Desert

THE MAGAZINE OF THE WEST

JUNE 1964 50c

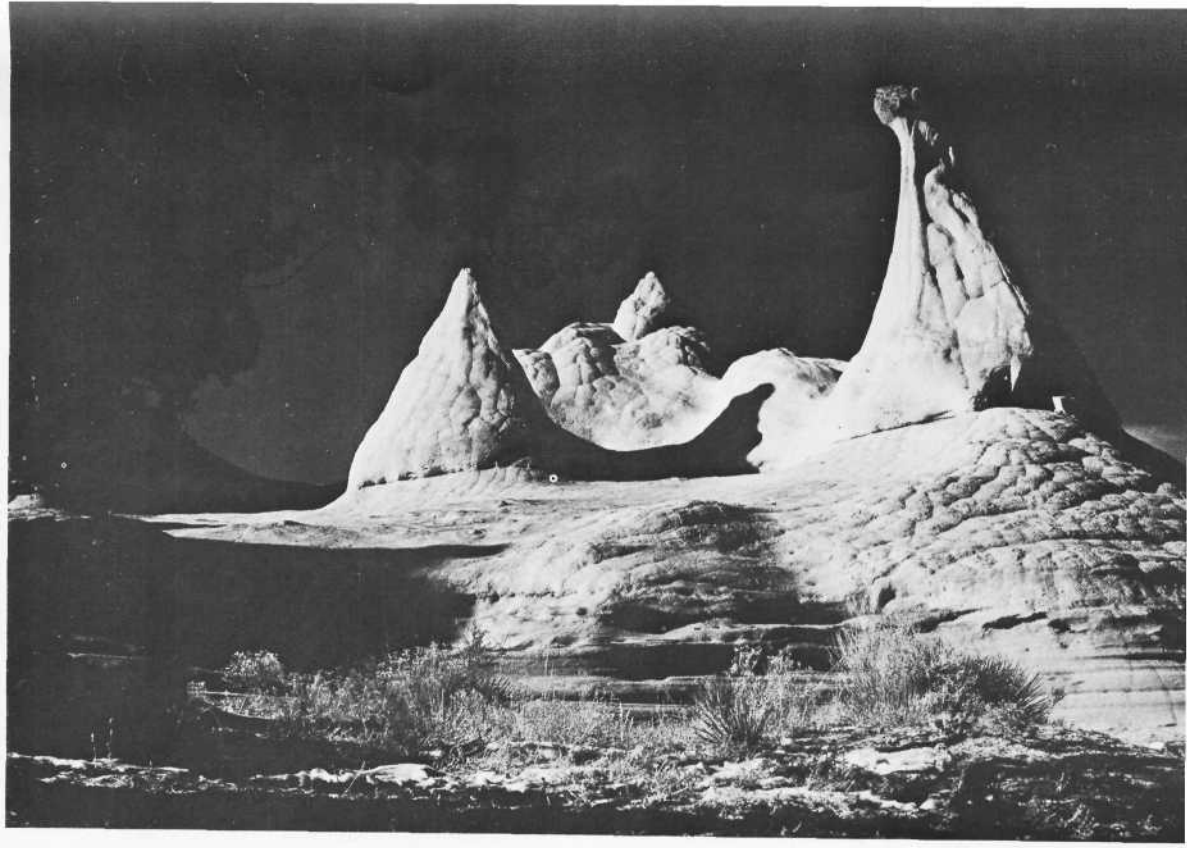
THREE UNUSUAL TRIPS

UNPUBLISHED LOST GOLD

THE ASH FLOW THREAT

THE MAGIC OF BAJA

JUNE PHOTO CONTEST WINNERS



TSE-LANI

First Prize

Charles Supplee
GANADO, ARIZONA

Tse-Lani is an area of beautifully sculptured rocks and canyons on the Navajo Indian Reservation. Tse-lani means "many rocks" in Navajo. Photographer Supplee waited for two hours to capture the shadows at the right moment. Data: 4x5 Super Graphic, f16 at 1/50, Royal Pan, dark red filter.

ADOBE MAKER

Ken McVey
TORRANCE, CALIFORNIA

This desert design was taken north of Nogales, Arizona on a summer morning. Data: 4x5 Speed Graphic, f11 at 1/100, Kodak Super XX.

Second Prize

Desert

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Volume 27 Number 6

JUNE, 1964

A Rising Question

To the Editor: A friend of mine recently returned from Lake Powell and told me the level of the water was lower than it had been and that it is still going down. I read, too, that they were letting water out of Glen Canyon Dam because Lake Mead is so low. I am planning a trip to Lake Powell this summer as a result of your story in the April issue of DESERT. Could you give me information about this, or where to write?

VICTOR FORCE,
Beverly Hills, California

Mr. Force's letter is similar to more than a dozen received by DESERT asking for information on the water level of Lake Powell. To separate rumor from fact we queried both government officials and concessionaires on the lake. As of press time (May 1) here are the facts:

1. It was necessary to let water through Glen Canyon Dam to fulfill the commitments of Lake Mead's Boulder (Hoover) Dam. Lake Powell is down approximately 11 feet from its interim crest. But the lake presently extends for 135 miles above Glen Canyon Dam. It is still one of the largest lakes in the West.
2. Continued cold weather (which may break by the time you read this) has delayed an anticipated runoff which would have brought water down the Colorado into Lake Powell and at least kept the water level even by counteracting the planned release of water to Lake Mead. Reports indicate a healthy runoff, once it starts.
3. Boats are still being launched from Wahweap Creek and will continue to be unless the water drops another six feet, which is unlikely. If it does, a temporary launching site will be put up at nearby Kane Creek. Bill Greene, of Art Greene's Wahweap Lodge and Marina, reports the water will temporarily delay launching boats at their new million dollar Marina, but they are continuing business as usual at Wahweap Creek and their motel, restaurant and marine facilities are operating as usual. Boats are also still being launched at Hall's Crossing under Frank Wright. The delayed rise in the lake has temporarily prevented launching at Castle Butte (Hite) but Concessionaire Gaylord Staveley will be open for business as soon at the water reaches his area.
4. For last minute information relative to the level of the lake and launching sites write or call the following: Glen Canyon National Recreation Area Headquarters, Page, Arizona, Area Code 602, 645-2472; Art Greene Canyon Tours, Wahweap Lodge and Marina, P. O. Box 1356, Page Arizona, Area Code 602, 645-2761; Frank Wright, Lake Powell Ferry Service (at Hall's Crossing), P. O. Box 665, Blanding, Utah, Phone 678-2281; Gaylord Staveley, Glen Canyon Boating (Castle Butte, Hite) P.O. Box 156, Mexican Hat, Utah, Phone Mexican Hat 43.

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JACK PEPPER, *Publisher* CHORAL PEPPER, *Editor*

ELTA SHIVELY, *Executive Secretary* AL MERRYMAN, *Staff Artist* ROSE HOLLY, *Circulation Manager* MARVEL BARRETT, *Business Manager*

Address Correspondence To:
Desert Magazine, Palm Desert, Calif. 92260 Phone: FI 6-8144

New Books For Desert Readers

THE OLD CHISHOLM TRAIL
By Alexander Chisholm; Edited by Kathryn Kay

Sort of a Dangerous Dan McGrew that just didn't stop, this raucous tale of singing cowboys goes on for 570 pages, all in rhyme.

Based upon a bibliography exceeding 300 volumes, author Chisolm, a descendant of the Cherokee scout for whom Chisholm Trail was named, includes in his saga facts and legends about Sam Houston, Sitting Bull, Buffalo Bill, Davy Crockett, Will Rogers, Teddy Roosevelt, and a multitude of other famous and infamous persons whose paths crossed the old Chisholm Trail.

Nor does he stop with persons. Buffalo, mustang, and longhorn roar, stampede, thunder and die on his pages. Delightful Seuss-like descriptions, such as:

A most odd and distinctive design of of a beast
Was the buffalo, from head to heels,
With long front hair as coarse as the tail of a horse
And fine rear hair as soft as a seal's.

change to blood and gut drama such as:

In the wanton slaughter that history knows
Buffaloes by the millions were shot,
They were shot down in tides, and then stripped of their hides
And left there on the Great Plains to rot.

Every chapter produces a surprise, in this fresh new book. Those who like to read aloud will find enough gripping historical material in THE OLD CHISHOLM TRAIL to keep an audience mesmerized for weeks.

Published by Handkraft Art and Publishing Company, Los Angeles, this thick hardcover book is nicely illustrated with black and white sketches by Jim Pratt. Publication date is June and the price is $6.95.

BEACHWALKER'S GUIDE
By Dick Smith and Frank Van Schaick

After a lengthy dissertation about the joys of beach walking, presumably already understood by anyone buying this bright citrus-colored paperback book, its authors finally get down to the business of imparting a limited amount of information, slanted toward the proverbial 14-year-old mentality. However, I suppose the authors should be forgiven for this. It may be hard to write about hermit crabs, sea hare, and other strange fellows of the sea without it sounding like a children's book.

Beachwalkers are warned against eating the vivid, red-orange meat of mussels in summertime, as warm water encourages microscopic organisms poisonous to humans which the mussels eat. Edible clams are described, but with no instructions as to how to dig for them. But, as the authors say, this book is merely an introduction. Those desiring deeper knowledge will seek it elsewhere.

Superb black and white photographs and line drawings make for clear identification. Published by McNally and Loftin, the soft cover book sells for $1.95.

ARIDITY AND MAN
Edited by Carle Hodge

In a preface to ARIDITY AND Man called "Lands of Little Water" Dr. Luna B. Leopold nicely sets the tone for the book. He concludes:

"In the many lands where people still must fight for the very necessities of life, there is little room for protection of purely esthetic values. But the time comes soon enough, with population expansion, when some at least will look back and wish that thought had been given to the protection of rare species, unique history, and exceptional scenery. This lesson, particularly, is one that is manifestly applicable to the arid zones."

This meaty volume was originally prepared as part of our country's contribution to the Scientific Conference on the Arid Lands of Latin America held in Buenos Aires last year to aid Latin Americans in the intelligent use of their lands. It presents a terse and thought-provoking account of the successes and failures we have had in our attempts to exploit, as well as wisely use, our "lands of little rain."

Among the seventy-four contributors from fourteen different states are many, if not most, of the American

By Choral Pepper

scientists who are today's authorities on anthropology, biology, and western political social and political institutions. Particularly interesting to those living in the Los Angeles and Tucson areas and California's Central Valley should be the chapters dealing with how various problems due to aridity in these areas are being worked out.

ARIDITY AND MAN makes frequent mention of the esthetic and economic values inherent in the desert lands of the West, but, unfortunately, it does not contain a single contribution on the subject of recreation, a subject whose vitality is growing right along with the oft-cited "population explosion."

Dr. Gordon L. Bender, Professor of Zoology at Arizona State University, in his extremely interesting chapter "Native Animals and Plants as Resources" stresses the recreational values of game animals, of course, but also, looking to the future, he emphasizes the values of desert wildlife (again, both esthetic and economic) to the photography and to the outdoorsman who simply enjoys seeing wild animals in their native habitats. Of predators he has this to say:

"A number of other animals now classified as predators as a result of deep-seated but outmoded biases and prejudices should be reclassified as game animals, managed as a renewable resource, and converted into an economically and esthetically important component of the local scene."

ARIDITY AND MAN is no book for the casual reader, but it is an invaluable handbook for all of us whose interest in the desert prompts a desire to know all we can about it. Great credit for the readability of the book lies in the excellent editorial work done by Carle Hodge, Science Editor, The Arizona Daily Star, and to the discriminating selection of pictures, maps, and graphs by Albert W. Smith, University of Colorado geographer.

Published by the American Association for the Advancement of Science, 1615 Massachusetts Avenue, N.W., Washington, D.C., this 604-page illustrated book sells for $12.00.

Reviewed by
Harry C. James

SPICE YOUR SPANISH WITH DICHOS

By Richard Castillo
Interpreted by Sam Hicks

"Dichos" are the pungent Spanish proverbs which contribute so much color and logic to the conversation—and thinking—of our Mexican neighbors. Ricardo Castillo and Sam Hicks will collaborate for the next few months in presenting some of the most popular for the enjoyment of DESERT readers.

"La mala suerte y los pendejos, siempre andan juntes."

Bad luck and plain damn fools always travel together.

"No hay mal que dure cien anos, ni cabron que los aguante."

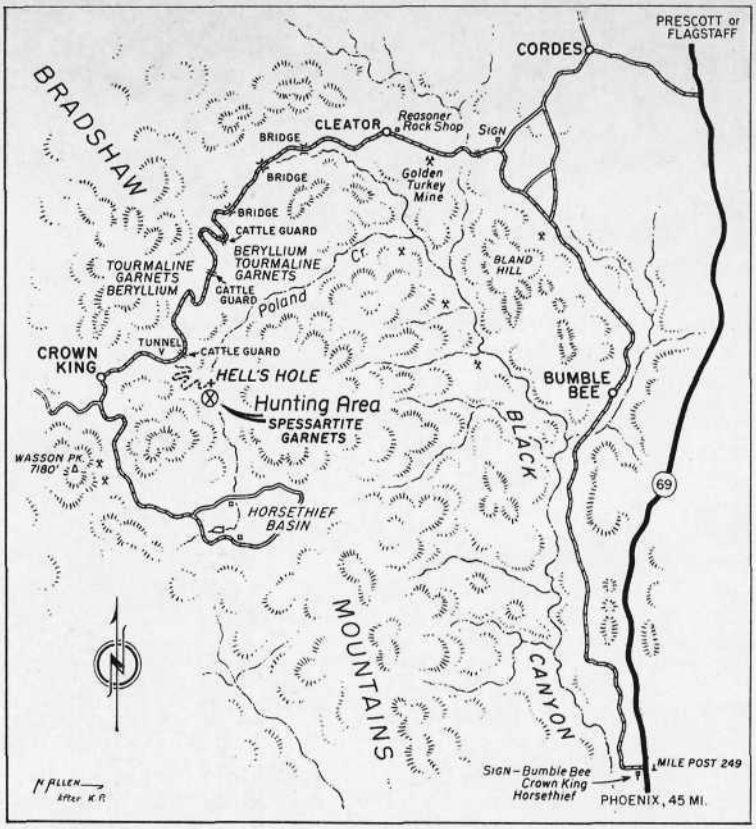
There's no bad thing that can last a hundred years, nor the son-of-a-gun who can live wih it.

"Poco veneno no mata mucha gente."

A little poison never killed many people.

"Del dicho al hecho hay gran trecho."

A talker isn't necessarily a doer.



IT WAS AN exhilarating morning for our trip into Hell's Hole, a secreted Arizona canyon reached by a treacherous drive over forest roads filled with switch-backs. Our destination was a hole at its bottom where we hoped to relocate an emerald that Ben Scott, a prospector, guide and wranger who accompanied us, had seen on a previous trip.

Our trek carried us along precipitous cliffs, through cacti, and past the ghost town of Bumblee Bee where "diggings" dotted the mountain sides. At Cleator we paused to visit Phil and Audrey Reasoner's rock shop and obtain information about specimens found in the nearby Bradshaw Mountains.

The higher we climbed, the taller grew the trees and the worse grew the road. Part way up to Crown King we parked in an alcove formed by an old railroad tunnel near the Hell's Hole trail sign.

Carrying lunches, chisels, and rock hammers, we followed a faint trail down hill. Within 20 feet we had dropped below the road. Manzanita and catsclaw crowded a few scattered pines. At the halfway point stood a mahogany tree. On we went, pausing only to note the changing varieties of growth at various levels.

Unexpectedly, the narrow footpath reached an end. Opening up, it revealed a beautiful oasis in a hidden hollow. Our eyes had been so busy watching the placement of our feet on the drop from 5600 feet above to Hell's Hole at 2400 feet that we had overlooked a ribbon of water cascading down the west side of the basin. The falls originated at the Horse Thief Basin lake 300 feet above our heads.

After a short rest, we located Ben's emerald on the other side of the oasis, but even though he worked an inch away from the stone to avoid breaking it, an unfortunate percussion shattered it beyond salvage.

Searching for another produced no results, but we did find a bonanza in garnets. These were large, translucent stones stained with a dark mineral which we peeled from the muscovite that impregnated the pegmatite rock.

After lunch we inspected the ruins of a silver mine at the other end of the pool and marveled at the men who had packed machinery piece by piece into this almost inaccessible region and packed the ore out on their backs. Bill was very interested in the equipment and tailings left behind.

I would like to issue warning that the trip up the canyon is not the easy trek down. Do not take this trip alone or if you have breathing difficulties. For those who cannot go down to Hell's Hole, let me suggest you stop at any of the switch-backs up the grade, park your car and hunt around. This is Beryl country. My

GARNETS IN HELL'S HOLE

by Kathleen Powers

collection from this area includes all of the colors; some are pieces, others are perfectly clear crystals. The smallest is a light pink and the largest—an inch in diameter—is mottled with milk white spots. Also, pegmatite minerals and crystals may be found in abundance.

Upon close examination, the garnets we brought up from Hell's Hole puzzled us, so we took them to the University of Arizona for identification. They proved to be spessartite garnets, some a transparent red and able to be cut. Others contained fiery amber colors.

Our big surprise came two-fold. Some were shaped like garnets, but were actually a compact conglomeration of crystals—micromounts. From one alone we had perfect crystals of golden beryl, pink beryl, green tourmaline, and amethyst and what the professor believed were several zircons. The second surprise was the finding of a micromount that must be viewed under at least a 25 microscope that to date has defied indentification. The university is still working on this.

If you should take this trip, enjoy it as we did, but remember the rules for driving mountain roads and, if you wish to be welcome in these parts, do not disturb any "diggings." They are not abandoned. All are being worked or are patented. ///

RACIAL UNREST AT BELMONT

By Lambert Florin

BELMONT'S STAR began to blaze in 1865 when a rich strike of silver was made in the Toquima Mountains. A tent city almost exploded in the foothills, soon to be replaced by a more substantial collection of brick and stone buildings. Growth was so rapid that the new camp was made seat of Nye county, an honor removed from neighboring Ione, original seat of the then newly formed political division. Belmont built its courthouse of brick, and so solidly that the structure stands defiantly to this day, one of the best preserved relics from the heyday of Nevada's mining era.

While the town flourished it numbered among its businesses an oyster house, a jewelry shop, bakery, fruit store, drugstore and doctor's office.

Belmont in 1867 had the usual quota of "Cousin Jacks," but the Cornishmen were outnumbered by miners from old Ireland. They were, however, preferred by mine operators because they were willing to work for less wages. While this made for constant friction, real trouble didn't develop until an announcement was made that the big Silver Bend Company operation would be closed. The mine was paying well, there was still plenty of good ore, so what was the reason? Was it that the New York owners were closing down so the Irish would move away and then planning to reopen with Cornish only?

With this conclusion reached, the sons of the old sod took action. At the mine office they siezed the superintendent, R. B. Canfield, placed him astraddle a rail and headed for the outskirts of town. Stopping at bistros along the way for a shot of Belmont Lightning, they left Canfield guarded by the mob leader, Pat Dignon, who had already reached his drinking capacity.

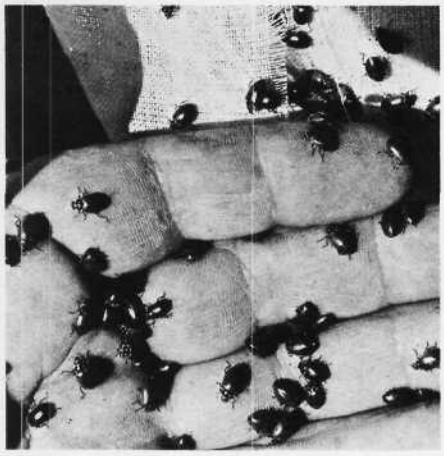
About this time along came Lewis M. Bodrow who, although he had no official status in Belmont, had for years been city marshal in Austin and looked with disfavor upon displays of violence. While attempting to intervene in Canfield's enforced ride, he received a blow in the face from Dignon. At this point the men in the saloon poured out with flaming guns. When the smoke cleared, both Dignon and Bodrow were dead, but Superintendent Canfield had escaped.

Belmont wasn't all business, nor even violence, however. The otherwise raw camp paid some atttention to culture in building an Opera house, the Cosmopolitan. Here were shown programs to please the "most chaste, fastidious or squeamish," such as plays titled Maid with the Milking Pail, Female Gambler and Uncle Tom's Cabin.

By 1895 Belmont had produced a staggering $15,000,000 in silver and lead, but after that year values dropped, and by 1900 the town was barely alive. The big, new strikes then made at Tonopah drained Belmont of what little blood she had retained and the camp in the Toquimas was dead—another ghost town in the shadowy roster of Nevada's boom camps. ///

The Ladybug Farm

By Tim St. George



WITH A BEST-SELLING book calling attention to the dangers of indiscriminate use of pesticides, ladybugs are assuming a prominent place in pest control. In a lifetime of eating, the so-called "ladybug" (*Hippodamia convergens*) may devour more than 7,000 aphids.

"Ladybugs are far more effective than insecticides," says Marcella Nelson, who sells more than three-fourths of all ladybugs sold in the United States. Last year, the "Ladybug Lady" shipped more than one billion brightly colored ladybugs to all of the United States, Canada and Mexico, from her Gridley, California headquarters.

These ladybird beetles, which have a fondness for aphids, mites, scales, mealybugs, bollworms, and a host of other soft-shelled insect larvae, are gathered in shallow gold pans in January through March and, during the hot months, from the high Sierra canyons where pickers earn $50 to $60 per day picking them. The "Ladybug Queen" oversees a crew of nearly 100 pickers, plus the packing and refrigerating of ladybugs for later shipment. Miss Nelson has been in the business since 1938.

To prove that effectiveness is more than a green-thumber's superstition, the Mexican Department of Agriculture purchases about one-half of Miss Nelson's annual harvest, having found the use of Ladybugs less dangerous than pesticides and overall farm production increased 10 percent. The city of Los Angeles is another large user of ladybugs, where they are freed in the sunken rose gardens of Exposition Park.

Despite the fact that a critical eye is occasionally cast on claims made for these bug-eaters, their value was established in medieval Europe when the dainty, shell-backed insects were dedicated to the Virgin and called "Beetles of Our Lady," hence the term "Ladybird beetles." Swedish countryfolk still sometimes refer to them as the "Virgin Mary's golden hens." Generations ago, it was widely believed that a decaying tooth could be made to stop aching by placing a crushed ladybird in its cavity. In England, a superstition still lingers to the effect that the presence of ladybirds forecasts fine weather and abundant crops. And, in remote parts of Europe, village maidens seek the ladybirds' help in finding husbands. After covering their hands with the beetles, girls chant: "They are measuring me for my bridal gloves."

Then, too, there's the famous old nursery rhyme:

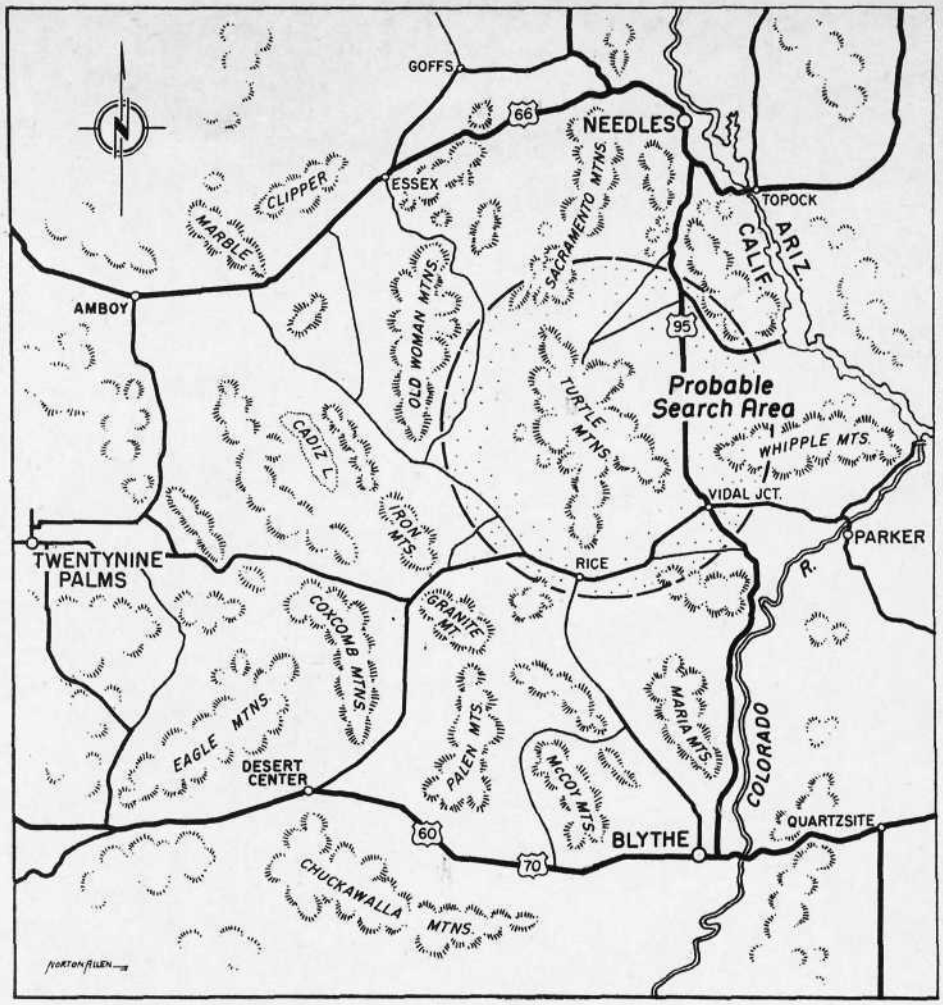
Ladybug, Ladybug fly away home!
Your house is on fire,
Your children do roam.
Except little Nan, who sits in a pan,
Weaving gold laces as fast as she can.

Some of the symbolism of this poem no doubt escapes modern youngsters. The fire alludes to the ancient practice of burning certain plants after harvesting. And "Nan" represents the pupa or adolescent ladybird who cannot leave the "pan" (her own skin) because it is still attached to the plant by the handle.

Whether or not chants will make ladybugs fly away home may be given serious consideration to certain residents of Washington and California these days. In those neighboring states the ladybug has become so important that a "war" recently flared over its harvesting. Washington accused Californians of pirating their meager supply of ladybugs and the Washington Senate passed a bill prohibiting shipments of ladybugs out of the state.

Ladybug Lady Nelson isn't disturbed, however. Along with two other ladybug concerns, she simply sniffs, "Washington's meagre supply is as nothing compared with the billions we require every year!" ///

Kenneth Marquiss challenges DESERT readers to find this lost gold ledge



JIM DOLLAR'S JIMDANDY

ANY PROPER lost mine waybill should be discolored and ragged from handling, and sadly dog-eared by change of ownership—if it is authentic.

By contrast, these directions come to you third hand and relatively shiny, but that doesn't make zeroing-in on this bonanza one bit easier. Don't get any wrong ideas about altruistic motives; I'm not burdened with philanthropic zeal. Thirty years of spare time searching have convinced me this ledge of spangled jewelry rock cannot be found.

In 1933 after college, I found jobs were like hens' teeth. I finally wangled a position as project inspector of some road jobs with the then State Relief Administration. One of the job foremen, a tall, quiet, capable grey haired man became a good friend. For obvious reasons I will call him Jim Dollar. The hem of my geology courses probably showed, because when the road job gave signs of winding up, he came to me with a proposition.

He possessed detailed directions to a large ledge of rich gold ore once found by his father-in-law out on the desert; had now saved up an apple box full of surplus commodities (including rice, flour, dried fruit and corned beef) ; and had squeezed about $13.50 in small change into a piggy bank.

Since his old car was about ready to fold and mine was in fair shape; because soon we would both be out of work; and as I was single and he was corralled with a house full of youngsters and an ailing wife—would I throw in with him, stake the mine, and split the take?

I stalled, trying to be hard-headed, but, unfortunately, he had samples to back up his story. Such rocks I had never seen! They looked like frozen chunks of pale butterscotch pudding, chocolate streaked, all glittering and laced with little threads of green-tinted metallic gold. Malleability, acid, cupel and specific gravity tests were superfluous. Even an amateur could see a dazzling fortune in our hands.

Jim Dollar's story was plain, consistent, and in the years I knew him, it never varied. His directions were clear and simple, but there's a piece missing in the jig saw puzzle that thwarts every angle I've tried to work.

The story starts back in the '90s in northern Nevada where Jim's prospective father-in-law was ranching. This rancher pulled a Ute he knew out of a tight spot involving two squaws and an irate horse trader. Before the second bullet hit, and the Indian figured he was about to join his old chiefs the rancher disarmed the attacker. This made the rancher a blood brother, in the Indian's heart.

Some time later the Indian gave his benefactor some samples (he called them "big shinum rocks") in a bag made from the crown of an old felt hat, and with a pointed stick in the dirt, drew a map to the ledge from where they came. The trail pointed to eastern San Bernardino county. What a Ute had been doing so far south in Mojave stomping grounds, I don't know, but the Indian must have feathered a straight arrow

because the rancher moved south and had no trouble until he found the ledge.

That was when the ugly little devils who guard all lost mines moved in. To celebrate his discovery the rancher opened his last can of peaches for supper. Imps joggled his elbow and he stabbed his left palm with a poke-and-pry can opener. The wound would not heal so he headed for home. To make matters worse, the heat was almost unbearable. A diabetic, he found himself constantly—and unnaturally—thirsty, which in those pre-insulin days was tantamount to a death sentence. Before he died he gave his wife and young daughter a map and directions and told them to sell the two canvas sacks of ore in the pack boxes under the bed.

Some years later Jim Dollar married into the family. He told me the two sacks of ore went for better than $1,700 at the old price. I have no proof of this, but if the samples I saw came out of those sacks, I can believe it. It should be remembered however, that the ore in the sacks was undoubtedly choice hand-picked highgrade. The claim was never recorded, because the old rancher hoped to get well enough to protect his strike before the cat got out of the bag.

After marriage, in-law friction kept Jim Dollar from hunting for the mine. He saw the map only once, but his wife had a copy of the directions. Twice he was "all hunkered to jump," twice fate jerked the rug with deaths in the family. An estate settlement the last time turned up no trace of the map, and the best two of the five samples were missing.

After that, like so many of the rest of us, Jim Dollar was enmeshed in the net of depression; and that was when I met him.

Over the years those diabolical "big shinums" have made me a "desert bum," an "impractical dreamer," and a "rainbow chaser." You play with the curse at your own risk.

If you are so foolish, then stand at the railroad tracks at Danby, and the easterly straight line at right angles to the tracks is "your walking line." As Jim Dollar said, "If you look out the east door of a box car at Danby, you'll be looking square towards a million bucks."

About two and a half days by burro along this walking line, you should come to a "humped hogback with a point like a turned-up nose on the north end." The hill is supposed to lie roughly north and south, and as you would be facing about east-southeast as you travel, the "nose" should be to your left.

Jim had an idea the hill was only about two or three hundred feet high, but he was positive "it sits out by itself on the floor of the desert, sort of looking like a blanket-wrapped squaw grinding corn."

"On the far (presumably east) side of the hill, back of the point, about a third of the way up is the ledge. It's about two feet wide, strikes almost due northeast by southwest, and dips down real steep westerly. On the hanging wall is the highgrade, three or four inches wide, and all choked up with crisscrossing spiderweb wires and little beans of gold.

"The ledge don't stick up none, you have to look for it, but it is there." Jim told me he was sure from what he had heard that the ledge cropped up in at least three places, and he thought his father-in-law had tried to cover them with brush and rocks before he left.

"Down below the 'nose', in a little wash, you'll find water. You have to dig for it, but you can tell the place real easy by a couple of green mesquites, a bunch of hookthorn, and a little spot of turtle grass," whatever that is. "It's real good water too—hardly any alkali."

You can save yourself a lot of sweat by taking my word for it, the ledge is NOT at the end of those directions. There are dozens of "hogbacks"—none of them the right one. I hunted with burro, jeep, airplane, and shank's mare. I boxed the compass, tried direction "switcheroos"; and when topo maps of the area became available, I footchecked every indicative bunching of wiggly little lines. You can find pink and white amorphous quartz roses, Apache tears, some runty staurolite crosses in a glauccophane schist streak, and some beautiful blue and gray checkered and metamorphically re-cemented quartz-like cutting rock, but no ledge nor hogback like Jim described.

Since I know you won't take my word for it, all I can say is, "Go well shod, carry a rabbit's foot and pack plenty of water." Also, beware of old unexploded tank ammunition in the area; Patton trained his troops here.

I know it isn't there. BUT if by some wild fluke you SHOULD happen to stumble over it, be a good sport and don't rub it in by sending me a sample. Call it sour grapes if you want, but I have come to hate those cursed yellow-poxed cobbles.

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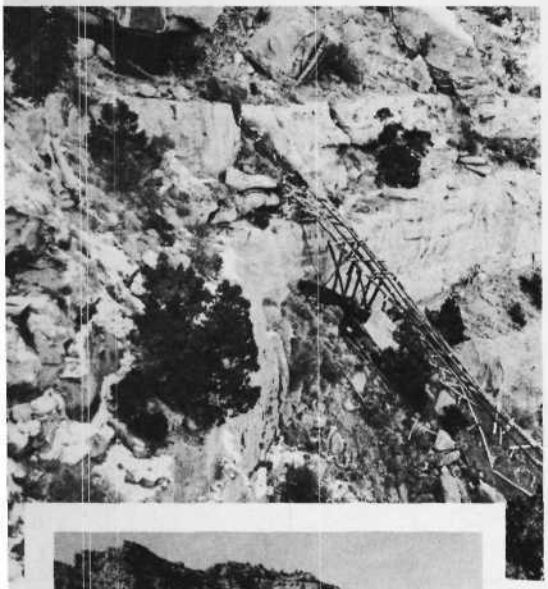
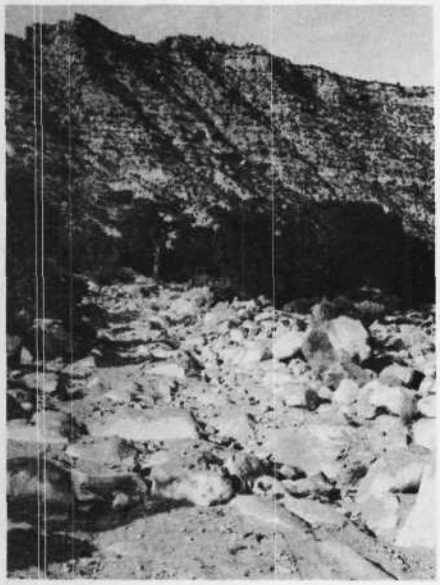
Turtle Mountain Search area summer of 1934. It was hot!

Camp in Turtle Mountains winter of 1935. It was cold! Below: Recent photo. The mountains get taller and I get wider. I give up!





AXEL ANDERSON'S MINE

By Keith Wright

NO GOLD prospector ever drove more fervently toward a dream lode than did Axel Anderson toward his coal mine.

If a motorist today should pause where Utah Highway 10 crosses Rock Canyon Wash and look westward where the steep faces of the North Horn brace themselves from tumbling into the valley, he'll detect a distinct black blob among the pinon peppering the mountain's slope. But, unless curiosity draws him from the highway and along abandoned roads and mountain trails, he'll never know he's looking at the remains of one of the most colorful mining ventures of several generations ago.

Axel Anderson was one of the first settlers of Clawson, a tiny Castle Valley settlement developed in the late 1890s. During the communities' first years, Axel and his neighbors were too busy establishing homesteads to think about coal, even though their most time-consuming problem was the acquisition of fuel. Each foray into the foothills to collect pinon logs required a full day, in addition to part of another to break them into stove-size pieces. Furthermore, many wagon loads were required to supply only a single family through Clawson's frigid winters.

Before long the "easy" wood was gone. Wagon trails leading into steeper parts of the mountains grew increasingly difficult to plow and even to drag knobby logs from inaccessible places down to the trail's terminal became impossible. So, while the 20th Century was still little more than a stranger, enterprising farmers of Clawson began looking for another source of fuel.

Undoubtedly they had noted the several seams of coal showing on the perpendicular face of the South Horn, possibly scrutinizing them at fairly close range as their woodroads pushed up the side of the mountain. However, the several seams appeared thin and, although indicative of coal in the area, hardly worth developing.

It was northward, across the ruggedness of Rock Canyon on the face of a "point" of the North Horn, that the first workable seam was uncovered. Originally staked-out by William Cheshire, the claim remained undeveloped until later contested and "proved-up" by Axel Anderson.

The seam was not exposed on the face of the cliff, although it was at approximately the same elevation as those on the South Horn, but it lay on a ledge approached only by slopes so steep as to present a distinct challenge. From its lofty location, miles of the untameable San Rafael Swell stretched beyond the tenuous green thread of irrigated homesteads below.

It would have been much easier to develop the mine had Axel been a full-time miner; but he was of necessity a farmer first. It was only during slack periods of farming—if such exist—that he developed the mine. After finishing morning chores on the farm, he walked seven miles to the mine to put in a hard day of labor before returning to his farm for the chores that awaited the night.

His was an uphill task, in every sense of the word. Whoever named Rock Canyon did not exhibit any degree of imagination, but merely christened it with the name of its most abundant commodity. Constructing a road across the boulder-impregnated length of Cedar Bench and halfway up the mountainside with only hand tools and a team of horses was an incredible accomplishment.

But the truly backbreaking work was the building of a tramway from the upper limit of the road over the remaining section of mountains too steep for the use of anything except manpower. Up this incredible incline were carried rails, ties, spikes, steel cables—everything that was needed to begin the mining operation. Once the cars began running up and down the tramway, materials could be hauled quite simply, but weeks of man-killing labor were required before such luxury was possible.

The seam was opened between two massive layers of solid sandstone, a coal-miner's dream since there would be little danger of a cave-in. Two steel beams set upright in the mouth of the mine supported, above the track, a large drum around which the cable was wrapped in such a manner that a loaded car going down the incline would pull an empty car to the top. Speed was controlled by a lever-operated brake drum lined with wooden blocks, and the two cars passed each other halfway up the slope at a "parting," or double section of track.

A trail was blazed angling up the canyon to a place where a mule could climb to the vicinity of the coal seam, then follow the ledge back around to the mouth of the mine. On the opposite side of the portal, a spot was leveled off, barely large enough to set up a tent, one side of which rubbed shoulders with the mountain, while the other stood precariously close to an abrupt drop.

At last the mine was ready for business.

The coal was drilled by hand, using a contraption like an oversized carpenter's brace and bit. The holes were loaded with black powder wrapped in pages of newspapers or magazines and the charge was shot "on the solid" by the use of a fuse. Then the shattered coal was loaded with scoop shovels into a small car which was pulled to the portal by the mule and sent down the tramway. One man—or, sometimes, a boy—rode the car down to dump it into the chute at the bottom and load any wagons that might be waiting.

Fortunately for Axel, the wagons did come. His coal was of good quality. Many farmers bypassed mines nearer their own communities to get Axel's Rock Canyon coal, often taking two days to haul a mere two tons.

When coal was available for loading, the miners built a fire at night on a prominent boulder to signal the message across darkened miles to farmers in the valley. The next morning wagons took off before dawn, their iron-tired wheels crunching a tune in the hard packed snow. Each driver carried in his wagon an old tub or milk can containing a fire at which he could warm himself as he alternated between riding the wagon and walking beside the team to keep his blood circulating. If he were lucky, he obtained his load of coal and returned the same night, but if too many others arrived to haul coal the same day, he either spent the night at the mine, hoping to be first in line come dawn, or drove home empty and tried again later.

A series of different operators worked the mine through the years, but none became wealthy. The hand-powered operation lacked efficiency and any setback, such as a car jumping the track, required untold hours of "dead work."

In the early '30s, after a period of non-operation, a new owner invested much time and capital in an attempt to modernize the operation. His main change eliminated the old double-rope system for moving cars along the slope and substituted a gas-powered hoist in its place. But when, after weeks of hopeful preparation, the first load of coal sent down the slope broke loose and scattered materials over the mountainside, the project was abandoned. Today only relics of its spectacular tramway, cables, tracks and tent frames remain.

How much of the feeling may be due to nostaglia is diffictult to determine, but many an old-timer around Clawson still turns his eyes toward the long-abandoned mine Axel Anderson's strong back once made a reality and complains, "I haven't had a good fire since old Rock Canyon shut down." ///

Left, ruins of Mission Santo Domingo, one of 30 Baja missions built by the Spanish during the 1700s. Center, map showing points of interest. Right, uncrowded, clean beaches and camping areas like the one at Punta Banda are found along the Baja coast, where we parked our Land-Rover.

By Jack Pepper

WE WERE driving along a 14-mile stretch of hard surfaced beach when my wife yelled, "Stop the car!" Two hundred yards ahead of us a seal flapped its flippers on the beach and rolled in the sand.

Choral started taking pictures as she walked toward the seal, but by the time she was close enough to get a good picture, she ran out of film. She was sure that before he casually re-entered the water he winked at her. I don't doubt it. In amazing Baja California anything can happen.

During our 14-mile drive down the beach we encountered only three homo sapiens, hundreds of sea gulls and other marine birds and one seal. And no empty beer cans.

This was on the clean, white beach eight miles south of Bahia de San Quintin where the Santa Maria Sky Ranch is the jumping off place for further travel down the peninsula of Baja California.

Although the last eight miles from Bahia de San Quintin to the Sky Ranch must be driven slowly, they can be traversed by passenger car. Past the Sky Ranch a pickup truck or 4-wheel drive vehicle is recommended.

The 191 miles from Tijuana down the Pacific Ocean side of the Mexican peninsula to Bahia de San Quintin takes you along beach front, over several small mountain ranges, through verdant valleys and into the fascinating land of "manana."

How long it takes to make the trip depends upon the amount of time you have. It can easily be made in three days . . . we spent four . . . or you can spend two weeks and still feel there are things you have missed. Time is not measured by the clock in Baja; it's measured by the memorable experiences.

Since we were on a scouting trip to find beaches for DESERT readers and to see and photograph four missions of the many missions built by the Spanish fathers during the 1700 and 1800s, we elected to drive a 4-wheel vehicle, sacrificing space for a rugged vehicle which needs no roads. As it turned out, all of the beaches where we camped can be reached by passenger car, and only one mission was so isolated as to require a 4-wheel vehicle. The other missions may be reached by regular automobiles, or are only a short walk from the highway.

Although now only ruins, the missions are interesting and well worth stopping to see. They are, from north to south, San Miquel, Santo Tomas, San Vicente and Santo Domingo, the latter located five miles up a creek bed from the Hamilton Ranch, near Colonia Guerrero.

In traveling anywhere in Baja I have found the Baja map of the Automobile Association of America and the Lower California Guidebook by Peter Gerhard and Howard E. Gulick are musts. The former locates all of the roads and places of interest and the latter gives a fascinating background along with detailed maps of towns, bays, and historical sites.

Entering Mexico at Tijuana, 11 miles south of San Diego, California, it took us only an hour and a half to drive the 67 miles to Ensenada.

Third largest city in Baja, with a population of 42,770, Ensenada is located on the Pacific Ocean with several bays (bahias) offering excellent fishing, swimming and camping facilities. Motels are on a par with those of the United States. Curios and souvenirs and more abundant and usually less expensive than in Tijuana. Boats may be chartered for deep sea fishing.

Ten miles south of Ensenada we stopped at the one-room customs office to obtain our tourista permits. All that is required is your birth certificate. Since I am just learning to speak Spanish I tried out a few phrases. The friendly inspector spoke English, but was even more friendly when I insisted upon speaking his native tongue. From the customs office southward, you really start getting into Baja California. The friendliness of the Mexican people increases the further south you go.

Passing Punta Banda, where we stayed overnight on our return, the paved highway leaves the ocean and cuts through a picturesque mountain pass and into verdant valleys with well kept farms. Eighteen miles south of San Vicente, where we stocked up with cold drinks, the paved road ends.

Baja's Pacific Beaches

The remaining 47 miles to Bahia de San Quintin is a wide gravel road which can easily be negotiated. Just don't be in a hurry. After all, you are now in the land of manana.

Since the sun was setting as we arrived at Colonia Guerrero we decided to camp on the beach at Bahia de San Ramon. The map showed a dirt road going three miles to the beach from the main road. Somehow I became lost in the darkness and ended up heading back toward the main road. As I stopped to look at the map a passenger car containing two Mexican soldiers stopped.

They smiled and said something in Spanish.

"Buenos tardes," I said, "Uh, can you tell . . . I mean, Bahia de San Ramon esta?" and I motioned straight ahead.

They smiled and shook their heads. I pointed to our sleeping bags, made motions like sleeping, then made motions like fishing and said "Bahia, si?". They grinned and motioned for me to follow them.

How they maneuvered their passenger car over the dirt road, through fields and around trees, I'll never know. Finally they stopped by a big sand dune and pointed over the top. Our son, Trent, and his friend, Scott Barrett, climbed the dunes and like Balboa discovering the Pacific Ocean, proudly yelled it was there.

The soldiers smiled, waved and drove off. This is a good example of the friendliness of the people of Baja.

Climate along the Pacific Coast described in this article is similar to San Diego. Whether you go on an overnight trip to Ensenada and Punta Banda or a longer trip like the author, the summer months are ideal.

Three miles inland from Colonia Guerrero is the Hamilton Ranch. For many years the Hamilton Ranch has catered to sportsmen who either drive or fly down for hunting birds, deer or other game. For the past 20 years it has been operated by Margot Cesena, an attractive and dynamic widow. Her hospitality is natural, unpretentious and known by scores of famous people.

Although the Hamilton Ranch may be reached by passenger car, the five miles up the creek to the Mission Santo Domingo is best for a 4-wheel vehicle. The mission, built in 1775 by the Dominicans, after the Jesuits were expelled from Baja, was abandoned in 1839 after the majority of the Indians died of diseases brought in by the white man. The struggles of the missionaries to build the Baja missions and the tragic story of the primitive Indians is a fascinating part of the history of the western hemisphere.

Returning to Colonia Guerrero we stopped for gas and then drove the 23 miles to the Santa Maria Sky Ranch, arriving just in time to lunch

(Continued on Page 31)

A motel is now located where an English company in 1885 established a large flour mill on the Bahia de San Quintin.

This Cross found at Witches Pocket may be the last remaining testimony of Escalante's trek

By Earl Spendlove

A THOUSAND silt-laden floods roaring down the narrow canyon had gouged a deep hole into the hard volcanic rock. On either side of a low rock fall, black walls rose over 100 feet. I was in the bottom of a deep, black pit.

Overhead, on the right, bony fingers of a dead juniper silhouetted against the sky. Intense heat from a hot Arizona sun reflected from the black rock. In spite of this I shivered. The eerie place was aptly named—"Witches Pocket."

Moving closer to the stagnant, scum-covered pool in the bottom of the "Pocket," I looked up at its black wall. About three feet above the floor, were a few laboriously chipped petroglyphs chiseled by some long-forgotten artist. Slowly my eyes followed the upward tilt of the wall. A few feet above the etchings I saw it—the cross I had traveled 60 miles across northern Arizona's desert wasteland to see!

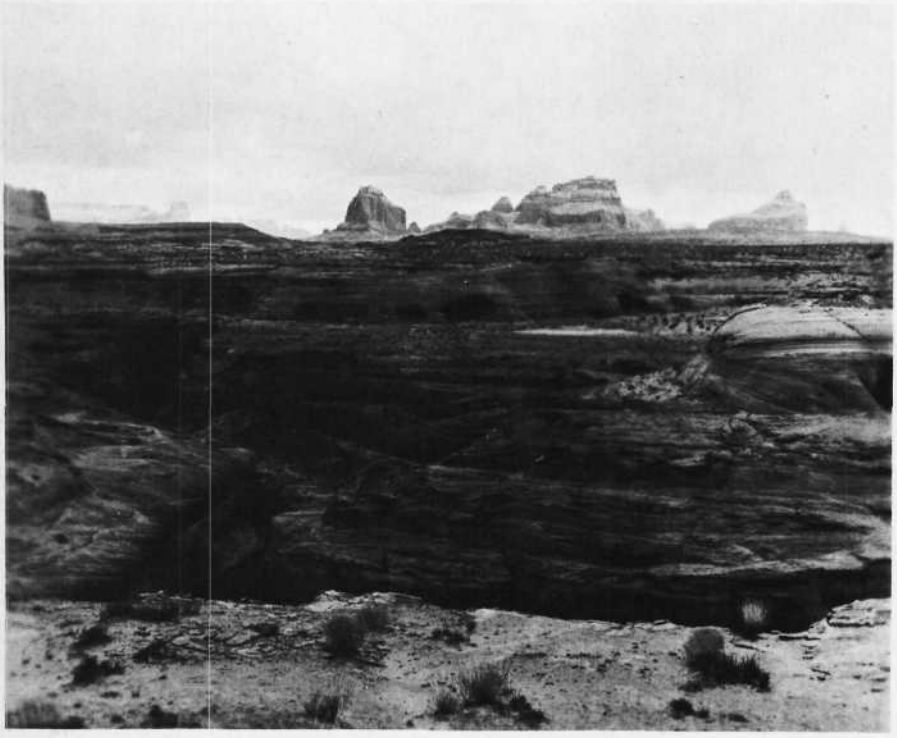
It was approximately two feet high, a foot and a half across, and the horizontal and vertical bars were about three inches in width. It had been picked into the black lava rock with a pointed object and the bottoms of the depressions filled in with a whitish material. Apparently after the cross was completed, it had been pounded with a piece of limestone and the lime adhered to the roughened rock, giving it a greyish cast.

I had first heard of this cross when I told Lamar Bybee of Kanab, Utah, that it was a shame the steps carved in the rocks at the Crossing of the Fathers on the Colorado River were to be covered by the rising waters of Lake Powell. The steps were, to my knowledge, the only remaining traces of three months of wandering in a trackless wilderness by two Spanish priests and a party of ten.

"Oh, I know where there's another trace of those old Spaniards," Bybee replied.

Then, he told me about 40 years ago, while herding sheep in northern Arizona, he had come upon a cross carved on a canyon wall at a place called Witches Pocket. The old timers didn't know how it got there, but they did know that the gloomy canyon was considered an evil place by Indians who inhabitated the area. They'd visit the water hole in the middle of the day, but refused to stay in the canyon overnight.

Several years ago, Bybee read "Pageant in the Wilderness" by Herbert



Now under Lake Powell, steps carved at Padre Creek may be seen along sloping ridge in center of photo.

E. Bolton and learned that 200 years ago a party of hardy Spanish explorers spent two days in the vicinity of Witches Pocket. The more he studied this book, the more convinced he became that it was they who put the cross on the cliff. After seeing the cross, exploring the surrounding country, and studying the records of this great adventure, I agree with him. But, let's begin at the beginning.

The clanging of the Liberty Bell in the State House in Philadelphia still echoed along the eastern seaboard when, 2000 miles to the west, two Franciscan priests, unaware of this great event, led a party of 10 down the narrow, crooked streets of Santa Fe, New Mexico and headed into the unexplored country that lay to the northwest. It was July 29, 1776, and their objective was to find a route from Santa Fe to the Spanish Missions at Monterey, California and convert the heathen savages who lived along the way.

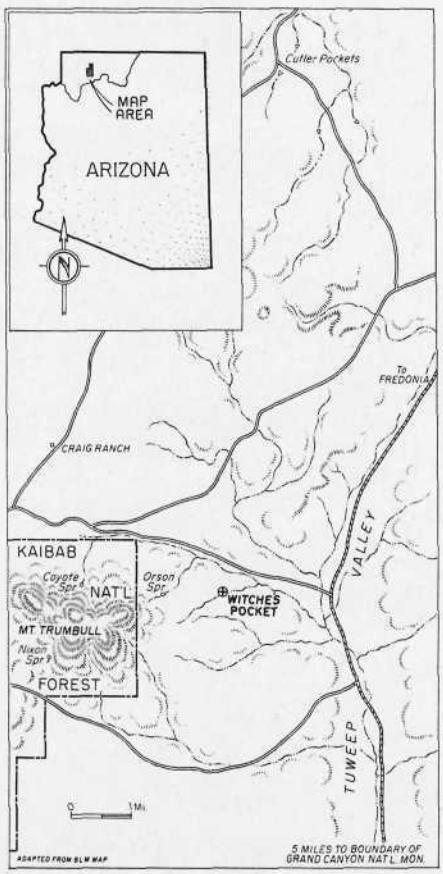
Leader of the party was Father Francisco Atanasio Dominguez, Superior of the Franciscan missions of New Mexico. Dominguez was an able man, but his fame is over-shadowed by that of the man who kept the record of their journey, Fray Silvestre Velez de Escalante. Velez, or Escalante as he is called today, kept a diary that has become a classic in western history.

The men in the padre's party were a mixed lot. Don Bernardo Miera y Pacheco, engineer and soldier, was to guide them to Monterey by making celestial observations with an astrolabe. The Munez brothers, Andres and Lucerio were traders who had followed the old Spanish Trail north into Colorado. They alone had seen a few miles of the route they were to travel. Don Pedro Cisneros, Don Joaquin Lain and Lorenzo Olivares were Spanish noblemen along for the adventure—or perhaps they had dreams of gold or glory to be gained at the end of the journey. Juan de Aguilar and Simon Lucerio had no titles and no mention is made of the reason for their having been included in the party. Perhaps they were servants of the noblemen.

Prayers for the success of the expedition were recited at Sunday masses on July 28, and early next morning they left Santa Fe. They were well mounted, had plenty of pack animals to carry their food and equipment, and drove a herd of cattle to provide meat along the way.

Right from the first they encountered difficulties. The cattle scattered into thick brush, hid and refused to move. No doubt priestly ears were scorched by vigorous Spanish curses as the men tried to prod the critters into action.

A few weeks out of Santa Fe, the guides became hopelessly lost. Exasperated, Escalante wrote that they, ". . . seemed to have forgotten the slight knowledge they appeared to possess."



Escalante wrote, "These women were so poorly dressed that their clothes hardly covered what cannot be looked at without peril."

In spite of difficulties, they moved steadily in a northwesterly direction and, on September 16, crossed the Green River a few few miles above what is now Jensen, Utah. Here, the faithful Escalante recorded an incident which adds authenticity to the cross at Witches Pocket. "Don Joaquin Lain," he wrote, "with an adz cleared a small space (on a cottonwood tree) in the form of a rectangular window, and with a chisel carved in the letters of this inscription. *The Year 1776*; and lower down in different letters the name *Lain,* with two crosses outside, the larger one above the inscription and the smaller one below it." Crosses, of course, were common symbols for the devout men who followed the Franciscan Fathers as they carried the word of God to the wild inhabitants of an even wilder land.

A week after leaving the Green, the Spaniards emerged from the Wasatch Mountains and rode into the broad, well-watered Utah Valley. From Utah Lake they turned south and on October 8th, after a week of snow and cold weather, the padres told the others they were going back to Santa Fe—an unpopular decision with the rest of the party. Miera, keeper of the astrolabe, tried to conconvince them that Monterey was only a few miles to the west. (Actually it was almost 700 miles, as the crow flies, to the southwest.) When he failed, he grumbled and stirred up so much discontent among the others that the padres were forced to act.

In his diary Escalante wrote, ". . . we decided to inquire anew the will of God by means of casting lots . . ." Apparently, in those day, God let His will be known on the turn of a card or the drawing of straws.

The record does not say who did the drawing, but results agreed with the priest's decision. "Now, thank God," Escalante says, "we all agreeably and gladly accepted this result." It is not hard to imagine that the fiery Miera muttered a few dark oaths before he "agreeably and gladly accepted."

South of Utah Lake, the Indians were poorly fed, poorly clothed, poverty stricken savages who had little to eat and less to wear. On the Sevier River the party met a band of strange bearded Indians. These Barbones or Longbeards, as they called them, lived in the open or in tiny brush shelters and subsisted on seeds, bugs, lizards, rodents, and now and then an antelope or deer. Near what is now Cedar City, Utah, they found a group of women gathering grass seed. "These Indian women were so poorly dressed," Escalante prudently observed, that their clothes, ". . . hardly covered what can not be looked at without peril."

No matter how lowly or savage the Indians were, the good priests, ". . . preached the gospel as well as the interpreter could explain it." But the suspicious, frightened Indians, interested only in getting these strange, white invaders out of their land, gave them false information on the trails and waterholes and, on one occasion, led them up a blind canyon and deserted them when the trail became too steep and rough for the horses.

It was the middle of October when they reached northern Arizona. Their food supply was exhaused, waterholes were few and far between and they did not know where they could cross the Colorado River. On October 17, they turned east and climbed the high rock wall, now known as the Hurricane Fault, and camped on the edge of the cliff. Next day, they traveled some ten miles to the southeast where they found two shallow pools of water in a grove of cedars. The thirsty men and animals soon drained the pools, but they camped for two days in the cedars while members of the party scoured the countryside in search of food and water.

This camp, which they named San Samuel, has been identified by Bolton as Cooper's Pocket. San Samuel is only 18 or 20 miles north of Witches Pocket and it is highly probably that the Spaniards visited this waterhole as well. Escalante makes no mention of the cross, but while waiting for companions or obtaining water from the pool, one of the men could have chipped the cross into the rock . . . for the same purpose that Don Joaquin Lain carved crosses on a cottonwood tree on the banks of the Green River, a month before.

We may never be certain that one of the Spaniards did put the cross on the cliff, but a number of facts makes it highly probable:

1. They were definitely in the vicinity, had ample opportunity and because they possessed implements to cut steps in the rock at the Crossing of the Fathers, picking a cross, even in hard volcanic rock, would not have been a difficult task.
2. The cross is not a symbol normally used by Indians of the area, but was a symbol the followers of Franciscan Friars used.
3. The Indians the white settlers encountered in the area avoid Witches Pocket, but the presence of petroglyphs indicates that they once lived near the waterhole. A cross placed here by the Spaniards could well have been interpreted as a hex or evil omen by the superstitious red men.

From San Samuel the priests returned to New Mexico, crossing the Colorado just north of the Utah-Arizona border. Here, at this historic crossing, the steps they cut in the rock will soon be covered forever by the rising waters of Lake Powell, but the ghosts of men in flowing robes and broad-brimmed sombreros may still worship at the Witches Pocket cross.

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an

INDIAN LEGEND

and an isolated

bit of

GERMAN HISTORY

tell a strange story

about the first

settlers of

AMERICA

by

Retta Ewers

THE INDIANS say it's a fact!

Before Columbus discovered America, 200 years in advance of the Pilgrims, three boat-loads of German refugees sailed into Lake Cahuilla, a body of water that once covered the present Coachella and Imperial Valleys of California.

An old Indian Chief, Cabazon of the Banning tribe, often related the story and it has been told and retold from one generation to another.

The Bannings were a powerful tribe who dwelt with the Cahuilla Indians along the ancient lake. Here they fished, bathed, and lived a carefree life until one day, very suddenly, there appeared a great wall of water as tall as the highest mesquite tree. This huge wave was so unexpected and came with such force that many who played or worked along the shores were drowned. The few who escaped fled to higher ground to join their friends, the Cahuillas, in Agua Caliente (now Palm Springs).

The entire valley filled with water. Waves lapped against mountain sides where the high water line is visible today, and it remained high for a very long time.

At last hunger lured the homeless Indians back to their fish traps where they made new camps high on the mountains above the lake. One day, to their astonishment, there appeared upon the water three giant white birds, or so they appeared to the Indians. These birds, coming from the south the same as the great wave of water, swam about the lake as if seeking a place to go ashore. When they lowered their great white wings, the Indians noticed what appeared to be ants on the backs of the birds.

The medicine man of the tribe made quick medicine to ward off evil while curious Indians, hiding in rocky caves, watched the ants lower themselves into dark objects on the water beside the mother birds and make their way to the shore.

As they drew close, the Indians observed that these "ants" were men such as themselves, but of larger stature. Also, their skin was strangely white and their hair was like bleached corn tassle. They appeared to have enormous strength as they invaded the canyons to cut down trees and carry them to the "birds" on the placid water.

While the Indians held a council to talk over the arrival of these strange people, their medicine man, with magic and incantations, continued to combat the evil he felt the coming of the strangers portended.

According to German history, as related by Herr Hans Ehrenberg—founder of the Arizona ghost town of Ehrenberg named for him—these white men were political outcasts from Germany who, having incurred the wrath of the ruling Monarch, were loaded into three frigates and told to seek other lands.

The old German, Ehrenberg, believed these three ships found their way to the Pacific coast, then, sailing northward along the Mexican coastline, were caught on a great tidal wave that swept up the Gulf of California and carried them to the northern end of the lake. (Possibly the basis for the story of the Lost Ship of the Desert.)

Ehrenberg also related that these ships sailed to the Gila river and tried to start a settlement there, only to be set upon by Moki Indians. The men were killed and their women were taken as wives by the Indians.

The first white men to arrive in that area found Indians of light complexion with fair hair and some even freckled. Later, when Ehrenberg came to the region, many of the words used by Indians along the Colorado were German words, which substantiates his story. They are also reported by him to have been acquainted with signs used in Masonry.

According to legend, one of the three ships escaped with a skeleton crew who, with no outlet from the inland lake, lived on the ship near friendly Indians, never molesting the red men whom they likened to humble children.

After awhile the sea began to shrink. Hot sun and wind sucked water from the wide surface of the sea faster than it was replenished. Conditions changed. The atmosphere grew dry. Showers ceased to fall. Under a blazing sun, wind-blown sand crept over the gray land.

Along the old seashore are still found fish traps used by early inhabitants. These traps, four to twelve feet in diameter, formed stone pens which the fish entered at high tide along the water's edge. The device was evidently quite effective until the water became so alkaline that fish could no longer live in it.

Geologists claim that the sea rose and fell more than once. The last tribe of Indians to settle in the Salton Sea area, the Cahuillas, claim to know nothing of petroglyphs still visible on Travertine Rock which appear to have undergone various periods of submersion. Perhaps they were chiseled by the Indians who, if legend is true, saw the Germans who came to America first. ///

Desert's

trip of the month

Hawikuh FIRST

OUR HEARTS pounded with excitement as we approached the pueblo of Zuni. One of the greatest hoaxes of our history, that of the fabulous Seven Golden Cities of Cibola, occurred in this region. We hoped that near Zuni we might find the ruins of Hawikuh, the first of this group of cities. But, would we be able to locate them? Would we find the house in which the unfortunate Esteban, the Moorish slave, met his death? Would we be permitted to explore the Hawikuh ruins and, above all—was anything left?

Ahead we saw the square top of Thunder Mountain, the holy mountain of the Zunis, and then we drove into the pueblo which must look today very much as it did centuries ago.

At a trading post, we purchased a $1.00 permit to take photographs. Then we asked directions to the ruins of Hawikuh.

After a two-mile trip over sandy trails we reached a knoll on which the ruins of a pueblo overlooked the valley of Ojo Caliente. Having searched for Hawikuh for such a long time, it looked good to us, even though only rubble remained.

"Hawikuh," our guide said. We pressed a dollar into his hand and he drove away, leaving us to walk alone into history.

Esteban's story began early in the 16th century in the Moorish village of Azamor at the mouth of the Morbeya River. A rag-clad beggar boy, he used to lie on the street watching caravans pass, until he was acquired as a slave for Moslem traders. Later, Christian zealots snatched him from his masters and took him to Spain. There he joined the Narvaez expedition which was shipwrecked on the Texas coast in 1528. Only four members of its 300 survived, including Esteban and his master. For eight years they crossed mountains and deserts until, after many adventures, they reached Mexico City and the court of Antonio de Mendoza, the first viceroy of Nueva Espana. Mendoza tried to buy the Moor from his master, thinking Esteban would be valuable to him in conquering new land for King Charles V. Andres de Dorantes, Esteban's master, refused to sell, but he agreed to lease the Moor to the viceroy.

By then, news of the seven Golden Cities of Cibola had filtered into Nueva Espana. In 1539 Esteban joined an expedition under the leadership of Fray Marcos de Niza to strike northward in search of Cibola.

The gaunt, olive-skinned Fray Marcos, clad in the coarse grey robe and white cordelier of the Franciscans, and the huge Moor with his black beard reaching to his chest and his love for the flashy made strange companions. They did, indeed, disagree on many things. Fray Marcos wished to convert Indians even while investigating their wealth, but Esteban was more interested in the feminine population. For a while many Indian girls followed the expedition, bestowing favors upon the "black-bearded Mexican" and presenting him with fine pieces of turquoise. When this became a problem, Fray Marcos sent Esteban ahead on a scouting expedition, hoping he'd be so busy exploring that he couldn't bother the girls. Directing Esteban to send back word of the type of country he found, the priest concocted a code—a small white cross for a discovery of moderate importance, and larger crosses as the discoveries warranted.

On the afternoon of Passion Sunday, 1539, Esteban pushed ahead. He who had been commanded ever since he could think was now a leader himself! He found a ready audience in the men under his command, as well as the women who flocked to his camp to hear exciting tales of his native country which he related at night around campfires.

At last an Indian told Esteban his Golden Cities were only 30 days ahead. Jubilant, the Moor fashioned a man-sized cross to send back to Fray Marcos.

Although his orders were to await the priest, he decided to continue on and preserve his precious freedom a little longer. Meanwhile, his camp fire stories grew more weird. He averred he possessed healing powers and, to lend more weight to his claims, decorated himself with bells and plumes and carried a "magic" gourd with red and black feathers.

Early in May of 1539, he stood at the foot of a ridge on which perched the mysterious city of Hawikuh. Emissaries who had been sent to the pueblo in advance met a cool reception. Returning to the Moor, they advised him not to proceed, but disregarding them, he approached the pueblo anyway. To the cities' chiefs he announced that many white men followed, and he promised that he himself would cure all the ills of Hawikuh if the chiefs would bring him the fairest maidens of Hawikuh as a reward for his services, as well as pieces of turquoise.

Perhaps his reputation as a despoiler of Indian womanhood had pre-

OF THE GOLDEN CITIES

By Peter Odens

ceded him; or perhaps he was considered a Mexican spy. In any event, the Indians threw him into an empty house at the foot of the hill, outside of the pueblo proper, where he was kept without food or water for three days. From his prison, he could look up toward the village. Perhaps then he realized that Hawikuh was not a city of gold, but just another Indian village somewhat larger than most.

Meanwhile, the chiefs deliberated on the Moor's fate. Some believed him a medicine man who could not

be killed. Others argued it might be worth trying to find out. A trap was set. Early one morning the door to the jail was left ajar. The Moor, hungry and thirsty, saw a chance to escape, but as he dashed from the door he was cut down by a shower of arrows.

Shortly after the death of Esteban, Fray Marcos de Niza reached Hawikuh. Told of the Moor's fate, he did not enter the pueblo, but with golden rays of afternoon sun shining on the buildings of Hawikuh, he perhaps felt justified in believing stories he had heard about its streets being paved with gold. Thus, he reported back to the viceroy that, indeed, Hawikuh was a city of gold.

A year later, Francisco Vasquez de Coronado, a captain-general of the Spanish army, reached the pueblo, to learn there was no truth in the rumors about a city of gold. After a severe battle with the Indians, Coronado, with 300 horsemen and 1000 Indians and servants, captured the hill. Most of the inhabitants, however, already had been evacuted to Thunder Mountain. Coronado remained in Hawikuh for some time and, from there, sent out expeditions which subsequently discovered the Colorado River and Grand Canyon. A mission, La Concepcion, was established at Hawikuh in 1629.

The fate of the mission was not a happy one. In 1632, a fiery, zealous priest was placed in charge. On Sunday, February 22, he celebrated mass, but only a few Indians attended. Impatient, he left the mission building to castigate the inhabitants of Hawikuh. As a threatening crowd gathered, the priest, now thoroughly frightened, knelt with a small crucifix in his hands. As he held it out to the crowd, he was shot to death with arrows and scalped. This instituted general unrest among the pueblo Indians. Five days later, a missionary, passing through Hawikuh, was ambushed and killed. To investigate the killing, Governor Francisco de la Mora Ceballos sent a group of soldiers and priests. Stopping at Inscription Rock, in what is today the El Morro National Monument, a soldier named Lujan carved the following inscription, in Spanish, into a stone: They passed on the 23rd of March 1632 to avenge the death of Father Latrado.

The Zunis, appraised of the coming of the punitive expedition, again retreated to Thunder Mountain where they remained for three years. Not until 1642 was mission work at the pueblo resumed. Then, in 1670, while Fray Pedro de Avila y Ayala was stationed at the mission, Hawikuh was attacked by a group of Indians believed to be Apaches or Navajos. The multitudes killed included the priest, whose brains were beaten out with a bell while he clung to his cross inside the mission building.

An interesting story is told of a padre who, during the great pueblo rebellion of 1680, escaped being killed when he asked to join the Zuni tribe. Years later, however, before he finally died, he requested burial in a Christian church with his head touching the altar.

After the great rebellion the mission was abandoned and the entire pueblo sank into dust. In 1919 the Hendricks - Lodge expedition, sponsored by the Museum of the American Indian in New York City, uncovered some of its ruins. They located the mission and in it, under an adobe altar, found an adult male skeleton with the skull pointing east. Were these the remains of the priest who asked to be buried in the church? Or was it the skeleton of Ayala?

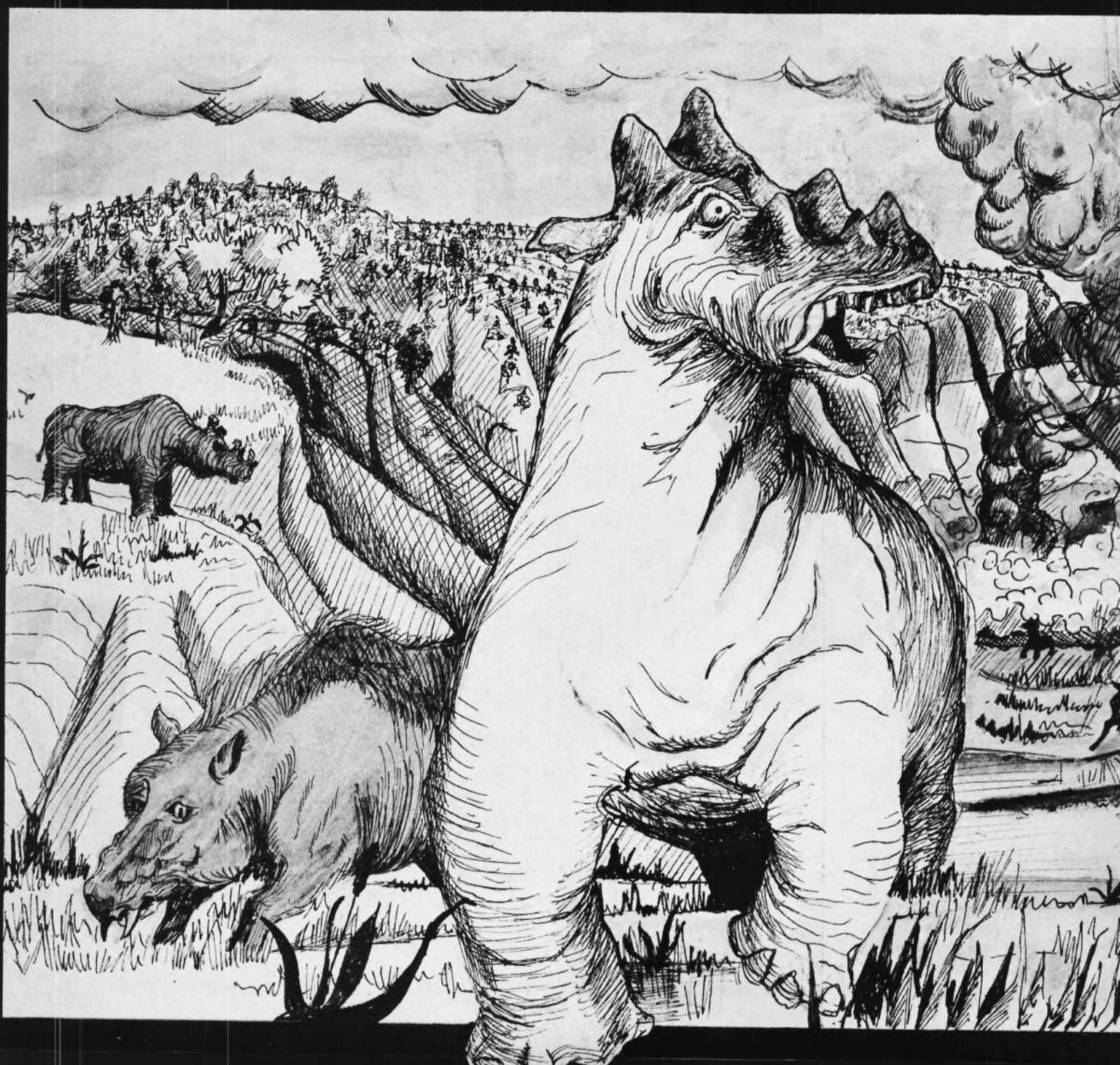
Wandering near the base of the knoll, my wife and I found the ruins of several buildings. One of them, the largest, had apparently been the Mission La Concepcion. Here we found arrowheads, broken bits of pottery and human bones.

In our minds we saw it all—the gigantic Moor looking up at the pueblo he was never allowed to enter; missionaries holding up crosses in an advance of Indian arrows; Spaniards lusting for gold that drove many to their deaths.

Where the hoax originated, of Cibola's Seven Cities of Gold, is no more traceable than the similar legends which have existed in other lands since time began. And, even though today they are known to be untrue, men will continue to search for them as long as time goes on. ///

The Night of

DRAWING BY HAROLD BLENDERMAN



the Ash Flow

a terrifying phenomenon of nature that has happened in the past and could happen again

by

Allen R. Hagood

THE MORNING started peacefully on that fateful day many millions of years ago. Life abounded in the valley. Rhino-like beasts and primitive camels and horses browsed across the land. Despite the bizarre ungulates and primitive carnivores that preyed upon them, the scene may even have been pleasant by human standards. But at that time, man did not exist. So we must rely on the findings of geologists and paleontologists to reconstruct the ancient scene from the rock and fossil record.

Tranquility reigned and the land was filled with the miracle of life—that is, until serenity was shattered by one of the few geologic phenomena that is truly catastrophic. It came without warning. Some of the beasts sensed the danger only briefly before they were overwhelmed and destroyed. A few astonished snorts, a momentary stampede, a few flashes of flame—then nothing. Inferno raced across the forested flats and in the valleys. No animal could outrun the burning blanket of death. Its ash flow covered hundreds of square miles with startling speed. All life perished in a fleeting moment. Nothing survived the scour-

ing holocaust of white-hot glass splinters and burning gases . . .

A fantastic description, to be sure, but many such flows must have occured in the ancient Southwest. Present desert regions—in Utah, Nevada, Arizona, New Mexico, and California—contain many examples of volcanic rock left by ash flows.

Geologists have identified several ash-flow layers in southern Nevada and northwestern Arizona. In the present Lake Mohave region, there were many violent eruptive episodes in the most recent broad chapter of geologic time, the Cenozoic era, which spans the last 70 million years. Layer upon layer of ash-flow rock may be seen in canyon walls near the colorful old mining town of Nelson, Nevada. Prominent rimrocks, north of Kingman, Arizona, are capped by rock of this origin.

The widespread ash flows of the Southwest are believed to have spread out at velocities greater than 100 miles per hour! Many single flows covered hundreds of square miles and, conceivably, some may have covered thousands of square miles.

"How," you may ask, "can lava flows cover such large areas so rapidly?" Ash flows are not like true lava flows of molten rock. An ordinary lava flow may move so slowly that observers can approach the front of the flow and even outwalk its advance. An ash flow is altogether different. It is a gaseous flow, rather than a liquid flow, and is a blanket of searing gas with a suspended load of tiny glass fragments. The suspension expands explosively and is of such density that its bulk remains low and spreads across the land.

French volcanologists refer to some recent ash flows as *nuees ardentes* or, literally translated, "burning clouds." Where eruptions of this type have been observed, the glowing clouds have been described as "boiling over like foam" from the volcanic crater or fissure. The mass is composed of gas and tiny particles that are incandescent like the white-hot filaments of light bulbs. Although much of the volume is taken up by gas, the suspension is so dense that it cannot rise into the air. It expands and annihilates all things in its path. Surprisingly, the onward rush may be frictionless and noiseless because the solid fragments are enveloped in a "lubricating cushion" of red-hot turbulent gas.

What causes ash flows? The contributing molten regions deep in the crust of the earth must contain large quantities of dissolved vapor—mostly water—under immense pressure. Upon eruption to the surface, the pressure suddenly is released and the gas instantly foams out of solution and forms a hot froth. The conditions must be just right for the hardening froth to break into a tumultuous mixture of shattered glass and flaming gas of the proper density to form an expanding ground flow. The flow then would spread outward until the expansive force was exhausted, possibly many tens of miles from the volcano (a volcano is not necessarily a mountain; it can be a fissure entirely without an associated mountain).

As if ash flows are not violent enough, there are similar eruptions that actually are *too* explosive to form ash flows! The streaming, expanding gas bubbles break the hardening glass froth with great force, and the erupting mass shatters into a cloud of glass fragments. Chunks of white-hot glass foam may be hurled aside and cooled rapidly enough to entrap gas bubbles and form the light, spongy rock called pumice; so much pore space may remain that large blocks of pumice can float on water with surprising buoyancy.

In some of the world's violent eruptions, innumerable glass fragments thrown thousands of feet into the atmosphere required long periods to settle to the ground. Such eruptions are so highly explosive that fine particles are scattered widely and cannot form ash flows. Winds may carry these particles great distances and spread a layer of gray, glassy ash over thousands of square miles.

A microscopic examination of most volcanic ash shows that many of the tiny glass fragments have curved surfaces. The curved surfaces are the broken walls of bubble tubes and cavities of the original glassy froth. Geologists call the pieces of glass, *shards,* some of which resemble the curved pottery fragments called *shards* by archeologists.

The main solid materials of ash flows, like those of more violent eruptions, are glass shards and pumice. But during the eruption of an ash flow, the escape of gas is not so violent as to throw much of the shattered glass into the atmosphere. Rather, the white-hot glass shards and ignited vapors are of just the density to stay on the ground and flow by gaseous expansion.

The rock that results from the consolidation of ash flows (or windblown ash) is called volcanic tuff. Sometimes the temperature and compaction in ancient ash flows were so great that the white-hot glass shards

Above: Microscopic view of a prepared slide of welded tuff from the Great Basin Desert. Long whitish blobs are distorted glass shards, compressed and welded while hot. Magnified 125 times. Below: Knobby columns weather from a welded ash-flow layer north of Kingman.

became welded to one another. The result—a hard, welded tuff made mostly of compressed glass fragments. Welded tuff may resemble the more common types of lava rock that resist erosion and form the protective caps of lava buttes. In cases of very great compaction in ash flows, the glass fragments may coalesce into solid black glass that is similar in outward appearance to obsidian. On the other hand, some ash-flow tuff may be welded only slightly. And some may be non-welded completely and remain as a powdery ash that is eroded very rapidly by wind and water.

The erosion of some welded ash flows provide interesting sculptured landscapes. For example, the tuff may weather more rapidly along intersecting vertical cracks and weak horizontal zones than across the rest of the rock. In this manner, the welded ash-flow deposit of Chiricahua National Monument in southeastern Arizona was carved into weird pinnacles and grotesque columns (see cover, DESERT Magazine, January, 1964).

Some layers of welded tuff, such as the caprock atop buttes north of Kingman, Arizona, are cut by cracks that formed by shrinkage when the rock cooled. Huge, angular blocks weather in knobby and rounded columnar forms. Blocky masses of the Kingman tuff periodically break from the rimrock and tumble down the slope as softer rock beneath the rim is removed by erosion.

In ash-flow layers welded only slightly, erosion is more rapid. Fascinating cone-shaped pinnacles and "teepees" result, as in the case of the "tent rocks" in the Valles Mountains of northeastern New Mexico. The surfaces of ash-flow layers in that region have been honeycombed so extensively by wind erosion that they resemble Swiss cheese on a grand scale. The larger holes were enlarged by Pueblo Indians and used as dwellings.

If an ash flow like those of the geologic past erupted in the modern Southwest, it would result in one of the most terrible disasters of mankind. Imagine such a death blanket over Las Vegas, Cedar City, Kingman, Tombstone, or Santa Fe! Yet these are only a few of the southeastern cities situated in or close to ash-flow regions of the past. There would be little chance of human survival under the merciless blast of an ash flow.

In the time of recorded history, no humans have witnessed an eruption that yielded an undisputed welded tuff. But there is at least one case of a man being catastrophically involved in a flow of hot volcanic ash. On May 8, 1902, on the island of Martinique in the West Indies, a fissure opened on Mount Pelee and a turbulent mixture of expanding gas and fine dust poured down the mountain at 60 miles per hour. The town of St. Pierre, in the path of the glowing cloud, was engulfed and, in just a few seconds, 29,000 persons met a horrible, fiery death. Only one person survived. Ironically, he was a prisoner in a subterranean cell of the city jail. Although a survivor, he suffered agonizing burns. Besides the high temperature (800°C) of the Pelean eruption, the burning cloud had tremendous momentum; rocks were propelled through the side of an iron tank in a manner similar to artillery piercement.

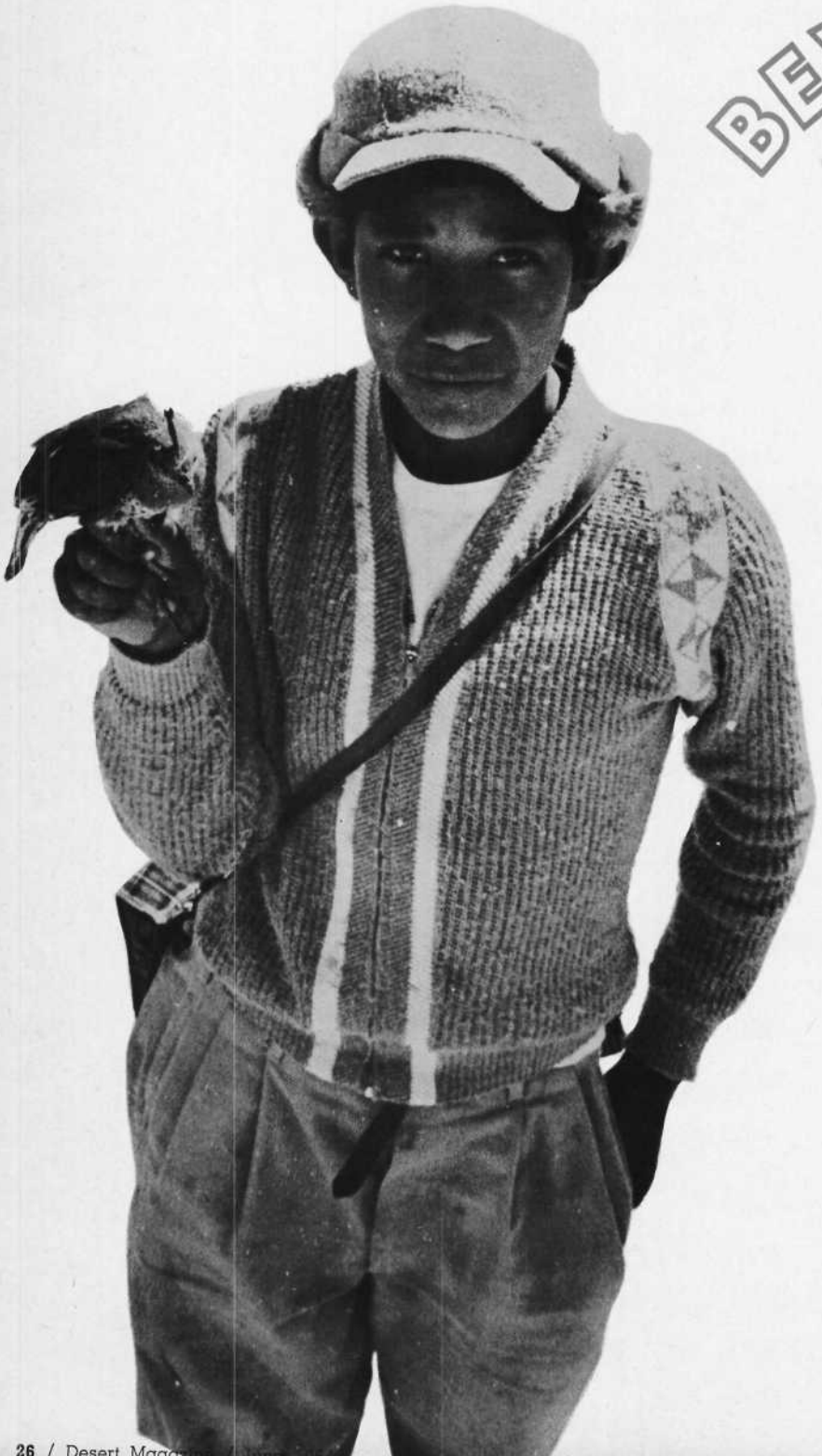
A spectacular ash-flow eruption that did not involve humans occurred at Navorupta Volcano on the Alaska Peninsula in the area now included in Katmai National Monument. On June 6, 1812, over 2 cubic miles of hot ash boiled over the crater edge and poured down an adjacent valley. Trees above the level of the incandescent ash were broken like matchsticks. The glowing cloud filled the valley with ash of depths of 700 feet and covered an area of 53 square miles. The spectacle of steam escaping from thousands of fumaroles in the ash-buried valley led to the name, Valley of Ten Thousand Smokes. Today this exceptional volcanic region is administered by the National Park Service.

Volcanic activity that results in ash flows seems to have ceased in recent geologic time in the Southwest. It may be that crustal conditions necessary for the production of ash flows do not exist at this time, but unfortunately, little is known of the causes or sources of the great flows of the past.

On the other hand, it seems likely that we are Johnny-come-latelys on the scene and are merely residents in a calm interval between ash flows. Geologists know little about the generation and timing of such eruptions; nor do they have serious hope of predicting ash flows. This is one of the realms of scientific endeavor in which we have no confident control over the awsome forces of nature. Although the span of human history is fleetingly brief in comparison to the vast eons of geologic time, we have no guarantee that some of our Southwestern inhabitants will not be involved in the flaming deluge of a future ash flow. If so, let's hope that the flow is confined to sparsely populated desert areas. ///

This is the second of a series of articles featuring the adventures of DESERT's editor and publisher on a recent expedition to Baja California as guests of Erle Stanley Gardner.

BEWITCHED BY BAJA



By Choral Pepper

IT DIDN'T occur to us, happily stuffing ourselves with lobster at Santa Maria, that anyone would be worried about the Erle Stanley Gardner party aloft in our chartered single engine plane. However, when we landed at Mulege and found Club Aereo owners Louis Frederico and Don Johnson pacing the air strip, we learned that our announced departure from Tijuana and failure to arrive in Mulege on the preceding day had caused considerable alarm. In touch with the Tijuana Airport by phone, they feared we had tried to fly over the altitudinal mountains dividing the Pacific coast from the Gulf of California and been forced down in the storm.

After having seen this incredible country, I could understand their concern. Geologists say the mountainous spine of Baja rose as an upthrust during comparatively recent times—maybe only about 10 million years ago—and it is rugged beyond imagination. Travel writer-reporter J. Ross Browne rode a mule over it in 1868. Franciscan Father Junipero Serra broke a trail from its tip to its top about 100 years earlier. Both parties agreed in concept with Findlay's 19th century Coast Directory, "Lower California is one of the most barren and unattractive regions of the temperate zone. The general aspect of the country is

horrible. Imagination cannot conceive anything more naked, more desolate!"

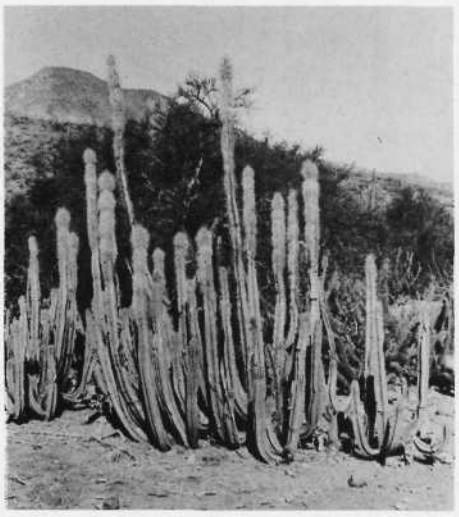
Today, of course, we know better. From the air it is apparent that oases with palm groves and sparkling springs exist with surprising frequency. Our pilot, Capt. Francisco Munoz, pointed out a number of them and Erle spotted the one he wrote about in HOVERING OVER BAJA near which his party found a crashed plane. If its victims, who survived the crash, had not searched in the opposite direction for life-sustaining water, they'd have survived the terrain.

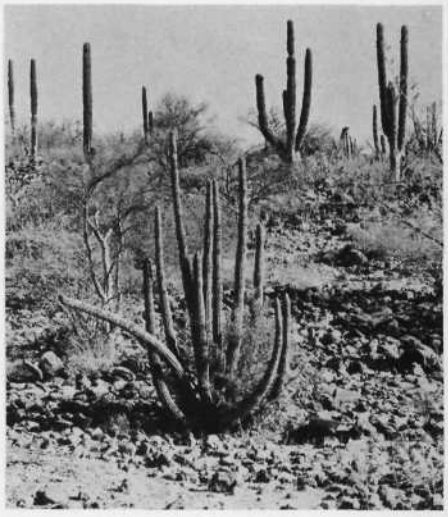
The country over which we flew was not all mountains. Following Mexico's hopefully named Highway Number 1 (a 500-mile dirt and gravel trail) from the air, we carefully checked the long dry desert of Laguna Chapala half-expecting to find our ground crew, who had left in advance, broken down along the way. Baja *aficionados* who have driven this ruthless route claim you don't know Baja until you've driven it. I have news for those boys, though. They don't know what they've driven through until they see it from the air!

Just as we were about to indulge ourselves with the Club Aereo's luxurious accommodations, Sam Hicks and Ricardo Castillo drove up in two of the Gardner expedition's vehicles. Erle was astonished that they could have made such good time—a trip from the border that formerly consumed a week or more, this year took three-and-a-half days. Other members of the ground party were already constructing an airstrip near Conception Bay, about 50 miles below Mulege, near where we planned to establish a headquarter camp. Anxious to examine this strip before landing his plane on it, Munoz led off with Sam Hicks in the truck, while Jean, Erle and I followed in a 4-wheel drive vehicle driven by Ricardo.

Mulege thrilled me. Passing through its tropical, palm-thatched village beside a beautiful blue bay, we could have been in a South Sea jungle rather than within a day's flight from Los Angeles. Date palms and banana trees threw dark shadows across narrow lanes. Mangrove, bougainvillea and waxen cup-of-gold crowded among the reed-covered huts that followed the banks of the lazy river. I wanted to be everywhere at once—taking photos of the Mission, talking to friendly children who gathered around our car, racing ahead to adventures that awaited us at camp. Ricardo reminded us that our trip would end with a return visit to

Long, lazy Mulege River winds through the tropical village of Mulege.





Weird cacti twist, crawl, climb and stretch across Baja's ever-changing terrain. The unique Cardon tree (right rear) sometimes reaches a height of 60 feet. Below: a mild section of the Pass of Death where a roadside cave holds a shrine maintained by those lucky enough to live so long.

Mulege, however, so we reluctantly left the town.

Ricardo Castillo and I established rapport as soon as I learned his hobby is archeology. Extraordinarily proud of his country, Ricardo leaves his business in Tijuana at every opportunity to investigate Baja's unchartered land, and, perhaps, learn more of its mysterious prehistory. Discoveries this brilliant young man made several years ago attracted the attention of Erle Stanley Gardner and since that time he's been as important to the nucleus of Gardner Baja expeditions as are Sam Hicks, J. W. Black, Lee Sine, Francisco Munoz, Jack Hicks and Louie Roripaugh. Like the others, Ricardo is a man of many talents. He can drive a truck, fly a plane, make tortillas out of Bisquick, and spot an arrowhead as keenly as Munoz, which is pretty keen.

The long slow drive toward El Coyote beach at Conception Bay is one of the most important to cover by ground transportation (which may be acquired in Mulege if you didn't come in your own). Bound in places by sand dunes that slide into the bay, and elsewhere by rocky and mountainous terrain, it's a stretch of desert encompassing just about every type of growth distinctive to Baja. Stunted Tarote—a form of elephant tree, graceful white-skinned Depua and Baja's famous Cardon trees mingle with equally strange forms of cacti that crawl, stretch, reach and twist across the ever-changing terrain.

The 50-mile drive, which took us about three hours, passed quickly, with so much to see. It would even have passed quicker had we not fallen behind a Mexican truck while ascending the Pass of Death. At first we couldn't understand why a Mexican driver, traditionally courteous, would refuse to let us pass. Ricardo honked at each turn-off, to no avail. But when we began to climb, the reason became clear. A man carrying a rock jumped from the truck's platform and, squeezing himself against the rocky wall of the precipitous trail, he followed alongside his brakeless truck's rear wheel. The idea was that he could place the rock behind the wheel in the event an axle broke and the truck careened in reverse. Our sense of security went into shock during this interlude and we hoped very hard that Sam and Munoz were far enough in advance to beat the brakeless truck on its fiendish downgrade race along the opposite side of the summit.

After that episode, Erle informed me that anyone surving this treacherous route, aptly named by him "The Pass of Death" has *carte blanche* in discussions of Baja's frightful roads. Even so, he says, it's a freeway compared to what it used to be.

Lee Sine, flagging us from a bluff above a steep curve, directed us to some faint tracks cut by his truck. After following them for about a mile, an astonishing illusion occured before us. The gutted body of an old blue Ford crept slowly along a path cleared through the cacti. No wheels, no motor, no power. Nothing. Just an old rusty body moving along the ground. Ricardo stopped our car. None of us said a word. Then, without a pause, the body turned slowly toward us and revealed J. W. Black steering his latest invention, a low, three-wheeled vehicle called a "Butterfly" behind which he towed the rusty body. This was the means by which Gardner's ground crew "plowed" a landing strip. And it was a pretty good one, too, in spite of the fact that the sand was dangerously soft and the strip permitted landing from one direction only, regardless of the direction of the wind. Later we discovered that the discarded rusty body was an important native landmark—indicating what, we couldn't determine—so the men carefully returned it to the original spot where its spirit apparently departed Mexico's Highway No. 1.

Two butterflies were transported on a truck for this expedition. That they turned out to be rugged work horses enhanced their value, but their primary purpose was to provide transportation and to carry supplies into arroyos where conventional vehicles—even 4-wheelers—can't travel. J. W. Black experimented for a long time to perfect an ideal combination of ruggedness and maneuverability. When he tried one at Palm Desert's sand dunes (DESERT photo Nov. '63) he used wide airplane tires in order to traverse the deep sand. On other types of terrain, however, these proved disadvantageous, so for the Baja trip he equipped each wheel with a combination of two tires. This provided the necessary width for sand travel and improved traction on other types of terrain.

A temporary camp had been set up to build the landing strip, but now we were to move it a few miles further south and onto the beach. While some of the party repacked trucks, Jean, Munoz, Ricardo and I hunted for arrowheads. Piles of ancient clam shells formed occasional humps in the sand and it was beside these that Munoz and Ricardo had their best luck. We can't understand why arrowheads would have been left among empty clam shells. They couldn't have slid out of pockets as the costumes of Baja's ancients were not blessed with them until the padres came, and it seems unlikely they'd deliberately discard finely worked arrows into a fire. Varying in size, some were fashioned of white quartz, some of shiny obsidian, and others of a common dark rock. And, invariably, the most perfect nested among bleached, half-buried piles of old clams—a good thing to remember if you hunt arrowheads in this region.

My first glimpse of Conception Bay, as we came upon it from a cliff-side turn, inspired the same tingling sensation as did my first sight of Switzerland's Lake Lucerne. Its water must contain copper dioxide to attain such a vibrant blue. I can close my eyes, hold my breath, and recapture now those endless Baja beaches of coral sand, so white that only a poet as pure as Rossetti could describe them. There are other places and times that, for me, stand still, but on no other 800-mile peninsula do I know of so many of them.

At the bottom of the incline beside Conception Bay, Ricardo noticed that the mountain of boulders to our right was covered with petroglyphs. We all scrambled up the mountain to examine its jumbled rocks. Age is hard to estimate, but many of these boulders had split after their ancient artists had chiseled designs. On some we were able to match patterns which proved this beyond a doubt. The material composing these boulders was porous and weathered and the glyphs didn't show up as well in afternoon light as they would have in the morning. Sun signs, rakes, kite-shaped figures and curvilinear abstractions were prevalent, but a number of sharks and tropical fish native to the Gulf of California were also apparent.

Although some motifs were similar to ones found at sites above the border, these lacked an intangible emotional appeal I have sensed at more impressive sites. Possibly before the boulders tumbled the art work, as such, would have seemed stronger, but if these were meant to induce rain or magic of any kind, the medicine man was a namby-pamby one.

One interesting observation which may account for this particular area being chosen for a petroglyph site by ancient Indians is the occurrence of a massive grove of Mangle on the shoreline directly below it. Now the Mangle is a very interesting tree, or shrub. The Mexicans call it *guebracho,* which means "ax breaker"

Manuelo, our host, whose goat ranch occupies one of the most desirable beach sites.

A Mangle grove along the shore suggests a fresh water supply, possibly the reason for this area being chosen by ancient Indians to make their petroglyphs. Below: Fishermen calk their boats along Manuelo's beach at Conception Bay.

Leo Roripaugh, Lee Sine, J. W. Black, Ricardo Costillo, Francisco Munoz, Jacks Hicks behind hat, Erle Stanley Gardner, and George, a nice Mulege boy who joined the party as camp cook, gather to discuss the merits of an airstrip they cleared with a makeshift plow powered by a Butterfly.

because the wood is so hard it will break an ax. The reason for its possible attraction to ancient Indians is because even though the Mangle may extend right into the tide line of salty water, such as that of Conception Bay, it grows only in fresh water. This indicates that fresh water springs rise along the shoreline at that particular spot.

It was at this time of the trip that I was particularly grateful to DESERT advertiser Grone's Moccasin Shop in Palm Springs. Before leaving home, I had gone in to buy Western boots, but when owner Bud Avery learned where we were going, he talked me into a softer soled moccasin-type boot. I would never have been able to climb around the rocky terrain of Baja wearing slippery-soled Western boots and I'd like to pass this bit of advice on to others.

While some of us lingered to photograph petroglyphs, the others continued to the beach property of a Mexican goat rancher named Manuelo, who is a Gardner friend of long standing and upon whose land we were going to establish a headquarter camp.

About a mile down the beach below Manuelo's property is El Coyote beach, one of the most beautiful campsites of all Baja. Endowed with a cluster of tall palms that bend toward the bay more effectively than any artist could simulate them, its romantic atmosphere is further embellished by the activities of native fishermen who live in grass shacks here and there along the shore. This is indeed a memorable spot and is known by most Baja habituees who venture beyond Mulege's modern hotels. For visitors who fly as far as Mulege, it is well worth while to bring sleeping bags and beach comb for a few days on this beach. The air is dry, your equipment doesn't bog down each morning with dew, and fishing, bathing and shell-collecting are sublime. Transportation may be arranged in Mulege.

Our camp wasn't as picturesque, perhaps, as El Coyote, but it had a charm of its own. Manuelo's goats wandered back and forth, we acquired a camp following of dogs, and a grotesque tree stump on the shoreline afforded a perch for birds, which kept us amused. Our beach had fishermen too. Piles of pink Murex and enormous conch shells were brought ashore each evening—to be shipped to Florida! On a wooden shelf suspended between two trees, fishermen smoked the meat of the Murex and left it to dry. The Murex shell is a beautiful, ruffled one with a black or pink interior and is found only in tropical waters. Mexicans eat the meat from its pink-tinted shells, but never from the black ones. The reason for this, I can't fathom, as they are otherwise identical, but the meat in the pink ones tastes something like a tough scallop.

Another taste treat in the neighborhood may be found at Manuelo's candy factory. In a thatched hut beside his living quarters he manufactures the greatest panoche fudge in the world. Made of goat milk, its creamy texture is acquired by beating the mixture (which I understand contains a native cactus ingredient) with a series of wooden paddles mounted onto a hub like the blades of a fan and propelled by a small gasoline engine. The candy is made in an old fashioned wash tub and kids (baby goats) collect just like the human kind to lick the pan, sometimes while the panoche is still in it. Our U.S. candy manufacturers may be more sanitary, but they can't make panoche like this!

Also of interest at Manuelo's ranch is a prize black Billy goat named Negro. This goat had a devastating experience. By a strange set of circumstances, too unbelievable to relate, one of the horns was pulled completely out of his skull, leaving a boneless section that normally would prove fatal. As ingenious at mending broken skulls as he is at beating candy, Manuelo simply soldered the hole in the skull, stuck in the stub of broken horn and sawed off its opposite to an equal length so the goat wouldn't injure the repair job by trying to use it. The soldered horn is beginning to grow and at this writing Manuelo's goat propagation for the future seems assured.

Setting up a camp Gardner-style is more of an art than I believed. Tall, handsome Sam Hicks, who looks like a movie cowboy, but is very much the real thing, is so efficient in his quiet, unassuming way that it wasn't until I was home from Baja that I looked back upon all he had done, and marvelled. In a forthcoming DESERT Jack Pepper will go into detail on that, but for this moment I can't resist commenting upon Sam's camp cuisine—namely beer pancakes.

In Sam's own words, here's how it's done. "Use enough beer, any brand, with any kind of hotcake mix so that no other liquid is required. Break two or three eggs into batter and whip until leavening action subsides. Cook mainly in dry camps where water is rationed."

This unique recipe came about on a Baja adventure years ago when the ground crew miscalculated an opportunity to replenish its water supply and found itself with nothing liquid except beer. The result was so happy, however, that beer pancakes have been commemorated in their camps ever since. As J. W. Black, one of the reasons for the miscalculation, explains it, "We don't make mistakes, we make use of them!"

Perhaps that's the philosophy that has kept this group of men, considerate and able men, together through so many demanding times, exciting and fun times. For myself, I could hardly await Jack's arrival on the following day when he could begin to share this superb time in Baja with me. ///

The men did the cooking. I did the peeking. Beans cooked day and night.

BAJA'S BEACHES

(Continued from Page 15)

on lobster tacos. And what tacos! Tacos are good, but tacos with lobster fresh from the ocean are something you will only find in Mexico. While we were eating, a small private airplane landed and taxied up to within a few feet of the cafe.

Mrs. Irma Hernandez, who operates the ranch (See DESERT Magazine, May, 1964) said most of her guests come by plane, but that visitors by automobile are increasing. She has motel accommodations for those not prepared to camp on the beautiful beach a mile from the ranch.

That afternoon the boys dug clams, used them for bait to fish, swam and explored the sand dunes along the beach. It was the next morning Choral was winked at by the seal.

Pausing only enough to discover from a farmer that the strange crop he grew was Brussels sprouts and to feed his white goat an orange, the next morning we hurried back to the Bahia de San Quintin turnoff. Taking off on a side road, we found the beautiful bay and abandoned flour mill, built by an English company in 1885 that we'd read about and wanted to visit. This large scale colonization project, including a railroad which extended 20 miles north, was abandoned soon after completion when rain proved too insufficient for dry farming. Then San Quintin became a ghost town.

Today, however, the valley is irrigated and winter crops supply much of the fresh vegetables for the United States. An enterprising school teacher devotes much of his time to youth activities and the development of his adopted home has turned the abandoned mill into the background for an attractive motel and fishing and hunting resort.

Senor Al Vela has also been a chef in many famous international restaurants and prides himself on his cuisine. In addition to the motel, he has boats for deep sea fishing, especially around San Martin Island where huge black sea bass are caught. There is also good fishing from the beach. As is the case all along the Pacific side of Baja, fishing is best during summer months. During the winter, hunting for ducks and black brant geese is a favorite sport.

Although scuba diving with spears for lobsters and abalone is prohibited in Baja California for other than natives, skin diving to watch the vari-colored fish is a fascinating pastime.

Stopping along the way to explore and photograph the missions, we returned north on our third day. Ten miles south of Ensenada, a paved road leads through Maneadero Valley, a large farming community, and on to Punta (Point) Banda and its beautiful bay, Todos Santos Bahia. Although there are no motels in the area, this is an excellent area for campers, mobile homes or just plain camping on the beach. Boats, fishing tackle and basic supplies can be obtained at a picturesque fishing village. A short dirt road connects with an abandoned war-time paved landing strip. This parallels and is immediately adjacent to the beach and provides an excellent parking place for your automobile, camper or trailer.

However, since we had a 4-wheel drive, we drove along the beach and found an ideal campsite in the dunes. The boys dug clams and used them for bait to catch fish, while Choral and I steamed some to eat out of the shells as we watched the brilliant sunset.

The previous year Choral and I had discovered a small, secluded cove on Punta Banda where we had scuba dived. Upon revisiting it this trip, we found a Japanese lobster fisherman living there in a trailer. He generously invited the boys to return in July when he would take them out in his giant lobster boats. After giving his little girl some oranges and the fisherman some small hooks, we drove over the paved highway to the top of Punta Banda.

The pavement ends at the top of the cliff. We were surprised to see several cars parked here and people walking down a path. The attraction, we found, was a geyser which shoots hundreds of feet into the air when ocean waves a hundred feet below are caught in a crevice and jettisoned upward. The scenic drive and the geyser are well worth the short trip.

Returning to Ensenada we stopped long enough to buy one of the giant turtle shells which are brought across the mountains from the Bahia de Los Angeles. An hour and a half later we passed through the United States Customs at Tijuana.

After inspecting our small pox vaccination papers (if you do not have them, the U. S. Immigration office will vaccinate you at the border) the officer asked us what we brought back from Mexico.

"One turtle shell, a dozen fish and memories of a trip we will discuss for years to come," I replied. Smiling, he waved us out of the land of "manana" and into the world of today. ///

RUN, WILD HORSE

By Dr. John Goodman
University of Redlands

Mustangers in flat-bed trucks bore down on fleeing horses, lassoed them with tire-weighted lines, and let exhaustion takes its course, another technique used to capture mustangs was to spook them with a helicopter. This sort of cruelty is now outlawed.

WE LEAPED TO our feet and played a light across the slope. Only a tree, rocks and inky silence met its beam.

Which of us tensed first we'll never know, but the sudden awareness of a large animal's heavy breathing caused us to squirm in our sleeping bags. Then an unearthly scream split the night. Others joined, shrill and unnerving. Hoofs clattered through our camp. But we saw nothing. It was a black, moonless night.

Such was our introduction to that legendary creature, the wild horse, but not until we'd inspected hoof tracks in the dawn's light did we have a hint. Suspicious that our visiting phantoms were stray horses from a remote ranch, we queried a couple of old timers who prospected in the area. They assured us we'd brushed with the wild edition; that mustang roamed these Nevada mountains in bands.

Only then did we realize how ignorant of this subject we were. How many wild horses still exist in the West? Where else are they located? How do they survive?

Curiosity led us to the resources of UCLA's bright young equine zoogeographer, Dr. Tom McKnight. Some disclosures we found alarming; others bright.

Seventeen to thirty-four thousand mustangs are left in Anglo-America (U.S. and Canada), with the greatest concentrations in and around Nevada. These descendants of Spanish and other domestic stock no longer move in herds numbering in the thousands, however. Today they occur in isolated pockets, their distribution governed by the human factor. Nevada is favorable due to its enormous reaches of suitable, unpeopled habitat. Several other western states provide sanctuary by virtue of their Indian reservations where horses are appreciated, whether wild or not.

Nevada is way out in front with five to seven thousand ferals; New Mexico follows with three to five thousand; Oregon and Utah next, then Alberta and British Columbia, with one to two thousand in B.C. Supporting lesser numbers in this order are: Idaho, California, Washington, Colorado, Arizona, Montana, Wyoming, Alaska, and North Dakota,

with as few as 10 to 20 in North Dakota.

The beginning of the end came with the fencing of the open range, so that by 1900 most concentrations were found west of the Rockies. Wartime markets for horses and horseflesh and rising pet-food industries further depleted the herds. Then the establishment of grazing districts, in unallocated and unused public domain, dealt a devastating blow—stockmen generally regard the feral horse with an eye to removal. Organized wild-horse hunts were and are the greatest single threat to existing populations.

During the Boer War and World War I, methods of capture were relatively unsophisticated. But after World War II a new and effective means was evolved. This was the use of light airplanes in spotting and rounding up elusive bands. It proved invaluable in "spooking" them from the rough rimrock coutry out onto the open flats where they could be corralled by mounted riders or pursued in trucks and roped.

Occasionally these captives became confirmed man-haters, never to be trusted; some of them wound up in rodeos. Only rarely were they suitable candidates for good ranching stock. The majority were hauled off to canneries where they were slaughtered for pet and fur-farm feed—a tragic ending to the dramatic role these animals have played in the history of the West.

A pathetic little fact is that feral horses of today do not cut the image they did before the Plains were settled. In McKnight's own words, "Presumably, as a result of scanty grazing and inbreeding, they tend to be runty, big-headed, coarse, and weak, but have agility and stamina. Occasional individuals are handsome and well built, but these are the exceptions rather than the rule. In general, the horses bear little resemblance to the famed mustangs of yore; indeed, their most common appellation in the West today is 'broomtail.' "

But, broomtail or not, their friends will defend them at all costs. Mechanized roundups have raised such a hue and cry from protectionists quarters that Congress enacted legislation in 1959 prohibiting the use of any kind of power equipment on federal lands, unless authorized by a government agency. This has improved the lot of the wild horse substantially. Except in Alberta, where extirpation is sought, McKnight predicts that present numbers will hold their own in the aggregate.

This is good news. Bleak would be a West without a mustang, poor a heart which could not pound to the wild rhythm of a band of mustangs whirling off in a cloud of dust. ///

DESERT has had many requests for information regarding uses made by Indians of herbs and other natural desert products. This is difficult information to come by, as primitive people are reluctant to confide in those who do not live as they do. It is with great exicitement that we give to our readers the following article and others to follow each month written by Sam Hicks, a trusted friend of the Indians and Mexicans who have shared these customs with him and a man whom DESERT considers more qualified than any other to impart them to its readers.

Desert Dispensary

By Sam Hicks

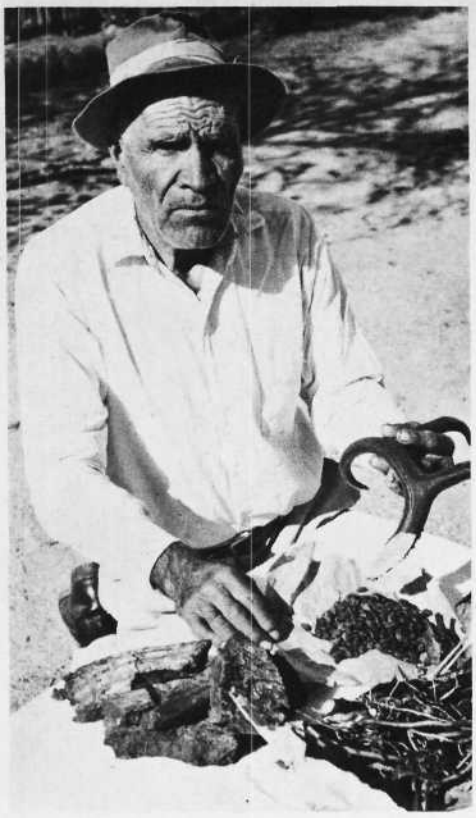
SPANISH SPEAKING natives of the Southwest, whether American Indians of California and Arizona or the residents of Baja California, Sonora, or the other Mexican States beyond, seem to be born with an abundant knowledge of herbs and useful plants. Regular medical services and the availability of needed supplies are still non-existent in so many remote areas of the Southwest that the natives, particularly outdoor people such as ranchers, miners and fishermen of coastal waters, inherit a superb education in the use of herbs and plants, then proceed to expand that knowledge throughout their lives.

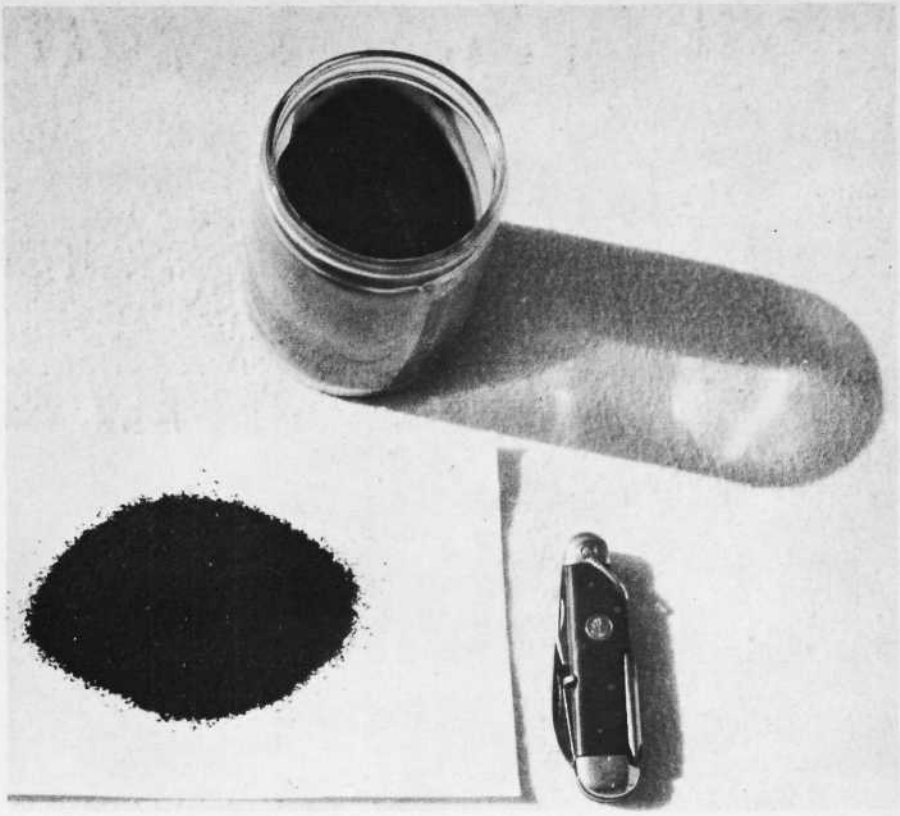
I know nothing of the science of botany and very little about herbs. It is the people who display a fascination for the flora which surrounds them and who possess a keen knowledge of the medicinal, structural or nutritional values of this plant life who command my attention and respect. My interest in this subject, therefore, stems not at all from a desire to become an authority on herbs and shrubs and vines, but from the enjoyment of recalling pleasant memories of nightly visits around late campfires with Mexican and Indian friends. Now, almost every useful plant I recognize in the Southwest serves to remind me of a certain instance when Ynes, or Juan, or Lorenzo, or Jose gave me a campfire lecture on its particular virtues.

The manner in which certain herbs and plants are invariably used as identical remedies in sickness, tonics or for other practical purposes, regardless of distances or different languages involved, has to me become a thing of fascinating reminiscence. In the many Indian dialects of Southern California, for example, a single herb may have half-a-dozen different names as well as one in Spanish and two or three in English, yet always it is used in an identical manner and for identical reasons.

David (pronounced Dahveed) Hurtado was born and raised in the little mountain village of Yecora, Sonora, Mexico, a former sawmill town situated at the 5000-foot level in the timber belt of the Central Sierra Madre. Like nearly all of his countrymen from the small pueblos of Mexico, David is a man of good character and of accomplishments. He is a fine stockman and can do any kind of work entailing the use of burros, mules, horses or cattle. He is a skilful truck driver and of sheer necessity a good mechanic. He lived many years with the Pima Indians of the Sierra Madre and learned to speak their language. He is an outstanding hunter and tracker and knows mining, timbering and a lot about the sawmill business. His knowledge of herbs and useful plans is encyclopedic.

Angel Lopez, formerly of Ixclan, Nyarit, is also a man of self reliance and unusual capabilities. Shortly after he came to the United States he cured his stomach ulcers with herb teas while he was working as a section





hand on the railroad. He now has a few head of milk cows, some poultry and a good many bee hives from which he derives his principal income. He is the gentlest person with livestock I have ever seen and is so considerate of his bees that his actions seem to border on the ridiculous.

I have watched him hunting about his place on cold, spring evenings carefully gathering up those bees too chilled and too heavily laden with pollen to fly. He gently puts them in his old felt hat and, after searching until he's sure that none will be left out to further suffer from the cold, he carries them to his car and closes them in for the night. He is an enthusiastic student of natural things and a man of infinite patience. I once visited with him as he dug a colony of ants out of the ground near his home, put them all in a fruit jar and transplanted them several miles away, rather than exterminate them.

Every day throughout the summer, Angel drives a couple of miles through the foothills of the Pechanga Reservation to work with his bees. When he returns in the evening he nearly always has a collection of herbs in the back of his car that are useful as aromatic teas, stomach tonics or disinfectants.

Juanita Nejo, a young Indian lady now in her middle 80s, makes annual trips to the Inaja Reservation near Julian, California, to gather herbs for her health and pine needles for the baskets she still weaves and sells. She also makes an occasional trip to the Warner Springs area for two kinds of herbs she calls in her Indian dialect, Melon and Mescaha, both of which have amazing curative powers that I have had the opportunity to observe.

Here is but a sampling of the kind of people who are sharpening my interest in the usefulness of certain plants, shrubs, roots and flowers of esthetic beauty and fragrance which abound throughout the Southwest. These people are not health faddists. They use these plants in their daily life just as they use tortillas and beans. They have nothing to sell, no axes to grind, nor are they trying to impress anyone with the vast knowledge they possess.

From these people, and a host of other cowboys, guides, prospectors and turtle fishermen of Baja California, I have gathered in somewhat the same manner as Angel Lopez collecting his tired, cold bees one at a time in the evening, a series of photographs and notes on the plants of the Southwest. Here is that information, for what it might be worth.

YERBA DEL MANZO or SWAMPROOT

This herb is found throughout the Southwestern United States and Northern Mexico. As its name implies, it grows in moist to swampy ground and is easily identified by its green, oval-shaped leaves and seed stalks which shoot upward directly from the center of the plant. It grows among the tough roots of swamp grass and is easily found, but difficult to dig.

That part of plant above ground is generally not used. Its strength lies in its roots which are cooked into tea for stomach upsets. It is extremely bitter and a small segment of root, approximately a quarter of an inch in diameter and two inches long, or that equivalent, is sufficient for one quart of tea. It should be brought to a boil and then allowed to steep. Tea is also recommended as a medicine for common colds.

Finely ground root is taken with olive oil for chronic stomach ailments. A strong, boiled solution is used as a disinfectant for bathing open wounds. A strong, black healing powder is made from the following ingredients:

Bark from a living Like Oak tree
Section of deer horn thoroughly burned in a wood fire
Yerbo del Manzo or Swamproot
Deer manure pellets

All ingredients are ground into a fine powder on a metate or in a hand-operated corn mill. Equal portions of powdered Yerba del Manzo, powdered deer horn and powdered deer manure are used. A half portion of powdered Live Oak bark is then added. Powders are mixed together and dusted on surfaces of open wounds. It is used extensively for the sore shoulders and back of horses and mules. ///

Anyone For Prickly Pear?

By Thomas Dickenson

GROWING CACTUS in an arid locality like Lakeside, California, sounds like a job for a lazy farmer with a grudge against money. However, according to Sam and Leon Maniscalco, a pair of brothers who are actually doing it, the task is as difficult as raising citrus or avocados, and selling "prickly pears" can be equally profitable or unprofitable, depending upon circumstances.

"Cactus plants are hardy," admits Leon Maniscalco. "Fossil collectors have evidence to prove they were growing 50,000,000 years ago and they may well be among the few plants tough enough to survive the next 50,000,000 years. But they won't produce fruit of good quality in commercial quantities if they aren't properly cared for. In other words, they must be sprayed, fertilized, cultivated, and irrigated the same as conventional fruit trees, if they are to yield salable fruit."

Prickly pears or "cactus apples" do not represent what could accurately be called a new food crop. Known to Indians as *tuna,* they were valued for centuries before Spanish explorers came along and dubbed them *el nopal* (from the Aztecs' *nopalli*).

The food value of cactus is not limited to its fruit. Mexicans, for example, roast, boil, or fry cactus leaves after removing the spines and cutting them in strips. Resultant dishes are said to be bland and a bit glutinous, something like cooked okra.

The viscous, glue-like juice of cactus plants is also used as a mixing agent for mortar, whitewash, dyes, and insecticides, among other things. It is obtained by slicing cactus leaves or pads and allowing them to stand overnight in water or lime mixture.

Pioneer ranchers in Texas used to burn spines from cactus plants so they could be consumed by cattle when other forms of food were scarce, and the noted Luther Burbank once developed a spineless cactus for feeding livestock and poultry. It failed to find a widespread market, however, because it attracted rodents, was easily damaged by frost, and had less forage value than hardier plants. However, Sam Maniscalco seems to think that the more hardy forms of cactus still have a potential as feed supplements.

The United States market for cactus pears exists largely among Latins residing along the eastern seaboard, and it is so small that its needs can be met by only two ranchers (which, combined, have less than 60 acres of cactus) in California. However, since cactus pears have found a large market in such Mediterranean regions as

Sicily and Algiers as well as in Latin American countries, it is probable that a greater demand for such fruit could be developed.

The cactus pear flavor compares favorably to that of the strawberry. It has many small seed, which are harmless, and seeds and pulp should be consumed together.

Aware of the popularity of cactus pears among Latins, Sam Maniscalco and his late father, Bernardo, initially went to Lakeside to work on a ranch owned by Hugo Thum, an inventor who had earned a fortune by introducing flypaper in the United States. Thum was interested in cactus as a potential source of feed for livestock, and was willing to help the Maniscalos earn a living during the seven years that it took to get their cactus ranch into production.

"We planted no special varieties of cactus," Sam Maniscalco recalls. "In fact, our plantings were made with cuttings from plants which were supposed to have originated in Sicily. Regardless of whether that is true, I think our plantings did well because Lakeside's moderate climate resembles that of Sicily. The only thing we couldn't count on normally was rainfall, but fortunately we were able to irrigate."

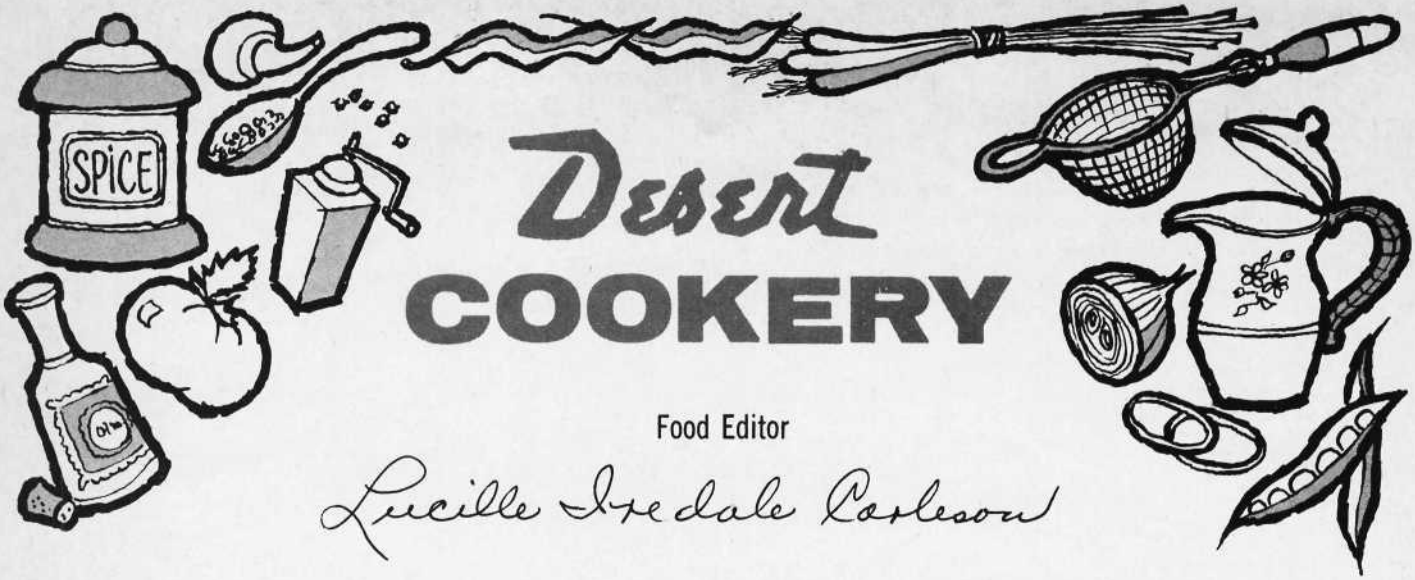
The Maniscalcos have made it a practice to irrigate their cactus groves at least once a month during rainless seasons. They have used both flooding and sprinkler irrigation, but currently prefer sprinklers because they distribute water most effectively and minimize erosion.

Pears are harvested in August and September by men wearing heavy canvas suits and leather gauntlet gloves. Then they are dethorned in a machine with a series of special brushes, packed in two-layer boxes, and loaded in refrigerated cars for shipment. Virtually all cactus pears are sold fresh, since efforts to use them in the preparation of processed foods have not yet been successful.

Could other growers expect to prosper in the cactus pear industry?

"Not unless they have the promotional know-how required to find new markets," says Sam Maniscalco. "There was a time when we had about 15 acres more of cactus than we now have, but we suddenly discovered we were flooding our own market. We got rid of those extra acres and since then we have been reasonably prosperous. But that's mainly because our only domestic competitor has been sensible enough not to overproduce." ///

"Few people realize the preservative qualities of the desert!"



Desert COOKERY

Food Editor

Lucille Iredale Carlson

FRUIT SALAD DRESSING

1/2 cup powdered sugar
1 tablespoon corn starch
3/4 teaspoon salt
1/4 teaspoon paprika
1/4 teaspoon dry mustard
Scant 1/8 teaspoon ground cloves
3 tablespoons white vinegar
1/2 cup water
1 teaspoon instant minced onion

Combine dry ingredients, add vinegar and water, and cook over low heat until thickened.

Remove from heat and blend in 1 tablespoon salad oil.

After dressing cools, thin with 1 tablespoon French dressing (I like Milani's diet dressing best) and enough pineapple juice to thin to desired consistency. I experimented with this dressing and found it needed the tang which the French dressing gives it.

Serve on curly lettuce leaves.

CHICKEN SALAD

2 cups cooked cut up chicken
3 hard cooked eggs
1 cup chopped celery
2 tablespoons sweet pickle, chopped
¼ teaspoon salt
½ cup mayonnaise
½ cup apple, unpeeled and thinly sliced
¼ cup slivered almonds, or you may use cashews

Lightly toss ingredients together. Chill for a few hours before serving.

MOLDED WINE SALAD

1 can Bing cherries, pitted
1 package cherry-flavored Jello
1 cup sweet red wine

Drain cherries well, reserving juice. Heat juice, there should be 1 cup of liquid, add water if necessary.

Dissolve Jello in hot juice.

Add wine, let cool.

When mixture begins to set, add cherries.

Serve on lettuce with a dab of mayonnaise.

This may also be served as a dessert with whipped cream.

SWEET POTATO SALAD

3 medium yams, cooked and diced
1 cup sliced celery
½ cup diced apple
½ cup pineapple chunks
2 teaspoons pickle relish
Moisten with mayonnaise.

Serve in bowl, lined with lettuce leaves.

KIDNEY BEAN SALAD

1 No. 2 can kidney beans
1/4 cup French dressing
1 cup chopped celery
3 tablespoons grated onion
1/2 cup sweet pickle relish
1/2 teaspoon prepared horse-radish
1/4 teaspoon chili powder

Drain beans. Combine dressing and seasonings. Toss together carefully with beans. Chill. May be garnished with crisp bacon bits. 4-6 servings.

PEACH-CHUTNEY SALAD

1 can sliced peaches, cut into small pieces
2 packages peach gelatin
1 cup boiling water
½ cup mayonnaise or similar salad dressing
½ cup chutney cut into small pieces

Drain peaches and add enough water to juice to make 1½ cups liquid. Heat to boiling and stir in 1 package gelatin until dissolved. Cool until slightly thickened and add half of peaches. Pour into mold and let chill until almost firm. Meanwhile dissolve remaining package of gelatin in the 1 cup of boiling water. Cool slightly and beat in salad dressing. Add remaining peaches and chutney. Pour over chilled layer. This makes a good salad luncheon served with chicken salad in center of peach ring mold.

LOBSTER WITH AVOCADO
As served in Jerusalem

2 large avocados
1 can Rock Lobster
2 slices pineapple

Scoop avocado meat out to within 1/4 inch of shell. Sprinkle inside of shell with lemon juice to preserve color. Place rather large pieces of lobster in avocado shell—no dressing on this.

Cube the scooped out avocado meat and cut pineapple in very thin slices.

The pineapple flavor should be very subtle. Marinate this in a fruit salad dressing to barely moisten. Just before serving, pile on top of lobster. Serves 4.

COOKERY

JELLIED CHICKEN SALAD

1 - 10 oz. can condensed chicken consomme
1 - 10 oz. can Madrilene
1 cup cooked chicken, diced
2 tablespoons chopped raw carrots
1 tablespoon chopped onion
Dash of pepper

Heat consomme and Madrilene.

Pour 1/4 cup into an 8-inch square pan.

You may put slices of stuffed olives and carrot rings in this for decoration.

Chill until firm.

Add chicken and vegetables to rest of liquid and pour over firm base.

I usually add 1/2 envelope plain gelatin to hot liquid after soaking the gelatin in a little cold water for a few minutes, to be sure the salad is firm.

Serve on lettuce, and add mayonnaise if desired.

Serves 6.

BEET SOUFFLE

Dissolve 1 package Lemon Jello in 1 cup hot water.

Add 1/4 cup cold water, 1/4 cup beet juice, 1/2 cup mayonnaise.

Blend well with rotary beater.

Place in refrigerator until it begins to thicken.

Whip with rotary beater until fluffy.

Fold in 1 cup finely diced beets, 1 cup of finely shredded cabbage, 1/2 finely minced medium onion.

Pour into molds and refrigerate.

Serves six or eight.

When vegetables are cut very fine it is difficult to define the flavor, and is well worth the extra work.

Serve in lettuce cup with a dab of mayonnaise.

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LETTERS
FROM OUR READERS

Appreciates DESERT . . .

To the Editor: Articles such as "Trip of the Month" help me plan trips ahead to places I'd never heard of before. Soon I hope to have a 4-wheel drive. Enclosed is a money order for $10.00 I would like to have all back issues since last October included with my subscription. From now on I shall save them. Thank you for the enjoyment your unique magazine has given me in the past. I am looking forward to a great more of it in the future.

PAUL J. FELDMAN,
Castaic, California

Reader Knows of Cave . . .

To the Editor: We especially enjoyed the May issue of DESERT. I once knew a man who had a mine on the south side of the Figueroa Mountains. His son found a cave with paintings in the Hurricane Deck area that had never been explored. It was high on a cliff and the steps were so worn that he went down by rope. I doubt that it has ever been found again. We enjoy every copy of DESERT and so does our daughter in Colorado, to whom we give it each Christmas.

F. D. DENNIS,
San Pedro, California

About Chia . . .

To the Editor: The hundreds of people who wrote asking where they could find Chia, as a result of my DESERT article in October '63, might like to know that it is now in full bloom in the Rancho Lilac Country south of Pala and north of Valley Center. Recently I also received samples from readers in Lucerne Valley and Joshua Tree. Along the highway in the Lilac area where bulldozers have worked up the sand, I found some plants with 30 seed buttons 1" in diameter!

HARRISON DOYLE,
Vista, California

In Praise of Utah . . .

To the Editor: May we congratulate you and express our appreciation to you for the magnificent April issue devoted to Utah. I am sure the people of the State of Utah appreciate the wonderful publicity you have provided for our state in your very excellent publication.

GUS P. BACKMAN,
Secretary,
Salt Lake City Chamber of Commerce

Reader Lost . . .

To the Editor: I am not renewing my subscription because I don't believe articles about cooking and swimming pools belong in a desert magazine. Finally, you concentrate too much upon Coachella Valley and omit the rest of the desert.

DICK EBRIGHT,
Golden, Colorado

Comment from the Editor: Are we reading the same magazine? C.P.

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