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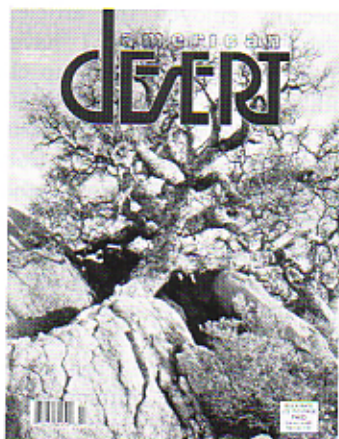


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COVER: Elephant Tree, Baja California (see story on page 12) Photo credit: Jon Stewart.

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FROM THE PUBLISHER

Dear Reader,

We've been very pleased with the reception of *American Desert*. It seems that many desert lovers were waiting for this kind of magazine and it fills a need, not only for those who knew the old *Desert* magazine, but for many new readers as well. The magazine is now on newsstands and bookstores mostly in the southwest. If you can't find it at your local supermarket chain or bookstore, ask the manager to get it. Most people like to see a copy before subscribing to a magazine and hopefully when they see one copy, will then subscribe and be assured of a constant source of interesting articles.

One very good piece of news for our California subscribers - there is no longer a state sales tax on subscriptions (although still on single copy sales), so the price for all is now just \$18.00 a year. Also one big headache less for the publisher! As this goes to press, we have several thousand happy readers already, and every day brings in more subscriptions, so "Desert Lovers," please keep up the good work of spreading the news.

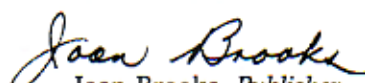
The Five Favorite Books contest was a "no show," so we'll try again, this time with a Photo Contest (See elsewhere for details). We're learning! We need your input on the kind of articles you'd like to see, so keep the letters coming.

We have one reader who has good eyesight - a veteran rockhound and hiker. She pointed out that the photo captions on page 39 and 41 of the first issue are reversed. No, we can't move mountains! We apologize for the error, but are heartened that people actually read every word!

In this issue we introduce a new feature - "Desert Kid's Corner" on page 43 - a sneaky way of getting subscribers from the ground up, so to speak, and a boon for the kids in some of their homework assign-

ments, as well as fun for readers of all ages.

This issue features a few articles about our neighbors south of the border that we hope you will enjoy. The Baja California desert in many ways is much like the United States desert was about seventy or more years ago - very little development, rough terrain and an untouched natural environment. The challenges are still there, as well as the primitive beauty, and fascinating places to explore. Enjoy!


Joan Brooks, Publisher

LETTERS TO THE EDITOR

Dear Editor,

Back in the mid '30s when Randall Henderson wrote to my husband about publishing his first *Desert* Magazine we did not send for his first issue and have always been sorry. Warner knew Henderson when both lived in El Centro for many years.

Now I am very happy to have your first issue of the *American Desert* to enjoy every page. As I know the desert, you have done a wonderful job to cover a variety of good subjects, and great pictures. The desert produced many characters or made characters of those I've known. Of Indians, Johnny Mac, son of Fig Tree John, and Ed Kintano. Some Miners, Gus Lederer, L. Lyons, Frank Coffey, John de la Garza, Mr. Augustine and many others. The early Desert Sun School too. All came to the Mecca Post Office where I helped in '29 and '30's. I must not forget John Hilton who finally learned to paint to make our beloved desert come alive.

Sincerely, Mrs. Warner V. Graves
San Jacinto

Dear Editor,

Congratulations on an extraordinary first edition. Exceptionally good pictures. All articles in *American Desert* Magazine are interesting, educational, and fun to read. For those of us who use, enjoy, study, love the desert a subscription to your publication is a must. I look forward to your next issue. Thank goodness I subscribed.

Sincerely, Byron Dillon
Bullhead, City, AZ

Dear Editor,

Bill and I were so pleased to receive our first copy of your new endeavor, *American Desert* magazine. Living in the wettest part of Texas for the past 11 years, we really enjoyed reading about your dry area of the country. We especially enjoyed the article, "Two Flash-Flood Chasers." I have never experienced a flash flood up close but with all of the rain here (over 80 inches last year!!), we are under flash floods watches and warnings quite frequently. Having worked with the weather since 1963, Bill finds lots of beauty in what us common folk find quite frightening. He is very similar in feelings about nature and its wonders as were the authors of that well-written article. We're so glad we subscribed to the magazine and look forward to future editions. We eagerly await our next copy.

Laurel and Bill Patterson
Alvin, Texas

BLM Holds "Kelso Depot Transfer of Title Dedication"

Location: The Kelso Depot is located thirty miles southeast of Baker, California within the East Mojave National Scenic Area (EMNSA), which is managed by the Bureau of Land Management (BLM). It lies between two major interstate highways - I-15 to the north and I-40 to the south - and is approximately four hours from the Los Angeles area to the west, and two hours from Las Vegas to the north.

Background: At the turn of the century, the Los Angeles Salt Lake Railroad stretched across the Mojave Desert. The ascent from Kelso to Cima required helper steam engines. Kelso became essential as an accessible source of water. The community of Kelso evolved around the railroad's needs, and growing homesteads, ranching and mining industries.

In 1923, the Mission Revival style Depot was completed, replacing an earlier "box car" building. Built to house and feed railroad workers, the Depot was open to all. Miners, ranchers, farmers and travelers would stop at the 24-hour dining room known as "The Beanery," the

East Mojave's place to eat and meet. Dances, church services and even court hearings were held in the basement of the Depot. As steam locomotives disappeared and the more powerful diesel arrived, Kelso's importance was diminished. By the 1970s, the town of Kelso had faded.

When the Depot closed in 1985, public outcry kept the building from being demolished. In 1987, the non-profit Kelso Depot Fund was established to help acquire the Depot. In 1992, Union Pacific Railroad, who owned the property, transferred ownership of the building to the BLM. The BLM is also acquiring approximately four acres of railroad land within the area. Other property in the immediate vicinity is privately owned.

The goal of BLM in acquiring the Depot is to have it serve as an administrative/interpretive center for the East Mojave National Scenic Area. Public comments suggest that the Depot might also include a restaurant, overnight accommodations, and provide space for public meetings and the Kelso Post Office.

On November 21, 1992, the BLM in conjunction with the Kelso Depot Fund, held ceremonies transferring title of the Kelso Depot from the Union Pacific Railroad to the Bureau of Land Management. Speeches, historical presentations and tours were given by railroad personnel and citizens who once frequented the Depot during its active years. In addition to the above named parties, a representative from Congressman Jerry Lewis' office, also spoke as he had lobbied long and hard for funding to keep the Depot dream alive.

Copies of an original painting by local resident Carl Faber were sold in the form of posters. These posters and other material are available at the Hole-In-The-Wall Information Center located within the Scenic Area on Black Canyon Road.

For further information on Kelso Depot or any activity in the East Mojave National Scenic Area, contact the BLM office in Needles, CA at 619-326-3896. Bureau of Land Management, Needles Resource Area.

PHOTO CONTEST

American Desert magazine will be awarding prizes for the best black and white photos submitted each issue.

First Prize: \$25.00

Second Prize: \$15.00

American Desert is also interested in viewing 2 x 2 color slides for possible front/back cover use. We pay \$25.00 if used. Also if you have color prints that you feel can reproduce well in black and white, these will be accepted for the contest.

Both black and white and color are for first publication rights only.

Photo Contest Rules:

1. Prints for bi-monthly contest must be black and white 5 x 7 or larger, printed on glossy paper.
2. Each photograph submitted should be fully labeled as to subject, time and place. Also include the technical data: camera, film, shutter speed, aperture setting.
3. Prints will be returned ONLY when return postage is enclosed.
4. All entries must be in to *American Desert* magazine by the first of the month three months prior to contest month, e.g. Feb 1st for the May-June issue, etc.
5. Both first and second place prize winning photos will be published in the next issue of *American Desert* magazine.

Address all entries to: *American Desert Magazine*,
P.O. Box 1303, Desert Hot Springs, CA 92240.



a Pilgrimage to

By John Richard Purcell

"Expedition" - the very mention of the word conjures up visions of trekking and discovery. Yet sometimes we forget that all of us, in one way or another, can make some part of our lives an expedition, even if the trip is only to an old and secluded mission in Mexico. This summer, such a trip was made, a trip to the San Borja Mission, located in the center of the Baja Peninsula, about 400 miles south of the Mexico/California border. And, like every good Baja trip (and, rarely, are there anything but *good* Baja trips!), this one was complete with its own set of sub-adventures.

To travel into central Baja in late June kicks off an adventure, in and of itself. Now, Baja can be warm in the summer and Baja can be hot in the summer. Then again, Baja can be **HOT!** Oh, if only the English language were more classical. Perhaps then, we'd have a word to precisely describe the exquisitely miserable, stewing effect that the Mexican summer can impart on the traveler. But, then again, such a term would be better experienced than described. For those readers who have experienced **HOT!**, my sympathies.

And, so it was **HOT** when we traveled down to our base camp at Bahia de los Angeles this past June. Our intrepid band of travelers included Jon Stewart, a botanist and photographer, Cameron and Katie Barrows, Ornithologist and biologist respectively, Jennifer Priest Purcell, naturalist, wife and general all-around wonderful person, young Colin Barrows, son of scientists and future recipient of the Indiana Jofes lifetime achievement award and, lastly, one beautiful ten year old daughter, Nikki Purcell, purveyor

of sweetness and caring to all who know her. Oh yes, and then, of course, there's me: a fellow always eager to describe how wonderful the peninsula was back in '73, back when "men were men" and "real Baja explorers didn't need ice." Embarrassingly, I'm always quick to add that, "back in the good old days, *real* explorers got *real* sick but were *really* tough and *really* didn't mind being sick" - you can see how the Baja sun can affect the brain. But, back to the trip.

We arrived at Bahia and set up our camp after a typically beautiful drive down Mexico Highway 1. No matter what the conditions, the experience of driving down the peninsula is always incredible. It is very true that, for the most part, the traveler is taking a trip back through time to the early days of California. And, if you take the time to slow down, you can be completely enveloped by the "Baja Experience." Once you get below San Quintin, the small towns and villages become the jewels of the adventure. El Rosario, where the highway turns inland into the peninsula, still hosts adobe homes and fields plowed by hand. Colors flash like lights on the earthtone background as the reds and yellows and oranges of the blouses and flowers reflect the attitudes of the people - they are bright and self-reliant in their desert home.

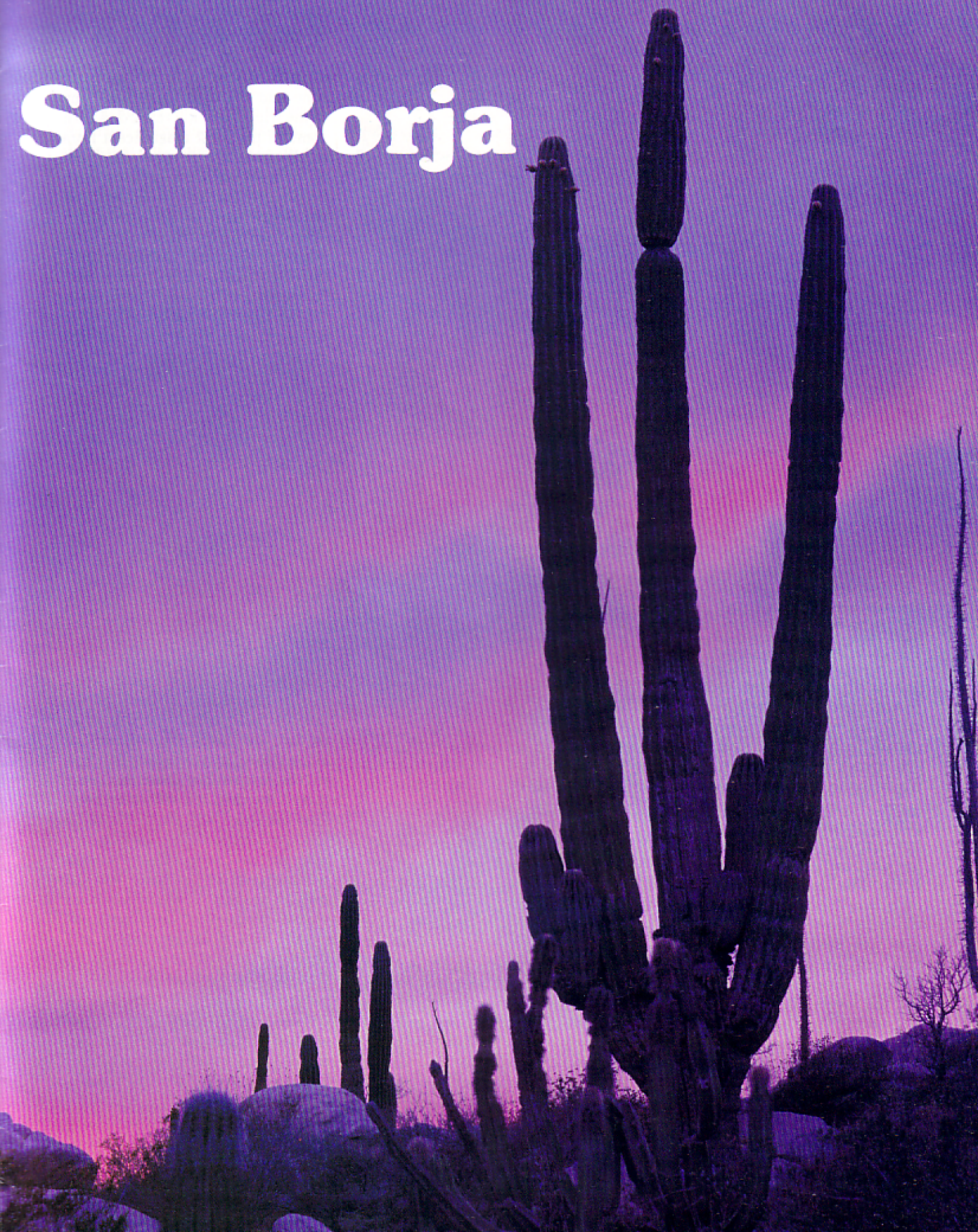
Further down, at a point almost exactly 300 miles south of the border crossing at Tecate, is Catavina. Located in the middle of the desert isthmus, Catavina is host to one of the most beautiful oases in Mexico. Waterworn granite boulders form a shallow canyon

which plays host to some of the most rare and beautiful migratory birds in the West. Least bells vireo, California gnatcatchers and Rufus hummingbirds dart through the underbrush. Scotts and Hooded Orioles nest in the fronds of the Washingtonia palms which stand tall while rarely overtaking "the Blues" - *Erythea armata*, the Mexican Blue Palm. With fruits the size of marbles and seed as hard as coconut husks, this splendid palm displays full, golden flower stalks, contrasted to the blue/gray shades of the fronds. After just a brief survey of the area, the temptation to stay and explore is almost overwhelming. But for us, this past summer, it was but a single night's stop at the oasis and our journey continued.

Almost half way down the peninsula and just before Punta Prieta, a once bustling but now sleepy little town, is the turnoff for Bahia de los Angeles. No matter how many times one visits this area, the heart always quickens at this turn. The wise traveler will fuel up at the Pemex station at the road's junction but, in all of the years that I've gone down to Bahia, I've never stopped here for gas - the call to get to the sea is always too great. This means that the first stop at the bay will be "Patricio's Pemex Pump", which never seems to have gas when you need it but always has fuel when your tanks are full.

The forty-some odd miles that it takes to get from the turn-off above Punta Prieta to the fishing village of Bahia de los Angeles are always traveled too quickly. You blaze past the narrow band of heno pequeno or "little hay" (*Tillandsia recurvata*) that occurs only where the moist

San Borja





Elephant tree - Paper-thin bark peels away to reveal the fresh, green bark underneath. Photo by Jon Stewart.

marine air flows inland across the desert. This plant, an epiphyte or air plant that is distantly related to the pineapple, looks like a ball of moss and grows on most of the larger plants in the area without doing any harm. In the same general area where the heno pequeno occurs, the traveler will pass the turn-off onto the dirt road that leads to the San Borja Mission. But this point, especially for those dusty-throated travelers who have traveled the road into Bahia before, you know that you are getting close to the beautiful waters of the Sea of Cortez and the lovely islands that dot the Bay of the Angels. And when, at last, the water comes into view, the length of the journey disappears into the joy of being "home again."

Now for those who think that "camping" is something that the military dreamed up to make

soldiers want to kill an enemy rather than camp again, let me describe how nice a "camp" can be. First off, if you choose a setting that is twenty-five meters from the most beautiful bay on the Baja peninsula, you're on the right track. Secondly, with pre-planning that brings just about every comfort one can imagine while retaining a true self-sufficient status, the traveler can have little to want. And so, we established our home away from home, complete with solar showers, camp tables, cots for sleeping under the stars and fishing poles for the always rewarding "morning bite" and "evening bite." Our camp of tents and chairs under a palm-thatched palapa was to be our palace for the week and our starting point for our one day excursion into San Borja.

The drive into the San Borja mission might better be described as a

pilgrimage rather than an excursion. Even under the best of conditions, in the fall or early spring, the road in is long, jolting and dusty. But the traveler, if wise enough to disregard time and the occasional monotony of the trip, is quickly rewarded with some of the most magnificent flora in all of Mexico. Forests of boojum or cirio (*Fouquieria columnaris*), Elephant Trees (*Pachycormus discolor*) and Cardon (*Pachycereus pringlei*) border the corridors of the road. Brilliantly pink flowered cholla, ruby crowned barrel cactus and various fragrant sage fill the landscape beneath the more stately trees and shrubs. And this land is not only a botanist's delight, the geology of vulcanism and water-worn arroyos are spectacular and blend with the blue of the sky to form the perfect canvas on which to float the raptors - kestrels, red-tailed hawks, and, on occasion, Harris hawks who blend with perfect mimicry with the ever-present turkey vultures. If there is a problem in driving this road, it is in keeping one's eyes on the path ahead.

And so, one bright Wednesday morning, we left camp and drove back along the paved road to the dirt road which turns west into the heart of the peninsula and leads to the mission. Within the first few miles on dirt, we passed the only rancho along this section of road to San Borja. The few, sturdy cattle that were there, watched us drive by with total disregard and made me think of Gary Larson's *Far Side* cartoons wherein the cows act like cows only when observed by humans. "I'll just bet," I thought, "that as soon as we're out of sight, those cows break out the dark glasses, ice chests and beer" - for, "even the cows," I thought, "would have to figure out some way to contend with HOT!"

Further down the road is an unmarked and, by and large, untraveled road that leads to the south. In 1990 we took this side trip to a small but superb pictograph site that, even today, remains largely untouched. What makes this area so distinctive are the colors of the pain-

tings. We, in the Southern California desert, are used to the ochres and blacks of the local rock art sites. But at this locale, reds and yellows form both geomorphic and zoomorphic patterns on the granite walls, remnants of the ancient Cochimi Indians that once inhabited the region.

As we drove past the turn-off, I remembered the ever-present Zebra-tailed lizards which were common when we last visited the site. Later that day, we were fortunate to find and examine one of the peninsula's large, endemic Chuckwallas. This vegetarian lives for the sun and remains leery of man, results, no

doubt, of his being a food source for the previous human inhabitants. But there would be no stopping at the pictograph site this trip for it was already close to 11:00 and "hot" was rapidly becoming **HOT!** - we pressed on towards the mission.

There are few places that can simultaneously reflect both the impact of man and the wonder of nature while at the same time enjoining the two with spiritual wonderment. The mission of San Francisco de Borja is just such a place. Located approximately 37 miles from the Sea of Cortez, the San Borja Valley, home to the mis-

sion, is blessed with a fresh water spring that still provides sustenance to visitors and the few remaining residents of the area today.

San Borja Mission was "commissioned" in 1762 by the Jesuits, just six years before these "Black Robes" were formally expelled from Mexico by the King of Spain. San Borja was built ninety miles north of a previously established Jesuit mission, Santa Gertrudis. When San Borja was built, the Jesuits hoped that these two missions would be footholds towards the Jesuit establishment of Mother Church in Alta California; their expulsion by the King slowed only the Jesuit influence in the west, not the expansion of Christianity. The first missionary assigned to San Borja was Father Wenceslaus Link, a native of Bohemia. An interesting sidenote for those who enjoy the mountains of the peninsula as well as the beaches, Father Link was an ardent explorer and was the first white man to venture into the Sierra San Pedro Martir, that beautiful range of mountains that is home to the highest peak in Baja.

The Mission's first structures were the church, Father Link's house, the soldier's quarters and a warehouse. The only parts of the original structures that remain today are the remnants of the adobe walls, some of which contain clay pot shards used as temper for the adobe bricks. One can also find, however, the remains of the original water channels that the missionaries commissioned and which fed the orchards and gardens that provided food to the faithful.

Originally a Cochimi spring named Adac, San Borja was one of the most important Indian sites in all of Baja. At the time the mission was established, some thirty families lived at the pueblo of Adac. The surrounding areas produced approximately five hundred converts in 1762 but also, in this year, the first of several epidemics struck. The total population of the San Borja Valley in 1762 was censused by the Jesuits at 2,059, making it the largest native base of all of the



Geomorphic pictographs on the way to the Mission. Photo by Jon Stewart.

Cochemia setispina - a small fishhook cactus, endemic to Baja California. Photo by Jon Stewart.





Sunrise glow: Bahia de los Angeles, Isla la Ventana in the background. Photo by Jon Stewart.



San Borja Mission as you would see it today. Photo by Jon Stewart.



San Borja Mission before the restoration. Photo taken in 1957 by Glenn Vargas.

seventeen Jesuit missions established in the mid-1770s.

After the Jesuits were expelled, the Franciscans came in for four years, followed by the Dominicans who remained for decades. It was the Dominicans who built the beautiful stone church that still stands today. This construction took place in 1801, but in 1818, due in large part to the decimation of the indigenous people by the diseases of the colonists, the mission was abandoned.

My first visit to the mission was in 1974 and was an experience never to be forgotten. For all intents and purposes, the stone church building had not been refurbished for over 150 years. The blocks that made up the ceiling had lost much of their grout, presenting a mosaic of shafts of light that illuminated the altar and the then empty church. The cut block floor was smoothed by the feet of the devoted and the altar was adorned with **retablos** and tokens of appreciation left by previous pilgrims. Then, in the late 1970s or early 1980s, the best of intentions resulted in the loss of part of the special character that was once San Borja. A Government-sponsored restoration took place which, to be sure, saved the building from further deterioration. Yet, fueled by the rumor of riches buried beneath the floor by the long-dead clerics, the floor's cut stone blocks were removed and the floor was dug up. Then the stones were replaced in a random order. Other architectural details of the mission were also disturbed such as the great carved stone roof drains. Yet, in defense of the restorers, the mission was in large part repaired and still stands as one of the most beautiful examples of early California missions architecture surviving today.

Upon arriving at the mission, our first goal was to visit the one family that still resides at the oasis. We brought greetings from our friends Raul and Carolina Espinosa who live in Bahia de los Angeles and approached the small house, greeted there by the warm smile of a kindly man named Pichalo. In our barely

adequate Spanish, we explained that we were there to visit the mission and also to look for an endemic cactus called "**Cochemia setispina**", named after the original inhabitants of the valley. Our host smiled and directed us up a steep mountain slope where, he indicated, we might find the plants. We returned to our vehicles, filled our bottles with water, and started to climb the mountain.

Now, I have already explained **HOT!**, and this day was all of that. But on top of **HOT!**, today we were to have another special treat. Please keep in mind that the members of this expedition are all trail-scarred desert hikers, used to the thorns of the Cat Claw Acacia and the spines of what most still call "Jumping Cactus" or cholla. But the Vizcaino desert where San Borja lies, is filled with a plant with a beautiful name and a *most effective* method of seed distribution. The plant is **Ambrosia magdalena**. The name "Ambrosia" stems from the Greek for "food of the gods", but we know the plant better by its common name, the "bursage." Indeed, this particular plant is the most common plant in the Central Desert, and after experiencing first hand how it scatters its seeds, I have no problem in understanding how the plant has become so successful.

The method is simple: the plant produces a seed akin to a small, peppercorn covered in full with tiny, splintery, dry hooks. Then, in early summer, the plant dries, making the seedbearing flower heads as brittle as possible so that whenever anything softer than chrome leather brushes against it, the plant virtually explodes with itchy, sticky, scratchy burrs.

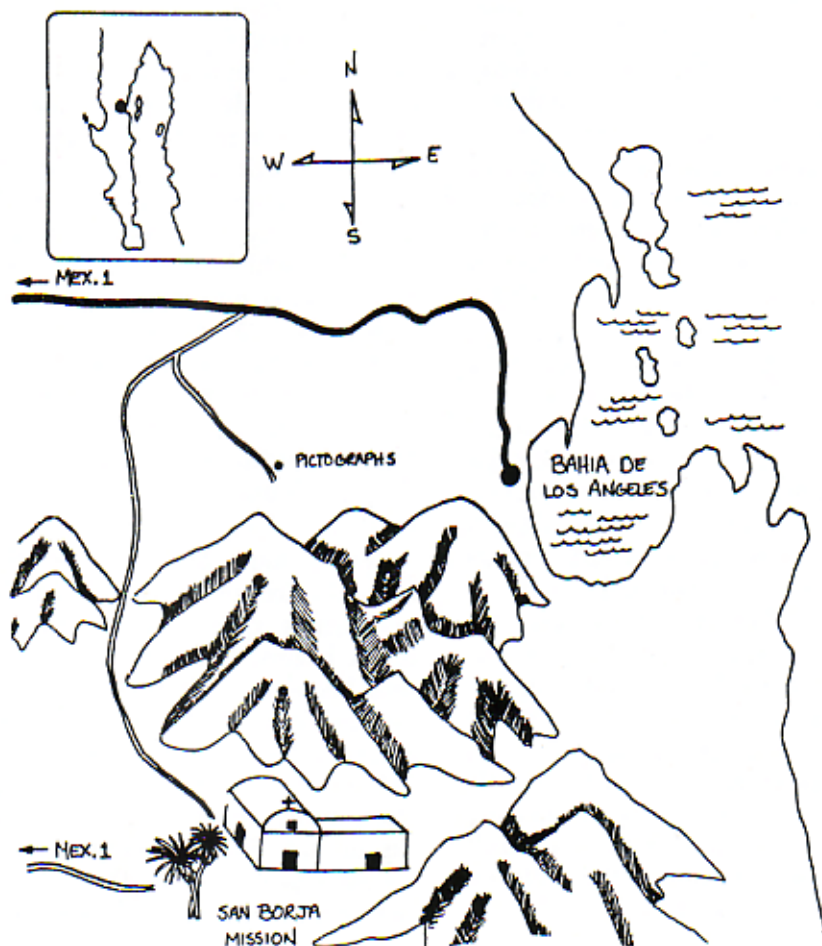
One quarter of the way up the hillside, trodding through slopes of **Ambrosia**, we were all **HOT!** and uncomfortable, stopping regularly to clean the burrs from our socks. Half way up the slope, we were miserable, pulling wretched seed heads from every bit of cloth from the waist down. Three quarters of the way up, we were nearly homicidal, discovering the accursed

"kernels from hell" everywhere from our underwear to our ears. And by the time we reached the top of the slope, we were deranged, calling on the gods of the Cochimi to strike this blight from the land. Yet, in spite of it all, we were rewarded with the elusive "**Cochemia**." Jon Stewart took his pictures and Cameron Barrows discussed the distribution of the species. As for me, I dislodged burrs and rested in the shade of a small cave that overlooks the entire mission and adjoining valley, proud to know that I had personally helped spread billion of seeds for future generations of bursage to come.

Shortly after 2:00 p.m. and after a brief visit to the spring that feeds the grapevines and date palms supposedly planted by the Dominicans, we started back to Bahia de los Angeles. When we arrived at camp, we swam, and never has water felt as refreshing. Even the burrs were forgotten. Later that night, while lying on a canvas cot under a quarter moon, the night air was broken with the sound of passing whales, blow-

ing softly and easily. And in the early dawn the next morning, the gulls and the pelicans stood on the low tide's newly exposed rocks, staring out towards the islands, seeming to search for the leviathans of the night before.

The rest of the trip was filled with still more adventures but those will have to wait until another day. The drive back across the border was, as usual, bittersweet - one always longs for more time in Baja while savoring the return to soft beds and clean sheets. But when one returns home, the biggest treasure of all lies not in the photographs or the video but rather in the knowledge of an adventure taken and not deferred. For, in this quick and complicated life, today is tomorrow's yesterday and the yesterdays of Baja are always more precious than the "should have gone to's" or the "wish I would have's" that we all seem to carry with us for life. So *hasta la vista* San Borja - **HOT!**, **Ambrosia** and all - you are still the jewel of the Central Peninsula. ~~done~~





Elephant tree - *Pachycormis discolor*.
Photo by Jon Stewart

To venture down the backroads of central Baja California is to enter a world of botanical wonders that have variously been described as dreamlike, bizarre, unreal, grotesque, and "like nothing else on earth." With nearly two-thirds of the Baja peninsula occupied by desert, a remarkable array of plants can be found here, including more than 2,700 species or varieties of higher plants. In this world of tremendous plant diversity, ask a seasoned Baja traveler, or for that matter a first-time visitor, to name the most interesting plants and surely at the top of the list will be the inimitable cirio, or boojum, and the remarkable copalquin, or elephant tree. Together with the impressive giant cardon, these three enchanting plants dominate the landscape of the Central Desert of Baja California.

Traveling on Mexico Highway 1 south of El Rosario you soon enter the land of the boojum. The distribution of the cirio is nearly limited to that part of the peninsula known as the Central or Vizcaino Desert. A small population of cirio occurs on Mexico's mainland south of Puerto Libertad, and a few individuals grow on Angel de la Guarda island near Bahia de Los Angeles. The Central Desert is an extensive plain in west-central Baja which is bounded on the west by the Pacific Ocean, on the east by the narrow band of the San Felipe and Gulf Coast Deserts, and on the south by the Magdalena Plains.

Cirio, Copalquin,

by Katherine Barrows

It is a land of inspiring landscapes from the broad river valley of the Arroyo El Rosario to the magnificent boulder fields and fan palm-inhabited ravines near Catavina; scattered volcanic plateaus and lava flows to endless sandy flats, broken by rocky hills or boulder piles. Whether you are driving the highway or exploring this desert wilderness on foot, the almost surreal character of this desert is enhanced by the remarkable trio of plants that find their greatest abundance here.

Surely the most remarkable of this floral trio is the cirio which to me lends an almost magical quality to Baja's Central Desert. Call it bizarre, unearthly, grotesque - the boojum is an unusual plant. I think it was best described by Joseph Wood Krutch in his *The Forgotten Peninsula*: "Like an upsidedown carrot improbably provided with slender, spiny, and usually leafless branches which seem to be stuck helter-skelter into the tapering, carrot body ... Moreover, they often branch in an absent-minded manner towards the upper end, and sometimes, as though embarrassed by their inordinate length, curve downward until the tip touches the earth."

Passing south of El Rosario, the excited voices of our carfull of Baja-enthusiasts quiet and a hushed chant begins, "... booo-jum, booo-jum, booo-jum." No doubt the same delight was felt by Mr. Godfrey Sykes of Tucson's Desert Botanical Laboratory and his party in 1922. Peering through a telescope at the distant hills, Mr. Sykes remarked to his associates, "Ho, ho, the boojum, definitely a boojum." And so did the

cirio become a plant from the imagination of no less than Lewis Carroll who in *Hunting of the Snark* relates a mythological account of a legendary thing termed Boojum, which in a far-off, unheard-of corner of the world, inhabits distant, unfrequented desert shores.

Known to scientists as *Idria columnaris*, the cirio was first called milapa by the Cochimi Indians, who knew it as a nearly useless plant without edible fruit and of little value for firewood. Later, Jesuit priests likened its statuesque form to the "cirio," or candle, the tapered altar candle used in religious ceremonies.

The "carrot" stem of the cirio is an example of the stem-succulent habit typical of many of the dominant plants of Baja's desert. The swollen base of the cirio tapers to a candle-like stem, typically 15 to 40 feet high, but maximum heights of 60 to 75 feet have been recorded! Like the cacti, cirios possess a woody cylinder or "skeleton," which surrounds a soft, spongy pulp with tremendous water-storage capacity. From this thick stem protrude many short, non-succulent and often leafless side branches. The leaves, appearing only after sufficient rainfall, are borne singly or in clusters along the main stem and side branches. The plentiful thorns that arise from the stems and branches have an unusual origin, developing from the hardened midrib of the single, primary leaves of the season past.

Comparing the soft, succulent stem of the cirio to the rigid, multiple branches of its close relative the ocotillo (*Fouquieria splendens*) you might question the classifica-

y Cardon

The Strange and Wonderful Plants of Baja

tion system used by botanists. But examine the creamy white flowers of cirio and you'll recognize the same character in the small, tubular flowers borne in clusters at the end of branches, as those scarlet red flowers of ocotillo. Indeed it is the characteristics of the flower and fruit that most faithfully reveal evolutionary relationships, and so are used by botanists to place plants in families. For cirio, the similar flowers and origin of the spines place it in the ocotillo family, Fouquieriaceas; in fact many botanists place *Idria* in the same genus, *Fouquieria*, as ocotillo.

As you wander through a cirio forest enjoy the marvelous contortions of their stout, swollen trunks, covered in grayish white bark. Somehow the strange forms of the cirio seem to tell a story of survival. And these comical plants are efficient survivors. In the Central Desert annual rainfall is scant, three to five inches in good years. For the cirio, conditions for germination may appear only once in ten years. Once a seedling cirio emerges, it may be fifty to one hundred years before it flowers. Like the ocotillo, cirios shed their leaves at the first sign of drought and several leaf crops may be produced in a year. This efficient system means that growth is slow; Robert Humphrey in *The Boojum and Its Home* relates measurements of cirio that grew little if at all in three years. Though records are scarce, age estimates for cirio suggest they are long-lived and may reach 350 years of age.

More handsome than bizarre and more treelike than the slender cirio

continued on page 30

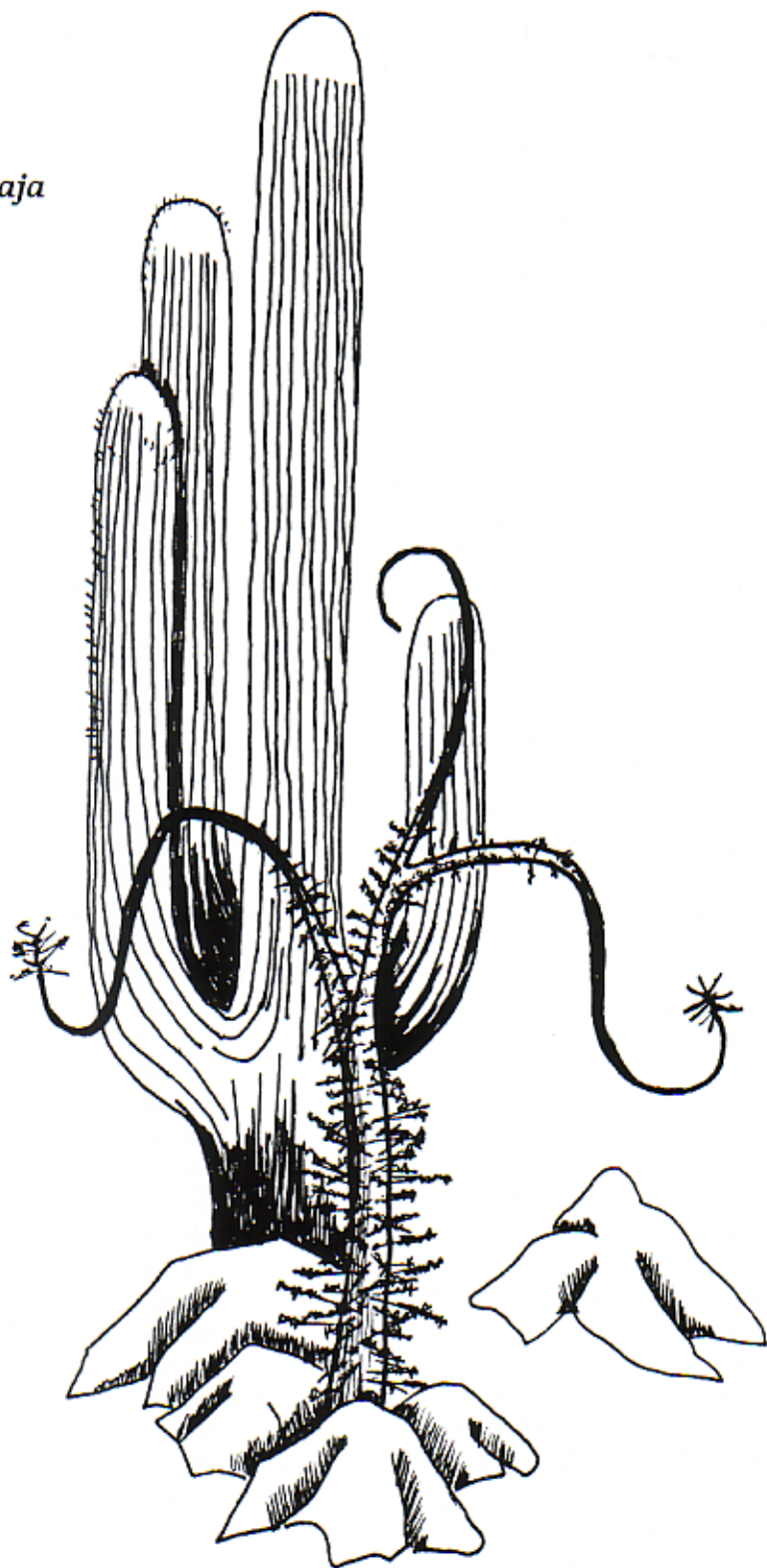


ILLUSTRATION BY CAMERON BARROWS

The Comical Bird of the Desert

by P. M. Smiley - Photos by the Author

BEEP, BEEP! The Saturday morning cartoon coyote and most people who live in this country, recognize the creature that makes this noise. We laugh as he constantly outwits his hungry but slow nemesis. But far fewer are familiar with the real creature, the feathered, fleet-footed roadrunner of the southwest. *Geococcyx californianus* is his Latin name, which literally means Ground Cuckoo of California. He's a symbol of the desert, but he is also found in other habitats. He's a bird but he would rather run than fly, although he is capable of short flights. To the people who live in the range of the roadrunner, he's seen as that comical bird, whose odd and unique behavior is a continuous source of amusement. But there is more to this unusual bird that has adapted to live in the hard environment of the southwest. Let's examine this extraordinary bird closer.

There is only one species of roadrunner found in the United States - the Greater Roadrunner. Another species, the Lesser Roadrunner is found in southern Mexico. The Greater Roadrunner is found in arid or semi-arid parts of the Southwest, east into Texas, and south into Mexico. The roadrunner makes his home in a variety of habitats, including portions of all the North American deserts. In California they are also found in the chaparral and coastal sage scrub.

The roadrunner is a large, slender bird, almost two feet in length. He has a large, strong, semi-hooked beak and a shaggy crest atop his head. He has dark colored, short, rounded wings, and very long, dark tail feathers with white on the edges and the tip ends. This dark coloration when seen in sufficient light is actually a deep metallic green

streaked with bronze. He has a streaked body and un-feathered long legs. At the end of his legs he has zygodactyl feet, two toes pointing forward and two toes pointing toward the rear of each foot. This is the reason for the distinct "x" shaped tracks left by roadrunners. Both sexes are the same in appearance but sometimes distinguishable in their behavior.

Roadrunners are omnivorous and will eat some plant material when animal prey is scarce. They are quick and agile hunters and very successful predators. They live on animal food for most of the year. They eat a wide variety of desert life, but centipedes, scorpions, insects and small reptiles make up the majority of their diet. Small birds and rodents may also be taken and I've seen them take housefinch-sized birds. Of course they are famous for their ability to kill and eat rattlesnakes.

It should be noted that most encounters with rattlesnakes are uncommon and usually involve rather small rattlesnakes. Roadrunners will kill and eat any small snake with little regard to the species. The preferred food seems to be lizards and the roadrunner is well suited to capture them. With the ability to run between fifteen and eighteen miles per hour, he has little trouble in running down some of the fastest species of lizard. To end the chase it takes a blow or two from the oversized, strong beak to dispatch his quarry. Roadrunners are unable to tear apart their prey, which must be

swallowed whole. To make this task easier, they will beat it against a rock, breaking bones and making it easier to eat. It is not uncommon to see roadrunners with portions of larger lizards or snakes hanging from their beaks. As these larger meals are digested, the remaining portions are then swallowed. During the early part of this century, it was thought the roadrunner was a predator of quail, eggs and young. This has been proved to be false. I often have roadrunners and quail in my backyard at the same time. Many times the quail have had young with them. I have never seen the roadrunner molest the quail and more often than not, the male quail would chase the roadrunner away if it happened to come too near the quail.

With sufficient winter rain, the roadrunners that live near me begin to look for a mate in early spring. In other parts of the southwest that receive both winter and summer rains, the roadrunner may nest and rear two broods of young, one in spring and another in late summer or early fall. Males begin by courtship calling. This song is a few dove-like coos in the lowering scale. The courtship and mating of roadrunners is one the most interesting events I have witnessed among desert creatures. Even the unsuccessful attempts are interesting. After the male has located a female, he will try to get her attention by offering her a bit of food. He will hold the offering in his beak. He will continue his dove-like cooing and also

make a rattling noise by clacking his beak together. He then positions himself in front of the female. The female may show no interest and move away. Undaunted, the male will rush about and again position himself in front of the female. This may occur many times. During this time he is cooing and flicking his tail quickly back and forth. If he is successful in getting her attention, he will dance back and forth in front of her. He will extend his short wings and hop up and down. This continues for several minutes. If the

shaped. It is often protected by the spiny vegetation it is constructed in. The cup of the nest is a shallow depression, lined with some grasses and feathers. Occasionally you might find snake skins in the nesting material.

At uneven intervals, the female will lay two to six eggs over the next week or two. The eggs are chalk to creamy white in color. The female is the only parent to incubate the eggs. The nest may contain both young birds and eggs at the same time. The reason roadrunners use this strategy

selves after sixteen days, though they may continue to stay nearby and beg food from the adults for a couple of months.

The roadrunner has several adaptations for desert living. It is one of very few, larger daytime ground predators, and fills this niche well. During cooler periods when food is more scarce, it raises its body temperature by sitting with its back to the sun. It spreads its wings exposing an area of black skin and down feathers, which absorbs the heat as radiation from the sun, enabling it to raise its temperature without consumption of food. At night during cold periods, it can enter a torpor, reducing its body temperature. During times of high heat, it limits its activity, finds places to rest in the shade and pants to reduce its temperature. The roadrunner also has a special nasal gland to eliminate salts, avoiding water loss from using the kidneys to excrete these salts.

The roadrunner has few predators. Bobcats, ring-tailed cats, feral domestic cats take some young roadrunners. Some adult birds are lost to the large hawk or eagle. But, by far the worst enemy of the roadrunner is man. Even though protected in most states, he's still shot, and even more often run over with cars. But not only does he survive, he has learned to live at the edges of our desert cities and towns.

There are many legends and fables about roadrunners. He was considered good luck to many early Native Americans. His feathers were used to ward off evil spirits and often attached to lodge doors or cradleboards. In early Mexico, it was legend that the roadrunners were the birds that brought babies, not storks. The roadrunner is the official state bird of New Mexico.

Today, most people who know roadrunners appreciate them for the number of pests they control or for the pleasure they get from watching a wild creature. I hope they will be around for a long time making us laugh with their odd and eccentric behavior - running alongside the road just in front of us. *DAVE*



female is receptive, she lowers her body, shakes her half-extended wings, and makes the call of an immature roadrunner begging food, then they mate. After completion of mating, the male gives the female the bit of food. Sometimes a small stick is used instead of food and the offering enticement.

Sometime after mating, the roadrunner pair will find a suitable location and begin building a nest. The nest is usually built in a small desert tree or shrub, anywhere from three to fifteen feet off the ground. The nest is a mass of twigs and well-

of intervals between the hatchlings is to spread the food demands over a period of time. That way, although it sounds cruel, if food becomes difficult to find, the adults eat the youngest hatchlings, and ensure the survival of the older chicks. The young are born naked, with black skin and a few scattered white hairs. The mouth when open is bright red with white spots. Both parents tend to the young birds. The hatchlings are started on insect food, but soon are eating small lizards. The young are usually gone from the nest and feeding them-

**AZURITE
MALACHITE
AND MAYBE A
GHOST OR TWO**

GOLD HILL UTAH

30 x 22 Cabochon from
Gold Hill Malachite and Chrysocolla.

By William A. Kappeler

Photos by the Author

My introduction to the ghost town of Gold Hill, Utah came quite by accident while my wife and I were browsing through back issues of "Desert" magazine in the public library in Santa Ana, California some time ago. In the February 1952 issue, an article by Nell Murbarger caught my eye. Her description of a trip to Gold Hill and her conversation with a long-time resident so fascinated me that I spent some time digging out the following historical information about this remote location.

It seems that the area occupied by Gold Hill was near the route of the old Overland Trail, and the local Indians found that emigrants on their way to California were eager to engage in trade for "shining rocks." Around 1858 a number of these would-be Californians ended their journey and began to mine for the rich gold and silver ores. Troubles with the Indians, however, prevented any serious development until the 1870s when the town of Clifton

was founded and became a major gold camp.

While Clifton was booming, Gold Hill was just a tent town, but the discovery of such mines as the Copper Queen, Copperopolis, and Alvarado and the resulting millions of dollars worth of ore taken out of them soon allowed Gold Hill to eclipse Clifton as the major town in the area. By the late 1880s, Gold Hill expanded even further with the construction of an amalgamating mill by the Cane Springs Consolidated Mining Company to process the ore from the rich local mines.

The mines of the Gold Hill area produced a seemingly endless variety of minerals. Gold, silver, copper, bismuth, lead, zinc, tungsten and even arsenic were produced in quantity here. In fact, by 1917 when a branch railroad line was completed from Wendover, Nevada to Gold Hill, so much ore was shipped to Salt Lake that an embargo on ore from the area was imposed to lessen

the load on the smelters. Even with the embargo's limitations, however, the branch line carried over a million dollars worth of ore in its first year of operation.

The little branch line and World War I arrived at about the same time, and just in the nick of time for Gold Hill. The town had been in decline due to the working out of the formerly rich mines and the problem of transporting the ore that was left too great a distance by road. The war, however, brought a need for arsenic for the production of poison gas, and Gold Hill had plenty of arsenic. For years the miners had heaped up countless tons of it on the tailings piles. Working these piles brought a new boom to the area, and while the war in Europe continued, Gold Hill prospered. As the war ended and the arsenic was no longer needed in any quantity, this second boom also ended and Gold Hill was on its way to becoming just another all but forgotten ghost town barely mentioned in the dusty his-



tory of the West. The final blows came when the Lincoln Highway which had run through town was rerouted to the north, and the last train left town in 1938. In 1940 the rails were torn out and sold for scrap. In that year the total output from the remaining mines was one ounce of gold and other minerals totalling the grand sum of \$597.

During World War II Gold Hill experienced a "mini boom" as the demand for arsenic returned, but again, with the end of the war came the end of the boom. The schoolhouse closed in 1946 and the post office followed in 1949. Gold Hill was finally an official ghost. Although the desert has all but reclaimed this once thriving town, the stories of her famous citizens and strange characters remain to be enjoyed by the rest of us. It is reported that one of Gold Hill's miners was the famous heavyweight champion, Jack Dempsey. I don't know if this is true or not, but I am a little skeptical, since it seems to me that about every other ghost town I read about or visit claims that Jack Dempsey worked there. Either Mr. Dempsey was a very busy miner, or some folks have overactive imaginations.

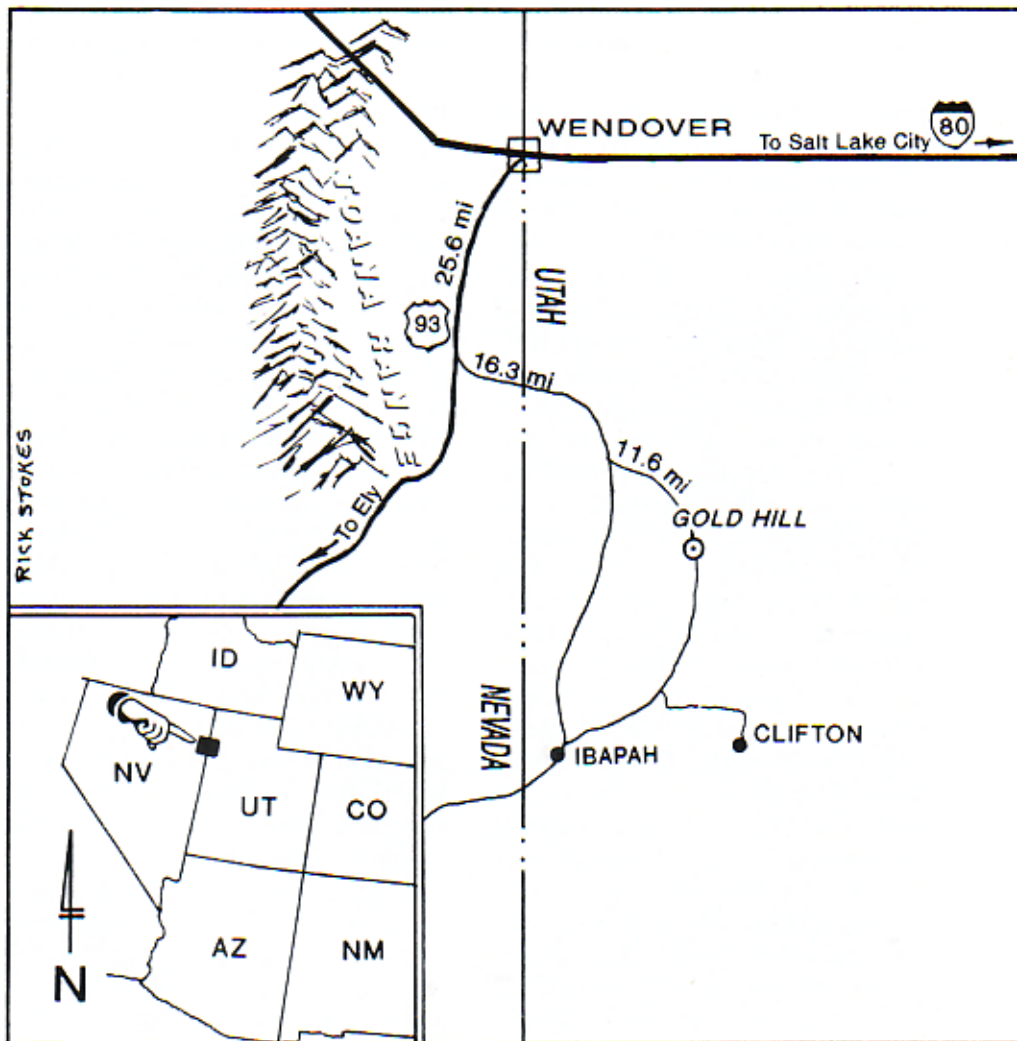
One of the more alluring tales from the Gold Hill area tells about iron balls full of gold. It seems that the gold being shipped from nearby Clifton to Salt Lake, a long and lonely trip, was subject, as might be expected, to appropriations by those who sought a means of "mining" less rigorous than digging in the ground. To foil these thieves, the miners had the Eagle Iron Works of Salt Lake City make several large iron balls weighing over two hundred pounds each with walls an inch thick. They were fitted with flush locks which could only be opened by the receiver with the key in Salt Lake. On one trip, as the story goes, highwaymen stopped the heavy wagon carrying the balls filled with gold and rolled them onto the sand. Try as they would, however, they were unable to open them and left in disgust. The balls were reloaded, although probably with some difficulty, and the

journey to Salt Lake continued uneventfully. The most interesting aspect of the tale is that no one knows what became of the balls. There is not one known to exist today. Where are they? If you visit Clifton or Gold Hill, keep your eyes open, you may just find an iron ball full of gold. How you will lift it or open it is up to you.

One of the more colorful characters (and perhaps the smartest) was Loeffler Palmer. As the story goes, he had a mine which he worked long after the others had worked out. Palmer would put forth enough effort to make \$10,000 or so and then take it easy the rest of the year. He did this for about ten years during which time he turned down many offers to sell. He finally did sell, however, and for a handsome



Downtown Gold Hill





Mountain behind Gold Hill is pock-marked with prospect holes, shafts, and tailings piles.

price. The proud new owner moved in expensive machinery and a crew of miners only to find that the vein was worked out. I guess there's a moral there somewhere.

Well, being armed with all of this historical data, Cora and I could not wait to see the site of old Gold Hill, so we headed for Springville, Utah, to pick up my father-in-law, Oscar Gustavson to join us for the trip. One thing that had concerned me was the accessibility to the Gold Hill area. The article by Nell Murbarger was close to forty years old, and as we all know, those old dirt roads can revert to their primeval form in a lot less time than that. I wasn't sure if we would need four-wheel drive or if we would even be able to find the old route. As luck would have it, however, we discovered that Cora's aunt Donna Norman is a sometime carrier of the mail on a long route in the vast western desert of Utah and that the route includes - you guessed it - Gold Hill. From her we learned that not only is Gold Hill still there, but that a few people have turned some of the old homes

into summer cabins.

So fortified with this information and a set of up-to-date directions, the three of us started out for Salt Lake City and Interstate 80 to Wendover on the Utah/Nevada border. After taking on a little lunch and investing a few quarters in the possibility of sudden and unimaginable wealth, we headed south on U.S. Alternate 93. At 25.6 miles we turned left on a paved road and proceeded on for another 16.3 miles to a graded dirt road again to the left. This road is marked "Gold Hill" and it is just 11.6 miles on it to the town. We were all happy that my fears about bad or non-existent roads were unfounded. I was especially concerned since we were in Oscar's car. The roads were beautifully maintained, and you can take the family sedan in with no problem whatsoever.

Once in the town, we were greeted with all we could have wished for - old buildings, crumbled buildings, in short, all you look for in a ghost town. Around the town were mountains literally Swiss cheesed

with tunnels, shafts, and prospect holes. We headed out of town to the south, and in just about a mile and a half we spotted a little hill with some tailings and prospect holes. The tailings were just a short distance off the road, so up we went.

At first it looked like we had wasted our effort, but suddenly blue and green chips started to show up. All rockhounds have probably had the experience where nothing will be visible, but suddenly a bit of color will show and then the color is spotted everywhere. I can't explain it, but it happens to me all the time. In any case, we began picking up small pieces of malachite and azurite. Many had streaks of chrysocolla through them. Most of the material was stain or very thin sections, but some was solid enough to cut small cabs. Thin material like this is most often either taken home for samples, or left where it is. I think that this is a shame, since treating it like precious opal will allow some really beautiful cabs to be made.

It is relatively easy to cut a thin slab and make it into a doublet. Simply saw the best material out of the rough, lap it flat, and cement a clear cap of either clear quartz or window glass on it. I know that the purists among you will recoil at the thought of using common glass in jewelry, and for use with precious opal, or other expensive pieces, I would certainly agree. For small inexpensive pieces, however, glass is a very good substitute for optical quartz. It is easy to work, costs next to nothing, is easily repaired if scratched, and is indistinguishable from quartz without careful inspection.

The azurite/malachite/chrysocolla material from Gold Hill is ideal for this treatment. All three minerals have a Mohs hardness of between 2 to 3½ and 4. This makes it soft enough to cut and lap (even if you have to lap by hand) and fairly easy to control so that the best color and pattern can be retained. Using a cap also allows a bit of leeway in just how smooth the slab must be. The

cement will fill fairly large gaps, so pits, saw marks, and small cracks can be left if removing them would also remove desirable color or patterning.

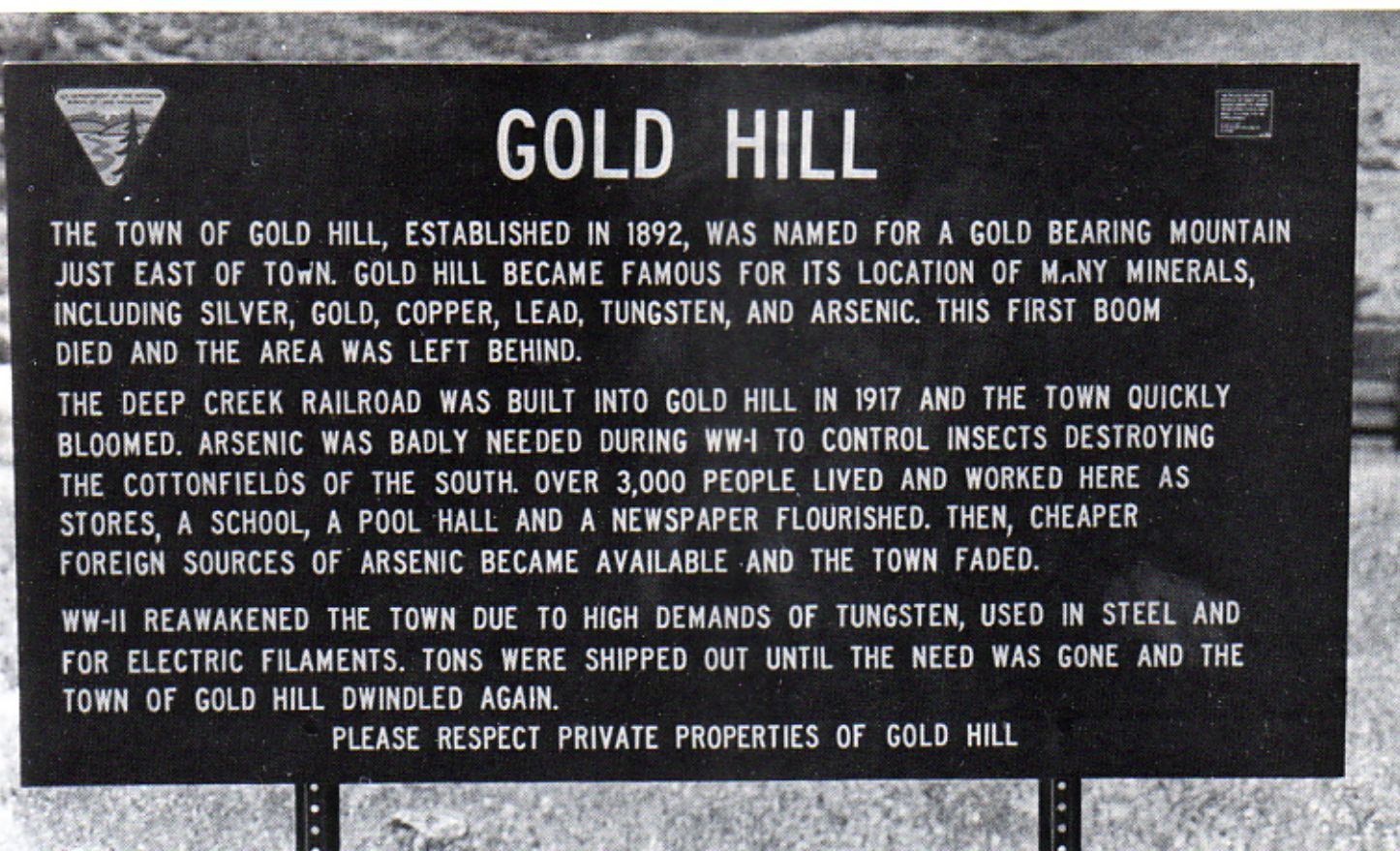
Cement is the critical factor in all doublets and triplets. All kinds of cements and glues have been used to fasten caps, but today, epoxy seems to be the cement of choice. The main disadvantage of epoxy is the difficulty in eliminating bubbles. This problem can be minimized by using a slow setting type and picking the bubbles out with a pin, or, if you have a vacuum caster, the bubbles can be removed as are the bubbles in investment. I have found that the very best solution is to use an ultra-violet setting cement. This is the stuff that is used to repair windshield chips and cracks. This might be hard to find, but the same type of material is available in little syringes and is designed for repairing household glassware. The product is marketed by Duro and is called "Crystal Clear." Any place that handles Duro or Loctite pro-

ducts should be able to get it for you if they don't carry it. The real beauty of this cement is that it stays liquid until it is exposed to sunlight. I cover the underside of the cap with it, pick or scrape out the bubbles, press the cap and slab together, line everything up, and go outside and hold the assembly in the sunlight for twenty seconds. That's all there is to it. Even nicer, the cement that is on the outside of the assembly and all over your hands is still liquid and can be wiped off. Only the material between the slab and the cap has hardened.

Back at Gold Hill, we spent several more hours exploring the area, but we finally realized that this was big country and would take a lot more time than we had. We'll be back, though, and maybe next time we'll find one of those iron balls full of gold. ~~over~~

William A. Kappeler is a retired school principal and a free-lance writer for "Rock and Gem" magazine. He lives in Mission Viejo, California.

BLM sign at edge of "town."



From Kish to

The ceremonial house in Palm Springs. Courtesy of Palm Springs Desert Museum.



By Cheryl Jeffrey

In the Indian Canyons on the Agua Caliente Reservation of Palm Springs, it is common to hear visitors ask, "Where do the Indians live ... I thought this was an Indian Reservation, where are the teepees?" They seem to take no notice of the stucco houses and mobile homes at the entrance to the canyons. These are the homes of the Cahuilla Indians of Southern California. People often forget that the Cahuilla and other Native Americans are people of this century. Today, Euroamericans do not live in the sod houses or log cabins of their ancestors, and the Cahuilla do not live in the traditional brush home, or *kish*, of their ancestors. Many non-Indians tend to see Native Americans as a people frozen in time - and that time is a Hollywood fiction to begin with. Along with the Old West stereotype of feathered chief's bonnets, buckskin, and warpaint is the misconception that all Indians live in teepees. Most did not live in such a structure and the Cahuilla have never lived in teepees. It is also important to remember that Native American groups each lived in distinct regions, and each had building strategies as diverse as their ecologies.

The traditional building style for the Cahuilla house was a brush dome. Because their diverse territories ranged from desert to mountains, the materials used ranged from brush to slabs of bark in the construction of the dome. However, over time the traditional dome-style *kish* evolved into a rectangular dwelling influenced by the Spanish. Archaeological data from Tahquitz Canyon in Palm Springs reveals that circular house outlines date to a time around 1500 A.D. The Rincon Village of the Cahuilla near Andreas Canyon has evidence of both house types showing the transition from

A palm-thatched Cahuilla home, showing a mixture of traditional and historic styles. Courtesy of Palm Springs Desert Museum.



one type to the other. The first contact with Europeans was the Anza Expedition in 1774.

It has been noted by many Cahuilla scholars that the Cahuilla also built shelters into canyon walls that gave protection from the fierce desert heat in summer and the cold in winter. The convenient caves and rockshelters were used even into historic times. The mouths of these shelters were usually thatched with brush. The earliest occupation date of about 500 B.C., comes from a rockshelter in the Tahquitz Canyon used by an unknown hunting and gathering group. This shelter showed an occupation by the Cahuilla in the historic period. New evidence at Tahquitz Canyon shows that the Cahuilla occupied Palm Springs as early as 1200 A.D.

The population of a village was changed by seasonal activities. The Cahuilla left their permanent villages during various times of the year to establish camps in areas where resources were ripe or game had migrated. Sometimes family activities such as celebrations or memorials moved many people from one camp to another. These activities could last for at least one

A Mountain Cahuilla sweathouse. Courtesy of the Palm Springs Desert Museum.



Condominium

Cahuilla Constructions through Time

week and perhaps longer. One could get a distinctly different impression of the Cahuilla village depending on the time period it was visited, both historically and seasonally.

One of the best accounts of traditional Cahuilla villages and constructions is given by David Prescott Barrows in his classic work, "The Ethno-Botany of the Coahuilla Indians of Southern California." Barrows lived among the Cahuilla in the late 1800s to early 1900s. Barrows states that villages did not follow any particular arrangement, and the layout of a village often depended on the water source. His impressions were that villages in the deserts were clustered together near the scarce water resources. Barrows felt that this made a more social atmosphere in the daily life of the desert dwellers. He described the mountain settlements as having "a strange and sombre loneliness" except for the times when feasts were held. (This deserted feeling in the mountains could also have been a reaction to Euroamerican encroachment in general. The Mountain Cahuilla were more affected by the coastal missions and landgrabbing

settlers. The desert was perceived by early explorers as hostile, both in a military and environmental sense.)

In both mountains and desert, a grouping of several small houses was constructed for each extended family. This grouping usually had a centrally located area that served as an outdoor kitchen and a meeting place for the family in all but the coldest weather. The area was roofed with branches resembling a *ramada*. The yard was fenced for protection against the wind.

The size of individual dwellings depended upon the needs of the family. A *kish* ranged from a small, brush enclosure to a large place (up to twenty feet long) for several people to sleep and work. The home had a hearth in the center of the room with a smoke-hole in the roof. The hearth was a pit lined with stones and the ceiling of a *kish* was often soot-covered. Any *kish* that was disheveled or had lost freshness was easily torn down and reconstructed. The house was built in an excavated depression usually a few inches deep. Although the dirt floor hardened with daily use, a few archaeologists speculate that some

floors were prepared with a wet clay that was fired. (Slablike fragments of undefined clay are often found in habitation sites in the desert.) Structures in any of these locales might also be daubed around the base and walls with mud, for an adobelike effect.

The materials used depended upon where the house was being constructed - from the cool mountain tops of the Santa Rosas and San Jacintos to the sweltering desert floor below. People building a desert house in Palm Springs or Indio might choose mesquite or creosote supports. These frames were thatched with arrowweed, palm fronds or desert willow. The brush was fastened together with cord made from yucca fibers. Barrow was especially impressed with the beautiful *kishes* in Palm Springs, "for here are utilized the large palm leaves of the *Washingtonia filifera* (the native desert fan palm.)"

Those building in the mountain valley such as the Anza area, might make support poles from the creosote, ribbonwood, or manzanita. They would thatch their brush homes with willow, tules, and reeds. The construction was again

A typical Cahuilla home and yard with a mixture of traditional and historic styles. Courtesy of Palm Springs Historical Society.



Saturnino Torres at the Fish Traps near Torres-Martinez Reservation, by Thomas Johnson. Courtesy of Palm Springs Desert Museum.



Fish Traps near Thermal, California and the ancient shoreline of Lake Cahuilla, by Cheryl Jeffrey.



ried with yucca fibers. A Cahuilla home in the forested areas of Idyllwild or Santa Rosa was very different in appearance from those in the lower elevations. Here, they used the pine and incense cedar. The mountain home was built with cedar bark slabs rather than thatching. These could withstand winter storms, but were usually occupied in the warmer months.

Hot weather is a significant factor in desert living for about four months of the year. Today, we endure the sizzling summer by stepping from one air-conditioned unit to another - from car, to store, to office, to home - rarely experiencing life on the open desert. The Cahuilla could not avoid life in the open. One of their most critical foods, mes-



ramadas and fences also provided relief. And again, essential water sources had to be close by.

An ongoing supply of food for times of shortage or drought made proper food storage and animal pens important aspects of Cahuilla construction techniques. To store foods such as mesquite beans, acorns and other seeds or dried plant, the Cahuilla men wove a large basket granary about three to four feet in diameter. The round or globular-shaped granary was constructed from plants such as arrowweed, sagebrush, or other brush. It was covered and often sealed with mud. These containers were kept on the roof or elevated on poles to keep pests out. In the case of animal enclosures, fowl were kept in both rooftop and elevated coops made of brush, poles, and mud. In historic times, horses and livestock were corralled near the home with stone-work corrals. The remains of such a corral can still be seen in Andreas Canyon.

Domestic housing was only one type of Cahuilla construction. As

The Indian well at Torres in 1903.
Photo by C.C. Pierce, courtesy of
Palm Springs Desert Museum.

quite beans, was harvested in the intense heat of summer. Due to desert temperatures that may reach 120°F, the Cahuilla built their homes for maximum comfort. Elders recall a time when all that cooled a desert home was a clay pot full of water hanging from a net in the center of the room. The condensation on the pot provided the first "swamp coolers." However, it was the light and airy design of the kish itself that promoted the breeze. The shaded

can be imagined for a people living in an arid or desert area, the Cahuilla were skilled in the management of water resources. A fascinating part of the Cahuilla landscape comes from an area along the Salton Sink [from Indio to the Gulf of California.] This is where the ancient shoreline of the immense Lake Cahuilla can be seen. The remains of the lake evaporated about 500 years ago, the Salton Sea represents only a fraction of the original lake area. Along the mountainside near Thermal is a place called "Fish Traps." Rows containing large depressions (about four to six feet across) were constructed from boulders. When the water lapped to shore, fish would become trapped in the depressions. As the lake

evaporated, the changing level of the shoreline required the Cahuilla fishermen to build several successive rows. It is estimated that it took about sixty years for the lake to disappear. [This archaeological site can be visited by contacting the Bureau of Land Management in Palm Springs. Another less accessible set of fish traps is near Traverline Point.]

When the water didn't come to the Cahuilla, they brought the water to themselves. The Cahuilla constructed irrigation ditches to direct streams to their homes. An old ditch in Tahquitz Canyon and several along the base of San Jacinto Mountain had been constructed by the Indians. These ditches were later expanded by Euroamericans. Today, the Andreas Ranch still uses the irrigation ditch constructed by the *Paniktum* lineage.

Another method of bringing water to the people was the construction of the walkdown well. The Cahuilla are perhaps the only Native Americans in the United States to have constructed wells. As a waterhole got lower and lower, it was excavated into a cone-shaped well to reach the water underground. The Coachella Valley has a large aquifer deep under the desert floor and earthquakes often change or eliminate a water source in this region. As the water table fluctuated, a path of steps was excavated down into the well so that humans and animals could easily retrieve water. Some reached thirty feet deep, and the last ones are remembered from the 1930s on Torres-Martinez Reservation. The city of Indian Wells was named for the wells that once existed near Point Happy. This became a stagecoach stop for the Bradshaw line in the 1860s. The last well there was destroyed in the devastating flood of 1916.

There is still a small group of Cahuilla elders who remember from childhood these traditional aspects of Cahuilla life such as the walkdown wells and brush kishes. Saturnino Torres, a Cahuilla elder from Torres-Martinez Reservation, spoke about his boyhood home in a recent

interview at the Palm Springs Desert Museum. The Torres home was one of the modest brush structures common to the Desert Cahuilla in the early part of the century. (Mr. Torres was born in 1913.)

He and his wife, Florence, talked about their early married life some fifty years ago. She was a Cupeno (a closely related group) from the mountains. Mrs. Torres explained that she was used to a more modern lifestyle, having lived near the Pala Mission at that time. The more isolated Desert Cahuilla had not changed as much as native people closer to the coast. Mr. Torres laughingly described the reaction of his wife when he brought her to his home in the desert. "That time she (his wife) asked me if that was our house. I said, 'no, it's our chicken coop.' My mother, she didn't like that. We lived there."

There was great practical value to the Torres kish in the desert. It let the air through to cool the heat of summer, and during fierce desert windstorms the wind blew through without much destruction. If a house did blow over, it was a simple affair to repair or replace it. Mr. Torres comments that people today worry a great deal about their modern homes under the forces of nature, "That house we had was made of palm fronds and arrowweeds. I don't know how they fixed it, but it never leaks when it rains. It stands that wind too. But nowadays we live in a good home, we are afraid when the wind blows or it rains. It's way different from a long time ago." Anyone who has lived through 60 mile-an-hour windstorms, driving flashfloods, or the recent 7.5 earthquake in the desert can certainly appreciate the practicality of a traditional Cahuilla home.

In historic times, the Cahuilla also built adobe homes. Katherine Siva Saubel, a Cahuilla elder (born in 1920), spoke of her comfortable old adobe home and its longevity in the Santa Rosa Mountains. Mrs. Saubel discussed the intelligent use of local materials that could be carried over into our time. "Our house at Los

Coyotes Reservation stood for more than seventy years. Why can't they build adobes like the Indians did? Our abode was made with mud and grass and it lasted a long time even through earthquakes and snow. Today they could reinforce an adobe with those strong metal bars. Then it would really last a long time. Then our old home would still be here today. They could build those instead of chopping down trees." (Interestingly, months after this conversation, a similar kind of construction was presented as "the house of the future," in *Sunset Magazine*, September 1992.)

Several important activities of the Cahuilla called for special structures and the observance of certain rituals. According to Lucille Hooper who reported on Desert Cahuilla life in 1918, "the Cahuilla employed several kinds of houses for religious and medicinal purposes." These included fiesta booths, dance grounds, sweathouses, and ceremonial houses. Huge ramada-like fiesta booths were built for large social gatherings. According to Barrows, these fiesta booths and the associated dance grounds (up to 300 feet in area) could house hundreds of guests for an event. It took a few weeks to build these structures, however, they were usually torn down after several gatherings and the brush used for fuel. Today the fiesta grounds at Andreas Ranch in Palm Springs and Malki Museum on Morongo Reservation reflect a continuation of these traditions.

A significant part of Cahuilla community problem-solving occurred in the sweathouse. It was essentially a men's club where activities and politics were discussed. The sweathouse was also a place of ritual and healing through the cleansing of the body. These structures were mostly subterranean and sealed with daub or packed soil.

The most important structure in the Cahuilla community was the ceremonial house. Old-style ceremonial houses were circular and were the largest building of the Cahuilla. They ranged from 40-50 feet in diameter. As a larger version of the kish, they were also built from available local materials.

Typically, the yard outside of the house had a dance ground with benches and a fence. The interior of the house was divided into two sections. In the front half the people held meetings, healed the sick, and attended sacred ceremonies such as the *nukil*, an annual gathering to honor the dead. Toward the back was a small room in which the sacred bundle (the *maiswat*) was stored. It was the heart of the community. According to Katherine Saubel, this house of the great spirit was called *kish-umna-a* (sometimes called *kish-amnee*).

Part of the useful life of some Cahuilla constructions was their proper destruction under certain circumstances. Mr. Torres explained that when his father died they burned their house and moved to Martinez. They could no longer live in the place where their father had died. The Cahuilla tradition upon the death of a close relative was to burn the goods and the home of that person. This freed the spirit of the dead and allowed them to use the goods in the afterlife. Recently, Mrs. Saubel and Mr. Torres each related the story of the destruction of the last Cahuilla ceremonial house. In 1989, several elders reached the somber agreement that the ceremonial house at Torres-Martinez should be burned. No one was left who could sing all the songs necessary to keep the religion functioning properly and to honor the house. The continued use of such a sacred place in the wrong way was very dangerous. Mr. Torres explained that to use power improperly threatened the life of every Cahuilla person. The burning of this structure was essentially the end of an era in Cahuilla culture. ~~DETRI~~

Excellent accounts of Cahuilla villages and houses appear in David Prescott Barrows', "The Ethnobotany of the Coahuilla Indians of Southern California," in "Aboriginal Society in Southern California" by William Duncan Strong, and "Cahuilla Culture" by A.L. Kroeber and Lucille Hooper. All are available from Malki Museum Press, Morongo Indian Reservation, Banning, CA 92220

(Editor's note: Vol. 1, No. 1, page 11, column 2 correction: The Pass Cahuilla groups include Palm Springs to Indian Wells. Mrs. Saubel's mother was a Desert Cahuilla from Torres-Martinez area. On page 45, the date for Cahuilla basketry is "early to mid-1900s.")

DESERT DEPOTS

Yuma's Southern Pacific Railroad Depot

By James N. Price Photos by the Author

This article serves as the first of an occasional series of descriptions of Desert Depots. The articles will discuss existing buildings in terms of the history of both the building and its community; the building's location with a map and directions; and its current use. Readers are encouraged to provide information on such depots, especially those that are in danger of being razed, or those which are undergoing restoration into new non-railroad lives.

Brief History of Yuma:

Yuma has always been hot! And it was always destined to be a major transportation center. Before the Colorado River had been tamed by dams and diversions, early immigrants had a formidable task to find a safe crossing. At Yuma, the river was wide but shallow, and from the earliest days, Yuma Crossing became important and well known.

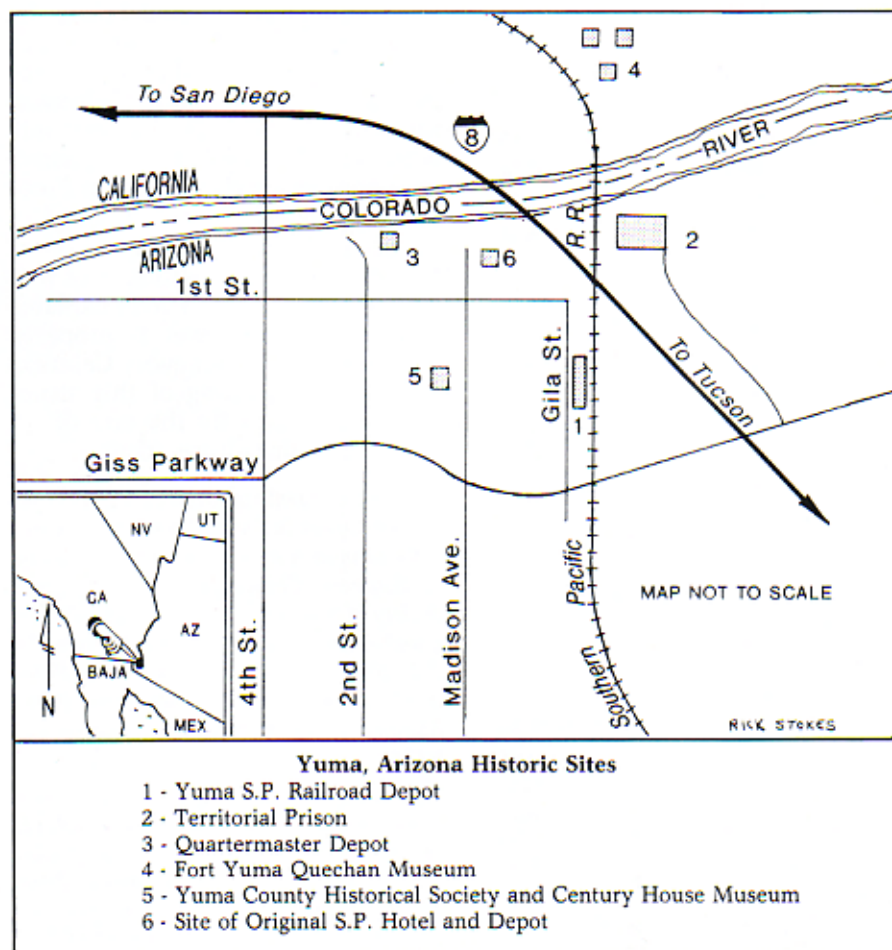
The area had long been settled by the Quechan Indians. Their first encounter with white men dates to 1540 when Spanish explorers sailed up the Colorado River from the Gulf of California. In the 1700s, well-known Franciscans Kino and later Garces attempted to establish missions. This created the first need for an overland route to the area to provide supplies. This so-called Gila

Trail, the southern neighbor to the Santa Fe Trail, brought fur trappers and early immigrants through Yuma enroute to California's coast and gold fields. Government officials who were trying to map the U.S./Mexico boundary also spent considerable time in Yuma in the 1840s and 50s.

Not surprisingly, the Yuma area had its share of classic encounters between the resident Indians and the invading white men. Fort Yuma, established in 1850 provided more security for overland travelers. Meanwhile, enterprising individuals began to ferry passengers across the river for a charge. And, incredible as it seems today, steamboats ran up and down the Colorado River for nearly fifty years, using Yuma as a major port. In fact, this service was established primarily to supply Fort Yuma, and it proved to be considerably cheaper and more reliable than the overland route. The Butterfield Overland Mail route passed through Yuma starting in 1858. Yuma's townsite, platted on the east side of the river in the mid-1850s, was first called Colorado City. The name Yuma did not become permanent until 1873. At that time, Yuma, with some one thousand residents, was second in population only to Tucson in the entire Arizona Territory. In 1876 the Yuma Territorial Prison opened and remained a major factor in the area's economy until its closing in 1909.

The Coming of the Railroad:

The United States' first transcontinental railroad, the Central Pacific, inaugurated service to San Francisco in 1869. Meanwhile its



founders and financiers - Leland Stanford, Henry Huntington, Mark Hopkins, and Charles Crocker - began construction of another cross-country line to reaffirm their monopoly of transportation to the west coast. Called the Southern Pacific (SP), its construction proceeded from San Francisco to Los Angeles between 1870 and 1876, and it reached the Colorado River at Yuma a year later. But, the officials of the competing Texas & Pacific Railroad convinced federal government officials that SP should not be allowed into Arizona. SP built a bridge across the river anyway, without tracks. Then one night its crews clandestinely laid tracks on the bridge between midnight and the next sunrise. At 7 a.m. on September 30, 1877, an SP construction locomotive steamed into Yuma to the wild enthusiasm of its residents and T&P was foiled. SP opened a large railroad hotel and depot on Madison Avenue in 1881 and it was said to provide "the best accommodations in Yuma." That same year, transcontinental rail service became available via Yuma.

As with most river towns, flooding periodically caused devastation in the Yuma area. Major floods occurred in 1884, and 1891. And the flood of 1905 was so big, it created the Salton Sea in California's Imperial Valley. SP crews played a major role in stopping further flooding by helping to divert the runaway river back into its banks. The railroad lost bridges and other facilities during each of these calamities. Aging steamboats were used to ferry passengers and freight between the Arizona and California sides while bridges were repaired. Steamers had become less of a factor in Yuma with the arrival of the railroad, and their death knell was the construction of the Laguna Dam just above Yuma in 1909 thus precluding upriver sailing.

The first automobile bridge opened in 1915 thus providing early travelers with access to California and the famous Plank Road across the Algodones Sand Dunes. The bridge location, slightly up river



The front (west) side of Yuma's Southern Pacific depot, built in 1926. It houses the Yuma Art Center. Note the vaulted windows and Mediterranean styling.



The interior of the building is elegant, seen here with an art gallery exhibit.

from the SP railroad bridge, proved to be attractive to SP, and in the early 1920s, the railroad realigned its tracks in the Yuma area, building a new Colorado River bridge.

The Present Building:

SP built a large new depot on this new Gila Street alignment, about two blocks east of the previous Madison Avenue route. This \$150,000 depot, designed to service both passengers and freight, was dedicated with much pomp and splendor on April 7, 1926. SP's Sunset Limited arrived at 12:35 p.m., greeted by the Yuma Indian Band, the President of the Chamber of Commerce, and many local dignitaries. Every passenger was given a

grapefruit from "Yuma's Frostless Mesa" along with a copy of the local *Morning Sun* newspaper.

The building contains graceful and vaulted Moorish arches suggestive of a Mediterranean style which came by way of the exhibit palaces of California's Panama-Pacific Expositions in 1915. This two-winged depot boasts 7,130 square feet of floor space. It's of frame construction, covered with stucco (presently painted a pale pink). The depot's interior is finished with white tile and marble while many corners and doorways are finished with ornamental oak moldings. The large front double

continued on page 45

Fort Mojave

The early days (part 1)

By Dennis Casebier

Fort Mojave was established by the Army in April of 1859 at "Beale's Crossing of the Colorado River." Its first duty was to chastise the Mojave Indians for their attacks on citizen wagon trains. Then the Fort was to provide a presence in the midst of that numerous tribe to assure their continued peacefulness. With a two-year break during the Civil War, Fort Mojave remained active until 1890, when it was finally abandoned by the Army. The physical plant was turned over to the Indian Department; it was greatly expanded by them, and for the next forty years the Fort Mojave Indian School flourished at this location. The site has a long and interesting history.

As we cycle through the history of this important post, the reader will doubtless notice that the name of the post changes from time to time from "Fort" Mojave and then "Camp" Mojave and back again. This is not a result of the inability of your chronicler to keep track of which it was, instead, it is a result of the Army being unable to make up its mind. Actually, for a few days in 1859, the post was called Camp Colorado. But, soon the Commanding Officer changed it to Fort Mojave. The name was changed to Camp Mojave in December, 1866, and back then to Fort Mojave in April of 1879.

Another troublesome problem is how to spell the word "Mojave." Arizona has chosen to spell the

name of the county in which the fort resides "Mohave." But, very consistently through the years, the Army spelled it "Mojave," although there are a few exceptions to that. The name of the Indian tribe appears spelled both ways. For the sake of consistency, and in the hope that we therefore won't have to keep close track of it, we'll spell the name of the post and the name of the Indian tribe with the "j," the only exception being direct quotes where we will honor the choice of the original writer.

The site that became Fort Mojave had been used for many years by travelers through this country as a convenient point to ford the river. There was a high bluff (about sixty feet above the river) on the east side and a low bottom about two miles wide on the west side. By 1859 the point was known as "Beale's Crossing of the Colorado." It is the point at which Beale's famous wagon road (built partly with the use of camels) crossed the river. It was also in the midst of the Mojave Indian Villages. It was only a few miles upriver from the point where the 35th Parallel of north latitude strikes the Colorado River - that is the point at which the Nevada, Arizona, and California state lines come together. Today, Fort Mojave is in Arizona and directly opposite the site of the fort, on the west bank, is the southern tip of the state of Nevada. In 1859, the land on both sides of the river here

was in New Mexico Territory.

In 1857 and 1858 Edward Fitzgerald Beale, as Wagon Road superintendent, labored across northern New Mexico, Arizona, and the Mojave Desert in California, marking out and improving a new wagon road. Today, it is the route of travel represented by Interstate Highway 40 and the main line of the Santa Fe Railroad between Los Angeles and Albuquerque. In 1857 there wasn't even a pair of ruts to follow. Along many a mile, Beale and his camels and mules and wagons left the first tracks.

Beale's report was published in 1858 and much publicity given to the new route. This was at the very time that the United States was in conflict with the Mormons in Utah, and because of that conflict, the California Trail through Utah Territory did not look attractive to many. Several trains decided to take a more southerly route and try Beale's highly touted road to California.

All summer they toiled through the wilderness of northern Arizona. Their trains consisted of many wagons, women and children, horses and livestock for new farms and ranches in California. The road took its toll, but through perseverance and some luck, they managed to reach the Mojave Villages, at Beale's Crossing of the Colorado, late in August, 1858. While it was true that California

was just across the river a few miles, still there were over 200 miles of desert to cross before the "Promised Land" was reached.

Exhausted from their summer-long ordeal, and led by Beale's report to believe the Mojaves were friendly, the emigrants settled in amongst the Indians to rest and recuperate before tackling the Mojave Desert. They dropped their guard and placed full trust in the Mojaves. That was to be a great mistake.

On August 30, 1858, the Mojaves launched a surprise attack against the emigrants at the river. Apparently the Indian plan was to attack the camp with a shower of arrows and then rush the group and finish them off with war clubs. The laxity that existed in the emigrant camp might have permitted this to succeed had it not been that the advancing Indians were noticed by a small girl playing in a wagon. She gave the alarm in time for the emigrants to obtain their arms. Although faced with 300 to 400 Indians, bows and arrows were no match for muskets and Colt's pistols. The emigrants fought the Mojaves off. Twenty or so emigrants were badly wounded, but only one was killed.

Meanwhile, one wagon, belonging to a German named Bentner, which had been near Sitgreaves Pass with the Udel/Hedgepath parties, had started out alone to join another train at the river. This wagon was attacked and all were massacred - Bentner, his wife, and five children. This brought the total number killed to at least eight.

Even though most of the emigrants had saved themselves from being massacred, the Indians had succeeded in driving off nearly all their stock. This represented the stock for the two lead trains that had reached the river. That night the emigrants retreated back to the mountains where another small train was waiting.

At about this time another train appeared at Sitgreaves Pass headed west. A general council was held

and it was decided they would all retreat back to New Mexico. Had they known the Mojaves better, they would have realized they were more than strong enough to face them militarily and cross the river and proceed to California, which was less than half the distance to New Mexico. But this they did not know, and so they turned around and headed back.

Traveling back across Arizona, they met two more trains and each time provisions would be divided



Gen. William Hoffman shown as Commissary General of Prisoners during the Civil War. (Courtesy, Library of Congress)

and the group of half-starved refugees was enlarged. Once the news of their plight reached New Mexico, the Army sent out wagons of provisions and other arrangements were made for their relief. On their return trip they experienced one of the most remarkable and terrifying tales of hardship and suffering in the history of the frontier American West.

Back at the Mojave Villages, the Indians probably felt they had successfully defended their homeland. The native mind could not have realized the power of the white man and the determination with which he would protect his people and avenge depredations conducted against them. The Mojaves had in fact hastened the day of their own destruction and they had by their actions set events in motion that would put an end to their independence.

Emigrants were not the only ones to put Beale's Wagon Road to the test in 1858. In that same year, a contract was in effect to carry the mail over that route from Kansas City, Missouri, to Stockton, California. The contractors were required to carry the mail once a month in each direction. Service under the contract commenced on October 1, 1858.

The attempt to carry mail by this route was not even marginally successful. Probably not more than two westbound and four eastbound mails were delivered throughout the nine months the contract was in effect. The hostilities of the Mojaves was a main factor in this, but so was the unexpectedly difficult condition of Beale's Wagon Road across Arizona. This "Central Overland Mail," as it was called, was a big failure, but it served to heighten determination on the part of the U.S. Army to do something about the Mojave Indians.

Major William Hoffman, 6th Infantry, was ordered in December, 1858, to make a reconnaissance to the Colorado River in the vicinity of the Mojave Villages. He was to take an escort of fifty dragoons from Fort Tejon for this purpose. He was to take one company of Infantry as far as the San Bernardino side of Cajon Pass and encamp there as a guard for a depot and a larger number of troops that might be needed to operate against the Mojaves.

Accordingly, Hoffman took Company "E" 6th Infantry to Martin's Ranch at the mouth of Cajon Pass

and left them there to establish an advance depot. Then, accompanied by the detachment of fifty dragoons of Companies "B" and "K" 1st Dragoons from Tejon, he set out over the Mojave Road for the Colorado River. He was supposed to conduct a reconnaissance in the vicinity of Beale's Crossing and select a site for a post. He arrived at the Colorado on January 7, 1859.

Hoffman's plans to reconnoiter the vicinity of Beale's Crossing were frustrated by broken country, underbrush, and a multitude of Mojave warriors. From the accounts available, it would seem that these Mojave warriors may well have been more of a factor in the failure of Hoffman's reconnaissance than the broken country and underbrush.

A clash between Hoffman's command and the Mojaves took place. Although the Mojaves lost a few Indians killed and Hoffman had no casualties, it appears that no one was contesting the Mojaves' posses-

sion of the crossing when Hoffman hurriedly left for the coast for a new set of orders and reinforcements.

Hoffman's reconnaissance must be viewed as a miserable failure. He completely underestimated the potential of the Mojave Road to carry heavy military traffic, and he overestimated the power and determination of the Mojave Indians.

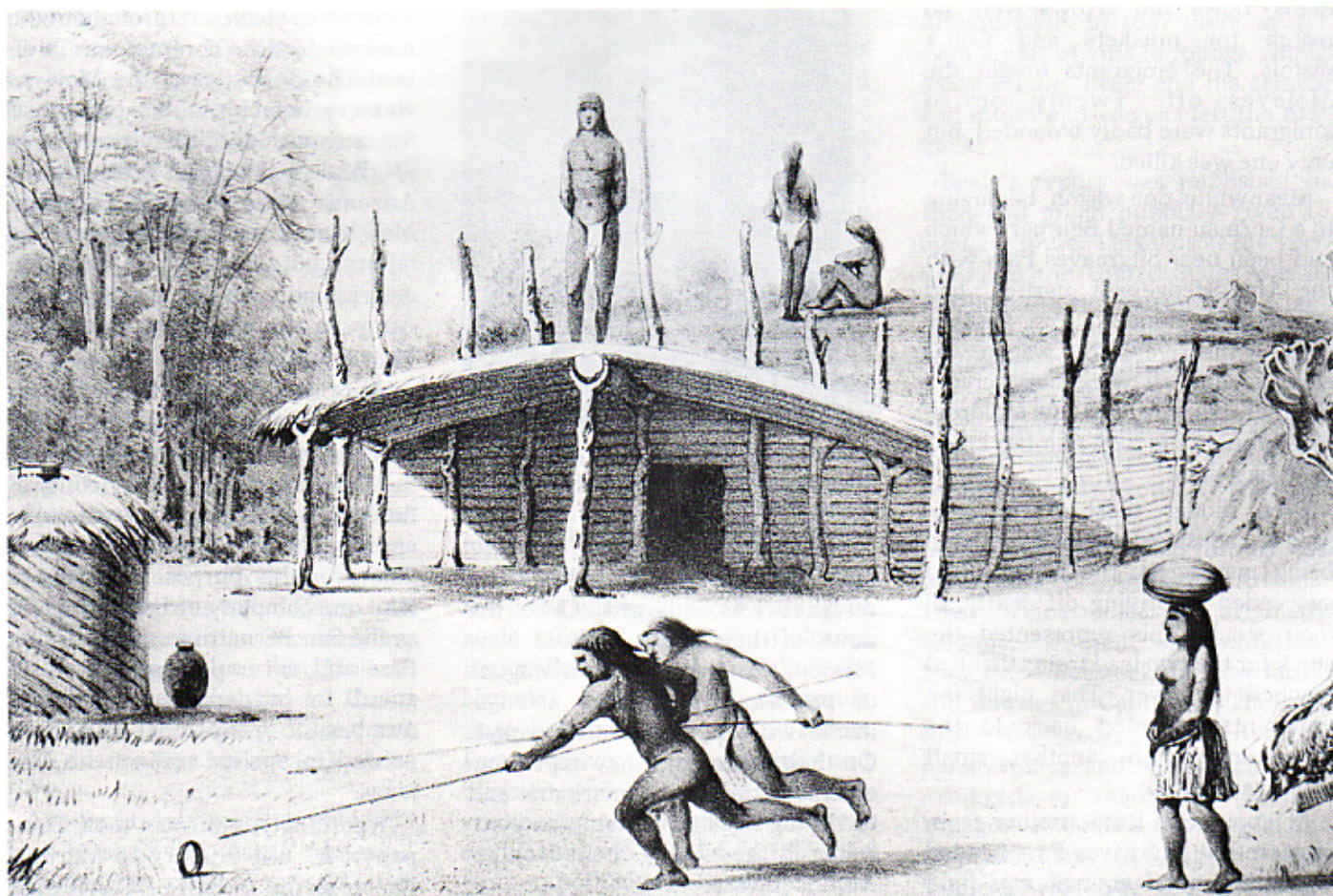
He stated that: "The route by land to the Colorado, over which I have just passed, is utterly impracticable for troops with trains in its present condition. The troops, therefore, who are to establish the new post will have to reach their destination by Fort Yuma and the river ..." If Hoffman thought the Mojave Road was difficult, then he must have been overwhelmed when he saw the road he had to travel up the Colorado River from Yuma. But that was his recommendation, and that's the route the troops would take to the Mojave Villages.

As to numbers of troops, Hoffman ultimately had more than 500 men

in his expedition, including most of the 6th Infantry Regiment, elements of the 3rd Artillery, support from the 1st Dragoons (not actually part of his expedition), and a large number of civilian employees. It took several months to concentrate this large command at Fort Yuma. Some marched overland from various points in southern California. A large portion of the command sailed by ocean steamer from San Francisco around Baja California, up to the mouth of the Colorado River, and from that point up to Yuma by river steamer. While all this was going on, and Hoffman was putting this incredibly impractical and unnecessary plan into action, the Mojaves, rendered confident by their recent successes, continued their hostilities against the Central Overland Mail parties and against civilian parties who were attempting to do further work on the wagon road for Beale.

Finally, on March 26, 1859, Hoffman had his army readied at Yuma

Mojave Indians and their dwellings as they appeared to the Whipple Railroad Surveying Party in 1854.



and the march up the river was commenced. He had established a fort in advance of his march about fifty miles above Yuma called Fort Gaston. Day after day, Hoffman's command inched its way up the river.

They arrived at Beale's Crossing of the Colorado on April 20. Hoffman was finally among the Mojaves and ready for the great fight for which he had brought nearly 600 men, hundreds of animals, and tons of provisions and equipment. He was to be disappointed in this however, because as might well have been expected, the Mojave, who were not stupid, were completely overawed by the size of his command. They could not flee from their valley because it was the only real estate they owned. They either had to stand and fight or capitulate. They took the only option available to them and surrendered without further ado.

On April 23, 1859, a grand meeting was held between Hoffman and the Mojave chiefs, with the Colorado Expedition and hundreds of Indians looking on. Hoffman dictated his terms and, with very little quibbling, the Mojaves agreed to everything he asked. His demands were:

They must offer no opposition to the establishment of posts and roads, in and through their country, when and where the government chooses, and the property and lives of whites traveling through their country must be secure.

As security for their future good conduct, they must place in my hands one hostage from each of the six bands.

They must place in my hands the chief who commanded at the threatened attack on my camp in January last (during Hoffman's hurried reconnaissance).

They must place in my hands three of those who were engaged in the attack on the emigrant party at this spot last summer.

A serious and important question can be raised about whether the Mojaves could have understood these terms because of the small amount

of time devoted to the negotiations and because of the hopelessly complex translation procedure. To communicate between Hoffman and the Mojaves, the following system was used: Hoffman would make a statement. This would be translated into Spanish by Capt. Henry S. Burton. This was translated into Yuma by a Diegueno Indian. Finally this would be translated into Mojave by a Yuma Indian. It can well be imagined that the words that came out at one end of the chain did not bear

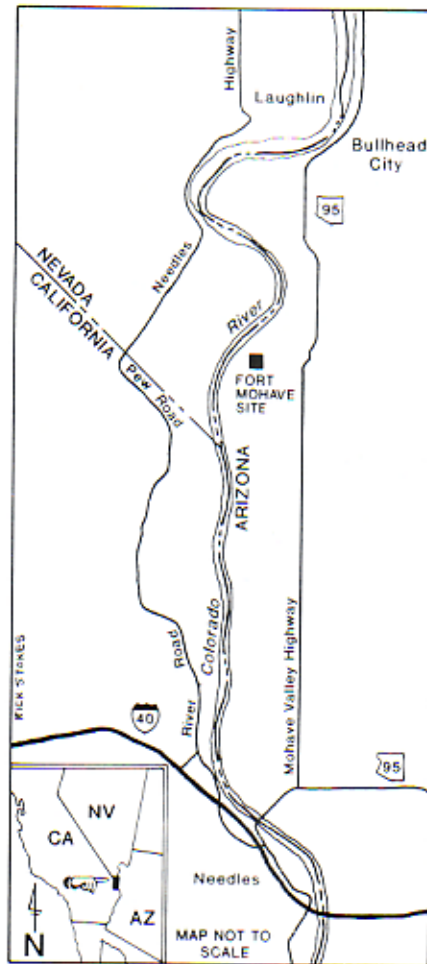
the time I entered the valley was that of a subdued people asking for mercy."

Having completed these arrangements, Hoffman made plans to return to the Pacific Coast with most of his command. He ordered Capt. Lewis Addison Armistead to remain at the crossing with Companies "F" and "I" of the 6th Infantry and a detachment of the 3rd Artillery to establish a permanent post. Hoffman called the post Camp Colorado, but Armistead changed the name to Fort Mojave a few days after Hoffman left.

The bulk of the Colorado Expedition departed between April 26 and 28. Hoffman himself marched toward the Pacific Coast over the Mojave Road to San Bernardino and Los Angeles with Companies "C", "E", "H", and "K" of the 6th Infantry. Other units went back to Yuma on the river steamer **General Jessup**, the boat which had accompanied the troops as they had marched up the river. It can be seen that, after months of preparation, and the expenditure of a huge resource in men and money, Hoffman stayed with his command in Mojave country for less than a week.

Hoffman had been ordered to establish the new post in California, partly because the general who sent him out there was in charge of California and not New Mexico. Hoffman thought that stretch of river on the west side of Beale's Crossing was in California. Actually, it was in New Mexico (later Arizona and even later still Nevada). But anyway, he couldn't put the post on the west bank because that's where the floodplain was. So, he wisely selected the high bank close in to the river on the east bank.

As the Colorado Expedition marched hurriedly away from Mojave country, had they looked over their shoulders, they would have seen the "Stars and Stripes" floating over the mesa above the Colorado River. Surely, both the Indians and the soldiers who were left behind, had enough sense of history to feel that a page had been turned and a new chapter begun. ~~DEER~~



much resemblance to the original statements. The contention that the Mojaves did not understand the conditions imposed on them is borne out by subsequent events.

Hoffman was satisfied that he had solved the Mojave problem. He wrote optimistically to Headquarters: "I think it may be confidently relied on that they will never again, as a body, give occasion for sending troops against them. Their whole demeanor from

is the elephant tree (**Pachycormus discolor**) or copalquin which inhabits much the same area in Baja's Central Desert. Also known as torote blanco, or "big white bull," copalquin is an endemic, restricted to the Baja peninsula, from the Central Desert to north of La Paz and on the islands of Magdalena Bay. Though other weird plants in Baja are called elephant trees, it is copalquin which is most deserving of this name. From the swollen, sometimes multi-stemmed base, the swollen trunk nearly lumbers skyward. The trunk may reach three feet in diameter at breast height above the ground. The fat, heavy-looking and almost wrinkled branches taper rapidly. These elephantine stems and branches are covered in grayish-white to pale yellowish thin, papery and peeling bark, which reveals a blue-greenish waxy smooth inner bark.

Like the cirio, the copalquin is often leafless for it too survives the frequent dry periods by dropping its leaves. And it shares the stem-succulent habit as well, storing water in its swollen trunk and branches. In late spring the dark-green pinnately compound leaves turn yellow and drop, soon to be replaced by a glorious display of delicate pink flowers in June, July, and August. To flower during the hot summer months may seem an odd habit, until you recall that tropical disturbances regularly bring summer rains to Baja's Central Desert. With the onset of fall drought, copalquin is barren of leaves and flowers, its fat, whitened stems conjuring an image of a "big white bull."

Though this elephant tree and the cirio share some adaptations to their hard desert environment, they do not share a close heritage. Copalquin is a relative of poison oak, poison ivy and the cashew nut in the **Anacardiaceae** plant family. It might be thought, that the Indians and local inhabitants would have placed cirio and copalquin in the same group as both were largely

useless to them, with spongy wood and inedible fruit.

The striking similarities sometimes found in organisms not closely related is called "convergence" by ecologists who recognize similar solutions evolved to meet similar environmental conditions. In the deserts of Baja California, the stem-succulent habit is an example of this convergence. And it is a prominent character for the third member of our floral trio, the massive Cardon cactus. The columnar pale green trunk may be five feet in diameter and supported by a skeleton of vertical ribs and hardwood rods. Like the barrel cacti of Alta California, the Cardon has a spongy pulp which swells accordion-like with intake and loss of water. The massive bulk is supported by a shallow root system which aids in rapid uptake of unpredictable rainfall.

Perhaps the largest cactus in the world, the Cardon is known to scientists as **Pachycereus pringlei**, suggesting a resemblance between its thick basal stem and an elephant's leg. Like the elephant's legs, the Cardon trunk is constructed to support the massive size and weight of its upper body. In the case of Cardon, the saguaro-like branches may be a foot or more in diameter, the entire plant may be forty to fifty feet tall and weigh as much as ten tons.

Like the Cirio, Cardon is nearly endemic to Baja California though it occurs on most of the islands in the Sea of Cortez and coastal Sonora south to Guaymas. As you drive south on Mexico Highway 1, no sooner does the excitement of seeing the first cirio subside when Cardon joins the assemblage of botanical diversity before you. On the eastern side of the peninsula, Cardon grows in the southwest hillsides of the Sierra de San Pedro Martir and along the coast is first spotted south of San Felipe. From the Central Desert it is a dominant feature southward to the Cape Region.

Like its relative the saguaro, which does not occur in Baja, the Cardon produces a beautiful and

fragrant white flower. In late spring these rose-tinted flowers open in late afternoon to be pollinated by bats at night and perhaps by birds and insects during the next morning. The flowers mature into a very fuzzy, tan fruit with dry, purplish to pinkish flesh and small black seeds. Though not as sought after as the more fleshy and highly edible fruits of the saguaro, the prickly Cardon fruit was used by native Indians as a staple food, ground into a pinole or combined with water as a juice. Ranchers used thick slabs of Cardon flesh as a pain killer and disinfectant on wounds and the dried ribs were used as fish spears, poles for hooking fruit, fences, corrals, walls, and even beds.

To immerse yourself in the bizarre and wonderful diversity of the Central Desert of Baja California, begin with a hushed chant as you enter the land of the boojum. South of El Rosario, approximately sixteen kilometers east of town, explore the incredible stature of the cardonal, or cardon forest, in the Arroyo El Rosario. Continuing south, in the area between San Augustin and Catavina, a magical world unfolds before your eyes: plump copalquin, the elephant trees, emerge from boulder piles; massive cardon with many limbs reach skyward and contorted cirio add their peculiar flavor to the landscape. Where the influence of ocean currents and morning fogs is present, the cirio and copalquin will sport grey tufts of the bromeliad called heno pequeno (little hay) (**Tillandsia recurvata**) by the locals. Here and there a large hawk nest, perhaps of the colonial Harris' hawk is nestled in the crook of a cirio or the elbow of the cardon. In this land that is at once strange and wonderful, the words of Joseph Wood Krutch seem most appropriate: "...If one is reminded of anything, it is either of the imagined surface of some distant planet or of one of those reconstructed scenes from a remote geological era when there were no real trees, only huge club mosses and horsetails magnified to gigantic size." **DETRI**

pets of a desert kind

By Luci Grateful

I named him Charlie. He stood on a rock bordering the driveway, full height, looking around and chattering to no one in particular. Perhaps he was simply greeting the morning. But he made an awful racket as he curled his bushy tail straight up behind him. He was a regular around the cabin, our resident squirrel.

Though he knew he was being watched, he felt in no danger as long as I stayed inside, behind the window, while he acted king of all he surveyed.

Squirrels and rabbits aren't among the more friendly critters of our southern desert mountains. They prefer to stay away from man and live their separate lives, as do the quail.

Once in a while, if you're very still, you can see one or two parent quail - then the little ones - venture out of the shrub into the open driveway, and back into the shrub on the other side.

They're rather skittish and won't expose themselves but seconds to my curious eyes. But they do give me the luxury of spying on them occasionally. With their feet moving in double-time, their beaks poking straight ahead, they quickly parade their pride. Then they're gone.

So much for my morning treat. Still, I hadn't had enough of the stillness of the 6:00 hour, so I poured myself a cup of coffee and sat outside on the steps of the porch.

With an acre of open land stretched around the cabin, I loved being a one-person audience to the scene before me. And I wasn't disappointed. Shortly, two long-eared

rabbits raced out of the far shrub, stopped short only a moment, they leapt straight up in the air, first one, then the other. Whatever game they were playing, I could only guess. I watched them as they dashed away into the high grasses. It'd take a tremendous effort on my part to try their jumping feat. But they performed it with the ease of a trampoline artist.

Neighbors all over the high desert, sharing open acres with cute critters, have stories to tell of pet wildlife.

A Morongo Valley man spoke of his local roadrunner who'd greet him with a morning visit three or four times a week. "Bold," the man said of its stance when it appeared on the porch peeking through the screen door. He and the roadrunner would stand silent and statue-like, looking at each other maybe half a minute, then the bird would turn and disappear among the creosote bushes. "It's a strange feeling," he said, "to have this bird size me up with that stare, then take his leave without so much as a grunt." "But," he added, "he's friendly, and I kind of look forward to seeing him."

A Joshua Tree woman, confined to a wheelchair, spent her mornings over a cup of coffee while watching the critters outside her dining room sliding-glass doors. Each night, she'd scatter bird seed on the adjoining patio and in the morning, every description and size of bird flew down to peck at a free meal. She didn't know what species any of them were. "Some big, some little," she said. "Mostly brown." But they made the best part of her morning. "I've fed them for so many years,"

she said, "I could wheel right up to the doors, looking as large as a giant to them, and none of them would scatter."

Desert wildlife, when left alone to do their own thing, make delightful pets. They don't require shots, or collars or leashes, and generally don't require special pet food. They simply ask for a friendly face and a brief greeting. Then each, man and critter, can go about his daily business.

One desert resident had an entirely different meeting with a particular critter. It took place on a side road near his home. He stopped his truck for a turtle that was crossing in his lane. "He was so slow," he said, "that I got out of the car, picked him up, and put him on the dirt shoulder on the other side of the road. When I climbed into my truck, there was the turtle in the road again, crossing back to the first side." The Morongo Valley man wanted to be on his way, so he got out and took the turtle back to the first side. "I got back into my truck, looked up, and there he was, turned around and in the road again," he said. "I decided I'd just have to sit there and wait for that critter to do its thing."

In spite of many experiences, some squeamish - with a black widow spider found in a lower kitchen cupboard, or a scorpion climbing up the draperies, or a rattler found under the washing machine - most desert life is a charm and a joy to discover. In all this land around the globe, you won't find a better habitat for man and pet, and companionship, than each with his own freedom in God's wide desert. ~~DEAR~~

Rocks and Minerals: Ask the Expert

Are there Collectible Minerals in Baja California?

By Glenn & Martha Vargas Photos by the Authors

We have been asked this question many times. Yes, there are, but finding them calls for much time and effort. Roads are poor, direction signs almost non-existent, and often the locality one seeks just is not there.

Before we went to Baja California, we read as much as we could about the region. After going there, we found that much of the information was erroneous. Either real misrepresentation, or that conditions had changed so that directions were useless.

Our first trip into Baja California was in 1956. When we announced our plans to our lapidary students, they asked if we were going to hunt minerals. We told them that we wanted to go there just to see the peninsula, but "if we found some minerals sticking out of the center of the road, we would stop and pick them up."

The year 1956 was the last year of a seven year drought in Baja California. Roads were dusty beyond belief. Water holes (almost dry) were ringed with cattle carcasses. The natives painted a very dismal picture of the past and hopes for the future. After leaving El Rosario, "the last outpost" behind, we started slightly eastward over a series of small hills which led to very steep grades up a small mountain. When we arrived at the top, we found a turquoise mine. In fact, the road ran over the dump. Here were

minerals sticking out of the center of the road! How prophetic can one be? We did pick up a few small bags of turquoise to take back to our students. We later learned that the name of the mine was La Turquesa. It is not easily reachable now; the new paved road has completely bypassed it.

With this turquoise experience, we decided that perhaps we should look for minerals. We looked over the information we had and decided that an agate deposit a few miles to the south was worth investigating. This was really a waste of time. The agate was plentiful, but filled with holes and had no color pattern.

We next decided to visit El Marmol, a large deposit of (marble-like) travertine. This had been laid down by a flowing spring over centuries and was nicely banded and solid. Miners were cutting out huge blocks of it to use as building stone. Some of it can be seen in San Diego. Because it is soft, it had a limited lapidary potential, so we gathered only a few discarded small pieces.

The town of Santa Rosalia was our next stop. This is an old copper mine that was operated by a French company long before World War I. The French had given up the mine during the 1930's depression. It was idle for a few years until the Mexican government re-opened it to put the local people back to work. What we saw of the ore was quite poor, and we were certain that the govern-

ment was just barely making it.

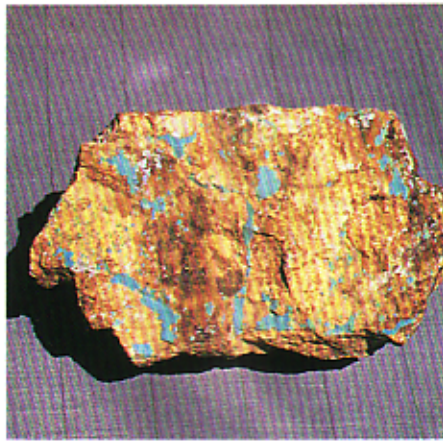
We found that the man supervising the dumping of ore trucks at the smelter was very friendly. Our Spanish was poor, but he was patient and wanted to show the specimens that he had collected as the trucks dumped at his station. He was very eager to share the specimens. If we praised them, they were ours. Most were not good enough for a collection, but he did give us some interesting ones.

After Santa Rosalia, our next goal was La Paz, about 250 miles south. After Santa Rosalia the road became unbelievable. We had thought the roads in the north were poor, but southward they were the worst we had seen. There is more rain in the south and erosion is greater. Our days were spent crawling along about ten miles per hour or less. Fifty miles was a long exhausting day. Rocks of eight inches in diameter covered the road.

On the second day out of Santa Rosalia, we came to a wide black band across the road. Something told us to investigate. It was a two foot wide vein of magnetite. The vugs contained very bright octahedral crystals. Again minerals in the road!

Our stay in La Paz was excellent. We made friends with a group of musicians (Mariachis), but we found no minerals. The La Paz region is beautiful; a desert down to the sea, which is the lower portion

Turquoise from La Turquesa mine.



Whales made of travertine.



Garnet rocks - Los Gavilanes



Magnetite Dike - 7 miles north of Mesquite (1957)

of the Gulf of California.

When we returned home, we gave pieces of the turquoise to our students. We were surprised when they showed us nice cabochons. All picked up in the center of the road! These experiences prompted us to really look for Baja California minerals.

Our attention was drawn to the Sierra Juarez, the extension of the Laguna Mountains in southern California. The Lagunas contain many mines that have produced good gem minerals. Thus it was imperative that we investigate the Sierra Juarez.

We were again presented with poor roads. Rains are more frequent

here and small ditches across the road were the order. The mountains are high enough to have good coniferous forests. There were numerous small mines to be found, but we found very little during our first two trips.

On the return from one trip, we drove up to a Mexican man standing at the side of the road with a piston hanging in a tree. We were certain he needed help and stopped. The water pump at his mine had stopped and he wanted to go to Mexicali to buy parts. We were pleased that he spoke English, and asked about his mine. He was mining the ore of tungsten, called scheelite. When we asked about other minerals, all

he knew was garnet, which he said the mine had plenty. He invited us to visit the mine (Mina Olivia) on our next trip.

This was our first good mineral find in Baja California. The mine contained much of the unusual and somewhat rare mineral axinite. The mine owner allowed us to collect there for two years before anyone else knew about it. Some of the axinite was of good gem quality and we were able to sell and trade the mineral during this period. It actually assisted us to build a good salable stock of gem minerals. The total final production of axinite from this mine was probably over one-half ton. For many years thereafter many dealers had it for sale. Now it is seldom seen on the market, and the mine is closed.

The greatest gem find in Baja California was the mineral sphene. It can be cut into very brilliant greenish to brownish gems, but they are a bit soft, about 5 in hardness. The original find was made by a Mexican cowboy who had no idea what it was. He asked an American who told him it looked like a piece of broken beer bottle. The Mexican, however, persevered and brought his find to the San Diego area. The results were almost electric; many gem cutters cut fine gems of sphene. After about ten years, the region was so cleaned that it is now almost impossible to find any. Most of the miners we knew have quit hunting

We found other deposits of good minerals. They were usually in very small amounts, and quickly worked out. On returning we could not always find the deposits; roads had been changed and farms and small water reservoirs confused us.

There is no doubt that there still are good minerals in Baja California, but finding them is very difficult to do. The easiest way is to hope that Mexican miners will find the deposits, and then go and buy from them. ~~over~~

Perhaps our readers could share information on recent mineral findings in Baja California?



J. SMEATON CHASE DIARIST

"The palo verde ... is the desert's premier tree, and reminds me often of that glory of England's spring, the laburnum. Ah, those Thames-side gardens, spilling their overflow of lilac and laburnum over old rosy brick walls! Those steep lakeland streets which I used to climb with you, lady of my dedication, to the dark-firred beacon, ... Excuse the lapse, good reader, and in return I will wish that you may never know the sharpness of exile."

By Al Pennington

Welcome to the relaxing pleasure, the tantalizing enigma of J. Smeaton Chase, diarist, botanist, colorist, observer of life, and an enjoyable sagebrush writer.

Chase's "California Desert Trails" has been noted by many critics as one of the best books about the California/Colorado Desert. It was written during J. Smeaton's rides in the Colorado Desert from 1915 through 1918, and was published in 1919.

Chase published two other "Trail" books, "Yosemite Trails" in 1911, and "California Coast Trails" in 1913, in addition to other books and articles.

He was first and foremost, a diarist. He writes that he saw a

world and a way of life passing away, and wanted to preserve it. Just as the aside about his lady and his exile, some of his life can be seen within the descriptions. His life was unique, and will only be barely touched in these few pages.

In the "Palm Springs Villager" of March 1952, Edmund C. Jaeger, another sagebrush writer, describes Chase in an article:

"I saw energetically moving before me a middle aged man of excellent posture. He wore riding breeches and leather puttees, a brown tweed coat, and broad brimmed Stetson hat. I judged him to be a 'man of parts' and steeped in English culture."

But one of the popular photos of Chase shows him in a full suit, with vest, Packer boots, and a "Smokey

the Bear" hat. Yet, in his own photos, and in his description of himself in various books, he's riding in khaki on a McCellan saddle, on an Indian pony. The photos also show that Chase had a face and mustache similar to Lord Baden-Powell and Teddy Roosevelt.

J. Smeaton Chase was born April 8, 1864, in London, England. His father, Samuel, was a partner in a London publishing company. Chase used the name Smeaton because he liked his uncle Smeaton, a noted English architect.

Chase came to California in 1890, moving into the San Diego area. In the crash of 1893, he lost his patrimony while living "under the flanks of the Cuyamaca Moun-

tains." During this time he worked as a vaquero on a cattle ranch near Julian, California.

Some references have Chase coming to Palm Springs as late as 1915, others 1912; while he himself mentions meeting Carl Eytel, the desert artist, and riding with him in the desert before they rode together on the "Yosemite Trails" in 1910.

My research has J. Smeaton at the Agua Caliente springs as early as 1905 for his lungs and his arthritis. From 1890 to 1910, Chase was, among other things, a social worker among the Mexicans in Los Angeles, a clerk in a camera store to learn good photography, a tutor for two boys in San Marino, and spent time in Boston. We specifically know that in 1898 he became a U.S. citizen, and was in San Francisco soon after the 1906 earthquake.

During this time he began to write articles for Californian, American, and English magazines, though I must admit, I have found very few of them.

J. Smeaton took all three trail rides recorded in "Yosemite Trails," two with Carl Eytel in 1910, and published the book in 1911. Chase developed a style and a rhythm in his writing, and in his life.

With some income from "Yosemite Trails," he was able to take the two trail rides for "California Coast Trails," again, one with Eytel, and published the book in 1913. Chase also published "Cone Bearing Trees," in 1913. Part of the research for it must have been done on the Yosemite rides, especially since Eytel did the art for both books.

In 1915 he published "The California Padres and Their Missions," with Charles Francis Saunders. "The Penance of Magdalena," the anecdotal stories from "California Padres," was also published by Chase in 1915. He also started the rides for the aforementioned "California Desert Trails" during this year. Some of the research for "California Padres" must have been done during the "Coast" rides.

Carl Eytel did most of the art work for Chase's books, except

"Desert Trails." Chase, of course, did all his own photography. In fact, he also did the photography for John Charles Van Dyke's famous "The Desert, Further Studies."

This fact became a problem in my research, for I've seen only the 1930 edition of this book, which includes Chase's photos. I have not seen the 1906 version. If J. Smeaton's photos are in the 1906 edition, my time-line for Chase is not valid. Other questions arise because some of Chase's photos in the 1930 edition of Van Dyke's book are also in the 1919 "Desert Trails."

His photos are also included in most history books about Palm Springs, Frank M Bogert's "Palm Springs, the First Hundred Years," for example. It's no wonder that J. Smeaton was known to the Indians around Palm Springs as "man with black box" (his camera).

Going on with the time-line of Chase's life, in 1916 he purchased a home in Palm Springs, and in 1917 married Isabel White in Pasadena. Isabel was a sister to Cornelia and Florilla White, both much in the history of early Palm Springs.

It is interesting to note that the reference to Chase's "Lady of my dedication," was written after his marriage to Isabel (My wife wouldn't let me publish such a statement of a past romance!)

"Desert Trails" was published both in Boston and in England. I've found two different editions of the book in local libraries. They are different sizes, with different layouts, but both are dated 1919.

Later, in 1920, J. Smeaton Chase published "Our Araby: Palm Springs and the Garden of the Sun." This little book is Palm Springs' history, the canyons, and desert travel. In it Chase proposes a National Park for the Indian Canyons and the Santa Rosa Mountains. (Ed: This latter area has recently been designated a Scenic Area, and efforts are under way to further protect the same area Chase proposed.)

After his marriage, Chase moved quite a bit, living in Palm Springs, Carmel, and Pasadena, California,

at various times. During a visit to Boston he became ill with a heart condition. After returning to Palm Springs, he died of that condition on March 29, 1923, only days short of his 59th birthday.

There may be many foggy areas in J. Smeaton's biography, but there is little doubt of his writing ability. Chase puts us in the saddle with him as he rides his "Trails." Though not travel guides, the books are so vivid and detailed that one can still follow them, given allowances for the "improvements" seventy or eighty years have added. In "Yosemite Trails" he describes Hetch-Hetchy Valley just as it looked before it was dammed and flooded as a reservoir for San Francisco.

As a diarist, his prejudices and pre-judices are often boldly stated. For example, in "California Coast Trails" he states: "The California Spaniards and Mexicans ... enter more into my narrative than their population would render natural. I [have] no sympathy with the slighting regard which they, especially the Mexicans, are held." (page 9.) And, "The time ... is oddly out of joint when Chinamen ride while Mexicans go a foot..." (page 14.)

Another of his prejudices would seem out of place in today's lifestyle: "When a true democracy arises, one of its first jobs will be to abolish the automobile as an offensive chattel to privilege." ("Desert Trails", page 287.)

Jaeger, who often rode with Chase, describes him as a truly religious man who says grace over a simple trail lunch, not as a ritual, but as a belief and a wonder. In one of his "Trail" books, J. Smeaton takes almost a page describing the sensational effects of a sunset and ends with, "As I take in the entire scene, I can only stand in awe and say, 'I believe in one God, the Father Almighty ...'"

In all his books, he spends pages describing sunrises, sunsets, and vistas in such vivid, detailed terms and colors, that an artist could easily paint the scenes.

Adding to his 'truly religious' im-

age, Chase seldom traveled on Sunday, preferring instead to rest himself and his mount in camp. But he never explains the reason for this practice.

Again, he boldly states a prejudice in "Yosemite Trails." "A considerable volume of smoke was rising from a little clearing which exhibited the usual litter of cans and other rubbish. Some party ... had neglected to extinguish their fire

when they left. I was just in time to prevent a serious conflagration ... No penalty ... would be too severe for the offense against the public good which is committed by persons who, merely to avoid a few minutes work, will expose a tract of forest to the danger of destruction. Carelessness so selfish and so colossal rises to the dimension of crime." (page 69.) And this was written in 1910!

When considered as a whole,

Chase's works have many interesting features, such as his clean writing, and his English sense of humor and understatement; his use of botanical and Spanish names; and of special interest to *American Desert* readers, his timing. He travels in Yosemite in the winter, in the desert in the summer, and up the coast of California in the rainy season. He obviously wasn't too concerned with personal comfort.

J. Smeaton Chase resting on one of his desert trails.
(Courtesy of the Palm Springs Historical Society).



Chase rode alone about half the time, but it was not always to his liking. In "Coast Trails," he says, "... I was half inclined to wish that it had been possible for me to quarrel with somebody"

But we should look more closely at J. Smeaton's "California Desert Trails." Just to prove that he was J. Smeaton, he spends almost a full page arguing why he called the book "The California Desert" instead of the "Colorado Desert" which it was. He does not want anyone to confuse the State of Colorado with his trip through the Colorado desert, therefore, he titled the book "California Desert Trails."

Though Carl Eytel did most of the art in Chase's books, he didn't ride with J. Smeaton, nor do the art for "Desert Trails." Carl was a patriotic German, and Chase, a patriotic Englishman. When the "War to end all wars" was being fought in Europe, Carl and J. Smeaton withheld their friendship, but renewed it as soon as the hostilities ended.

Again, in "Desert Trails," we come across Chase's love of the desert. It was something between fascination and obsession. He states: "If the gaunt and desolate has a degree of perfection, here it is reached. I do not see how Sahara, Gobi, or Araby could improve on this for rigid nakedness and sterility ... Yet there is a strange beauty in it all ... I felt a sort of excitement ... as if something nudged and whispered - 'Your primal home. Come back.'" (page 275.)

Chase observed all life in the desert, often using several paragraphs to describe a flower, or a mesa, or the track of a side-winder. Even while resting in the shade of a cactus, he watched "... the antics of a troop of chipmunks ... Their impudence is delicious, quite in the style of the Artful Dodger. They are practical jokes incarnate, and there is something positively wicked in the cock of their tails." (page 166.)

Chase meets, talks with, and describes a broad spectrum of humanity too. In "Desert Trails" he in-

cludes muleskinners, hermits, Mexican farmers, Grubstakers, and much more. But on page 225, he expresses his ire after he tells a Grubstaker's story. "The gullibility of mankind with regard to lost mines or buried treasure is staggering indeed. The number and giddiness of these wild-goose chases amount to a phenomenon. No story is too unlikely, no clue too frail, to gain the belief of men ... 'the old Indian,' or the dying prospector, or the hospital patients who have whispered 'the sure thing' secret of the long-lost Blue Dog, or Holy Smoke; to say nothing of the variegated legends of the Peg-leg ... run into the hundreds" His comment, "Holy Smoke" mine, is only a small sample of his soft humor.

As a diarist, Chase is prone to moralize and philosophize. But on page 301 of "Desert Trails," he lets himself off the hook with a candid remark. "It was just twenty-five years since I had last past this point, entering California for the first time ... the dark pyramid ... suggested serious reflections: but those clouds made it seem unwise to stand about moralizing, and again self-examination was successfully dodged."

With all his recording of the passing of a way of life, he calmly criticizes his own work in the preface of "Desert Trails." "No last word on

the desert will ever be written; no statement ... will not seem to fail of getting at the essence." (page iii.)

J. Smeaton, the Englishman, the Californian, the diarist, writer, and recorder of life as he saw it, lies in the Palm Springs Welwood Murray Cemetery. His tombstone reads:


Husband	Wife
J. Smeaton	Isabel White
1864-1923	1876-1962

Greater love hath no man known
Chase

It's a truly unique comment on his life, and their life together.

But the most Chase-like uniqueness is recorded by Lawrence Clark Powell in "California Classics":

Most moving of all, however, was a scrap of paper ... In Chase's flowing hand ... "Out of that strong love I bear to my dear native land I ask that ... my name might be put on the gravestone of my father and mother ... I should like to think that though my body will ... lie in California ground, there will be the slight record of my name as an Englishman remaining in an English churchyard.

That his wish was carried out by his widow is evidenced by a photograph of the ... gravestone. There at the bottom, beneath the names and dates of his parents, is carved his name and dates of birth and death, thus linking him forever with England and California. 

READING LIST

J. SMEATON CHASE

YOSEMITE TRAILS, Boston, Houghton Mifflin. 1911

CONE-BEARING TREES OF THE CALIFORNIA MOUNTAINS, Chicago. McClurg. 1911

CALIFORNIA COAST TRAILS, Boston, Houghton Mifflin. 1913

THE PENANCE OF MAGDALENA, Boston. Houghton Mifflin. 1915

CALIFORNIA DESERT TRAILS, Boston, Houghton Mifflin. 1919

OUR ARABY: PALM SPRINGS, Pasadena. Star-News. 1920

EXPLORING THE SANTA LUCIA SIERRA OF CALIFORNIA, in *Overland Monthly*, December, 1913, and reprinted in Emil White's **BIG SUR GUIDE**, 1935

THE CALIFORNIA ROADRUNNER, in *The Schoolmate*, Dec. 1915

CHARLES F SAUNDERS and J. SMEATON CHASE

THE CALIFORNIA PADRES & THEIR MISSIONS, Boston. Houghton Mifflin. 1915.

Tioga press of Palo Alto, California, has reprinted Chase's three "Trail" books in large paperback format, without Chase's photos. (A regrettable loss.)

BOOK REVIEW



BELIEFS AND HOLY PLACES: A Spiritual Geography of the Pimeria Alta

by James S. Griffith
Reviewed by Kevin Dahl

"Big Jim" Griffith studies beliefs, holy places and other aspects of folklore, and is sort of a character out of folklore himself. Tall and easy to recognize, he is known throughout his home city as the founder and organizer of an annual cultural event, "Tucson Meet Yourself," a festival that shows off our ethnic diversity in the forms of music, dance and food. Especially food - "Tucson Eat Yourself" has dozens upon dozens of food booths from all cultural persuasions.

As director of the Southwest Folklore Center at the University of Arizona, "Big Jim" is a researcher and an educator, and both activities take him into the community, from the remotest desert villages to the inner city barrios. I've seen him sling his banjo over his shoulder to join in with a contra dance band (doing hands-on research, no doubt) and he's regularly on a local television program with short sketches of the rich cultural heritage he's found in this region.

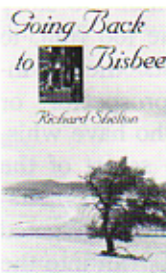
Griffith adopts the name for this region, Pimeria Alta, first coined by the Spanish missionary, Father Kino. It's a part of the Sonoran Desert that now encompasses the Arizona-Mexico borderlands where in Kino's time (1687-1771) the people all spoke Pima (O'odham). Griffith points out that the people here still share a common history, and to some extent a common traditional culture. It is a place of "long-lasting customs and well-established communities."

Beliefs and Holy Places is not just a catalog of activities, but an analysis of the pattern of life here. Griffith's stories of how he came to learn about the grave markers, chapels and shrines, the fiestas leads to a greater understanding of customs that in isolation could be dismissed as simply quaint and colorful. It helps us comprehend the older O'odham beliefs that still survive and the regional Catholicism that thrives here. We learn that, although we often call this the Southwest, it is just as much the Northwest - having been prehistorically the northwestern frontier of the high cultures of Mesoamerica, and the far northwest of New Spain and Mexico.

Read here of *la corua*, the mystic snake that lives in every desert spring and protects it. Discover the region's major spiritual sites - Children's Shrine near Gu Achi (Santa Rosa) on the Tohono O'odham nation; I'toi's home on Baboquivari Peak; the shrine of San Francisco in Magdalena, Sonora; the chapels found in each Yaqui community - and the many other places where thanks are given, the dead are respected, and petitions are

made. Griffith paints the spiritual geography of this area with a rich and personal style that almost imitates the Baroque style of church art found throughout Pimeria Alta. His book provides an in-depth introduction to the stories and histories that are the ties between the people who live here and the visible landscape of southern Arizona and northern Sonora.

Published by University of Arizona Press,
Tucson 85714, \$32.50



GOING BACK TO BISBEE

By Richard Shelton
Reviewed by Kevin Dahl

Have you ever been on a road trip with a great storyteller? Someone who will point to a yucca plant, tell you its scientific name (*Yucca elata*), continue with a long story about how he once used one for a Christmas tree, and end with an explanation about how it is dependent upon the tiny silver-gray pronuba moth to pollinate it? Minutes later, you'll hear in detail the bloody history of an old mine site just barely visible from the highway. If you've had such a companion, you'll know what's in store for you with this book. These very good road tales are tied together seamlessly into a story of homecoming that's hard to put down. It won the 1992 Western States Book Award for Creative Nonfiction.

Richard Shelton is a well-published and respected desert poet (his wonderful poem, "Requiem for Sonora," contains an oft quoted line, "... but oh my desert/yours is the only death I cannot bear."). After three decades of teaching English, Shelton only now turns to non-fiction, with great success! The topic is deceptively simple: a recent weekend drive of about one hundred miles from Tucson to Bisbee, where in the late fifties, he taught junior high for two years. The story is in turns a travelogue, a natural history, a history of the mining and the development of this area, and a philosophical return to youth. It's full of enthusiasm for this beautiful landscape and the people who live here. The book combines reminiscences and factual information, both in such captivating style that it reads faster than most novels.

Bisbee, "Queen of the Mining Camps," has a rich history of survival, avoiding becoming a ghost town in 1976 when the mine closed down by slowly becoming a mecca for artists and tourists. It's one of my favorite trips to drive from Tucson to Bisbee, and it will be a richer experience from now on because of this book.

Published by University of Arizona Press,
Tucson 85714, \$15.95

¡ B A J A !

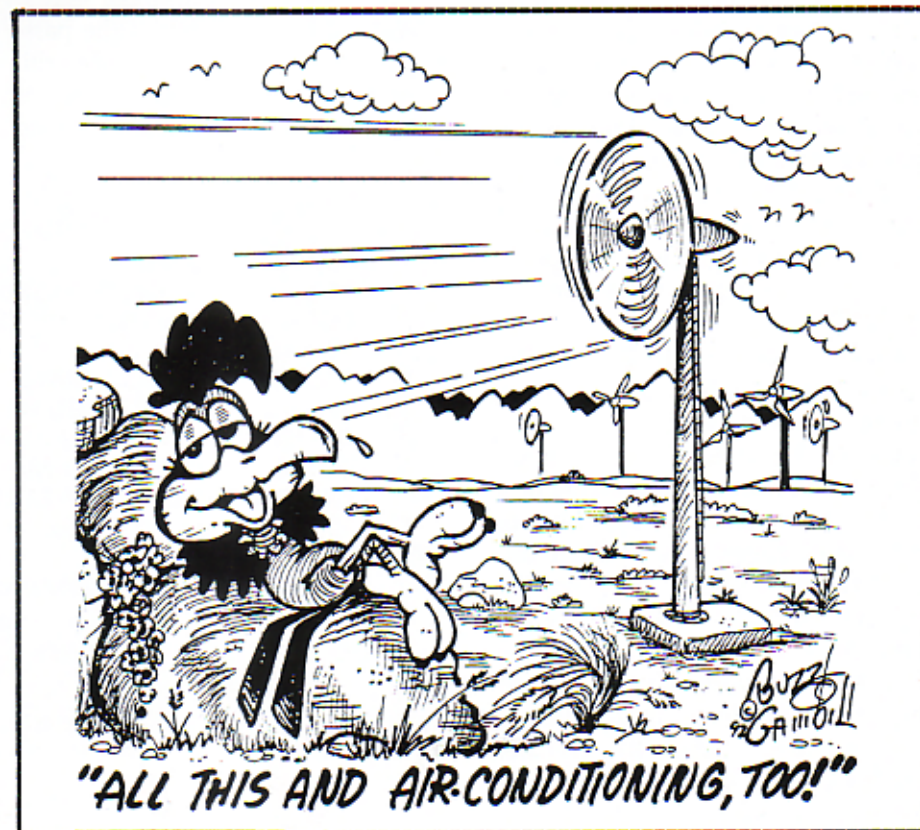
Photographs by Terence Moore,
Text by Doug Peacock,
Introduction by Peter Matthiessen
Reviewed by Cliff Cave

This extraordinary book deserves both of the exclamation points in its title. The scores of magnificent photographs alone are worth

continued on page 45

DESERT DOIN'S

BUZZ GAMBILL



"ALL THIS AND AIR-CONDITIONING, TOO!"

San Javier

Hidden Valley in Baja's High Desert

By Louise Cave

Photos by Glenn Vargas

There are so many places in Baja California to capture and hold the interest of the desert buff. At least ninety percent of the terrain of the thousand mile long Mexican peninsula is desert from its volcanic mountain peaks to every cactus-sprouting beach along the coves and inlets of the Sea of Cortez.

Almost twenty years have passed since the Mexican government paved Highway Numero Uno opening Baja to tourism. We were privileged to have been on hand for the ribbon-cutting ceremony, remaining as residents of La Paz for most of the next two decades. There were those

wilderness enthusiasts who deplored the advent of pavement. "The place will be overrun now!" they cried.

However, it takes more than one thin ribbon of asphalt to convert an area of over fifty-five thousand square miles to a full-fledged tourist mecca, replete with resort hotels and beach umbrellas. While a vacationland syndrome may be present in Los Cabos and along the border, most of the peninsula remains unspoiled by overdevelopment.

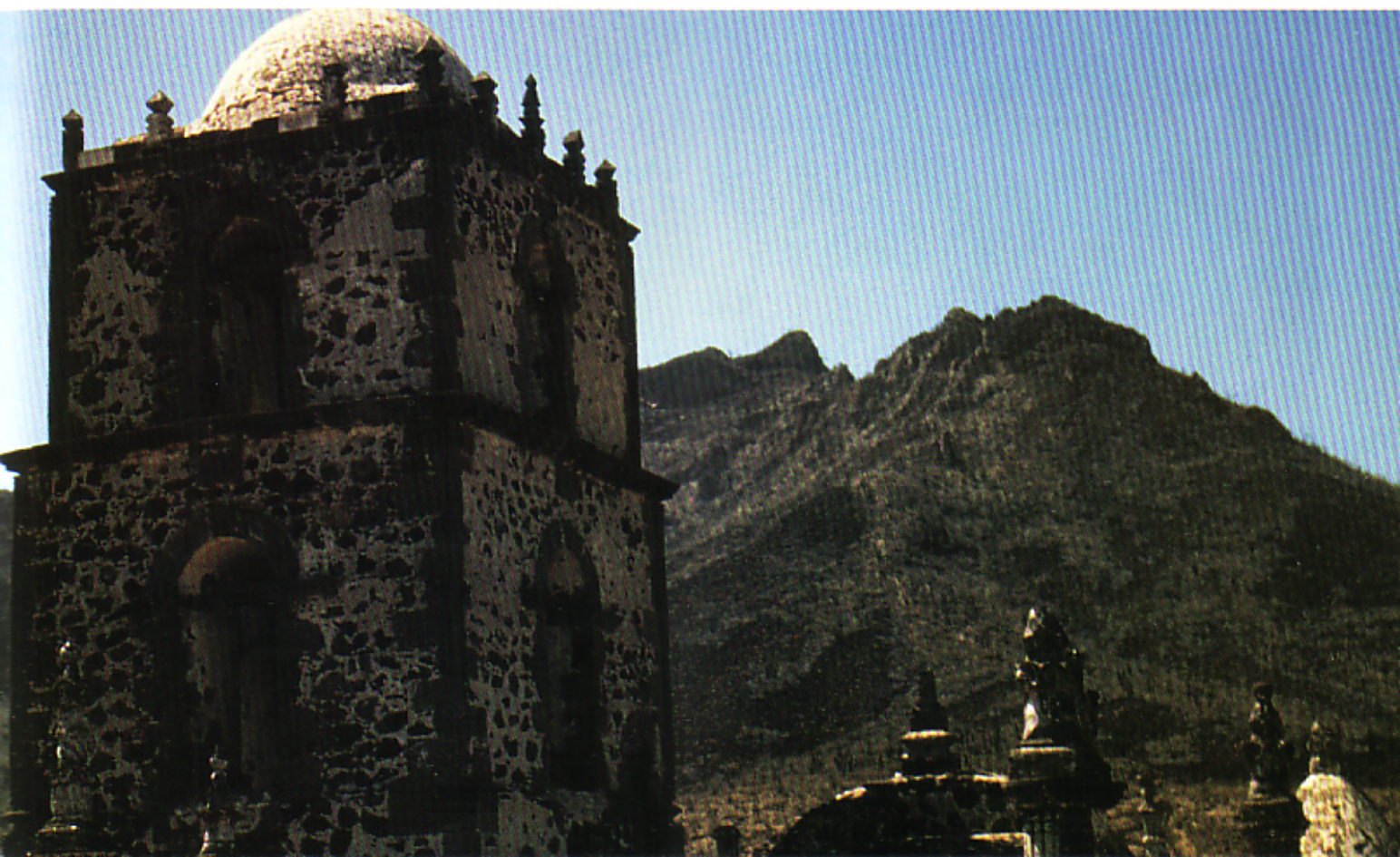
San Javier is one such pueblo. The name, pronounced with the soft "j" in Spanish, has a mellifluous ring to

it, whispering of distant places hidden in the recesses of Baja's towering sierra.

San Francisco Javier Viaundo de Vigge, the full title of both the mission church and its namesake village, combine the name of its patron saint with some Monqui Indian words, depicting the geographical characteristics, "a valley in the mountain reaches." The result becomes a mouthful to pronounce in any language!

The nearest large population center with hotels and other amenities is Loreto, situated on the Sea of Cortez approximately seven

San Javier Mission church with the Sierra de la Giganta in the background.



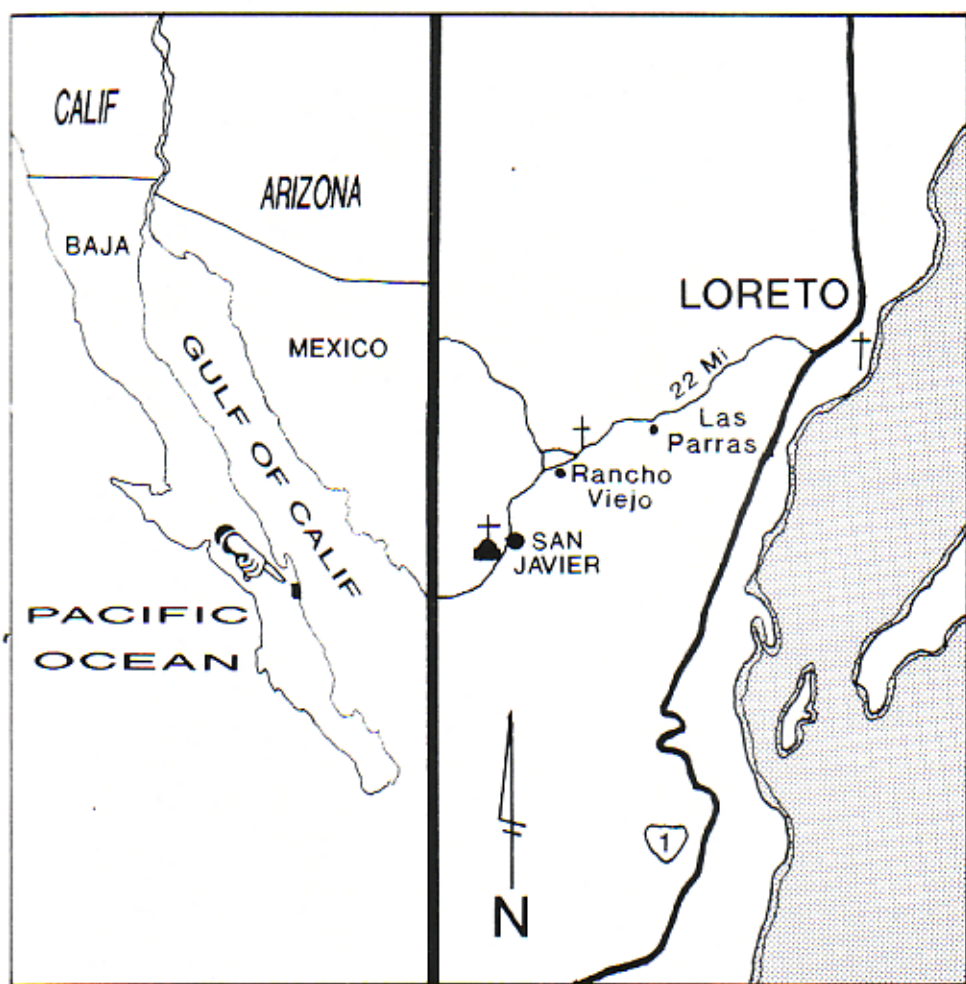
hundred miles south of the U.S. border. We negotiated with a Loreto cab driver for the round trip fare of forty dollars to take us twenty-one miles each way to San Javier over a winding, washboard road. Later we calculated that we might have made the trip without mishap in the family stationwagon, even allowing for rocks, ruts and small washouts. However, the San Javier camino seemed no trek for a heavily-weighted motorhome.

At first the road followed a wide arroyo, passing a few small ranches where the chief crops seemed to be cactus and goats. Then we began to climb Arroyo de las Parras which offered a fairly steep grade. Rancho Las Parras was a small farm about halfway up the mountain. Here we passed a small chapel of recent vintage located near the road. Five miles beyond Las Parras we passed a small cattle spread, known simply as Rancho Viejo - Old Ranch. This was the site of the first San Javier Mission, founded by Jesuit Padre



Mission Spires of San Javier.





cactus, sagebrush and a few wildflowers after an infrequent rain.

As our cab topped a rise in the road, we saw the town of San Javier threaded along the valley, even the massive stone church appearing dwarfed by its forbidding mountain backdrop. Much of the natural charm and stark beauty of Baja is epitomized here, the old church remaining like an outgrowth of the rocky peninsula from which it was hewn. The structure was completed about 1760 under the direction of Padre Miguel Del Barco, labor supplied by mission Indians.

Wheelock and Gulick, in their "Baja California Guidebook," termed it "the best-preserved and finest Jesuit Church in Baja." Doug Peacock and Terrence Moore, in their new and elegantly illustrated book, "iBaja!," describe San Javier as "one of the grandest missions in Baja." After a study of peninsular California which has spanned four decades, we would term this mission the most impressive of the Jesuit architectural legacies. Romanesque arches combine with domes which are slightly Byzantine to form a simple Moorish style.

Just to the left of the entrance is a baptistry. At our visit this informal chapel was illuminated by the flickering of dozens of votive candles, some enclosed in glass jars, others merely affixed to the uneven stone floor by their own wax drippings. On the right a curving stone stairway leads to a large choir loft, a smaller and very steep stairs upward and beyond to the belfry. Two bells bear the inscription of 1761, and one the date of 1803. It seems probable that they were cast on the Mexican mainland.

Downstairs, a friendly senora who claims the dual post of tour guide and sexton explained the origin of the main altar with its gold leaf and statue of St. Francis. This was transported from Mexico City in 32 boxes, traveling by mule train and sailing ship, then assembled in place. In another part of the building she showed an exhibit of gilt

Francisco Piccolo in 1699, just two years after the order began its efforts in Baja.

Meanwhile, the area of the present mission church and town was being developed as an estancia or visiting station by Padre Juan de Ugarte, the legendary strong man of Baja lore. When he found that his neophytes lived in great fear of mountain lions, some believing the puma to be an evil spirit, he killed one and served the meat to them for dinner, dispelling any supernatural ideas on the spot! San Javier was moved to its present location about 1720.

At the divide between the Sea of Cortez and Pacific drainages, there is a magnificent view of the gulf and Isla del Carmen. Pilon de las Parras, a sugarloaf peak, lies to the north. Vegetation in all directions includes



Side door of the Mission church.



The main altar at San Javier.

ornaments and vestments used by Padres Piccolo, Ugarte and Del Barco, all carefully preserved in a glass case

The town, like most off-road Mexican pueblos, is no place to do your grocery shopping or even plan to purchase gasoline, most items being in short supply. The natives travel the 21 miles to Loreto's supermarket at intervals. However, lunch in the form of beef or fish tacos and soft drinks may be ordered at a small palapa restaurant located just to the right of the mission grounds.

We were surprised to learn from the proprietor of this little establishment that he also operates a sort of primitive "bed and breakfast" at his ranch, catering only to rugged travelers who want to continue on

into the sierra to explore or go hunting. Here's how it works: you bring your own bed roll; he provides sleeping space, and a campfire over which you may cook your own meal from supplies in your back pack; in the morning he offers coffee and tortillas. Pack horses or transportation in a pickup may also be negotiated with this local entrepreneur.

San Javier, ever scenic but usually sleepy, comes alive once a year. The annual fiesta or saint's day falls on the first weekend in December, and is marked by religious processions, carnival booths, taco stands, and four days of serious drinking. Crowded with visitors from outlying ranches and distant pueblos, the celebration gets noisy, rustic and festive. It might be well to add the

word of caution that everyone should camp out or sleep in their cars, and restrooms are in short supply in a setting where cerveza flows freely!

We plan to return to San Javier in February when the mountain air has a little snap to it and the valley is once more tranquil. We'll bring along some camping equipment and take another longer appreciative look at this hidden valley in Baja's high desert. *DETT*

Louise Cave, formerly Luisa Klink, contributed to the old "Desert" magazine and with Jerry Klink published the now out-of-print Baja Magazine. She now lives in San Diego and does free lance writing with frequent trips to Baja California.

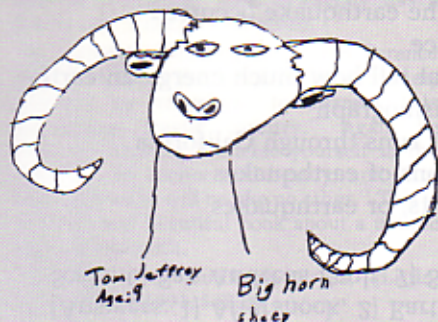
I want to invite desert kids to write to me about the animals and plant they see in their desert backyards, or anything you enjoy about the desert. Send a drawing or photo, if you like (they can't be returned, so make a copy for yourself.) Write to:

Paul Jeffrey,
Desert Kids' Corner Editor
American Desert Magazine
P.O. Box 1303,
Desert Hot Springs,
CA 92240

My Desert Backyard: Bighorn Sheep

To get things started this month, I would like to talk about the desert bighorn sheep, one of the desert animals that can be seen in the wash and hills near my house. When most people think of sheep, they think of cute and fluffy animals with white wool. In fact, the bighorn sheep of our desert hills are large sheep with horns and light brown fur. Bighorn

sheep go down steep hills during the day to graze, and often go back up the hills if they are frightened. I have only seen one sheep in the five years I have lived in the desert. If you have seen a bighorn sheep, then consider yourself very lucky. I



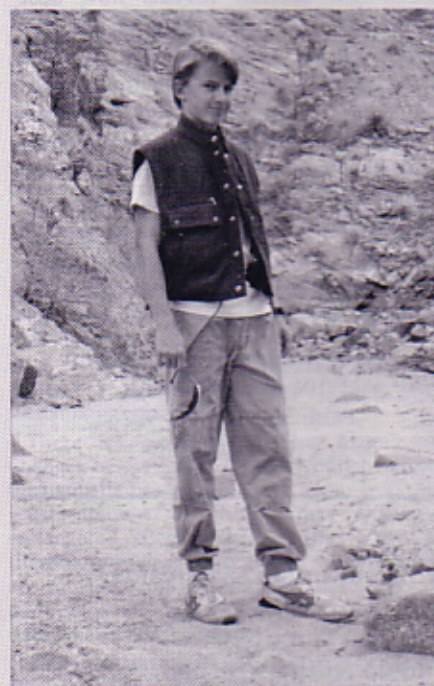
would be interested in hearing your story. I live very close to the State Bighorn Sheep Preserve and I often hike there. The only time I have ever seen a bighorn, was driving past the bighorn sheep preserve on the highway!

"Shake and Bake in the Desert"

Earthquakes rumble through California daily. Most are very small. If you live in California, you could be experiencing an earthquake right now and not even know it! Not all earthquakes are tiny and harmless. Recently two earthquakes, a 7.5 in Landers and a 6.5 in Big Bear on June 28, caused disasters in those towns. Scientists say that there have been thousands of *aftershocks* from those two earthquakes. It kept a lot of people in the desert nervous all summer. Luckily, California schools, houses, and other buildings are built to protect us. So you'll be safe if you "duck, and cover, and hold" under a strong doorway or table. It will keep happening because earthquakes build mountains and move continents. Experts think that more "big ones" will happen here in our California deserts along the *San Andreas Fault*.

"Shake and Bake" Quiz

When newscasters give us the news, they use scientific terms that kids may not know. A reporter might say: "A large earthquake has



About the editor: Paul Jeffrey is a 16-year-old high school student from Cathedral City (Palm Springs, California area), whose interests include science and sports. His project, "Desert Microorganisms" placed a first at his high school science fair last year.

desert kids' corner

just occurred. *Seismologists* say the earthquake registered a 6.1 on the *Richter Scale*. The *epicenter* of the quake has not yet been determined."

See how many terms you can guess in our "Shake and Bake"

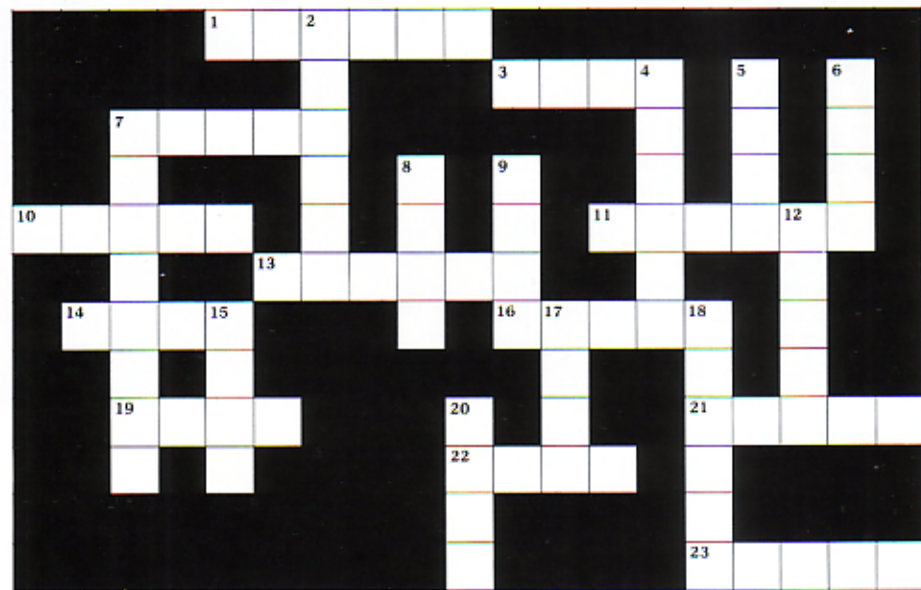
Quiz for desert kids. Match the terms to the definitions. (The answers are below.)

Terms: Epicenter, San Andreas Fault, Richter Scale, Fault, Seismograph, Aftershock, Seismologist, Earthquake

- 1) a smaller earthquake that happens after a large one.
- 2) a movement or vibration of Earth's surface
- 3) the exact place on the surface where the earthquake occurred
- 4) a large break or crack in Earth's surface
- 5) a set of numbers between 1 and 10 that tell how much energy an earthquake has released; measured on a seismograph
- 6) a major fault about 700 miles long that runs through California
- 7) an instrument that records the vibrations of earthquakes
- 8) a scientist who studies earth movements, or earthquakes

[Answers: 1] Aftershock, 2] Earthquake, 3] Epicenter, 4] Fault, 5] Richter Scale, 6] San Andreas Fault, 7] Seismograph, 8] Seismologist.]

DESERT CROSSWORD PUZZLE



ACROSS:

- 1 - Don't touch this plant!
- 3 - The weather in the desert is often _____ .
- 7 - What the Indians used for a path.
- 10 - The old gold miner's best friend.
- 11 - The Grand _____ .
- 13 - A very old bone.
- 14 - A favorite grain of many desert Indians.
- 16 - Sticky fruits that grows in the desert.
- 19 - It covers much of the desert ground.
- 21 - A place where native palm trees grow.
- 22 - A desert state with many National Parks.
- 23 - This plant sounds just like what you say when you eat something that tastes awful.

DOWN

- 2 - A ghost town near Barstow with same name as a kind of cloth.
- 4 - Now you see it, now you don't.
- 5 - What all kids like to do on the weekend.
- 6 - The big-_____ sheep.
- 7 - This animal carries his armor on his back.
- 8 - Don't walk in this if a storm is coming.
- 9 - A shiny mineral that brought many to the desert.
- 12 - Same as 21 across.
- 15 - Twenty-_____ Palms.
- 17 - A Spanish explorer - they named a Desert Park for him.
- 18 - He had a castle in Death Valley.
- 20 - A big pile of 19 across.

Answers in the March/April, 1993 issue of *American Desert*.

New Exhibition: "SCORPION!," January 28 through June 6



Scorpion with babies on its back.

Few animals are as feared as the scorpion. And no wonder. All species are venomous and the sting of some can be lethal. Most scorpions are quite harmless to humans, however, including all of the dozen or so species living in the Coachella Valley.

Scorpions have been on the earth since before the dinosaurs and have changed relatively little since they first appeared 300 million years ago. Included in the exhibit is a giant model showing the unusual anatomy of these creatures. A black-light section reveals how scorpions glow with an eerie yellow brilliance on the desert surface at night. Over three dozen live specimens show the range of size, color and geographic range of these arthropods. A video tape complements the numerous photographs that depict their life history. This exhibition has been made possible, in part, by donations from Jeanne McFadden, Marjorie Merwin and Mr. and Mrs. Robert Tracy.

Palm Springs Desert Museum
101 Museum Drive
Palm Springs, CA 92263
(619) 325-7186

BOOK REVIEW

the price: islands and capes, beaches and mountains and deserts, flowers and cacti, birds and whales, cave paintings, and old missions - and more.

The text is a travelogue, lively, earthy, and realistic, by a dedicated environmentalist. No travel guide of resorts and restaurants, ¡BAJA! describes rather the natural scene beyond the beaten track - exotic plants, animals, remote villages dwarfed by the vast rugged landscape and "the essence of Baja: the desert rising out of the sea."

There are excellent summaries of Baja's geological origins, prehistoric peoples, and more recent history, based upon reliable studies. But personal experience of quiet and enchantment and healing predominate - in the *Introduction* by naturalist/novelist Peter Matthiessen, in the *Prologue* by Peacock about his ten days of solitary camping on an island in the Gulf, and in the travelogues that follow.

The chapter on the *Central Sierra* with photographs describes the "Mysterious rock paintings of larger-than-life-size desert bighorn sheep, deer, whales, lions, and men in hematitic ochre, splashed by ancient Indians ... Nothing quite like this is found anywhere else on the continent."

In the section on *Traveling* Peacock has useful advice about food and water, living off the land and sea, foot travel and small craft, mingled with anecdotes of his own adventures. The desert is "the best of all places to live" - he loves it and the solace it gives him.

The *Central Desert* chapter consists entirely of wonderful photographs of the austere plants and terrain and lovely flowers, with apt quotations such as "strange growths of a strange land."

In *Across the Peninsula* the author, his wife, and two small daughters crossing the Gulf see a thousand dolphins and clouds of diving birds feeding on innumerable fish. They visit cave paintings and eventually camp in the dunes of the ocean coast, fishing and watching whales and many birds.

There follows an interesting history of changes in the Colorado River outlet due to the many dams upriver. In the upper Gulf the great amount of fishing may threaten endangered species such as the *vaquita* (harbor porpoise). The author's adventures on the islands of the Gulf find them barren and rocky, although Tiburon (the largest) has many mammals, especially deer and sheep.

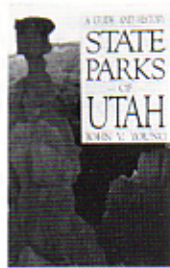
The informative chapter on *Pacific Coast Whales* has a history of earlier slaughter of the gray whales and their later protection and recovery. The author fears that the widespread whale watching now may frighten the great mammals from the lagoons where they have come five thousand miles for millennia to make love and have babies. "The presence of whales is always unexpected to me, a gift something cosmic, a titan world traveler."

Finally, *Future of the Baja Region* considers the decline of sea life, to which the only answer is less fishing and less wasteful fishing, a goal easier to define than to reach.

As for spoliation of land and beaches by development and too many people, Peacock suggests that here and elsewhere man is destroying himself by destroying his base in nature. Road building is the biggest threat in much of the peninsula. "... the people of Mexico and of the Baja Peninsula have an opportunity that the United States lost sometime earlier in the century: to set aside democratically and inexpensively a magnificent set of biological ecosystems as national parklands. Mexico already has a great start." Examples are given.

In a closing *Photographer's Notes* Terence Moore writes, "We need to be extremely sensitive as travelers, to respect this enchanting, fragile country." Again he writes, "Carefully immerse yourself in the desert, in its silence and beauty, and your Baja experience will be like no other." This is a superb and beautiful book about a unique region of the earth.

Published by Bullfinch Press, (Little, Brown & Co.) 1991, \$40.00



STATE PARKS OF UTAH A Guide and History

By John V. Young

If you're planning a trip to Utah, don't forget to buy this book. Much is written about the National Parks of Utah, but the State Parks also offer a variety of activities to the traveler. Forty-eight State Parks are described with their pertinent history, facilities and recreational opportunities. Interspersed with the descriptions are short essays on some intriguing aspect of the Utah environment and/or history, e.g., "How the Sego Lily Saved the Settlers" and others. Many color and black and white photographs enhance the book and invite you to take a trip. Includes ideas for further reading.

UTAH PLACE NAMES

By John W. Van Cott

A good companion to the States Parks book is this fascinating catalog of over 4,000 place names listed alphabetically. The location is by county, and the story of how the place was named makes for fun reading. As is common in the west, many names are as colorful as the pioneers who first settled in the area. The work is well-researched with extensive bibliography for those who want to learn more about their favorite spot. Read the story of the Dirty Devil River, Lousy Jim Creek, Tuxedo Bottom, Swazy's Leap and more. For those who love to look at maps and wonder where that crazy name came from - here are your answers.

Both of these books on Utah are published by the University of Utah Press, 101 University Services Building, Salt Lake City, Utah 84112. Each book is priced at \$14.95

from page 25 - depots
doors are made of copper.

During the 1920s and '30s, as many as five major passenger trains each way stopped at Yuma daily. But as with the rest of the U.S., travel by rail dwindled and SP no longer needed such a large facility. The building was sold to the Yuma Fine Arts Association in 1971 and SP moved its offices to a new building. Thanks to successful fund raising efforts, grants, and designation of the depot as an official Bicentennial project, the building opened as the Yuma Art Center in June, 1975.

The depot houses an extraordinary art gallery, open to the public in all but some summer months. Music, theater, dance, workshops, and lectures are also part of the Center's program. Amtrak still uses this location, although not the actual building, for its passengers on the thrice-weekly Sunset Limited. But they rarely have a chance to see or appreciate the depot since the scheduled arrival times are between 2 and 5 a.m.!

The building is in excellent condition, having been totally restored prior to reuse as an art gallery. The grounds around the building are well maintained with lovely green grass and large trees that provide welcome shade. The tracks are located on the east (back) side of the building and can be visited whether the Art Center is open or not. (The map shows the location of the old depot and other historical buildings to visit when you're in Yuma.) **DEPT**

References:

Arizona Highways, November, 1984 issue - devoted entirely to Yuma area.
Myrick, David; *Railroads of Arizona, Vol. I*, Howell-North Books, 1975.
Sandholdt, Pauline and Taylor, Kathleen; *The Depot, From Train Station to Arts Center*, Yuma County Historical Society, undated.
Trimble, Marshall; *Roadside History of Arizona*, Mountain Press, 1986.

James N. Price is the author of "Railroad Stations of San Diego County" and a freelance writer who contributed to "Desert" magazine and other periodicals. He lives in San Diego.

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join now to preserve and enjoy
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The *Friends of the Mojave Road* banded together in 1981 to work with the Bureau of Land Management in developing the 130-mile historic Mojave Road as a backcountry driving recreation trail. The *Guide to the Mojave Road* was completed in 1983. Subsequently, the *Friends*, again working with BLM, developed the 660-mile East Mojave Heritage Trail. The four volumes that constitute the *Guide to the East Mojave Heritage Trail* were published in the years 1986-1990. In 1992 the *Friends* are publishing a *Guide to the Bradshaw Trail*. This totals six guide books to desert backcountry covering nearly 1,000 miles of adventuresome trails. Projects of the *Friends of the Mojave Road* also include: restoration of the Goffs Schoolhouse, built in the community of Goffs in 1914, and development and nurturing of the East Mojave Heritage Collection consisting of desert literature and ephemeral material, including an extensive oral history program.

Philosophically, the *Friends* believe that education is the key to preservation in the California Desert and adjacent regions in Nevada and Arizona. They believe that it is not necessary to lock the desert up to protect it if users are appropriately educated on what resource values are there and how to protect them. Nearly ten years experience with our guided backcountry trails has validated the correctness of this approach.

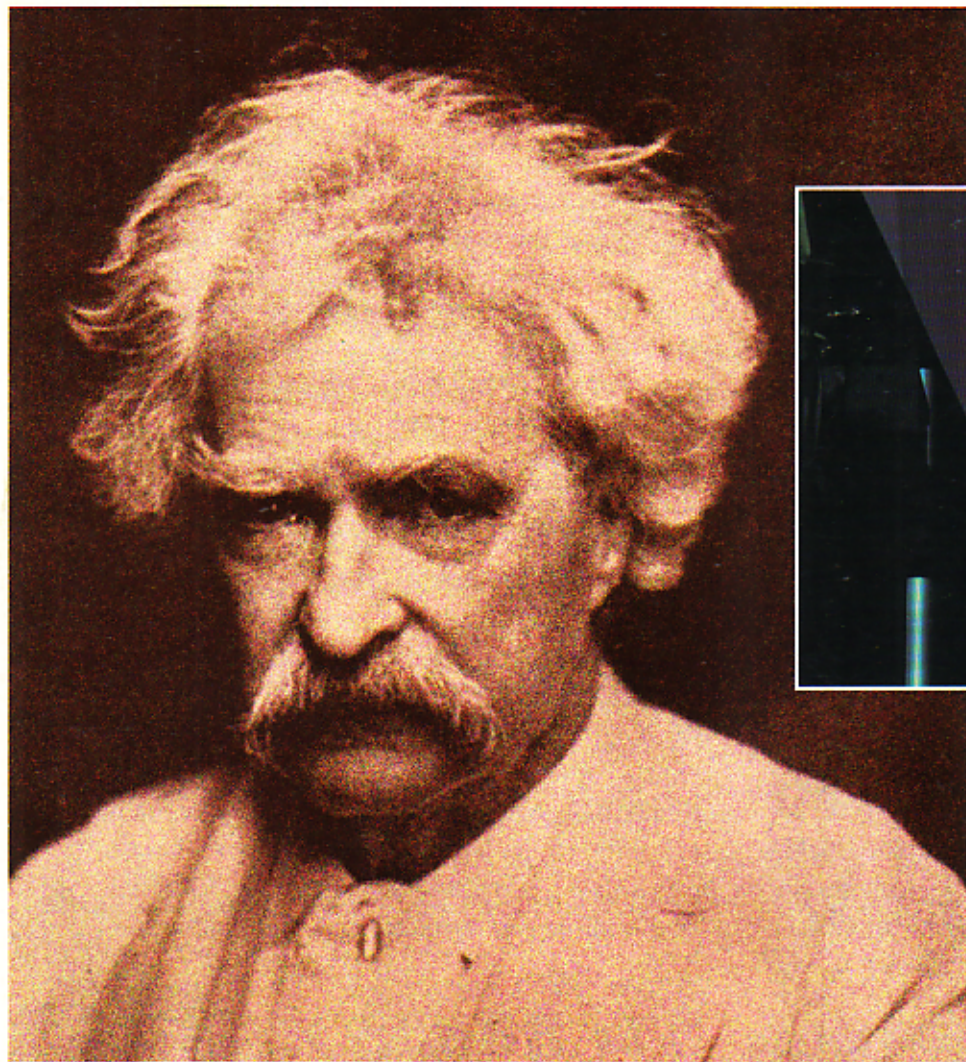
To become a part of the *Friends of the Mojave Road*, to keep abreast of their projects, to obtain their publications and learn about guided field trips, subscribe to the **Mojave Road Report**. Issued about ten times a year, the **Report** includes details on the above topics and also furnishes historical articles and provides opportunities to purchase recent books on the California Desert. Subscribe now.

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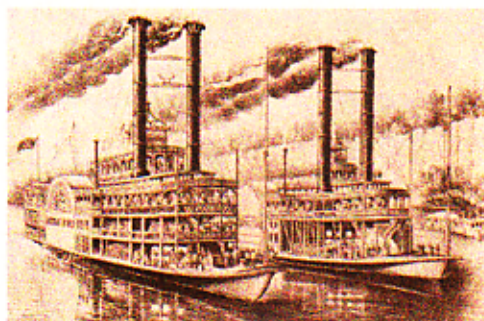


“Against the assault of laughter, nothing can stand.”
—Samuel Clemens



Few writers have been more adept at using laughter as a weapon than Samuel Clemens. Drawing on his fertile imagination, his own life experiences, and with an eye for the details of daily life, Clemens, or Mark Twain as he is better known, conjured up a humorously accurate vision of the human condition. As a great communicator he left us a rich legacy that includes such unforgettable classics of American literature as *The Adventures of Tom Sawyer* and *Huckleberry Finn*.

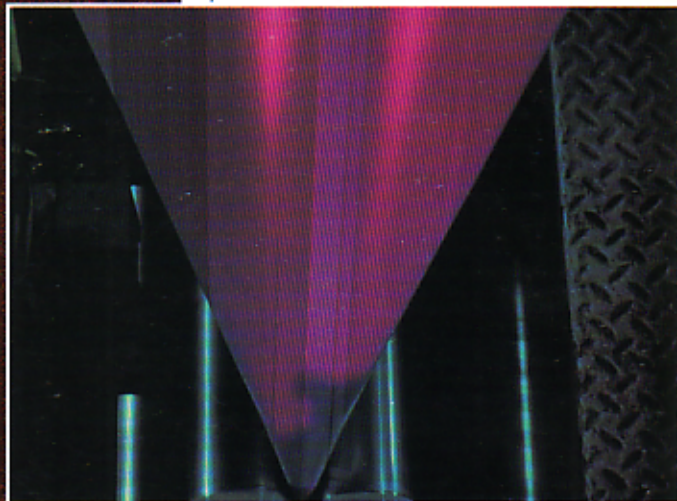
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