



# The Border Vidette

Summer 2021

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Volume one

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## COCHISE COUNTY CORRAL

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The *Border Vidette* is published quarterly by the Cochise County Corral of the Westerners. The Corral meets at 7 p.m. the first Thursday of each month at Schieffelin Hall, Tombstone. Schieffelin Hall was built in 1881 as a theater and lodge of the Freemasons. King Solomon Lodge Number 5 still meets upstairs. The Corral is dedicated to preserving Western Frontier History and Legend and to having a good time while doing so. Membership in the Corral is \$20 and entitles the Ranch Hand to attend talks on the Old West, join us on Trail Rides (by automobile) to sites of historic interest, and to our publications: *The Fremont Street Mail*, a monthly newsletter, and the *Border Vidette*, our journal. More information about the Corral can be found at [www.CochiseCountyCorral.org](http://www.CochiseCountyCorral.org) and about Westerners International at <http://www.westerners-international.org/>

The *Border Vidette* accepts **interesting** articles about Western Frontier History no matter how short. Articles should be sourced and accompanied by endnotes. An unlimited number of photos (JPG preferred) may accompany the article. If the author has the rights to the article, the *Border Vidette* is willing to republish it. The journal is only published on-line and may be distributed as a PDF via email. Please contact us if you think you have something interesting to share. Contact us at [InkSlinger@CochiseCountyCorral.org](mailto:InkSlinger@CochiseCountyCorral.org)

A vidette is the term used in the 19<sup>th</sup> century for a mounted (cavalry) lookout.

**Cover:** Chandler's Milk Ranch (Dairy) as it looks today. See Marshall Trimble, A Bloody Day at the Chandler Ranch.

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Published by the Cochise County Corral of the Westerners

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Jonathan Donahue

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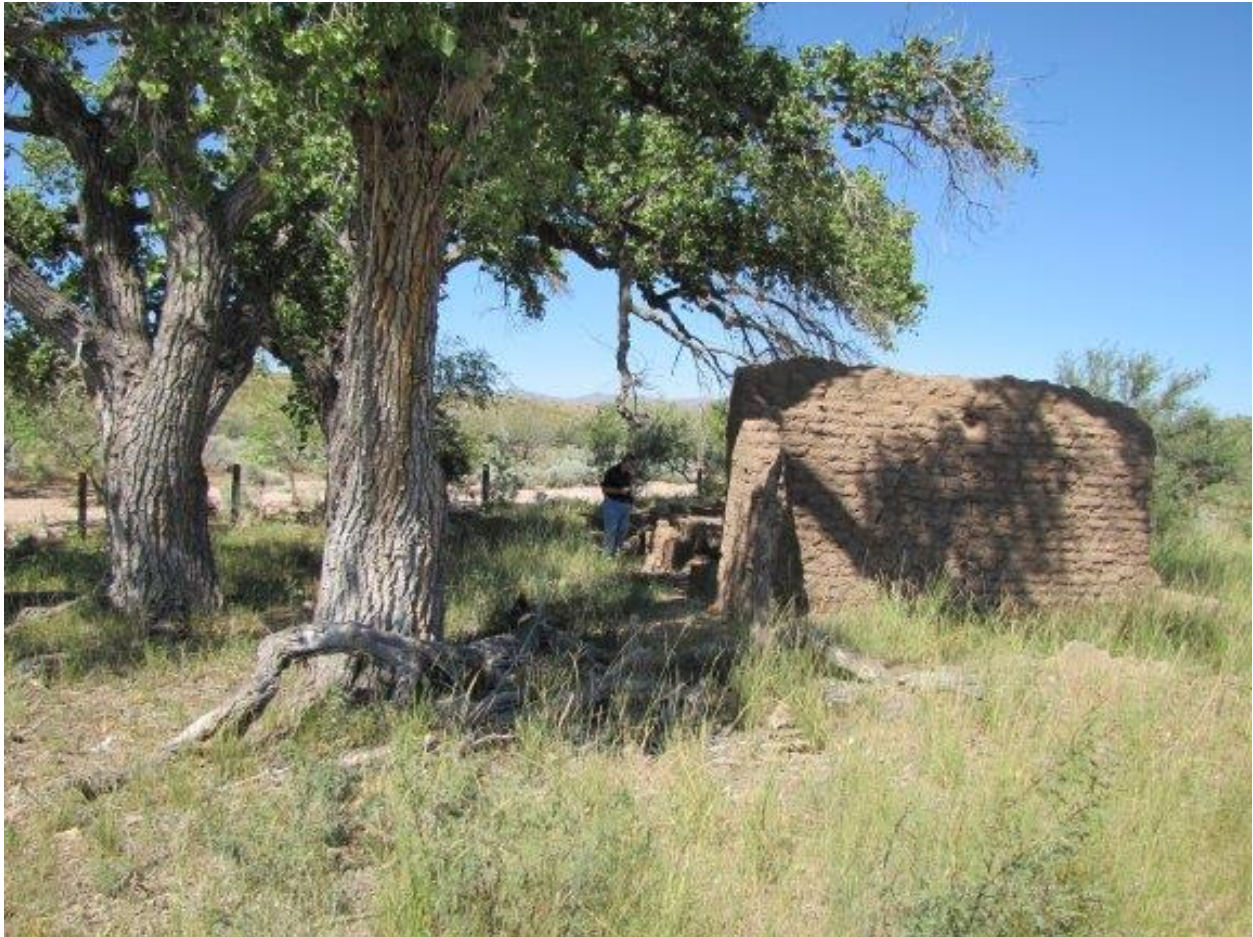
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# A Bloody Day at the Chandler Ranch

By Marshall Trimble



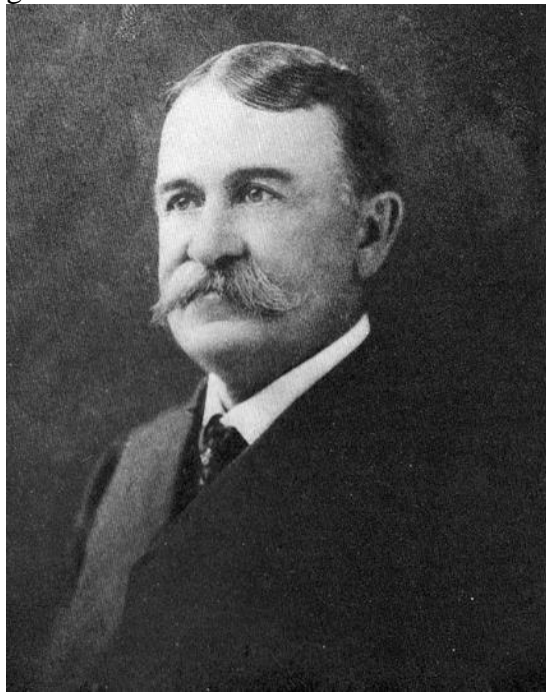
Billy Breakenridge took cover in the wash beyond the trees (Photo Doug Hocking)

According to Cochise County Deputy Sheriff, Billy Breakenridge, Zwing Hunt, was one of the worst outlaws in that wild and untamed county. Absolutely fearless and an excellent shooter, it was said of Hunt, “He would do to go tiger hunting with.” He and his pal Billy Grounds (Boucher) were suspected of rustling and thought to be involved in a murder.

Hunt came from Texas and was from a good family but somewhere along the way he took the wrong fork in the road. He arrived in Arizona with another young hellion named Billy Grounds. For a spell they worked as cowboys for the Chiricahua Cattle Company, but they soon turned to outlawry. He and Grounds began by rustling cattle but got into more serious crime as part of a band that included Joe Hill, Curley Bill Brocius, Johnny Ringo and Old Man Clanton. They ambushed a party of Mexicans who were smuggling silver bullion and silver dollars out of Mexico. Everyone in the party was killed and their bodies left in what was mistakenly identified as Skeleton Canyon which is eight miles further south. The Cow-boys buried the spoils somewhere in the canyon. Today, it remains one of Arizona's illustrious lost treasure stories.

Apparently, Hunt and Grounds had some other escapades into Mexico. An alleged deathbed tale by Hunt claimed they rode out of Mexico following a three-month raid with two four-horse wagons loaded with plunder.

In the fall of 1881, some thirty head of cattle were stolen in the Sulphur Springs Valley and the tracks led to a corral where they had been sold to a local butcher in the town of Charleston on the San Pedro River. The description of the rustlers matched that of Hunt and Grounds. The pair escaped arrest by hightailing it into Mexico.



Bold Deputy Sheriff Billy Breakenridge later in life (Photo Internet)

The following spring two masked men with rifles entered the office of the Tombstone Mining Company and without saying a word, shot and killed chief engineer, M. R. Peel, then disappeared into the darkness. It was believed they were planning a robbery but one fired his weapon accidentally.

A few days later word reached the sheriff's office in Tombstone that the two suspects, Hunt and Grounds were holed up at the Chandler Ranch, some nine miles outside of Town.

Sheriff John Behan was out with another posse at the time so Deputy Breakenridge had the responsibility of going after the bandits. He gathered a small posse of five men to join him and they rode to the ranch, arriving just before daylight on the morning of March 29<sup>th</sup>, 1882.

Breakenridge placed two possemen, Jack Young and John Gillespie watching the back door of the ranch house while he and Hugh Allen guarded the front. Gillespie, unwittingly walked up and pounded on the door, shouting, "It's me, the sheriff." The door opened and Gillespie was shot dead. Another bullet hit Young in the thigh.

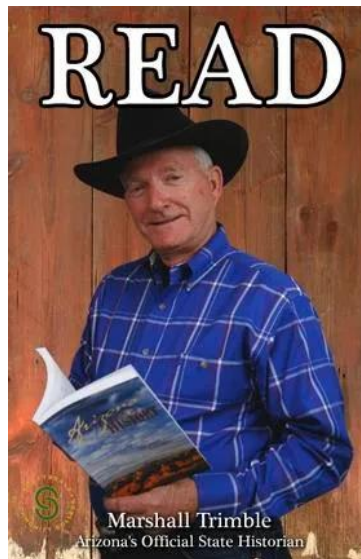
The front door opened and a shot rang out hitting Allen in the neck, knocking him to the ground. Breakenridge grabbed Allen by the shirt and drug him to safety then jumped behind a tree just as another shot hit nearby. Just then, the shooter, Billy Grounds, stepped into the doorway to fire another round. Breakenridge raised his shotgun and fired, hitting Billy in the face. The outlaw fell, mortally wounded.

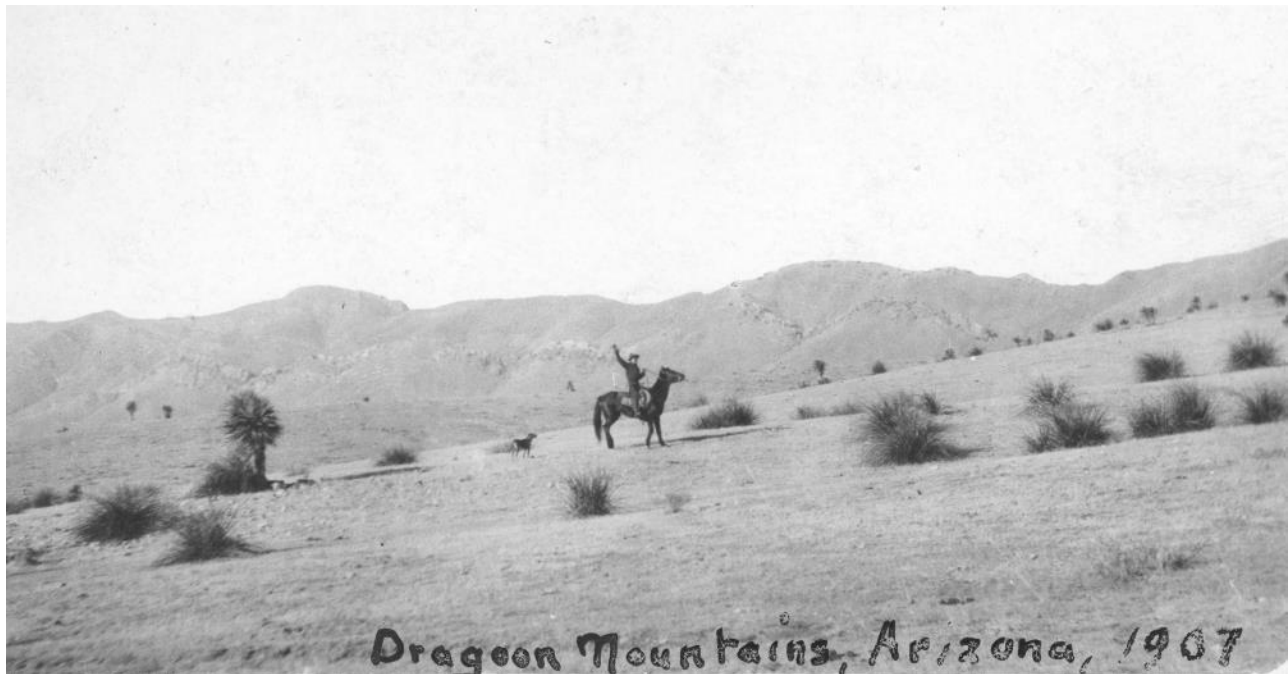
In the meantime, Allen had regained consciousness and grabbed a rifle just as Zwing Hunt came around the side of the house. Both Breakenridge and Allen opened fire hitting the outlaw in the chest. The battle had lasted only two minutes and during that time two men were killed and three wounded included Hunt.

The dead and wounded were loaded up on a milk wagon and hauled into Tombstone.

While recovering from his wounds Hunt with the help of his brother Hugh, who came over from Texas, managed to escape. Hugh would later claim that his brother was killed by Apache, but others swore he escaped back to Texas where, on his death-bed, drew a map leading to the buried outlaw treasure. Folks are still looking for it but so far, it's still out there.... somewhere.

*Marshall Trimble has been called the “Will Rogers of Arizona.” He can deliver anything from a serious history lecture to a stage concert of cowboy folk music and stories with his guitar. He is considered the “dean of Arizona historians.” He taught Arizona history at Scottsdale Community College for 40 years. In 1997, the governor of Arizona appointed him Official State Historian. His books include **AZ Oddities, Land of Anomalies and Tamales**, History Press, 2018 (\$24.00 each) **AZ Outlaws & Lawmen**, History Press, 2015 (\$20.00each) **Wyatt Earp**, American Traveler Publishers, 2008 (\$6.95 each) **A Roadside History of Arizona**, Missoula, MT- Mountain Press, 2004 (\$20.00 each). This last is an absolute must have for anyone interested in Arizona history.*





(McGovern Library, Dakota Wesleyan University Archives)

## Requiem for a Cowboy Poet

By Peggy Sanders

Courtesy of WILD WEST MAGAZINE 9/28/2017

**A foray into colonial Cuba in late 1904** nearly cost Badger Clark, an early day cowboy poet, an indeterminate amount of time on that island—but Yankee ingenuity prevailed. After his release from a Cuban jail, but before receiving official permission to leave the island, he absconded on an American steamship and high-tailed it back to the United States. From his in-depth exposure to Spanish he brought home a certain familiarity with the language, a skill he'd later find useful. Charles Badger Clark Jr., a future poet laureate of South Dakota, took his first breath on New Year's Day 1883 in Albia, Iowa. Friends called him Charlie, though he later went by the old family name Badger to alleviate confusion with his father. Charles Badger Clark Sr. was a Union veteran of the Civil War and a Methodist minister. When Badger was still an infant, his family moved to eastern Dakota Territory, where the Rev. Clark established churches and helped found Dakota Wesleyan University in Mitchell.

Six months after the family moved to Deadwood in 1898 to serve another church, Badger's mother, Mary, died of tuberculosis; his older brother, Frederick, had succumbed to the disease four years earlier at age 21. Badger and his father "bached it" until 1901, when the Rev. Clark married schoolteacher Anna Morris, who became Badger's muse.

As a teen Clark attended Dakota Wesleyan for a year but just didn't take to college. He wanted adventure—and he got more than he bargained for, along with an education he could not have gotten studying books, in Cuba. In December 1903 D.E. Kerr, a real estate investor and promoter



operating out of Chicago and Mitchell, S.D., organized a Cuba-bound colonization effort. The linchpin was a land deal of 9,000 acres in Camagüey Province with plans to develop a ranch. For home sites Kerr had obtained an additional 100 acres in Nuevitas, 45 miles east on a direct railway line.

As often happens in such schemes, promoter Kerr had misrepresented certain facts about the living conditions, and within months the proposed colony fell apart, most of the group returning stateside. Clark stayed on and in July 1904 took a job working for Cuban-American farmer Augustin Rodriguez, who raised registered Berkshire hogs. Feral hogs roamed the property of his closest neighbors, Emilio Barretto and son Enrique, which strained relations, as Rodriguez didn't want his pedigreed hogs mixing with the razorbacks. "[Rodriguez] and [Emilio] Barretto spent most of their time walking around each other with the hair of their backs standing up and their teeth showing," Clark later quipped.

Tensions reached the boiling point when el patrón had Badger cut a fence so the pair could trespass on Barretto land to steal coconuts. When confronted by Enrique Barretto, Rodriguez shot and wounded the younger man. Clark and Rodriguez raced the Barrettos to the Camagüey police station but lost. Thus the authorities charged Rodriguez and held Clark on suspicion. "As we were the only Americans in the place," Badger recalled of their time in jail, "the other prisoners were inclined to be sociable out of curiosity. The policemen were also sociable, as were the fleas, which far outnumbered both policemen and prisoners."

As Rodriguez was half-American, he contacted the U.S. State Department, expecting embassy representatives would quickly secure his freedom. He was mistaken. Once formally charged, he wired his brother in New York to post the required \$300 bail, but the cable didn't go through. When he asked his American mother to raise the funds, she solicited all over town but couldn't find a benefactor. Clark then asked a compatriot in Nuevitas to post their bail, but the willing friend hadn't any money to loan.

Clark shared a cell with 17 men. "The massive walls on every side," he wrote, "the brutal guards full of the insolence of authority, the lousy convicts with their ribald songs and unprintable conversation gave me a gone feeling at the pit of my stomach, and for the first time since the trouble I could not laugh."

His first night in jail Clark slept on a brick floor with only his coat as a pillow. The next day he learned that his cellmates lived under a hierarchy led by an elderly con they called "el Presidente," and that he could rent a cot. As food was poor and scarce, coffee was the daily highlight. The prison was stifling. Clark procured old magazines written in English, which he read and reread to keep his sanity.

A week into Clark's stint the jailer put another American in his cell—a young, illiterate, penniless cowpuncher from Texas. An especially harsh judge had sentenced the Texan to a year in prison for drunkenness. He and Clark passed the time together. Badger also tutored a young Cuban prisoner eager to learn English.

Authorities released Clark after two weeks but required he remain in Cuba for six months on bail until his case was resolved. Ultimately acquitted in January 1905, he boarded an American steamship without seeking the blessing of the Yanqui-unfriendly Cuban judicial system. Once back in the United States, he made a beeline for the parental home in Deadwood, where the Rev. Clark continued to pastor the Methodist church.



By 1908 Clark was living like a cowboy and ready to explore that life in writing. (McGovern Library, Dakota Wesleyan University Archives)

**Badger Clark spent the summer of 1905** with a surveying party in the South Dakota Badlands, where he made little money but restored his soul in the wide-open spaces. On his return to Deadwood in the fall he delved into the publishing profession, landing a job as a reporter with the Lead Daily Call in Lead (pronounced “leed”), S.D. Though not particularly challenged by writing about small-town happenings, he enjoyed it. Life was good, even better when he got engaged to Helen Fowler, a classmate from Deadwood High. “I must establish myself in a respectable line,” he recalled, “make a respectable amount of money, marry a respectable bride and, in due time, die with a respectable circle of grandchildren around my bed.”

Clark was respectable, but his life took a different turn. After a prolonged cough and a visit to the doctor he got the dreaded diagnosis: Tuberculosis. He’d caught it in its early stages, though, and the doctor advised a move to the Southwest, as an arid climate was the sole available “treatment” in that era. He left everything—and everyone—behind in the fall of 1905.

Badger meandered, looking for a place to settle. He first tried Albuquerque, New Mexico Territory, then Bisbee and Tombstone in Arizona Territory. But none offered the peace he required. While mulling where to head from Tombstone, he met cowhand E.K. “Spike” Springer, who thought there might be room for Badger on his cousins’ ranch just east of town.

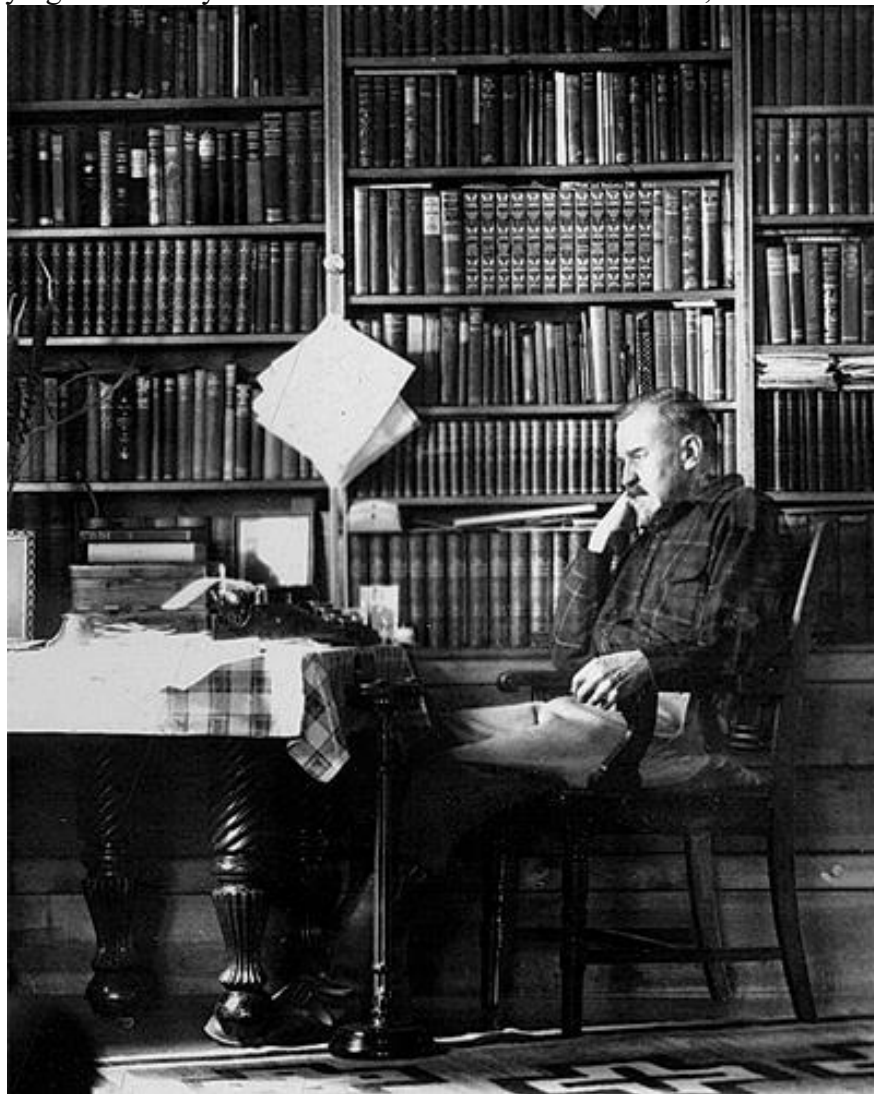
There was, and the circumstances fit Clark as if all had been planned. The Spanish he’d learned in Cuba came in handy living so close to the border. Ranch owners Harry and Verne Kendall put him in charge of a small cattle herd with a short length of fence line to ride and maintain. Though he earned a meager salary, Badger had use of a remote adobe hut, where he lived with dogs, cats and a passel of chickens. Furthermore, his work was hardly strenuous and it occupied only about a day per month. The rest of the time he soaked up the atmosphere and wrote, playing an old guitar and honing his singing voice for entertainment. During occasional visits from old ranch hands Clark would treat them to a meal as he listened intently and watched how they handled themselves. Such cowpokes in turn inspired Badger’s poetry, prose and songs. In the interim he “forgot” about his TB, which subsided.

Eager to convey his new surroundings to fiancée Helen Fowler and stepmother Anna Clark, he included poems with his letters to them. Anna appreciated Badger’s growing talent as a wordsmith and on his behalf submitted a poem he’d titled “In Arizony” to Pacific Monthly. When Badger received a \$10 check from the magazine, he decided he’d discovered a viable path to respectability—he’d make his living as a writer. He wrote in the vernacular and spelled phonetically for emphasis. His descriptive phrases painted word pictures cowmen could appreciate and city folks could visualize. “Ridin’” was the poem that launched Badger’s career as a poet:

There is some that like the city—  
Grass that’s curried smooth and green,  
Theaytres and stranglin’ collars,  
Wagons run by gasoline—  
But for me it’s hawse and saddle  
Every day without a change,  
And a desert sun a-blazin’

On a hundred miles of range.  
Just a-riding', a-ridin'—  
Desert ripplin' in the sun,  
Mountains blue along the skyline—  
I don't envy anyone  
When I'm ridin'.

Clark remained on the Arizona ranch for four years, during which time his father became chaplain at the Battle Mountain Sanitarium in Hot Springs, S.D. In 1910 the Kendall brothers fell on hard times and could no longer afford to keep him on the payroll, so Badger returned to his parents' home on Eighth Street in Hot Springs. As the senior Clark grew increasingly feeble, Anna turned to junior for help. "[I] set about paying back some of the tender care he had given me when I was a sickly boy," the younger Clark later recalled. "That repayment lasted 10 years and was one of the most satisfying tasks of my life." The Rev. Clark died on June 10, 1921.



Clark spent his later years writing poetry from his study in the "Badger Hole," the cabin he had built in Custer State Park, South Dakota. (South Dakota State Historical Society Archives)

Badger remained at home with Anna another four years, until she chose to move into the South Dakota State Veterans Home, a privilege afforded her as the widow of a Civil War soldier. With permission from the state Clark then moved into a small cabin in Custer State Park. On Anna's death in 1937, Badger gained a small inheritance, and with assistance he completed work on his own cabin, which he dubbed the Badger Hole. As it had no electricity, he used a woodstove and an icebox set into a recess in the floor. The resourceful Badger toted water from nearby Galena Creek, chopped his own firewood and relied on an outhouse.

Though the mustachioed Badger was tall, slender and handsome, and female readers sent him mounds of fan letters, he remained a lifelong bachelor. As he explained it, he enjoyed the solitude and was glad he never married. He'd twice been engaged to Helen Fowler, but he thought cabin life might be too primitive for his intended.

Anna, who continually encouraged Badger with his writing, once asked him to compose a cowboy prayer. "I had never really heard a cowboy pray," Badger recalled. "I had heard some of them use some language that had a religious flavor, but generally not in a prayerful spirit. She kept after me however, and so I turned out my most famous work." Though often attributed to "Anonymous," it was Badger who wrote "A Cowboy's Prayer (Written for Mother)," the most widely known poem/prayer in Western circles. It begins like so:

Oh Lord, I've never lived where churches grow.  
I love creation better as it stood  
That day You finished it so long ago  
And looked upon Your work and called it good.  
I know that others find You in the light  
That's sifted down through tinted window panes,  
And yet I seem to feel You near tonight  
In this dim, quiet starlight on the plains.

Many of Clark's poems have been set to music. Such well-known contemporary artists as Bob Dylan, Judy Collins, Emmylou Harris and Michael Martin Murphey have recorded Badger's work, notably "Spanish Is the Loving Tongue," based on the cowboy poet's 1907 work "A Border Affair."

**In 1937 South Dakota Governor Leslie Jensen**, a longtime friend of Clark's, named Badger the state's first poet laureate (or "poet lariat," as he called himself). The artist was known for both his historical and hysterical tales. His collection of short fiction, *Spike*, takes readers through several escapades with Badger and friends. Whether based in fact or not, his stories are descriptive and engaging. His historical nonfiction *When Hot Springs Was a Pup* relates that community's early years. True to form, humor is a strong point in the book. Badger was also published in *Sunset*, Scribner's, *Ladies' Home Journal* and other respected (and respectable) national publications.

South Dakota's favorite poet became a much sought-after speaker for events ranging from rural junior high and high school graduations to women's club meetings and the 1913 celebration of Decoration Day (as Memorial Day was known) at Battle Mountain Sanitarium—the very place his father once preached, which remains part of the present-day Veterans Administration hospital

complex. While traveling the Redpath Chautauqua adult education circuit in the early 1920s, Clark admitted, “I soon discovered that having a group of people at one’s mercy was rather fun, and I have done a good deal of talking and reading my own verse since, at one time traveling from Vermont to Los Angeles and from Oregon to Florida on my own jaw, so to speak.”

Clark never owned a car. To get around he hitched rides, rode the bus and walked. Once on a lark, on Nov. 16, 1917, he hoofed it to Rapid City, some 60 miles north, in 17 hours. He never did have running water or electricity installed in the Badger Hole. But he was able to scratch by on his earnings from writing and speaking. “I can live on \$500 a year comfortably today—even on \$400,” he once told a reporter. “I can’t stand to be in debt and won’t be. If I want something and can’t pay for it, I do without it until I can. The only thing I have against poverty is that I can’t afford all the wonderful books I’d like to have.”



The Badger Hole, which remains largely as Clark left it on his 1957 death, is open to summer visitors. (Peggy Sanders photo)

Yet the lack of remuneration did concern Clark at times. In a candid June 13, 1934, letter to Methodist pastor and friend Ralph Shearer, Badger wrote: “Don’t people realize that writing and

speaking is work? And that a few handshakes and ‘I-enjoyed-it-very-muches’ set pretty light on one’s stomach and don’t satisfy the grocer at all?”

The Badger Hole remains virtually as Clark left it when he died of throat and lung cancer on Sept. 27, 1957. The cabin within Custer State Park is open to visitors during the summer months. His personal effects—including clothing, flags and multiple pairs of boots—are still lined up in his bedroom. One addition to the cabin—electricity—allows for lights instead of kerosene lanterns. Badger Clark himself is buried in the respectable Evergreen Cemetery in Hot Springs. **WW**

***Peggy Sanders**, a farm-ranch wife and writer from Oral, S.D., won first place in the 2007 Will Rogers Writing Contest. Peggy was elected as an at-large member of the South Dakota State Historical Society Board of Trustees. She is a past sheriff of the Jedediah Smith Corral, Hot Springs, SD and has many additional credits and honors. You can find her books at:*  
**<http://peggysanders.com/>**



# “You’ll Do for the Border”: Raphael Pumpelly’s Frontier Education

by C. Gilbert Storms

It was April 1861, a time of deadly Apache raiding in southern Arizona; and as young Raphael Pumpelly made a nighttime ride to Santa Rita Mining Company headquarters, he was not at all sure he would get there alive. “Only those who have traveled in a country of hostile Indians,” he wrote years later, “know what it can be to journey by night.” Yuccas were crouching Apaches and century plants their lances. A rider would listen anxiously to every change in his horse’s breathing, study every twitch of the animal’s ears, look constantly in front and behind, and “scrutinize . . . every object within fifty yards” for lurking Apaches. As mining engineer for the Santa Rita mines, Pumpelly often had to travel between headquarters and the mines. He had begun to travel at night, thinking that the darkness would conceal him and protect him from attack. But after a few night journeys, he found the constant anxiety unbearable and went back to daytime travel.<sup>1</sup>

After he left Arizona, Pumpelly wrote with insight and humor about his time there as a geologist and mining engineer in 1860 and 1861. His writings are an invaluable resource about life in Arizona in the chaotic years between the Gadsden Purchase (1854) and the start of the Civil War. They tell of his coming of age on the frontier, as he learned the techniques for mining silver in Arizona and how to survive in the lawless environment of the borderlands.



Santa Rita Mountains south of Tucson, location of the Santa Rita Mining Company  
(author’s photograph)

## The Young Geologist

Raphael Pumpelly was born September 8, 1837, in Owego, NY, and from an early age loved adventure and exploring. He developed a boyhood interest in rocks and minerals and wanted to become a professional geologist. But there was no path to such a career in the United States. Geology was not taught in American schools, nor much science. So Pumpelly set his sights on attending college in Germany, where geology and mining engineering were taught.<sup>2</sup> Unfortunately,



he had no preparation for an advanced scientific education. He had had little instruction in science and could not even qualify to take the entrance exams at any of the European technical schools where he might study. So he spent two years traveling in Europe, attending science lectures at different schools, speaking with prominent geologists, and doing his own field research. Eventually, he was admitted to the prestigious Royal Mining Academy at Freiberg, Saxony; and after immersing himself for three years in the study of chemistry, mineralogy, metallurgy, and mining, he received his certificate of completion, and returned to the United States in 1859.<sup>3</sup>



Raphael Pumpelly at Freiberg, age 19  
(*My Reminiscences*, Vol. 1)

The next year, with the help of an uncle, he landed an interview with William Wrightson of Cincinnati, who was looking for a geologist to develop some silver mines Wrightson owned in Arizona.<sup>4</sup> Wrightson, along with Charles D. Poston, Major Samuel Peter Heintzelman, and Edgar Conkling, had founded the Sonora Exploring and Mining Company (SEMC) in 1856. Their aim was to prospect and develop former Spanish and Mexican mines in the Santa Cruz Valley, south of Tucson.<sup>5</sup> In 1858, the SEMC owners spun off the Santa Rita Mining Company to work old silver mines in the Santa Rita Mountains. Horace C. Grosvenor was the mines' superintendent.<sup>6</sup>

Wrightson must have been impressed with the young Freiberg graduate because he hired Pumpelly as mining engineer for the Santa Rita company. In this position, Raphael would have been expected to perform a large variety of tasks, from identifying mineral veins and assaying ore to planning and supervising the work of mining and smelting.<sup>7</sup> In the process, he would have to supervise a crew of workers, almost all from Mexico, who spoke a different language and came from a very different culture than he did.

It was a daunting job, and it seems odd for someone as young and inexperienced as Pumpelly to be hired for it. He was just 23 years old and had never worked as a professional geologist or engineer. But in 1860, mining engineers were still something of a novelty in the United States, and there were not many experienced candidates around. The name of Freiberg almost certainly carried

weight. One of the SEMC mining engineers already in Arizona—Guido Küstel—was a Freiberg graduate.<sup>8</sup>

Of course, Wrightson warned Pumpelly about the rigors of life in frontier Arizona. But Pumpelly said that Wrightson's warnings were "like the faded print of a poor photograph." The prospect of adventure in Arizona made Pumpelly want to go all the more. But though he romanticized Arizona in his imaginings, Pumpelly became one of the keenest and most articulate observers of life there. In his nine months in Arizona, he said, he not only had a "wild life of adventure" but got an education in mining and human nature—the latter by interacting with people of different races and "every shade of character, from the stalwart pioneer . . . to the gambler, the bully, and the frank cut-throat."<sup>9</sup>

### **The Suffering Traveler**

Pumpelly's first lesson about life on the Western frontier was a painful one—his sixteen-day stagecoach journey from Jefferson, Missouri, to Tucson. Pumpelly's account of his trip is one of the best describing the ordeal of stagecoach travel in the Southwest. He had secured a place on the back seat of the coach, facing forward. But the arrival of a woman accompanied by her brother forced him (probably out of courtesy) to take a place on the front seat, facing backward. The coach had three seats and nine passengers. Occupants of the front and middle seats faced each other and sat with knees "interlocked." In Raphael's coach, an unusually heavy load in the rear boot of the coach caused the front to rise and kept passengers on the front seat constantly bent forward, removing all support from their backs and causing constant discomfort.

In the coach with Pumpelly, in addition to the woman and her brother, were a "tall Missourian," his wife, and two daughters. The man, Pumpelly says, was "border bully, armed with revolver, knife, and rifle." The woman was "a very hag," who dipped snuff, covering her clothes and filling the air inside the coach with the dust. Her two daughters were overcome by motion sickness and threw up all over their neighbors, including Pumpelly. Raphael sought refuge on the box, sitting between the driver and conductor. But there, his neighbors were constantly elbowing him in the ribs as he dozed to keep him from falling over and knocking them off the coach.

Eventually, Pumpelly fell victim to the anxiety often felt by passengers trapped for hours inside a moving coach: "The fatigue of uninterrupted traveling by day and night in a crowded coach, and in the most uncomfortable positions, was beginning to tell seriously upon all the passengers, and was producing in me a condition bordering on insanity." Across the Rio Grande, Pumpelly fell into delirium, and all he remembered from his trip across New Mexico Territory was a large number of Indian campfires at Apache Pass. He woke to the sound of a pistol shot to find himself in a room where men were gambling. He had reached Tucson. Desperate for some restful sleep, he had simply lain down on the floor of the first room he entered. After sleeping for twelve hours, he felt "fully restored" but famished. He had no memory of having eaten for a week. For fifty cents, he was able to get some jerked beef, beans, bread, and coffee.<sup>10</sup>

### **The Santa Cruz Valley**

Pumpelly next journeyed by wagon to the Santa Rita Mountains and the Santa Rita Mining Company hacienda.<sup>11</sup> He was not aware of it when he arrived, but Pumpelly had landed in the midst of a thriving and diverse community of Americans, Europeans, and Mexicans that had

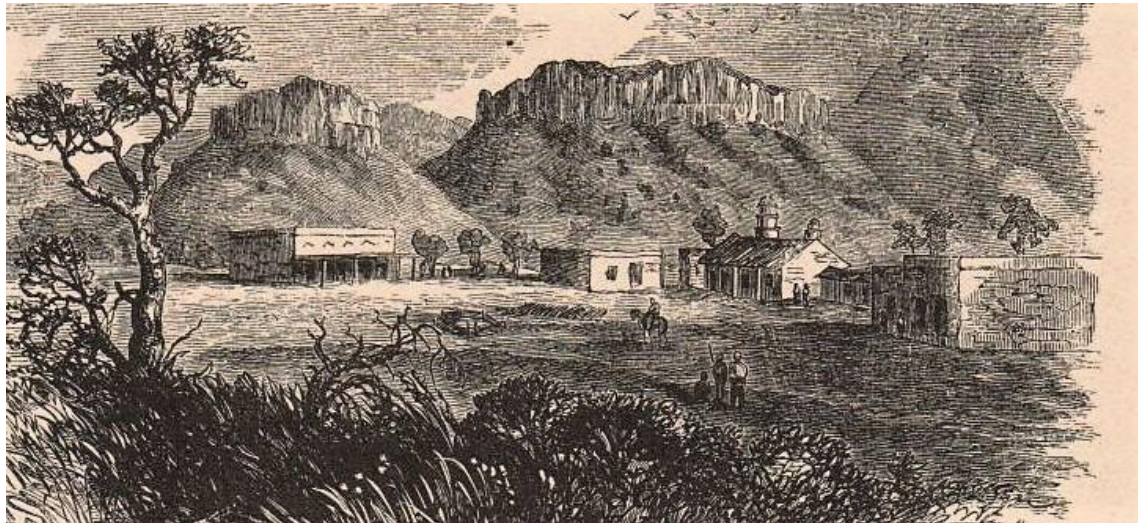
established itself in the Santa Cruz and Sonoita Creek valleys since the Gadsden Purchase. Some of the American settlements appear on a map by Horace Grosvenor, published in 1861. Starting south of Tucson, the map shows William M. Rowlett's mill; the ranches of H. H. Struby, Bill Rhodes, Pete Kitchen, Greenbury Byrd (Burd), and Amasa Hoyt; and the Canoa and Reventon ranches strung along the Santa Cruz River.



Section of Horace Grosvenor's "Silver Mines of Arizona," 1861  
(University of Arizona Libraries Map Collection, Tucson)

At Calabasas, the Sonoita Creek flowed into the Santa Cruz; and Grosvenor's map shows the American farms in the Sonoita Creek Valley—those of William H. Finley, B. C. Marshall, Joe Ashworth ("Ash"), John Ward, the brothers Elliott and Henry Titus, Felix Grundy Ake and family, and William Wadsworth (sometimes spelled "Wordsworth" or "Woodworth"). At the head of Sonoita Creek were James "Paddy" Graydon's Casa Blanca Tavern and the army post at Fort Buchanan.

Small mining companies opened silver mines in the Santa Rita Mountains and west of the Santa Cruz. They included the Sonora Exploring and Mining Company, Charles Poston, superintendent, with headquarters at Tubac. The SEMC owned the Heintzelman and Arivaca mines west of the river. Also, west of the Santa Cruz was the Sópore Mine, superintended by Richmond Jones. In the Santa Rita Mountains were the Salero, Cazada, Florida, and Ojera mines of the Santa Rita company; the Titus brothers' Eagle, Compadre, and French mines; Sylvester Mowry's Patagonia Mine; and the Boundary and Empire mines near the U.S.-Mexico border.<sup>12</sup>



Santa Rita Mining Company hacienda where Raphael Pumpelly lived and worked  
(J. Ross Browne, *Adventures in the Apache Country*)

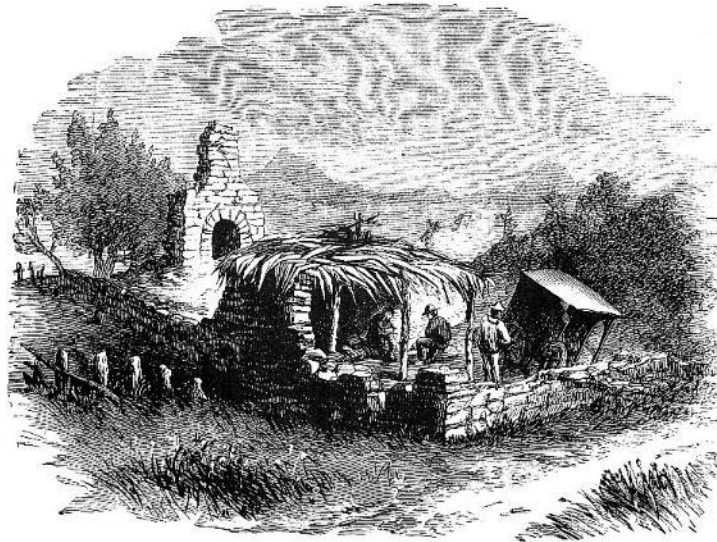
### **Mining Silver—the Mexican Way**

It took only a short time for Pumpelly to learn that his European mining education was not much use in the remote wilderness of southern Arizona. At Freiberg, he had been trained to build smelting furnaces with fireproof brick; but there was none in Arizona nor any sophisticated mining machinery, and no quicksilver (mercury) for processing ore. He wished that some of his lectures at Freiberg had included “Pliny’s and Agricola’s descriptions of primitive [mining] methods,” such as he now would have to use.<sup>13</sup> Guido Küstel had introduced the Freiberg barrel-amalgamation process at the SEMC’s Arivaca works. But Pumpelly believed that the process would not work at Santa Rita because of the composition of the ores and the lack of modern furnaces.<sup>14</sup> At Santa Rita, Pumpelly was forced to use traditional Mexican methods of processing—assaying and smelting the ore in adobe brick furnaces (which his workers built), fueling the furnaces with locally-made mesquite charcoal, and ventilating them with a horse-powered blacksmith’s bellows.<sup>15</sup>

### **“We do not want to be friends”**

The technical problems Pumpelly faced in mining at Santa Rita were formidable, but the most vexing and dangerous problem he had to deal with was working in the territory of raiding Apaches. Raiding was a subsistence activity for some Apache bands and a deep-seated cultural tradition. By the mid-nineteenth century, Apaches had been raiding Mexican settlements for over two hundred years, following familiar trails that ran from north of the Gila River in Arizona and from Santa Rita del Cobre in New Mexico, south into Old Mexico.<sup>16</sup>

Early encounters between Apaches and Americans had been tense but peaceful.<sup>17</sup> There was little raiding by Apaches against Americans in the Gadsden Purchase before 1857.<sup>18</sup> But as American settlement increased, the American presence became more irritating to Apaches, who could see that the Americans were establishing their mines, ranches, and farms on land the Apaches considered theirs.<sup>19</sup> Also, the targets for raiding that the American mines and ranches presented became more numerous and inviting. So it is not surprising that Apache raiding increased through the late 1850s, resulting in stolen cattle, horses, and mules from American ranches and mines. Western Apache bands did most of the raiding. These included Pinal, Aravaipa, Tonto, and Coyotero Apaches, who lived north and northeast of the Santa Cruz Valley.<sup>20</sup>



BILL RHODES'S RANCH,

Bill Rhodes' ranch on the Santa Cruz  
(J. Ross Browne, *Adventures in the Apache Country*)

The pages of the *Tubac Arizonian* in 1859 carried repeated reports of Apache raids on ranches south of Tucson. On March 20, 1859, the paper listed twenty instances of raids near Tubac in the previous three months.<sup>21</sup> Between 1857 and 1861, the SEMC at Arivaca was struck nine times, the company's headquarters at Tubac four times, the Santa Rita Mine three times, and the Patagonia Mine five times. Bill Rhodes' ranch on the Santa Cruz was raided twice, the Akes' ranch on Sonoita Creek five times, and Wadsworth's six. The last time Apaches attacked Wadsworth's ranch, they burned it to the ground.<sup>22</sup>

Most Apache bands lived by hunting and gathering, which meant that when poor climate conditions or intrusive settlement cut off their food sources, Apaches raided more. This occurred in 1859 and 1860 when natural food sources became scarce, and Apaches were starving.<sup>23</sup> Western Apaches increased raiding, and Cochise's Chokonen began raiding along the Sonoita Creek and in the Santa Cruz Valley. The repeated attacks brought retaliation from American victims, and some Apaches were killed. This caused the Apaches to seek revenge in attacks that killed Americans.<sup>24</sup> Some revenge attacks were in response to the events of February 1861, when Cochise and some of his family were taken prisoner by Lieutenant George N. Bascom and the U.S. Army at Apache Pass. Cochise escaped, skirmishes at the pass between Apaches and the army followed, and six Apaches were later hanged, Cochise's brother among them.<sup>25</sup> Afterward, angered by the

American intrusion into Apache land and the violence against his people, Cochise directed attacks against settlers and the army meant to drive the Americans out of Arizona.<sup>26</sup>

In November 1860, Thompson Turner, writing for the *Missouri Republican*, noted how Apache raiding had changed: “The Apaches still continue to manifest their hostility toward the whites and no longer content with committing depredations, endeavor to kill all whom they encounter when not intimidated by superior numbers.”<sup>27</sup> Apaches themselves confirmed Turner’s opinion. In February 1860, when army dragoons pursued a band of Tontos suspected of stealing livestock, a spokesman for the Indians delivered an angry warning: “What have you come here for? I thought we were good friends. . . . We sat by your fires in friendship . . . and now you come to kill us, our wives and our children. . . . We have visited you . . . and have counted your cattle and your people . . . We do not want to be friends. . . . You slay our people, but forget that we are brave and will have our revenge. You go out in pairs, or by threes and fours, and we will mow you down.”<sup>28</sup>

### **A Foolish Adventure**

Raphael learned about the Apaches early in his stay, when Apaches stole two horses from the Santa Rita hacienda, and Pumpelly and another young Easterner, both newcomers to the country, decided to make their mark by chasing down the raiders, killing them, and recovering the stolen stock. “Here was our chance,” Pumpelly recalled. “We would overtake and shoot those Apaches. Nothing more easy.”

The two quickly mounted horses, rode in pursuit, and before long spotted two Apaches on foot, driving the stolen horses ahead of them. When the young men got within two hundred yards of their quarry, the Apaches disappeared into a thicket on the far side of a stream. Pumpelly and his companion pursued at full gallop. But as the young glory-seekers drove their horses into the stream, the thicket on the opposite bank erupted with Apaches, yelling and brandishing lances and bows. The pursuers’ horses stopped short, nearly tumbling the riders into the stream. The two had heard that in such encounters, they should “dismount and shoot, holding the horse with your arm through the bridle.” They did so; but with the panicked horses spinning and bucking, the young men shot wildly and hit nothing. The Apaches, meanwhile, jeered and taunted them by jumping up and down and “slapping their backsides.” When the two leaped back into their saddles and rode off, the Apaches sent a volley of arrows after them. But the Indians deliberately aimed short, sparing the lives of their attackers. The Apaches, Pumpelly observed, “could have killed us easily had they wished.” But the Indians had found the spectacle of the two young men trying to fight them laughable. Pumpelly said that from this incident, he not only acquired respect for the Apaches but “felt humbled by the knowledge that we owed our lives to the sense of humor on the part of an enemy we had so casually thought of killing.”<sup>29</sup>



Pumpelly and friend surprised by the Apaches  
(*Travels and Adventures of Raphael Pumpelly*, New York: Holt and Company, 1920)

### **Lawless Arizona**

Pumpelly's early misadventure with the Apaches was the beginning of the end of his romantic notions about wild Arizona. In the early months of his stay, he felt that the presence of American and Mexican bandits and "savage Apaches" lent an "undertone of adventure and of danger" to his work.<sup>30</sup> But the danger soon became all too real. A large portion of the local population, he learned, were "refugees from the slackly administered justice of Texas, New Mexico, and California" and "ruffians and gamblers" driven from San Francisco by the city's notorious Vigilance Committee. These cast-offs had come to try their fortunes in Arizona.<sup>31</sup>

Regrettably, Pumpelly included working-class Mexicans in his list of dangerous persons and came to share the racist attitudes of whites in his day toward them. They were, he said in 1868, "the most degraded class in a land where social morality was, in every respect, at its lowest ebb"; and he accused "Mexican workmen" of killing white employees at virtually every mine in the region.<sup>32</sup> It was a bizarre exaggeration by a normally reliable observer. This tragedy did occur at the Brunckow Mine on July 23, 1860, and may have occurred at the Heintzelman Mine on July 16, 1861; but it did not happen at many mines.<sup>33</sup>

The fact that Arizona was part of New Mexico Territory, with the territorial government hundreds of miles away in Santa Fe, meant that Arizona in 1861 was almost literally a lawless region. Pumpelly wrote, "There was hardly a pretense at a civil organization; law was unknown, and the nearest court was several hundred miles distant [in Mesilla]. Every man took the law into his own hands, and a man's life depended upon his own armed vigilance and prudence." The only code of laws, Pumpelly said, was "public opinion, and a citizen's popularity the measure of his safety." But in a society with a good many thieves and murderers, popularity attached to the roughest and most feared, not to law-abiding citizens.



Raphael Pumpelly at age 30, seven years after leaving Arizona  
(*My Reminiscences*, Vol. I)

The immediate result of this lawlessness, Pumpelly said, was “to blunt ideas of right and wrong” in the minds of newcomers. Once released from the restraints of Eastern-style law and order, new arrivals learned to take life on the slimmest of pretexts, even just for “bravado.” “Murder,” he said, “was the order of the day, . . . committed by Americans upon Americans, Mexicans, and Indians; by Mexicans upon Americans; and the hand of the Apache was, not without . . . reason, against both of the intruding races.”<sup>34</sup>

### **The Death of Horace Grosvenor**

During his time in Arizona, Pumpelly often saw men killed by Apaches. But the most affecting experience of this sort was the death of his friend and mentor Horace Grosvenor on April 25, 1861. Grosvenor was a printer and engraver from Ohio, whom William Wrightson had made director of the Santa Rita mines when the company was formed and who became superintendent of mining operations in 1860 when the previous superintendent died. The story of Grosvenor’s death illustrates not only the growing hostility of the Apaches in 1861 but the precarious nature of silver mining in Arizona and the pernicious racism that poisoned relations between Mexican workers and their American employers.

By early April, it had become clear to Santa Cruz Valley residents that the army would leave Arizona to fight the Civil War in the East.<sup>35</sup> Soon after, Grosvenor, Pumpelly, and Santa Rita accountant Samuel Robinson decided that they would have to close the mines and move the company’s portable assets to Tubac. They were out of money, they owed wages to their workers, and they needed cash to get themselves and their property out of Arizona. Their only hope was to try to collect debts owed the company.



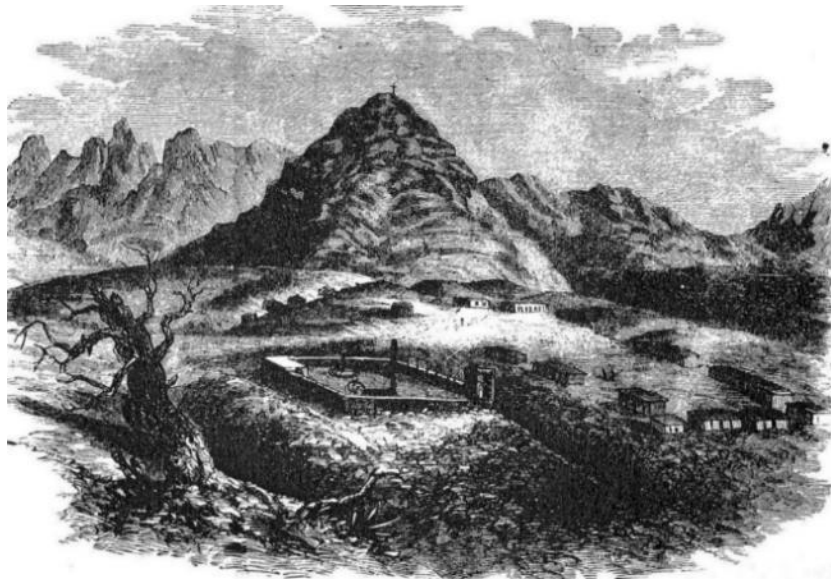


Horace C. Grosvenor (Arizona Historical Society, Tucson)

One of their debtors was the Heintzelman Mine; so Pumpelly rode to see mine manager John Poston. But the SEMC was in similar financial straits, and Poston did not have cash or bullion to pay the debt. Pumpelly took payment in ore worth \$2,000/ton, some flour, and two bolts of cotton cloth. These materials were sent to Santa Rita headquarters in a wagon, driven by two of Poston's Mexican workers.<sup>36</sup>

Pumpelly returned to Santa Rita, where he and Grosvenor waited for the delivery. But when the wagon did not arrive after a day and a half, the two assumed that the Mexicans had stolen it and gone to Sonora. Desperate to recover their property, they provisioned for a ten days' journey and set out on horseback to pursue the Mexicans. On the way, they saw the wagon coming to Santa Rita on another road. Not wanting the Mexicans to think that the Americans had suspected them, Pumpelly and Grosvenor retreated to the hacienda. But as the afternoon passed, and the wagon did not arrive, Grosvenor decided to walk down the road to look for it. When he did not come back after half an hour, Pumpelly and Robinson walked after him and found Grosvenor's body two miles from the hacienda. He had been killed.

By the light of the moon, the two men could see that Grosvenor's "head lay in a pool of blood; two lance wounds through his throat had nearly severed the head from the body, which was pierced by a dozen other thrusts. A bullet hole in the left breast had probably caused death before he was mutilated with lances. . . . The body was still warm." The sight of Grosvenor's mutilated body would stay with Pumpelly for many years: "I have seen death since, and repeatedly under circumstances almost equally awful, but never with so intense a shock."



Heintzelman Mine (J. Ross Browne, *Adventures in the Apache Country*)

In the dim moonlight, they also saw the missing wagon on a trail across an arroyo and the shadowy figure of a man crouching on a ridge above them. Afraid that Grosvenor's killers would return, Pumpelly and Robinson quickly went back to the hacienda. Pumpelly said that at the time they were not sure if the killers had been Apaches or Mexicans. Only one other American remained at the hacienda with a "large number" of Mexican workers, whom Pumpelly and Robinson feared might be in league with Grosvenor's killers. But the two reached the hacienda unharmed, found the other American making bread and the Mexicans asleep in their quarters. The Americans stood watch through night but were not attacked.

The next day, Pumpelly and Robinson went to recover Grosvenor's body and found the bodies of the two Mexican teamsters as well. Reading the signs of the encounter, they saw that a party of fifteen Apaches had attacked the Mexicans. Tracks showed evidence of a desperate, hand-to-hand fight, in which the Apaches killed the two wagon drivers. They then cut the mules loose, spilled out the flour, left the ore (which was of no use to them), and drove the animals to a spot a quarter of a mile away, where they killed and ate one of the mules. A party was left behind to kill whoever might come to find the wagon. When Grosvenor arrived, he was shot and mutilated. The Indians then departed, leaving a scout behind (the man Pumpelly and Robinson had seen on the ridge).<sup>37</sup> The Americans buried Grosvenor near the hacienda. Pumpelly himself carved the stone they placed on his grave.

### **Abandoning the Santa Rita Mines**

Pumpelly was now in charge of the Santa Rita mines and was determined to transport to Tubac the movable property of the company and any silver he could get from the available ore. The smelting was done at Pumpelly's furnace, which stood in the open, about one hundred yards from the main house. Apaches had surrounded the hacienda and made several attempts to attack it, but they were driven back and eventually contented themselves with firing at the furnace, harassing the workers day and night.

During this time, the company's Mexican laborers "slept on their arms around the furnace, taking turns at working, sleeping, and patrolling." Pumpelly gave them rations of homemade whiskey, which he made himself from alcohol and water, flavored with dried peaches. But Pumpelly also found the armed presence of the Mexicans unnerving. A young Mexican woman had reported that the workers planned to kill the Americans as soon as the silver was refined. For this reason, Pumpelly delayed this work until the last two or three days before they left. He did the refining himself, barely sleeping for fifty or sixty hours while the other three Americans "kept an unceasing guard over the Mexicans." Finally, on June 15, he and his workers loaded the equipment and the bars of silver into wagons and made the journey to Tubac without incident.<sup>38</sup>



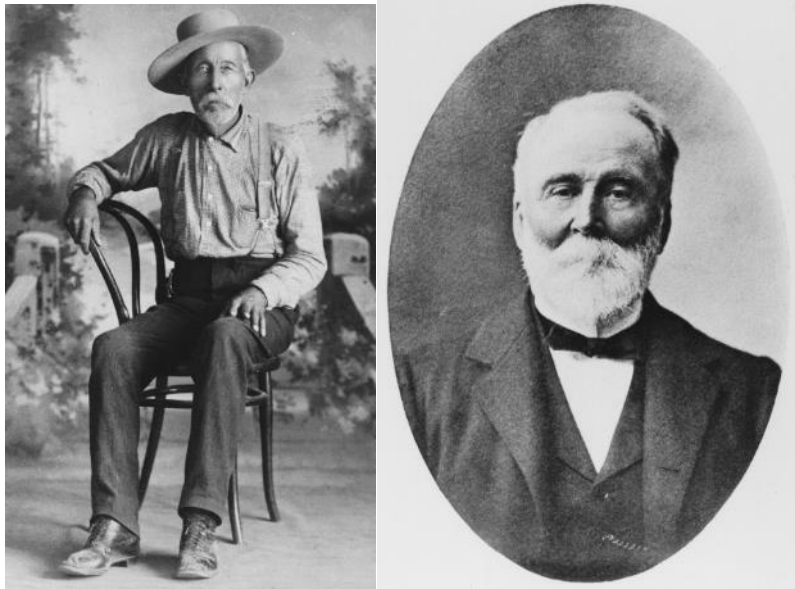
Pumpelly's adobe furnaces at the Santa Rita hacienda, 1915 (*My Reminiscences*, Vol. II)

### **The Canoa Raid**

As Apache violence increased through 1860 and 1861, Pumpelly had to witness other sights as horrific as Grosvenor's murder. The worst may have been the aftermath of the July 14, 1861, attack on the Canoa Ranch, in which three white men and a Tohono O'odham were killed. On the evening of the 14<sup>th</sup>, a *vaquero* of rancher Bill Rhodes, a man named Felix, rode headlong into the plaza at Tubac and told of the attack at Canoa, into which he and Rhodes had blundered by chance and barely escaped with their lives. Apaches in this raid went on to attack Pete Kitchen's ranch and the S3pori Mine hacienda, where a Mexican herder was killed.<sup>39</sup>

The Canoa Ranch had been established by Bill Kirkland in 1857 on the east bank of the Santa Cruz and was purchased in 1860 by William S. Grant of Maine. Grant had a contract with the War Department to supply army posts in Arizona, and he bought the Canoa and Kitchen ranches in order to do this. Under Kirkland and Grant, Canoa supplied lumber, beef, and hay to the army, the mines, and local businesses. The ranch also was a stop for the stagecoach between Tucson and Fort Buchanan.<sup>40</sup> Grant operated the Canoa Hotel at the ranch and put it under the management of Edwin Tarbox, a young man who had come with him from Maine.<sup>41</sup> All of this suggests that the July 14 raids on Canoa, Kitchen, and S3pori were strategic attacks meant to intimidate Americans and drive them from Arizona. All three businesses were important to the Santa Cruz Valley economy, and their destruction would make American continuance in the region more difficult.

Apache historian Edwin Sweeney believes that Cochise himself led the attacks, which were made by Chiricahua warriors.<sup>42</sup>



Bill Kirkland (l); William S. Grant (r) (Arizona Historical Society, Tucson)

The morning after Felix gave the alarm, Poston, Pumpelly, and three other men rode to Canoa to investigate. When they arrived, they found a terrible sight: “The sides of the house were broken in and the court was filled with broken tables and doors, while fragments of crockery and iron-ware lay mixed in heaps with grain and the contents of mattresses.” Through the door of a small house on one side of the ranch yard, they could see the naked body of Tarbox. In the yard, they found the bodies of another American and a Tohono O’odham, who had worked at the ranch. The bodies, Pumpelly said, were “pierced by hundreds of lance wounds.”

Pumpelly and his party buried the slain men. They also found nearby the body of Richmond Jones, the Sopor Mine superintendent, who had had the bad luck to be at Canoa when the Apaches arrived. Like Grosvenor, he had been killed by a bullet through the chest but also had two large lances run through his body from side to side and a pitchfork driven into his back. Pumpelly and his companions took Jones to Tubac, where they buried him.<sup>43</sup>

### **“You’ll do for the border”**

Two days after the July 14 raid, John Poston and two German workers were murdered at the Heintzelman Mine by Mexican bandits. The SEMC ceased operations, and Pumpelly and Charles Poston decided to leave Arizona for California. Taking two wagons loaded with their possessions, they crossed the border into Sonora and followed the Altar River to Caborca. From there, they planned to catch a boat at Lobos Bay and sail to California. However, in Caborca they learned that no boat would come to Lobos Bay for several months. So they decided to travel across the desert to Fort Yuma, where they would cross the Colorado River and go on to Los Angeles.



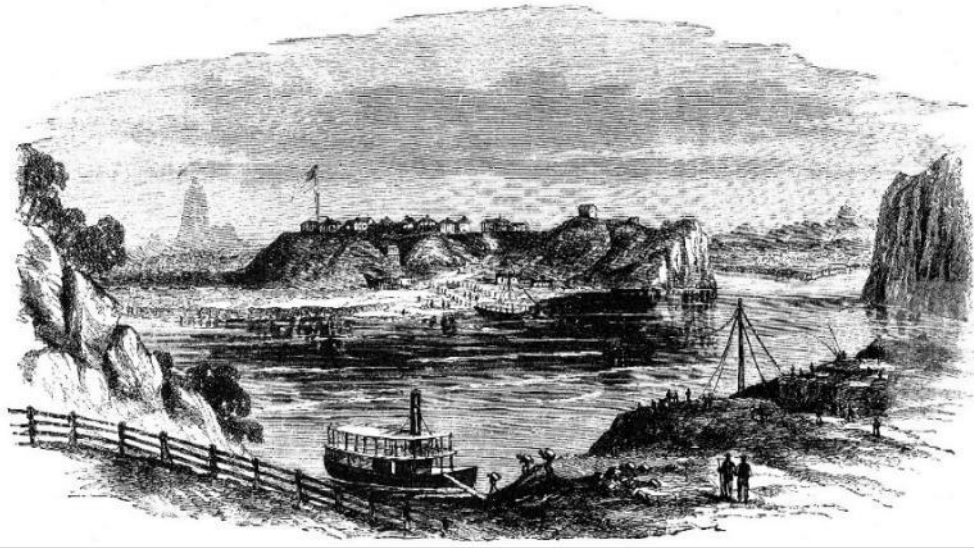
Charles D. Poston (Arizona Historical Society, Tucson)

It would be a dangerous trip because of the extreme heat and lack of water in mid-summer. But that would not be their only challenge. They were carrying in their wagons silver from the Arizona mines. Pumpelly does not say how much silver they had or who owned it. In Caborca they learned that a gang of twelve Mexicans planned to intercept and rob them. Being advised to increase the size of their party, Pumpelly and Poston 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 were shipwrecked on Lobos Bay. Williams had been rescued, brought to Caborca, and now wanted to go home. He seemed pleasant enough, and since they needed more defenders in their party, Pumpelly and Poston invited Williams to travel with them, even outfitting him with a horse, saddle, rifle, and revolver.<sup>44</sup>

In Quitovac, north of Caborca, they saw the tracks of the men who meant to rob them. So they detoured to the tiny village of San Domingo on the border, where they picked up two more Americans bound for California. Then they rode west to the Tinajas Altas Mountains, north to the Gila River, and then west on the Gila Trail to Fort Yuma. On the way, they endured 120- to 130-degree heat, a massive sandstorm, and saw the bones and mummified carcasses of horses, cattle, and sheep that had perished in the desert.<sup>45</sup>

They eluded the robbers. But Pumpelly had a nagging suspicion that Williams “was not what we had taken him to be.” One night as the party was riding, he and Williams fell behind the rest. Pumpelly plied Williams with Spanish brandy and got him to admit that on a previous trip along this trail, he had killed a man named Charley Johnson. Williams further confessed that he had been part of a gang that eight years earlier had been given shelter at a mission near Caborca by an old priest and his sister. In return for this hospitality, the Americans hanged the priest, stole several thousand dollars in gold from the church, and rode through Caborca using the priest’s robes as saddle blankets. Finally, Williams said that he was wanted in California, where he had killed a man in San Francisco. Pumpelly concluded ruefully, “I never knew but one ruffian who more surely deserved hanging than this companion whom we had taken with us to increase our safety.”<sup>46</sup>

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 revolver in hand—when 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.<sup>47</sup>



Fort Yuma on the Colorado River  
(J. Ross Browne, *Adventures in the Apache Country*)

Despite Pumpelly's fears, their party reached Fort Yuma without incident and crossed the Colorado River by ferry. Shortly after, an old friend of Williams, a rough-looking character named "One-eyed Jack," showed up at the ferry, and the pair spent a day together. Pumpelly and Poston concluded that the two planned to murder them and take their silver.

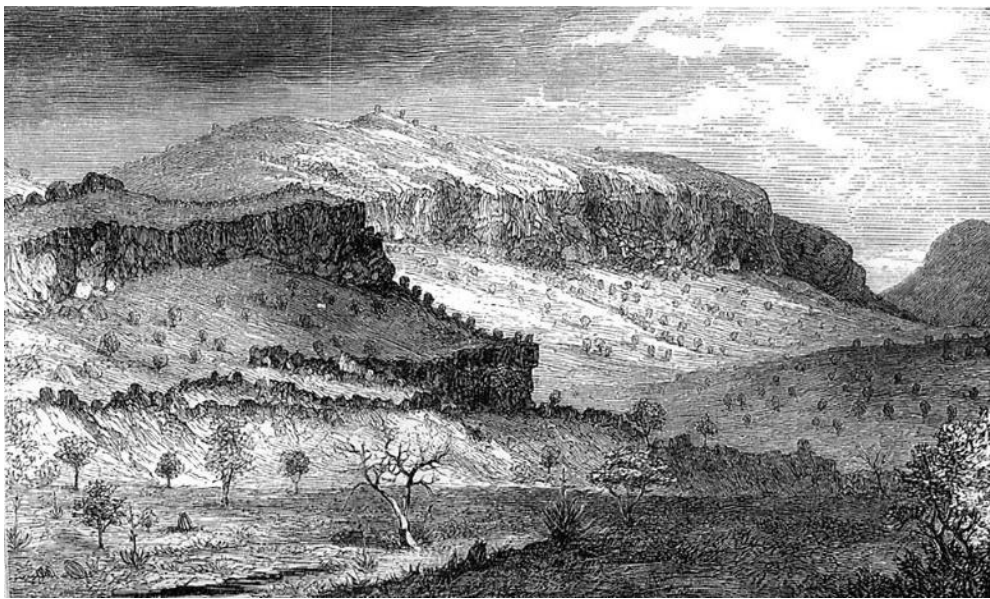
The next morning, Pumpelly and Poston got the drop on Williams and dismissed him at gunpoint. Poston told him, "Pumpelly and I have concluded that it wouldn't be safe for you to go to California. The last man you killed hasn't been dead long enough, and they have a way there of hanging men like you." Williams departed with a smile and a chilling compliment that reflected how much Arizona had changed Pumpelly from the naïve young man who had foolishly chased Apaches nine months earlier: "Give us your hand; you're sharper by a d\_\_\_d sight than I thought you was; you'll do for the border; good morning!" He rode a short distance away, then turned, waved his hat in salute, and repeated his odd congratulation: "Good-bye; bully for you!—you'll do for the border."<sup>48</sup>

### **"The tragedies of those days"**

Pumpelly went on from California to travel in Asia, working as a consulting geologist and mining expert for the Japanese and Chinese governments. When he returned to the U.S., he served as chair of the new mining program at Harvard, took part in several state and U.S. geologic surveys, and conducted geoarchaeological research in central Asia. He published forty-eight scientific articles, papers, reviews, reports, and chapters in books; four books on geological topics; and four books of reminiscences about his experiences as a geologist and mining expert.<sup>49</sup>

But he was not done with Arizona. In March 1915, at age 78, he returned to Arizona with his two adult daughters, his son, and daughter-in-law. It was, he said, an attempt to seek the “healing influence of the desert” after his wife’s death and to take his children on “a pilgrimage to the scenes of my early adventures.”

Obviously, much had changed. Fifty-four years earlier, Pumpelly had arrived in Tucson and slept on a dirt floor, awakening to the sound of gunfire as two men settled an argument with pistols. In 1915, Tucson was “a flourishing city with fine streets, luxurious hotels, and . . . department stores.” Pumpelly said he felt like “a dazed Rip Van Winkle.” His reputation from the old days preceded him. A reporter who saw Pumpelly sign a hotel register greeted him as a “pioneer of Arizona.” “From that moment,” Pumpelly said, “I found myself to be the sole depository of history of Arizona before the Civil War—the legendary, heroic period.”<sup>50</sup>



Santa Rita valley (sketch by Horace Grosvenor, *My Reminiscences*, Vol. I)

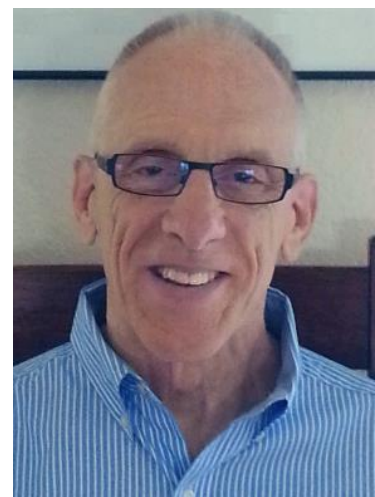
He made an emotional return to the deserted Santa Rita headquarters, though he found the place “beyond recognition.” The valley where the hacienda had stood was now stripped of the live-oaks and mesquites that had made it look like an old apple orchard. Without the trees, run-off from hard rains had destroyed the desert grasses and small cacti that once covered the ground. Ruins of buildings remained, but of a more recent vintage than Pumpelly’s stay. His old furnace was still standing, where he had worked frantically to smelt the last silver ore from the mines while Apache bullets flew past his and his workers’ heads. He could not find the spot where he and Robinson had discovered Grosvenor’s body. But a Mexican who lived on the property found Grosvenor’s grave, now covered in brush. The stone Pumpelly had erected still remained, the inscription as clear as the day Raphael had carved it.



Pumpelly at the grave of Horace Grosvenor, 1915 (*My Reminiscences*, Vol. II)

But the visit to Santa Rita was not a happy one. Pumpelly found the experience emotionally overwhelming, as 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 "the curtain was again rising on the dark drama of 1861, and that day by day memory would reenact the tragedies of those days."<sup>51</sup> In one of those tragedies, Horace Grosvenor's life and career had ended, just as Pumpelly's career was beginning. And on the Arizona frontier, Pumpelly had learned, without wanting to, how to survive in an environment of warring races and daunting professional challenges, and one virtually without law or civic order.

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- <sup>1</sup> Raphael Pumpelly, *Across America and Asia: Notes of a Five Years' Journey Around the World* (New York: Leypoldt & Holt, 1870), 17-18. Pumpelly's earliest account of his Arizona experiences is given in *Across America and Asia*, written seven years after his stay in Arizona (1868) and published two years later (*Across America and Asia*, v). But this work does not include information about Pumpelly's boyhood, education, or his 1915 trip to Arizona. Those details are related in the later *My Reminiscences*, Vols. I and II (New York: Henry Holt and Company, 1918); and the two works do not agree in all details about Pumpelly's other Arizona experiences. Wherever possible, I have referred to *Across American and Asia* since it is the earlier work. But I have used *My Reminiscences* where it contains information the other work does not.
- <sup>2</sup> Pumpelly, *My Reminiscences*, I, 24.
- <sup>3</sup> *Ibid.*, 176; Peggy Champlin, *Raphael Pumpelly: Gentleman Geologist of the Gilded Age* (Tuscaloosa and London: University of Alabama Press, 1994), 10, 28; "Raphael W. Pumpelly: American Geologist," *Encyclopedia Britannica*, September 4, 2020, [www.Britannica.com/biography.Raphael-W-Pumpelly](http://www.Britannica.com/biography.Raphael-W-Pumpelly).
- <sup>4</sup> Pumpelly, *My Reminiscences*, I, 182.
- <sup>5</sup> *Report of the Sonora Exploring and Mining Company* (Cincinnati: Railroad Record Print, 1857), 3, 5-6; Diane M. T. North, *Samuel Peter Heintzelman and the Sonora Exploring and Mining Company*, Tucson: University of Arizona Press, 1980), 21-22.
- <sup>6</sup> Pumpelly, *My Reminiscences*, I, 197; Champlin, *Raphael Pumpelly*, 53; Sylvester Mowry, *Arizona and Sonora: The Geography, History, and Resources of the Silver Regions of North America* (New York: Harper and Brothers, 1864, rpr. Memphis: General Books, 2010), 39; Michael N. Greeley, "The Early Influence of Mining in Arizona," *History of Mining in Arizona*, ed. J. Michael Canty and Michael N. Greeley (Tucson: Mining Club of the Southwest Foundation; American Institute of Mining Engineers, Tucson Section; and Southwestern Minerals Exploration Association, 1987), 16.
- <sup>7</sup> Clark C. Spence, *Mining Engineers and the American West: The Lace-Boot Brigade, 1849-1933* (Moscow, Idaho: University of Idaho Press, 1993), 1-2.
- <sup>8</sup> Spence, *Mining Engineers and the American West*, 25, 62, 338; North, *Samuel Peter Heintzelman*, 196.
- <sup>9</sup> Pumpelly, *My Reminiscences*, I, 182.
- <sup>10</sup> Pumpelly, *Across America and Asia*, 1-2, 5; *My Reminiscences*, I, 188. Only *My Reminiscences* contains the information about what Pumpelly ate when he woke up.
- <sup>11</sup> A mining company's "hacienda" was the company headquarters and the mine superintendent's residence. It was also where the company's animals—typically horses, mules, cattle, and sheep—were located.
- <sup>12</sup> Horace Grosvenor, "Silver Mines of Arizona," 1861, University of Arizona Libraries Map Collection, Tucson; *Report of the Sonora Exploring and Mining Company Made to the Stockholders, September 1857* (Cincinnati: Railroad Record Print, 1857), 3-6; Sylvester Mowry, *Arizona and Sonora*, 37-40; Greeley, "The Early Influence of Mining in Arizona," 16. Greeley says that the Santa Rita company was operating seven mines by the end of 1858, but he does not name them.
- <sup>13</sup> Pumpelly, *My Reminiscences*, I, 198.
- <sup>14</sup> Pumpelly, "Mineralogical Sketch," 130-32.
- <sup>15</sup> Pumpelly, *My Reminiscences*, I, 198-99; Greeley, "Early Influence of Mining in Arizona," 16.
- <sup>16</sup> D. C. Cole. *Chiricahua Apache 1846-1876: From War to Reservation* (Albuquerque: University of New Mexico Press, 1988), 48, 49, 52; James L. Haley, *Apaches: A History and Culture Portrait* (Norman, Oklahoma: University of Oklahoma Press, 1997), 116; *Western Apache Raiding and Warfare*. From the Notes of Grenville Goodwin. Ed. Keith H. Basso (Tucson: University of Arizona Press, 1971, Sixth printing, 2004), 16-17; Donald E. Worcester, *The Apaches: Eagles of the Southwest* (Norman and London: University of Oklahoma Press, 1979), 11; Masich, *Civil War in the Southwest Borderlands*, 6, 35; Doug Hocking, *The Black Legend: George Bascom, Cochise, and the Start of the Apache Wars* (Guilford, Connecticut, Helena, Montana: Two Dot, 2019), 90-91, 125, 135, 248, 249.

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- <sup>17</sup> John Russell Bartlett, *Personal Narrative of Explorations and Incidents in Texas, New Mexico, California, Sonora, and Chihuahua, 1850-1853*, Vol. 1. Chicago: The Rio Grande Press, Inc., 1965, 319-22; Charles D. Poston, *Building a State in Apache Land* (1894; repr. Tempe, Arizona: Aztec Press Incorporated, 1963, 67).
- <sup>18</sup> Berndt Kühn, *Chronicles of War: Apache and Yavapai Resistance in the Southwestern United States and Northern Mexico, 1821-1937* (Tucson: Arizona Historical Society, 2014), 48-60.
- <sup>19</sup> Sylvester Mowry, *Memoir of the Proposed Territory of Arizona*, Washington: Henry Polkinhorn, Printer, 1857), 18; Captain James H. Tevis, *Arizona in the '50s*, Revised Edition, Edited by Betty Barr and Dr. William J. Kelly (Sonoita, AZ: BrockingJ Books, 2007), 75, 87.
- <sup>20</sup> Hocking, *Black Legend*, 125, 150, 248-49.
- <sup>21</sup> Kühn only lists thirteen for the same period (*Chronicles*, 67-69).
- <sup>22</sup> Kühn, *Chronicles*, 61-92; *Latest from Arizona*, 239.
- <sup>23</sup> *Latest from Arizona*, 26, 47; Edwin R. Sweeney, *Cochise: Chiricahua Apache Chief*. (Norman and London: University of Oklahoma Press, 1991), 134-35; Hocking, *Black Legend*, 125, 135, 249; Pfanz, *Richard Ewell*, 105, 108-09.
- <sup>24</sup> Hocking, *Black Legend*, 251; Megan Kate Nelson, "From Pima Villages to the Walker Mines: Anglos, Hispanos, and Natives in the Making of Civil War Arizona," *Journal of Arizona History*, 61:3-4 (Autumn/Winter 2020), 362.
- <sup>25</sup> Discussion of the Bascom incident is beyond the scope of this article, but thoughtful discussions can be found in Hocking, *Black Legend*, *passim*; Paul Andrew Hutton, *The Apache Wars: The Hunt for Geronimo, the Apache Kid, and the Captive Boy Who Started the Longest War in American History* (New York: Broadway Books, 2016), 41-58; Douglas C. McChristian, *Fort Bowie, Arizona: Combat Post of the Southwest, 1858-1894* (Norman, Oklahoma: University of Oklahoma Press, 2005), 21-36; *Latest from Arizona*, 220-227; and Edwin R. Sweeney, *Cochise: Chiricahua Apache Chief*. Norman and London: University of Oklahoma Press, 1991), 142-165.
- <sup>26</sup> Hocking, *Black Legend*, 251; *Latest from Arizona*, 226; Tevis. *Arizona in the '50s*, 75, 87.
- <sup>27</sup> *Latest from Arizona*, 147.
- <sup>28</sup> *Ibid.*, 40-41.
- <sup>29</sup> Pumpelly, *My Reminiscences*, I, 203-04.
- <sup>30</sup> *Ibid.*, 200.
- <sup>31</sup> Pumpelly, *Across America and Arizona*, 29.
- <sup>32</sup> *Ibid.*, 29-30.
- <sup>33</sup> For discussion of the killings at the Brunckow Mine, see Roy B. Young, "'The Graves Lie Thick': Murders at the Brunckow Mine," *Journal Wild West History Association*, 2:3 (June 2009), 48-56. At the Heintzelman Mine, the killings appeared to be the work of Sonoran bandits and not the Mexican employees ("Arizona in 1861," 60-61).
- <sup>34</sup> *Ibid.*, 29-30.
- <sup>35</sup> Pumpelly says that word came in early April 1861 that the army had been ordered out of Arizona (*My Reminiscences*, I, 207). Thompson Turner reported, on April 8, "intelligence from Washington" that the administration was considering recalling troops from Arizona (*Latest from Arizona*, 195-96). But Fort Breckinridge was not ordered abandoned until June 14 and Fort Buchanan on June 30, 1861 (Constance Wynn Altshuler, *Chains of Command: Arizona and the Army, 1856-1875*, Tucson: Arizona Historical Society, 1981, 20). It appears that Santa Cruz Valley settlers knew several months earlier through the "grapevine" that they soon would be left unprotected.
- <sup>36</sup> Pumpelly, *Across America and Asia*, 17.
- <sup>37</sup> *Ibid.*, 18-22. In *My Reminiscences*, Pumpelly says that John Poston arrived that morning from the Heintzelman Mine with fifteen Tohono O'odham and that the Indians read the signs of the killings (I, 214-215).
- <sup>38</sup> Pumpelly, *Across America and Asia*, 26-28.

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- <sup>39</sup> *Ibid.*, 45-46; Charles D. Poston, Journal, Charles Debrille Poston Collection, Arizona Historical Society, Tempe; Charles D. Poston, "William B. Rhodes," *Arizona Weekly Star*, April 15, 1880, Poston Papers, Arizona Historical Society, Tucson; Poston, "Richmond Jones," *Arizona Weekly Star*, April 1, 1880, Poston Papers, Arizona Historical Society, Tucson; "Arizona in 1861. A Contemporary Account by Samuel Robinson, with an introduction and annotations by Constance Wynn Altshuler." *Journal of Arizona History* (Spring 1984), 55; Kühn, *Chronicles of War*, 86-87.
- <sup>40</sup> Virginia Cullin Roberts, *With Their Own Blood: A Saga of Southwestern Pioneers*. (Fort Worth: Texas Christian University Press, 1992), 83; Willey, "La Canoa," 165.
- <sup>41</sup> "Statement of William S. Grant. Army Contractor in Arizona," Grant Papers, Arizona Historical Society, Tucson, 1, 3-4; "William S. Grant vs. The United States. No. 1883. Evidence for the Petitioner," Grant Papers. Tucson: Arizona Historical Society; "William S. Grant vs. The United States. No. 1883. Brief of Counsel for Claimant," Grant Papers, Arizona Historical Society, Tucson; Richard R. Willey, "La Canoa: A Spanish Land Grant Lost and Found," *Tucson Corral of the Westerners*, No. 38 (Fall 1979), 165.
- <sup>42</sup> Sweeney, *Cochise*, 175-76; Kuhn, *Chronicles of War*, 86-87.
- <sup>43</sup> Pumpelly, *Across America and Asia*, 48.
- <sup>44</sup> *Ibid.*, 50-52.
- <sup>45</sup> *Ibid.*, 53, 57-58.
- <sup>46</sup> *Ibid.*, 54-57.
- <sup>47</sup> Pumpelly, *My Reminiscences*, I, 253.
- <sup>48</sup> Pumpelly, *Across America and Asia*, 64. In *My Reminiscences*, Pumpelly has Williams say, "'Give us your hand; you're a d\_\_\_d sight sharper than I thought you was; so long.'" Then he rides away but does not turn back or repeat his statement (*My Reminiscences*, I, 263).
- <sup>49</sup> Champlin, *Raphael Pumpelly*, 250-53
- <sup>50</sup> Raphael Pumpelly, *My Reminiscences*, Vol. II, (New York: Henry Holt and Company, 1918), 761.
- <sup>51</sup> *Ibid.*, 763-64.

## The Maker of Butterfield's Overland Mail Company Stagecoaches

By Gerald T. Ahnert

Until recently, the research by Roscoe P. and Margaret B. Conkling, in their *The Butterfield Overland Mail* published by Arthur H. Clark Co. in 1947, gave the only reference known for the maker of Butterfield's Overland Mail Company stagecoaches and stage wagons.

In the *Preface* of their book, they stated "No documents in the archives in Washington, or in the libraries of New York or St. Louis, or matter from other published sources could give us the information we sought. Thus, it was that our efforts were spurred, and we determined to explore the route from end to end and collect ever available item of interest connected with it." Much of their information collected was from old-timers along the trail and in the *Preface*, they stated "...we grew a little skeptical of the rural bards...We were, however, far from satisfied with the results of this reconnaissance."

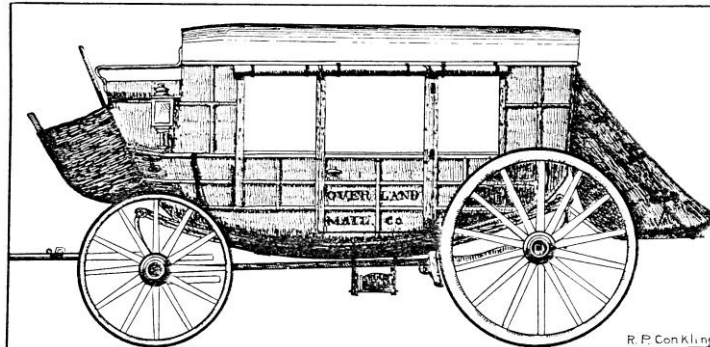
This monumental pioneering effort from their 1930 trip along the trail provided a basis to build on for further research. Our knowledge of this Old West enterprise has been expanded by internet sites providing primary sources such as newspaper and university archives.

In their book they stated that the stage (celerity) wagons were made by James Goold Coach Company, Albany, NY, and represented by Roscoe P. Conkling's drawing. An explanation for Roscoe giving Goold as the manufacturer is contained in the article "Was Mud Wagon a Sobriquet for Celerity Wagon?" by John and Mildred Frizzell, published in a 1974 *Carriage Journal*. In the article is the reference for Roscoe P. Conkling's claim:

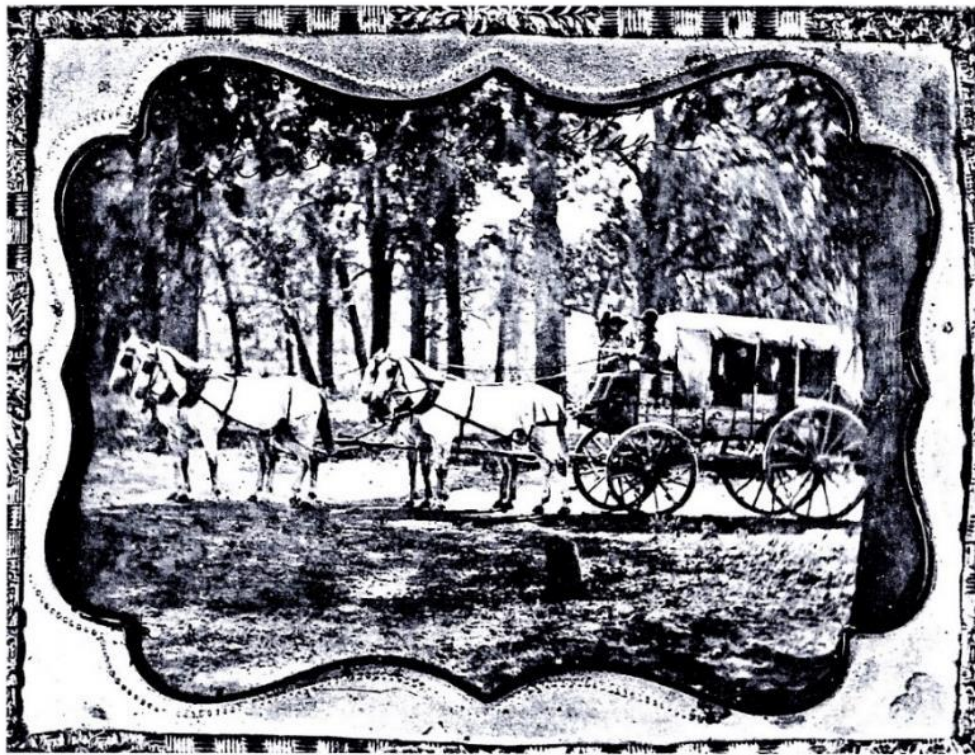
"The Celerity Wagon was designed in 1857-58 by Stephen Augustus [Augustus] Seymour, a young engineer, working for James Goold Coach Company, Albany, NY. According to his grandson, the late Roscoe P. Conkling, in a letter written Dec. 19, 1964. ...As a child Conkling played in a discarded Goold stagecoach and listened intently to his grandfather, Seymour, as he related events of the times to his family. As an artist, Conkling had the innate ability to retain his information and translate it into the accompanying sketch."

Roscoe P. Conkling was born thirteen years after his grandfather died. Stephen Augustus Seymour is listed in the 1860 Federal Census as "Stephen A. Seymour" living in Albany, NY, age 43, and his occupation is "Coach Maker," This confirms that he was probably working for the Goold company in Albany. He was born November 26, 1816, and died October 21, 1864 and is buried in the Albany Rural Cemetery. Although the article stated "...a young engineer..." he would have been 42 in 1858. In the California, Death Index, 1940-1997, is "Roscoe P. Conkling, Gender: Male, Birth Date: 2 Apr. 1877, Birth Place: New York, Death Date: 9 Jul 1971, Death Place: Los Angeles, Wife: Margaret Badenoch Conkling." Why Roscoe stated in his letter that he got the details from his grandfather Seymour (even though his grandfather died before he was born) for the Butterfield stage wagon is not known—perhaps it was the result of old age, as Roscoe's letter was sent in 1964 when Roscoe was 87 years of age and his drawing for their 1947 book was when he was 70 years old.

Butterfield also needed many water and freight wagons and it is possible that Roscoe was told as a child by his father that his grandfather's company made some of these wagons and by the time Roscoe was much older the story had morphed in his memory that they included Butterfield's stages.



This drawing was made by Roscoe P. Conkling and titled 'Butterfield "Celerity" Stage-Wagon.' It has little resemblance to Butterfield's Stage (Celerity) Wagon.



A Butterfield Stage (Celerity) Wagon near the Texas-New Mexico border, and Cottonwood Stage Station, early 1861. The driver was David McLaughlin. From a copy of a daguerreotype and reproduced with the permission of the Nita Stewart Haley Memorial Library, Midland, Texas.

This Butterfield stage (celerity) wagon shown in the photo bears little resemblance to Conkling's drawing and it can be seen that the driver-conductor's seat is not elevated, but at the same level as the passenger's seats. Also, they did not have a door as seen in Conkling's drawing. There are other drawings that also show these construction features that were made by William H. Hilton early in October 1858,

Contact was made with the Albany Historical Society, Albany, NY, Troy Historical Society, Troy, NY, Albany Institute of History and Art, and the New York State Museum for any references, such as catalogs, that may have information for these stage manufacturers having conducted any business with the Overland Mail Company. New York State newspapers were searched for articles noting a sale of stages by these companies to the Overland Mail Company. Also, the histories of James Goold's Albany Coach Manufactory and Eaton, Gilbert, & Co. of Troy, were obtained. No references were found for these companies making stages for the Overland Mail Company.

Many primary references have been found to determine the maker of Butterfield's stagecoaches and stage wagons and show that they were all made by J. S. & E. A. Abbot, Concord, NH.

One of the most important is from an article in *The Memphis Daily Appeal*, July 13, 1858, reprinted from the *Fort Smith Herald* (Arkansas), stating that the stage (celerity) wagons were to meet the design specifications of John Butterfield and ordered from J. S. & E. A. Abbot, Concord, NH:

"The Overland Mail Company received by the *Lady Walton* [riverboat], on Tuesday evening last, six stages, and on Wednesday, Mr. Glover left [from Fort Smith] to the direction of El Paso with four of them.... The stages were manufactured at Concord, New Hampshire, according to directions given by Col. John Butterfield. they will accommodate from six to nine passengers...."

A later article in *The Memphis Daily Appeal*, July 21, 1858, reprinted from the *Fort Smith Times* (Arkansas) stated sixty more of the same stage wagons were to be delivered by the *Lady Walton*.

Another important reference is from an official government report by Postal Inspector Goddard Bailey based on this inspection trip as a passenger on the first Butterfield stagecoach to leave San Francisco, CA, on September 14, 1858. In his report to the House of Representatives he stated that the trail was stocked with Concord stages.

In July 1858, an article was published in many newspapers from New York to California about the J. S. & E. A. Abbot factory in Concord, NH, making 100 stages for Butterfield "...to be placed on the route between Memphis and San Francisco." The trail was bifurcated meeting at Ft. Smith, AR, where the stages met those coming from St. Louis, MO, and Memphis, TN. One of these articles was in the *Sacramento Daily Union*, July 31, 1858.

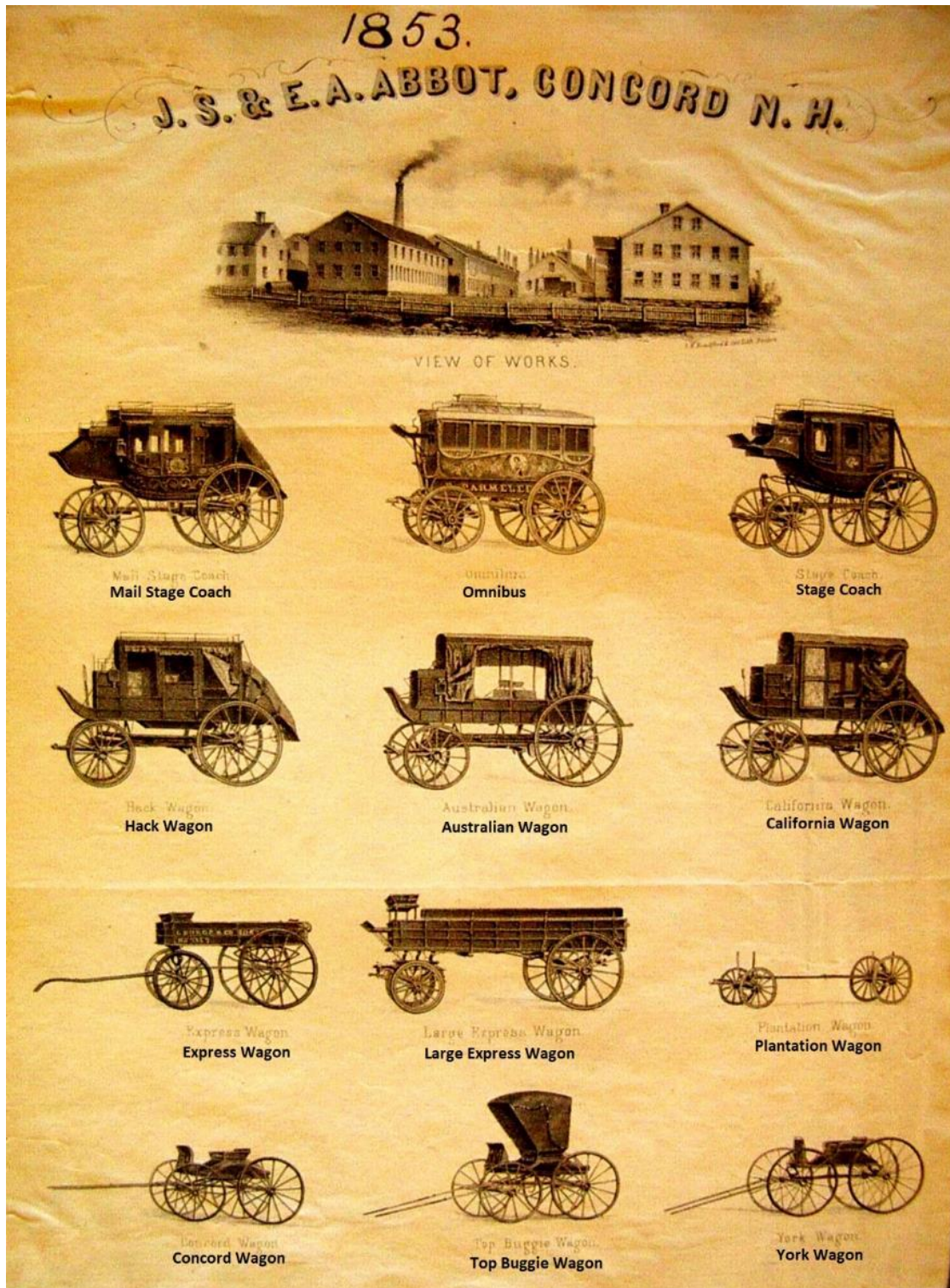
Two visits were made to the New Hampshire Historical Society Abbot-Downing archives in Concord, NH. It is unfortunate that the order for Butterfield's stages early in 1858 is missing from the collection, but a copy of the 1853 company broadside was obtained.

In the section titled "The Establishment of the Overland Mail," in the Conkling's report, was "...orders placed for two hundred fifty or more regular coaches, and special mail wagons, harness sets and accessories, and also for a fleet of freight wagons and specially constructed tank wagons."

Correspondent for the *New York Herald* Waterman L. Ormsby was on the first Butterfield stagecoach heading west and in his reported he wrote "...a wagon [stage wagon] or coach [stagecoach] for every thirty miles...." The trail totals 3,000-miles when the mileage of the route from Memphis, TN, to Ft. Smith, AR, is added to the mileage of the route from Tipton, MO, to San Francisco, CA. Thirty divided into 3,000 is 100. There were other reports of their being 100 stages built for the trail such as in the article that appeared in many newspapers July 1858 which included the *Sacramento Daily Union*.



The Butterfield Trail totals 3,000-miles when the mileage for the bifurcation from Memphis, TN, to Ft. Smith, AR, is added to the mileage from Tipton, MO, to San Francisco, CA. Every thirty-miles a spare stage was supplied to stations for a total of 100 stagecoaches and stage (celerity) wagons. Map by G. Ahnert



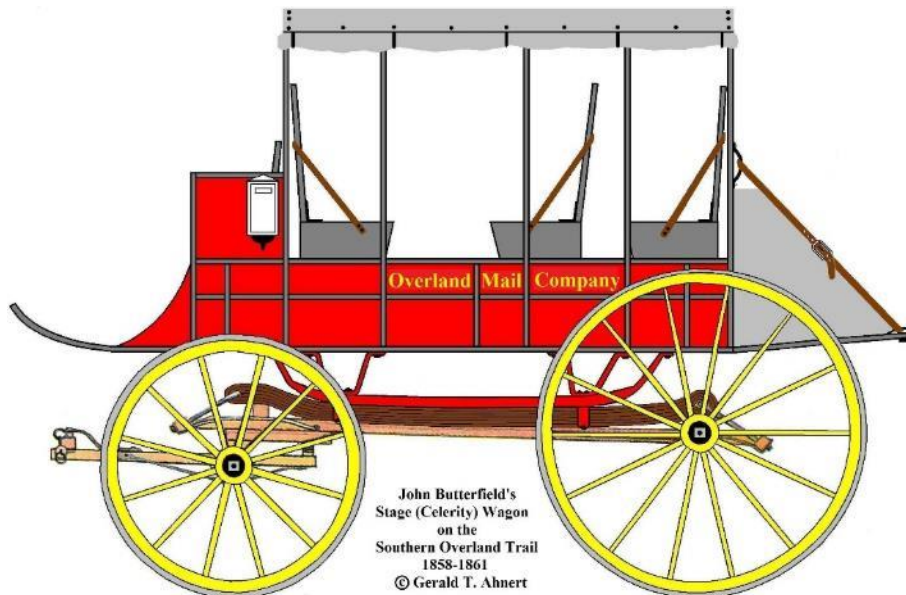
The “Mail Stage Coach” was chosen for the settled and semi-settled sections of the trail.

A modified “Australian Wagon” was chosen for the frontier section of the trail.

From: Abbot-Downing Company Papers, Tuck Library,  
 New Hampshire Historical Society, Concord, NH.

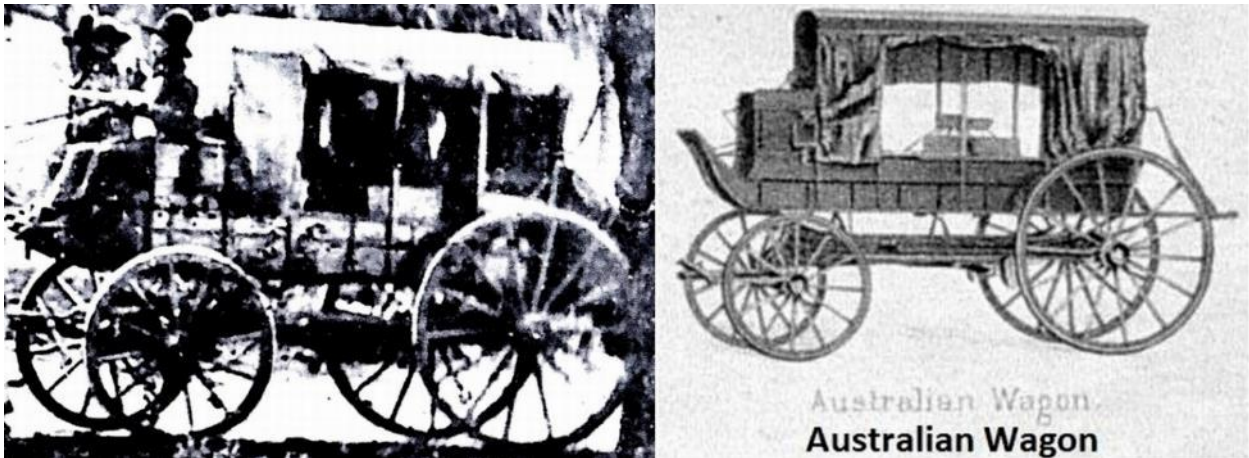


The many descriptions describing Butterfield's Stage (Celerity) Wagons conform exactly to the stage shown in the 1861 daguerreotype. A drawing was made based on the photo and the many descriptions.

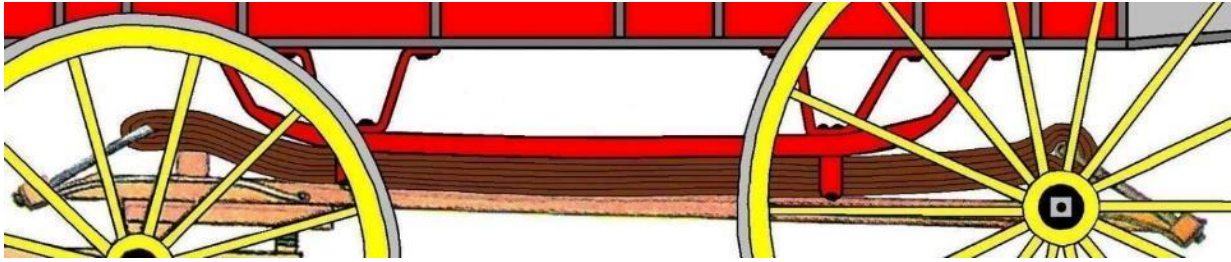


Sixty-Six of John Butterfield's Stage (Celerity) Wagons were distributed to every other station along the 1,920-mile frontier section of the trail from Ft. Smith, AR, to Los Angeles, CA.

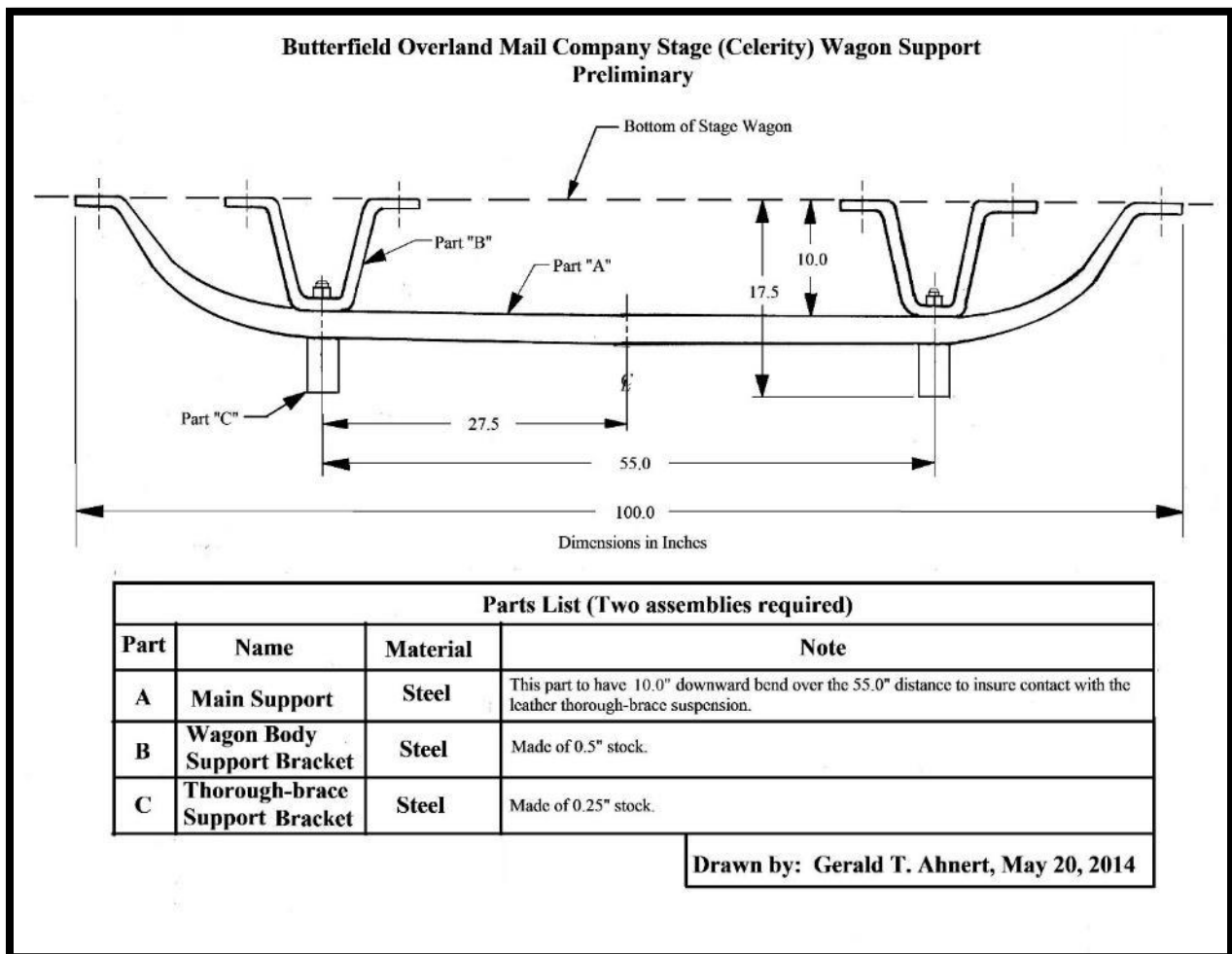
Drawing by G. Ahnert



A comparison of J. S. & E. A. Abbot's Australian Wagon and the 1861 photo. The Australian Wagon model, that the company had been making since 1851, was probably the one that Butterfield had modified, and named it "Celerity," for the frontier section of the trail.



Most stagecoach coach bodies had a rounded bottom to set directly on the leather cradle suspension called a thorough-brace. Most stage wagon coach bodies, such as Butterfield's, had flat bottoms and a thorough-brace support bracket to connect the leather cradle thorough-brace with the flat bottom of the stage wagon coach body.



This drawing, made by the author, is an approximation of the iron thorough-brace support bracket used on Butterfield's Overland Mail Company stage wagons as a transition between the leather cradle thorough-brace and the stage wagon's flat bottom of the coach body.

The recent information found concerning the manufacturer of Butterfield's Overland Mail Company stages has shown that the manufacturer of his stages was only J. S. & E. A. Abbot, Concord, NH. Roscoe P. and Margaret B. Conkling have given us a great deal of information in

their monumental pioneering work *The Butterfield Overland Mail* from which to further our continuing work to tell the story of this great Old West enterprise.

***Gerald T. Ahnert** is a member of our own Cochise Country Corral. He has published the definitive work on the Overland Mail in Arizona, is much sought after as an expert on the trail and is widely published in top rated journals.*

## **Stagecoach Technology Aided John Butterfield's Contract Requirement—Speed!!!**

By Gerald T. Ahnert

While researching the history of Butterfield's Overland Mail Company, I found that there was uncertainty for the manufacturer of the Butterfield stages. My research took me on a winding path that solved this mystery, which involved the technology for the leather thorough-brace suspension and construction for the wheels.

The earliest attempt to have an efficient all-American mail land route connecting the east to the west was in 1857 by the San Antonio & San Diego Mail Line (Jackass Mail). There were those that didn't think it had accomplished that purpose, as it went "from no place through nothing to nowhere." On September 16, 1857, contract No. 12,578 was awarded to John Butterfield for a more comprehensive trail with stations and water sources at regular intervals. There was much debate that it would be impossible to establish a 2,700-mile stage line through the frontier and deliver the mail in twenty-five days, as the contract required. The genius of John Butterfield's understanding of stagecoach technology would give his line the speed to accomplish the task.

In January 1858, Marquis L. Kenyon and John Butterfield Jr. started out from San Francisco to select the route for the trail and station sites. Once this was done, the trail had to be stocked with livestock and a spare stage at approximately every other station.

Past historians have stated that the Butterfield stages were manufactured by three companies. They were Abbot-Downing Co, Concord, New Hampshire, John Gould Co., Troy, New York, and Albany Coach Company, Albany, New York. Also, many report that he used 250 stagecoaches. Actually, he used approximately thirty-four mail stagecoaches and sixty-six stage (Celerity) wagons, all made by J. S. & E. A. Abbot, Concord (to become in 1865 Abbot-Downing Co.), New Hampshire. But why did he choose this company?

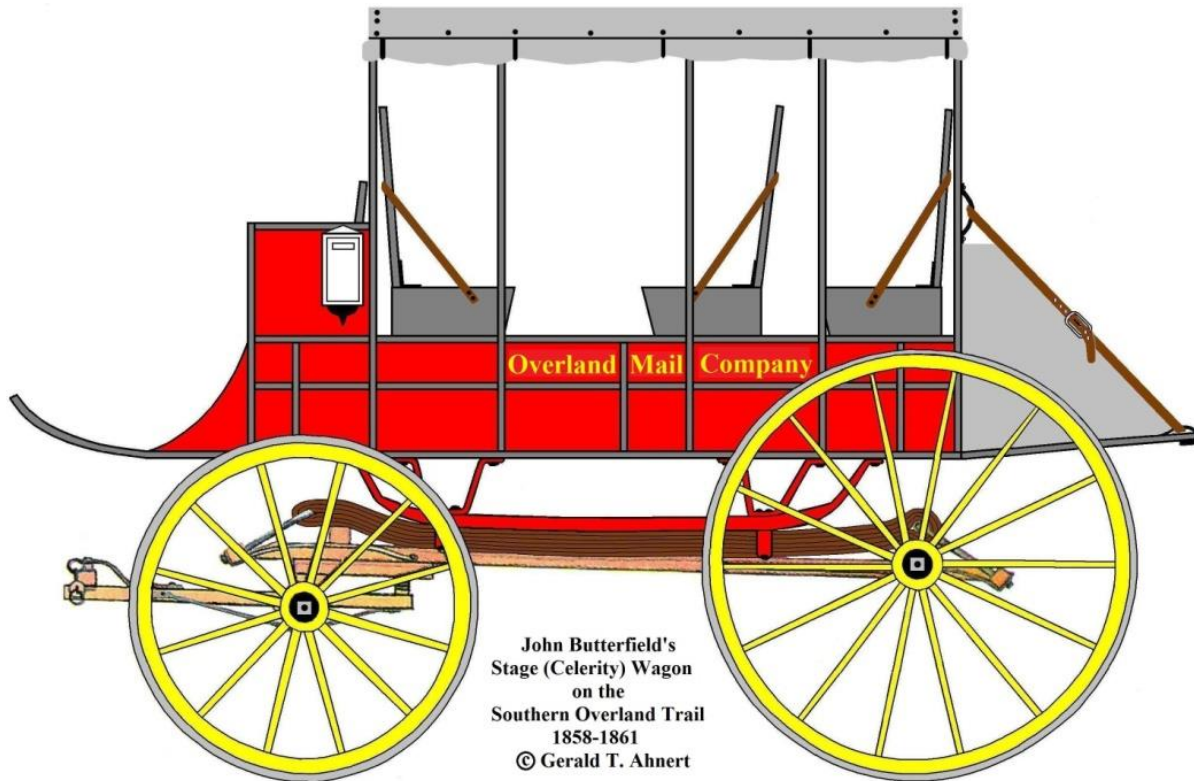


The only known photographic image of a Butterfield stage is this reproduction of a daguerreotype showing a stage (Celerity) wagon at the Texas-New Mexico border early 1861. The driver is David McLaughlin. Courtesy: *Robert N. Mullin Collection, Nita Stewart Haley Memorial Library, Midland, Texas.*

An article in *The Memphis Herald*, July 13, 1858, tells of six stage wagons, designed by John Butterfield, delivered by the riverboat *Lady Walton* to Fort Smith, Arkansas, for distribution to Texas stations by Superintendent Glover. This article identified the maker of the stages as being from Concord, New Hampshire, which was J. S. & E. A. Abbot Co., the maker of the most famous of all stagecoaches. The article went on to state that sixty more were to be delivered. We know that there were 100 stages distributed along the trail from a report by *New York Herald* correspondent, Waterman L. Ormsby who was the only through passenger on the first stage to leave Tipton September 16, 1858. My recent visit to the New Hampshire Historical Society archives, in Concord, New Hampshire, produced no results finding the record for his stagecoaches and stage wagons, as the original order book for 1858 was missing.

As the mastermind for putting in place this historic Old West enterprise, John Butterfield knew that speed was the key for meeting the requirements of the contract for the mail to be delivered in twenty-five days—or a penalty would be levied. As a stage line entrepreneur for thirty-eight years, he knew that the leather thorough-brace suspension made it the least stressful for the horses or mules to pull the stages, therefore giving a greater speed. There was good reason for Butterfield

choosing the maker of his stages to be the J. S. & E. A. Abbot—that reason was because they were the only company that could build stages for the southwest deserts.



The leather through-brace suspension, shown in brown, on one of John Butterfield's stage (Celerity) wagons.

He had J. S. & E. A. Abbot modify their Australian Wagon to his specifications and named it “Celerity”—swiftness of speed. These stage wagons were used on the 1,920-mile trail through the frontier from Fort Smith, Arkansas, to Los Angeles California. The mail stagecoaches were used on the settled ends of the trail. Features to keep his stage wagons at a lower center of gravity were smaller diameter wheels than the stagecoaches and having the driver's-conductor's seat not elevated, but on the same level as the passengers. To save weight, a canvas top was held up by light staves, which could not support baggage or passengers. Although some historians call these "mud wagons," the term was not used by J. S. & E. A. Abbot. These stage wagons were in use from September 1858 to March 1861 on the Southern Overland Trail. In early 1861, because the Confederate Army had confiscated many of Butterfield's stages, only eighteen of the original stage wagons managed to make it to the Central Overland Trail to continue the six-year contract.

John Butterfield chose the 3 1/2" wide leather through-brace, over a fixed metal spring suspension, to serve two purposes. The first was for the comfort of the passengers, although it was not ideal for some who were susceptible to motion sickness. This suspension would not only give a swaying motion from front to back, but also from side to side. His mail stagecoaches also used this suspension and in his 1861 book *Roughing It*, Mark Twain described his ride, on a stagecoach on the Central Overland Trail, that used the thorough-brace suspension as like "a cradle on wheels."

A more important purpose was for the efficient control of the mules or horses pulling the stage. Captain William Banning's book *Six Horses* gives this:

"Thorough-braces—two lengths of manifold leather straps of the thickest steer hide—suspended this heavy structure, allowed to rock fore and aft, and, incidentally, to perform a vital duty beyond the province of any steel springs.

...For thorough-braces, while they served the purpose of springs to a very adequate extent, had *the prime function of acting as shock-absorbers for the benefit of the team*. By them violent jerks upon the traces, due to any obstruction in the road, were automatically assuaged and generally eliminated. It was the force of inertia—the forward lunge and the upward lurch of the rocking body—that freed the wheels promptly from impediment, and thus averted each shock before it came upon the animals. Passengers could tolerate a little buffering, while the coach itself had been made to withstand any shock that the road could impose, and to survive this punishment through a lifetime at least, given the usual care."

Another important reason John Butterfield chose J. S. & E. A. Abbot was that they were noted for making wheels that would survive in the low relative humidity of the southwest desert. Many of the wagons and stages that were used in the west were made by northeastern companies where the relative humidity averaged 50 to 60 percent. In the southwest deserts it would often be under 10 percent. The wood would dry out and shrink causing the iron tires to come off.

In *Six Horses* was the reason Abbot's stages were favored:

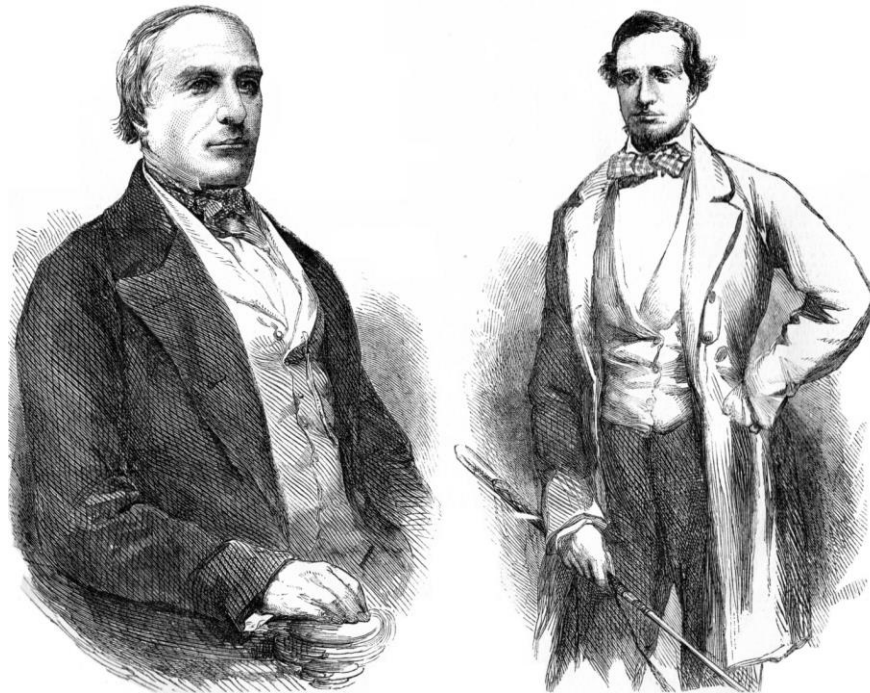
"Each spoke of the Concord wheel, hand-hewn from the clearest ash, was the result of a series of painstaking selections, carefully weighed and balanced in the hand, and fitted to rim and hub (where eyes could not stray) as snugly as any surface joint in the best of joinery. So well-seasoned was the whole that it was practically insensible to the climatic changes in any part of the world. Africa proved the fact for Major Frederick R. Burnham, who saw the wheels of many wagons shrink, warp, and go to pieces, the Concord wheel standing alone and holding its shape. Such qualities of durability in a coach weighing about 2,500 pounds may not appear at once to be the soundest capacity, and few enough of any capacity, ran as easily over the average road, there is little more to be said."

The mail was carried 160 miles by train from St. Louis to Tipton, Missouri, where it was loaded onto a mail stagecoach. At Fort Smith, Arkansas, it was changed for a stage wagon for travel through the frontier. The stage wagon was changed at Los Angeles for mail stagecoach and then on to San Francisco.

According to *Six Horses* the horses pulling the stages were more important than the passenger's comfort: "The horse was the vital consideration. The less taxed, the more he could pull and the faster he could go. The coach that could run the easiest with the greatest load was the best for the horses."

In *Six Horses* it states that the method of harnessing was determined by the leather thorough-brace: "Misconceptions as to the modes of driving fostered by the American coach are as prevalent as

those pertaining to the coach itself. For, as it happens, the principle of the thorough-brace as described had some bearing upon the methods of harnessing the team, and hence upon the driving of it."



John Butterfield Sr. and John Jr. at Tipton, Missouri, just before they boarded the first Overland Mail Company mail stagecoach headed west on September 16, 1858. John Jr. was the driver. They both disembarked at Fort Smith, Arkansas, where they took the first Butterfield stage that arrived from San Francisco, to return to Tipton and then by train to Utica, New York. From *Frank Leslie's Illustrated Newspaper*, November 27, 1858.

John Butterfield's success for establishing the world's longest stage line was the result of his thirty-eight years of experience and running forty stage lines in Upstate New York. There were eighty-three of his stages coming and going every week from his hometown of Utica, New York. Because of this experience, he knew that J. S. & E. A. Abbot Co. was the right company to make the stages for his Overland Mail Company—and that reason was because of their use of the leather thorough-brace suspension and unique wheel construction.



# Surveying and Map Reading

By Doug Hocking

In the age of GPS devices and Garmin, map reading is becoming a lost art. Millennials no longer read maps or cursive. Even among those who can read maps, most do not see all of the information that is there. The types of surveys used and the meaning and responsibilities associated with easements is lost on them. One fellow told me that he would never own a property that had CC&Rs. Really? I'm not sure how he intended to avoid covenants, codes and restrictions the codes and restrictions placed on the land by national, state, and local government. County and city zoning are what the second C refer to. Covenants are privately placed and enforced. Not all are bad. In my area, property owners have in making a purchase of land, surrendered the right to have more than four head of livestock per 4-acre parcel. In other words, you can't establish a smelly stockyard next to my house. "But it's my land and I can do as I want!" No, I bought a right that says you can't own a stockyard. How many of us have actually read and understood the rights we actually bought or surrendered in purchasing a parcel of land? Another common error is to see a plat map and assume that there was once a building on every parcel. As historians we need to understand the distinction between different types of maps, what they show, and the purposes for which they were created.

I've worked with and made many kinds of maps. My father was a map maker for the Navy during World War II. Since he was making invasion maps of previously unmapped areas of the world, his job was highly classified. He started with stereoscopic aerial photos and turned-out topographic maps. These were traced and cut out on cardboard which was stacked. This product was then used as the start of a mold to make relief maps in foam rubber. The theory was that even Marines could understand three-dimensional maps. (See Figure 10) Learning from him, I bought topographic maps and made my own relief maps.

The Army taught me to read topographic maps in UTM (universal transverse Mercator) and longitude and latitude. Always at the top of my class, we learned in Armor training to read maps from which buildings, roads, and other human created objects had been eliminated. This prepared us for navigating without a compass, which on a tank for some reason always points toward the tank instead of north. Taken across Kentucky in busses at 60 mph, we would stop, and the instructor would ask, "Where are we?" My classmates would turn to me for the answer.

About that time, I started spelunking and making maps of the world beneath our feet. The techniques are similar to those used by Army scouts and surveyors in drawing sketch maps. In real estate school, I was interested and paid attention to the systems of describing the location of real property. Later I worked with surveyors and was interested enough to learn from them. In 2011, I attended re-enactment school at Bent's Old Fort in Colorado as a topographical engineer learning to use the equipment used to make maps in the 19<sup>th</sup> century and am proud to say that I was admitted to that proud fraternity. All of this is said so that you understand my background in surveying and making maps.

Longitude and latitude as well as UTM are read from right to left and bottom to top. Longitude is a measure of the difference in time between a point on the map and Greenwich, England. Since

we are west of Greenwich and custom place north at the top of maps, this is why we read from right to left. The English perfected the system of measuring longitude in the 18<sup>th</sup> century and so the location of their naval observatory became the initial point, or 0° longitude. The equator is 0° latitude and the poles, north and south, 90°, in effect at a right angle to the equator. UTM reads from the same initial points.

To identify land boundaries we use three systems, four if we consider the system used by Spanish and later Mexican authorities. The Spanish-Mexican system is an old one. Boundaries are identified as “the center of the stream” or “the crest of the hill/mountain.” These can be vague and argued over. The center of a stream can change dramatically after a flood. Surveyors are supposed to follow the instructions given by the previous surveyor, not the map and not even boundary markers. I’ve seen places where the pins marking a property corner looked like a blast of shotgun birdshot as surveyors followed directions from different starting points. One mid-western state used starting points on its east and west borders. At a subdivision in the center of the state, boundaries overlapped by 30 feet.

In what is called a metes and bounds survey, using a transit or similar instrument, the surveyor will plot very precisely, to several decimal points, a compass direction. This must be corrected for the declination angle (magnetic variation). (See figure 1) This is the difference between magnetic north and true north. In southeast Arizona, the difference is about 11 degrees 43 minutes. He will then measure distance along this azimuth (direction). In the 19<sup>th</sup> century, surveyors used a chain of 100 links. It was 22 yards or 66 feet long. A rod is one quarter of a chain or 16.5 feet. There are 10 chains to a furlong and 80 chains to a mile. An acre is 10 square chains and there are 80 square chains to a section with a section consisting of 640 acres. (See Figure 8) The measures go far back in history and this is why we still use ancient measures that aren’t metric. These measures have their own internal logic and make more sense in relation to each other than in relation to anything metric. One of the weaknesses of this system is that a hot and a cold chain are slightly different in length. Not much, but enough to cause confusion over long distances. Also, the three-dimensional distance over a hill is longer than the distance shown on a two-dimensional map.

**Application No. 516 for a Patent to San Diego Millsite Mining Claim.**

Notice is hereby given that in pursuance of Chapter Six, Title Thirty-two, of the Revised Statutes of the United States D. H. McNeil, whose postoffice address is Tombstone, Arizona, claiming the San Diego Millsite claim, lying and being situated within the Tombstone Mining district, County of Cochise and Territory of Arizona, is about to make application to the United States for a patent for the said San Diego millsite claim, which is more fully described as to metes and bounds by the official plat and the field notes of the survey thereof now on file in the office of the Register of the U. S. Land Office at Tucson, Arizona, which field notes of survey describe the boundaries and extent of said claim on the surface, with magnetic variation at  $11^{\circ} 43'$  east, as follows, to-wit: Beginning at the initial monument, a 4-inch post in mound of earth and stone, post marked I. M. S. D. M. S. No. 1, from which U. S. M. M. No. 5 bears S.  $63^{\circ} 48'$  E. 8,136 feet, and a 4-inch post in monument, post marked San Diego Mine No. 1, bears S.  $62^{\circ} 05'$  east 17,850 feet, the corners to sections 3, 4, 33 and 34 N. boundary T. 20 S., R. 22 E. bearing N.  $73^{\circ} 11'$  E. 766 feet; thence S.  $71^{\circ} 30'$  195 feet to a 4-inch post in monument of stone and earth, post marked S. D. M. S. No. 2; thence N.  $25^{\circ} 45'$  W. 880 feet to a 4-inch post in monument, post marked S. D. M. S. No. 3; thence N.  $71^{\circ} 30'$  E 250 feet to a 4-inch post in monument, post marked S. D. M. S. No. 4; thence S.  $25^{\circ} 45'$  E. 790 feet to an iron pin marking corner; thence  $71^{\circ} 30'$  W. 44 feet to post in monument, post marked S. D. M. S. No. 6; thence S.  $18^{\circ} 30'$  E 90 feet to post No. 1 and place of beginning, and containing 4.918 acres. The said millsite claim being of record in the office of the Recorder of Deeds at Tombstone, in the county and Territory aforesaid. The said millsite being bounded as follows, to-wit: Upon the east by the Watervale millsite, the said claim being designated as lot 101 B in the official plat aforesaid.

Figure 1

This Metes and bounds description shows the adjustment for the magnetic variation (declination) and gives direction and distance to a known point (U.S.M.M. NO. 5)

The survey must be witnessed and signed to be official. This is a legal document. The surveyor's notes are recorded with the final description being much like the one shown in Figure 1. A map may or may not accompany the survey. The map may be a precision drawing showing little more than the corner points and property lines, or it may be swiftly drawn sketch-map. (See Figure 2)

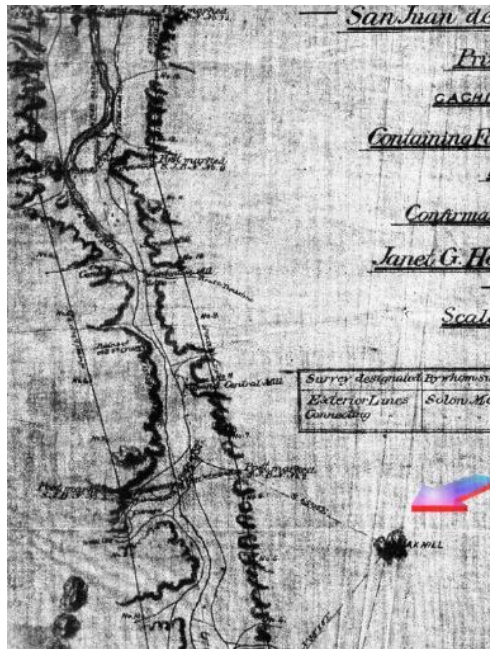


Figure 2

Sketch map by Tombstone surveyor Salon Allis of the Boquillas Land Grant along the San Pedro River  
It shows Ajax Hill as a reference point

Where the survey and outer boundaries of the Boquillas Grant are drawn with precision relying on angles to three decimal points and chained to the foot, surveyor Allis's sketch-map relies on references stated as "Adobe House 100 ft. left occupied by Chinamen who have about 20 acres under cultivation." I've used the same technique in mapping caves, taking accurate readings of the direction our survey was heading along with an accurate distance and then estimating distance to walls and ceiling and only taking accurate readings to branching passages. (See Figure 3)

BOOK 1772	BOOK 1772
San Juan de las Boquillas y Nogales Punto de ana blanco Boquillas Co. N.J. 7125 Adobe House 100 ft. left occupied by Chinamen who have about 20 acres under cultivation	San Juan de las Boquillas y Nogales Punto de ana blanco Boquillas Co. N.J. 7125 N.C. + S.W. Opp Cornpit Mill also called Boston Mill 600 ft left
7500 Top of flat where we are making a steep point crossing the line from the first.	15700 Cornpit Mill 15700 Boarding House 1000 ft left 15800 Crossed San Pedro River 15 ft wide running N.W.
8500 Crossed San Pedro River running N.E. for 10 ft wide	16000 Small wooden House about 20 ft high
10500 Off Chinitaugh House 200 ft left at foot of Adobe	17600 A Point 10 ft right of the upper end of Adobe Mill where it commenced to run straight Direction of damel from this point N 41° 15' E
13100 Top of steep rocky ridge crossing line and S.W. at N.	19700 Crossed cattle
13400 Bottom of ridge	19900 San Pedro River 15 ft wide running N.E.
14200 Top of 2nd Rocky ridge	21500 Same running N.W.

Figure 3

Note that distances in the left column are to the foot while those in the body are to the nearest 50 feet. The distance in the left column continues along the same azimuth from a previous page.

The survey is a signed and witnessed legal document. (See Figure 4) There are two other ways to legally describe land. Both depend on an initial metes and bounds survey. A subdivision or town may be described as "lot and block." This relies upon a map drawn from a survey of the ground called a plat map. (See Figure 5) The plat does not show ownership or if the lot has been sold or if there is a building on it. It's purpose is to provide a very simple legal description.

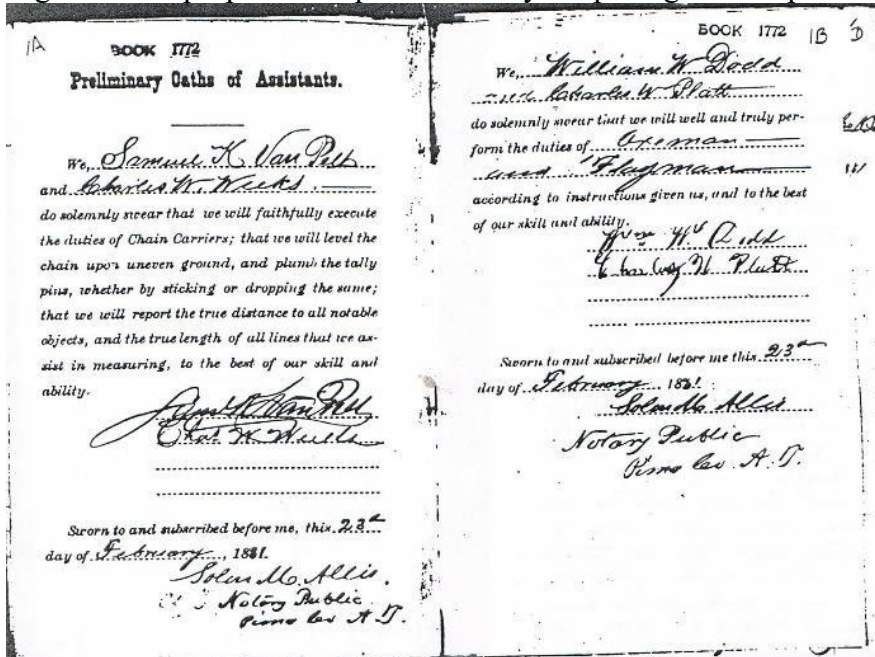


Figure 4  
Signatures of Salon Allis and his workmen

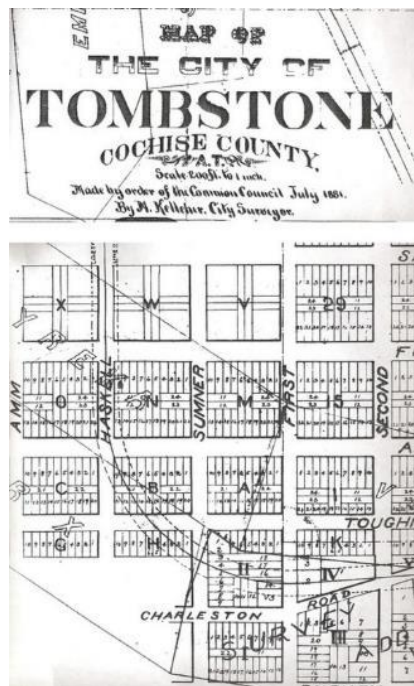


Figure 5  
A property can be legally described as Lot 2, Block M, Tombstone

This is not to be confused with the county tax records which describe a book number, page number, map number and tax parcel number. The parcel can be located on these county maps such that one can locate additional legal information such with legal descriptions of the parcel, it's ownership, and descriptions of easements.

Easements are legal concessions of certain property rights. One of the most common is for “ingress, egress, and utilities.” We think of these as roads and utility lines. They may not be blocked by buildings or fences and it is the property owner’s responsibility to maintain them. The tax parcel map only gives an approximate location and a number that will direct the reader to the proper legal description. It is common for people to illegally block easements, fail to maintain them, or inhibit travel on them because they are unfamiliar with their legal responsibilities. Buried water, electrical, telephone, and gas lines are often blocked by owners who think “it’s my land.” In 2011, the City of Tombstone found its underground water pipeline, the Tombstone Aqueduct, blocked by a fence and buildings in the Huachuca Mountains. The landowner was irate that city repairmen entered “his property” without his consent to repair the water line. (See Figure 6)

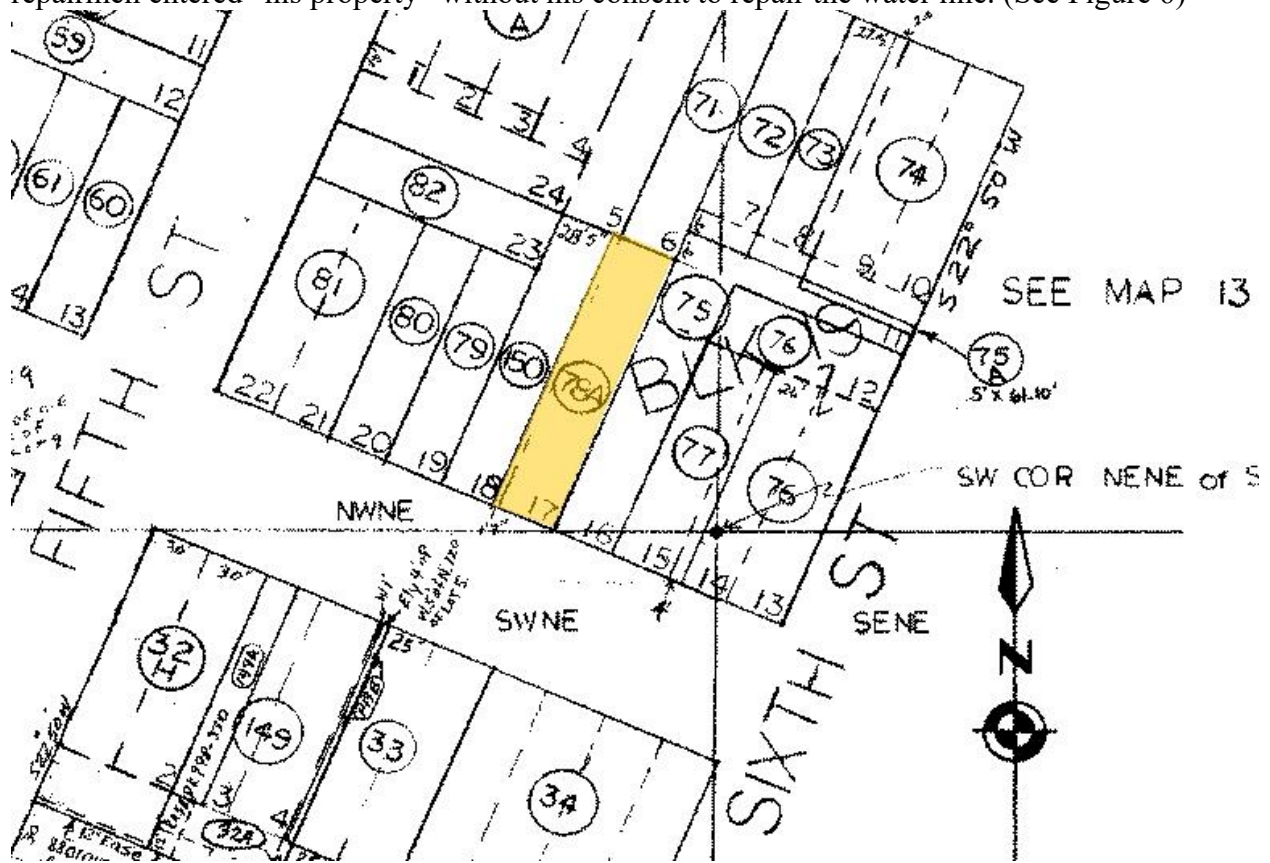


Figure 6  
Cochise County Tax Parcel Map

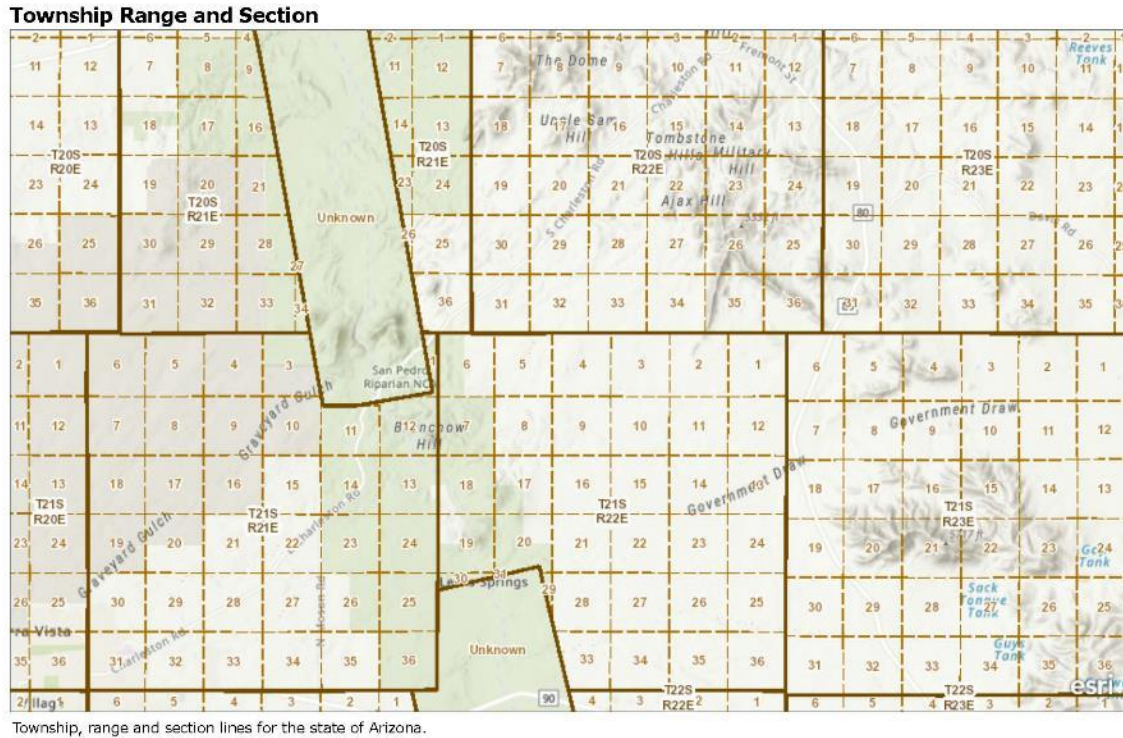
This does not provide legal descriptions; it references the location of a county record concerning the property

The third way to legally describe land by reference to “township and range.” This relies on a government survey. The point of beginning for most of Arizona is the Gila and Salt River Baseline and Meridian (GSRBM). The meridian was set as a north-south running line passing through the confluence of the Gila and Salt Rivers in Avondale near Phoenix. The baseline is an east-west line running through the same point. It coincides with Baseline Road which you may have crossed on

I-10 in Tempe. Townships are six miles on a side. They are counted off north and south, east and west from that initial baseline and meridian. Tombstone is in Township 20 South Range 22 East (T20S R22E). (See Figure 7) The blank areas on the map are Mexican Land Grants which have to be surveyed differently. Parts of the Navajo Reservation cannot be described by Township and Range. This system of survey and description made it possible for settlers to claim possession of Homesteads of 160 acres, a quarter section.

ArcGIS - Township Range and Section

<https://www.arcgis.com/home/webmap/print.html>



Esri, NASA, NGA, USGS | Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA

1 of 1

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Figure 7

Note Tombstone in T20S R22E, the Boquillas Land Grant now the basis for the San Pedro Riparian National Conservation Area (SPRNCA), and Ajax Hill

Starting in 1850, the homestead acts made it possible for settlers to lay claim to a quarter section of land, 160 acres, ½ mile on a side. In order to get a patent, a government deed, they had to make improvements to the property each year for five years and record these improvements with the government. Old maps will show houses at half-mile intervals and property lines drawn a half-mile apart. Squatters, attempting to claim land that had not yet been divided into sections, stuck to the ½ mile pattern, a quarter section. In 1879, squatters laid claim to the land along the San Pedro River from the Narrows near Terranate north to California Crossing, each setting out a ½-mile square for himself. A 10-acre parcel of land might legally be described as SW1/4 of SE1/4 of SE1/4 of S2 T20S R22E. That is to say the southwest quarter of the southeast quarter of the southeast quarter of section 2 of township 20 south range 22 east. If Figure 8 shows Section 2 of Township 20 south Range 22 east, then the parcel just described is the 10 second from the right at

the bottom. (See Figure 8, labeled Figure 3) Government surveyors have surveyed the land and placed brass markers at the four corners of each section. 160 acres, a quarter section was allowed as a homestead. The land can also be described as halves and quarters north and south.

Settlers in the old west had reasonably accurate means of measuring land. One of the more common was to measure the circumference of a wagon wheel. A flag was attached to one of the spokes and as the wagon moved, the number of times the flag passed by were counted. The number counted times the circumference gave horizontal or road distance. There was a device called a viameter that would make the count for you, but not everyone had one, though all had a kerchief that could be used as a flag.



# **The Relevance of Cultural Anthropology and Historical Archaeology to History**

By Doug Hocking

While in graduate school, I read an article by Mark Harlan, “Historians and Archaeologists: Proposals for Connecting in a Common Past.” It was important, interesting, and worth consideration, but a reply from historians needs to be written. Archaeology is one of the branches of anthropology, the others being linguistics, social/cultural anthropology, and physical anthropology (the study of human ancestry). Harlan congratulated the archaeologists for correctly approaching the relationship between the disciplines but didn’t seem to find many historians that were getting it right. He was critical of the emphasis on primary sources. He seemed to think that we should accept what had already been published in peer reviewed sources.<sup>1</sup>

No science, and archaeology seeks to be one, builds on peer reviewed published sources despite a firmly established mythology that claims it is so. Theory, and all science is theory, is acceptable until disproven. That is not as simple or wide open as it may at first sound. Theory must be stated in such a way that it can be disproven. Much of what passes for theory, and archaeological theory is not exception, does not pass muster. Writers pile evidence upon evidence supporting their position as if the overwhelming bulk of supporting evidence somehow constituted proof. Proof and proven theory are unknown to science. Science advances by disproving what went before. Acceptance of “settled science” is a myth. More on this below.

History is a humanity, but the idea of generating testable theory may still be useful as a counter to the idea of stacking “proof” on “proof.” This stacking up evidence on evidence, proof on proof, is dangerous. If early in our study we form a “theory” (one that is not stated in such a manner as to be disprovable and thus isn’t really theory), the danger is that we will seek evidence that supports our position, and consciously or unconsciously, ignoring facts that don’t fit. This is called cherry picking.

Getting back to Mark Harlan’s point, in history, the historian goes back to primary sources to escape the tendency toward artifacting, that is, making up “facts” to fill voids that don’t seem to make sense in the published record or conflicts in the record of primary accounts. A primary account is one written by someone who was there. Newspapers, usually, and history books and articles are secondary sources. Read through the primary accounts and then the secondary and you’ll find numerous “facts” that don’t appear in the primary record. That such facts may be coming from a leader in the field, a renowned historian, does not make them “facts,” nor does it make them any more real. They may add to our understanding, but they may equally confuse us and only the primary sources can direct us to the difference between something from the record and something suggested to fill a void.

As an historian, one comes to know that change is the one constant. Archaeologists once assumed that the amount of radioactive Carbon 14 in the air was constant and that therefore plants and animals absorbed it at a constant rate from the air while they were alive and stopped absorbing once they were dead. Since the rate of radioactive decay is thought to be constant, they could judge

the date of death, when plants and animals stop absorbing C-14, of biological remains and thus derive how old they were. Setting aside that other biologicals may have feasted on the remains and left intrusive material, we have in recent years learned that the amount of C-14 in the air is not constant. Climate is not constant. Climate change is. We tend to assume that the weather we have known in the past few years is as it always was and hence we have the intellectual construct “climate.”

*Ecclesiastes 1:9-11. What has been is what will be, and what has been done is what will be done. There is nothing new under the sun. 10. Who will speak and say, see, this is new? For it has already been in the ages that have passed before us. 11. There is no remembrance of former things, and indeed, there shall be no remembrance of later things by the things that will come after that.*

We want the world to be constant. We expect the lights to come on when we flip the switch because they did the last time we flipped it. It’s comforting. It makes the world predictable. And so, in looking at historical events our mind invents anachronisms, ideas and items out of place in time. The dictionary says:

***Definition of anachronism***

*1 : an error in chronology especially : a [chronological](#) misplacing of persons, events, objects, or customs in regard to each other found several anachronisms in the movie*

*2 : a person or a thing that is chronologically out of place especially : one from a former age that is [incongruous](#) in the present*

*3 : the state or condition of being chronologically out of place <sup>2</sup>*

It is a reality for the historian that our minds unconsciously create anachronisms. The way around it is to know one’s time period in both depth and breadth. What tools were available? How did they function? How did people do business, conduct themselves? What was going on in the world around? How did people understand their world, what was their “reality?” As Robin Williams once said, in jest, but could have said in truth, “Reality, what a concept!” We weed out the accidental inclusions and anachronisms by looking at the primary record.

History has historically been defined as the written record from more than fifty years ago. Fifty years is arbitrary but it gives us distance to reflect calmly on the past. Oral history is thus a contradiction in terms, an oxymoron:

***Definition of oxymoron***

*: a combination of [contradictory](#) or incongruous words (such as cruel kindness) broadly : something (such as a concept) that is made up of contradictory or incongruous elements<sup>3</sup>*

If you have ever played the game *Telephone* you have watched change creep in unintentionally. It makes the game fun but is less fun when reading history. In *Telephone*, the message is always garbled by the time it reaches the end of the line. There are traditions that value memory as an art in recording history. The Freemasons are one such. The *Work* is carefully memorized, transmitted from one Brother Mason to another so that he may advance in the *Craft*. It is repeated in front of the entire Lodge to ensure that the new Brother has it right. Nonetheless, there are distinct

differences in the Work between jurisdictions who all believe they are practicing the same received tradition. Jicarilla Apache, Casa Maria, gives an account of the Battle of Adobe Walls that is barely recognizable when compared to the written accounts:

*It was at Cimarron also that they started off with Gidi (Kit Carson) after the enemy. There were Ute, Apache, soldiers, and Mexicans. Four different nations went with him after the enemy. They went down the Canadian River to HweLdibade (Mexican name?) where they found the enemy. There were many tipis there. At evening, when they were approaching the camp of the enemy, men were sent out to observe. There their camp was lying some way off. The party moved on until nearly day when they saw the campfires. The horsemen, leaving the others, rode forward. There were two camps of the enemy, one above the other. All the Apache rode together and commenced to fight. They drove them from the upper camp and pursued them to the lower camp where they fought with them. Taking away their horses they fought with them until night. Many of the soldiers were killed. One Apache was killed and one was wounded in the foot. A spent ball entered his foot but did not pass through it. Another Apache received an arrow under his arm through his clothing. Many of the enemy were killed and all their tents and goods were brought home on wagons. The enemy drove them away from their lower camp. The came back to Cimarron where they danced until they were tired.<sup>4</sup>*

The Jicarilla no longer remember that they called Kit “Our Gidi.” Some difference occurred because different things were important to Casa Maria than are to us. But his account was recorded less than 50 years after the November 1864 event.

This is something worth remembering when reading primary accounts. Different observers have different points of view and recall those facts that seem important to them. We also know that memory fades so that accounts written years later may have many unintentional errors. Reporters may also be self-serving giving an account favorable to themselves. With many 19<sup>th</sup> century accounts we find that the writer was encouraged to write a version that would sell books and tell future readers just how wild the Wild West was. Do not despair. Understand the writer and what he or she was trying to accomplish. Compare versions of the story. We can approximate the truth instead of giving in to outright lying, since we can’t know the truth, as some Post Modernists have done.

Those sent to make treaties with Indians often found themselves frustrated by the lack of notions of tribe and government. In *Wheel Boats on the Missouri: The Journals and Documents of the Atkinson-O’Fallon Expedition, 1824-26*, Jensen & Hutchins noted that:

“The commissioners at these treaty councils, like at most others, were frustrated by the lack of a single leader in each tribe who had authority to negotiate. The commissioners thought in terms of presidents and kings who could speak for the whole society, but among Indian tribes such a figurehead was extremely rare.”<sup>5</sup>

E.R. Leach proposed a solution of sorts in *Political Systems of Highland Burma: A Study of Kachin Social Structure*. In the lowlands of Burma there were dictatorial kings, Oriental despots, who had an almost absolute control over their subjects. The lowland people were rice farmers and rice

paddies take generations to develop. They must be leveled, and irrigated. The paddy is extremely valuable and not something one walks away from. The owner has heirs who work with him in hopes of inheritance. Primogeniture or some division between heirs is practiced.

The Kachin on the mountains, recognize two sorts of political systems, Gumsa and Gumlao. One is egalitarian and the other more hierarchical with a recognizable leader directing his people. Leach noticed that the type of government changed over time in the same village. The people practice slash and burn agriculture. Every few years they move on and prepare new fields leaving the old field fallow to grow new trees to be worked again someday. The Kachin practice ultimogeniture, the youngest son inherits. The elder sons wander away to clear new fields of their own. There is no point in awaiting an inheritance that will soon be abandoned. Leaders tend to ape the wealthy and powerful rulers in the valleys. It's the stylish thing to do and villages become more hierarchical over time as village headmen take on airs and assign themselves privileges. When they become too oppressive or annoying, people wander away from them to clear new fields. The loss of property is minimal.<sup>6</sup> And thus, the hierarchical moves to the egalitarian and vice versa.

Among the Apache we see something similar. The only property worth inheriting belonged to women. That was the rights to collect vegetable foods at certain locations. The writer observed this among the Jicarilla Apache. Certain women claimed the right to collect choke cherries at a particular stand and everyone else respected this. The eldest daughter would inherit the mother's campsite at Go-jii-ya, the annual fall festival. In consequence, like the leaders of Highland Burma, Apache chiefs had minimal authority. If they became oppressive, it was no large economic loss to move away. In the Mormon society of Utah in the 1850s, the church through the theodemocracy claimed ownership to all the land while people had use of it for a time. Read the autobiography of John D. Lee who appears to have been expert at creating new farms. Every time he got one up and running, the church, through Brigham Young, would take possession and direct him to pioneer somewhere else.<sup>7</sup> Likewise, Will Bagley points to the power of the church through ownership of the land. People wishing to leave Deseret and the church left with nothing including the means to make the trip.<sup>8</sup>

There are lessons here to be learned about American Indians. The Apache were matrilineal as a rule often violated in practice. The only property worth inheriting was from the mother. The woman held as her possession certain collecting sites for roots, berries, and other plant foods. This possession was respected by other women who did not trespass. Younger daughters were apt to inherit through aunts and other female relatives who lacked female children of their own. The elder woman's husband was likely to be the chief. If he was not wise, fair, and even-handed, it was a relatively easy thing to walk away and join another band. The inheritance was small and easy to give up.<sup>9</sup>

Primogeniture means that the eldest child inherits as opposed to ultimogeniture where the youngest inherits. It preserves property intact between generations. It is typical of societies where the ruling class is made up of outsiders claiming some right or basis to rule based on their birth. In 1066, the Normans under William the Conqueror invaded England and imposed a French ruling class on the English. The ruling families of Europe intermarried many of them claiming descent from Charlemagne.

The Roman Empire was originally ruled by a senate elected by the citizens. As Rome became an empire, Roman citizens were a class above everyone else. The senate and emperor provided the people with “bread and circuses” on money raised by taxation. Senators were able to protect themselves from taxes and the lowest classes didn’t pay them. The burden fell on the middle class, the shopkeeper, artisan, and small farmer. Eventually, unable to pay the ever higher taxes, the middle class turned to the great plantations of the upper class and rather than face prison or slavery for failure to pay taxes, turned their land and themselves over to the upper classes becoming serfs. It became paramount to preserve the large landholdings, the estates, in order to preserve the influence that warded off taxes. Here was another route to primogeniture.

This was so ingrained in European thinking that they saw it everywhere, even where it didn’t exist. American Indian communities, especially the mobile groups, were essentially egalitarian and leadership was based on networking, influence, favors, and success in war. No one had to put up with a leader they didn’t like or respect. Leaving to form a new band was too easy. In the 19<sup>th</sup> century the Cheyenne split from the Arapaho and the Northern and Southern Cheyenne separated. Somewhat earlier the Arapaho speaking Gros Ventres became associated with the Blackfoot and although they didn’t speak the same language were considered to be Blackfoot.

Europeans, including American military and civilian leaders found it convenient to deal with authoritative political leaders, like kings and presidents, who could speak for their nation. And so, they saw nations and tribes where no political affinity existed other than temporary alliances, trading and intermarrying. Roger Nichols pointed to this in *Massacring Indians*:

“The 1851 Treaty of Fort Laramie or Horse Creek illustrated the gulf separating American and Indian desires and realities. According to the 1831 *Cherokee v. Georgia* ruling by the Supreme Court, Indian tribes were considered to be “domestic dependent nations.” This meant that each tribe had to be considered a unified group rather than a mere collection of villages, clans, and bands that usually operated independently. Therefore, in order to negotiate agreements U.S. officials needed to have a head chief for each tribe. Repeatedly they tried to persuade each group to recognize one chief so that officials could pressure him to get his followers to obey the treaty.”<sup>10</sup>

If a chief passed away, it was easy and convenient to assume that primogeniture would make his son the next chief even when the evidence was plain in front of them. When Cochise lay dying he asked Tom Jeffords to remain as Indian Agent for the Chiricahua. Jeffords told him that his people would not listen to him as agent. So, Cochise called together his sub-chiefs, that is to say, those over whom he had influence, and got them to agree that Taza, his son, would be the next chief. Taza would listen to Jeffords. If the chieftainship had passed automatically through primogeniture, it would have been unnecessary to get his followers to agree. Certainly, a chief’s son had a leg up toward becoming the next chief, but it wasn’t automatic.<sup>11</sup>

When Taza passed away, the military and the Indian service found it convenient to assume that Naiche would be the next chief. To have done otherwise would have been inconvenient. There would have been a period of confusion while new alliances formed and the resulting chief might while have been a malcontent, like Geronimo, never a chief, but “recognized” as a leader by Americans, if not Apache, because at councils he complained loudly and often.

Concerning anthropology, I won't attempt to fully endnote what I'm about to say. After 40 years separation from graduate school in social/cultural anthropology and a thousand texts read then and since, I'd have no idea where to begin to look for citation. Accepting the following then as my informed opinions and grade them on the soundness of my logic. Most historians of the frontier west will at some point draw upon references to anthropology or as it was once known, ethnology.

Ethnology is a term prevalent in the 19<sup>th</sup> century for the observation and recording of the activities of a society other than that of the observer. With the buffalo gone and Indians confined to reservations, the opportunity to observe fully functional Native American societies diminished. Anthropologists now work with informants who explain their culture to the researcher. Unfortunately, much of the information now received is an idealized version corrupted by movies, TV, and books. The observers came to think of themselves as cultural anthropologists. Culture is the sum of all learned behaviors.

Language is an important part of culture. If we accept the Sapir-Whorf Hypothesis, peoples' minds are partially bound by their language. The original observation came from "empty" gasoline containers exploding when workers lit matches to see if the containers were really empty. It's easy to make mistakes based on what language suggests and sometimes difficult to deal across languages. The boundaries of color vary from language to language with things that are "green" in one being "blue" in another. Plant and animal species vary as well. In Chinese, squirrels are a kind of rat, "tree rat." We can have great fun with people who tell us that the Bible is wrong because the whale isn't a fish. The Bible says, in Hebrew, that "God prepared a great fish." It doesn't say whale. More to the point, until Linnaeus wrote about species in the late 18<sup>th</sup> century, we all would have recognized the whale as a fish.

The cultural anthropologist lives amongst the people he studies and attempts to learn their language and culture. Usually, this is facilitated by a native informant who teaches and instructs the anthropologist. There are all sorts of problems with this. How well could you sum up your own culture? We have specialists who write our laws with precision and judges who cannot agree on what the writing means. We have priests who study our religion and claim to know its meaning. Do they agree with one another even when they claim to be representing the same religion? If the experts can't do it with precision, we can only expect something much less accurate from the layman or the informant. The native informant is often someone on the fringe of his society and thus prone to seek out a non-native confidant. Such informants aren't average folk. The student of anthropology having heard what the native informant had to say must attempt to translate this to his own understanding and language.

I recall attending an Apache ceremony after reading about it in the work of a respected anthropologist. I mentioned to native friends what I thought was coming next and they were surprised responding, "Maybe in some families." They were conscious of variations in their own culture that went beyond changes that may have occurred over time since the account was written. Change and not stasis, is the norm. In societies without writing to record and set a standard of sorts this variation may be extreme. In Western civilization we have trained priests and ministers to tell us the nature of our religion and even they cannot agree on what their most sacred text says, let alone means.

Seeking to be scientific, anthropologists adopted the name social anthropology and attempted to adapt the scientific method to their studies while retaining their cultural heritage. This approach tends to be a bit schizophrenic and I suffered in a deeply divided department that failed to produce graduates. At least some of the methods adopted came from sociology which relies heavily on statistics. A statistical approach may be difficult to apply in a small community with an unwritten language.

One tool of sociology is the questionnaire or survey. Eugene Webb in *Unobtrusive Measures*<sup>12</sup> showed the survey questionnaire to be almost completely useless. Physics refers to Heisenberg's uncertainty principle which says in part that the more we know about a particle's speed, the less we know about its location. Put another way, the observer effects the object observed. In putting together a survey, how we phrase the question will affect the answers we get. Among other things there is a tendency for those questioned to supply the answer they think the questioner wants or that "their group" will agree with. Webb advocates study of the record of events in which the observer did not participate.

Another tool of sociology is statistics. Observation suggests that very few people actually know how to employ them. It is a valuable tool but it requires truly random samples. Ask men on death row if the death penalty deterred them from the crime and the answer is obvious, it didn't. Does that mean that the death penalty has no deterrent effect? The sample is not random. This is one of the most common errors. Some folks like to say you can make statistics say anything you want them to. It's not so, not if the reader understands. Another common error involves correlation.

#### **Definition of *correlation***

1 : the state or relation of being correlated specifically : a relation existing between phenomena or things or between mathematical or statistical variables which tend to vary, be associated, or occur together in a way not expected on the basis of chance alone.<sup>13</sup>

Correlation is not causation. There is a 100% correlation between everyone who was ever hung, being hung on a day when the sun came up in the east. The sun coming up in the east did not cause a person to be hung. There is a very high correlation between people who have died and those who have drunk di-hydrogen oxide. Drinking water was probably not the reason they died. To use correlation correctly, one needs a testable theory that predicts a particular degree or range of correlation.

The social anthropologist and the archaeologist seek to be scientific in their thinking and writing. For the archaeologist, this often means precise measurement and using scientific. We will find them taking precise measurements of how deeply a petroglyph is incised without considering the centuries of weathering that have occurred. Measurement for its own sake is not science. Archaeology brilliantly employs scientific tools developed in other fields, such as carbon-14 dating, as well as tools developed within the field, such as dendrochronology. The field often falls down were it comes to theorizing scientifically about its finds.

There are two schools of theorizing about rock art, that is, petroglyphs and rock painting. In the American southwest, archaeologists have noted that members of multiple different tribes will

claim to be the originators of particular examples of rock art. They will claim the ability to interpret the message in the art. The interpretations will be vastly different from group to group. In response, what I will call the nihilist school refuses to interpret the meaning of the art. They refuse to describe the item displayed as insect, plant, person, or animal. If they accept the art as, for instance, an insect, they may, they believe, exclude or fail to record portions of the art that aren't insect like. This is not necessarily a bad thing. Imagination may help us see things that aren't there and exclude things that are. At the same time, this approach may lead the researcher to fail to see the connections between things. The result is not very pleasing or interesting.

The other group interprets what they see assigning the art to various traditions and tribes while accepting their explanation of meaning. Among those who assign meaning is Polly Schaafsma in works like *Warrior, Shield and Star: Imagery and Ideology of Pueblo Warfare*.<sup>14</sup> Imagine seeing an inscription in Cyrillic. You'd recognize many of the characters while some of them just looked wrong. Expose the inscription to someone who can read ancient Phoenician, Greek, Russian, or runes. All of them would recognize some of the characters and though they might not be able to read the message unless they are speakers of the original language. Southwest rock art is more like Egyptian hieroglyphics or Chinese characters. These are not alphabets where the characters have phonetic values. In Chinese, each character has its own meaning. Although there are over 400 mutually unintelligible languages spoken by the Chinese, all of them can read the characters and derive the same meaning while giving entirely different sounds to them. The Japanese use Chinese characters although their language is very different and require inflection, word endings, to define subject, verb, object and so on. Also the Japanese may use a Chinese character for its Chinese meaning giving it a Japanese sound, or may use it with Chinese sound and meaning, or may use it for its Chinese sound with a Japanese meaning. This is more like what we experience between tribal interpretations of rock art in the southwest.

On the numerous occasions when this author has worked on archaeological projects, the archaeologists have been all too willing to speculate and assign meaning. They encourage students to start "theorizing" about the nature of the artifacts they are recovering. What is it? What was it used for? What does it mean? David Macaulay did a wonderful send up of such speculations in his book *Motel of the Mysteries*.<sup>15</sup> Everything that was not immediately understood or recognized was assign religious significance. Creating theories that are not testable is dangerous. In creating an early conclusion, the researcher tends to seek out support for his theory stacking evidence upon evidence. "Extraordinary theories require extraordinary evidence." Not really. What they require is testing. Unfortunately, this approach tends to blind the researcher to other possibilities and to lead to "cherry picking" evidence, intentionally or unconsciously. The research looks for those things that support his theory.

The philosophy of science is a way of knowing, a way to selecting the best theory. It has four principle tenets.

1. Theory must be stated logically in such a way that it can be tested.
2. The result of the test must be empirical, that is, all of us must be able to observe it.
3. The test must be repeatable.
4. Occam's Razor states that if two theories equally account for all the facts, select the most elegant. Some folks would say simple instead of elegant.



Elegance is a little different. It means the theory with the fewer adjustments, exceptions, and complications. Remember that until we got off planet and were able to test our theory, the heliocentric universe and the terra-centric universe equally accounted for all the facts, but the math behind the later was extremely complicated.

Implied in tenet one is that theories that are logical and account for the evidence are valid until they fail testing. This goes directly against the idea of stacking evidence and of building on what came before. When the theory fails testing it is swept away and replaced. We no longer accept Einstein's model of the universe. It has been swept away by quantum mechanics. This is not to say that it didn't lead to some very valuable developments but that is actually a rarity. More often science is left trying to explain why engineers have done things they thought were impossible.

History is not a science; it is a humanity. Tenet three causes us grief. We can't repeat the test, we can't repeat history, Star Trek's multiple universes and time travel aside. But we might do well to practice the other tenets. Occam's Razor and empirical evidence seem natural. Also helpful is the idea of stating our theories logically and testably. If we cannot repeat history, how can we test? We can test by asking ourselves what else must be true for our theory to hold up and what would disprove it. We can look into all the places an event should have been recorded.

The difference between science and magic is that in science if the theory fails the test, we reject the theory. In magic, if the theory fails the test, we reject the test. It sounds funny but look around and you'll see this magical approach everywhere. Testing is the heart of science and should be for history as well. The historian is constantly confronted with multiple versions of the story and needs a way to select between them. In proposing his version, the historian can ask what would prove his version wrong and then search for that evidence. He or she can ask what evidence should be there and suggest that our version is wrong if we cannot find it.

Recently the author was asked to review Jan Cleere's new tome *Military Wives in Arizona Territory: A History of Women Who Shaped the Frontier*.<sup>16</sup> I enjoyed it and highly recommend it. In one account, an officer's lady mentions her husband having fought in a battle with which I'm quite familiar. There were only three officers involved and I don't recall his name as one of them. It might be my memory or he might have been involved more peripherally. I'll have to check. Later, the woman writes about passing through a dangerous pass where most of her military escort were killed. The remaining members of the party left the bodies of the dead soldiers on the ground and continued on. This seems very unlike the military and Apache that I know. The latter would have finished the job. I don't recall this pass being the scene of many Apache attacks or being particularly dangerous. When I have a moment, there are records that can be checked. The incident would have been reported in the newspapers as it happened near Tucson as well as in military records since soldiers died. If these are missing, this one particular story may be a fabrication. Do not criticize Ms. Cleere, who may have been taken in by this one story. I'm still testing and have not yet had time to check all of the sources.

How should historians regard archaeology? Mark Harlan's article provided many examples of how historical archaeologists were, in his opinion, correctly employing history to inform historical archaeology. He is less congratulatory of historians properly using archaeology correctly. Historical archaeology is, as the name implies, archaeology conducted on sites that are known

from history. In the American southwest this begins after the Spanish *entrada*. Archaeology tends to think of the short term as periods of 50 years. Given their tools, it is difficult for the archaeologist to look at shorter periods. Battlefield archaeology is an exception to this. Utilizing some rather broad assumptions, the battlefield archaeologist attempts to give us an hour by hour account of battle. It is interesting and can be useful.

The Battle of Cieneguilla was fought in March of 1854 in Agua Caliente Canyon, New Mexico, south of Taos. There are two very different historical accounts of the battle. Lieutenant John Davidson claimed that he and his 60 dragoons were ambushed by 300 Jicarilla Apache warriors. Realizing that the Jicarilla tribe could not produce 300 warriors, he invented some Ute to fight as allies. He emerged from the battle with 22 dead and 34 wounded down to his last four rounds when the Jicarilla broke contact having lost 100 warriors. Lieutenant David Bell, who wasn't there, but who spoke to soldiers who were, pointed out that Davidson had violated orders attacking a peaceful Jicarilla camp of no more than 107 warriors and that the Jicarilla lost no more than 2 warriors. Davidson's use of ground was incompetent and during the attack, according to Bell, he lost his nerve and called out, "Mount and save yourselves!" Davidson claimed the battle went on all day, while Bell said it could not have lasted more than an hour before ammunition would have been exhausted. David Johnson wrote two accounts of the battle.<sup>17</sup> In one, he said the evidence on the ground supported Bell's version of events in the size of the Jicarilla force, based on the size of the camp, and the lack of evidence of Jicarilla dead. In the second, he was more supportive of Davidson's position.

Johnson found the spot where the battle occurred. He was able to trace the flow of the battle down the steep canyon side, across the floor, up the other side and along the ridge to the Rio Grande. He was able to show that the force remained disciplined during the fight, suggesting that Davidson remained in control. This does not rule out the possibility that he panicked briefly. He was able to show that Davidson violated his orders by attacking the camp; he was not "ambushed" until after he attacked the camp. He'd left behind a quarter of his command near the canyon bottom, the horse holders. Only after he entered the empty Jicarilla camp did the horse holders cry out that the Jicarilla were stealing the horses. Charging back down into the canyon, Davidson sprang the "ambush." The archaeology does not totally support the veracity of either Davidson's account or Bell's. It does tell us about the flow of the battle and its ferocity.

Finding a pile of rock in the desert, we may suspect a grave. The archaeologist may be able to use ground penetrating radar to suggest that the ground has been disturbed in a shape resembling a grave. And he may not, for the ground has to be very flat, not a mound of rocks, in order for the radar to function properly. If a grave is suspected, the historian, not the archaeologist is likely to have the records to show who was buried there. The historian has the photographic records that show that the rocks were piled, dispersed, and restacked and that the grave was robbed and the bones taken away. More often than not, the archaeologist can see no more than a pile of rocks that may resemble a grave.

The archaeologist tends to claim that he is scientific and therefore his knowledge is superior to that of the historian. His tools are often cutting edge scientific implements, but his theory building all too often results in unscientific, untestable theories. Where his theories are true testable theories they are of value and should be respected, but the test lies in their testability.

Why then does Harlan find that many historical archaeologists are “doing it correctly” while he has trouble locating historians that are using archaeology correctly? Perhaps he places over much trust in archaeology. After all, archaeology is a “science” while history is only a humanity. It is true that archaeology makes use of scientific tools, but it is weak on higher level theory formation; the historian may actually be better at it. The archaeologist is limited, usually to time frames of 50 years and more, which are of little use to the historian in most cases. The archaeologist should recognize his total dependance on the historian for context. The historian knows what language the people spoke and what use they made of tools. The archaeologist may be able to tell us that the ground has been disturbed in a shape approximating a grave but can’t begin to tell us who is buried there.

I am reminded of a writer using the archaeological evidence who proclaimed the story of Joseph in the Bible being sold to traders of a camel caravan by his brothers could not possibly have occurred as early as the Bible story implied because camels were not domesticated until 900 years later. First, negative evidence is not evidence. Because it has not yet been found, does not mean it is not there waiting to be found. Second, by analysis of bones archaeologists claim to be able to distinguish domesticated from wild camels. This much, this distinction, is based on sound scientific theory seemingly yet to be disproved. The archaeologist now applies this scientific theory to a second level, but here he overlooks the need for a disprovable statement of theory. One has to wonder; how long does it take for the bones of recently domesticated wild camels to change so that they appear to be domesticated? For some time, wild and domestic camels must have lived side by side and there must have been interbreeding. Wild camels must have been frequently captured and added to domestic herds. The mixing of domestic and wild stock must have continued through a very long period. Do the keepers of records, historian among them, often include anachronistic elements? Of course, they do. Might someone hearing the story of Joseph being sold off to traders in a caravan have assumed there were camels because there would have been camels when he wrote? Of course. At the same time, negative evidence is not conclusive that this has occurred. All too often the archaeologist is working with untestable supposition while claiming it is scientifically proven.

By culture, the archaeologist means physical culture, in a word, artifacts, things made by man. When involved in prehistoric archaeology, he is forced to ignore language, thought, and religion although frequently inferring these from artifacts. If the use of a tool is not understood, it must have religious significance. The social anthropologist takes a much broader view of the meaning of culture. Unfortunately, he tends to look down on the people he is studying, the objects of his scientific inquiry, branding them as primitive and culture bound unable to act intelligently surpassing his culture as he, the archaeologist, is able. Culture is a weak explanation for the human behavior we do not understand. Saying that is their culture is simply saying that we do not understand.

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<sup>1</sup> Harlan, Mark E. “Historians and Archaeologists: Proposals for Connection in a Common Past,” *New Mexico Historical Review*, 82/4 (Fall 2007): 501-540.

<sup>2</sup> <https://www.merriam-webster.com/dictionary/anachronism>

<sup>3</sup> <https://www.merriam-webster.com/dictionary/oxymoron>

<sup>4</sup> Goddard, Pliny Earle. *Jicarilla Apache Texts*. Charleston: Bibliobazaar, 2008, 135. This is a reprint of Goddard’s work originally recorded before 1910.

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- <sup>5</sup> Jensen, Richard E., and James S. Hutchins. *Wheel Boats on the Missouri: The Journals and Documents of the Atkinson-O'Fallon Expedition, 1824-1826*. Helena, Montana: Montana Historical Society Press and Nebraska State Historical Society, 2001.
- <sup>6</sup> Leach, E.R. *Political Systems of Highland Burma: A Study of Kachin Social Structure*. London: University of London, 1970.
- <sup>7</sup> Lee, John Doyle. *The Mormon Menace: The Confessions of John Doyle Lee, Danite*. Binghamton: A.B. Nichols, 1905.
- <sup>8</sup> Bigler, David L. & Will Bagley. *The Mormon Rebellion: America's First Civil War 1857-1858*. Norman: University of Oklahoma Press, 2012.
- <sup>9</sup> Personal observation growing up among the Jicarilla Apache. Advanced training in social anthropology taught me to appreciate what I had observed.
- <sup>10</sup> Nichols, Roger L. *Massacring Indians: From Horseshoe Bend to Wounded Knee*. Norman: University of Oklahoma Press, 2021, p 47.
- <sup>11</sup> Hocking, Doug. *Tom Jeffords, Friend of Cochise*. Guilford: TwoDot, 2017.
- <sup>12</sup> Webb, Eugene J. *Unobtrusive Measures*. New York: Rand McNally and Company, 1968.
- <sup>13</sup> <https://www.merriam-webster.com/dictionary/correlation>
- <sup>14</sup> Schaafsma, Polly. *Warrior, Shield and Star: Imagery and Ideology of Pueblo Warfare*. Santa Fe: Western Edge Press, 2000.
- <sup>15</sup> Macaulay, David. *Motel of the Mysteries*. New York: Houghton Mifflin, 1979.
- <sup>16</sup> Cleere, Jan. *Military Wives in Arizona Territory: A History of Women Who Shaped the Frontier*. Guilford: TwoDot, 2021.
- <sup>17</sup> Scott, Douglas, & Lawrence Babits. *Fields of Conflict: Battlefield Archaeology from the Roman Empire to the Korean War*. Lincoln: Potomac Books, Inc., 2009. Johnson, David M. "Apache Victory Against the U.S. Dragoons, the Battle of Cieneguilla, New Mexico," *Fields of Conflict: Battlefield Archaeology from the Roman Empire to the Korean War*. Lincoln: Potomac Books, Inc., 2009. Johnson, David M. & Chris Adams. *Final Report on the Battle of Cieneguilla: A Jicarilla Apache Victory Over the U.S. Dragoons, March 30, 1854*. Santa Fe: Southwestern Region U.S. Forest Service, 2009.

## Book Reviews

Bell, Bob Boze. "Trapped! 31 Mexican Vaqueros Verses Geronimo," *True West Magazine*, January 2021.

This is a fascinating story about Geronimo being chased by 31 Mexican Vaqueros after the Apaches had butchered one of the rancher's cows in Sonora, Mexico. Geronimo was cornered in a box canyon with no way out, hiding in a cave. You will find "the rest of the story" in this article.

*Rosanna Baker*

Berg, Eric. "Socialites in the Saddle: The Chicago Cowgirls of the Muleshoe Ranch," *The Journal of Arizona History*, Winter 2015.

This is a story about Jessica Wakem from Chicago and how she became owner of the Mule Shoe Ranch. Her unusual life is written in a factual account of how she was with Chicago's social elite and incidents in her life that changed her direction for living out the last half of her life in Arizona. It is now run by the Nature Conservancy, the Forest Service and Bureau of Land Management. We have hiked at the Muleshoe Ranch a number of times and enjoyed the beautiful scenery. It is very enlightening to know the history and how it became a Conservancy.

*Rosanna Baker*

Sides, Hampton. *Blood and Thunder*. This is an epic story of Kit Carson and the conquest of the American West beginning in 1846 with American soldiers arriving in Santa Fe and ending at the Battle of Adobe Walls in 1864. You will read about how Kit Carson was involved in all of this including his life from birth to death-1809-1868. Los Angeles Times wrote that this book was a Masterpiece.

*Rosanna Baker*

"The Luck of the Irish." *True West*, April 2021. Includes an article that tells about Bob Paul, sheriff of Pima County, Arizona Territory, capturing the killers of the notorious Irish gun fighter James Leavy. A 1903 photo of one of the killers, a professional gambler, Johnny Murphy, dealing Faro with others in the Orient Saloon in Bisbee which is now Cafe Roka. Cyrus Noble Whisky used this photograph for an advertising campaign and helped to make the image an icon of the American West.

*Rosanna Baker*

Fried, Stephen. *Appetite for America: Fred Harvey and the Business of Civilizing the Wild West—One Meal at a Time*. This is a fascinating history about the life of Fred Harvey and how he was a key figure in the process of revolutionizing American dining and service. You will read about his early years as a Railroad Warrior and his many jobs and experiences which led to the famous development of eating houses and hotels along the way through the West. You can still experience some of these places today in your travels across America.

*Rosanna Baker*

Naylor, Roger. *Arizona—Kicks on Route 66*. After reading about Fred Harvey this is a great follow-on. Roger Naylor mentions that Fred Harvey did more to civilize the West than anyone with a six-shooter. The best-known Harvey Houses are El Tovar and Bright Angel Lodge at the Grand Canyon, as well as, La Posada, in Winslow. This latter was the most spectacular of them all.

Harvey's chief architect, Mary Colter, based the design on the great haciendas of the Southwest. This is a great place to stay in Winslow while traveling on Route 66. Do not pass up the Meteor Crater 18 miles west of Winslow. There is a guided tour of the crater and history museum available.

*Rosanna Baker*

Randall, Kenneth A. *Only the Echoes-The Life of Howard Bass Cushing*

Second Lieutenant Howard Bass Cushing was in the Civil War and continued in service reporting to Fort Union, New Mexico in 1868. The Homestead Act of 1862 opened new lands for settlement so now there was a question of what to do with the warlike tribes. This book tells about his family and life as well as the Indian fight that occurred north of Camp Wallen where Lieutenant Cushing was felled by an Apache bullet.

*Rosanna Baker*

*True West* magazine, February/March 2021 has an interesting historical article about Bass Reeves who became a legendary U.S. Deputy Marshal. The information comes the closest to answering the question if *The Lone Ranger* was based on the life of Bass Reeves.

*Rosanna Baker*

Hocking, Doug. *Terror on the Santa Fe Trail*, Two Dot 2019

Award winning author, Doug Hocking is a must read and contributes a wealth of knowledge about the trail concerning the Jicarilla Apache and Kit Carson. This book can be bought directly from Doug Hocking or online from Amazon.

*Rosanna Baker*

Pattie, James Ohio. *The Personal Narrative of James O. Pattie*. Narrative Press 2001.

The *Narrative* was first published in 1831. This narrative will take you back many years along the Santa Fe Trail and beyond. Pattie was a mountain man, trapping for furs, encountering the Indian tribes and maybe the first one to see some of the landscapes such as the Grand Canyon. He is one lucky mountain man to be able to live long enough to tell his story.

*Rosanna Baker*

Dary, David. *The Santa Fe Trail: Its History Legends and Lore*

David Dary tells the history the comprehensive history of this great commercial trail traveled many times between Missouri and New Mexico. You will read about many experiences along the way as well as how this played a part in the development of the West.

*Rosanna Baker*

Cleere, Jan. *Military Wives in Arizona: A History of Women Who Shaped the Frontier*. Two Dot 2021.

Excellent done with many long quotes from the ladies who were there. She introduces chapters with informative explanations of the background events that shaped lives. In at least one case, one of her ladies was stretching the truth to make an exciting tale. This is a constant threat in all late 19<sup>th</sup> century accounts that were written to "sell books" and thus come off a bit like the dime novel West. This one is likely to win the New Mexico-Arizona Book Awards for History.

*Doug Hocking*

Cavaliere, Bill. *The Chiricahua Apaches: A Concise History*. Rodeo, N.M.: ECO Herpetological Publishing, 2020

This easy-to-read history of the Chiricahua Wars includes a graphic account of almost every incident and battle. Remaining true to the history, the account is balanced showing the concerns of and suffering experienced by both sides. A friend of historian Ed Sweeney, Cavaliere reflects his respect for the Apache and their leaders especially those in the family of Cochise. While historians might fault the work for failing to expound at length on causes of conflict, this is a wonderful book for those with a casual interest in the Chiricahua and an excellent quick reference for the serious historian who needs to keep his timeline straight. There are many color photos of the land where these people lived as well as historic photos.

*Doug Hocking*