Areas to Explore

in the Desert

Collecting Tube Agate at Clapp Spring

Palo Verde Mountains, CA

by Delmer G. Ross

Clapp Spring is a permanent source of water set in a small oasis of fan palms and mesquite located in some low hills on the northeast flank of the Palo Verde Mountains. It lies approximately nine miles from the community of Palo Verde, California, and perhaps 10 miles west of the Colorado River, the eastern edge of the Colorado Desert. Overlooked on the south by some caves once used by Indians and set at the center of a web of converging animal trails, it is a captivating place.

The Clapp Spring oasis as it appeared in March 2001. The main pool is just beyond the thicket of young fan palms. Courtesy Joy Smith.

Reflecting the amount of rainfall during the preceding several years, the main pool at the spring varies from a few inches to five feet in diameter and from three to nine inches deep. It is located in the heart of the oasis, at the base of a palm. Except during and a few years after a serious drought, there may be several additional seeps and smaller pools of water in shallow holes dug by wild burros.

If rain in the surrounding desert has been average or above average during the last several years, it is not uncommon for the main pool to overflow

during the cool of the night. It thus creates a narrow rivulet of water that may extend one hundred yards or more downstream before disappearing into the sand, leaving a telltale pattern of white alkali during the heat of the day. The water then continues to flow under the dry surface.
Clapp Spring has not always been surrounded by California fan palms. The first one did not materialize until sometime after 1933, exactly when appears to be unknown. No doubt a bird, coyote, or perhaps some other animal stopped at the spring for a drink of water and deposited a seed that, assisted by the moist soil, germinated, grew, and eventually reproduced.
As might be expected, considering the game trails converging on the spring, one usually can find animal tracks in the moist sand around the pools of water. Coyote, mule deer and wild burro tracks are common, as are those of dove and quail. Mixed among them one can sometimes spot mountain lion tracks as well. Generally speaking, except for the gentle rustling of palm fronds in the breeze, all is quiet at the spring during daylight hours. Sometimes, though, wild animals can be seen approaching in the dusk between sundown and night. Wild horses used to water at Clapp Spring, too, but the last verified sighting of one was in the 1980s.

A beautiful 8-inch plate of tube agate collected in 1998 by Leo and Joy Smith.

It was wild horses that attracted two Blythe teenagers, Walter Scott and Everett McBride, to the spring in 1933. An elderly gentleman named McFee, who ran cattle in the area, had told young Walter about the spring and a herd of wild horses that watered there. The youngsters wanted to see for themselves, so they rode in on horseback. It was a very warm day, but

when they reached for their canteens they discovered they had left them behind. To make matters worse, they had a hard time locating the spring. Thus, when they finally arrived, the first thing they did was to slide off their horses, kneel at the near edge of the pool, push the floating horse and burro manure out of the way, and take a long drink of the tepid water. When they paused to take a breath, they discovered they were not alone. Two large diamondback rattlesnakes, coiled and ready to strike, were watching them from only a yard or so away at the opposite edge of the water hole. After shooting the snakes, the boys drank some more water. It was only after they had refreshed themselves thoroughly that they started looking for the horse herd. They found plenty of horse tracks, but no horses.
It was not until they were on their way back and had to heed the call of nature that Walter was reminded of what McFee had told him about how Clapp Spring had acquired its name. The old cattleman had told him that if anyone drank too much of the water, his urine would burn and foam just as if he had gonorrhea. The result was uncomfortable for both boys, at least for a time.

Leo Smith at the tube agate dig in early 2001.
Courtesy Joy Smith.

Scott returned several times, hoping to catch the horses that obviously watered at the spring. He eventually got to see them. It happened at night, after he had gone to sleep on a little flat a few yards from the main pool of water. He woke up hearing and even feeling thunder. His first thought was that it was all very strange, almost dreamlike, because it was the wrong

time of the year for rain. Then he realized that what he was hearing was the herd of wild horses approaching. Soon there were fifteen or more of them at the pool and lined up along the little stream that trickled out of it. They drank for quite some time, then, suddenly, in unison, they raised their heads as if they had heard something that alarmed them, and raced away as quickly as they had arrived. He prepared a trap for them, but they seemed to sense danger and were smart enough to avoid it. A few years afterward, though, someone else who had the same idea managed to catch several of them.

A decade or so later, when he was running livestock on the desert, Scott decided to try again. He built a corral of ironwood posts and barbed wire at the spring. With it he was able to catch many of the wild horses and burros that came for water there. The old rusty wire and rickety posts that can still be seen alongside, and in a little thicket of mesquites just east of the spring is all that remains of Scott's corral today.

The opalite dig north of Clapp Spring. The road on the left is no longer open to motorized travel. Courtesy Joy Smith.

While thundereggs, chalcedony roses, various kinds of jasper and agate, and quartz crystals can be found throughout the area, the main attraction for rockhounds at Clapp Spring is likely to be tube agate. Small pieces, often mistaken for limb casts, may be found scattered about the surrounding area. The way to reach the best tube agate, though, is to follow the old road leading in a westerly direction from the spring. It will go around the north end of a hill, then begin to climb steeply as it turns southward. At a point about midway between the bottom of the curve and the top of the hill, or maybe just a little higher, one can look westward and see two or three little ridges. There will be some old diggings visible on the second ridge west of

the old road. On the far side of that ridge – that is, on the side you cannot see from the road – are some holes from which several museum-quality specimens of tube agate were dug in 1998 and 1999. They are often found in plates up to eight inches across, with an assortment of tubes hanging on. In color the tubes range from a light tan to a fairly dark gray. Some look very much like miniature stalactites and stalagmites.

The tubes measure up to about three-sixteenths of an inch in diameter. Most are from one to three inches long, but a few have reached an amazing five inches or more. Most are arrow straight, but some are curved. As one might imagine, such tubes are quite fragile, so successfully unearthing large, high quality specimens can be quite time consuming.

The first hole, at 33°24.513' N by 114°51.614' W, offers black agate as well as tube agate. The farther one, at 33°24.574' N and 114°51.623' W, offers tube agate and geodes.

Although a well traveled road from Palo Verde, leading from northeast to southwest, used to pass as little as fifteen or twenty feet from the main pool of water at the spring, it is not possible to visit the site by automobile today. In 1994 Congress passed the California Desert Protection Act closing millions of acres of public land to all forms of mechanized travel.

Fortunately for those who have two good legs, though, Clapp Spring is located slightly less than a mile south of the north border of the wilderness area. From the wilderness boundary, it takes no more than half an hour of fairly easy hiking to reach the oasis. If time and stamina allow, a visit to Clapp Spring is well worth the effort. If you follow the trace of the old road only a short distance beyond the oasis, and if you are fortunate, you may unearth some spectacular tube agate.

To reach Clapp Spring, from Blythe, California, drive 15 miles west on Interstate Highway 10 to the Wiley's Well Exit, then south another 11.8 miles to the beginning of a curve where the Opal Hill Mine Road forks off to the east at 33°26.998' N and 114°53.616' W. Turn eastward onto it and drive, past the entrance to the Opal Hill Mine at 33°27.193' N and 114°51.899' W, an additional 4.1 miles to the old Palo Verde-Niland wagon road at 33°26.567' N and 114°50.068' W—a total of 15.9 miles from Interstate 10. If you have a high-clearance, four-wheel-drive vehicle, continue by turning right onto the old Palo Verde-Niland Road. In a half mile, at 33°26.524' N and 114°50.508' W, you should reach a cairn marking a road going off to the right. About 1.2 miles after your turn onto the old road to Niland, at 33°26.015' N by 114°50.886' W, the road forks. The right fork, which usually appears to be almost unused, is the continuation of the old Palo Verde-Niland Road. Take the left fork, which is the most used. In 0.3 mile, at 33°25.736' N and 114°50.949' W, cross a broad wash. Continue another 0.6 mile to the sign marking the boundary of the wilderness area at 33°25.333' N by 114°51.242' W. If the sign is no longer there, you should be able to see the signposts. Park there, approximately 18 miles from the

interstate highway, and using the continuation of the road as a trail, hike another nine-tenths of a mile to the spring at 33°24.648' N and 114°51.389' W.

As you hike southward, about one-quarter mile from the wilderness boundary, you may notice tracks going off to the left to some excavations located on the top of a knoll at approximately 33°25.022' N and 114°51.247' W, where people have dug for common opal, or opalite. Because most of it is decomposing and very fractured, it is mainly of low, yard-rock quality. Some of it, though, has proved to be quite nice, with pink and greenish tones mixed with cream, and makes very pretty cabs.

When you visit the area, be sure to take enough drinking water because the water at Clapp Spring is not fit for human consumption. If you plan to try for some of that tube agate, in addition to digging tools take a good pair of work gloves. You should be aware that while the California Desert Protection Act of 1994 specifically allows rockhounding within the wilderness areas it created, some BLM rangers do not see it that way. It might be wise to check with the BLM or a local ranger to determine how the law is being interpreted and enforced at the present. That can vary.

Services and supplies are available in Blythe, about 35 miles northeast. Limited supplies may also be obtained in Palo Verde, about nine miles east on the old Palo Verde-Niland Road.

Ballarat - A Ghost Town

On the Road to Death Valley

Text and photos by Len Wilcox

"**Me lonely? Hell no! I'm half coyote and half wild burro.**"
Seldom Seen Slim -- known to his parents as Charles Ferge -- said these words many times, and they are the epitaph on his grave at Ballarat, California. Slim's funeral in 1968 was broadcast on television around the country, as he was the last of a breed -- a Rainbow Seeker -- one of the prospectors who spent his life on the Mojave Desert in and around Death Valley. Slim had made his home in Ballarat since 1917.

Parked at the base of the Panamint Mountains, it's hard to imagine a more lonely and empty spot than old Ballarat. The weather is extreme; summer highs reach into the 120s, and winter nights are freezing cold. But, sitting on the porch of the general store, it's easy to see why desert characters such as Seldom Seen Slim -- as well as Frank "Shorty" Harris, renowned barkeeper Chris Wicht, Wyoming gambler and gunman Michael J. "Jim" Sherlock and a collection of other desert rats -- made Ballarat their home. It's a spectacularly beautiful area. From the incredibly rugged and steep Panamints, the flat expanse of the valley floor and the Argus Range to the west, it is desert land at its best.

Ballarat was born in 1896 as a supply point for the mines in the canyons of the Panamints. A quarter-mile to the south is Post Office Springs, a reliable water source used since the 1850s by prospectors and desert wanderers. George Riggins, a young immigrant from Australia, gave Ballarat its name when he proposed it should be named for the city in the heart of Australia's gold country.

Click here to watch a video that will bring Ballarat to life for you.

In its heyday -- from 1897 to 1905 -- Ballarat was home and headquarters for 400 to 500 people. It hosted 7 saloons, 3 hotels, a Wells Fargo station,

post office, school, a jail and morgue, but not one church. Ballarat was an oasis of fun, frolic, and relaxation -- a town to go to and blow off the dust of long trails and hard work. The town began to decline when the Ratcliff Mine, in Pleasant Canyon east of town, suspended operations. Other mines nearby also began to play out, and in 1917 the post office closed and all that remained were a few diehard prospectors and desert rats.

The excitement was over, and there was little reason for Ballarat to continue as a town; it withered but would not die. Some notable names in Death Valley history made the mud houses of Ballarat their home, including the inimitable Frank 'Shorty' Harris -- the prospector's prospector, responsible for numerous gold finds.

Shorty was a desert character. Happy-go-lucky, open and always friendly, he'd give a friend the shirt off his back, but he'd never work in a mine. His job was to find the gold, not to dig it out; and find it he did. His love affair with "O be Joyful" whiskey and his casual attitude about money cost him not one but several fortunes. His most famous sale was the original Bullfrog strike, in Rhyolite, near Beatty, Nevada.

In 1904, Shorty had gone to Goldfield, then down to Keane's Wonder on the edge of Death Valley, but he was too late at both of these strikes. He

partnered up with Ernest Cross -- Shorty hated working alone, and would always share his gold with a friend -- and prospected the hills west of Beatty's ranch. They hit the big time with a strike that was bigger than Goldfield or Keane. True to form, Shorty tied one on, and while under the influence of "O Be Joyful," sold his interest for less than $1,000. Cross sold out, too, but for enough to buy a ranch near San Diego.

That sale wasn't the first nor the last time Shorty would find a fortune then give it away; but the loss never seemed to bother him. To him, it was the search, the life and the desert he loved. The view from his shanty in Ballarat kept him there; it is spectacular and no amount of gold could replace it. Looking out across Panamint Valley to the Argus Range is a restful sight. Behind the town, the Panamints rise almost straight up from Ballarat's 1,067 feet to Telescope Peak's snowcapped summit at 11,049 feet.

Another story about Shorty Harris takes place in Ballarat, at Shorty's favorite bar. The truth of this story can't be verified, but true or not, it's a classic yarn of Ballarat.

It was the Fourth of July, and a 3-day hooraw was underway. Shorty had been imbibing his usual and was passed out in a corner of Chris Wicht's saloon. His friends decided to wake him up in a way he'd never forget. They found some boards and threw together a coffin, then placed it on Chris Wicht's pool table -- with Shorty in it. Votive candles were lit and hours later, when Shorty stirred, Chris called the boys together and they began a eulogy for Shorty Harris. When the boys lifted the casket to carry him out to the graveyard, Shorty began shouting -- and jumped out, ran out of the saloon, and reportedly didn't return to Ballarat for months. He probably spent the time trying to figure a way to top that prank, but couldn't find one.

Shorty lived in Ballarat off and on, till his death in 1934. He was one of a handful of miners and prospectors who hung on there, but the town faded after his death. Today, Chris Wicht's saloon is gone back to dust; but the remains of Shorty's cabin stand north of the main road into Ballarat. The foundation and corners are visible next to another miner's shack that remains in good condition.

In the 1960s Neil Cummins bought the private land east of Ballarat and tried to revive the town. He wanted to create another Palm Springs, with tourism and golf taking the place of mining. He built a cinder-block store and set up a trailer park with electrical hookups. The attempt failed, however, and he gave it up in 1988.

Also in the 1960s, another famous (or infamous) visitor came regularly to Ballarat. Charles Manson with his family of killers stayed at the Barker ranch south of town, and left their graffiti in Ballarat. An old Dodge Power Wagon parked near the general store still bears the stars the family used as their signature on its headliner.

Today Ballarat has one or two full-time residents, and the store is open most afternoons and weekends. Visitors are welcome. Many 4-wheelers use the trailer park as a campground headquarters for expeditions into the Panamints and Death Valley. The scenery is still spectacular, virtually unmarred by signs of human occupation.

Walking around the remains of the old town, and visiting the old cemetery, it's easy to visualize the ghosts of Seldom Seen Slim and Jim Sherlock -- and hear the happy noise of Shorty and his friends in Chris Wicht's saloon. And Slim is right: they're not lonely.

Ballarat is located 3.6 miles from the pavement of the north-south Trona-Wildrose Road (California 178), north of Trona. There is a historical marker at the turnoff.

Well-known Christian singer and composer James Westborn Blair became so fascinated by the story of a man named "Seldom Seen Slim" that he wrote a song about him. Click Here to play the MP3 file.

Bodie State Historic Park, CA

California Gold-Mining Ghost Town

More than 200,000 people a year visit this genuine California gold-mining ghost town, where more than 170 buildings are protected in a state of "arrested decay" on more than 1,000 remote acres, administered by the California Department of Parks and Recreation.
One little girl, whose family was taking her to the remote and infamous town, wrote in her diary: "Goodbye God, I'm going to Bodie." This phrase came to be known throughout the west.

The town of Bodie rose to prominence with the decline of mining along the western slope of the Sierra Nevada. Prospectors crossing the eastern slope in 1859 to search for gold discovered what was to be the Comstock Lode at Virginia City and started a wild rush to the surrounding high desert country. By 1879, Bodie boasted a population of about 10,000 and was second to none for wickedness, badmen, and "the worst climate out of doors." One little girl, whose family was taking her to the remote and infamous town, wrote in her diary: "Goodbye God, I'm going to Bodie." This phrase came to be known throughout the west.

When you could fill it up for $3.00.

Killings occurred with monotonous regularity here in Bodie, sometimes becoming almost daily events. The fire bell, which tolled the ages of the deceased when they were buried, rang often and long. Robberies, stage holdups and street fights provided variety, and the town's 65 saloons offered many opportunities for relaxation after hard days of work in the mines. The Reverend F.M. Warrington saw it in 1881 as "a sea of sin, lashed by the tempests of lust and passion."

Nearly everyone has heard about the infamous "Badman from Bodie." Some historians say that he was a real person by the name of Tom Adams. Others say his name was Washoe Pete. It seems more likely, however, that he was a composite. Bad men, like bad whiskey and bad climate, were endemic to the area.

Whatever the case, the streets are quiet now. Bodie still has its wicked climate, but with the possible exception of an occasional ghostly visitor, its badmen are all in their graves. Only about five percent of the buildings it contained during its 1880 heyday still remain. Today, it stands just as time, fire and the elements have left it -- a genuine California gold-mining ghost town. Designated a state historic park in 1962, it is now maintained in a state of "arrested decay."
Bodie was named after Waterman S. Body (also known as William S. Bodey), who discovered gold here in 1859. The change in spelling of the town's name has often been attributed to an illiterate sign painter, but it was really a deliberate change by the citizenry to ensure proper pronunciation.

The Standard Mine and Mill on the west slope of Bodie Bluff.

You can see the Standard Mine and Mill on the west slope of Bodie Bluff. Because the old mill buildings and surrounding area are extremely unsafe, they are closed to the public. The mine was known as the Bunker Hill Mine when it was registered in July 1861. It passed through several hands before being sold for $67,500 to four partners, who changed the name and incorporated as the Standard Company in April 1877.

The Standard Mine yielded nearly $15 million over 25 years, and its success caused the 1878 rush to Bodie. In only a year, the population rose from about 20 to an estimated 10,000 miners, gamblers and other entrepreneurs. The mill was destroyed by fire in 1898, but was rebuilt the following year. While the boom lasted, some 30 companies produced $400,000 in bullion per month for an overall total estimated at $90 to $100 million.

RESIDENCE OF JAMES STUART CAIN, who arrived in Bodie when he was 25, entered the lumber business, and put barges on Mono Lake to transport timber to the Bodie mines.

Watch a short video on Bodie

General Information

Seasons / Hours

Bodie State Historic Park is open year round. Summer hours 9am-6pm (March 18th to October 31st) Winter hours 9am to 4pm (November 1st to March 17th)

Winter Visits

Bodie is open all year. However, because of the high elevation (8375 feet), it is accessible only by skis, snowshoes or snowmobiles during winter months. Snowmobiles must stay on designated roads in the Bodie Hills.

Many four wheel drive vehicles get stuck each year in the powdery snow that is deeper than it first appears. Spring thaws bring mud, and wheeled vehicles are not advised. **TOWING FACILITIES ARE NOT AVAILABLE.**

Winter weather is often unpredictable. Sub-zero temperatures, strong winds and white-out conditions are not uncommon. Call 760-647-6445 for current conditions.

Rates & Fees

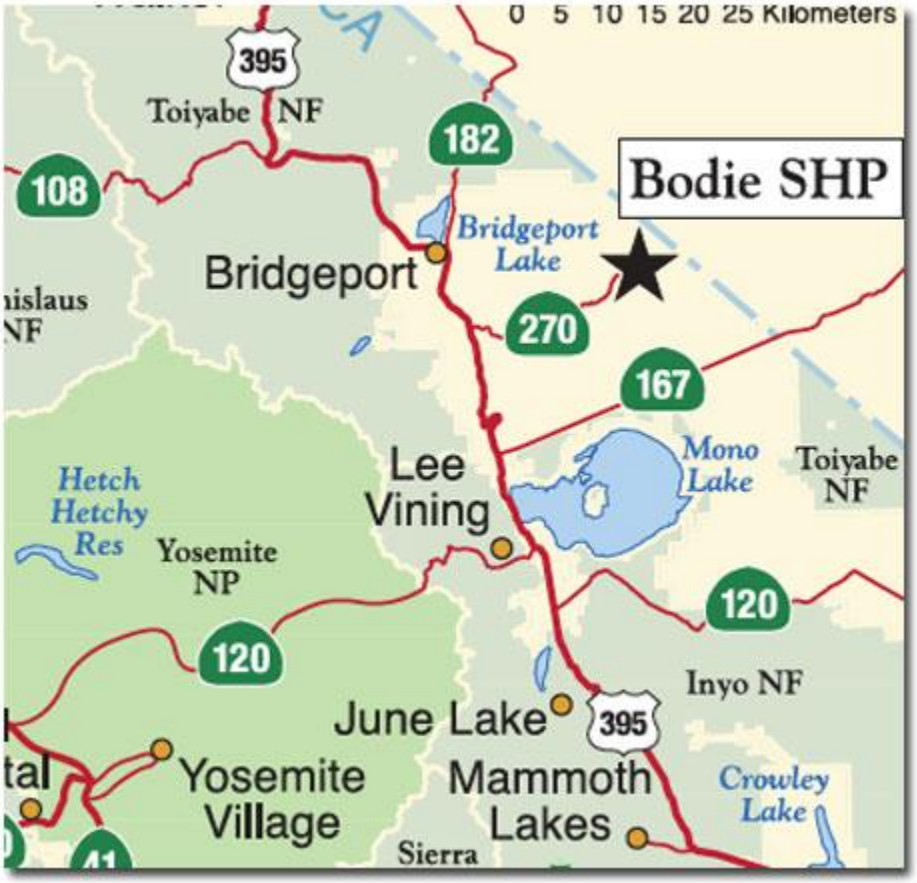
$5 for adults 17 and up
$3 for children ages 6 to 16
Ages 5 and under free

Only cash or personal/travelers checks are accepted at the park entrance station. Pets must be leashed.

Facilities

There are no services, camping, lodging, food vending or stores. There is one museum which is open during the summer. Books on Bodie and a few other items are available for sale. Restrooms (flush toilets) are located at the parking lot.

Geography/Map



Latitude/Longitude: 38.2122 / -119.0111

Climate

At an elevation of 8,400 feet, it's hot during the summer, and potentially very cold during the winter. The weather can be changeable and layered clothing is recommended.

Getting There

Location – Directions

The park is northeast of Yosemite, 13 miles east of Highway 395 on Bodie Road, seven miles south of Bridgeport.

Latitude/Longitude: 38.2122 / -119.0111

From U.S. 395 seven miles south of Bridgeport, take State Route 270. Go east 10 miles to the end of the pavement and continue 3 miles on an

unsurfaced road to Bodie. The last 3 miles can at times be rough. Reduced speeds are necessary. Call the park if there are any questions about road conditions.

North Black Hill Geode Beds

Rockhounding - Imperial County, California

by Delmer G. Ross, Photographs by Karen A. Ross

The Black Hills of Imperial County, California, at the far eastern edge of the Colorado Desert (part of the northwestern Sonoran Desert), host quite a number of well-known deposits of geodes and nodules, including the Hauser Geode Beds, the Hidden Saddle Beds and the Straw Beds. To my knowledge, however, none of them honors the host range in their names. Thus, when it came time to name the geode beds near the northern extreme of the Black Hills, I thought they should be called the North Black Hills Geode Beds. Of course, someone else may have beat me to the naming process and not yet publicized the fact. If so, to that person I offer my apologies. This would not be the first time a mineral-collecting site had two – or more – names, at least temporarily.

The site has been known by rockhounds for decades. I talked with one who said that as far back as the late 1950s he and some friends had pulled a number of large geodes from the wash that bisects the site, including several that were the size of a basketball. Additionally, a low hill on the west side of the wash shows evidence of considerable digging, all of it fairly old.

The North Black Hills Geode Beds do not appear to be as extensive as the far better known Hauser or Hidden Saddle beds, but from all indications, they cover a sizable area just the same. Moreover, the site seemed to be promising enough that in the late 1980s someone put up claim markers, hoping either to mine the thundereggs (a popular name for geodes and nodules) successfully or to charge rockhounds for the privilege. Because any such plans apparently did not materialize, it is possible to collect geodes and nodules at the location today—at least until someone buys the land or begins mining and puts up “No Trespassing” signs.

This North Black Hills geode has a bridge across its cavity.

On the way to the site, rockhounds frequently locate nice pieces of brown jasper, red jasper (including some with thin but attractive seams of black agate), and cream-and-orange colored picture sandstone, all of which usually is found as float. Some of it is of excellent quality.

At the collecting site itself, thundereggs are the main attraction. Both geodes and nodules often contain black fortification agate, although certainly not with the frequency that they do at the nearby Black Agate Thunderegg Mine. Some contain waterline agate. Quite a number have white opalite cores. I have also seen a few – perhaps a dozen in all – that have had pretty pink and raspberry colored opalite interiors.

Popped open in the field. Note the black waterline agate.

Those who would like to visit the North Black Hills Geode Beds should be aware of the fact that the area is remote and that, at the collecting site, they may not see another person for weeks on end. Therefore, be sure that your vehicle is in good condition and that you have all the supplies you may require—especially water. Four-wheel drive may not always be needed, but it is recommended. The best insurance against vehicular failure – or getting stuck – is to have a second vehicle along.

To get there, a GPS reader will prove to be highly useful. From the Wiley's Well exit on Interstate Highway 10 located some 16 miles west of Blythe, California, drive 2.9 miles south to the end of pavement at a stop sign at 33°34.183' N and 114°53.882' W. The paved road turns right to two state prisons, Chuckawalla Valley and Ironwood. A small sign indicates camping ahead. Continue southward another 5.9 miles on a graded dirt road. This road can be quite washboarded. About 0.2 mile south of the entrance to the Wiley's Well Campground, you will reach the intersection of Wiley's Well Road and the Bradshaw Trail at 33°29.457' N by 114°53.278' W. Turn right and drive west 6.7 miles on the Bradshaw Trail, an old gold-rush road dating to the early 1860s. At 33°27.338' N by 114°59.480' W, immediately east of where the Bradshaw Trail dips down through a wash, a little-used road forks to the left. Turn left, and continue in a generally westerly direction, past the power line and its access road at 33°27.035' N and 114°59.925' W. For the next 4.2 miles, both brown and red jasper are often found as float.

About 1.7 miles from the Bradshaw Trail, at 33°26.403' N and 115°00.846' W, is a crossroad marked by a rock cairn. This is the old Palo Verde-Niland road. Beginning about a quarter mile west of this junction and continuing for about 1.5 miles, it is possible to find interesting and attractive, cream-and-orange colored picture rock.

This North Black Hills nodule contains both fortification and waterline agate.

Approximately 3.7 miles from the Bradshaw Trail, you may note the old, rusty remains of a refrigerator on a hill to your right. This is not as unusual a sight as one might imagine. Desert dwellers often used refrigerators – operating or not – to store food and anything else they wanted to keep safe from desert rodents. On a little rise on the left, you may see a rusty, abandoned van. Two roads lead to it. Avoid them! About 0.1 mile beyond these relics, at 33°25.646' N by 115°02.722' W, a road leads off to the left. Stay right.

Some 4.4 miles from the Bradshaw Trail, at 33°25.316' N by 115°03.188' W, go through a wash. Note the outcrops of bright red and purple solidified rhyolitic mud just downstream. On the far side, bear right. A scant 0.1 mile beyond, at 33°25.286' N by 115°03.202' W, you will reach another junction. Again, stay right, following the road on the eastern bank of the wash. Picture rock can be found as float in this area, and the hills immediately to the left have yielded a number of thundereggs. As far as I know, they have all been collected from the surface.

At the next junction, about 4.8 miles from the Bradshaw Trail, you need to take the left fork. It is located at 33°25.024' N by 115°03.443' W, or thereabouts.

The road ends at the North Black Hills Geode Beds, 5.7 miles southwest of the Bradshaw Trail. Your GPS reader should put the location at 33°24.438' N by 115°03.526' W. While the excavated area is not large, thundereggs can be located as float throughout a wide area. Those found on the desert pavement tend to be small, usually from about an inch to three inches in diameter. Those dug out are easily twice that size, from about three to six inches in diameter, and I have seen several that exceeded twelve inches in diameter. Such large ones have been dug from several spots to the south of the parking area, and also from a spot across the wash.

In addition to geodes and nodules, look for seams of black agate. Some of the area rhyolite has black agate, white chalcedony, and various different hues of opalite running through it. The pecky and birdseye varieties, especially, make attractive slabs and cabs. Serpentine and perlite can be found as well, but, aside from fairly small pieces, nearly all that I have examined have been of poor quality and too fractured to work with any hope of success.

Those who plan to dig for geodes should be aware that relatively little digging will be in soft volcanic ash. In fact, even when digging in ash in this area, it probably will have been compacted to almost rock hardness. So, along with your rock hammer, shovel and carry bag, bring a drill and heavy hammer, a pry bar and a good pair of work gloves. You will need them.

Note: Rockhounds planning to dig for thundereggs at the North Black Hills Beds should be aware that mountain lions appear to have a dens nearby. In 2003 one was spotted crouched in the rocks part way up the ridge at the eastern edge of the site, watching with interest a rockhound who was digging below. It appeared to be well fed and in excellent condition, so it probably was only curious, but that may not always be the case. Be aware of your surroundings and watch out for yourself, your children and your pets.

The author Delmer G. Ross, is a Professor of History, La Sierra University.

Black Agate Thunderegg Mine

California's Colorado Desert

by Delmer G. Ross

The Black Agate Thunderegg Mine, located in California's Colorado Desert, gained fame in the mid-1980s when a number of its outstandingly beautiful nodules and geodes were displayed at several of the large rock and mineral shows in Quartzsite, Arizona, in 1986. By then, though, it had been known for decades. A visitor in the mid-1950s, basing his conclusion on the age of discarded automobile parts he found scattered about, decided that it must have been discovered sometime in the 1930s – probably the late 1930s. Exactly who discovered it first, and when, remains uncertain.

Broken open at the mine, this nodule has been sprayed with water to heighten the contrast between the black agate in the core and the surrounding reddish rhyolite.

In addition to geodes and nodules, collectible material that can be found at the Black Agate Thunderegg Mine includes jasper, opalite and rhyolite. The latter sometimes offers seams of agate of many different colors, including, of course, black.

My first experience with the Black Agate Thunderegg Mine occurred in the mid-1980s, when my wife, Karen, and I were doing some research on the Bradshaw Trail, an old gold-rush route leading from the inhabited coastal and inland parts of California, across the Colorado Desert, to La Paz, Arizona. We were checking the various side roads. One led to a dug-up

area where two men were shoveling out a hole. We approached, explained our presence, and asked if they would be willing to tell us about the dig. Not only did they inform us about the black agate and geodes that could be obtained, they also showed us a geode that had cracked open upon extraction.

A spectacular nodule containing black, blue, green, and white agate, plus some salmon-colored opalite, collected at the mine by Bob Critz in March 2002.

Attached to the wall of the hollow center of that geode was the perfectly shaped shell of a crystal. It was so thin and delicate that even a slight puff of air would make it sway, much like a tree does in wind. The leader of the diggers, who we later learned was Robert Colburn, the expert on geodes and nodules better known as the "Paul, the Geode Kid," explained that it was so fragile that they had no hope of transporting it intact to their destination. He handed it to Karen, telling her that if she held it in her lap all the way she just might get it home. Karen did, and it arrived in one piece. A few years later, though, a nosey and injudicious visitor picked it up and destroyed it in one quick motion. Ah well . . . !

We have never found another one like it, but we keep hoping. Should we be so fortunate, we'll keep it in a locked display case bolted to the floor or built into a wall! Maybe you will be the next lucky finder. If so, please remember the lesson Karen and I learned the hard way!

The main reason to hunt for geodes at the Black Agate Mine is that they are extremely unusual. Thundereggs from many different locales contain agate, but only a limited number offer black agate. And when they do, it usually is only a thin layer or two. Black Agate Mine geodes and nodules may contain

thick layers of rich black agate. So also do some of the thundereggs from the nearby North Black Hills Thunderegg Beds and the Hidden Saddle Beds, but they generally are not as spectacularly colorful.

Digging at the Black Agate Thunderegg Mine is not easy. Of course, it is possible to dig in the already disturbed volcanic ash – according to Robert Colburn, the ash is decomposed perlite – with even the flimsiest of shovels and with relatively little effort. But that will net little more than material others have discarded.

For a couple of years around 1990 an enterprising soul attempted to turn the mining of Black Agate geodes into something of a paying proposition. He – or she – erected a payment box at the site and invited those who dug there to leave behind some of their money when they departed. Although I checked the box three or four times, just to see what it might contain, most of the time it was empty. Once, toward the end of a long weekend, it held a dollar bill. The next time I checked, the payment box was nowhere to be found, and I have not seen it again.

A rockhound climbs from the wide wash to the parking area. Even the approaches to the wash are very sandy.

Also known as the Black Agate Bed and Black Agate Site, it was the Geode Kid who began calling the location the Black Agate Thunderegg Mine. With good reason, too. Rockhounds who expect to leave with any significant number of thundereggs from this site will need to be prepared to do some real mining, much of it in hard rock.

The road to the thunderegg mine was shared by the Little Brother Gold Mine at one time. A number of years after the Little Brother shut down, someone

in the Bureau of Land Management apparently decided all sign of it should cease to exist. Just why is not readily apparent. It could not have been for safety because the entrance was protected by a heavy steel door that was welded closed. Whatever the rationale, the site was bulldozed, part of the road was ripped up, and high earthen barriers were constructed at the approaches to two washes.

Consequently, reaching the Black Agate Thunderegg Mine is nowhere near as easy as it used to be. Until at least the two southernmost soil barriers either wash away or pack down – something that may never happen, but could with the next rainstorm – those hoping to visit the location in their own vehicles should expect to have to drive through deep, loose sand to cross the larger of the washes. Because even vehicles with four-wheel drive can bog down if it has been a dry year, especially after the sand has been churned up by earlier arrivals, the best approach is to park on the north side of the main wash and walk the remainder of the way to the collecting site. The distance from the wash to the dig is only 0.3 of a mile. Therefore, the directions that follow are for those who plan to walk the final stretch.

The parking area at the edge of a broad wash about one-third of a mile from the mine.

The most popular way to reach the Black Agate Thunderegg Mine is to leave Interstate Highway 10 at the Wiley's Well Exit, about 15 miles west of Blythe, California. Drive south on Wiley's Well Road, past the turn-off to two state prisons and the entrance to the Wiley's Well Campground, a total of 9.5 miles to the Bradshaw Trail at 33°29.457' N and 114°53.278' W. Then turn westward and drive 13.3 miles to a junction at 33°24.754' N by

115°05.198' W. Turn southward, then eastward, off the Bradshaw Trail, and drive a quarter mile to a junction at 33°24.784' N and 115°04.966' W, where you need to bear right. Once the road straightens again, on a brown hill in the near distance just to the right of the road, you will be able to see your destination as a gray discoloration. The first set of piled-earth barriers is only another quarter mile ahead, at 33°24.619' N by 115°04.752' W. Before driving around the obstacles, check to determine that it is safe to do so. If it is – and most of the time it is – and if the road on the other side is not too sandy, continue another 0.2 mile southward to the north side of a fairly wide, sandy wash. It is best to park there, at 33°24.564' N by 115°04.679' W. Continue southward, across the wash, on foot. Once you have climbed up the south bank and around the trees that line the wash, you will see the Black Agate Thunderegg Mine approximately 0.3 mile southeast of your position, at 33°24.374' N by 115°04.474' W.

The best time to go digging for nodules and geodes at the Black Agate Thunderegg Mine is from late October to early April. Southeastern California's Colorado Desert is a rather warm place in the summer, with high temperatures commonly reaching 115 to 120 degrees. A vehicle with four-wheel drive and high clearance may be necessary because of deep sand on the Bradshaw Trail west of Wiley's Well Road. Do take along mining tools such as picks, shovels, and pry bars.

When you go, be sure to go prepared. A little extra fuel and oil can be lifesavers. Some extra food can be useful, too. Above all, take plenty of drinking water, because none is available at the mine. Without even realizing it, a person digging on the desert can become seriously dehydrated in a matter of an hour or two, so, in addition to taking plenty of water, be sure to drink the water you take! Although service is spotty at best, a cell phone sometimes can be used to summon help in the event something goes seriously wrong. But the best insurance against problems at the thunderegg mine is to have another vehicle along – and a good tow strap.

Piles of earth blocking the road to the Black Agate Thunderegg Mine.

Should you be interested in camping, you might consider Wiley's Well Campground in the Mule Mountains Long Term Visitor Area (LTVA). It offers pit toilets, picnic tables, nonpotable water, and perhaps best of all, some shade. There is no fee for camping during the off season, but there is a fairly substantial charge during the regular LTVA camping season, from September 15 to April 15. You may also camp near the mine. Just stay on public land within 300 feet of an existing road. Other accommodations, services and supplies are available about 40 miles east in Blythe.

Black Agate Hills

Colorado Desert in California

The parking and surrounding area viewed
from the trail to the southern Black Agate Hills digs

The Black Agate Hills are a short range of low rounded hills less than a mile east of the middle part of the Black Hills Range in the Colorado Desert of southeastern California. Viewed from a distance – or even fairly close up – it is rather unimpressive. Upon exploration, though, it can be determined that the otherwise forgettable hills produce some outstandingly beautiful thundereggs in the form of both hollow geodes and solid nodules.
The Black Agate Hills Geode Bed, which produces the thundereggs, is often considered to be a part of the Hidden Saddle Beds that very nearly surround it. Because of its unique character, though, it should be viewed as separate. The washes draining the area are not the same, and the geodes are different. Most Black Agate Hills geodes are true geodes rather than nodules; that is, they are hollow rather than solid. Moreover, as a group they tend to be less colorful than those from the Hidden Saddle Beds.

Bookends made from a Black Agate Hills geode.
Note the thick black fortification agate in the core.

Lack of color, however, does not mean they are not attractive. They often contain thick bands of black fortification agate lining their interiors. Such agates may be either smooth or covered with quartz druse. Some geodes contain layers of clear and white chalcedony. A few may have black or white calcite crystals or, rarely, both at the same time. The predominant colors are black and white, although pink is not unknown. While these geodes may not be as colorful as some, they certainly are striking.

Bookends made from a Black Agate Hills nodule. In addition to black fortification agate, they contain layers of black, blue, clear, and white waterline agate, and pink and salmon colored jasper.

Something else that sets Black Agate Hills geodes apart is their size. They often reach diameters of six inches and more. In fact, as far as I have been able to ascertain, they are among the largest to be found in the Wiley's Well Rockhound District. One I saw measured more than two feet in diameter! While the southern portions of the area have been worked extensively, the industrious rockhound should be able to go home with several nice geodes measuring four inches and more across, a majority of which can be expected to contain black agate.

As broken pieces of geodes attest, the northernmost hill in the range has been explored by rockhounds. With the exception of a few small holes where someone unearthed a partially buried thunderegg, though, there has been almost no digging. Who knows what may lie just under the surface! Judging by the broken pieces, the geodes should contain a much higher percentage of clear agate than those in the south. Additionally, there should be far more geodes than nodules.

Digging can be a lot of hard work, however, and the rewards cannot be certain. A visit to the Black Agate Hills Geode Bed can still reward rockhounds who prefer not to dig. Agate of various colors can be found on the ground, with many pieces large enough to make nice cabs. Jasper and rhyolite are found as well.

Getting to the Black Agate Hills Geode Bed is easy, even though the last mile or so of road is rather primitive. Four-wheel drive and high clearance can be helpful, but are not required for experienced drivers.

One of several well dug-up areas of the Black Agate Hills Geode Bed.

The best way to reach the Black Agate Hills region is to take Interstate Highway 10 to the Wiley's Well exit located some 15 miles west of Blythe, California. After exiting, turn south on Wiley's Well Road. About 2.9 miles south of the divided highway, at 33°34.183' N and 114°53.882' W, the paved road turns sharply right toward two large state prisons, Chuckawalla Valley and Ironwood, but you will want to continue southward on the graded dirt road. Some 13.3 miles south of the interstate highway you will reach the Riverside-Imperial County line at 33°25.800' N and 114°54.180' W. Wiley's Well Road becomes Milpitas Wash Road in Imperial County, though there may not be a sign to indicate the name change. On the other hand, you should see a sign indicating that the Hauser Beds are to the west. It was erected in early 2000 by the California Federation of Mineralogical Societies.

Immediately south of the county line, at 33°25.794' N by 114°54.182' W, turn right onto the track that angles southwest across the desert pavement. This will lead you 0.6 mile to what is generally known as the Black Hills Road at 33°25.429' N and 114°54.620' W. Bear right, and continue on the most traveled road past a metal signpost marked "Ashley Flats" and "Gerdes Trail" at 33°24.758' N and 114°56.853' W. For the next few miles you will be traveling over a section of the old Palo Verde-Niland Road, but it is simply part of today's Black Hills Road.

Continue driving in a generally westerly direction to another metal signpost at a fork in the road. Your GPS coordinates should be close to 33°24.825' N and 114°58.145' W. Located about 4.5 miles from Milpitas Wash Road at

the Riverside-Imperial county line, this junction marks the approximate center of what is known as Middle Camp.
Take the north, or right, fork in the road and continue driving westward on the Black Hills Road. Only 0.4 mile ahead, at 33°24.827' N and 114°58.548' W, the old Palo Verde-Niland road departs to the right. It appears that the roads at this point, including the junction, are on private property. Please respect the owner's rights by complying with the "no trespassing" signs.
About 8.3 miles from the county line you will drive into a packed-gravel wash. After traveling maybe 20 yards, at approximately 33°24.117' N and 115°01.523' W, you will notice roads leaving the wash on both sides. The steep one, departing to the south, is a jeep trail to the Straw Beds. To remain on the Black Hills Road to the Black Agate Hills, turn right.
Only 0.2 mile beyond the wash, approximately 8.5 miles from the county line, at 33°23.992' N by 115°01.817' W, you will reach the eastern edge of the Hidden Saddle Beds collecting area. Here and there you should be able to see evidence of digging.
Continue in a generally westward direction another 0.1 mile to 33°23.919' N by 115°01.901' W, where a less used road turns northward from the Black Hills Road you have been following. It goes toward the Black Agate Hills Geode Bed.
Turn there and drive northward not quite 0.2 mile to 33°24.012' N and 115°01.943' W where you will find a parking area at a trail leading to thunderegg digs on both sides of a series of low, but fairly steep-sided, hills. You should be about 8.8 miles from the county line and 22.1 miles from where you exited the interstate highway.

The western edge of the parking area below the hills containing the thunderegg digs.

Those wishing to acquire some Black Agate Hills thundereggs should hike the trail just west of the wash at the western edge of the parking area and climb in a northwesterly direction to the top of the hill, where the pathway forks. The left fork goes down to a little valley and a collecting site at 33°24.095' N by 115°01.974' W. The way the crow flies, it is about 0.1 mile from the parking area. The right fork goes northward to a dig at 33°24.127' N by 115°01.976' W. It is perhaps 200 yards farther from the parking area than the west dig. Both areas yield very nice geodes and nodules, but generally only after a certain amount of sometimes laborious digging. Look also for seams of black agate.

The best time to visit the Black Agate Hills Geode Bed is from about mid-October to early April. Summer temperatures in the area commonly reach 115 to 120 degrees Fahrenheit in the shade, and there is no shade at the dig.

Those who would like to camp near the geode bed may do so provided they stay on public land and remain within 300 feet of an established road. Many rockhounds like the shaded camping spots at Middle Camp. Rangers from the Bureau of Land Management may enforce a 14-day limit. Camping is also allowed at the developed Wiley's Well and Coon Hollow campgrounds. You will have passed the entrances to those campgrounds on Wiley's Well Road. They are part of the Mule Mountains Long Term Visitor Area where fees are charged from September 15 to April 15.

When you go be sure to take plenty of drinking water and food for yourself and those with you, plus gas, oil, water, and a tool kit – including a tow strap – for your car. While service is spotty at best, a cell phone sometimes can be used to call for help should it be needed. Before leaving home, let someone you trust know your itinerary. In short, do all those things the survival manuals warn you to do when visiting some remote part of a desert—including paying special heed to the warnings about dehydration. No water is available at the site of the digs, nor, for that matter, anywhere else in the Black Agate Hills. Without a doubt, the best assurance of a successful trip is to use the buddy system of having at least two vehicles along. The closest services and supplies are found in Blythe.

Calico Ghost Town

Old Mining Town

Text and Photos by Len Wilcox

When he was a young man, Walter Knott worked the mines in Calico, an experience that stayed with him all his life. Some 40 years later he went back -- and bought the town. Some of the buildings he moved to Buena Park, California, as an attraction to bring people in to his wife's chicken restaurant.

These buildings eventually became the center of one of the most famous tourist theme parks in the world, Knott's Berry Farm. The buildings he left behind in Calico, however, became just as important, to him and to the world. He restored the town and created a place where travelers can step back in time to experience the gold rush days, and learn how people lived during this exciting time. Today Calico is part of the San Bernardino County Regional Parks system visited by people from around the country and all over the world.

Located on the Mojave desert about 15 miles northeast of Barstow, California, Calico -- which lived a long time for desert boomtowns, from 1881 till around 1929 -- was a rich strike, first of silver then later of borates. Chunks of nearly pure silver came out of the 500 mines that dotted the hills. Eventually, silver ore worth some $86 million was dug out of the colorful hills behind the town. The borate brought in another $45 million.

Calico was a wild place in its heyday with a nice collection of saloons (22 of them), bordellos, restaurants and boarding houses established to service the needs of its more than 1,200 citizens. One citizen was unusual, even in a time and a town full of unusual characters.

Dorsey was a mail carrier. In fact, he was the only 4-legged carrier in the whole US Postal system. He was a black-and-white shepherd dog that had the job of carrying the mail from Calico to the nearby mines. He was a friendly dog, but once the mail packs were strapped on his back, he'd become strictly business. Reportedly, Dorsey's owner once turned down a $500 offer for the dog, saying that he'd sooner sell a grandson.

Calico's decline began when the price of silver fell in the 1890s, but the borate production kept it alive, even through the panic of 1906. While nearby Death Valley mines skinned eastern investors, Calico kept churning out valuable minerals until it gradually exhausted its supply in the 1920s.

A few hardy souls stayed on, keeping the spirit and memory alive, until 1951 when Knott bought the town and began rebuilding it. Using old photos he restored many of the buildings and created a tourist attraction that still thrives today, with more visitors on any day of the year than ever lived in the town when silver was the big excitement. Knott's Berry Farm donated Calico to San Bernardino County in 1966, and it operates now as a regional park.

Today, numerous shops, an interesting museum, static displays and actors in period costumes bring the past alive for busloads of tourists and visitors. With regular gunfights, train and stagecoach rides, restored mining equipment and displays of old household items, it's an interesting town to visit. Camping is also available with 261 tent and RV sites 46 offering full hookups.

The town is open every day except Christmas. A nominal entrance fee is charged. Regular events are held, including: Cowboy action shooting, 3rd Saturday of each month; Civil War Re-enactment on President's Day weekend; Spring Festival, Mother's Day weekend; **Calico Days - October 1 & 2, 2016 -** Burro in the Muck Re-live Calico's rich mining history! Activities include a burro race, miner's triathlon, music and more. View pictures from previous events.

Cinnamon Geode Beds

Colorado Desert in Southern California

by Delmer G. Ross

Many of those who have dug for thundereggs at the Colorado Desert's famous Hauser Geode Beds or Potato Patch are also aware of the existence of the nearby Cinnamon Beds. Perhaps someone mentioned the name, or they may have seen it on a map. They may even have wished to dig there. Many, probably most, such rockhounds have not attempted to do so because they have not known just where to look for the dig. One lady who had spent an unproductive day searching for the various different geode beds complained to me that she had not been able to find any markers anywhere. Had someone stolen them? She had driven throughout the region looking for road signs! With the advent of relatively inexpensive GPS readers, though, pinpointing a location no longer poses much of a problem.

Like geodes and nodules from other nearby sources, those from the Cinnamon Beds sometimes are found in volcanic ash that underlies desert

pavement. Many, though, must be carefully and laboriously pried loose from their matrix of fractured rhyolite—just like many others.
Despite such similarities, there are several differences, some of which are significant. Geodes from the Cinnamon Beds tend to be larger, their interior cavities generally are more spacious, and the ratio of geodes to nodules is much greater than at the Hauser Beds or the Potato Patch. Moreover, the interiors of the geodes often contain anywhere from a few little specks to a full coating of rich, cinnamon-brown colored quartz druse, making them distinctive and giving the site its name. They sometimes contain rather spectacular black calcite crystals as well.

These 4- to 6-inch diameter Cinnamon Beds geodes broke open as they were dug out. Note the beautiful druse.

While such differences may sound good, there are drawbacks. Geodes from the Cinnamon Beds tend to be more fragile than those available at nearby digs; larger ones often are so easily fractured that it almost seems that they break open of their own weight. Moreover, their interiors tend to be rather plain looking compared with those from other nearby sources. The crust of druse can be very thin. Although the cavities usually offer more than enough room, do not anticipate finding large quartz crystals in them. Do not expect the cavities to be surrounded by spectacular banded agate, either. A significant number of these geodes have cavities that are only partially lined. A few contain nothing but air, and the surrounding rhyolite may hardly be worth a second look. Although they can be quite beautiful, these geodes are sought mainly for their uniqueness.

This unusual Cinnamon Beds geode, collected by Mike and Marge Petrusha in 2001, measures more than 10 inches in diameter.

They can be spectacular in their own way, though. Cinnamon Beds geodes range in size from less than two to more than ten inches in diameter. I once saw one that must have measured sixteen inches across outside, with a twelve-inch cavity. Those geodes with a combination of a large cavity lined with brown quartz druse, and containing only one or two large, jet-black calcite crystals, can be striking and well worth the time and effort required to locate and extract.

While it is not known exactly when the Cinnamon Beds were discovered or who should receive credit for the accomplishment, it doubtless ranks as one of the many results of Joel Hauser's 1937 discovery of the nearby geode beds that bear his name today. Prior to that event, rockhounds simply searched for geodes and nodules that were in plain sight on the surface of the ground. The discovery of the Hauser Beds brought a change in methods because it showed that there were far more thundereggs underground than there were on the surface. The surest way to obtain them appeared to be to dig them out of beds of volcanic ash or rhyolite. It seems reasonable to assume that some enterprising rockhound who had learned of the value of digging discovered the Cinnamon Beds in the years following Hauser's

breakthrough. In any event, by the 1950s rockhounds were digging geodes and nodules at the Cinnamon Beds.
The geodes are not especially difficult to find, but the digging can be fairly strenuous. Moreover, attempting to secure the release of a larger one from its surrounding rhyolite or solidly packed ash can be tedious and very time consuming. Look for places were other rockhounds have dug in the past. Some of the best digs are located on the west side of the hills, so watch for trails that lead in that direction.

Myrt and Bob examine their finds

A vehicle with four-wheel drive and high clearance can be helpful, but is not essential. A careful motorist can drive to within one or two hundred yards of what recently has been the most productive area as long as their vehicle has reasonable ground clearance.
One nice feature about the Cinnamon Geode Beds is that they are close to other collecting sites. The Potato Patch is only a third of a mile south, and the middle and northern sections of the even better known Hauser Geode Beds are less than an air mile southwest.

How To Get There

To reach the Cinnamon Geode Beds, located approximately 16 miles west of Blythe, California, take the Wiley's Well exit from Interstate Highway 10. Drive 2.9 miles to a stop sign. The paved road turns right toward two state prisons, but you will need to drive southward another 10.4 miles to the Riverside-Imperial county line at 33°25.800' N and 114°54.180' W.
Wiley's Well Road becomes Milpitas Wash Road in Imperial County, though there may not be a sign to indicate the name change. On the other hand, you should see a sign indicating that the Hauser Geode Beds are to the west. It was erected in early 2000 by the California Federation of Mineralogical Societies.

Follow the directions on the sign and, immediately south of the county line, at 33°25.794' N by 114°54.182' W, turn right onto the track that angles southwest across the desert pavement. This will lead you slightly more than a half mile to what is generally known as the Black Hills Road at 33°25.429' N and 114°54.620' W. Bear right, and continue on the most traveled road past a metal signpost marked "Ashley Flats" straight ahead and "Gerdes Trail" to the north.
Continue driving in a generally westerly direction to a second metal signpost, this time marked only "Ashley Flats," at a fork in the road. Your GPS coordinates should be close to 33°24.825' N and 114°58.145' W. Located about 4.5 miles from Milpitas Wash Road (or Wiley's Well Road), this junction marks the approximate center of Middle Camp. To continue toward the Cinnamon Geode Beds take the south fork and cross the gravel bed of the Black Hills Wash.
In one mile you will reach another junction, at 33°24.121' N and 114°58.679' W. This one, known as Potato Patch Junction, is unmarked. One short stretch of road just before you reach the intersection is rough, but if you pick your course carefully and take it slow and easy, you should have no trouble. At Potato Patch Junction turn right and cross a little wash. In approximately three-fourths of a mile, at 33°23.713' N by 114°59.262' W, the road dead ends at a point called Nodule Junction, where another road crosses at right angles. Turn left and drive southward three tenths of a mile. There, at 33°23.556' N by 114°59.039' W, you should be able to see tracks going off to the right. Follow those tracks. As you drive past a low knoll on your right you should be able to see a very extensively dug area to the north. It marks one of the more productive parts of the Cinnamon Beds. If you do not have four-wheel drive, park here, rather than attempting to drive over the tilted bit of road ahead. Although it may appear firm enough, two-wheel-drive vehicles can easily lose traction and get stuck. The road ends at a drop-off in less than one-tenth of a mile, with evidence of previous digging on both sides. If you did not park your vehicle just west of the last junction, park at the end of the road, at 33°23.477' N by 114°59.061' W, and take

the little foot path that leads southward, then westward, around a knoll. Behind that knoll, at 33°23.460' N by 114°59.044' W, is the spot where the largest and best of the Cinnamon Beds geodes were dug out from about 1996 to early 2003.

In fact, the digging was so productive that during the winter of 1999-2000 a small group of men drove a two-ton truck in and, with a show of firearms, for several days tried to dissuade any interlopers until they had it loaded and left. The unfriendly diggers appear to have accomplished their goal—whatever it may have been. Dig there, or find a different spot – previously dug or not – anywhere from approximately two-tenths of a mile north to an equal distance south.

The southern edge of the Cinnamon Beds offers some particularly nice white jasper. A small percentage is fine-grained enough to be classed as pastelite, of interest to flint knappers. Some is almost snow white, some has greenish inclusions, and some has small black inclusions. It makes nice cabs.

Because summertime temperatures often reach 115° Fahrenheit in the shade, and there is precious little shade available, the best time to visit the Cinnamon Beds is from late October to late March. Be sure to take plenty of water and whatever else you may need. Accommodations, services and supplies are available in Blythe, 30 miles northeast.

Rockhound's Rest at Coon Hollow Campground

Mule Mountains LTVA

by Delmer G. Ross

The Coon Hollow Campground, located not quite a half mile west of Wiley's Well Road at the southern extreme of the Mule Mountains Long Term Visitor Area (LTVA), is a favorite with connoisseurs of restful places in the Colorado Desert of southeastern California. It offers superb sunrises over the Mules to the east, magnificent sunsets over the desert ironwoods and palo verde trees of Ashley Flats to the west, and an unparalleled view of Thumb Peak, a weathered volcano, to the southeast.

Campground entrance sign along Wiley's Well Road, with Thumb Peak in the background. Courtesy Carma Carlson.

Named for an area a short distance east in the Mules where "coon-tailed rattlers" – western diamondbacks – once abounded, the campground has been moved twice. Originally sited in the Mules, the campground was moved to the upper reaches of the desert-pavement-covered bajada about a mile east of today's placement, making it accessible by automobile. Numerous campfire rings still indicate the old spot along the road to the Opal Hill Mine. Increasing use made additional improvements seem desirable, so once again it was moved, this time to its present site along the edge of a desert wash.

It is now a place where the occasional raucous call of a cactus wren combines with the amorous cooing of mourning doves and the gentle chirping of Gambel's quail hens calling to their chicks. It makes for a

melodious, if sometimes inharmonious, background to springtime mornings. It is a place where the sun shines nearly every day. In fact, long-term campers with solar panels rarely need to use noisy generators. While intrepid airplane pilots once used to land on the adjacent stretch of flat desert pavement, that type of activity is discouraged today. It is a place where the occasional kit fox hoping for a handout may trot right into your camp while you sit around the evening campfire. Peace and quiet reign.

Site 1, ready for occupancy. Courtesy Karen A. Ross.

Rockhounds especially like the Coon Hollow Campground – part of the so-called "Wiley's Well Rockhound District" – because of its proximity to the world-renowned Hauser Geode Beds, the Potato Patch and the Opal Hill fire-agate mine. It is also conveniently close to many other popular rock-collecting sites in the Colorado Desert in southeastern California, from the Black Agate Thunderegg Mines and the Cinnamon Beds to the Lost Claim and the North Black Hills Geode Beds. Moreover, material left behind by earlier campers can make the campground a rock-collecting destination in its own right. I have collected excellent geodes, jasper, agate and psilomelane right inside the campground! Just make sure the campsite or campsites you explore are not currently occupied.

A double rainbow after a rain in February 2005. Courtesy Karen A. Ross.

In addition to rockhounding, popular activities include climbing Thumb Peak and other nearby mountains, hiking to the oasis at Clapp Spring, and swimming at Scott's Tanks or Tadpole Tank when they are full of water. Some enjoy visiting the various gold and manganese mines of the region. Others like to hike the ancient Indian trails. During most of the camping season a group locally known as "Stitch and Bitch" engage in crafts – from making purses out of plastic bags to wire wrapping jewelry – early every afternoon. Another community activity usually takes place later, the "happy hour" get-together where campers exchange useful information and "windies." Nothing is organized, though, and people are free to participate or not. The campground host can provide current information on activities. Not a few visitors simply enjoy the quiet while reading a book or watching clouds float by overhead.

After a good rain, wild flowers follow in March and early April. Courtesy Karen A. Ross.

The campground stretches 0.7 mile north to south. Each of its 29 level or nearly level developed sites offers a picnic table, a campfire ring, and, if it has not been permanently 'borrowed," a barbeque grill. Some sites offer shade from palo verde, ironwood, and mesquite trees along the wash. A few tables are shaded by metal "cabañas." All sites have access to nearby trashcans, and there are three modern, unisex, pit toilets. RV dump stations are located in the Blythe area.

Although the LTVA season extends from September 15 to April 15, the best time to stay at the Coon Hollow Campground is from mid-October through

March, which is also when snowbirds fleeing harsh northern winters make the camp their home-away-from-home. Camping fees change frequently so be sure to check with the BLM before you go.

Camping during the summer months can be very uncomfortable, even dangerous, because of high temperatures, which often exceed 120 degrees in the shade. The record high was 130 degrees, reached years ago in late August. At the beginning, and again toward the end of the September-to-April camping season, daily high temperatures often reach the 90-degree mark, and higher, but, typically, campers can expect highs in the 60s and 70s during most of the season. Lows can occasionally plummet into the 20s, but during much of the season, campers can expect low temperatures in the 40s and 50s.

To get there, drive to the Wiley's Well Road exit from Interstate Highway 10. It is located about 16 miles west of Blythe, California. Immediately to the north is a rest area. You will turn southward. From the center of the overpass, at 33°36.466' N by 114°54.101' W, drive some 2.9 miles south to a stop sign at 33°34.183' N and 114°53.882' W. The paved road turns right to provide access to two state prisons, Chuckawalla Valley and Ironwood. To reach the campground, continue southward on Wiley's Well Road. A small sign indicates camping ahead. The road from this point to the campground entrance consists of graded earth. Unless it is raining or it has rained recently, it should be passable for virtually all types of vehicles.

If the road has not been graded within the previous two or three weeks though, it is likely to be seriously wash-boarded. You will pass the entrance to the Wiley's Well Campground and the junction with the Bradshaw Trail at 33°29.613' N by 114°53.256' W and 33°29.457' N by 114°53.278' W, respectively. Immediately south of the Bradshaw Trail is a short stretch of very sandy road. Usually it is not a problem, but you may wish to check it before proceeding. Continue southward on Wiley's Well Road, past a dump station for recreational vehicles at 33°28.349' N and 114°53.587' W and the turn-off to the Opal Hill fire agate mine at 33°26.998' N by 114°53.616' W. Approximately 12.1 miles south of Interstate 10 you will reach a prominent sign on the right marking the entrance to Coon Hollow Campground at 33°26.737' N and 114°53.696' W. Turn right and drive westward not quite 0.5 mile to the campsites.

Beautiful sunsets are common at Coon Hollow Campground. Courtesy Karen A. Ross.

Services and supplies are available approximately 30 miles northeast, in Blythe. The only services available at the campground are the weekly trash collection and cell-phone service that can be positional, sporadic, and limited to certain phones and carriers. Campers must carry in all supplies they may need, including all their drinking water. There are no nearby markets or stores.

A word or two of caution has to do with pets such as cats and dogs. The area around the Mule Mountains LTVA is home to coyotes, bobcats and mountain lions, to which a pet on the loose may look very much like dinner. Rattlesnakes have been spotted right in the campground as well. So keep pets in your vehicle, or, when they must be outside, keep them on a leash and well supervised. Although I know of no one who has been harmed, common sense dictates especially careful supervision of small children.

The Coon Hollow Campground has much to offer. Those who are careful to take all they need with them should have an enjoyable stay. They may even end up doing what my wife and I have done. We have returned every season for the last 20 years—or longer!

Delmer G. Ross Professor of History, La Sierra University

Author Of the ***Gold Road to La Paz***

(The Bradshaw Trail) covers many of the rock and mineral site in the area.

Fossil Canyon and Painted Gorge

Near Ocotillo, California

There are two points of interest near Ocotillo, California, Painted Gorge and Fossil Canyon.

Painted Gorge

Painted Gorge, located on the eastern side of the Coyote Mountains, consists of sedimentary, metamorphic and igneous rocks. Heat and movement over time has created fantastic shapes and colors. Oranges, reds, purples, and mauves mixed with browns and blacks create a palette of color as the sun illuminates and plays shadows upon this geologic wonder called the Painted Gorge.

If you are visiting the Ocotillo area or just passing by, both Fossil Canyon and Painted Gorge are worth visiting. Hiking or walking in these areas provides good views of the geological structures and allows you to fully enjoy the scenery. When were were there a Apache helicopter flew low over

the area. Got this picture, alway have your camera ready we didn't hear it coming until it was about 200 yards away.

Here is a short video of the area that shows what you will see when visit.

Notes: The BLM manages Painted Gorge and has designated it a limited use area. However, some sections of the gorge are privately owned. Both the Painted Gorge and Fossil Canyon areas are included in the BLM Access Guide #22. **See Map.**

Fossil Canyon

Walls of Shell Canyon

Ocotillo, California is a quaint little desert community located on Interstate 8 where S2 heads northward into the southern region of Anza-Borrego Desert State Park. From Ocotillo we took S2 north to Shell Canyon Road, which is a graded road, for approximately 3 miles. We continued on Shell Canyon Road until the graded road turned into a dirt road that led into Fossil Canyon (also known as Shell Canyon or Alverson Canyon).

After a short time we reached the area of the canyon that is blocked to vehicles. We didn't have time to venture further into the canyon on foot, so we parked and explored just the entrance to the canyon. At first glance we did not see any shell or coral fossils, unlike the abundance of oyster shell fossils we found earlier that day in the Yuha Basin. But when we took a closer look at the canyon walls, we could see shell fossils embedded in the sandstone. Layers of sandstone and mudstone are exposed here, revealing veins composed of white shell fossils and coral pieces, each representing part of the 50-million year geologic history contained within the canyon walls.

In 1916, a study called "The Reef-Coral Fauna of Carrizo Creek Imperial County, California, and Its Significance" was published by Thomas Wayland Vaughn. The study was based on fossils found in Fossil Canyon by Dr. Stephen Bowers which he had sent to Washington for identification. The study revealed that "The Carrizo Creek reef-coral fauna is Atlantic, not Pacific, in its affinities." During Eocene and Oligocene times the Atlantic and Pacific were connected by a passageway somewhere in the region of Central America. After the passage closed the Atlantic coral left in the Pacific became extinct. The fossil remains found in Carrizo Mountain are the only evidence that this coral once existed in the Pacific.

After our short excursion to Fossil Canyon we headed back toward Ocotillo and took S80 east. A few miles down S80 we reached a graded dirt road heading north, marked by a sign labeled Painted Gorge (Y181 on BLM Access Guide #22). After driving on the graded road for approximately 5 miles, we encountered a riot of color on the surrounding landscape.

Montgomery City, California

A Real Ghost Town

Text and photos by David A. Wright

Montgomery City, California

California's Mono County contains a generous number of ghost towns, including the premiere ghost town of Bodie. But only 41 air miles southeast of Bodie lies a ghostly site that is for the most part forgotten, a town that was a contemporary of Bodie's earliest days. That site is Montgomery City. When Mono County was still in its infancy, the town of Benton became a destination of miners seeking new strikes, and by 1865 was the county's largest town. The area became a beehive of activity and as usual, miners began roaming when nearby prospects became scarce.

A doorway from the past.

A few miners were already finding ore where the perpendicular cliffs of Montgomery Canyon opened onto alluvium at the foot of the spectacular White Mountains, a few miles to the east. In 1863, the Montgomery District was formed, but the identity of the man who left his name on the land remains a mystery.

The town site of Montgomery City was soon christened, but it never got very big. Attorney Pat Reddy, well known throughout the entire Eastern Sierra region, moved to Montgomery City in 1864. He had recently lost his right arm in a Virginia City saloon shoot-out, and began dabbling in a law practice. He also ran for Recorder of the Montgomery Mining District and won 61 out of 99 total votes.

Montgomery City didn't live very long. There was never even a post office established in the town. The *Montgomery Pioneer* newspaper was apparently published in November and December 1864, though no issues are known to

exist today. The paper was mentioned in Bodie newspapers, and one copy of it was reported to be in existence in 1881.
The *Montgomery Pioneer's* editor and publisher didn't stick around very long and later became Judge of the Superior Court of San Francisco. Mining in Montgomery City at the time can be well summed up in a letter to the editor he sent to the *Inyo County Register* (forerunner of the still-published *Inyo Register* of Bishop, CA).
"Benton, Mono Co., Cal., July 1, 1885, EDS. REGISTER -- In early days -- about '63 and '64, I believe -- some very rich rock was found in Montgomery Canyon, and a tremendous rush and excitement was the consequence. A lively little town of three or four thousand inhabitants at once sprung up, locations were made and mines opened out, and large shipments of rich ore made to San Francisco and other places. I have been told that some of the ore was worth from $2 to $3 a pound; but the ledges were broken on the surface, and apparently gave out, and the excitement soon subsided. In the meantime, parties prospecting around found rich ore on Blind Springs Hill."
Today, Bodie is the big ghost town attraction of Mono County. The original Benton is now a sleepy village with a small population. What maps show as Benton on U.S. 6 is a late comer in the area, established as Benton Station in 1880 when the narrow gauge Carson & Colorado Railroad came to the area. But Montgomery City is a true ghost town and rewards anyone who makes the rough but short trip up to it, an extremely enjoyable experience.


Nearly a dozen stone walls can be easily seen.

Nearly a dozen stone walls can easily be seen scattered throughout the site. They are all located within the confines of Montgomery Creek and the base of the White Mountains. One stone cabin nestled along the base of the mountains has a fairly intact roof with both square and round head nails, indicating later occupancy. Another stone cabin exhibits a nicely preserved hearth and fireplace.

A stone cabin exhibits a nicely preserved hearth and fireplace.

While I have been unable to go further up Montgomery Canyon, I have heard reports of what appears to be a mill site along the creek, just above the town site. Mine dumps can be seen on the face of the ridge just south of Montgomery Canyon.

Montgomery City is situated at an elevation of just over 6,500 feet and affords pleasant summertime browsing, though it can be warm in the direct sunshine. The camp is truly ghosted, so normal backcountry caution is recommended. I've seen plenty of lizards and had one snake run across my foot (fortunately a red racer). The area is situated in heavy sagebrush and scrub, with scattered pinyon pines. Montgomery Creek normally flows year around.

Those expecting to find another Bodie need not apply here. But if you're out for gorgeous scenery, abundant fresh air and a pleasant outing, then come to Montgomery City.

Travel Notes

Montgomery City is easily accessed from Bishop, Mammoth Lakes or Lee Vining, California.

From Bishop, take U.S. 6 north to Benton.

From Mammoth Lakes, one can either travel a series of scenic back roads around Crowley Lake to access Benton or take California Highway 120 from near Lee Vining (both routes closed in winter).

From Lee Vining, take California Highway 120 east to Benton (closed in winter).

Montgomery City is located 3.05 miles east of the junction of U.S. 6 and California Highway 120 at Benton (Station). From the junction, drive east 0.4 miles to the entrance to the Benton dump site. Turn north (left), then east and gradually climb the alluvium. At a point 2.95 miles from the U.S. 6 / CA120 junction, another road will cross just as you enter the pinyon belt. This is a good point to turn southeast (right) and drive a short distance to park next to a shady pinyon pine on Montgomery Creek at the road's end.

From this location, which is a nice picnic spot, the lowest of the ruins can be seen a short distance to the southeast.
The road from Benton dump site to Montgomery requires 4-wheel-drive, though it is not particularly challenging. It follows the alluvium for the most part, and while washouts occur in several places, there are obvious detours around the worse spots. The road is mainly tedious and slow, taking 45 minutes to an hour if you care about your vehicle's underside. Hikers often walk to the site, and my first trip to Montgomery City was on foot in 1981.

Desert Gold

Pegleg Smith and Jacob Walt


Gold on a quartz rock

Gold fever has stricken thousands of men and women over the years. The most significant and debilitating bout occurred in 1849 after gold was discovered at Sutter's Mill the previous year. This event led to the California Gold Rush, a time when gold fever plagued even the most innocent and content of men.

Legends and stories of gold mines filled the hearts, souls and minds of prospectors, driving them into some of the most dangerous and desolate lands in search of gold. The desire for gold can be so great that it motivates men to endure unbelievable hardships including starvation, dehydration and death.

The dry desert lands of the U.S. have been the location of many famous mines and gold discoveries. Mining towns such as Tumco, Bodie, Oatman and Randsberg were once booming with growth due to the mining operations which provided jobs and drew gold seekers from all over the country. When the mines closed, the towns died, and their remains have become ghost towns and tourist attractions. Only empty buildings, cemeteries, and broken-down stamp mills remain to tell their story, along with brief notes in the history books documenting their existence.

Open pit mine near Tumco

A few mines are still being actively worked today, but most mining companies that have tried to revive the old mines have been unsuccessful. The stories of lost gold mines still lure prospectors, even today. Many believe it is easier to find a mine that has been lost, than to discover a new location. The question is, "Do these lost mines exist, and are the legends of the lost treasures true?" We must ask ourselves the toughest question of all -- "Do I believe there is still gold to be found in the desert?" If I do believe, how can I find gold in the desert and where do I begin searching?

To help you get started on your journey, I will share with you some of the most famous legends and tales about lost mines and how they were once discovered and then lost again. These tales have been told by prospectors, doctors, law enforcers, rangers and by every common person who believes enough to retell the tale. Some of the stories have many versions, each containing a few facts that differ from each other. The differences are evident in the variance of descriptive landmarks, dates, and historical information.

The individuals who truly believe in a particular legend, spend the greater portion of their lives collecting data and facts about the lost mine they so

eagerly seek. They build files which contain details, bits and pieces of a legend so old and peculiar, they cannot rest until the mystery is solved. They keep hoping that one day soon, they will be the lucky one who discovers the long lost mine, the one which has been sought after for years by others with similar faith.

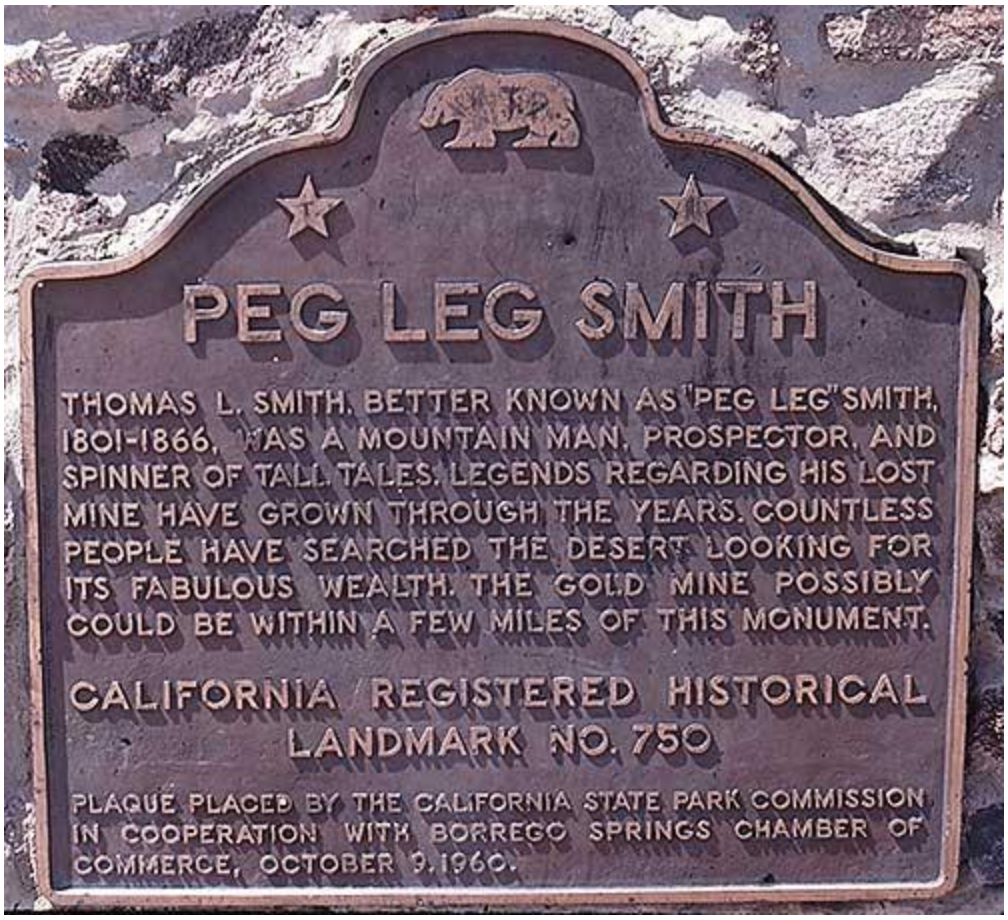
Each step into the desert may bring you a little closer to a fortune. Keep your ears and eyes open, for you may be the lucky one who discovers the three buttes where Pegleg Smith found his black-coated gold nuggets, or a gold filled saddle bag from the Peralta Family's last mining expedition.

Two of the most famous lost mines are the Lost Dutchman Mine of Arizona and Pegleg Smith's Mine of Southern California. To this day, both lost mines are actively sought after by old time prospectors and treasure hunters.

Pegleg's Lost Mine - video Riding on Gold - Pegleg Smith

It is said that more men have sought Pegleg's black nuggets than any other lost mine. There are multiple versions of the Pegleg legend as well as other stories of black nuggets that seem to correlate with some of the facts stated in Pegleg lore.

Pegleg Smith was a rugged mountain man who traded furs and supplies, rustled horses and trapped beaver. Pegleg, also known as Thomas Smith, lost his leg to an arrow during a trapping expedition in the fall of 1827. After his leg was amputated, his friends fashioned him a wooden leg, thus earning him the name Pegleg.



The famous legend began during a trapping expedition down the Colorado River in the late 1820s or early 1830s. Pegleg and his party had acquired a large number of pelts during their trip and selected Pegleg and another member of the trapping party to take the supply of pelts across the desert to Los Angeles for sale.

During their journey through the desert, Pegleg had gathered some pebbles which he found on top of a butte in the Colorado Desert. The butte was one of three, thus entering the significant landmark of three buttes in most versions of his story. He gathered the black pebbles thinking they were copper and carried them to Los Angeles where he later discovered they were gold.

It is said that Pegleg got drunk while in Los Angeles, started a brawl in the local saloon and was quickly kicked out of town by the authorities. On his way out of California, he stole 300 to 400 horses and drove them to Taos, New Mexico where he planned to sell them.

Many prospectors and historians wonder why he did not go back to the desert and search for the butte where he discovered the gold. During the 1830s and 1840s, Pegleg settled down and started a trading post along the Oregon Trail in Idaho, specializing in the sale of horses.

Lost gold area

It wasn't until after the 1849 Gold Rush that Pegleg returned to California to organize a prospecting party to search for the butte where he found the black gold nuggets. The group wandered around the desert unsuccessfully, and Pegleg ended up deserting the group and turn up later in Los Angeles. In 1853, Pegleg organized a second search party which had no greater success in finding the butte where he found his treasured black-coated gold nuggets. A third party was organized to search for another lost mine near the Virgin River, were Dutch George Yount, a trapper, claimed he discovered a ledge full of gold, which of course he was never able to relocate.
Pegleg's questionable character and his reputation for drinking and lying add to the controversy surrounding the legend of his lost mine. Since there is more than one version of the story, there are many contradicting facts. Some stories claim the butte where Pegleg found the black-coated gold nuggets was located in the Chocolate Mountains and not in the Colorado Desert area.
There are men who have claimed to have found Pegleg's lost Mine. One story describes the journey of a discharged soldier who followed Pegleg's trail from Yuma to Los Angeles. During his travels through the desert, he discovered the three buttes described in Pegleg's legend and finds gold nuggets. When he arrives in Los Angeles, he shows his friends the nuggets and organized an expedition to return to the desert to bring back more gold. The expedition never returned, and the members of the party were later found dead at the foot of the San Ysidro Mountains.

Prospectors often recite stories that support the fabled legend of Pegleg's lost mine. In one story, a miner is crossing the desert between Yuma and Warner's Ranch, when he climbs up one of three buttes to get a better sense of his location. When he reached the top of the butte, he discovered free particles of gold scattered about. He packed his saddlebags with approximately $7,000 worth of gold and continued on to Los Angeles. When the miner reached Los Angeles, he became ill and was taken under the care of Dr. DeCourcy. The miner confided his discovery to Dr. DeCourcy, and they made plans to search for the buttes as soon as he was well enough to travel. He died before he was ever able to return to the desert in search of his gold-covered buttes. Dr. DeCourcy searched for years, and was never able to find the three buttes the miner described on his death bed.

There are three Indian legends of black-coated gold in the desert that support Pegleg's legend. The Apache Indians spoke of a place in the desert where the ground was littered with gold nuggets. It was against the tribal law and beliefs of the Apaches to tell others where the gold was located. Because of their superstitions, their secret remained well kept.

The second legend concerns an Indian woman who was wandering about the desert in a state of dehydration. She climbed upon one of three buttes to try and figure out where she was and on the ground she found black-coated gold nuggets. While on the butte, she saw a railroad construction camp where she was given water, food and time to rest. While at the camp, she told the workers about the gold nuggets she found and left them with one of the nuggets before she continued on her way.

The third Indian legend is about a Yaqui Indian who lived and worked near Warner's Ranch. He made frequent trips into the desert whenever he needed money, always returning with black gold nuggets. No one was ever able to follow the Indian into the desert to discover his secret gold mine. Later, after the Indian died in a fight, $4,000 worth of gold was found in his bunk.

The Lost Dutchman Mine

There is another lost mine, equally as famous as the Pegleg mine, which has crazed the minds of prospectors and treasure seekers for years. It is called the Lost Dutchman Mine and is said to be located in the Superstition Mountains of Arizona.

The Superstition Mountains (their name inspired by Pima Indian legends) have been a source of mystery and legend since early times. The area is dotted with ancient cliff dwellings and caves, many showing signs of former habitation. It is not certain who these people were; some believe they were Salado or Hohokam Indians who populated this part of Arizona several centuries ago. Later, Pimas and "Apaches" (some of whom may have been Yavapais) occupied parts of the region. However, the name "Apache" came to be closely associated with the Superstitions, and the mountains became an Apache stronghold in the 1800s.

During the 1840s, the Peralta family of northern Mexico supposedly developed rich gold mine(s) in the Superstition Mountains. In 1848, during a routine expedition to carry gold back to Mexico, the large party was ambushed by Apaches, and all were killed except for a few Peralta family members who escaped. According to the legend, the Apaches buried and hid the gold and covered up the mine. This area is known today as the Massacre Grounds.

A number of other people, in addition to the Peralta family, had knowledge of the mine's location. Numerous maps have surfaced over the years, only to become lost or misplaced when interested parties pressed for facts. Men who claimed to have found the Peralta mine were unable to return to it, or some disaster occurred just before they could file a claim, all adding to the lore of a "lost mine."

Superstitions location of the lost gold?

In the 1870s, Jacob Waltz, "the Dutchman" (actually a native of Germany), was said to have located the mine through the aid of a Peralta descendant. Waltz and his partner, Jacob Weiser, worked the mine and allegedly hid one or more caches of gold in the Superstitions. Most stories place the gold in the vicinity of Weaver's Needle, a well known landmark. Weiser was killed by Apaches or, according to some, by Waltz himself. There are records of Waltz selling or transporting gold which are estimated to total $254,000.. The records do not account for any gold that was sold locally or given to family or friends.

Jacob Waltz moved to Phoenix and died in 1891, at the age of 83. $15,000 of gold was found under his bed after he died. He supposedly described the mine's location to Julia Thomas, a neighbor who took care of him prior to his

death. Neither she nor dozens of other seekers in the years that followed were able to find the "Lost Dutchman's Mine." Subsequent searchers have sometimes met with foul play or even death, contributing to the superstition and legend that surround these mountains.
In 1916, two miners found an old Spanish saddle bag filled with $16,000 worth of smelted gold near the site of the Peralta Massacre. This evidence, along with the stories and records of gold transport issued by Waltz, confirms the legend of the Lost Dutchman.
More on the Lost Dutchman

Do You Believe There's Gold in the Desert?

All of the legends and stories mentioned in this article have been told many times by miners and prospectors who believe that the Pegleg and Lost Dutchman Mine exists. The Indian legends of sacred gold caches, and the correlating stories of many others who have, in some way, encountered black-coated gold nuggets and other supporting data of these two lost mines, provide strong evidence that they do indeed exist.
In fact, there is a man who claims to have found Pegleg's Lost Mine in 1952. Join DesertUSA as we continue the search for gold in the Desert.

Hauser Geode Beds

Located on BLM Land, Near Wiley's Well Rd

by Lynn Bremner

On a recent trip to the Hauser Geode Beds near Blythe, CA, memories of my first visit came to mind. I was twelve years old the first time I went geode hunting with my family. My father had learned about the beds from an old prospector who frequently rockhounded there. The old man said we could easily find the famous Hauser Geode Beds by driving east on Interstate 10 through the Coachella Valley until we saw a sign pointing the way to the geodes. The prospector said we'd know we were there when we saw geodes abundantly scattered upon the ground. You can imagine how excited we were to learn of such a location.

The geode beds seemed like a fairly easy find, so my father packed us up into his 4x4 Jeep and we headed out of San Diego eastbound on Interstate 10. After a tiresome search for the geode sign we finally decided to stop and ask a local gas station attendant if he knew where the Hauser Geode Beds were located. It didn't take long to jot down yet another set of simple directions which led us to the Wiley's Well Road exit and down a washboard dirt road toward the Wiley Well and Coon Hollow campgrounds.

After a few hours of unsuccessful exploration down unmarked dirt roads, we finally found the Hauser Geode Beds. It was only an hour until sunset, and a

lone prospector who had been digging all day was packing his gear to leave. He was kind enough to show us the hole where he had found buckets full of fist-sized geodes. He even took a few minutes to show us how to extract them.

The prospector explained that geodes are found in groups located in volcanic ash beds, which is why they are referred to as geode beds. He showed us sample geodes from his bucket so we could easily identify them. At first glance geodes look like sphere-shaped, brown, muddy rocks and can easily blend in with the landscape. They are lighter in color than the darker varnished rocks which cover the land surrounding the geode beds, so they can easily be identified once you know what to look for. Geodes vary in size. Some are as small as a cherry and othersare as large as a grapefruit.

We thanked the fellow for his help and began to dig. The excitement was overwhelming and the tedious hours we spent searching for the geode beds were forgotten in the thrill of discovery. As my brother eagerly dug out the geodes, my father and I cracked a few open to discover beautiful crystals inside. It was a moment of pure delight.

We left the Hauser Geode Beds with a bucket full of geodes and huge smiles. It was the first of many successful rockhounding trips to Wiley's Well. Every Thanksgiving we returned to Coon Hollow campground at Wiley's Well to camp and search the desert floor for geodes and other rocks and minerals. Although I never forgot the excitement of the first geode expedition, I still feel a charge of mystery and anticipation each time we revisit the Hauser Geode Beds and the Potato Patch, another nearby collecting site.

Parking Area

Although our annual Thanksgiving trips to the Hauser Geode Beds have ceased, during a recent visit there I found myself digging in the volcanic ash beds with the same enthusiasm I had experienced years ago. Cautiously I tapped around an embedded geode with my pick. Each strike loosened the geode a little more from its thousand-year resting place. Finally, the geode fell into my hand and I broke it open to discover its contents. To my disappointment the geode didn't contain any crystals -- so I continued to dig and search for the next one.

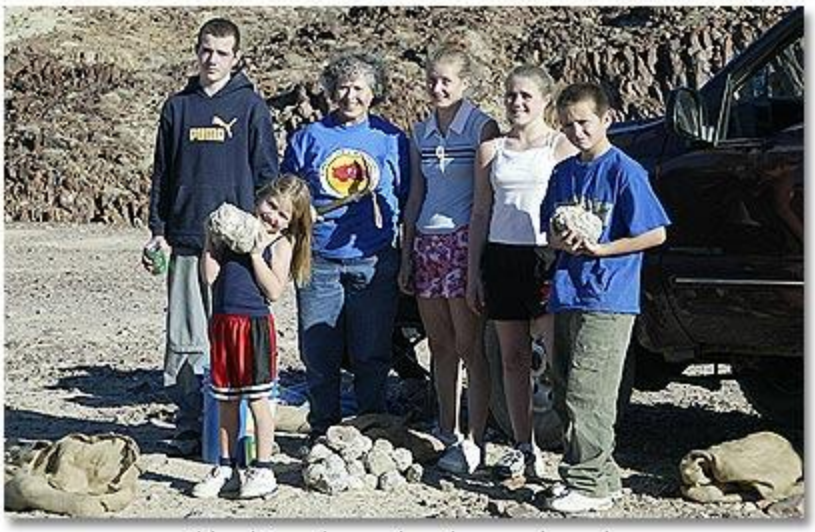
Bruce and Vic have been working the area for the last 30 years.

Break at Home Geodes

Shop Now

On one visit to the Hauser Geode Beds we met up with a field trip from Quartzsite, AZ. We took a few pictures to show that there are still many geodes waiting to be found.

Lots of work getting the geodes up the hill.



This picture is worth a thousand words.

Notes on the Hauser Geode Beds

Location: Take the Wiley's Well Road exit from Interstate 10 and continue driving south to the graded dirt road just past the state prison. You will pass Wiley's Well campground (9 miles south of I-10), and Coon Hollow campground (12 miles south of I-10). You will see a dirt road on the right with a marker indicating the route to the Hauser Geode Beds. (This is also the Imperial and Riverside county border.)

Dirt road with marker indicating the route to the Hauser Geode Beds.

Turn right on the dirt road and follow for about 4 1/2 miles, and take a right when the road splits again. This road will lead you to the two locations of the Hauser Beds.

Road to Hauser Beds

Tools: Make sure you take collecting buckets, hand picks and a shovel. Also take plenty of food and water. Don't go in the summer, it's very hot.
GPS coordinates Hauser Geode Beds - South end: 33° 22.567'N 114° 59.383'W The decimal degrees 33.376117 -114.989717 Stay on the dirt roads. This can be hard to find, you may want to get a copy of James R. Mitchell's *Gem Trails for Southern California,* there are also other spots to visit when you're in the area. The book *Gold Road to LaPaz* also covers this area. Get the AAA map for Imperial County. USGS has a online map locator and downloader -- you will want the Wiley Well - 7.5 and 15 Minute Topo Map. Get the free one, it's a PDF.

Tips: Start your day early, since it may take you a while to find the Hauser Geode Beds. You want to leave the area before dark to ensure a safe trip back to Wiley's Well Road. At night, it's much more difficult to see the roads and to find your way back to the main road.

Collecting Kyanite

In the Cargo Muchachos Mountains

By Delmer G. Ross

The name "kyanite," derived from the Greek word, *kyanos,* means "dark blue," but this useful mineral occurs in a variety of colors, including white, gray, green and brown as well as different shades of blue. It may even be colorless. It can be translucent, and as purity increases, transparent. On relatively rare occasions, rockhounds have found kyanite crystals that are both thick enough and sufficiently clear to facet into strikingly beautiful gemstones.

Kyanite

Most of the kyanite ore found in the Cargo Muchacho Mountains of California's southeastern Colorado Desert is grayish- to greenish-blue colored, although some of the other hues are present in small quantities. When found in combination with blue, the relatively unusual black variety can be especially striking.

Collectible kyanite usually appears in the form of long, thin blade-like crystals. Although the illustrations in most mineral handbooks are sufficient to enable one to identify it easily, a scratch test with a pocketknife is

another good way to do so. Kyanite crystals are measurably harder across their width (6 to 7 on Mohs' hardness scale) than they are along their length (about 4 to 5 on the scale). Therefore, a knife blade generally will not scratch them when applied crosswise, but when applied along their length will do so with ease.

Kyanite, sometimes spelled "cyanite" and sometimes called "disthene," is aluminum silicate. Andalusite and sillimanite are similar anhydrous aluminosilicates that have the same chemical formula as kyanite. They differ, though, in crystal structure and other physical properties. Along with andalusite, kyanite is heated to very high temperature to produce mullite and silica, both of which are refractories used commercially in the production of firebricks, kilns, boilers, spark plugs, and other ceramics and porcelains that need to withstand high temperatures. It is acid resistant. Moreover, because it does not conduct electricity, it is also used in the manufacture of electric insulators. As a consequence of such uses, where feasible, kyanite is mined commercially.

Operating two open pit mines in Virginia, the Kyanite Mining Corporation extracts some 90,000 tons of kyanite, with an unprocessed value of $12.7 million, per year. The company processes virtually all of it into mullite, producing about two-thirds of United States' yearly consumption. Most of the remaining third of demand is met by C-E Minerals, Inc., a Georgia operation that manufactures synthetic mullite, which contains no kyanite. Although with its yearly production of 250,000 tons, South Africa mines more kyanite than any other nation, little or none is imported by American users. In fact, the United States has such ample reserves that the federal government has been selling its stockpile, which by 1999 had dwindled to less than 150 tons.

The Bluebird mine quarry atop Bluebird Hill.

While small amounts of kyanite may be found throughout the Cargo Muchacho Mountains, it is concentrated in three fairly closely spaced locations along the southwestern flank of the range, near the once-busy little community of Ogilby. The three deposits, known as the Drifted Snow, the Ogilby Kyanite (also called the Bluebird Kyanite), and the Vitrefax, were mined jointly, originally as the Vitrefax Mine and, later, as the Bluebird Mine. The kyanite is found in quartz, quartzite and quartz-muscovite schist. The ore that was mined varied from about 15 to 35 percent kyanite.

Beginning in 1925, over the course of more than two decades of intermittent operation, the Vitrefax Corporation removed a minimum of 10,000 tons of kyanite-rich ore from its mainly open-cut operation – really, a quarry – on Vitrefax Hill. The ore was hauled by truck from the mine slightly less than three miles to Ogilby, and from there to Los Angeles by the Southern Pacific Railroad. Excavation ended in 1946.

Three years later, in 1949, the mine was acquired by the Aluminum Silicates Company of Los Angeles. Mining got under way again, and by 1956 an additional 21,000 tons of ore had been removed from various different quarries, including the Bluebird. Because of rising costs, the mine eventually was shut down, and all equipment was removed. Ultimately, even the mining claims were allowed to expire, despite the fact that by far the great bulk of the ore remains in place in the ground.

While the high hopes of the mine operators no doubt were shattered, what they left behind can be great fun for rockhounds. In addition to an abundance of kyanite ore, which polishes well and can be transformed into spectacular cabs, slabs and spheres, limonite-after-pyrite crystals have been collected from the flats below the mine. While it seems probable that most of those resting on the surface of the ground have already been collected, they still can be located. A friend found a perfect one in 2001. Collected on the flat immediately north of Bluebird Hill, it measured slightly more than an inch long. Quite a number are available in matrix on the west side of Vitrefax Hill, but it may be difficult to free them without damaging them. On the other hand, many find them quite attractive just the way they are. They will be surrounded by heavy rust stains in the kyanite ore.

The remains of an ore chute.

The best time to collect Bluebird Mine kyanite ore is from late October to late March. Avoid the summertime because the temperatures often climb to well above the 120 degree Fahrenheit mark. Winter temperatures can be warm enough, sometimes reaching 80 degrees or more. Therefore, be sure to carry plenty of drinking water—and to drink what you carry!

Getting to the Bluebird Mine is not difficult. It can be accomplished in even fairly low-slung, two-wheel-drive vehicles. From Interstate Highway 8, take Ogilby Road – also known as Imperial County S34 – approximately 3.9 miles north to its junction with the American Girl Mine Road. The junction is two-tenths of a mile north of the railroad tracks – for those with GPS readers – at 32°49.082' N by 114°50.258' W. Angle eastward onto American Girl Mine Road. Although this road was carefully maintained by the mining company until 1999, with the closure of the mine such maintenance ceased. Because now it probably will be subject to unrepaired washouts and other problems, you should proceed with caution despite the width and smoothness of some stretches.

Road to area.

Approximately six-tenths of a mile from Ogilby Road you will drive past some small structures off to the right. They house pumps for the wells that supplied water for the American Girl Mine, a major gold producer. Some 2.3 miles from Ogilby Road the route goes between two low hills, then under some power lines. To the right, ahead, will be two hills that appear to be separate from the Cargo Muchacho Range. In fact, it is possible to drive all the way around either one. The easternmost, and by far the higher, is Vitrefax Hill. The lower one, almost straight ahead, is Bluebird Hill. About 2.7 miles from Ogilby Road, at 32°50.800' N and 114°48.583' W, on the east side of American Girl Mine Road you need to turn very sharply right and backtrack for about 100 feet. Then turn left onto the steep, rough road extending from the flat below Bluebird Hill to its top. If you have a four-wheel-drive vehicle, you can probably drive the road to the top of the hill. Just take it easy. Another road, not so steep, reaches the top from the south end of the hill. Assuming you climbed up the steeper approach, at the top, at 32°50.803' N and 114°48.525' W, will be two roads going to the right. The first goes back down to the flat below. Take the second. It circles around the east side of the hill to the quarry at 32°50.755' N by 114°48.483' W. If you do not have a four-wheel-drive vehicle, just park alongside American Girl Mine Road or on the flat at the base of the hill. It is only a short walk from there to the mine. Some rockhounds prefer to walk anyway because some of the prettiest specimens have been collected from the weathered natural surface of the hill. Kyanite ore may also be collected from the base of the hill, on its eastern side, where it was bulldozed out of the quarry at the top.

Vitrefax Hill has been mined extensively.

Vitrefax Hill, with its many cuts and two still usable loading chutes, may appear very attractive to those who enjoy exploring. Because of loose soil above deep cuts and various other perils, though, it should be regarded as extremely dangerous and off-limits for children. Generally speaking, because of its pretty hue of blue, the kyanite ore from Bluebird Hill is more attractive anyway.

No services, supplies or accommodations are available at the mine location. If needed, most may be obtained at nearby Winterhaven, California, and Yuma, Arizona, about 20 to 24 miles southeast.

McCoy Mountains

Limonite Cubes

Text by Delmer G. Ross - Photographs by Karen A. Ross

"Limonite" is a term used to describe any iron hydroxide that has not been more exactly identified through the use of elaborate chemical analysis. Obviously, then, there are various different kinds of limonite. The one with which we will deal here is called "pseudomorphous limonite," after pyrite. Pyrite, also known as fool's gold because it has tricked many into believing it was the real thing, is iron sulfide, an iron ore. Under the proper conditions, though, pyrite can become iron hydroxide, or limonite. Its external appearance remains essentially the same, but the composition has been altered. Pyrite cubes have become limonite cubes, which have also been called "Indian Money" because people believed that the strangely shaped rocks could only have been shaped by man's hand, not by nature.

On the road to the collecting site

The McCoy Mountains, also known as the Ironwood Mountains, situated a few miles northwest of Blythe, California, can be a good source of limonite cubes. Small quantities have been found from one end of the range to the other. Probably the best area to search for them is on the low, desert-pavement-covered alluvial fans known as "bajadas," a Spanish word appropriately meaning "down slope." The bajadas are located along the southeastern flank of the mountains. Rain runoff has washed the cubes from their original matrix – usually either soft mica schist or much harder quartz – down to the flatter areas below. Of course, that same runoff water transported much other material to the same locality.

The resulting bajada was further eroded by water and wind to the point that much of the fine material was carried away, leaving a layer of closely spaced rocks on the surface of the bajada, a surface that resists further significant erosion unless something happens to disturb it. Such a surface is known as "desert pavement."

If one looks carefully, limonite cubes generally can be found in the desert pavement on the bajadas at the southeastern extreme of the McCoys, at the eastern edge of California's Colorado Desert. Collecting a cube, or removing any other rock, disturbs the surface sufficiently to speed up the erosion process until the surrounding area descends enough for another rock to replace the one taken, thus restoring the integrity of the protective desert pavement. This is why an area that has been searched until there literally are no more cubes will suddenly "sprout" new ones after a good rain.

To collect limonite cubes in the McCoy Mountain area, drive west from Blythe, California, on Interstate Highway 10, for approximately six miles to the Mesa Verde exit. Get off the freeway there, cross Mesa Drive, then continue westward on Black Rock Road, the frontage road that parallels the interstate highway. For those using GPS readers, the junction of Mesa Drive and Black Rock Road is located on the north side of the interstate highway, at 33°36.659' N by 114°43.640' W. Drive 1.3 miles west on Black Rock Road to 33°36.573' N by 114°44.981' W. At that point turn north on a narrow road that is almost hidden by tall creosote bushes. The first mile of this road can be very sandy. Much depends on how the last rainstorm may have left it. Therefore, unless your vehicle has four-wheel drive, you should probably get out and check the road before driving over any portion of it.

Assuming you decide to continue, about 1.4 miles north of Black Rock Road, at 33°37.716' N by 114°45.161' W, the road will climb steeply to an area of rolling desert pavement composed largely of strangely rounded pebbles. This is the northwestern extreme of Pebble Terrace, where the Colorado River once deposited many square miles of such worn rocks. Although in some places it has been washed away and in others covered by wind-blown

sand, this pebbly formation extends some 12 miles south to a point west of the community of Palo Verde. Because of its nature, Pebble Terrace contains rocks from nearly the entire drainage area of the Colorado River above this point.

Rockhounds have discovered the rounded pebbles can be almost anything, from various kinds of agate to petrified wood. Because almost all of the surface pebbles are covered with desert varnish, the true identity of some can be well hidden. Knocking off a small chip with your rock hammer, though, should take care of that. Pebble Terrace is a collecting area that can be enjoyed by all, from the youngest rock pup to fully grown and experienced rock hounds. Rockhounds should be warned, though, that much of Pebble Terrace to the north of Interstate 10 is

on private property or on gravel mining claims. To avoid problems, any extensive collecting doubtlessly should be done where it is more welcome. The area to the west of Palo Verde is probably the best known and most easily accessed.

To reach the limonite-cube collecting area, though, continue driving northward, past the entrance to private property, to a wide wash 3.7 miles from Black Rock Road. Cross the wash, taking care to cross it rather than to drive up it. In another 0.1 mile, at 33°38.316' N by 114°45.912' W, turn west and drive 1.1 miles over a meandering road along the north bank of the wide wash you just crossed. About 0.35 miles from where you turned onto it, the road climbs slightly onto a desert-pavement-covered bajada, but it continues along the north side of the wash. At 33°40.105' N by 114°46.901' W, where to your left in the wash you will see the rusted remains of an old delivery truck, you will reach a crossroad that descends into and then crosses the wash. Turn left and drive across the wash 0.1 mile to 33°40.033' N by 114°46.913' W, on top of the bajada on the other side.

The collecting area begins at 33°40.033' N and 114°46.913' W, at the eastern extreme of a long bajada, and continues 0.9 mile west, up the bajada, to about 33°40.053' N by 114°47.720' W. Look for shiny flat surfaces that, despite being jet black, reflect brighter than the equally black surrounding desert pavement. The cubes are especially noticeable in morning sunlight, from about eight to eleven o'clock. If you are unsuccessful here, try the bajadas to the north or south of this one.

Fuel and limited services and supplies can be obtained at the Mesa Verde exit from Interstate Highway 10. Accommodations and additional services and supplies are available in Blythe, about 10 miles east.

Hunting for Meteorites

How to Find Them

Text and photos By Dale Lowdermilk

How many times have you wished that you could find a way to make a little money from your 4-wheeling weekend, dirt bike, metal detector, or just walkin' across one of California's desolate dry lakes? Well, if you're observant, persistent and a little bit lucky, there may be some bucks waiting out there in the boondocks, just under your nose...and literally right out of the blue.

During the past five years, there has been a rapidly increasing demand from universities and planetary scientists for freshly fallen meteorite material. The result has been an increasing cost to acquire rocks from space, which translates into big bucks for those little shooting stars you see at night. If you know what to look for, they can, literally, become dollars from heaven. [See collecting rules from the BLM below.]

Craters near Winslow, Arizona

Meteorites are remnants of other worlds, pieces of comets or asteroids blown apart by collisions with each other or, in some cataclysmic cases, with

the earth. These pieces of rock or iron (or both) which survive their fiery plunge through our atmosphere can create huge craters like the one near Winslow, Arizona. This crater, nearly a mile in diameter and 600 deep, was created in 10 seconds, about 50,000 years ago by a 100-foot diameter chunk of iron and nickel traveling about 40,000 mph.

This hyper-rock created an unimaginable explosion, most of it disintegrating upon impact, but throwing small pieces over a 12 mile area. There are more than 15 known impact craters throughout the U.S. from which fragments are still being found by treasure hunters, hikers and off-road vehicle enthusiasts.

In addition to craters, there are locations where meteorites have exploded or fragmented at high altitude and dispersed pieces over a wide area, known as a **strewn field**. These zones can cover just a couple of square acres (Holbrook, Arizona) or several thousand square miles (Namibia, Africa).

Such areas may contain pieces barely distinguishable from surrounding rocks, or they may stand out like a sore thumb, as on a dry lake bed or wide expanse of desert. The fragments may range in size from 1 gram to 1 ton and have high levels of iron or barely a trace. (Magnets will be attracted to 95% of all meteorites, so that is a simple preliminary test you can make in the field.)

Most meteorites that have recently arrived on Earth will have a dark brown or black fusion crust on their surface, the result of a high-speed entry into the atmosphere. Newly identified falls are of great interest to researchers and scientists who can study the sample before it has rusted or become contaminated with terrestrial pollutants.

One of the most famous, if not the most valuable meteorite to be scrutinized by NASA and the news media, was found in Antarctica (Allan Hills) in 1984. After reexamination with an electron microscope it was found to have possible fossilized materials believed to have come from the planet Mars.

If you happen to be ice-biking, or 4-wheeling or prospecting near glaciers or ice fields, keep in mind that solitary rocky material is seldom found embedded in ice, and if you see one, it could be a rare kind of meteorite. Some museums and universities have paid from $100 to $5,000 per gram for this particular (Allan Hills 840001) specimen, but most iron meteorites are sold or traded by collectors from 10 cents to $1.50 per gram, depending upon their variety, authenticity and size. Like gold nuggets, the price is determined by the market -- sometimes a feeding frenzy develops over a particular stony-iron, or recently acquired one-of-a-kind meteorite.

There are many informative and educational books available to anyone interested in prospecting for meteorites. Two of my personal favorites are "Rocks From Space" by O. Richard Norton, (Mountain Press, Missoula

Montana) and "History of Meteorites" by Astronomical Research Network (Maplewood, Minnesota).
There are several individuals and organizations -- with catalogs or websites -- that buy and sell meteorites or can help identify suspected meteorites including:
New England Meteoritical Society (Mendon, MA)
Bethany Sciences (New Haven Connecticut)
Smithsonian Institute (Washington, D.C.)
Center for Meteorite Study (Arizona State Univ., Tempe, Arizona)
Robert Haag (Tucson, AZ)
Mare Meteorites (Oakland, CA)
MMR Inc. (San Jose, CA)
Walter Zeitschel (Hanau, Germany)
Swiss Meteorite Lab (Glarus, Switzerland).

Much information about the formation of our sun and surrounding planets can be derived by scientists, geologists and astronomers studying these visitors from outer space. Astronomic and geophysical theories about how Earth was created (and will perhaps end) have been derived from the chemical and crystalline structures of the three major meteorites categories: iron, stony and stony-iron.
If you think you've found a meteorite, three preliminary tests should be performed:

1. Is it heavier than a normal rock of the same size?
2. Does it attract a magnet?
3. Does it have a dark brown or black crust?

If you can answer "yes" to all three questions, there is a chance that you may have a meteorite. For a nominal fee, most university planetary science departments or a licensed mineral testing laboratory will conduct an accurate final analysis. (Don't buy any meteorite until it has been tested and a written verification has been presented. It's very easy to mistake a meteorite for an ordinary piece of hematite, iron slag or other material. There is a growing "counterfeit" problem among meteorite sales.)

If you see a meteorite fall, it's important to record the exact date and time, geographical location, visible landmarks, approximate angle of descent and impact, color, size and shape of the object and whether or not you heard any sounds or explosions. If you find something on a dry lake bed, sand dune or glacier that looks out of place, or your metal detector indicates iron

or nickel in that strange looking rock, it's probably worth further investigation and might make you a little richer.

BLM - Rules for meteorite hunters 10/01/2012 - on BLM land.

Casual Collection: Meteorites may be casually collected (i.e., free and without a permit), pursuant to BLM's regulations at 43 CFR 8365.1-5. In accordance with those regulations:

Collection of meteorites is limited to certain public lands. Public lands closed to casual collection include: developed recreation sites, certain units of the National Landscape Conservation System, areas excluded from casual collection in a Land Use Plan such as an Area of Critical Environmental Concern (ACEC) or a wilderness area, and areas closed by supplemental regulations;

Individuals are limited to collecting what can be easily hand-carried, up to a maximum of ten pounds of meteorites per individual, per year; Only surface collection of meteorites using non-motorized and non-mechanical equipment is allowed (metal detectors may be used); and

Casually-collected meteorites are for personal use only, and may not be bartered or sold for commercial purposes.

Scientific and Educational Use:

Individuals or institutions intending to collect meteorites for scientific research or educational use must obtain an Antiquities Act permit through a Bureau of Land Management (BLM) State Office, in accordance with 43 CFR 3.

Applications for an Antiquities Act permit will be reviewed by the authorized officer in the BLM State Office with jurisdiction over the Cultural Resources program.

Collection amounts allowed for scientific or educational use are specified in the permit and are not subject to the limits (ten pounds) established for casual collection.

Meteorites collected under permit must be curated in an approved repository, and must meet the requirements for curation as defined in 36 CFR 79.

Commercial Collection:

Unless otherwise prohibited by laws, regulations, land use plans or closures, meteorites may be commercially collected by individuals possessing a land use permit issued under the authority of the Federal Lands Policy and Management Act (FLPMA). Land use permits are issued by the local BLM office in accordance with the regulations in 43 CFR 2920.

The applicant must pay an application fee, a purchase price based on either a unit price or a percentage of the fair market value of the removed material, and a reclamation fee as appropriate. The permittee must comply with all environmental laws and regulations for surface disturbing activities on public lands.

Collection amounts allowed for commercial use are specified in the permit and are not subject to the limits (ten pounds) established for casual collection.

Charles Breyfogle and His Lost Mine

The Legend of the Lost Breyfogle Mine

By Robert P. Ezzo

The legend of the Lost Breyfogle Mine holds an important place in the lore that enriches the heritage of the American West. While there have been numerous published versions of the tale, few have captured the full range of the adventures which led Charles Breyfogle to his chance discovery of gold in the Nevada desert.

Heading West

Charles Breyfogle got his start as a prospector during the great gold rush to California in 1849, when he and his older brother Joshua joined 100,000 people – the "49er's" – drawn from throughout the world to the Sacramento Valley and Sutter's Fort by James Marshall's discovery of "...something shining in the bottom of the ditch..."

While many prospectors in the California Gold Rush ended up dead broke and sometimes just plain dead, the Breyfogle brothers had at least some success... and a lot of adventure. This was especially true of Charles, whose story long lay buried in a diary by his brother, the newspapers of the day,

and archives in Sacramento's State Library and San Francisco's Sutro Library.

In the early spring of 1849, according to Joshua's diary, in which he chronicled some perfectly ordinary as well as some extraordinary events, the brothers left Lockhart, New York, and headed west with a train of saddle horses, two wagons and draft horses.

After two days on the trail, they joined a group of 49er's headed west from Columbus, Ohio.

Within a week, the Breyfogles and their new companions arrived at Delaware, Ohio, and soon thereafter, at Xenia, Ohio.

By April 9, they had reached the Mississippi River, taking a ferry across. During the crossing, a man named McCollum, one of the Columbus group, fell overboard and very nearly drowned before he could be fished out of the water.

Soon thereafter, the party arrived in St. Louis, a town Joshua described as being a very shabby, dismal-looking settlement with narrow streets. He attributed the appearance to the French, who had founded the city as an Indian trading post some 85 years earlier.

On April 25, the party headed south out of St. Louis, into Indian country. While crossing a creek, a wagon was banged up, with the bows supporting the canvas top sustaining the most damage.

On the night of April 30, a violent storm struck. Winds collapsed the 49er's tents. Rain soaked their supplies. For awhile, the party would have to eat sea biscuits (unleavened bread made in the form of large hard wafers), the only food available.

The next day, May 1, the 49ers passed a Pawnee village with guns loaded in case of attack.

On May 2, they passed an Army post.

On May 4, they camped on the Little Blue River, which cut across the Great Plains. They spent a half day repairing the damaged wagon. They had good stock, Joshua said. A team of draft horses could pull a wagon twice as far in a day as a team of plodding oxen.

On May 10, the 49er's shot at pronghorn antelope, hoping for fresh meat, but every man missed his prey. No one could do anything but joke and laugh at the poor marksmanship. On the same day, the 49er's came upon a man – an Iowan – who had been wounded in a knife fight. They patched him up.

On May 31, they passed Scott's Bluff, in Nebraska, and they killed three buffalo—larger and more ponderous targets than the swift and graceful antelope.

By June 3, they had reached the banks of the Platte River. They paid a ferry operator $2 a wagon to shuttle them across. With improving marksmanship, the men shot several sage hens, which furnished a welcome change in diet. With Indians appearing more frequently, the party doubled its guards for the night.

On June 23, the party reached Salt Lake City, where the men found and relished fresh vegetables. Three days later, they took to the trail again, with wagons repacked, loads reduced, wheels re-set, and water barrels filled—all in preparation for the desert crossing which lay ahead.

For three long days, the Breyfogle brothers and their comrades struggled along a trail of ever deeper sand and the suffocating air of a howling dust storm. For two of those days, they found no forage or water for their livestock. Their draft horses wore down, two thirds of them becoming completely exhausted. The party jettisoned gear to lighten the burdens. The trail, said Joshua, was plainly marked with dead livestock.

Finally, they approached Carson Sink, a swampy remnant of an Ice Age lake on Nevada's Carson River. They unhitched the draft animals. While Joshua remained behind to guard the wagons, Charles drove their livestock on ahead to the sink for desperately needed water. The brothers regrouped with the party at the sink, where the 49er's would pause for two days to rest their livestock. The Breyfogle brothers, with their draft animals nearly spent, had to abandon a wagon. Moreover, they had lost their best saddle horse to Indian thieves.

On August 5, the party passed Lake Tahoe.

Finally, on August 14, the Breyfogles and their party pulled into Sacramento, ready at last to pick up gold nuggets and get rich quick.

Prospecting

On September 25, the Breyfogles began their search for gold in the promising areas of Butte Creek and the Chico River, in the Sacramento River drainage. Evidently disappointed, they soon returned to Sacramento. By early January, 1850, the brothers renewed their search at the Yuba River, 12 miles above the California gold rush tent city of Marysville. They built a wing dam to divert the flow of water, allowing them to dig for gold in the bottom of the stream. A month later, again disappointed, they moved upstream, to Goodhues, where they started to work on a new claim, this time with some success. In his diary, Joshua noted that over several days, they recovered $15, $18 and $45 worth of gold in digging in the river bottom. They recovered another $12 in gold from the bank above the river, after storm waters overflowed the river bottom. Things continued to improve.

Old gold pan

On December 7, 1850, more than a year and a half since they left New York, Charles Breyfogle left their diggings to return home, to his brother-in-law's farm, carrying $20,000 worth of gold in a suitcase, leaving his brother behind.

Return to the West

In 1851, Charles returned to California with gold in his pockets. He settled in Oakland, where he was elected county assessor in 1854 and treasurer in 1859. His luck turned bad while he was treasurer, when, after an audit, he couldn't account for $6500 of county funds. He landed in jail, although he was soon exonerated and released.

The prospecting bug bit him again. This time it was the lure of Nevada's new silver bonanzas, which drew him to Virginia City. While there, stories began to circulate about a mining rush at the Reese River near Austin, Nevada, where W. H. Talbot's horse had kicked up a fragment of quartz which contained gold and silver in 1862. More stories arose about the gold found in central Nevada's Big Smoky Valley. Charles saw opportunity. He opened a real estate office in a two-story hotel at the mining camp of Geneva.

Gold on Quartz

Bad Timing, Bad Luck

Unfortunately, his timing and luck would both prove to be bad. The Geneva veins of ore were already dwindling, and opportunities were fading. As fate would have it, however, one night in 1863 – while the Civil War raged in the east – three men checked into the hotel. They ordered drinks from the bar in the lobby. Breyfogle overheard them discussing a crude map. He concluded that the document must be the key to the legendary Lost Gunsight Mine of Death Valley. Apparently eavesdropping on the conversation, Breyfogle

became convinced that the three men were on to a good lead. He followed them across Nevada, catching up with them somewhere between Tonopha and Goldfield, about half way between Reno and Las Vegas.

Old wagon near Death Valley

To Breyfogle's considerable surprise, he learned that the men where headed, not on a search for the Lost Gunsight Mine, but to Texas to join the Confederacy. The crude map would supposedly lead them safely past Union outposts. The men invited Breyfogle to join them, which he did, since he was apparently always drawn to adventure. The party headed for the Salt Lake to Los Angeles trail, where they would join a wagon train headed east. They could travel more safely, they reasoned, if they joined a large group.

Three days later, Charles Breyfogle and his new companions encamped south of Ash Meadows, an oasis of warm springs in the Mojave Desert's Amargosa River Valley. Fortuitously, he laid his bedroll out in a sandy, shallow depression east of the campfire, apart from the others. In the middle of the night, Breyfogle awoke to discover that Indians were bashing in the heads of his three comrades. He had not been seen. He grabbed his blanket and boots. He fled into the darkness.

Breyfogle wandered in the desert for several days, with no provisions and no weapons, but his luck was about to change, momentarily for the better. He found a spring. He drank and rested. He took off his boots to use as canteens. Somewhere near the spring, he discovered a deposit of quartz embedded with a brownish-looking metal. Gold! Excited, he broke off several small samples to take with him. He didn't know it at the time, but he would never see the spring or the strike again, although it would not be for lack of trying.

He headed south, steering clear of a hostile Indian village, eventually discovering wagon tracks, which he followed to Stump Spring in the Pahrump Valley, in Nevada's eastern Mojave desert. He had found the immigrant trail.

Thinking that sooner or later a wagon train would show up and rescue him, Breyfogle waited at the spring. Unfortunately, his luck was about to change again, this time for the worse, when the Indians found him, taking him prisoner and making him a slave.
For months, he had to gather wood with the squaws. He served as a horse for the Indian's children. He had to "buck" as they prodded him with a stick. He couldn't buck high enough to suit one of the heavier children, who smacked him over the head with a club.
He was in bad physical condition – although he had managed to hold on to his samples of gold ore, perhaps driven by the dream of wealth – when a wagon train of Mormon pioneers finally discovered him in the Indian village and freed him with a ransom. The pioneers carried him to a ranch at Manse Spring, a desert oasis in southern Nevada, where they left him, nearly dead, in the care of the owner's wife, Mrs. Yount, and her daughter, Mrs. Harsha White. The two women nursed him back to health. Grateful, he told the family about his discovery of the rich outcropping of gold. He showed them his rock samples, which, he hoped, foretold wealth. Allegedly, Indians later showed the family similar samples.
After his recovery, Breyfogle returned to Austin. Over the next 26 years he organized parties to search, in vain, for the vein of gold, concentrating on the region northeast of Death Valley. He covered a wide swath of southwestern Nevada, from Daylight Spring to Salt Spring, from Goldfield through the Rhyolite Hills to Tecopa. Charles Breyfogle's name appeared in print for the last time in 1889, when he helped to start a new lead and silver mining district at the camp of Eureka, Nevada.

Theories Abound

Through the years, writers have offered many theories about the location of Breyfogle's discovery. In 1953, for example, in *Lost Mines and Buried Treasures Along the Old Frontier,* John D. Mitchell suggested that the lost mine was located near Las Vegas. Ten years later, in *Lost Desert Bonanzas,* Eugene Conrotto indicated that he thought the mine was near Salt Spring. At around the same time, in *Lost Mines of Death Valley,* Harold O. Weight wrote that he believed that mine was located in Daylight Pass.
In an article about the Breyfogle discovery published in 1964 in *Western Treasure Magazine,* author Burr Belden said that he was assured by Yount family descendents that the ore shown to them by Breyfogle came from the Johnnie Mine, near Johnnie, Nevada, north of Pahrump. The samples were similar to others they knew came from the Johnnie Mine. Using the information provided to him by the Yount descendents, Belden proposed that Breyfogle wandered to the vicinity of the Johnnie Mine (in what later became known as the Johnnie Mining District) by way of the East Chicago Valley as he skirted an Indian village in the Pahrump Valley. Belden believed that the

Yount version was correct because it came from Jim and Della Fisk, the son-in-law and daughter of Harsha White.
Even if the Lost Breyfogle Mine and the Johnnie Mine are one and the same and the mystery has been solved, Breyfogle's story will continue to attract researchers and hobbyists. It remains one of the West's epic yarns of lost treasure.

Note: The Johnnie District, the location of the Johnnie Mine, is in Nye County, in southwestern Nevada, on the north end of the Pahrump Valley, in the low hills west of the Spring Mountains in Townships 17 and 18 South, Ranges 52 and 53 East. Most of the placer activity was conducted in the washes below the Congress Mine in Township 18 South, Range 52 East, Section 1, east of Montgomery Mountain and one-half mile south of the old mining camp of Johnnie. The gold-bearing gravels range from 6 inches to 25 feet deep. Samples taken from the six-inch material averaged $6 to $30 per cubic yard. Placer gold was also recovered below the Johnnie and Overfield Mines in Township 17 South and Range 53 East, Section 20, and at the Labbe Mine in Township 17 South, Range 53 East, Section 30, northeast of Johnnie on the west slope of the Spring Mountains. The types of placers found in the district are residual, stream and hillside deposits.

Getting There

Take Interstate 15 south out of Las Vegas to the junction of State Route 16, which you will follow west and north past Pahrump for approximately 70 miles to reach Johnnie. Mines and placers are on both sides of the highway, southwest and northeast of the town on the slopes of Mount Schader and Montgomery.