daniel G. Judkins has been the editor of *Desert Tracks* since 2020, and a member of the Southern Trails Chapter of OCTA since 2016. He has long been interested in the history of the Southwest and of the *Pimeria Alta*. He has been a member and board member of numerous historical societies, and is currently a board director of the Southern Trails Chapter. He is particularly interested in trails across the southwest through all time periods, from man's first arrival during the Peistocene era; times when Native Americans were the only ones present; the Spanish period starting with first entries by the Cabeza de Vaca group, Esteban and Fray Marcos' advance and then the Coronado Expedition, and on until 1821; the Mexican period, and the arrival of the first Americans in the Southwest, up until the arrival of the train in 1880. He is also particularly interested in Kino, Anza, Antoine Leroux, Mexican "48'ers," and the southern-trail forty-niners.

C. Gilbert Storms has a Ph.D. in English from Rutgers University and has taught at Miami University (Ohio). He currently lives in Tucson, where he researches and writes on Arizona history. He is fascinated by pioneer narratives. He gave a Zoom talk to the Southern Trails Chapter in 2021 on Charles Poston, Raphael Pumpelly, and the Devil's Road, and his article in this issue of *Desert Tracks* grew out of that talk. He has published articles in the *Journal of Arizona History*, the *Journal of the Wild West History Association*, and the *Border Vidette*. His books are *Reconnaissance in Sonora: Charles D. Poston's 1854 Exploration of Mexico and the Gadsden Purchase* (2015) and *Raphael Pumpelly's Arizona: The Frontier Adventures of a Young Mining Engineer* (2022). He is currently working on a book about life in Gadsden Purchase Arizona, 1854-65.

David H. Miller first got interested in trails in the West at the age of 15 when he served in 1955 as the official photographer for his father, Dr. David E. Miller, on his University of Utah expedition through the Salt Desert in western Utah, along the 1846 Donner-Reed party route. Dr. Miller writes in this issue about his memories of that expedition, in which his group got their Jeep stuck in the mud in the same way that the Donner-Reed party got their wagons stuck. Dr. Miller has been the co-editor of *Desert Tracks* since 2020 and is a director on the board of the Southern Trails Chapter of OCTA. He spent his career studying and teaching about the history of the west, retiring after serving as Dean of the School of Liberal Arts at Cameron University in Lawton, OK.

A Call for Authors... *Desert Tracks* welcomes submission of article manuscripts for possible publication. The topic is the “Southern Trails,” that is, early trails and roads from Oklahoma and Texas through New Mexico and Arizona to California. The focus is often on California-bound emigrants and the mid-19th century westward advance in general, but we also welcome articles dealing with earlier time periods, including the earliest trails, and the Spanish and Mexican periods. And sometimes we have a broad view of what a “Southern Trail” is, perhaps including southern Utah and the northern Mexican states. If you have an idea for an article please contact David Miller or Daniel Judkins. Their email addresses are on the inside front cover. We'd be happy to talk to you about your ideas.

Following The Comanche And Butterfield Trail From Space

Tom Ashmore

West Texas Archeological Society

The Great Comanche Trail was the accumulation of 90 years of running well over a million horses from Mexico up to the Texas Panhandle and Oklahoma territory. Although we know the general route of the trail there is currently only one place where the land scar is still visible and that is between Horsehead Crossing on the Pecos River and Comanche Spring, Fort Stockton, Texas. This section has been only lightly affected by modern ranching, farming, oil drilling and urbanization. The trail is so prominent that to this day if you know how to look for it you can see it in satellite imagery. The trail was so prominent that it also became the main wagon and stagecoach road to Fort Stockton. This study not only examines the imagery, but includes original documents and maps as well as on-ground reconnaissance of the wagon road and the Butterfield Swing Station just off the wagon road on the way to Fort Stockton.



Figure 1. Comanche Trail (Texas Beyond History)

History

In order to understand how the Comanche Trail came to be a brief history is required. The Comanche first moved into the plains of northern Texas around 1720 after acquiring herds of horses from the Utes, as well as their own raiding of the Spanish territory of New Mexico. Their herds grew and the raids continued, making the horses their main commodity in trading with other Indian nations and the French to the east. Soon the raids reached into what is now central and southern Texas, then also controlled by the Spanish.

The Comanche nation grew with more and more raids until they were rich with horses. This and their buffalo hunting prowess from horseback were their main commodity for trading for supplies and guns to the north, west, and east of their controlled territory in northern Texas and western Oklahoma. However, in 1781 a wave of smallpox decimated the Comanche nation, losing half their population in one year. With this they decided to make peace with the Spanish. A treaty was signed in 1785 and 1786, the different dates being the eastern and western band's agreements.

With this treaty the Comanche agreed to stop their raiding and ally with the Spanish in their war against the Apache. The Spanish agreed to trade goods to the Comanche and also provide them with horses as a form of tribute. Trade instead of raids continued until the defeat of the Spanish by Mexico in 1821. At that point the Mexican government, being poor from the effects of the war, decided not to honor the former Spanish treaty.¹ The Comanche did not understand this and considered it a betrayal since much of their former trading was with both Mexican and Spanish that occupied the same territory. Thus, the raids resumed in full force and this time they went all the way into Mexico, using the trail that had previously been used for trading, making it now the Comanche War Trail (see Figure 1). This trail continued to be used for the next 50 years, making the entire period of use around 90 years. Some of the other important dates during this period are as follows.

- 1840** • Ambush of Comanche chiefs in San Antonio during treaty negotiations set off a bloody war with Texas
 - Comanche raids became larger, more deadly, and penetrated deeply into Texas and Mexico
- 1846** • Forty-four raids of 200 - 400 warriors each sent into Mexico
 - 2,649 dead and 852 captives (580 were redeemed)
 - By one estimate one million horses stolen over eight year period ²
- 1848** • End of Mexican-American War
 - Treaty pledged U.S. to patrol border to protect Mexico from raids

- Promised to return captives, goods to Mexico when obtained through interdiction efforts
- Raids continued deeper into Mexico, all the way to horse-rich Durango

1849 • Cholera epidemic devastates Comanche Nation

1850 • Severe drought impacts buffalo herds

Late 1850s – 1861

- Military campaigns/forts create line of defense across Texas
- Raids continue but reduced

1861 – 1865

- Civil War reduces Texas defensive line – Comanche raids increase

1866 – 1870

- Military returns to Texas, reoccupies defensive line and begins a campaign of offense

1870 • Last raid into Mexico by Comanche

1875 • Red River Wars brings end and surrender by Comanche/Kiowa

Satellite Imagery Interpretation of Historic Trails

Satellite imagery is a fairly new tool in the archeology tool set. This is now well known in the professional archeological community, but it is also available to avocational archeologists and trail followers. The reason an historic trail can be traced through satellite imagery is that satellite images can show slight differences in the vegetation caused by the years of constant use of the trail and then allowing the vegetation to grow back after the abandoning of the trail. The vegetation will generally grow back slightly different than the surrounding area due to the trail having become a depression which later attracts more soil and water runoff from rains. Bushes and grass tend to grow slightly healthier in the depressions. In most areas it can be so slight that casual observation on the ground or even from an aircraft cannot detect it. However, using satellite imagery, especially with multiple images of the same location using Google Earth's 'Historical Imagery' tool, a trained eye can find the trace of these vegetation changes in long wagon trail lines, and in this case the animal trails, across the terrain.

Using satellite imagery from an extreme oblique angle, which is what Google Earth allows, can reveal the slight difference in a much more striking contrast and you can see the trail as it snakes across the countryside. However, another extremely important feature in Google Earth that is needed to follow the more difficult stretches of trail is the

historical imagery capability. When looking at a location with the historical imagery capability set to on, you can move through the many years of images, looking at the exact same piece of earth from the exact same angle and find the one that will show the trace best for that piece of earth. Often the images are in different seasons, helping or hurting the visibility. I try to angle it out and go pretty far out so I get a long distance look. That is usually where I can see the faint trails best. The old trails tend to not follow existing boundaries or roads. When you see a faint trail crossing multiple properties, but in no logical relationship to modern boundaries it is a good bet that it is an old trail. They always followed the easiest terrain possible - no steep cuts or hills. If they had to go down a cut they would always find the easiest way possible. You have to look at the trails from all different angles to pick them out piece by piece. Sometimes I go backward as if I'm looking out the back of an airplane and sometime I go forward as if I'm looking out the front. I've even followed the trail sideways. It all depends and it's a lot of trial and error. The final trick is to be able to move the image forward and backward or side-to-side. For some reason, this allows your eyes to pick up the hard-to-find trace line where they could not in a still picture. I've found that the best elevation to be at is around 3,000 feet. I connect the pieces together using the Google Earth line drawing measuring tool to put a line down on top of it and then I begin with the next piece from the end of the line. Most of the time the trail is darker rather than lighter. Sometimes it looks like a bunch of bushes in a row and sometimes it is just some dark splotching that ends up looking like a faint line.

The key to following historic trails through Google Earth is you must know a starting and ending point. And, of course, the final validation of the trail needs to be on the ground at critical points along the way. In the case of a stagecoach road the obvious place is the station. In the case of this section of the Comanche Trail it is very specific. We know it ran from Horsehead Crossing on the Pecos River to Comanche Spring, now Fort Stockton, Texas. And we know the stagecoach road appeared to follow it on its way to Camp Stockton, later to become Fort Stockton.

Comanche Trail Crossing of the Pecos

Horsehead Crossing was actually four different crossing points. Those four were the generally known wagon crossing point, a separate cattle crossing, the Comanche crossing and the stagecoach skiff crossing point. These four crossing points were stretched over 350 yards and two bends of the river. The Comanche Trail crossing was a logical crossing point for heading north to Big Spring, whereas the stagecoach and cattle drive trails came from the east to follow the Middle Concho River. The stagecoach crossing was a straight stretch just around the bend from the Comanche Trail crossing. This is the farthest point from the main wagon crossing and in a totally different bend of the river. The Comanche Trail heading north

is fainter than in the section to the southwest, but a faint trail can still be seen from above (see Figure 2).

A first-hand historical account validates this Comanche Trail water crossing point in an unexpected way. The year was 1859 and the Butterfield Overland Mail route had been changed from continuing up the Pecos River and crossing the Guadalupe Mountains to a new route down to Camp

Stockton and on to Fort Davis and El Paso through a southern route. A westbound passenger noted after leaving from the west side of the river on the way to Camp Stockton the coach crossed “eight beaten paths, side by side [which] indicated the frequency of their bloody raids into northern Mexico for cattle, horses, and children.”³

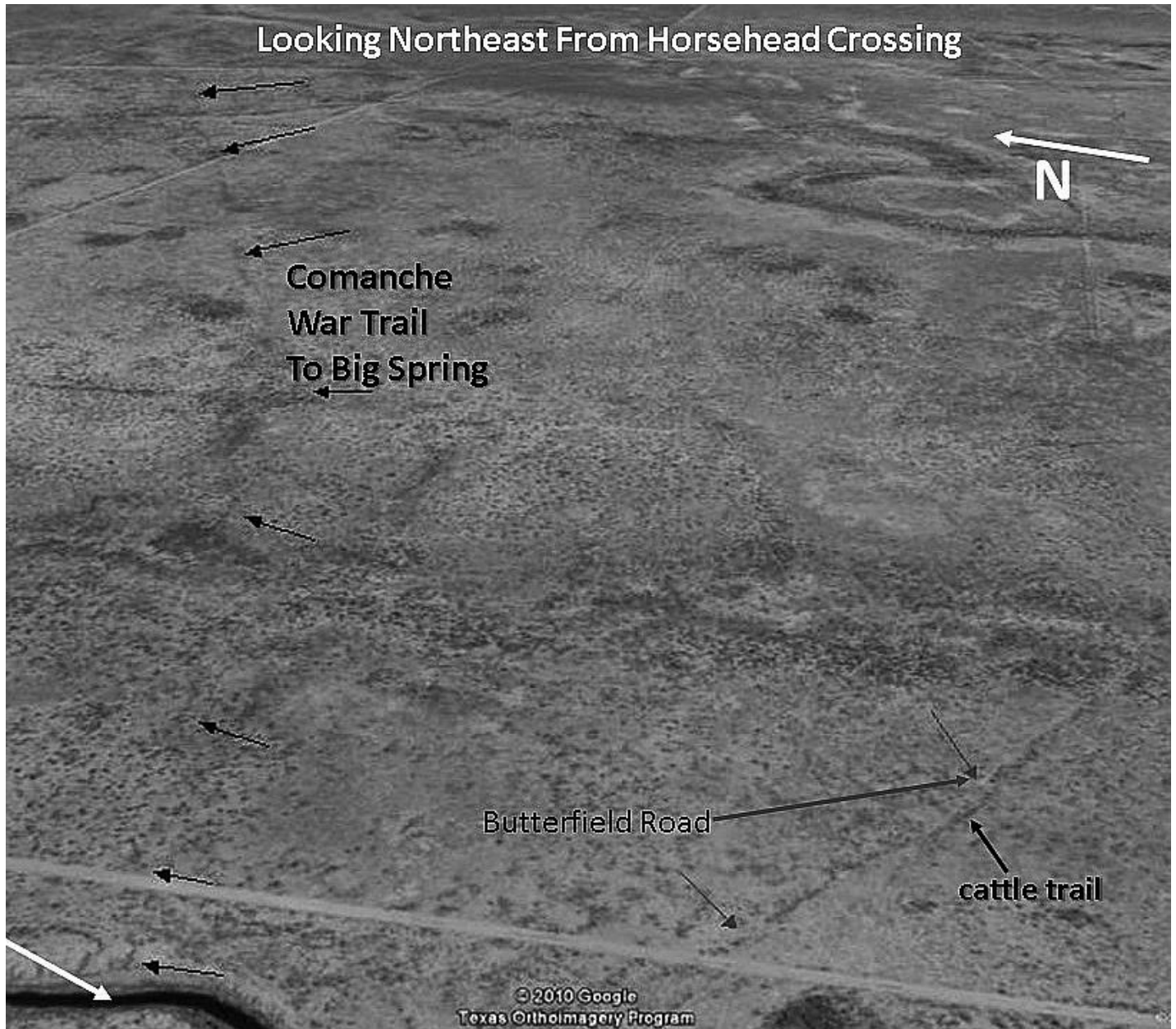


Figure 2. Horsehead Crossing looking northeast

It turns out through Google Earth analysis of both trails the crossing point mentioned by the passenger can be found. Although the stagecoach/wagon road

becomes one with the Comanche Trail just a little further to the west, the two trails diverged to their separate crossing points, making an X just before each reaches the water line (see Figure 3, next page).

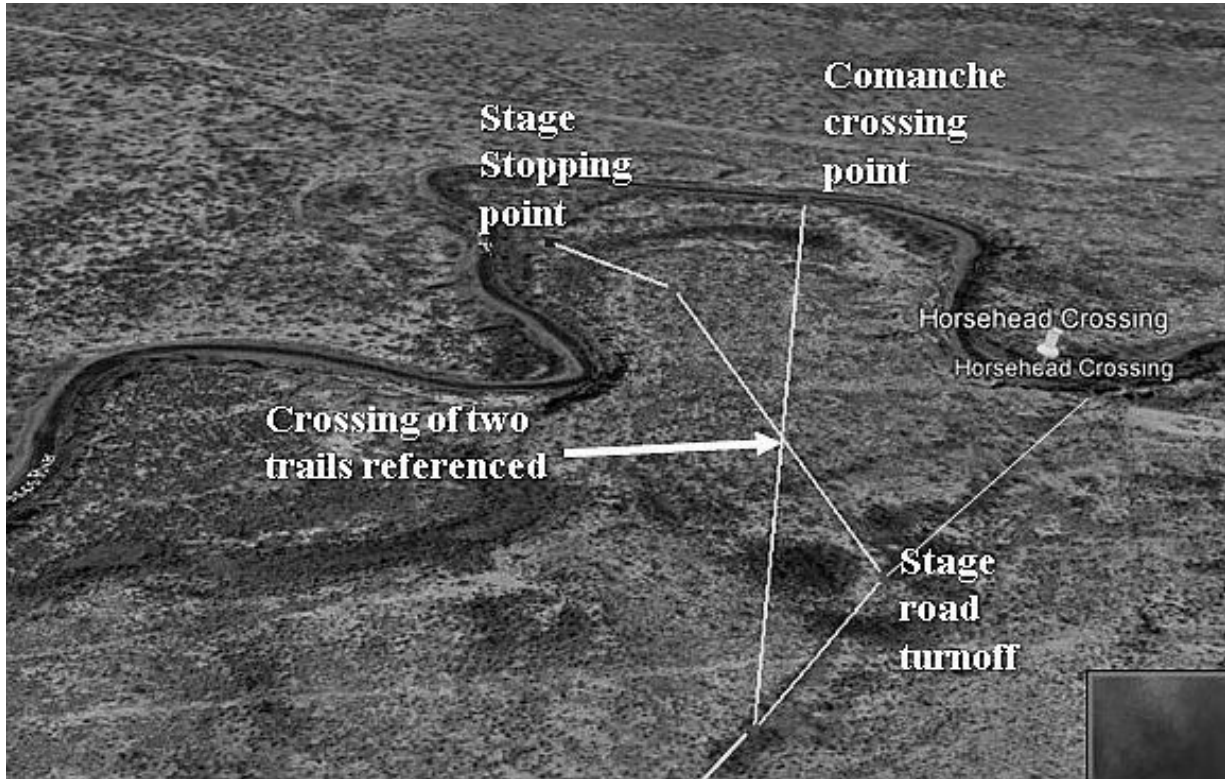


Figure 3. Horsehead Crossing looking northeast

As you can see in the image above (Figure 3) the wagon road and the Comanche Trail merge into one soon after leaving Horsehead Crossing. In fact the wagon road runs right down the middle of the Indian trail all the way to Fort Stockton. At the time I'm sure there was no brush growing up as it is today and it was the easiest ready-made road for

the stagecoach and wagons. The road makes a straight line to a low plateau seven miles from the river. Although the wagon road is only about eight feet wide the brush scar averages 40 feet wide all the way to the plateau (see Figure 4).

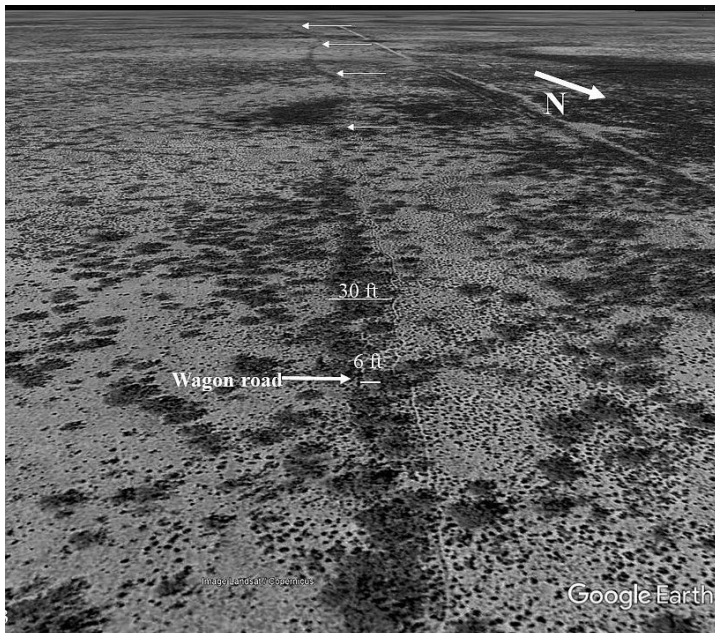


Figure 4. Trail leading away from Horsehead Crossing to the southwest

Comanche Trail/Wagon Road To Fort Stockton

Earlier, in 1849, when the area was first being explored for a route from San Antonio to El Paso by the Lieutenant William Whiting and Smith Expedition they came across the Comanche Trail while following the Pecos River on the west side. Their journal states they came across “a large Comanche war path which filled us with much astonishment. Close together, 25 deep worn and much used trails made a great road which told us this was a highway by which each year the Comanche of the north desolate Durango and Chihuahua.”⁴

By following their general path before coming across the trail, which was provided in some detail, it appears the party was already up on the plateau where the Comanche Trail is the widest when they came across it. This would explain their description of 25 deep worn trails.⁵ It also states they traveled on the trail for five miles to camp at Antelope Spring, which was the spring close to the later

stagecoach station, addressed further on in this report. That again verifies the location of their intersecting the Comanche Trail up on the plateau and at its widest point. From Antelope Spring they followed the trail to what they described as southwest to a high table ridge which is now known as the southern point of 7-Mile Mesa, just before you enter Fort Stockton.

As the trail comes to the plateau seven miles from Horsehead Crossing it climbs a draw leading up to the flat. It makes two elevation changes of 60 feet each. This is the second piece of information that validates this as being trail and wagon road. In 1867 Brevet Lieutenant Colonel E. J. Strang conducted a large unit march from Fort Stockton to Fort Chadbourne, making a detailed topographical map along the way. He used the main wagon road and as he came off the plateau heading to Horsehead Crossing his topographer annotated two elevation changes on his map that match the ones seen on Google Earth (see Figures 5 and 6, below, and Figure 7, a view looking back NE,).⁶



Figure 5. 60 foot elevation changes leading up to plateau

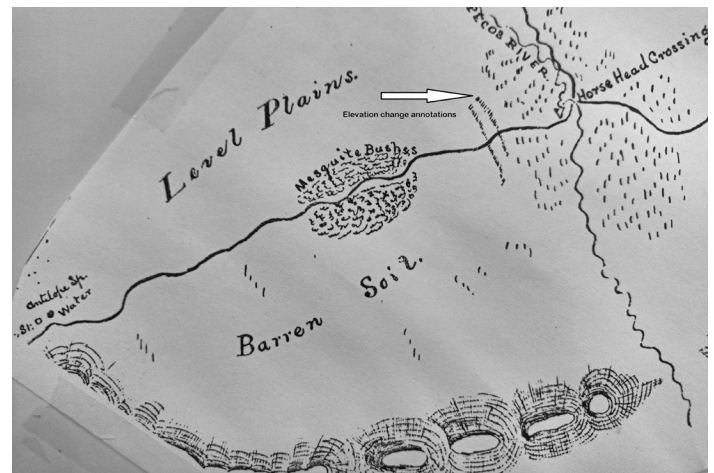


Figure 6. LTC Strang map with elevation change annotations

After the trail moves onto the plateau proper it really becomes apparent from above. 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.



Figure 7. Comanche Trail looking northeast back to Horsehead Crossing

As stated previously, one of the most important factors of validating a potential trail/wagon road is if a stagecoach station can be verified along the route. And in this case there was a stagecoach station located just off the main road running down the middle of the Comanche Trail. The station was addressed in Glen Ely's book on the Butterfield Overland Mail.⁷ By some accounts the station was either called Camp Pleasant or Antelope Spring Station. There is little documentation on this station since it was built so late in the period of the Butterfield Overland Mail operation due to the change of route in mid-1859 and the abandonment of the entire operation at the beginning of the Civil War in 1861. The station was needed because there was nothing on the west side of the Pecos at their turn around point. Thus, the mule team was required to make a round trip. This was done in the middle of the night and very likely at a walking pace. The station was 23 miles from Horsehead Crossing, making this a 46 mile round trip with a long rest in the middle. This is doable for a mule team, but adding another 22 miles to make it to Camp Stockton Station was beyond the expectation of a mule team, easy pace or not.

We were lucky to also visit the station site with the landowner and verified it was very much the proper construct and layout of a typical Butterfield Stage Station. It was constructed much like the station at Fort Chadbourne, where we personally worked on the excavation in 2008.⁸ In fact it was the exact same length, 81.3 feet, but 5 feet narrower, at 18.6 feet. This is obviously much larger than a stone-built homestead dog-trot style building. Although only the base of the walls remain, a large pile of wall stones were piled some 300 feet away and then abandoned at some time in the past.

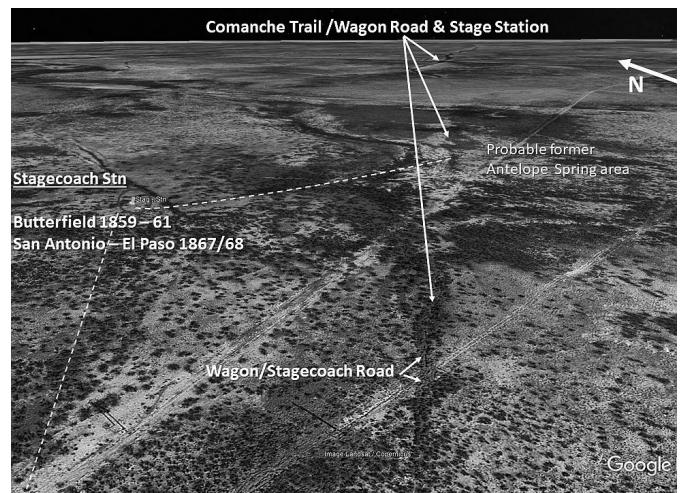


Figure 8. Comanche Trail/Wagon Road and Stagecoach Station Location

The stagecoach station was accessed from the main road by a service road that angled off the main wagon road from both directions (see Figure 8). The area was littered with dishware, 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 the excavation of two previous Butterfield Stagecoach Stations in West Texas.⁹ However, this can be explained by the fact it is highly likely this station was reused after the Civil War by the San Antonio to El Paso Stage Line, also referred to as the Ben Ficklin Stage Line. It is documented that this stage line used the same route to Fort Stockton for a short time beginning in March of 1868. The route was still being set up in July of 1867, which means this station was probably in the restoration stage at that time.¹⁰ However, the Indian problems became so acute at Horsehead Crossing (and probably at this location) in the 1867-68 period the commander at Fort Stockton ordered a new river crossing be found 35 miles further downstream. The alternate location became known as Camp Melvin/Pontoon Crossing.¹¹ The new stagecoach crossing point was just upriver at a site nicknamed Ficklin's Ferry in the fall of 1868.¹²

An example of the ambushes taking place regularly at Horsehead Crossing in that period is an account by Charles Goodnight of an entire cattle outfit that was set upon by a large band of Indians while grazing at Horsehead Crossing. Three men were killed, the entire herd was stolen and the Indians laid siege for three days on the survivors who took refuge in the abandoned adobe Butterfield Station before another party, headed up by Colonel William Dalrymple, came upon them causing the Indians to leave with their stolen herd to be bartered off in New Mexico to the Comancheros.¹³



Figure 9. Camp Pleasant/Antelope Spring Station Ruins



Figure 10. Camp Pleasant/Antelope Spring Stage Station Layout

In addition to inspecting the stagecoach site (see Figures 9 & 10), we walked the wagon road, finding it with the proper wagon rut depressions and wagon width. This road was used up to the early 1900s and we found period tins and bottle trash from that era alongside the road. It was also very apparent the soil in this area is a very fine sand just beneath the surface. This is probably another reason the trail is more defined than other regions.

A close up of the wagon road within the Comanche Trail can be seen in satellite imagery near the stagecoach station. A modern powerline road crosses this area, giving a good comparison of dimensions. The wheel tracks are 6 foot wide and rutted from the narrow, wooden wheels (see Figure 11).

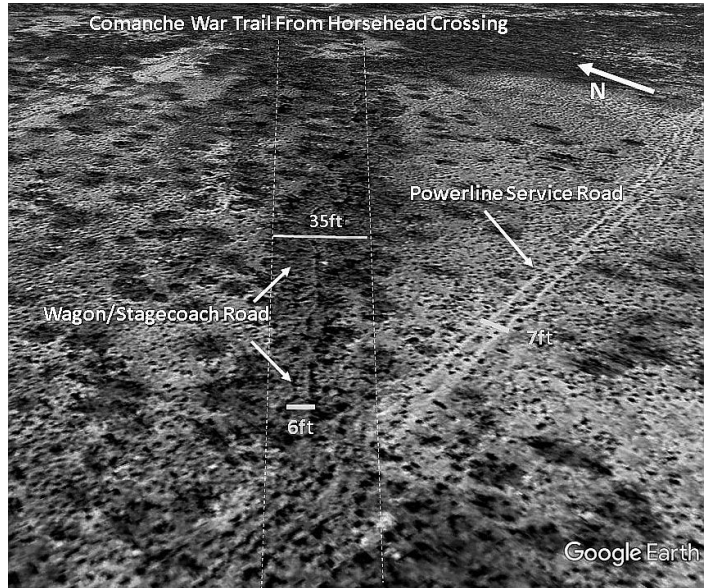


Figure 11. Wagon road within Comanche Trail after-growth brush

One interesting fact has come out of this imagery analysis. The trail is so wide and deep in many places that modern ranchers have built earthen dams across the trail in order to capture any rain water that might accumulate from storms. In some locations they are set as close as every 300 feet and others as far apart as 700 feet. It also appears these earthen water containment dams were copied to other man-made modern ditches and roads, as can be seen here on the right side of the image (see Figure 12).

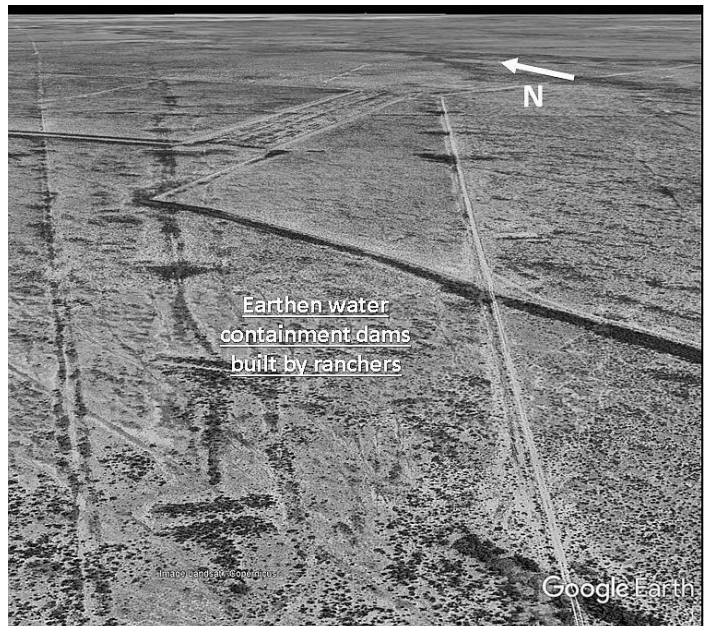


Figure 12. Modern water containment earthen dams created within the Comanche Trail

From the stage station area the Comanche Trail/wagon road continues on to Fort Stockton, winding around the southern tip of 7-Mile Mesa, just as reported by Lt William Whiting in his 1849 expedition (see Figure 13, next page).



Figure 13. Comanche Trail/Wagon Road Passing 7-Mile Mesa

A Detour Trail

Although ranchers have taken on the idea of copying the ditching and earthen containment dams throughout the area, there is one particular trail of interest that comes off the main Comanche Trail close to where the stage station sits. This appears to be a detour trail to go around Fort Stockton and 7-Mile Mesa. It differs from the other modern ranch ditching in that it is not a perfectly straight line, much like the main trail. I believe this was the detour the Comanche took to get around Camp Stockton that was built in 1859 to protect stagecoach passengers and travelers through the area (see Figure 14).

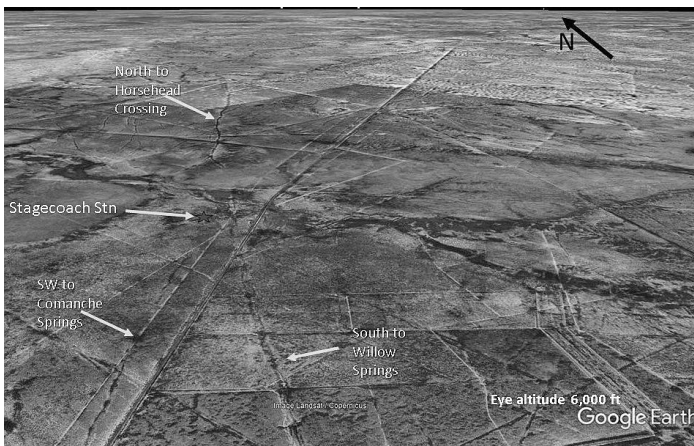


Figure 14. Comanche Trail Splits

Whether going through Comanche Spring or around the other side of 7-Mile Mesa the route would end up taking the Comanche War Parties to a spring south of today's Marathon, Texas, called Peña Colorado Spring.¹⁴ It was turned into Camp Peña Colorado, a military outpost from 1879 – 1893 and is currently named Post Park.¹⁵ A look at the northern tip of 7-Mile Mesa shows the trail leading right to it. The likely last faint line of the trail appears just around the top of the northern tip of 7-Mile Mesa, disappearing

just before reaching Interstate 10. Using a straight line projection to Peña Colorado Spring it shows to be heading in the proper direction. The line to the right in this image is man-made ditching, traveling in a perfect straight line for 14 miles and appears to be adjusted just as it reaches I-10, eliminating it as a possibility (see Figures 15 and 16).



Figure 15. Secondary Trail To Northern Tip Of 7-Mile Mesa

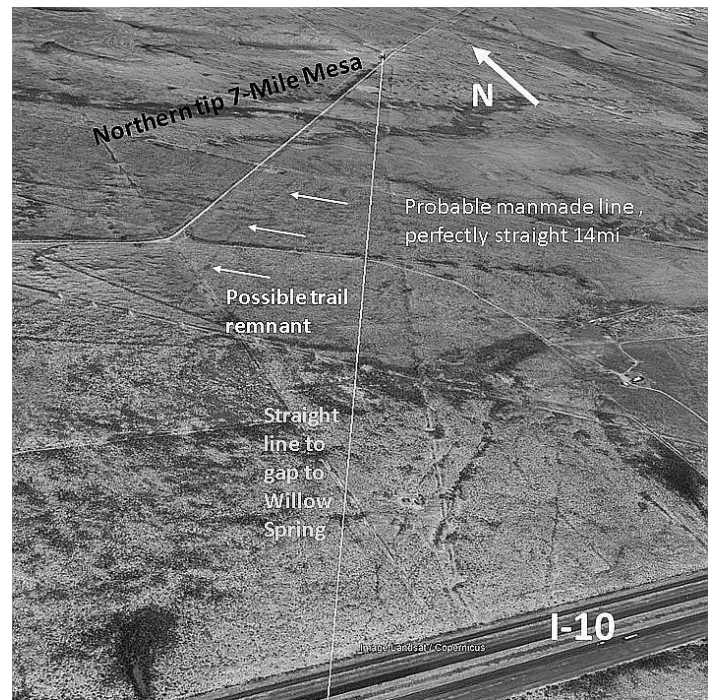


Figure 16. Last faint line of trail just below northern tip of 7-Mile Mesa

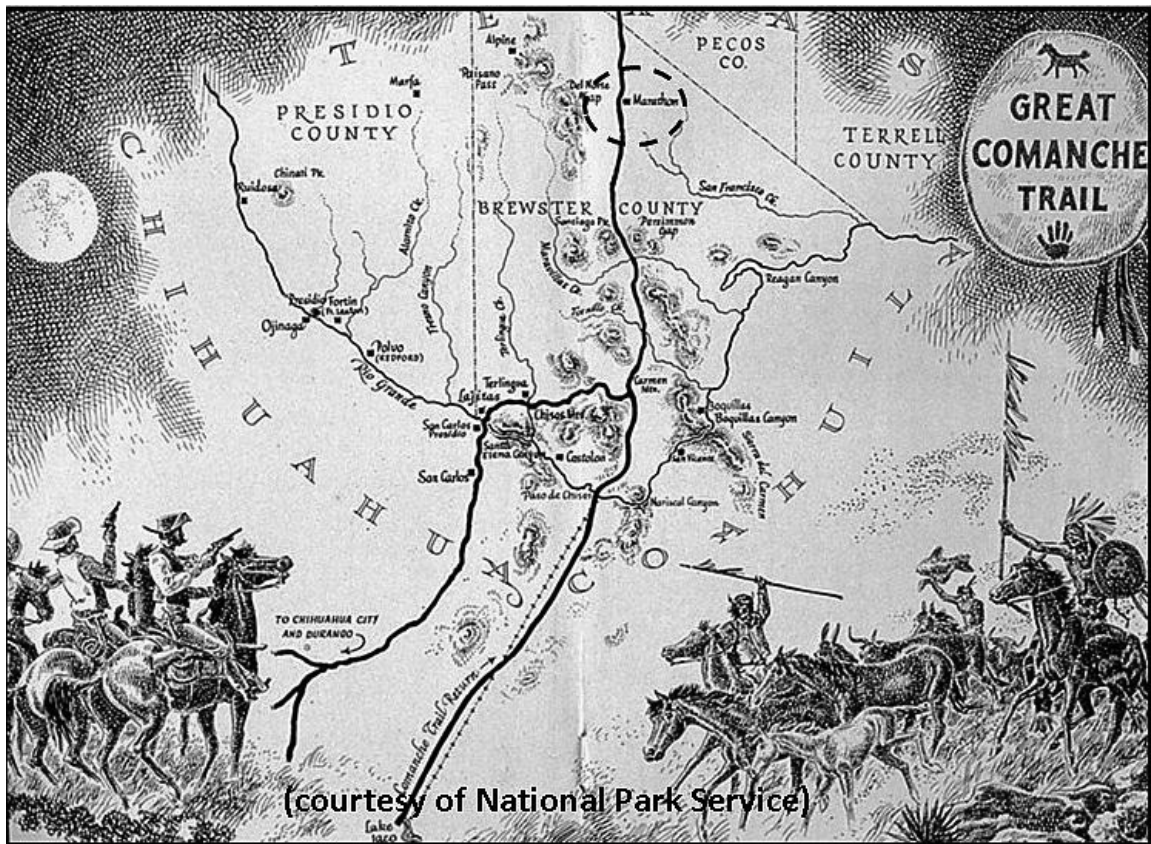


Figure 17. Comanche Trail Passes through Marathon Area

Conclusion

The Comanche Nation depended on a rich supply of horses as their main commodity of trade. Those horses also gave them the ability to successfully hunt the buffalo, their main source of food, clothing and tools. And the buffalo was their second main source of trade goods. But their horse herds needed constant replenishment beyond the natural breeding process. When Mexico chose not to extend the previous treaty between the Spanish and Comanche it was deemed a betrayal by the Comanche, allowing for an all-out declaration of war. And warfare for the Comanche meant to them anything and everything was legitimate. Horses were needed. Women and children were needed to replace the losses of the great smallpox epidemic. To them this was an absolute need for survival and the stolen horse herds continued to be run up the trail for the next 50 years and for a total of around 90 years.

A total of over a million horses - possibly even double that number - were herded over this same trail year after year. By running the horses off to the side of each previous trail a wider and wider swath was created. As the need came for a good wagon road from Horsehead Crossing to the newly-created Camp Stockton and later Fort Stockton with its growing

town the already-made trail was the easiest and straightest route. This wagon road became a major roadway and connection from all points east, which probably helped to keep this trail from being modified by ranchers until early in the 1900s. Finally, the bio-turbation¹⁶ into this soft, sandy soil from over a million horses created a wide trail that can still be seen as a scar across the land and shows up easily with our current technology in space-based imagery.

Endnotes

1. Ralph A. Smith, "The Comanches' Foreign War." *Great Plains Journal*, 24-25:21, 1985-1986; Pekka Hamalainen, *The Comanche Empire*, New Haven, CT: Yale University Press, 2008, 210-211.
2. Lynn Burnett, "The Comanche Empire and the Destruction of Northern Mexico," on Cross Cultural Solidarity web page, at <http://CrossCulturalSolidarity.com/the-comanche-empire-and-the-destruction-of-northern-mexico/>, accessed 8-31-22.
3. Patrick Dearen, *Crossing Rio Pecos*, Fort Worth: Texas Christian University Press, 1996, 44; and Albert D. Richardson, *Beyond on the Mississippi*, Hartford: American Publishing Company, 1867, 233.
4. Clayton Williams, *Never Again*, vol. 3, Naylor Company, 1969, 9.

5. After camping on the Pecos River they headed a little south of west, passing Livingston Mesa, which is 6 – 8 miles west of the Pecos River and south of Highway 67. Using a straight line from an area between the river and mesa it takes them up on the plateau and intersects the Comanche War Trail at its widest point.

6. The E.J. Strang map can be viewed at the Haley Memorial Library, Midland, Texas in the map collection.

7. Glen Ely, *The Texas Frontier and the Butterfield Overland Mail, 1858–1861*, Norman: University of Oklahoma Press, 2016, 274-276, 288-289.

8. Larry Riemenschneider, "ARCHEOLOGICAL INVESTIGATIONS FORT CHADBOURNE (41CK129) BUTTERFIELD OVERLAND STAGE STATION, COKE COUNTY, TEXAS, 2008. A full PDF can be downloaded at https://www.academia.edu/36003828/ARCHEOLOGICAL_INVESTIGATIONS_FORT_CHADBOURNE_41CK129_BUTTERFIELD_OVERLAND_STAGE_STATION_COKE_COUNTY_TEXAS, and can also be found in the Fort Chadbourne Archives or the Tom Green County Library.

9. Tom Ashmore, *The Butterfield Trail Through The Concho Valley And West Texas*, Amazon ebook, 2016, 34, 72.

10. "Ficklin Mail Service, 1866–1872," online at <http://thomasrife.com/part-seven/ficklin-mail-service/>.

11. CAMP MELVIN, Texas State Historical Association, Handbook Of Texas, online at <https://www.tshaonline.org/handbook/entries/camp-melvin>.

12. Dearen, 71-73.

13. J. Evetts Haley, *Charles Goodnight, Cowman and Plainsman*, Norman: University of Oklahoma Press, 2012, 160.

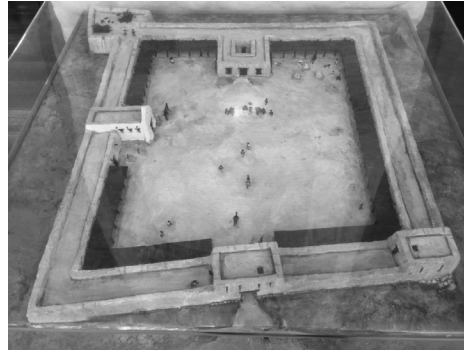
14. Gunar Brune, *Springs Of Texas*, College Station: Texas A&M University Press, 2002, p.89 [Also called Rainbow Cliff Springs]

15. "Camp Peña Colorado," Texas State Historical Association, Handbook Of Texas, online at <https://www.tshaonline.org/handbook/entries/camp-pena-colorado>.

16. Bioturbation is the biogenic transport of sediment particles and pore water which destroys sediment stratigraphy, alters chemical profiles, changes rates of chemical reactions and sediment-water exchange, and modifies sediment physical properties such as grain size, porosity, and permeability. See online at <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/bioturbation>.



Trail Gathering in Tombstone Planned Fieldtrips Pictorial, January 14-19, 2023



Model of Presidio Santa Cruz de Terrenate, 1776-1780



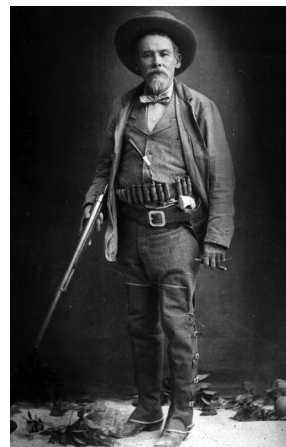
San Pedro River near Terrenate & "Battle of the Bulls," near Tombstone



Chapel walls at Terrenate



Lake at Slaughter Ranch & Presidio San Bernardino



Wagon at Slaughter Ranch ↑

John Slaughter, ranch owner in late 19th century



The Mystery of the Four Rock Cairns at Dragoon Springs Stage Station on the Southern Overland Trail

by Gerald T. Ahnert

In Arizona's Cochise County, there are four rock cairns a short distance from Butterfield's rock fortified Dragoon Springs Stage Station. An interpretive marker at the cairns is sponsored by the Sons of Confederate Veterans (SCV). They claim that the four cairns cover graves of those killed May 5, 1862, in a Confederate-Apache battle. Their reference for this is L. Boyd Finch's *Confederate Pathway to the Pacific*, "Four Graves at Dragoon Springs," Chapter Sixteen.¹ On the inside of the back dust jacket for his book is this statement showing his bias:

"An admitted *partisan* [A strong supporter of a person, party, or cause; **one whose support is based on a feeling rather than on reasoning.**]² of the 'Lost Territory of Arizona,' L. Boyd Finch . . ."

The chapter has only one-page devoted to his claim that the four graves are for those killed in the May 5, 1862, battle. He uses speculation and the singular coincidence concerning the number "four" to support his theory for four Confederates buried under the four rock cairns.

On the marker is:

"The fallen Confederates of the 1862 skirmish were hastily buried a few yards from the stone walls of the recently abandoned Butterfield Overland Mail Station. Two of the graves are marked—Sergeant Samuel Ford and Richardo [Ricardo], a Hispanic cattle driver. There are no markers on the other two burial mounds, but probably holds the remains of Captain John Donaldson. The fourth burial remains unknown."

Finch cites primary source references and then changes what is stated in those references. In his *Notes to Chapter Sixteen*, citation 5 is: "'N' in *San Francisco Daily Alta California*, August 10, 1862; *O. R.*, 50: pt. 1, 1095. For many years a Forest Service sign misidentified the burials

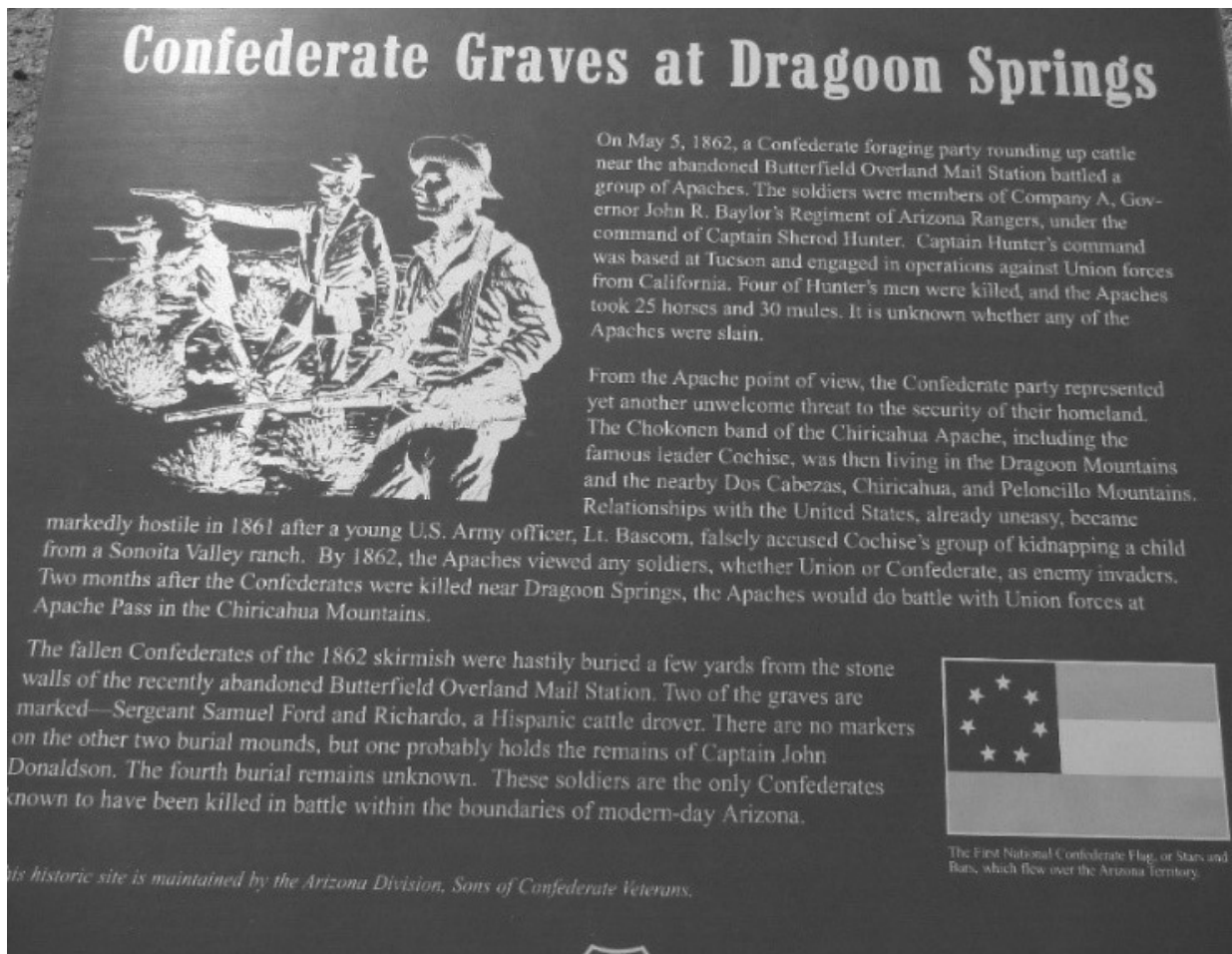


Figure 1. The interpretive marker at the four rock cairns. Photo G. Ahnert 2022.



Figure 2. Dragoon Springs Stage Station and the four rock cairns.

as Union soldiers. Union Troops were several days’ distant on May 5. **Carleton himself later told of the rebel graves here.**”³

Finch’s reference “*O. R.*, 50: pt. 1, 1095” is for *The War of the Rebellion; A Compilation of the Official Records of the Union and Confederate Armies*, Series I—Volume L—In Two Parts, Part I, Washington, 1897, p. 1095. From a May 21, 1862, report on page 1095 Colonel [shortly after promoted to General] James B. Carleton stated:

“The rebels, **from the best information I can get**, have retired from Arizona toward the Rio Grande. The Apaches attacked Captain Hunter’s Confederate troops **near Dragoon Spring and killed four men. . .**”

This is the only primary source reference using the number “four” that Finch uses to coincidentally apply to the four rock cairns. Carleton did not state that they were buried at the stage station as he wrote: “. . .**near Dragoon Spring and killed four men. . .**,” but Finch incorrectly paraphrases it to “**Carleton himself later told of the rebel graves**

here.”

There were no Confederate reports for this battle. The incident was related at least second hand to Carleton: “The rebels, **from the best information I can get**, . . .” This gives rise to the possible inaccuracy for Carleton’s information given in his report.

Finch’s other reference in note 5 is: “N” in *San Francisco Daily Alta California*, August 10, 1862.” It stated:

“From the Correspondent of the Daily Alta California with Gen. Carleton’s Column from California.

23rd [June 1862] . . . Near the stage station are the graves of Hunter’s men, killed by the Apaches. On the graves were these inscriptions, neatly cut in rough stone, executed by one of the Union prisoners they had along: ‘S. Ford, May 5, 1862.’ ‘Ricardo.’ Ford was a Sergeant and Ricardo was a poor Mexican boy the Texans had forced into service at Tucson.”

These headstones can be seen today at the base of two of the four rock cairns.

Finch's citation for his note 7⁴ is the *Sacramento* [Daily Union, October 18, 1862, which stated: ". . . and killed **three** Texans, whose graves are near the entrance to the canon." Finch misrepresents this reference with: "A letter from Tucson that appeared in a California paper some days later confirms that **four** Rebels died at Dragoon Springs, . . ." As can be seen Finch falsely states "**four**" when the cited reference states "**three**."

To make Finch's case for another Confederate buried under one of the four rock cairns, he again uses speculation: "A third mound **probably** holds the remains of John Donaldson."⁵ The marker at the cairns reflects Finch's speculation: "There are no markers on the other two burial mounds, but **probably** holds the remains of Captain John Donaldson."

Sylvester Mowry was the owner of the Santa Rita mine south of Tucson. Mowry employed John Donaldson at the mine. On June 13, 1862, Sylvester Mowry was arrested by Union Lieutenant Colonel E. E. Eyre on suspicion of aiding the Confederates and taken to Fort Yuma for a court-martial.⁶ Affidavits were taken from mine employees to determine his guilt. Also, a handwritten obituary made by Mowry for Donaldson's death was presented at his court-martial.

Finch stated in his book "Shortly after the fight at Dragoon Springs, Sylvester Mowry prepared an obituary intended for Indiana and Kentucky newspapers: 'Killed by the Apache Indians, May 5, 1862, near [*sic*]⁷ Tucson, Arizona, Captain John Donaldson.'" Finch then correctly quotes from the obituary: "Returning to Tucson from a **short** expedition, **he fell in the rear of troops** to accompany a friend who had charge of a large herd of beeves. The Indians ambushed the party and Donaldson was killed at first fire. . . Three others fell with him." Finch then speculates "That Donaldson had once been a deputy customs collector and Sam Ford a customs patrolman makes it **probable** that Ford was Donaldson's cattle driving friend. They [*speculation*] died together on that day."⁸ Donaldson was a deputy customs collector and was stationed at Calabasas, Arizona. Ford was a customs patrolman stationed at Las Cruces, New Mexico. They were conducting their duties separated by the frontier 320 miles apart.

Finch's reference for what was stated in Donaldson's obituary was from a handwritten copy of a manuscript transcribed at least once and presented at Mowry's court-martial. John R. Mills was Mowry's secretary at the Santa Rita mine. He gave an affidavit to be used at Mowry's court-martial. In it was: "Mr. Mowry in writing letters would sometimes make rough draughts as original and would hand them to me to make copies of, which he would sign. The draughts were generally returned to Mr. Mowry. Other letters I would simply write at his dictation." Was the draught transcribed correctly?

John R. Mills, Mowry's secretary, also gave in his affidavit the itinerary for Sergeant Ford's visit to Mowry's mine: "I recollect of the mine being visited by one Samuel

Ford. Ford arrived at 8 o'clock P.M. and brought by the watchman to Mr. Mowry's quarters, he stayed in my room during the night. I arose early about 5 A.M. and returned in about 3 hours, when Ford had saddled up and left."⁹ There is no mention of Ford visiting Donaldson, which further adds to the possibility that they were not friends as Finch speculated. Mills in his affidavit only mentioned that Donaldson "was a notorious secessionist."

The Apache attacked the Confederate troops at Dragoon Springs. As noted by the *Sacramento* [Daily] Union, October 18, 1862: "Dragoon Springs are situated in a canon one mile from the road. **It was here** that a portion of Hunter's (secesh) party were attacked by the Apaches, . . ." They were not on the march yet the obituary written by Mowry states that Donaldson was killed when "**he fell in the rear of troops to accompany a friend**. . ." This fits another scenario shown by primary references that Donaldson did not die at Dragoon Springs in the canyon.

Mowry was taken to Fort Yuma for his court-martial. It was there that he wrote a second shorter version for Donaldson's obituary that was published in a Kentucky newspaper. Unlike the first obituary written by Mowry, it was not transcribed by his secretary. This makes it likely that Donaldson's death date is May 4 and not May 5:

"Killed by Apache Indians, May 4, 1862, near Tucson, Arizona, Captain John Donaldson, a native of Kentucky. Captain Donaldson was an officer of volunteers during the Mexican war, and later held various public positions, among them member of the Constitutional Convention of Kansas, member of the upper House of the Legislature, Auditor of the Territory, and still later Collector of Customs for the Calabasas District of Arizona. He was an ardent Southern man, and at the time of his death was a volunteer to the command of Captain S. Hunter, C. S. A. This brief notice of his death is the only tribute that one of his many friends can pay memory of a gallant gentleman. The friends of Captain Donaldson in Kentucky and Indiana will have the mournful satisfaction of knowing that his remains were recovered and interred with respect and affection.

Kentucky and Terra Haute (Indiana) papers please copy. S. M.

Fort Yuma, Cal., July 24, 1862."¹⁰

In 1854, Nathan Benjamin Appel moved "to Tubac, Arizona, where he was engaged in freighting and merchandising for many years."¹¹ In later life, he furnished a "list of names of persons who remained in Tucson and surrounding country when the rebellion broke out and the country was left entirely to the Apaches." In his list was: "Pope, Lamison's Son, **John Donaldson**, Old Man Lamison, **killed by Apaches half way to Rillito**.¹²

From Tucson, half way to Rillito was the Nine Mile Water

Hole on the Butterfield/Southern Overland Trail. This was ninety-four miles from Dragoon Springs Stage Station. In Mowry's first obituary for Donaldson, he wrote: "**His horse escaped and running into Tucson carried the first news of the catastrophe.**" Finch left this out in his book. This gives rise to the question: Did his horse run eighty-five miles back to Tucson from Dragoon Springs or did his horse run only nine miles back to Tucson from Nine Mile Water Hole? The date of May 4, 1862, in the published Donaldson obituary, the information given by Appel that Donaldson was killed at Nine Mile Water Hole, and the probability of Donaldson's horse running nine miles back to Tucson and not the much longer eighty-five miles, Donaldson was not buried under one of the four rock cairns at Dragoon Springs Stage Station.

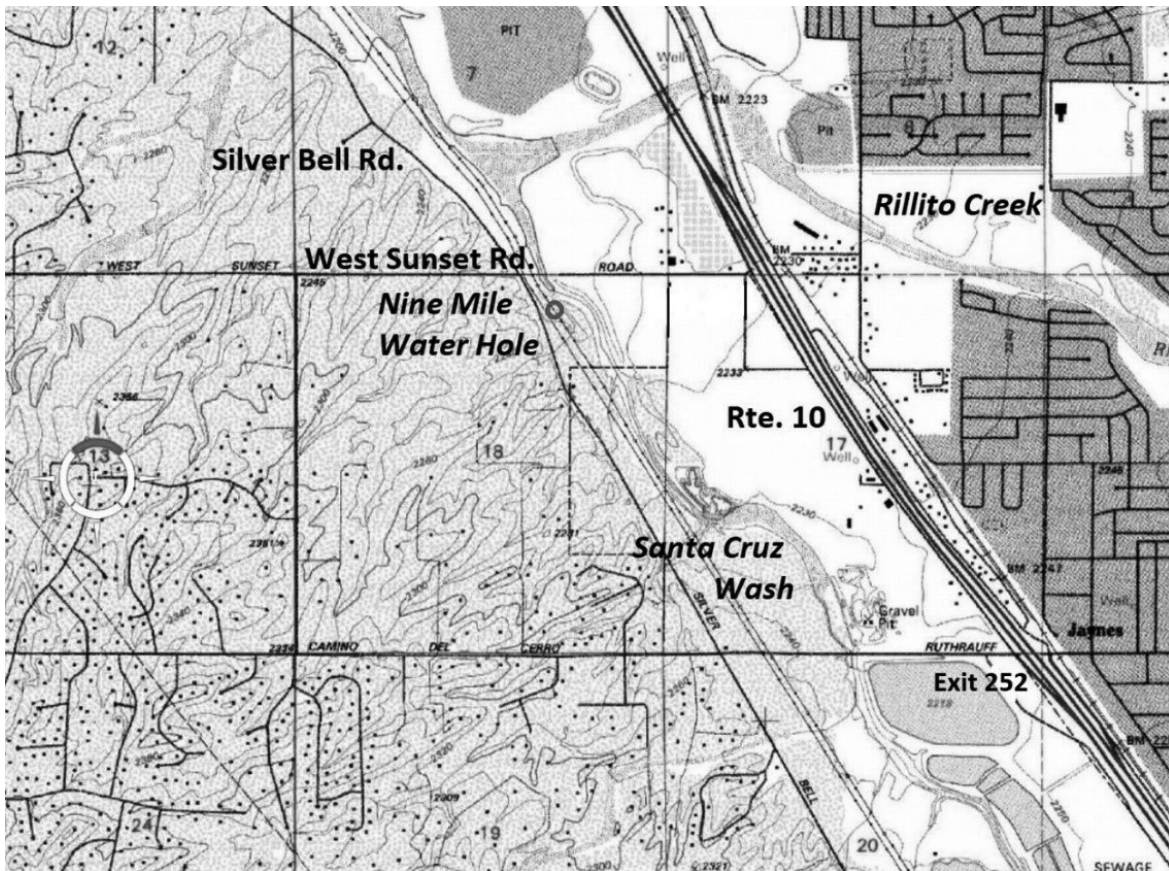
The Apache were on the warpath to kill or drive the remaining white men from their territory as stated by Sylvester Mowry in a letter to Brigadier General Sibley, C.S.A., that was presented at Mowry's court-martial: "The Indians have committed some daring depredations of late, **appearing near Tucson**, it is said 250 strong well armed, they succeeded in getting away with about 150 head of cattle and horses, but were closely pursued by a few white men, and about 100 Papago friendly Indians, who killed and wounded a number of Apaches."¹³ The report from

Colonel Carleton stated that, as a result of the battle of the Confederate-Apache battle at Dragoon Springs only captured "30 mules and 25 horses."¹⁴ As seen by Mowry's report, the Apache were engaged in trying to steal livestock from places other than just Dragoon Springs. (See Map 1, below.)

The misrepresentation of the references and speculation by Finch, combined with the ambiguity of many of the references, should be eliminated from the discussion for the four rock cairns at Dragoon Springs. If only those references that show or mention the identity of those buried under the cairns are considered, it becomes clear who is buried under the cairns—*but does not definitively identify who is buried under which cairn.*

There are three references that speak directly to the identity for those buried under the four rock cairns. The earliest is the 1860 H. C. Grosvenor drawing of the stage station and his description of the Butterfield graves: "One third of the space is occupied by the storehouses and the sleeping apartment of the station master. *A heavy wooden gate defends the entrance. The two graves in the foreground. . .*"¹⁵

(see Figure 3, next page).



Map 1. The location for Nine Mile Water Hole on the Butterfield/Southern Overland Trail. The site is nine miles north-west of Tucson. This is the site where Jack Donaldson was killed by the Apache.



Figure 3. The black line represents the staggered position of the cairns. If they were viewed much farther back, as Grosvenor’s perspective was when he made the drawing, they would appear more from the ground level perspective and therefore would appear head to toe. But we know there was a space between them as Silas St. John stated that his “‘good left arm’ was buried between those graves.” Photo by G. Ahnert 2022.

As stated earlier in this article, the direct reference for who is buried under two of the rock cairns was given in a California newspaper: “**On the graves were these inscriptions, neatly cut in rough stone, executed by one of the Union prisoners they had along: ‘S. Ford, May 5, 1862.’ ‘Ricardo.’**”¹⁶ The two incised headstones are there today, but they do not necessarily identify that they are at the base of the correct rock cairns. In 1929, Roscoe P. and Margaret B. Conkling were at the site. One of their photos shows the S. Ford, May 5, 1862 incised stone askew on top of one of the cairns.¹⁷ Was it picked up from the ground and placed on the correct cairn? It is now cemented at the base of a cairn.

The most important reference was given by Butterfield massacre survivor Silas St. John in a 1908 letter to Sharlot Hall in which he described the stage station and identity for the graves. His description was based on his fifty-year-old memory of the massacre and his visit to the site in 1898. Although he stated that “The gravesite is situated at the N.W. corner, *about* 50 feet west from that point,” his memory was not clear about the direction and distance as the rest of his description was a clear reference for the four rock cairns. After his description for the distance and direction, he states:

“**There are four stone covered graves.** The largest is a double grave in which rests together the remains of Wm. Cunningham, and James Hughes [Burr]. The single grave next south is that of James Laing. **The two graves north of the double grave are those of two soldiers** of a Cal. [California] regiment which used the old station as a fort in 62-3. **Those graves each a rough stone inscribed with the names of the occupants.** The double grave and the single one to the south of them are

without markers. My good left arm was burrowed between those graves.”¹⁹

The words highlighted in bold show that St. John was clearly referencing the four rock cairns that we see today. Two of these rock cairns cross-reference St. John’s memory for his statement “**Those graves each a rough stone inscribed with the names of the occupants,**” as those two incised stones can be seen at the base of two of the cairns. His statement is also a cross reference for the 1860 drawing and description by H. C. Grosvenor.

References for Union soldiers being buried there becomes a “background environment” for “Confederate soldiers” as even Finch stated “For many years, a U. S. Forest Service sign identified the burials as Union soldiers.”




Figure 4. My 1970 photo of the U. S. Forest Service sign misidentifying the soldiers as from the Union’s “California Column.”

See Figure 5 and Map 2 on the next page.

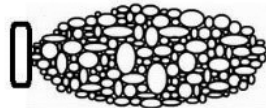
If the Butterfield graves were to the west of the northwest corner of the station, as the SCV implies, they would have been in the trail. On March 26, 2022, Doug Hocking, Bob Nilson, and myself made a visit to the site. In Curt Tipton’s article he stated that they found some rocks that he said were the Butterfield graves fifty feet west of the northwest corner of the station.²⁰ We found this low pile of mostly small rocks located seventy feet west-southwest of the corner.

The information given in a 1967 desecration report by the U. S. Forest Service adds to the confusion. The report stated: “One of the graves of the historic massacre on September 8, 1858 was disturbed at some time previous to this inspection of June 6th. **The grave of Ford was excavated and the body or its remnants removed.**”²¹ The U. S. Forest Service had to reconstruct the two rock cairns.

↑
Station Gate

 James Laing
September 13, 1858

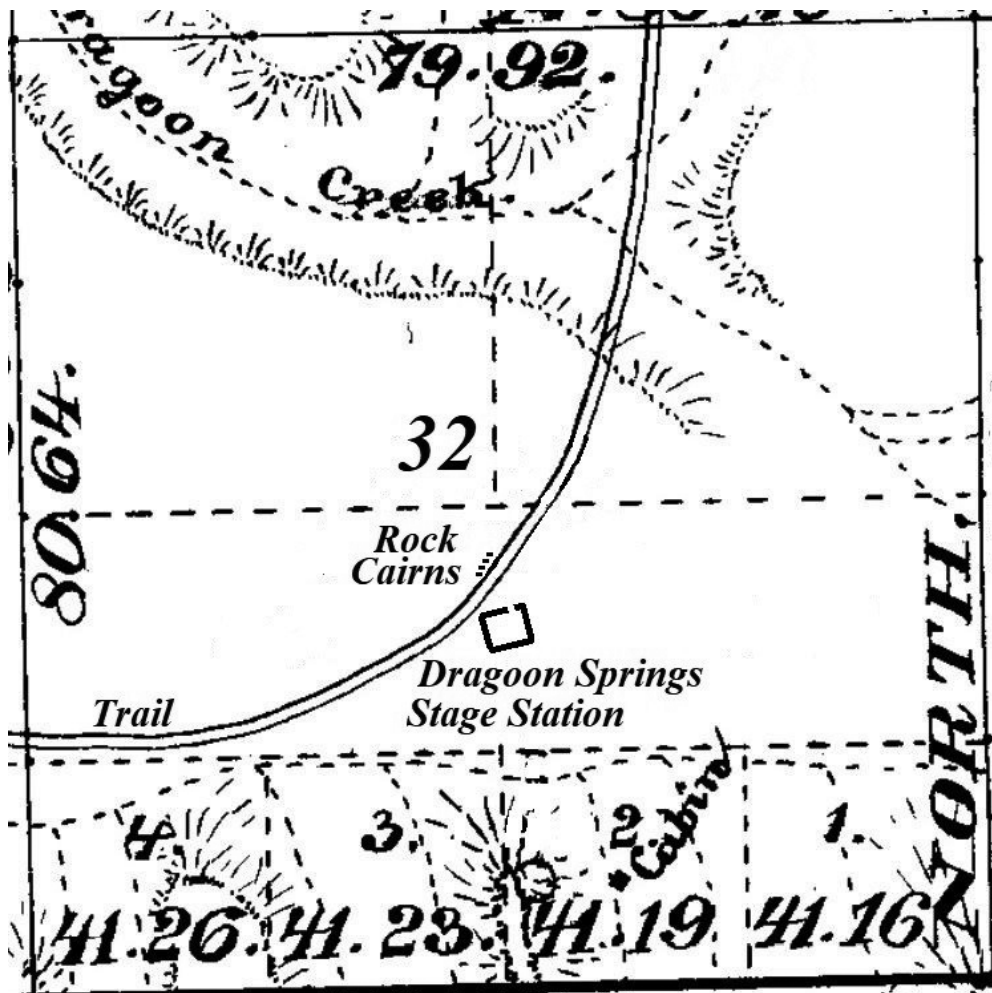
 Silas St. John's amputated arm

 James Burr
September 9, 1858 & William Cunningham
September 10, 1858

 S. Ford
May 5, 1862

 Ricardo [May 5, 1862]

Figure 5. According to Silas St. John's description, this would have been the order of alignment for those buried under the rock cairns. His description adds more ambiguity to a definitive location for who is buried where. Drawing by G. Ahnert.



Map 2. This General Land Office map T16S, R23E, surveyed 1895, shows the trail by Dagoon Springs Stage Station. I have annotated it only with the stage station and rock cairns. It is probable that the cairns were staggered diagonally to follow the trail.



Figure 6. This photo, looking north, was taken from approximately the same position as a 1929 photo taken by Roscoe P. and Margaret B. Conkling.²² The arrow at the base of the larger cairn could be identified in Conkling's photo. Photo G. Ahnert 2020.



Figure 7. This flag and marker, seventy-feet from the stage station on the west-southwest side, has been placed there (by the SCV?) to falsely identify the location for the Butterfield graves. These scattered rocks have the appearance of the excess from the building of the stage station. Photo G. Ahnert 2019.

The National Forest Service archaeologist that administers the site was “disturbed”²³ by the cement base and marker with flag shown in **Figure 7**, as it was done without permission. The Dragoon Springs Stage Station and surrounding protected grounds are an archaeology sensitive site and cannot be disturbed without permission. Only interpretive markers should be placed near the stage station and all other markers and symbols should be removed.

The 1860 Grosvenor drawing showing the Butterfield graves opposite the station gate, the information given in the August 1862 newspaper article for **two killed in the Confederate-Apache battle**, and Silas St. John’s 1908 letter **referencing the four rock cairns and who is buried under them**, makes it clear that they are were five bodies buried under the four cairns and that now there are only four as Sergeant Samuel Ford’s remains were removed in 1967. Silas St. John’s amputated arm was buried between two of the cairns. It is also possible that a severed head is buried in the vicinity of the cemetery.²⁴ From the large body of ambiguous references and the disturbance of the rock cairns during the last 162 years, the definitive location of human graves cannot be determined. But those that were buried in the immediate vicinity of the stage station is known.

Buried in one grave Butterfield employees James Burr, died September 9, 1858, and William Cunningham, died September 10, 1858.

Butterfield employee James Lang, died September 13, 1858.

Ricardo, a Mexican American boy, acting as a *vaquero* for the Confederates, died May 5, 1862.²⁵

Confederate Sergeant Samuel B. Ford, died May 5, 1862.

Silas St. John’s amputated arm September 16, 1858.

A severed head (1860).

This information and the article “Concerning the Graves at Dragoon Springs Stage Station” in the February 2022 issue of *Desert Tracks* should be the basis for information on a new interpretive marker near the present marker in front of the stage station. The marker should only have the names of those who died and were buried in the vicinity of the stage station. No locations for their burial should be given. The marker should also include the story for their deaths.

An article subtitled “Confederate Fantasy Heritage in Arizona” in *The Journal of Arizona History*, Summer 2021, by Christopher M. Bradley, stated “The United Daughters of the Confederacy and the Sons of Confederate Veterans used historical markers and myths about the skirmish at Picacho Pass and Arizona’s links to the Confederacy. . . .”²⁶ This fits the false information on the SCV’s marker at the four rock cairns. It also fits L. Boyd Finch’s admitted “partisan” view in his “Four Graves at Dragoon Springs.”

Endnotes

1. L. Boyd Finch, *Confederate Pathway to the Pacific*, Tucson: The Arizona Historical Society, 1996, 150-157.
 2. Clarence L. Barnhart, ed., *The World Book Encyclopedia Dictionary*, A Thorndike-Barnhart Dictionary, Volume 2, 1967.
 3. Finch, 269.
 4. Finch, 269.
 5. Finch, 152.
 6. Letters received by the Office of the Adjutant General, Main Series, 1861-1870, NARA M619, source www.fold3.com, “In the District Court of the Fourth Judicial District of the State of California, Sylvester Mowry vs James H. Carleton,” letter by Lieut. Col. E. E. Eyre, 1st Cavalry, California Volunteers.
 7. Note: Finch added “sic” to imply to the reader that actually it was at Dragoon Springs.
 8. Finch, 152.
 9. John R. Mills affidavit, Letters received by the Office of the Adjutant General, Main Series, 1861-1870, NARA M619.
 10. *Louisville Daily Democrat*, Kentucky, August 28, 1862.
 11. Hayden Pioneer Biographies, Arizona State University Library, “Nathan Benjamin Appel.”
 12. *Arizona Weekly Citizen*, “Old Timers,” Tucson, July 12, 1884.
 13. Letters received by the Office of the Adjutant General, Main Series, 1861-1870, NARA M619, letter from Mowry to Brig. General Sibley, C. S. A. presented at Mowry’s court-martial.
 14. United States War Department, *The War of the Rebellion: a Compilation of the Official Records of the Union and Confederate Armies*, Washington: Government Printing Office, 1880-1901, 1095.
 15. Barber & Howe, *Our Whole Country*, 1448. FIND FULL REFERENCE FOR THIS WORK & INSERT HERE.
- Grosvenor’s description accompanied his drawing. Note: the article “Concerning the Graves at Dragoon Springs,” in the February, 2022, *Desert Tracks*, gives the details for the Butterfield graves being opposite the station gate.
16. *San Francisco Daily Alta California*, August 10, 1862.
 17. *The Conkling Archives*, GC 1006, Box 5, Folder 09g, Dragoon Springs Station, Seaver Center for Western Research, Los Angeles, California.
 18. Silas St. John, June 16, 1908, letter to Miss Sharlot Hall, Dewey, AZ., Sharlot Hall Museum, Prescott, Arizona.
 19. Finch, 269.
 20. Curtis Tipton, *Desert Tracks*, “The Graves at Dragoon Springs: A Rebuttal,” January 2018, 38.

(Endnotes continued on next page)

21. Robert B. Tippeconnic, District Ranger, to Forest Supervisor, Coronado N. F., File No. 2760, June 9, 1967, Subject: Withdrawals (Butterfield Stage Station)), "Violation of the American Antiquities Act of June 8, 1906 upon the Butterfield Stage Route (Dragoon Stage Station), was found upon personal inspection of the site on June 6, 1967."

22. *The Conkling Archives*, GC 1006, Box 5, Folder 09b.

23. Telephone conversation with National Forest Service Archaeologist David Mehalic, April 7, 2022, 5:30 P.M., EST.

24. *New York Herald*, "Interesting from Arizona, Our Fort Buchanan Correspondent, Fort Buchanan, August 10, 1860," September 12, 1860.

25. Note: A search of the 1860 census for Tucson was made for the name of "Ricardo." No one by that name could be found.

26. Christopher M. Bradley, "Not Set in Stone: Civil War Memorialization at Picacho Pass and the Emergence of a Confederate Fantasy Heritage in Arizona," *The Journal of Arizona History*, 62(2):141-171, Summer 2021.



Update on Coronado Discoveries in Southern Arizona

by Daniel G. Judkins

Dr. Deni Seymour, Arizona archaeologist, has now found a fifth Coronado site in Southern Arizona in a total of four drainages. One of those sites recently discovered is along the San Pedro River. How can these sites be determined to be from the 1540 Coronado Expedition?

There are several artifacts that are viewed as being diagnostic of the Coronado Expedition, including a particular style of mule shoe, the caret-head nails used with the muleshoes, and crossbow bolt heads. All three of these objects were used by the Spaniards in North America in the 1500's but soon fell into disuse.¹ For instance, at about the time of the 1540 Coronado entry, the Spanish were beginning to use the *arquebus*, a primitive type of gun. They found it far superior to their crossbows and so soon abandoned the crossbow. There are no known entries into what is now the Arizona of Spaniards carrying crossbows after the 1540 Coronado and De Soto Expeditions. De Soto explored in the area that is now the southeast U.S., traveling west to near the Mississippi River. Coronado came north from Culiacan into Arizona and New Mexico, and then entered Texas, Oklahoma, and Kansas. The Coronado records list the weapons they brought along. So, west of the Mississippi, finding a crossbow bolt head indicates Coronado was there. The possible confounder is if Native Americans later found the artifact and moved it to a different site (a very large number and diversity of such artifacts at a site, such as the one on the Santa Cruz River, would eliminate this confounder). But since most of the artifacts we are talking about were made of iron or copper, if found by an Indian, they likely repurposed it into some other tool use.

In Southern Arizona at an undisclosed site on the Santa Cruz River, Dr. Seymour and her team have found over 50

crossbow bolt heads and more than a hundred gable-head (caret-head) nails in an area nearly a half-mile across. Such a site is clearly a large encampment, or more likely, a way-station. The Coronado records indicate such a re-supply outpost was established in a place they called Suya, or San Geronimo III. This site has long been thought to be somewhere on the Sonora River in northern Sonora. Dr. Seymour is postulating that the Santa Cruz River site in Southern Arizona might be Suya.

Dr. Seymour has also found Coronado-related artifacts at two sites east of Douglas, AZ. That location is about a hundred miles to the east of the Santa Cruz River site. Reasoning that there must have been travel between these two sites, Dr. Seymour and her team have in recent months been searching along possible west-east travel corridors that could connect the two locations. She and her team applied the same sort of logic often used by members of the Southern Trails Chapter of OCTA in their trail-finding efforts. One of the strategies is to try linking the various locations where water can be found. It is a dry desert, after all, and early travelers would have been forced to go from water hole to water hole.

It was by using this process that the most-recent discoveries were found. And at each of the sites discovered, metal artifacts such as the three types illustrated here were found.

The most-impressive Coronado-era artifact found so far is a small-bore wall cannon or *versillo*, more than three feet long and weighing more than 40 pounds, a photograph of which appeared on page 10 of the February 2022 issue of

Desert Tracks. The Coronado Expedition carried six *versillos*, but there is no record of other later Spaniards bringing such a weapon into Arizona, although they may have been used into the 1700's primarily by Spanish navy ships.

Obsidian determined to be from Mexico and trade beads characteristic of the 1500's have also been found by Dr. Seymour, and may also be diagnostic of the Coronado era.



Figure 1. A 16th-century-style (medieval) Spanish muleshoe.

What are the next steps in this long-term project? Continued exploration over likely routes, further excavation of the main site, scholarly publications,² releases of a documentary video, and efforts to preserve and display the valuable artifacts and to protect the main site on the Santa Cruz River.

Of course it will take a long time for other archaeologists and historians to digest these discoveries, to evaluate the implications of the discoveries, and to begin adjusting their concepts of the likely routes traveled by the Coronado group.

ENDNOTES:

1. See three excellent YouTube videos by Dr. Seymour explaining details about using artifacts to identify a Coronado-specific site. a) "How Archaeologists Tell Time with Artifacts," 2020 at <https://www.youtube.com/watch?v=jcV9mXv1Mfo>; b) "Simple But Mighty Nail: Evidence of Vasquez de Coronado in Southern Arizona," 2020 at <https://www.youtube.com/watch?v=aE3eXK-wC5c8>; and c) "What Artifacts Indicate the Coronado Expedition?" 2020 at <https://www.youtube.com/watch?v=dEKBACRm-HIY>.

2. Five articles by Dr. Seymour on these discoveries are either submitted, in press, or ready for submission, and others are planned. To monitor when these articles appear in the literature, periodically monitor her "academia" web page at <https://independent.academia.edu/DeniSeymour>.



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Winship, George Parker. *The Journey of Coronado 1540-1542*, Chicago: The Rio Grande Press, 1964. Reprint of the 1896 work which was a part of the Annual Report of the Bureau of American Ethnology of the Smithsonian Institution, 1892-1893. Again reprinted: Golden, CO: Fulcrum Publishing, 1990.

[NOTE: Contact editor Dan Judkins for a more-comprehensive Coronado bibliography.]



Figure 2. Four copper crossbow bolt-heads, and two iron ones (at top), which tipped the short arrows, known as bolts, fired by the crossbow.



Figure 3. An enlarged photo of a gable-head nail used to affix the muleshoes. All three photos courtesy of Dr. Deni Seymour, and used with permission.

Raphael Pumpelly Travels The Devil's Highway

in 1861 and 1915

C. Gilbert Storms

“*El Camino del Diablo*,” or “the Devil’s Road,” running from Sonoyta¹ Sonora, to the Yuma crossing of the Colorado River, was one of the most difficult and dangerous of the southern immigrant routes to California. And although it was used by thousands during the Gold Rush years of 1848-51 and after, it was not written about nearly as much as more northerly routes such as Cooke’s Road along the Gila River and across the Colorado Desert in California. One of the trail’s early users, geologist and mining engineer Raphael Pumpelly, has left a detailed and dramatic account of his travels along the Devil’s Road, twice—in 1861 with Arizona mining entrepreneur Charles D. Poston and in 1915 with members of his own family (see Figures 1 and 2). His accounts give us a vivid picture of what it was like to travel this route to California in both the mid-nineteenth and early-twentieth centuries.

Pumpelly and Poston

Raphael Pumpelly and Charles Poston took part in the silver mining boom in southern Arizona in the late 1850s. Poston was a co-founder of the Sonora Exploring and Mining Company and superintendent of its mines in southern

Arizona. In its 1857 report to stockholders, the company claimed to own eighty silver mines on twenty thousand acres of land in the Santa Cruz Valley and Santa Rita Mountains south of Tucson.² Their most promising property was the Heintzelman Mine west of the Santa Cruz River. Poston’s headquarters were at the abandoned Spanish presidio at Tubac. However, despite the Sonora Company’s extensive holdings and ambitious plans, they did not have the financial resources to work all of their mines. So, in 1858, they spun off a subsidiary, the Santa Rita Mining Company, to work the Sonora Company’s mines in the Santa Rita Mountains.

Raphael Pumpelly was the Santa Rita Company’s mining engineer. Pumpelly said that the company had ten silver mines in the Santa Rita Mountains.³ But like the Sonora company, they did not have the capital to develop all of these properties and were working only three—the Cazada, Florida, and Salero mines.⁴ The Santa Rita Company’s headquarters were at the *Hacienda de Santa Rita* in the mountains eight miles west of Tubac.

Pumpelly and Poston lived and worked near each other and were well acquainted, though they came from very different backgrounds. Poston had grown up poor in rural Kentucky. He became a lawyer, and in 1850 went to California during the gold rush and worked as a chief clerk in the San Francisco Customs House. In 1854, with the backing of some San Francisco businessmen, he led an expedition into Sonora to speculate in land while the Gadsden Purchase was being negotiated. He returned to San Francisco by way of the Gila Trail and Cooke’s Road



Figure 1, left. Raphael Pumpelly at 19 in Freiberg (Pumpelly, *My Reminiscences*, I).

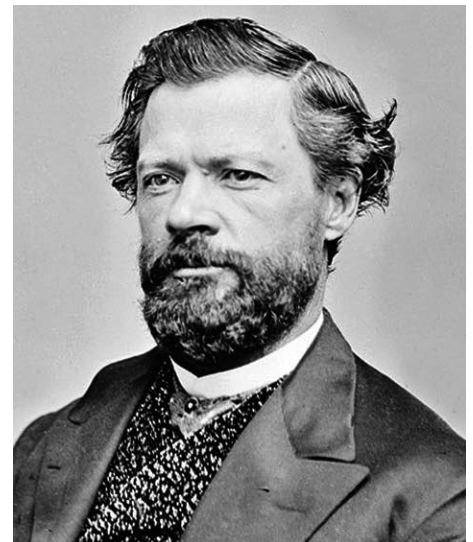


Figure 2, above. Charles D. Poston, 1864 (Arizona Historical Society, Tucson, #50194).

across the Colorado Desert to San Diego.⁵ So he was a veteran of the southern immigrant trails when he arrived in Arizona in 1857. He was charming and articulate, an ambitious entrepreneur, and a risk-taker, especially if he thought the risk might make him rich.

Pumpelly came from a wealthy merchant family in upstate New York. From boyhood, he had wanted to be a geologist and was fascinated with mining. He graduated from the Royal Mining Academy in Freiberg, Saxony, one of Europe's most prestigious mining schools. Like Poston, he was adventurous and personable. He was just twenty-three when he came to Arizona in October 1860, three years after Poston; but unlike Poston, he was a complete tenderfoot.

The Apache Threat

Pumpelly and Poston both came to Arizona to mine silver but like many others were driven out by raiding Apaches and the US Army's departure from Arizona at the start of the Civil War. In mid-July 1861, the army withdrew its troops from southern Arizona to Fort Fillmore in New Mexico to guard against an expected Confederate invasion from Texas. In previous generations, Apaches had driven Spanish and Mexican settlers from southern Arizona. Now they determined to do the same to the Americans, taking cattle, horses, and mules from the ranches, farms, and mines of the Santa Cruz Valley, even from Fort Buchanan, the army post at the head of Sonoita Creek. As American migration into southern Arizona grew through the late 1850s, Apache raids increased, Americans retaliated, and the encounters between Apaches and Americans turned deadly.

The Santa Rita hacienda where Pumpelly lived and worked was raided by Apaches several times while Raphael was there. So were Poston's headquarters at Tubac, and the Sonora Company works at Arivaca.⁶ Both Pumpelly and Poston saw the terrible aftermath of Apache attacks, including the death of Raphael's friend and mentor, Santa Rita mines superintendent Horace C. Grosvenor, in April 1861 and the killing of four men by Apaches in a July 14 raid at the Canoa Ranch on the Santa Cruz River. Thus, both men were immersed in the increasing violence between Apaches and Americans in 1860-61.

After Grosvenor's death and word that the army was leaving Arizona, Pumpelly closed operations at Santa Rita headquarters. He and his Mexican workers refined the last silver from the mines and, on June 15, moved the company's property to Tubac. All the while, they were under siege by Apaches, who had surrounded the hacienda and fired at Pumpelly and his workers day and night as the latter worked at the smelting and refining furnaces (see Figures 3 and 4). This went on for weeks, and Pumpelly said



Figure 3. Remains of Pumpelly's smelting furnace at Hacienda Santa Rita, 2015 (photo by Dan Judkins, 2015).



Figure 4. Adobes which were part of the smelter wall were exposed to such high heat that portions turned to glass (photo by Dan Judkins, 2015).

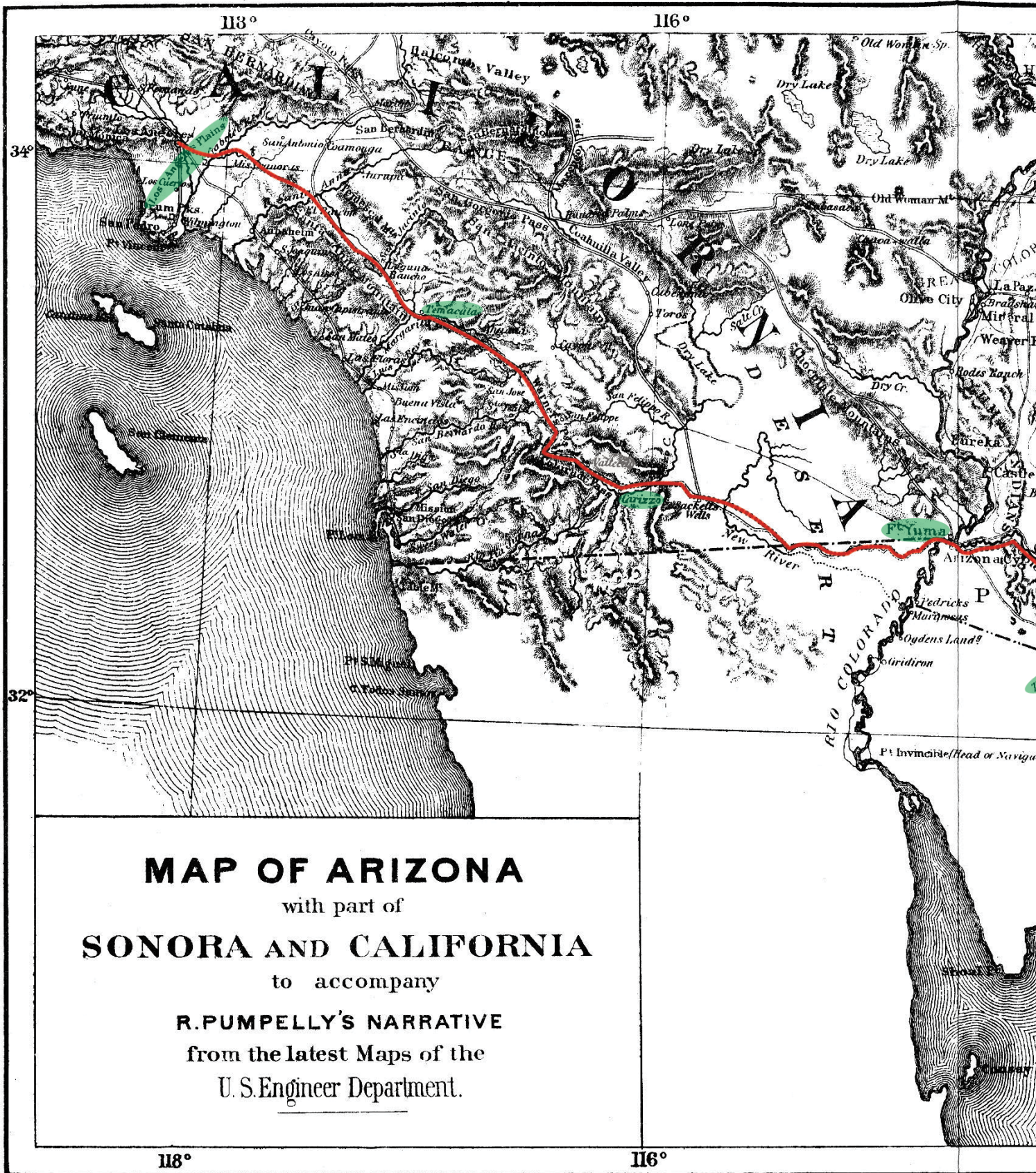


Figure 4. Pumpelly's 1861 route from Hacienda Santa Rita and Tubac to Arivaca, Altar, Caborca, Quitovac, San Domingo, Tinajas Altas, Ft. Yuma, Carrizo, Temecula, and Los Angeles. (Colors added to enhance readability.)



that the sounds of gunfire and Apache yells in the night were terrifying.⁷ Four weeks later, the Canoa raid occurred. Two days after that, John Poston (Charles's brother) and two German workers were murdered at the Heintzelman Mine by Sonoran bandits.

These killings were what drove Poston and Pumpelly from Arizona. Raphael said that the weeks of Apache attacks at Santa Rita, the killings at Canoa, and John Poston's murder had made him very anxious. He had lost his best friend. Poston had lost his brother. They had seen men killed and their bodies horribly mutilated. Both men were badly shaken. And they were not alone. The combination of Apache raiding and the army's departure frightened and demoralized everyone in the Santa Cruz Valley. As a practical matter, unrestrained Apache raiding made the continuation of mining and ranching in southern Arizona impossible. Apaches shut down the mines by disrupting work, stealing the companies' work animals, and frightening off workers. Without the mines and the army as major customers, local ranchers and farmers had no market for their livestock and crops, merchants and tradespeople lost business, and the economy of the Santa Cruz Valley collapsed. The area quickly depopulated. Patagonia Mine owner Sylvester Mowry wrote that once the army left, "the settlements in the [Santa Cruz and Sonoita Creek] valleys . . . succumbed almost at once to the attacks of the Apaches. Many lives were lost; property of all description was abandoned; crops to an enormous extent were left standing in the fields, never to be gathered. Never was desolation so sudden, so complete."⁸

Choosing the Devil's Road

Poston and Pumpelly joined the exodus. The two planned to escape to California by a route they thought would be quick and safe. Told by a Spaniard lately arrived from Sonora that they could catch a boat to California at Lobos Bay on the Gulf of California, they took a cook and two wagons loaded with their possessions and followed the well-traveled trade road from Arivaca through the Altar Valley to Caborca, Sonora, near Lobos Bay. However, in Caborca they learned that the boat they had planned to take would not arrive for several months. So, they decided to go overland to California—first by traveling from Caborca to the border at Sonoyta, then by taking the Devil's Road from Sonoyta to Fort Yuma and then Cooke's Road through the Colorado Desert of southern California and the coastal sierras to Los Angeles.⁹ It was a long and challenging route, with hundreds of miles of empty desert to cross and high mountains near the California coast. According to a map made by pioneer prospector and civil engineer Herman Ehrenberg in 1854, the trip from Arivaca to Los Angeles would have been about 560 miles.¹⁰ It took Poston

and Pumpelly from July 19 to the first week in September in the searing heat of a desert summer. Pumpelly himself traced their route on a map he included in his memoirs *Across America and Asia* (1870) and *My Reminiscences* (1918) (see map in Figure 4, previous two pages).

The choice of this route seems astonishing today—and would have been in 1861. Pumpelly acknowledged that from Caborca, they could have traveled south to the port of Guaymas and boarded a ship to California. They also could have gone north from Sonoyta to the Gila River and down the Gila Trail to Fort Yuma. But this would have taken them back into the territory of the Apaches—and the Yavapai, who had attacked and killed members of the Royce Oatman family on the Gila Trail in 1851. Poston had traveled this route when returning from his 1854 expedition into Sonora. He had used Tohono O'odham guides to find his way through the desert from Sonoyta to the Gila River. But he found the Gila Trail brutally difficult, as did many who used the trail and left accounts of their experiences. Poston and Pumpelly chose the Devil's Road because it was the most direct route to California and would expose them "mainly to the dangers of the desert," meaning that they would not have to face Apaches.¹¹ This, given their recent experiences, was what they feared most.

Pumpelly and Poston were not the only ones to make this difficult choice. Geologist D. D. Gaillard, who traveled the Devil's Road with the US-Mexico border survey in the 1890s, said that many Mexican and American forty-niners chose the Devil's Road in order to avoid the "hostile Apaches to be encountered further north."¹² One of these was Cal Hubbard, who in 1849, leading a party of eighty-five in twenty wagons from Memphis to the California gold fields, chose the Devil's Road in order to avoid Apaches. When his party reached Arizona, Hubbard invited them to vote on whether they wanted to follow the Gila Trail through Apache territory or take the Devil's Road. He said that if they were a party of men only, he would favor taking the northern route and fighting the Apaches. But because his wife and daughter were traveling with him, he chose to follow the Camino del Diablo. Fifty of his party chose the Gila Trail, while thirty-six voted to follow Hubbard. So the party divided, Hubbard, with eight wagons, headed southwest to Sonoyta and the Devil's Road. The Gila-bound party waited to join another wagon train they knew was just behind them, hoping to find safety in numbers. But they later rejoined Hubbard's party on the Devil's Road after hearing of an Apache attack on a wagon train, in which the wagons were burned and all of the men, women and children killed.¹³

The Dangers of the Desert

The dangers of the desert were formidable. The Devil's Road was notorious for its emptiness, lack of water, and the extreme temperatures travelers had to endure in summer. From Sonoyta, it led northwest to a spring at *Quitovaquito*, then turned south to a bed of reeds called *El Carrizal*, about eighteen miles from Sonoyta. There travelers would find two springs—one called *Agua Dulce* because its water was "sweet," or fresh-tasting, and the other *Agua Salada* because its water was salty.¹⁴ Beyond Carrizal, the road turned north, across the international border for about twenty miles to the dry lake bed of *Las Playas* where depressions in the ground would hold water for a short time after rain. From there, the trail proceeded northwest for twenty-four miles, through the Tule Desert to water at Tule Tank and then on for another seventeen miles to the *Tinajas Altas* (High Tanks) Mountains. This leg of the trail crossed wide valleys of sand and gravel, bordered by jagged-peaked, and granite and basaltic mountains that ran northwest to southeast and rose abruptly from the desert floor.¹⁵

The Tinajas Altas were rock pools that would hold rainwater for a time until it evaporated. But the availability of water in the tanks was unpredictable and the water usually contaminated. Drinking was not advisable unless travelers were at the last extremity.¹⁶ Despite these difficulties, one of the reasons Poston and Pumpelly may have chosen to risk the Devil's Road was that in summer, monsoon

thunderstorms could be expected to fill *Las Playas* and the tanks with rainwater. From Tinajas Altas, travelers would go through the *Lechuguilla* Desert east of the Gila Mountains for about twenty-seven miles to the Gila River. From there, immigrants could follow the Gila Trail to the Yuma crossing. An alternate trail led through a pass at the northern end of the Tinajas Altas, into the Yuma Desert, and along the western flank of the Gila range to Fort Yuma (see Figure 5).¹⁷

One of the best descriptions of the Camino del Diablo in the mid-nineteenth century was given by Lieutenant Nathaniel Michler of the US Army Topographical Engineers, who in 1855 led a detachment assigned to survey the western end of the US-Mexico boundary after the Gadsden Purchase. Having followed the trail from Sonoyta to Fort Yuma and back in August, Michler said,

The burnt lime-like appearance of the soil is ever before you; the very stones look like the *scoriae* of a furnace; there is no grass, and but a sickly vegetation, more unpleasant to the sight than the barren earth itself; scarce an animal to be seen. . . save the lizard and the horned frog, naught to give life and animation to this region. The eye may watch in vain for the flight of a bird; to add to all is the knowledge that there is not one drop of water to be depended upon from Sonoyta to the Colorado or Gila. All traces of road are sometimes erased by the high winds sweeping the unstable soil before

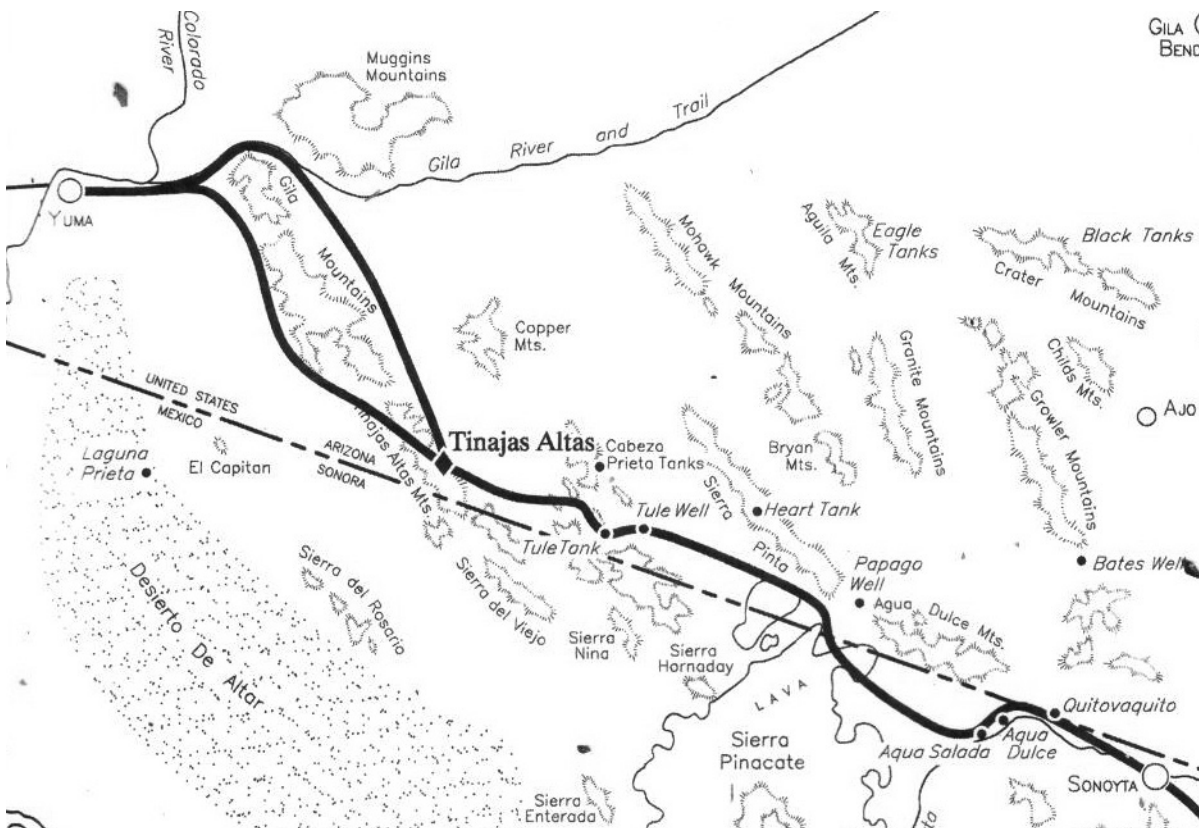


Figure 5. Map detail of El Camino del Diablo, from Sonoyta to Yuma, showing key water sources at Quitovaquito, Agua Dulce, Agua Salada, Tule Tank, and Tinajas Altas.

them, but death has strewn a continuous line of bleached bones and withered carcasses [*sic*] of horses and cattle, as monuments to mark the way.

Traveling from Yuma to Sonoyta, Michler's wagons, loaded with surveying equipment and supplies, bogged down in the "heavy" sand of the trail, even after the mule teams were doubled from six to twelve animals per wagon. Michler decided that the problems with the wagons made surveying along the route impossible; and by agreement with his Mexican counterpart, Mr. Jimenez, he turned north to the Gila River where they determined the western end of the boundary by mathematical calculations.¹⁸

Where Was the Devil's Road?

The trail described here was not the only route through Arizona's western desert. Rather, it was one of a network of trails used for centuries by native peoples on trade and hunting expeditions or harvesting salt on the Gulf of California. Members of the Cia H-ed O'odham (Sand People), who inhabited the desert, and the Tohono O'odham (Desert People), who lived along the Gila River and west of Tucson, knew the trails well and guided the Spanish military explorers and missionary padres along them in the sixteenth, seventeenth, and eighteenth centuries.

However, although early explorers such as Melchior Diaz (1541), Father Eusebio Francisco Kino (1699, 1700, 1701, 1702), Juan Mateo Manje (1699, with Kino), Father Tomas Garcés (1741), Father Jacob Sedlmayr (1750), and Juan Bautista de Anza (1774, 1776), used some of these trails, their route was not the same as that used by Pumpelly and Poston. As Broyles, *et al*, have shown, the Spanish expeditions of Kino, Garcés, Sedlmayr, and Anza started at Sonoyta and found water at Carrizal and Las Playas but then went north to Heart Tank in the *Sierra Pinta* Mountains and *Cabeza Prieta* Tank in the *Cabeza Prieta* Mountains before turning south to the Tinajas Altas.¹⁹ Pumpelly and Poston took the more direct route northwest from Las Playas through the Tule Desert to water at Tule Tank and then to Tinajas Altas. This route is identified as the "Camino del Diablo" in the 1898 report of the international boundary commission surveying the US-Mexico border between El Paso, Texas, and the Pacific.²⁰

Immigrants and Livestock

Geologist W. J. McGee says that the century between 1740 and 1840 saw increased use of the Devil's Road by adventurers, immigrants, and church and government representatives going to Alta California. Travel along the route was more direct and probably safer than travel by boat around

the southern tip of Baja California and north along the coast to San Diego, Los Angeles, or San Francisco.

Also using the trail during the eighteenth and nineteenth centuries were livestock drives from Sonora to northern California. Such drives increased dramatically during the gold rush years of 1848-50, when Mexicans and Americans drove cattle, horses, and mules from Sonora through the desert to the Yuma crossing to feed the exploding population of northern California and help do the work of the mines and related businesses, such as freighting and transportation. According to the *Los Angeles Star* of February 11, 1854, by that year an average of sixty thousand cattle a year was coming into California from Mexico. While some of these doubtless were driven north to the Gila River and then down the Gila Trail to the Yuma crossing, those coming from towns and ranches in northwestern Sonora, were probably being driven across the Devil's Road.

Arizona historian Noel M. Loomis says that beef cattle were selling for one hundred dollars a head in northern California in 1851, and noted Southwest historian Hubert Howe Bancroft writes of Sacramento prices in 1849 running as high as three hundred to five hundred dollars a head.²¹ While the latter figures seem exaggerated, it is clear that an enterprising trader could drive a large herd of cattle across the desert, lose a substantial part of the herd to starvation or dehydration, and still make a profit. James Hobbs, an American trapper and prospector, was in Sonora when he caught the California gold fever in 1850. In Hermosillo, he met fellow Americans William Ankrim, David Brown, and Thomas Smith, who told him that cattle prices were high in California and asked Hobbs if he would translate for them (Hobbs spoke Spanish) as they bought Mexican cattle to drive north. Hobbs agreed and purchased four hundred fifty head for himself at ten dollars a head. He combined these with his partners' cattle to make a herd of twenty-five hundred. He drove this herd over the Devil's Road to the Yuma crossing and on to California, where he sold the surviving cattle in San Francisco to a US government contractor buying for the army. Hobbs' share of the take came to sixteen thousand dollars, a profit of over three hundred fifty percent on his investment.²² Hobbs does not say how many animals were lost in the desert, but clearly his gamble had been worth the risk.

Both Loomis and California historian James M. Jensen say that by 1854 cattle prices in California had fallen to twenty-five dollars a head. And on May 8, 1858, the *Los Angeles Southern Vineyard* listed cattle prices ranging from six to twenty-two dollars a head. The need for beef cattle in northern California had diminished by the mid-1850s, and cattle drives over the Devil's Road would have

decreased accordingly. Jensen says that in 1858, California buyers bought only one-third as many cattle as in the peak gold rush years.²³

Human traffic along the Devil's Road, of course, swelled to thousands during the gold rush years, including both Mexicans and Americans. Many Mexicans heard of the California gold discoveries soon after they were made and composed a group of "forty-eighters," who were the first outside of California to rush to the gold fields. Their ranks increased in the years that followed. Gold-seekers from Fronteras, Arizpe, Terrenate, and Santa Cruz in Sonora and Tubac and Tucson in Arizona would probably have used the familiar route through Tucson to the Gila River, then down the Gila to the Yuma crossing. However, Sonorans from the western cities of Hermosillo, Altar, and Caborca would have found the Devil's Road the quickest and most direct route to the gold fields and would have provided the largest number of travelers along that route.²⁴ Broyles and Sheridan say that "During the gold rush, . . . the Sonoita-Tule-Tinajas Altas route appears to have been the most popular for travelers from Sonora to California."²⁵ The authors of "Trade Conditions at San Pedro [California] in 1850" claimed that "at least 10,000 Sonorans pass through here [Los Angeles] to the mines each spring, generally returning to Mexico in the autumn."²⁶ Many of these likely traveled the Devil's Road. José Francisco Velasco, writing in 1850, had a more conservative estimate. He said that it was "generally believed" that between five and six thousand Sonorans went to the gold fields between October 1848 and March 1849. However, wary of exaggeration, he reduced the number to four thousand. He estimated that one thousand three hundred thirty three of these remained in California (including seventy or eighty who had died) and that two thousand six hundred sixty-seven had returned to Sonora. Velasco adds that travelers returning to Sonora in November and December 1850 brought with them gold in the amounts of six hundred, sixteen hundred (multiple persons), and two thousand ounces.²⁷ Such returns, of course, would tempt other Sonorans to risk the Devil's Road in hopes of finding wealth. However, this mass migration had ended long before Pumpelly and Poston's journey, and Pumpelly does not report meeting any other travelers (or livestock drives) along the Devil's Road in summer 1861.²⁸

Who Called It the Devil's Road?

There is no evidence that any of the early travelers of the western desert called their route "El Camino del Diablo," the "Devil's Road," or "Devil's Highway." For the Spanish explorers and missionaries, the desert made for hard traveling, and the heat and lack of water were a trial. But their

O'odham guides led them from waterhole to waterhole, and the heat and rough conditions were just part of exploring a new and harsh wilderness, which was, after all, part of God's creation. No one died on their expeditions except Diaz, who was fatally injured in a freak accident. Sonorans traveling the region in later years were accustomed to the desert climate and terrain. They knew how to survive in it and bring their animals through it, and they remarked less on its hardships.²⁹ However, travelers unused to the desert and without help from desert-dwellers, had much more difficulty. Gaillard says that in 1893, he counted sixty-five graves along the trail in a day's ride of a little over thirty miles. He adds that four hundred persons were said to have died of thirst between Altar (Sonora) and Yuma over an eight-year period.³⁰

The name Camino del Diablo, or Devil's Road, was probably not used until the late nineteenth century and has been employed indiscriminately by writers ever since to describe the entire western desert and all of the trails crossing it, from those used by the O'odham to those of the Spanish explorers, gold-seekers, traders, drovers, and modern-day scientists, recreationists, and those entering the United States illegally. All are said to have traveled the Devil's Road or Devil's Highway. Earlier travelers were not so melodramatic. In *Across America and Asia* (1870), Pumpelly refers to the trail simply as "the desert route to the Colorado," while in *My Reminiscences* (1918), he calls it the "Old Yuma Trail," a name used in many nineteenth-century accounts.³¹ Other names included the Sonora Trail, the Sonoita-Yuma Trail, or the Caborca-Yuma Trail. Gaillard says, in 1893, that the road was known locally as El Camino del Diablo. The 1898 report of the international boundary commission repeats this claim.³² McGee, writing in 1901, calls the route the Old Yuma Trail but also uses the term Camino del Diablo, and says that the road earned that name in the years between 1740 and 1840.³³ However, naturalist Carl Lumholz, who visited the border in 1909-10, says that although "many recent authorities" have called the trail Camino del Diablo, "nobody in Sonoita knows it under that name."³⁴ In this article, I use the terms Camino del Diablo and the Devil's Road to refer specifically to the route followed by Pumpelly and Poston in 1861, the same route followed by many traveling to the Colorado River in the gold rush years of 1848-50 and after.

The Lawless Border

Just traveling the Devil's Road would be difficult enough for Pumpelly and Poston, but in Caborca, a problem arose that would make the trip even riskier. The Americans were carrying in their wagons silver from the Arizona mines. Neither Pumpelly nor Poston said how much silver

they had or to whom it belonged. But in Caborca, they learned that a gang of twelve Mexicans had been walking the streets, boasting that they would attack and rob the Americans.³⁵ So word about the silver had gotten out, and it would be a magnet for bandits. There were many of these near the border, which offered easy escape from law enforcement. Lawbreakers in one country could escape the authorities simply by crossing into the other. Despite these conditions, Poston and Pumpelly may have thought to use the fearful reputation of the Devil's Road to deter any who would try to follow them.

To further complicate matters, Californian Henry Crabb's ill-fated filibustering expedition into Sonora in 1857 had been captured by Sonoran troops in Caborca and all but one of the Americans executed. Sonorans celebrated the killings; and there was so much bitterness over the incident on both sides of the border that, Poston said, "Americans were not safe over the Mexican boundary, and Mexicans were in danger in . . . the United States."³⁶ Although Pumpelly and Poston enjoyed the hospitality of a prominent Caborcan, Don Marino Molino, it is likely that just four years after Crabb, Americans still were hated in Caborca; and this may have been another reason why Poston and Pumpelly wanted to leave as quickly as possible.³⁷

Friends urged Poston and Pumpelly to increase the size of their party. So, the two took on another American named Williams, who said he was a Californian, one of a group of prospectors who had traveled by boat to the west coast of Mexico but had been shipwrecked on Lobos Bay. Williams had been rescued, brought to Caborca, and now wanted to go home. He seemed friendly and reliable; and since they needed more "guns" in their party, Pumpelly and Poston invited Williams to come with them, even outfitting him with a horse, saddle, rifle, and pistol.³⁸

The Americans took the road north from Caborca to the border and stopped overnight in the village of Quitovac. But the next morning, north of the village, they saw the tracks of the men who intended to rob them. The road divided, and the tracks of the gang went up the right fork toward Sonoyta, where Poston and Pumpelly had planned to go. The Americans had told their plans to some Quitovac residents, and as a result the bandits had found out their route. Now the Americans changed plans and took the left fork to the tiny border village of San Domingo, about seven miles west of Sonoyta. There, they met Remigio Rivera, a Sonoran general, who had recently taken part in the Revolution of Magdalena against Sonoran Governor Ignacio Pesquiera. Some of the revolutionaries had been in the Santa Cruz Valley a year before, provisioning and planning an attack on Pesquiera. Thompson Turner, writing for the *Missouri Republican*, charged that the rebels were violating American law by planning an attack on a foreign country from American soil; and he complained of their depredations on local residents, without saying exactly what they had done.³⁹ The rebels did invade Sonora, and Rivera commanded one of their columns. But the revolution failed, and Rivera now had withdrawn with his troops to Sonoyta, where the border afforded him the same sort of protection that it did to outlaws. He was waiting there until he could determine what to do next.⁴⁰

As it happened, Pumpelly and Poston knew Rivera well. He had visited Santa Rita and Tubac many times while in Arizona. Now the Americans' hospitality toward Rivera in Arizona helped to save their lives in Mexico. Rivera told them that the men who had threatened them in *Caborca* were former rebel soldiers under his command. They were "cut-throats," he acknowledged, who intended to rob the Americans and were waiting to ambush them near Sonoy-



Figure 6. Quitobaquito spring and pond, within a hundred feet or so north of the present-day U.S.-Mexico border, west of Sonoyta in today's Organ Pipe Cactus National Monument.

ta. Rivera personally led the Americans west to the “last watering place” they would find before they had to cross the desert.⁴¹ This was probably Quitobaquito, not the last water before the desert but the nearest to San Domingo (see Figure 6).⁴² On the trail near the spring, Pumpelly and Poston picked up two more Americans who were going to California. They now had a party of six armed men and were confident that they could stand night watches without fatigue and fight off any bandits who might attack them.⁴³

A Border Outlaw

In fact, the Americans seemed to have eluded the robbers. They never saw them.⁴⁴ But Pumpelly had a nagging suspicion that Williams was not what he had pretended to be. On one night ride, he and Williams lagged behind the rest. Williams had helped himself to some brandy from the party’s supplies; and, after becoming drunk, he revealed that he had traveled the Devil’s Road several years before, something he had not told Pumpelly and Poston. On that journey, he confessed, he had killed a man named Charley Johnson and buried him in the desert. Williams led Pumpelly into a forest of mesquite and palo verde trees to show him Johnson’s grave, a small mound in the moonlight.

As Williams spoke, Pumpelly realized that Williams had been one of a notorious outlaw gang, “Bell’s band,” the “terror of California” in gold rush days. Eight years earlier, the gang had been given shelter at a mission near Caborca by an old priest and his sister. In return for this hospitality, the gang hanged the priest, stole several thousand dollars in gold from the church, and rode through Caborca using the priest’s robes as saddle blankets. They then escaped into the desert. When a posse finally caught up with them, the gang drove them off. Williams showed Pumpelly the spot where the posse had overtaken them and boasted, “We whipped them.”

Pumpelly had heard the story of the gang and the priest’s murder from Caborca residents, who remembered the incident well. When Williams said that he and Johnson had quarreled over who would get to keep a scarf they had stolen and boasted that he (Williams) had kept the scarf, Pumpelly abruptly asked, “Who kept the priest’s robes?” The startled Williams realized that Pumpelly knew about the priest’s murder and reached for his pistol. But he stopped when he saw that Pumpelly already had a hand on his own gun. Angry at having been discovered, he demanded, “What the devil do you know about the priest’s robes?” Raphael replied, “Only that you were one of Bell’s band.” Pumpelly, clearly, was no longer a tenderfoot, but he was appalled—and frightened. Williams “surely deserved hanging,” he said; and he acknowledged the irony in their

having taken in a notorious border outlaw and murderer, who was probably as ready to kill and rob them as the bandits from whom he was supposed to protect them. At the time of their journey, Pumpelly said, Williams was wanted in San Francisco for having killed a man there.⁴⁵

Pumpelly chose to tell only Poston what he had learned, probably because they still needed Williams for the party’s security. But he said that he “slept lightly”—and with his pistol in hand—whenever Williams stood watch; and the least sound made him cock the weapon. One night, he woke to realize that he had been sleeping with his finger on the trigger of a cocked pistol.⁴⁶

Pumpelly and Poston were not the only travelers on the Devil’s Road to fall in with bad men. Bandits were common along the border, waiting to prey upon unsuspecting immigrants. Hubbard, in 1849, took into his party three border “ruffians” he met near Sonoyta. They claimed to have been guides for the US Army and a trader in Santa Fé and offered to take Hubbard’s party safely across the Camino del Diablo to the Yuma crossing. They would do so, they said, for “grub.” Hubbard wanted nothing to do with the men, who “did not look right” to him. Dressed in “tattered” clothing, they nevertheless “rode superb horses and carried the latest model pistols.”

At the urging of other wagon owners in the party, Hubbard took the men on. But the guides led the group off trail into the Yuma Desert, fifteen miles west of the Devil’s Road. There, when the party was dying of thirst, the guides collected their canteens, saying that they would fill them at a nearby waterhole. They also had the immigrants unhitch their horses and oxen so the animals could walk to water. Then they left, claiming that they would bring water back to the stranded immigrants. In truth, their plan was to let Hubbard’s party die of thirst in the desert, then return later to loot the bodies and the wagons. Fortunately, a heavy, overnight rainstorm provided water and saved most of the party, although thirteen died. The surviving members recovered enough of their stock to pull all but three wagons. They filled every receptacle they had with water. Riders were sent out to find the Devil’s Road; and, after burying their dead, Hubbard’s party went on to the Gila River. They later came upon one of the bandits in the desert, dying of a gunshot wound he had received in a quarrel with one of his partners. He confessed the gang’s murderous plans before he died. The other two bandits vanished. Hubbard never saw them again.⁴⁷

The Valley of Death

From Quitobaquito, Pumpelly and Poston followed the Camino del Diablo across “broad, gravelly plains,” covered with scattered cacti, mesquite, and creosote. On either side of them, far from the trail, rose “high granite mountains . . . barren and dazzling masses of rock (see Figure 7).” Temperatures reached 118-126 degrees in the shade, 160 in the sun.⁴⁸ The party traveled mostly at night and rested during the day—in shade if they could find it. But Pumpelly said the only shade available was in wind-hollowed holes in rocks or crevices in mountain cliffs. To touch a gun barrel exposed to the sun, Pumpelly said, “meant a blistered hand.”⁴⁹ The heat along the Devil’s road in summer was legendary. Hubbard said that it was so hot, “the grease ran out of the axle hubs,” and “little heat devils” danced over the desert in the distance.⁵⁰ The boundary survey along the Devil’s Road in 1893 recorded daytime temperatures ranging from one hundred thirty to one hundred forty degrees in the sun, and from ninety-five to one hundred five in the shade.⁵¹ Equally debilitating was a persistent thirst, caused by the dry air instantly absorbing moisture from the tissues of the mouth and throat with every breath and creating a thirst that seemed unquenchable no matter how much water one drank.⁵²

Added to the challenges of the heat and dryness were mirages, illusory images of water or other scenes created by the extreme temperatures at the desert’s surface. Gaillard gives a detailed description of the mirages, “seemingly formed . . . to mock the dying traveler with visions of unlimited quantities of the precious water which he craves above all else on earth.” The mirages, he says, are astonishingly realistic, sometimes seeming only two or three hundred yards away, yet ever receding as one approaches. In the image of a large lake, “the ripples play, apparently traveling with the breeze, rising out of it are trees and islands, and wading near its shores, cattle and horses are seen.” But as one gets nearer, “the water recedes, ever keeping the same apparent dimensions and distance, until sloping ground or an area well covered with vegetation is reached, when it [the lake] gradually diminishes in size and finally disappears.”⁵³ Such images, Pumpelly says, lure



Figure 7. Tule Desert, about half-way along the Devil’s Highway, between Quitobaquito and Tinajas Altas. 1915 photograph.

the inexperienced traveler off trail, “to the tree-fringed lake to find only sands and death.”⁵⁴

Some strange sights along the trail, however, were quite real. One brightly moonlit night, Pumpelly and his party saw vague forms in the distance. As they came nearer, they saw on both sides of the trail rows of mummified cattle, horses, and sheep, standing up and facing the trail—many, Pumpelly said, “dead perhaps for years,” the aftermath of many livestock drives across the trail. In 1918, Pumpelly said that the carcasses had been put there by travelers “with a sense of humor, and . . . a fertile imagination that had not been deadened by thirst.” But in 1868, he had a grimmer recollection, that “they seemed sentinels guarding the valley of death.”⁵⁵

Las Playas and the Pinacate Lava Flows

About thirty miles from Quitobaquito, Poston and Pumpelly camped on the edge of Las Playas, the ancient lake bed now covered with dried, cracked mud and ridges of drifting sand. The Playas were long known as a source of water in summer, when monsoon rains would collect in depressions in the ground (“*charcos*”) and stay after the storms had passed. After most of the water had evaporated, the ground would remain a swampy morass, notoriously difficult to cross.⁵⁶ However, when Poston and Pumpelly arrived at the Playas, the lake bed was completely dry. Having seen the skeletons and dried carcasses of animals along the trail, they were sure that their own animals would not reach the next water before giving out. But during the night, a monsoon thunderstorm filled the lake with water. As with Hubbard’s party in 1849, the storm gave the Americans the water they needed to survive and go on. Two days later, Pumpelly said, the water was gone.⁵⁷

Poston and Pumpelly proceeded west across the Playas, probably slogging through mud after the rain, and into the Tule Desert, with the Pinta Mountains on their right and the Cabeza Prieta range ahead of them as they traveled northwest. They camped on the Pinacate lava fields, a sheet of black basalt about a mile wide stretching north from the volcanic Pinacate Mountains in Sonora. McGee said that the surface of the lava was “weathered into a pavement of pebbles . . . polished . . . by a ‘desert varnish’ of remarkable brilliance” and forming “a nearly continuous mirror miles in extent, reflecting light and heat with painful intensity.” The trail was clearly visible across the lava, with the pebbles pushed aside by travelers’ wagon wheels.⁵⁸ From this point, Pumpelly said he saw two parallel rows of fantastic-looking lava cones, two hundred to three hundred feet high stretching into the distance. Father

Juan Salvatierra had seen the Pinacate lava cones with Kino in 1701 and said that they looked as though someone had poured pitch over the landscape. He was sure this was how the world would look after the “great conflagration” on the Judgement Day, when God would send fire to destroy the earth.⁵⁹

The Tinajas Altas

Poston and Pumpelly crossed the Tule Desert, skirted the southern end of the Cabeza Prieta Mountains, and entered the Lechuguilla Desert with the Tinajas Altas Mountains on their left. There, two days’ journey from Las Playas, they reached the tanks that gave the range its name (see Figure 8). The *tinajas*, Pumpelly said, consisted of five or six pools in the rock, one above the other (in 1918, he revised his count to nine pools). These pools would fill with water after a rain. But when rain did not fall, the lower tanks would dry up, and travelers would have to climb over huge boulders and across crevices in the rock to find water in the higher tanks. Travelers already weak from

starvation and thirst often fell to their deaths in the attempt. Gaillard counted fifty graves at the foot of the *tinajas* when he camped there in 1893.

Animals could only drink from the lowest tank. If this was dry, travelers would have to lower water in buckets or water bags from the high tanks or bail water from one of the higher tanks to the next lower one until enough water was in the lowest tank so the animals could drink. As a result, watering animals at the *tinajas* could take hours. Peter R. Brady, with the Texas Western Railroad survey in 1854, said that their party arrived at the tanks at 2:00 p.m. and had to lower water in canteens for their animals from the higher tanks. They spent the rest of the day (until dark) doing this, then three more hours the next morning before they could get under way.⁶⁰ However, the delay was necessary. At this point on the trail, animals would die without water. In 1861, Pumpelly saw the carcasses of many dead cattle and horses at the base of the tanks.⁶¹



Figure 8. Tinajas Altas, a series of holes in the rocks which catch rain water, and one of the few spots along the Devil’s Highway where water is likely to be found.

On the Gila Trail

Pumpelly and Poston took a trail east of the Tinajas Altas and Gila Mountains and, a day after leaving the *tinajas*, reached the Gila River. The journey from San Domingo had taken five days.⁶² Even though this was the last leg of their trip on the Devil's Road, it was probably no less trying than their earlier journey. This was the stretch of desert about which Brady, seven years earlier, wrote that they had to pass through the "shimmering of the burning sand under us and rays of the torrid sun dancing and trembling in the glare and the wind like a blast from a furnace." Brady saw, as Pumpelly had elsewhere on the trail, "lots of animals scattered along the road where they had died from exhaustion and then dried up like mummies" because there were "neither ravens nor coyotes to devour them." Yet in the distance to the northwest, Brady's party could see a hopeful "strip of green," the cottonwood trees of the Gila River bottom.⁶³

On the Gila Trail, Pumpelly and Poston camped at an abandoned Butterfield Overland Mail station and found nailed to the door an old newspaper clipping telling of the Union defeat at the first battle of Bull Run. It was the first news they had had of the Civil War since hearing of the Confederate firing on Fort Sumter in April. In the afternoon, desperate for relief from the 117-degree heat, they tried bathing in the river but found the water temperature 100 degrees and not refreshing. That night, while making their way toward the Yuma crossing, they saw a sandstorm approaching, a "black wall rising like a mountain of darkness, and rapidly hiding the sky as it moved steadily toward us." They quickly dismounted, held the horses with ropes, and sat with their backs to the storm; but they had to stand repeatedly to keep from being buried by the sand. When the storm had passed, they dug out the animals, unpacked their gear, and camped for the night.⁶⁴

The following day, they arrived at Fort Yuma, crossed the Colorado River by ferry, and camped near the ferry house on the California side (see Figure 9). According to Pumpelly, the "yellowish" Colorado, then draining the waters of Arizona, New Mexico, Utah, and Colorado, was nearly five hundred yards wide at Fort Yuma.⁶⁵ Here, their party got smaller. Their cook decided to return to his wife in Sonora, and the two Americans they had picked up near San Domingo lived near Fort Yuma and had reached their destination.⁶⁶ Perhaps because of these departures, Poston and Pumpelly may have decided to give up their wagons in favor of pack animals. They arranged with a California immigrant to carry their baggage from the ferry in his wagon. They would follow later in the day and meet the immigrant at his first camp. Before they did, an old friend

of Williams, an evil-looking character named "One-eyed Jack," showed up at the ferry, and he and Williams spent the day together.

The Last of Williams

At dusk, Poston, Pumpelly, and Williams left the ferry as planned and headed west along the northern bank of the Colorado. But Williams mysteriously disappeared after half an hour's ride. Poston and Pumpelly stopped to water their horses in the river and waited an hour for Williams before continuing west through wooded bottom-land toward the desert. They soon came to a bush lying across the road, usually a sign left by other travelers that the route ahead was impassable. Pumpelly rode through the woods along the trail, looking for a way beyond the roadblock, and found One-eyed Jack asleep in the brush with his mule tied nearby. Returning to the road and heading back toward the roadblock, Pumpelly found Williams, also napping at the side of the road. It was apparent that Williams had put the bush in the road. When asked why he had done it, Williams said that it was so Poston and Pumpelly would not pass him in the dark and go off into the desert. There was no grass or water ahead for thirty miles, he said.

His suspicions now fully aroused, Pumpelly asked where Williams had gone after they left the ferry. Williams said that he had returned to the river to fetch his canteen, which he had left there. Since Raphael had seen Williams drink from the canteen as they left the ferry, he knew Williams' story was a lie. When Pumpelly asked where Jack had gone, Williams lied again and said the one-eyed bandit had left for Arizona. "The villain's coolness was admirable," Pumpelly said, "but the whole plot was clear." The bandits planned to kill him and Poston while they slept, then kill the immigrant and his wife at their camp and take the silver. Williams insisted that they stop there for the night. But

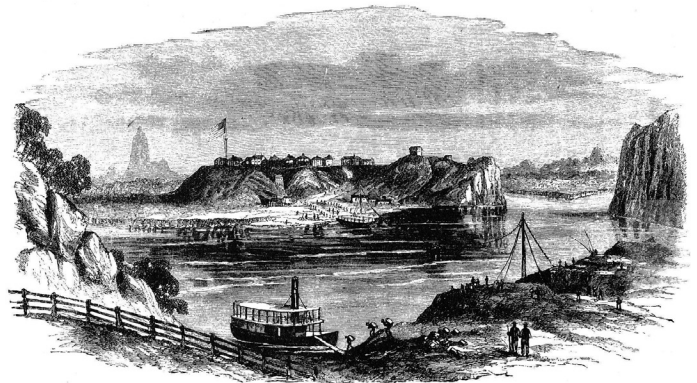


Figure 9. Fort Yuma on the west side of the Colorado River, viewed from the east side at a narrow point in the river, close to where the Gila River flows into the Colorado.

Pumpelly quietly signaled to Poston, who knew nothing of Pumpelly's discoveries, and the two quickly rode on, across an area of shifting sand to the immigrant's camp at another abandoned Overland Mail station. They arrived at about 3:00 a.m. A visibly disappointed Williams stayed behind.

Williams showed up at the station after breakfast as Poston and Pumpelly were preparing to leave. While Williams' back was turned, Poston drew his revolver, and he and Pumpelly ran Williams out of camp at gunpoint. Poston said, "Pumpelly and I have concluded that it wouldn't be safe for you to go to California. The last man you killed hasn't been dead long enough, and they have a way there of hanging men like you. We don't want to shoot you for we haven't time to bury you. You may keep the outfit, but you had better go back and join your friend, 'one-eyed Jack,' down there by the river. You and he can't kill us, and you can't get our silver." Williams laughed, stuck out his hand, and said, "Give us your hand; you're sharper by a d___d sight than I thought you was; you'll do for the border!" It was an odd congratulation—as if Poston and Pumpelly had passed some border initiation. Then he jumped into his saddle, waved his hat, and rode off. They never saw him again (see map on the back cover).⁶⁷

Crossing the Colorado Desert

Pumpelly and Poston now had to cross the Colorado Desert, a region Poston doubtless remembered well from his 1854 expedition. By 1861, the route across the desert was a familiar one, but it was considered the hardest part of the southern immigrant trail to California, even more difficult than the Gila Trail or the Devil's Road, with which it had much in common. Like the Devil's Road, it had been used by native peoples for centuries, followed by Spanish military and missionary expeditions. Anza used versions of it on his California journeys to Mission San Gabriel in 1774 and San Francisco in '75.⁶⁸

Brigadier General Stephen Watts Kearny and Lieutenant Philip St. George Cooke used it while leading military expeditions to California in 1846 and '47. Cooke, commanding the Mormon Battalion, had been ordered by Kearny to create a military wagon road along the route. The Kearny-Cooke trail was traveled by tens of thousands of California immigrants in the gold rush years. The Butterfield Overland Mail used the route and established stations along it in 1858, though in summer 1861 these stations were closed because the Civil War had interrupted service along eastern portions of Butterfield's route.

The trail led west from Fort Yuma, along the northern bank of the Colorado River, then turned south across the border into Mexico at Pilot Knob in order to skirt the Algodones Dunes, whose mountainous and shifting sands were virtually impassible. The desert here was devoid of vegetation and the dunes almost constantly in motion. Blowing sand could change the topography of the land in hours, obliterating the trail and burying life-saving wells.⁶⁹

The trail swung north back into California near present-day Calexico, then led northwest across the Anza-Borrego desert. As on the Devil's Road, the trail was littered with the skeletons and decomposing carcasses of cattle, horses, mules, and sheep, the victims of many drives by Mexican and American livestock traders across the desert in the 1830s, '40s, and '50s.⁷⁰ If horses or mules died leaving travelers on foot, or if loads had to be lightened for the surviving animals, immigrants would abandon their goods. So it was not unusual to find saddles, bridles, blankets, trunks, barrels, casks, saws, bottles, gun barrels, and other items littering the trail. Daytime temperatures ranged from 100-120 degrees, while hot winds whipped across the desert, blowing sand and dust and discouraging travelers.⁷¹ Lieutenant Cooke declared in his journal that the route across the Colorado Desert was the worst part of the Mormon Battalion's journey to California.⁷²

From the Colorado River, the trail followed a series of established wells—Cooke's Wells, Gardener's Wells, *Alamo Mochó*, and *Pozo Hondo* in Mexico, then back across the border to Indian Wells, Sackett's Wells, and *Laguna*, a dry lake bed where water sometimes could be found. Some wells, pits twelve to twenty feet deep, had to be re-excavated by each group of travelers because the wells had filled with drifting sand. Water in these wells was usually salty and bad-tasting, and at some the stench of decaying animal carcasses nearby made it impossible to stay for long. Sometimes dead animals, both wild and domestic, would be found lying in the wells, making drinking the water a mortal risk.

From Laguna, travelers bound for Los Angeles would go north to *Carrizo Spring*, which fed a creek flowing into Carrizo Canyon in the coastal sierras. The trail went up the canyon and through the heavy sands of Carrizo Wash to Palm Springs, then northwest to *Vallecito* (the Little Valley), where there were more springs and grass for animals. The road continued west through the valley, climbed to the deserted Indian village of San Felipe, and then on to Warner's Pass, the summit of the mountains. Near the pass was Warner's Ranch, a popular stopping place, and the warm springs of *Agua Caliente*.⁷³ From Warner's Ranch, travelers would descend the western slopes of the moun-

tains and take a road north through the Temecula Valley to Los Angeles.

There were just the two of them now that they had chased Williams away. Pumpelly is not specific about their route across the Colorado Desert and through the mountains. He says that after Williams' departure, they crossed the border into Mexico and traversed "the worst of deserts," including a broad, dry lake bed with "freshwater shells" and "ridges of shifting sand." They stopped at wells Pumpelly said had been dug by the Overland Mail Company. These were probably Sackett's Wells, which had been an Overland Mail station (now closed), and which Pumpelly shows on his map as a landmark along their route. Sackett's was known for its bad-tasting water, and Pumpelly says that the water was alkaline and "so fetid as to be undrinkable except when the traveller is driven to it by fear of death from thirst. Indeed, it often produces a disease which sometimes proves fatal."⁷⁴ Presumably, they drank—and survived.

Pumpelly's map shows that from Sackett's Wells, he and Poston traveled northwest to Carrizo Creek, then pushed their animals through the sands of Carrizo Canyon to Vallecito. But the desert seemed to pursue them. All night long, as they went up the canyon, they saw animal skeletons "glittering in the moonlight" and felt hot blasts of air rushing up from the desert behind them. Pumpelly said it was like walking "through the valley of the shadow of death, and flying from the very gates of hell."

As they passed Warner's Ranch, now deserted, and crossed the summit of the mountains, Pumpelly says they felt a refreshing breeze from the ocean. Then, as they descended into the Temecula Valley, they came to a field of watermelons and saw herds of cattle and live-oak trees.⁷⁵ "Think of it," Pumpelly recalled years later, "watermelons galore after months of desert thirst!" Doubtless, the pair helped themselves to some. Pumpelly said that it seemed impossible they now were in a beautiful, fertile valley, while not long ago they were dragging themselves through the hellish desert landscape with its hot winds, drifting sand, and skeletons glittering in the moonlight.

They now followed the road north to Los Angeles through the cattle ranches and vineyards of the Temecula Valley. Here, the political landscape seemed more threatening than the physical one. The Civil War was underway in the East, and Pumpelly said that almost the entire Anglo population of southern California was from the Southern states. They hated the North so much that Pumpelly feared a northerner there was in as much danger as in the heart of the Confederacy. However, they had no problems with the local residents. They reached Los Angeles the first week in

September, and from there, they took a coastal steamer to San Francisco.⁷⁶ Their journey was over.

After the Expedition

After the pair reached San Francisco, Poston went to Washington, DC, and worked for passage of the act to make Arizona a US territory. He lobbied President Lincoln in the White House and was successful. Lincoln signed the Arizona territorial act into law on February 24, 1864. Poston was appointed Arizona's first Superintendent of Indian Affairs and returned to Arizona to take up his duties. He later was elected Arizona's first territorial delegate to Congress, then practiced law in Washington, DC. He toured Asia on a diplomatic appointment, traveled in the Middle East and Europe, and lived in London for six years. He returned to the States and Arizona in 1876, but his fortunes steadily declined after that. He subsisted on a series of low-level political patronage jobs and by writing and speaking about his frontier experiences. He died in Phoenix in 1902. He was seventy-seven years old—and indigent.

From San Francisco in 1861, Pumpelly sailed to Asia and served as a consulting geologist and mining expert for the Japanese and Chinese governments. When he returned to the States, he chaired the new mining engineering program at Harvard, took part in several state and U.S. geologic surveys, and conducted pioneering geoarchaeological research in central Asia. He published forty-eight scientific articles, papers, and chapters in books; four books on geological topics; and four books of reminiscences about his life and travels. He became an internationally known geologist and mining expert.

A Return to the Devil's Road

In March 1915, at age 78, Pumpelly returned to Arizona with his two adult daughters, his son, and daughter-in-law. It was an attempt to seek what he called the "healing influence of the desert" after his wife's death that same year and to take his children to see the scenes of his youthful adventures. He took his family into the Santa Rita Mountains. But unlike the old days, they traveled in three Ford cars with drivers, a party of eight in all.

The Pumpellys visited the deserted Santa Rita hacienda. And while much had changed, Raphael still was able to see the ruins of his adobe furnaces, where he and his Mexican workers had labored day and night to process the last of the Santa Rita silver while Apache bullets and arrows flew by their heads. A Mexican who lived on the property found the grave of Horace Grosvenor. In 1861, Pumpelly



Figure 10. Pumpelly in 1915 inspecting Horace Grosvenor’s headstone at Hacienda Santa Rita, carved in 1861 by Pumpelly.

had carved a stone to put over the grave. In 1915, the stone remained, the inscription on it as clear as the day Raphael had carved it (see Figure 10).

But Pumpelly found the visit to Santa Rita emotionally overwhelming. The feelings of anxiety and despair he had known in the old days swept over him again. Staring at Grosvenor’s tombstone, he said, he felt that “the curtain was again rising on the dark drama of 1861, and that day by day memory would reenact the tragedies of those days.”⁷⁷

He escaped his distress by trying to repeat his and Poston’s flight from Arizona in 1861, but this time with his family in their cars. They would not have to deal with robbers, murderers, or renegade Sonoran revolutionaries. But they would still have to face the brutal landscape, the heat, and the lack of water. And they would have to cross terrain not made for cars. The Pumpellys planned to go west from Tucson, then south, aiming for a point one hundred miles away on the Mexican border. There they would pick up the Devil’s Road and follow it to Yuma. Their blankets were wrapped in canvas rolls and lashed to the automobile hoods. Cans of gasoline, boxes of food, and cooking gear were strapped to the running boards. Canvas bags of water hung from the sides of the cars (see Figure 11).⁷⁸



Figure 11. A 1912 Ford Touring Car, similar to the vehicles used by Pumpelly in his 1915 desert crossing.

From Tucson, on March 22, they started west across the Baboquivari plain.⁷⁹ On their first day, their head driver gave some of their gas to a man who needed it and who told them that they could get gas at Indian Oases (*sic*: “Oasis,” present-day Sells, Arizona). But there was no gas at Indian Oasis, which meant that they would have to detour northwest to Ajo to get gas.⁸⁰ Pumpelly later considered the detour lucky because he found at Ajo the only person in the vicinity who had been to Camino del Diablo and the Tinajas Altas and could guide the party there, an eighty-five-year-old Pima Indian named Tomaso. They needed a guide because once they got to the Devil’s Road, they would have to find water quickly in order to survive; and Raphael, it seems, did not trust his memory of his previous trip along the route.⁸¹

The Pumpellys left Ajo on a road that led south, east of the Growler Mountains, toward the border. Their first day out, they stopped at “an abandoned deep well” where they had planned to fill their water bags. This may have been Bates Well, sixteen and a half miles from Ajo and known for the poor quality of its water. The Pumpellys hauled a gallon or two from the well before their drivers told them that the water was not fit to drink. But they assured the family that they could make it to the next water, Papago Well, about twenty-three miles distant, without refilling.⁸²

The Pumpellys went on into the desert, which, to their surprise, was “a garden.” They first saw “a vast field of yellow daisies,” then miles of pink phlox interspersed with barrel cacti. After this, they found miles of a tall-stemmed plant with small, orange flowers, then golden desert poppies and tall poppies with “large white petals and crinkly leaves.” This desert idyll was interrupted by a party returning from hunting bighorn sheep near the Gulf of California. The hunters’ guides told the Pumpellys that they would never make it to Yuma in their cars: “It had never been done and to fail would be extremely dangerous.” However, the guides told them that they would find water at Tinajas Altas, so the Pumpellys pressed on. Raphael learned later that when the hunters reached Ajo, they wired Yuma to send out a rescue party to find the Pumpellys.⁸³

As if to demonstrate the truth of the guides’ warning, the Pumpellys arrived at a plain of soft sand, where they had to get out and walk so that the cars could be driven over the sand without sinking.⁸⁴ Then they came to a place where rain had cut washes in the sand, with banks up to a foot high on either side, so that they had to push the cars over the banks. Their water was low—in their water bags and in the car radiators. Finally, they came to a wash whose far bank was too high to push the cars over. Pumpelly got out a large piece of canvas he had brought to spread over them

at night in case of rain. They stretched the canvas over the bank, and it gave the cars enough traction that they could be driven over the bank and onto the hard-packed sand beyond. When they did, they found themselves on Las Playas, the dry lakebed that Pumpelly and Poston had crossed in 1861 and where a sudden downpour had saved their lives. This time, there was no downpour, but they had found the Devil's Road.⁸⁵

The Pumpellys camped on the Pinacate lava fields, near one of the large volcanic cones Raphael had seen in 1861. However, in contrast to his previous visit, Pumpelly found the lava fields in spring strikingly beautiful, with "great masses of flowering plants and some beautiful white lilies," interspersed with spindly-stemmed, red-flowering ocotillos, nearly ten feet high, and far off to the east, mountains showing red in the reflected glow of a desert sunset.⁸⁶

Fifteen more miles' travel brought them to Tule Well and water. Geologist Kirk Bryan describes both an old well at the site, which had no water in it, and a newer one not far away, from which one could draw water with a bucket and a rope.⁸⁷ The water in Tule Well was notorious for its sulphurous taste, and Pumpelly said the water they drank was "brackish and offensive." However, he added, "on the desert one may not be squeamish." He may have wished he had been. Months later, a friend asked how he had liked the water at Tule Well. When Raphael said, "Not much," the friend replied, "Naturally, for we found and left a man in it two years ago."⁸⁸

After Tule Well, the Pumpellys proceeded to the Tinajas Altas, where they found eight of nine tanks filled with water. Pumpelly noted that in 1861, he had seen many dead cattle and horses at the base of the tanks. No animal carcasses were now visible, having been buried under debris washed down by rainstorms in the intervening decades. But Raphael said he had heard too many stories of the tanks to dare look into their depths. The surfaces, he said, were swarming with the larvae of mosquitos, malarial and otherwise. Though it was early March, the temperature at the tanks was 100 degrees. Pumpelly recalled that in summer 1861 the temperature had been 126 in the shade. Only his son, Raphael, was able to climb to the highest tanks, where he took a photograph of the surrounding desert. Seventy-eight-year-old Raphael Sr. did not attempt the climb.⁸⁹

Pumpelly explained that while in 1861 he and Poston had followed a trail east of the Gila Mountains to the Gila River, later discovery of a gold mine on the west side of the range had opened a road there, which he and his party now

took to Yuma. As they went through a pass at the northern end of the Tinajas Altas, they saw the vast Yuma desert stretching south and west to the Gulf of California. Their three cars had held up well despite the distance traveled and the roughness of the desert roads. However, at Tinajas Altas, one of the Fords broke down. They re-packed their gear and went on in the other two cars, leaving the third car behind with its driver, who was to make repairs and bring the car into Yuma.⁹⁰

Yuma, Pumpelly found, was now not just a military fort and ferry crossing but a "real city," where their journey ended—safely, although the Pumpellys had suffered the ravages of the desert. Pumpelly said that the sun had burned the skin off the backs of his hands, while the women in the party hid their faces behind veils to conceal the fact that their lips were grotesquely swollen from the sun. They looked out for Tomaso, who was eyed with "unwelcome interest" by the local Quechan (Yuma) Indians. The Quechan were hostile to some groups of Pimas and seemed to resent Tomaso's presence in what they still considered their territory.⁹¹

Pumpelly's son Raphael and daughter-in-law Amelie, left for home, taking Tomaso with them as far as Gila Bend, where he boarded a stagecoach for Ajo. Pumpelly and his two daughters traveled to Phoenix, from which Raphael went to visit the Miami copper mine in Globe. But for Pumpelly, their travel eastward from Yuma lacked the adventure and inspiration of their earlier journey: "The desert through which our route lay had lost its mystery and charm through the building of an automobile road and other evidences of vulgarization."⁹² Raphael then returned home, to Dublin, New Hampshire, where he died eight years later, in 1923, at the age of 85 (see Figure 12).

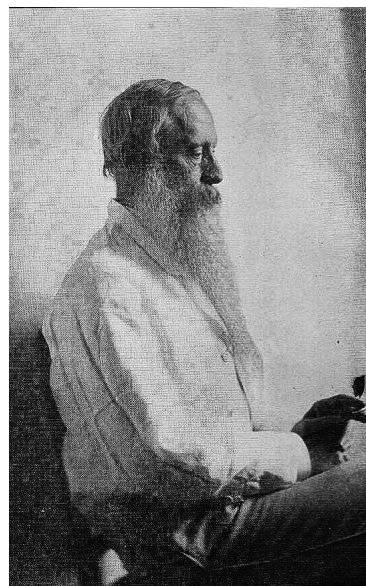


Figure 12. Raphael Pumpelly, photograph taken in 1900.

Exploring the Devil's Road

Although a small body of autobiographical and scholarly literature has developed around the Devil's Road, much has yet to be learned—who traveled the route in different eras and for what purposes; its geography; the specific trails, landmarks, and water sources that were part of it. The region's remoteness and the difficulty of the terrain have discouraged precise mapping or archaeological research along the route, such as has been done along the Gila Trail and Cooke's Road. Also, the Devil's Road, rather than becoming a "lost" or neglected trail, is being visited by growing numbers of recreational travelers in SUVs, motorbikes, and ATVs, braving the historic challenges of the route, but also creating new trails and obscuring the old. In addition, the presence of illegal border crossers, drug and people smugglers, US Border Patrol and other law enforcement personnel in the area can make travel even riskier than usual.

Pumpelly's accounts are a good starting point for understanding the history of the Devil's Road. This is true particularly because of his ability to see both the physical and emotional landscape—the challenges of the terrain, the extreme heat and ever-present thirst that could provoke bad choices, and the almost constant fear and doubt that could lead to despair. Pumpelly also reveals the social and political aspects of nineteenth-century border travel—the presence of bandits and revolutionaries and the troubled relations between Mexicans and Americans. Hopefully, other personal narratives, newspaper sources, military and surveyor's reports, archaeological studies, and on-site examination of the Devil's Road will yield even more information about this celebrated route.

Endnotes:

1. "Sonoyta" is the typical spelling of the town in Sonora, although it is sometimes spelled "Sonoita." A different place, the creek (a tributary of the Santa Cruz River) and location further east in Arizona is always spelled "Sonoita." In this article the "Sonoyta" spelling is used for the town of the western Sonora-Arizona border at the beginning of the Devil's Highway, unless it is a direct quote from another source where it is spelled with an "i" instead of a "y."
2. S. P. Heintzelman, W. Wrightson, Edgar Conkling, Charles D. Poston, Herman Ehrenburg, Frederick Brunkow, and Charles Schuchard, *Report of the Sonora Exploring and Mining Company*, Cincinnati: Railroad Record Print, 1857, reprint, Provo, Utah, Reprinted Publishing, LLC, 2012, 6.
3. Raphael Pumpelly, "Arizona Notebook," Raphael Pumpelly Papers, Box 1, Huntington Library, San Marino, California.
4. Sylvester Mowry, *Arizona and Sonora: The Geography, History, and Resources of the Silver Region of North America*, Revised and Enlarged, New York: Harper and Brothers, Publishers, 1864, reprint, Memphis: General Books, 2010, 39.
5. I have discussed Poston's 1854 expedition in detail in *Reconnaissance in Sonora: Charles D. Poston's 1854 Exploration of Sonora and the Gadsden Purchase*, Tucson: University of Arizona Press, 2015.
6. Berndt Kühn, *Chronicles of War: Apache and Yavapai Resistance in the Southwestern United States and Northern Mexico, 1821-1937*, Tucson: Arizona Historical Society, 2014, 61-92; *Latest from Arizona: The Hesperian Letters, 1859-1861*, Constance Wynn Altshuler, ed., Tucson: Arizona Pioneers' Historical Society, 1969, 239.
7. Raphael Pumpelly, *Across America and Asia: Notes of a Five Years' Journey Around the World*, New York: Leypoldt & Holt, 1870, reprint, Charleston, South Carolina: Bibliobazaar, n.d., 26-27.
8. Mowry, *Arizona and Sonora*, 26.
9. Pumpelly, *Across America and Asia*, 50-51.
10. "Map of the Gadsden Purchase, Sonora and portions of New Mexico, Chihuahua & California by Herman Ehrenberg, from his Private Notes, & Those of Major Heintzelman, Capt. Sitgreaves, Lieut. Derby; Bartlett, Gray, Julius Froebel & Others; Lith'y by Alex Zakreski," 1854, Arizona Historical Society, Tucson; Pumpelly, *Across America and Asia*, 50; *Los Angeles Daily Star*, September 7, 1861.
11. Pumpelly, *Across America and Asia*, 52.
12. D. D. Gaillard, "The Perils and Wonders of a True Desert," *Cosmopolitan Magazine*, October 1896, 602. Francisco Salazar, who traveled the Devil's Road as a seventeen-year-old in 1850 with a party on their way to the California gold fields, said that Apache attacks were common along the trail, particularly at waterholes, where travelers would stop. But his party saw no Apaches, and his is the only personal account of the trail to say that Apaches were a threat (Barney, James M. "Camino del Diablo [The Devil's Highway]," *Arizona Highways*, 19(3), 14-19, 1943, quoted in Broyles, Bill, Gayle Harrison Hartmann, Thomas E. Sheridan, Gary Paul Nabhan, and Mary Charlotte Thurtle, *Last Water on the Devil's Highway: A Cultural and Natural History of Tinajas Altas*, Tucson: University of Arizona Press, 2012, 110-12). Apaches were feared and hated for their raids in Sonora, and it is possible, as Broyles, *et al* suggest, that Apaches were blamed for attacks along the Devil's Road by Anglo bandits, O'odham, or even Quechan raiders (Broyles, *et al*, 112).
13. Tom Bailey, "The Devil's Highway," *True West*, November-December 1959, 7-8.
14. Broyles, *et al*, *Last Water on the Devil's Highway*, 31. Distances given for stopping places along the Devil's Road are from Broyles, *et al*, 40.
15. Broyles, *et al*, 10-11, 28; *Report of the Boundary Commission upon the Survey and Re-marking of the Boundary Between the United States and Mexico West of the Rio Grande, 1891 to 1896, Parts I and II*. Washington, DC: Government Printing Office, 1898, 23-26.

16. Broyles, *et al*, 22-23, 28.
17. Broyles, *et al*, 4, 83-84.
18. William H. Emory, *Report of the United States and Mexican Boundary Survey, the Direction of the Secretary of the Interior*, Vols. 1 and 2, Washington: Nicholson, 1857, 1859; reprint, Sagwan Press, Creative Media, 1918, 116.
19. Broyles, *et al*, *Last Water on the Devil's Highway*, 40-41, 73-91.
20. *Report of the Boundary Commission*, 26.
21. Noel M. Loomis, "Early Cattle Trails in Southern Arizona," *Arizoniana*, 3(4), Winter 1962, 21; Hubert Howe Bancroft, *History of California*, Vol. 7, San Francisco: The History Company, 1890, 54, cited in James M. Jensen, "Cattle Drives from the Ranchos to the Gold Fields of California," *Arizona and the West*, 2(4):341-352, Winter 1960, 343n9.
22. James Hobbs, *Wild Life in the Far West: Personal Adventures of a Border Mountain Man*. Hartford: Wiley, Waterman & Eaton, 1875, 211, 221.
23. Loomis, "Early Cattle Trails," 24; Jensen, "Cattle Drives from the Ranchos," 354, 350, 351.
24. Daniel Judkins, E-mail to the author, August 30, 2022.
25. Broyles, *et al*, 112.
26. "Trade Conditions at San Pedro in 1850. A Memorial to Congress," *Annual Publication of the Historical Society of Southern California*, 7(2/3):164-168, 1907-1908, 168.
27. Jose Francisco Velasco, *Noticias Estadísticas del Estado de Sonora: Acompañadas de Ligeras Reflexiones, Deducidas de Algunos Documentos y Conocimientos Practicos*. Mexico City: Imprenta de Ignacio Cumplido, 1850, 289-90, reprint, under a shorter title, *Noticias Estadísticas del Estado de Sonora (1850)*, Hermosillo: Gobierno del Estado de Sonora, 1985 (the book was written in 1850 and first published in 1860).
28. The report of the 1891-96 international boundary commission mentions a large number of Mexicans traveling to the Colorado River after gold discoveries there in the early 1860s (*Report of the Boundary Commission*, 24).
29. Gaillard, "Perils and Wonders of a True Desert," 595; W. J. McGee, "The Old Yuma Trail," *National Geographic Magazine*, Part 1, 12(3):103-107, April 1901, 106, and Part 2, 12(4):129-143; Dorothy Childs Hogner, *Westward, High, Low, and Dry*, New York: E. P. Dutton and Company, Inc., 1938, 96; Stephen R. Van Wormer, "Dry, Soft, Sandy Washes and Stair-Stepped Valleys: An Historical Overview of the Southern Overland Trail from Yuma Crossing to Warner's Ranch, Part II Gold Rush Migration—International Boundary and Railroad Surveys 1848-1855," *Desert Tracks*, February 2021, 32.
30. Gaillard, "Perils and Wonders of a True Desert," 603. These claims are repeated in the report of the 1891-96 international boundary commission (*Report of the Boundary Commission*, 26). However, neither Gaillard nor the commission report gives a source for this information, and neither says which years are referred to.
31. Pumpelly, *Across America and Asia*, 53; Raphael Pumpelly, *My Reminiscences*, (two volumes), Volume II, New York: Henry Holt and Company, 1918, 766.
32. Gaillard, "Perils and Wonders of a True Desert," 603; *Report of the Boundary Commission*, 26.
33. McGee, "Old Yuma Trail," March 1901, 106.
34. Carl Lumholz, *New Trails in Mexico: An Account of One Year's Exploration in North-Western Sonora, Mexico, and South-Western Arizona 1909-1910*, Tucson: University of Arizona Press, 1990, 197.
35. Pumpelly, *Across America and Asia*, 51-52. Pumpelly wrongly says that these men were "former peons of the Heintzelman mine," who were responsible for the killings there. However, the killings at the Heintzelman Mine were not done by mine employees but by Sonoran bandits, who had come to rob the mine (Samuel Robinson, "Arizona in 1861: A Contemporary Account by Samuel Robinson, with an introduction and annotations by Constance Wynn Altshuler," *Journal of Arizona History*, Spring 1984, 60-61).
36. Robert H. Forbes, *Crabb's Filibustering Expedition into Sonora, 1857*, Tucson: Arizona Silhouettes, 1952, 21-23, 25-30; 32-35; J. Y. Ainsa, *History of the Crabb Expedition into N. Sonora*, Phoenix, 1851, 26-29; Charles D. Poston, *Building a State in Apache Land*, Tempe: Aztec Press, 1963 (reprint of 1894 articles), 33. Sixteen-year-old Charles Evans, a member of Crabb's party, was spared execution because of his youth.
37. Pumpelly, *Across America and Asia*, 51.
38. Pumpelly, *Across America and Asia*, 52.
39. Altschuler, *Latest from Arizona*, 125-28.
40. Rodolfo F. Acuña, *Sonoran Strongman: Ignacio Pesquiera and His Times*, Tucson: University of Arizona Press, 1974, 67-68; Pumpelly, *Across America and Asia*, 53.
41. Pumpelly, *Across America and Asia*, 53-54.
42. McGee, "Old Yuma Trail," April 1901, 131.
43. Pumpelly, *Across America and Asia*, 54.
44. Pumpelly says that Poston learned, on a later journey to Sonora, that the twelve Mexicans had tracked the Poston-Pumpelly party across the desert for over two hundred miles but did not attack because they found the Americans "always on the watch" (*Across America and Asia*, 63n). However, there is no evidence that Poston visited Sonora after 1861. And the claim that bandits would have followed the Americans that far through such difficult territory without revealing themselves or at least making an attempt on the silver seems doubtful.
45. Pumpelly, *Across America and Asia*, 54-56.

46. Pumpelly, *My Reminiscences*, Volume I. New York: Henry Holt and Company, 1918, 253.
47. Bailey, "Devil's Highway," 42-43.
48. Pumpelly, *Across America and Asia*, 58.
49. Pumpelly, *Across American and Asia*, 58; *My Reminiscences*, I, 255.
50. Bailey, "Devil's Highway," 8.
51. *Report of the Boundary Commission*, 23-24.
52. Gaillard, "Perils and Wonders of a True Desert," 595; Hogner, *Westward, High, Low, and Dry*, 52.
53. Gaillard, "Perils and Wonders of a True Desert," 598.
54. Pumpelly, *My Reminiscences*, II, 773.
55. Pumpelly, *My Reminiscences*, I, 255-56; *Across American and Asia*, 58. *Across America and Asia* was written in 1868 but was not published until 1870.
56. *Report of the Boundary Commission*, 24; McGee, "The Old Yuma Trail," April 1901, 133; John Annerino, *Dead in Their Tracks: Crossing America's Desert Borderlands in the New Era*, Tucson: University of Arizona Press, 2021, 11.
57. Pumpelly, *Across America and Asia*, 58.
58. McGee, "Old Yuma Trail," April 1901, 134.
59. Pumpelly, *Across America and Asia*, 58; Herbert Eugene Bolton, *Rim of Christendom: A Biography of Eusebio Francisco Kino, Pacific Coast Pioneer*, New York: Russell & Russell, 1960, 456.
60. A. B. Gray, *The A. B. Gray Report and including the reminiscences of Peter R. Brady who accompany the expedition*, L. R. Bailey, ed., Los Angeles: Westernlore Press, 1963, 221.
61. Pumpelly, *Across America and Asia*, 59; Pumpelly, *My Reminiscences*, II, 775; Gaillard, "Perils and Wonders of a True Desert," 602-03; McGee, "Old Yuma Trail," 138; Broyles, et al, *Last Water on the Devil's Highway*, 24-25.
62. According to Pumpelly's accounts in *Across America and Asia* and *My Reminiscences*, they traveled one day from the spring beyond San Domingo to Las Playas, camped for a day at Las Playas, then rode two days to the *Tinajas Altas* and one more day to the Gila River. Not known is to what extent Williams and the other two Americans with the party helped the group get across the Devil's Road. Williams had traveled the route before but, as we have seen, did not want others to know. The other two Americans, Pumpelly tells us later (*Across America and Asia*, 60), lived near Fort Yuma and were returning home. He does not say if they had traveled the Devil's Road before. It may be that Pumpelly and Poston had considerable knowledge and experience of the Devil's Road available to them when they started and therefore were at less risk than it seemed.
63. Gray, A. B. *Gray Report*, 221.
64. Pumpelly, *Across America and Asia*, 59. Information provided by Gerald Ahnert suggests that the abandoned station where Pumpelly and Poston stopped was Snively's Station, 17.6 miles from the Colorado River (E-mail to Daniel Judkins, September 20, 2022).
65. Pumpelly, *Across America and Asia*, 61. We do not know exactly where Pumpelly and Poston crossed the Colorado. Van Wormer says that travelers crossing the river had a choice of three crossing points, the Upper Crossing, about a half mile below the junction of the Gila and Colorado rivers and the narrowest of the crossing points; the Middle Crossing, seven miles down river at Pilot Knob; and the Lower Crossing, four miles beyond that. Pumpelly and Poston probably used a ferry at the Upper Crossing. However, Van Wormer says that the river, compressed between two cliffs, was narrower there and that the five-hundred-yard-wide river Pumpelly describes would have been visible at the Middle or Lower Crossings ("Dry, Soft, Sandy Washes, Part II," 33). Was Pumpelly conflating memories of two different places on the river?
66. Pumpelly, *Across America and Asia*, 60.
67. Pumpelly, *Across America and Asia*, 60-64. Information provided by Gerald Ahnert suggests that the immigrant's camp may have been at Algodones Station, ten miles from Fort Yuma and three miles south of the border with Mexico (E-mail to Daniel Judkins, September 20, 2022).
68. Stephen R. Van Wormer, "Dry, Soft, Sandy Washes and Stair-Stepped Valleys: An Historical Overview of the Southern Overland Trail from Yuma Crossing to Warner's Ranch, Part I: Early Explorations 1772-1847," *Desert Tracks*, August 2020, 10; Richard F. Pourade, *Anza Conquers the Desert: The Anza Expeditions from Mexico to California and the Founding of San Francisco 1774 to 1776*, San Diego: Copley Books, 1971, 49.
69. Roscoe P. and Margaret B. Conkling, *The Butterfield Overland Mail 1857-1869*, Volume II, Glendale, California: The Arthur H. Clark Company, 1947, 213, 215; Lorenzo D. Aldrich, *A Journal of the Overland Route to California and the Gold Mines*, Los Angeles: Dawson's Book Shop, 1950, 61-62; Patricia A. Etter, *To California on the Southern Route 1849: A History and Annotated Bibliography*, Spokane: The Arthur H. Clark Company, 1998, 62; John Cremony, *Life Among the Apaches*, New York: Indian Head Books, 1991, 124 -26; Cave Johnson Coutts, *Hepah, California! The Journal of Cave Johnson Coutts from Monterey, Nuevo Leon, Mexico to Los Angeles, California During the Years 1848-1849*, Henry F. Dobyns, ed., Tucson: Arizona Pioneers' Historical Society, 1961, 82-83.
70. Van Wormer, "Dry, Soft, Sandy Washes," Part I, 13, 16; Conkling and Conkling, *Butterfield Overland Mail*, 225.

71. Van Wormer, "Dry, Soft, Sandy Washes," Part II, 38; *Southern Trails to California*, Ralph P. Bieber, ed., Glendale, California: The Arthur H. Clark Company, 1937, 61.
72. Harlan Hague, *The Road to California: The Search for a Southern Overland Route 1540-1848*, Glendale, California: The Arthur H. Clark Company, 1978, 282; A. B. Clark, *Travels in Mexico and California: Comprising a Journal of a Tour from Brazos, Santiago, through Central Mexico, by Way of Monterey, Chihuahua, the Country of the Apaches, and the River Gila, to the Mining Districts of California*, Boston: Wright & Hasty's Steam Press, 1852, 110, reprint College Station: Texas A&M Press, 1988.
73. Emory, *Notes of a Military Reconnaissance*, 102; Clark, *Travels in Mexico and California*, 112; Etter, *Southern Trails to California*, 61, 235, 228, 238-40; Robert B. Green, *On the Arkansas Route to California in 1849: The Journal of Robert B. Green of Lewisburg, Pennsylvania*, J. Orin Oliphant, ed., Lewisburg, Pennsylvania: Bucknell University Press, 1955, 74; Van Wormer, "Dry Sandy Washes, Part I," 14-16.
74. Pumpelly, *Across America and Asia*, 64.
75. Pumpelly does not say how long it took him and Poston to travel from the camp where they left Williams to the Temecula Valley. However, because they were only two, they could move faster than a larger party, and Pumpelly says that when they went through Carizzo Canyon, they traveled through the night. Clearly, the idea was to get off the desert as quickly as possible.
76. Pumpelly, *Across America and Asia*, 65-66; Pumpelly, *My Reminiscences*, I, 265; *Los Angeles Daily Star*, September 7, 1861.
77. Pumpelly, *My Reminiscences*, II, 762-64.
78. Pumpelly, *My Reminiscences*, II, 766-67. Pumpelly does not say precisely where he intended to strike the Devil's Road.
79. "Pumpelly Party Leaves for Yuma Over Old Trail," *Tucson Citizen*, March 22, 1915.
80. Will C. Barnes, *Arizona Place Names*, Tucson: University of Arizona Press, 1988, 220; Pumpelly, *My Reminiscences*, II, 767-68. Pumpelly calls this a "three days' detour." But it is hard to see how such a route would add three days to his trip. According to Kirk Bryan, all established roads from Tucson to Yuma by way of the Devil's Road went through Indian Oasis and Ajo (Kirk Bryan, *Routes to Desert Watering Places in the Papago Country*, Department of the Interior, Washington, DC: Government Printing Office, 1922, 345-46, 348-50, 402-06).
81. Pumpelly, *My Reminiscences*, II, 769.
82. Pumpelly, *My Reminiscences*, II, 769; Bryan, *Routes to Desert Watering Places*, 403.
83. Pumpelly, *My Reminiscences*, II, 769-70.
84. Bryan describes an area of "very deep sand" along the route from Ajo to the Devil's Road, about ten miles south of Papago Wells (Bryan, *Routes to Desert Watering Places*, 403).
85. Pumpelly, *My Reminiscences*, II, 770-71.
86. Pumpelly, *My Reminiscences*, II, 772.
87. Bryan, *Route to Desert Watering Places*, 404.
88. Pumpelly, *My Reminiscences*, II, 774; Annerino, *Dead in Their Tracks*, 13.
89. Pumpelly, *My Reminiscences*, II, 774-75.
90. Pumpelly, *My Reminiscences*, II, 775-76. Bryan identifies the mine to which Pumpelly refers as the Fortuna Mine and says that the road along the west side of the Gila range was "very difficult for automobiles" (Bryan, *Routes to Desert Watering Places*, 405).
91. Jack D. Forbes, *Warriors of the Colorado: The Yumas of the Quechan Nation and Their Neighbors*, Norman: University of Oklahoma Press, 1965, 295-96 and *passim*; Van Wormer, "Dry, Soft, Sandy Washes," Part II, 33.
92. Pumpelly, *My Reminiscences*, 776-77.

MUD:

Lake Bonneville 12,000 Years Ago, the Donner-Reed Party, and the 1955 Miller Expedition

Walking in the Mud 12,000 Years Ago



Figure 1. A human footprint found in July 2022 in the Salt Desert of Western Utah.

Eighty-eight footprints of adults and children who had walked in the mud 12,000 years ago were found in July 2022 in the Salt Desert of western Utah by Dr. Tommy Urban, the archaeologist who also discovered other human footprints at White Sands, New Mexico in 2020. Those prints were 21,000 to 23,000 years old.

Dr. Urban was in Utah to assist Dr. Daron Duke looking for evidence of human campfires. As they drove along on the salt/mud flats Dr. Duke asked what the White Sands footprints looked like. "Like those right there," Dr. Urban said, as he spotted something suspicious, stopping the vehicle and investigating. He had just found the second-known set of Pleistocene-era human footprints in North America (see Figure 1 above). The footprints appear to be deep marks in what was mud. Interestingly, the same mud that is still there, in which the Donner-Reed party got stuck in 1846, and in which the Miller expedition got their Jeep stuck in 1955 (see next article "Stuck in the Mud," by David H. Miller, the youngest member of the 1956 expedition).

Stuck in the Mud: Following the Donner Wagon Tracks Across the Salt Desert

by David H. Miller

I really enjoyed reading Dan Talbot's "The Last Assault on the Salt Desert" in the June, 2019 edition of *Desert Tracks*. It reminded me of my trip along the Donner Trail over half a century ago.

I was a fifteen-year-old high school sophomore when I became "hooked" on researching the overland trails to California. In 1956, I accompanied a University of Utah research expedition headed by my father and Dr. Henry Webb, during which we followed the 1846 Donner-Reed wagon trail in Jeeps across the Salt Desert to Pilot Peak on the Utah-Nevada border (see Figures 5 & 6, and maps on page 48). The Donner wagon tracks passed through what became the bombing range of the Wendover Air Force Base, where the Air Force dropped dud prototypes of atomic bombs in 1944 and 1945, and of course during World War II the bombing range was off limits to outside visitors.

The story of the Donner-Reed pioneers is well known, and will not be repeated here. Suffice it to say that the Donners were poorly organized, had difficulty cooperating with one another, and were ununiformed. Their decision to detour via Hasting's Cutoff around the southern end of the Great Salt Lake and across the Salt Desert was only one of several misguided decisions that would catch up with them when they became stranded by winter snows in the Sierra Nevada of California.

The Great Salt Lake is a remnant of Lake Bonneville, an ancient lake which at one time was as large as Lake Michigan, and in places over 1,000 feet deep. That all changed about 14,500 years ago when the lake got so deep that it began to flow into the Snake River through Red Rock Pass in Idaho. This process cut the pass deeper and deeper, reducing the lake level. Over time the lake was reduced to become the Great Salt Lake, which with no outlet to the sea, became saltier and saltier with each passing century. As the Salt Lake receded, it left behind what amounted to a *playa*, known as the Salt Desert. It is a flat, level ex-

pans covered with salt, and interrupted in places with low mountain ranges, known as “islands.” Muddy sections limit travel. The mud never dries completely.

In crossing the Salt Desert, the Donners faced two serious obstacles. Mud, and the lack of drinking water. It was some 75 miles from the last water holes (Twenty Wells) on the eastern edge of the Salt Desert to a pond beneath Pilot Peak, situated on today’s Utah-Nevada border. During their journey they lost oxen, and had to abandon some wagons.

In the 20th century there were several expeditions which retraced the route of the Donners across the Salt Desert. The important expeditions prior to WWII, were that of Charles Kelly in 1929, and Walter M. Stookey in 1936. Kelly and his party got stuck in the mud and had to turn back. Later that year Kelly started at Pilot Peak and traveled east until he reached the impassible mud. Stookey, crossed over the Donner route in a small caterpillar tractor pulling a trailer. He collected artifacts, which were apparently discarded following his death in 1951 (see Figure 1, below).

I was the unofficial photographer in the 1955 expedition mentioned above, and am attaching a few pictures that I took on that expedition. You will note in the attached pictures that there are no wagon ruts (see Figure 2, next page). In time the wagon ruts filled in, so that the terrain is absolutely smooth. But due to a thin crust of salt where the wagon ruts filled in, the tracks are very clear, and can be followed for miles. After getting stuck in the mud in 1955, we retraced our route to the highway, and made a second attempt, traveling east from Pilot Peak. We again became stuck in the mud before reaching the site of the abandoned wagons (see Figure 4, next page). The following year, Henry Webb and an associate managed to drive a jeep along the Donner route all the way to Pilot Peak. They passed the four mounds of abandoned wagons, but very little remained. In 1962 Webb returned again, this time with the help of the Tooele Army Depot. His party rode to the abandoned wagon site in Army Trackmasters, and excavated two of the mounds. The only significant find was a silver spoon, which was given to my father, and which I now own (see Figure 3, next page).

As an aside, the Donner-Reed party might have had a Murderers Camp similar to the 1849 Murderers Camp of the Clarksville and California Mining Company on the Gila.¹ Following their ordeal crossing the Salt Desert, the Donners headed across Nevada along the Humboldt River. One day, James Reed got into a fight with John Snyder. Snyder attacked Reed with a whip. Reed responded by killing Snyder with a knife. The Donners, like the Clarksville Company, were outside the jurisdiction of the United States. While some members of the Donner party favored a hanging, the majority favored banishment, so Reed was sent off on his way, forced to leave his family behind. He made it all the way to California on his own, and subsequently helped rescue his family at Donner Pass in the Sierra Nevadas.

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ENDNOTES:

1. Daniel Judkins and David Miller, “Justice on the Trail: A Murder, Trial, and Execution at ‘Murderer’s Camp’ on the Gila,” *Desert Tracks*, Jan. 2020, 15-22; and Daniel Judkins and David Miller, “Another Stabbing on the Trail,” *Desert Tracks*, Jan. 2020, 22.

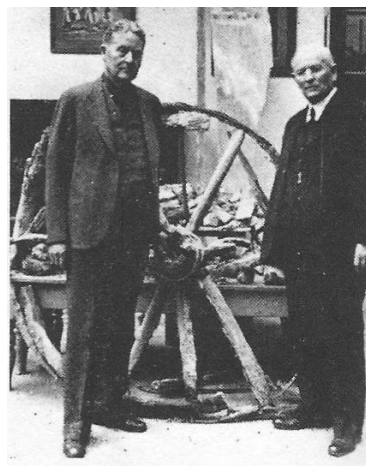


Figure 1. Walter Stookey and former Univ. of Utah President George Thomas with wagon artifacts of Stookey's 1936 expedition.



Figure 2, above. Dr. Henry Webb examines the traces of wagon tracks in the salt, noting that the surface is smooth, not rutted. **Figure 3, right.** The spoon that was found by Webb in 1956 at the mound that was the remains of the Donner-Reed abandoned wagons on the Hasting Cutoff, east of Donner-Reed Pass in the Salt Desert. The spoon was given to Dr. David E. Miller, and is now in the possession of his son, Dr. David H. Miller, *Desert Tracks* co-editor. All photos on this page by David H. Miller.

Figure 4, right. Dr. David E. Miller, with the shovel, trying to get the Jeep panel-wagon unstuck from the mud in the Salt Desert, 1955.



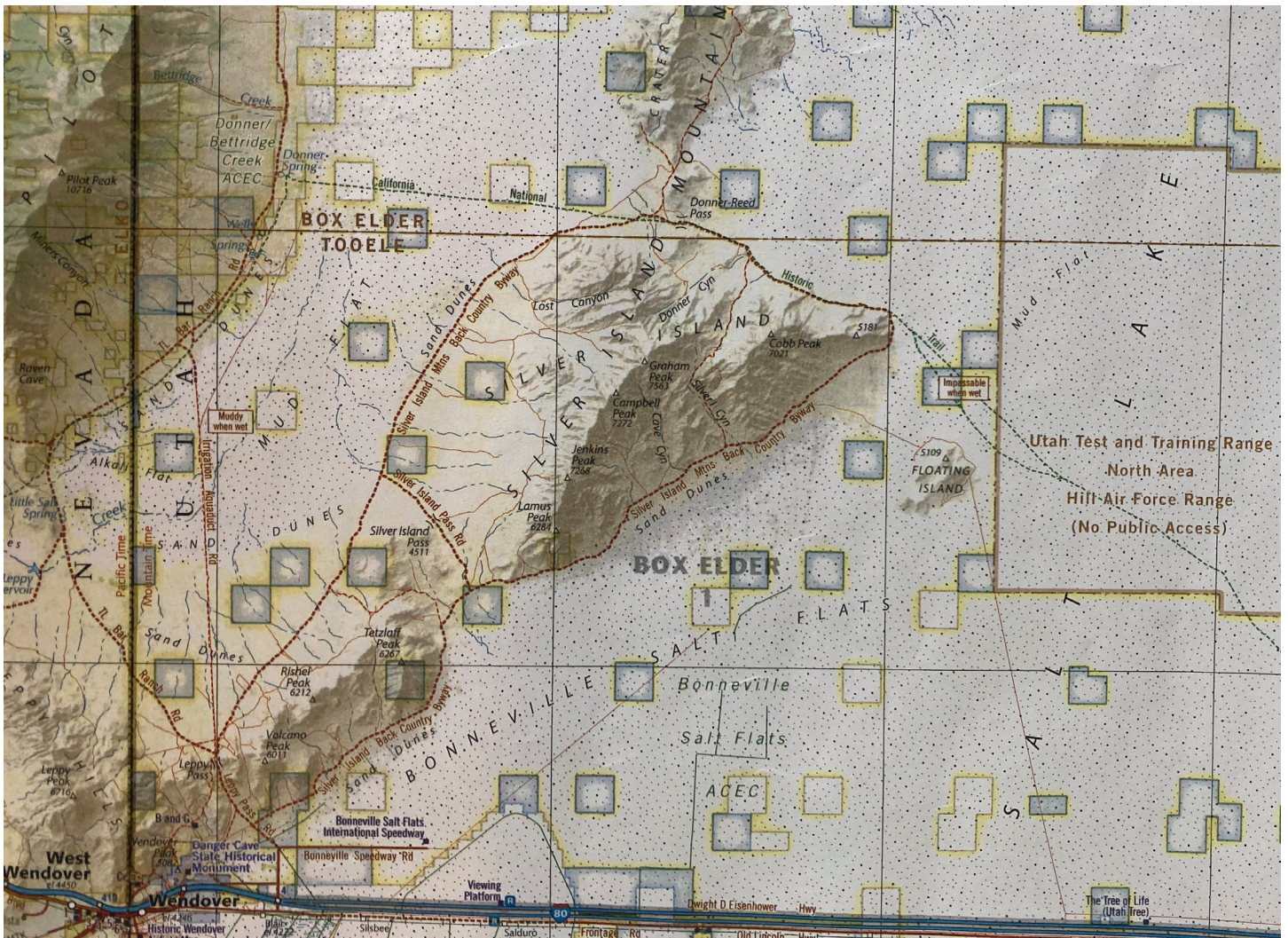


Figure 5. Detail of a topographic map of the Salt Desert on the Utah Test and Training Range, Wendover Air Force Base. Note that the vertical line in a ways from the left side is the Utah-Nevada border and that the Box Elder / Tooele County line is a horizontal line through the middle of the image, just above which is Donner Springs.

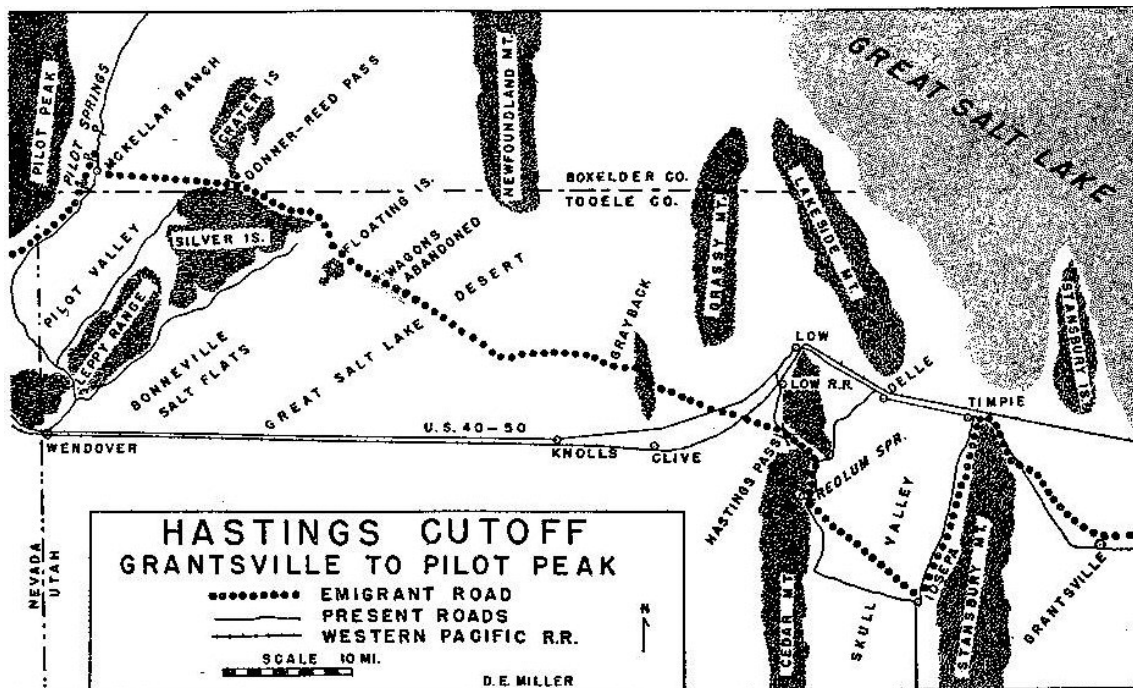
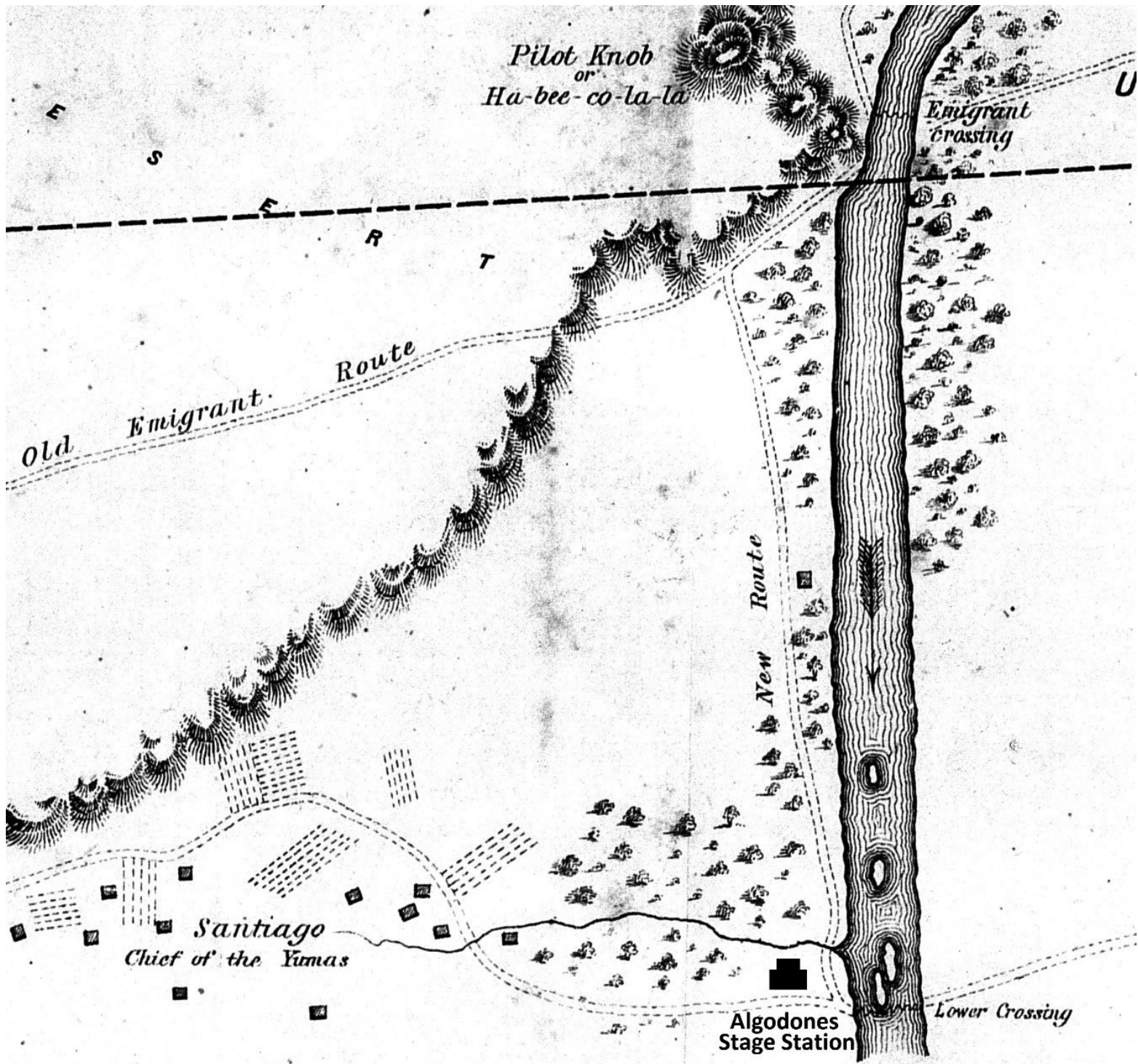


Figure 6, left. Map drawn by Dr. David E. Miller for his 1958 article. The Donner-Reed abandoned wagons site is noted, and would be near the right edge of the map in Figure 4, above, where the two dotted lines which indicate the trail converge, just below the word "Utah".



Donner Spring

Just below east foothills of Pilot Peak on Utah/Nevada border, and just north of Box Elder County line. Donner-Reed party finally reached water here in 1846. Photo by David H. Miller in 1955.



Overland Mail's Algodones Station
going west, first station in California
Amiel W. Whipple, 1849