THE Desert® MAGAZINE

FEBRUARY, 1980 $1.50

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BUYER'S GUIDE TO
Metal Detectors

PLUS:

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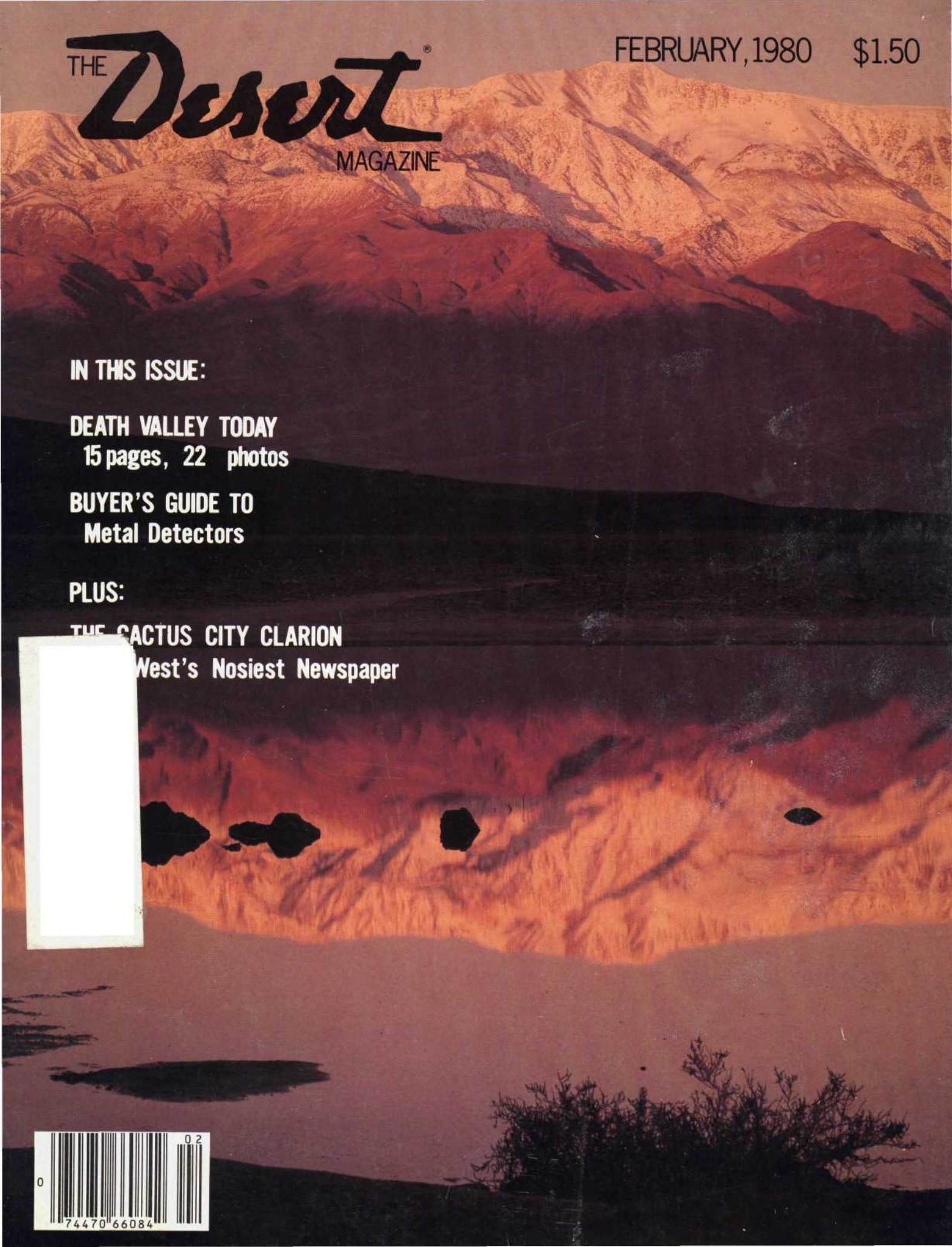

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Volume 43, Number 1

May we be refreshed as by streams in the desert
—*Psalms 126:4*

February, 1980
(please see page 4)

The Cover:
Death Valley's Panamint Range is reflected on the surface of Bad Water, 279.8 feet below sea level. Bad Water's name comes from an early-day surveyor's map note stating that his mule refused to drink here. The water may be "bad" because of salts, but it is not poisonous.
Photo by *David Muench*

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An Important Message To All Subscribers

You may notice on our cover that we call this our "February" issue and then when you reach the Table of Contents, you see it labeled "December/January/February." Please let me explain but before I do, let me reassure you. You won't miss a single issue of Desert Magazine!

We had to seemingly "skip" two months in order to bring our cover date into line with the vast majority of other magazines on the nation's newsstands. Actually, we are not skipping any issues. It's just an arbitrary but very necessary change in dating.

Again I'll explain:

Our wholesalers and retailers demand that a magazine, any magazine, with a cover date of say, February 1980, be delivered for display at retail newsstands by the last week in December, 1979, at the latest. If it's not available by that date, it's not likely to be displayed or, in fact, even distributed to the retailer by the wholesaler. And thus, our newsstand customers can't find *Desert* at their neighborhood drugstore or supermarket.

Each issue must follow the same sequence. March issues must be on the stands by January 28th and so on. The next time you visit a newsstand, check and see for yourself.

And thus our problem. Our predecessors at *Desert* Magazine never thought newsstand sales to be important. They moved their November or whatever issue to the newsstand by the first or second week of the same month and then wondered why very few magazines were sold. It was because very few were displayed, and thus very few found buyers. Our predecessors have always been nearly 50 calendar days late with their "on-sale" date.

Your present editors do think newsstand sales are important, very important. The person who sees *Desert* on the newsstand, and who buys it and likes it, may become our subscriber. And then, too, many people would rather buy all their magazines at newsstands even though they cost twice as much that way. But the importance is that the more magazines we sell, the better the magazine we can send each of you each month.

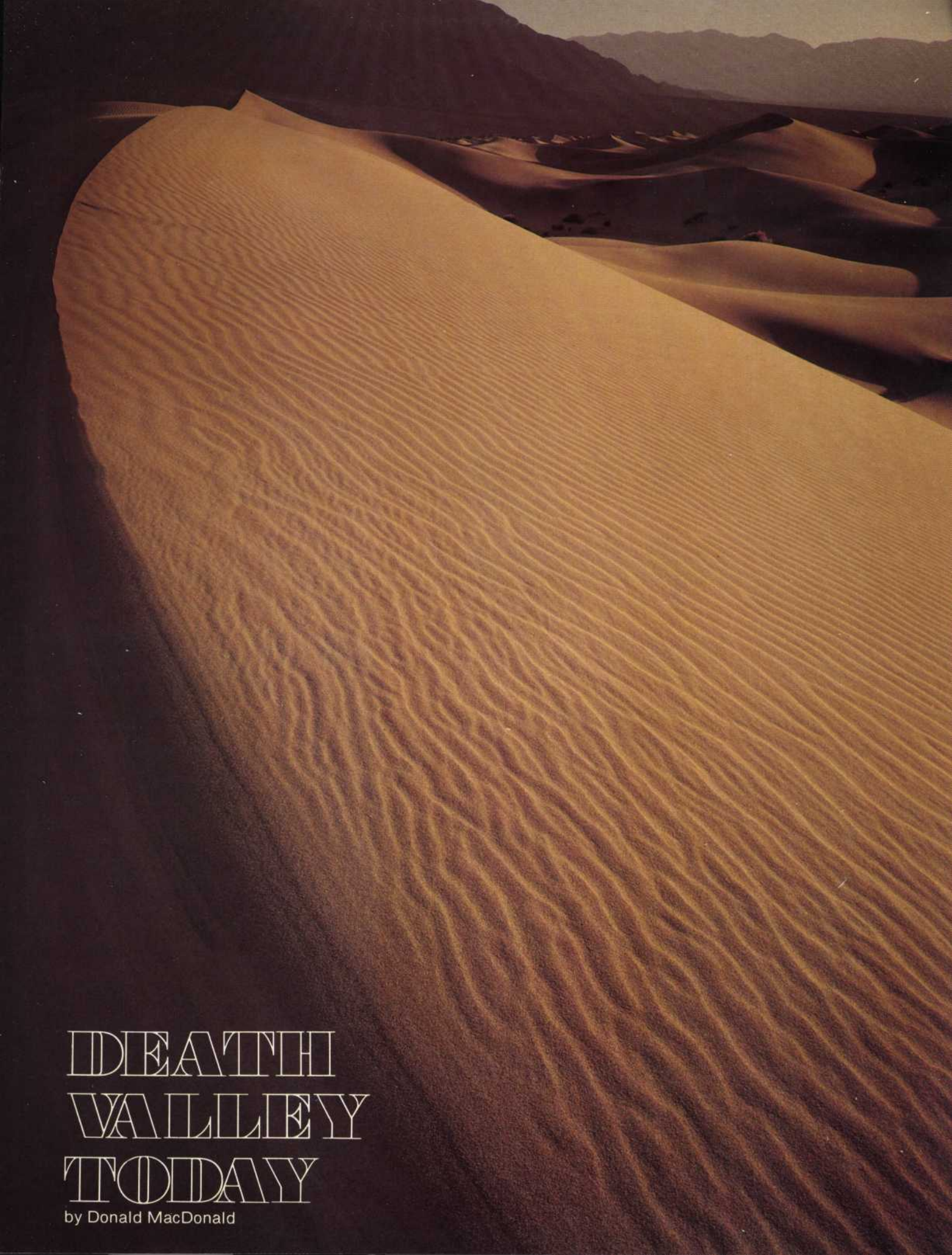
You'll find more pictures, more color, and more pages in this issue of *Desert* than ever before in its 42-year history! But all of this costs money and circulation is what pays for it.

So, to reassure you, no subscriber will miss a single issue of this magazine. For example, those of you whose subscriptions expire in May, 1980, will by our new dating system automatically receive June and July issues. In other words, everyone will get the 12 (or 24 or 36) issues they paid for with no break, or gap, in frequency.

There simply isn't, and will never be, a December 1979 or January 1980 issue. They never were and never will be printed. They are like Pegleg Pete's Lost Mine. They ain't.

So thanks for hearing me out. If you have any questions I haven't answered, please call me personally. My number is (714) 568-2781.

Sincerely,
Donald MacDonald
Editor



DEATH VALLEY TODAY

by Donald MacDonald

Photo preceding page is "Death Valley Dunes," by *David Muench*

Designs in clay as seen looking out toward the Panamint Range from Zabriskie Point.

Death Valley is an anomaly, a deviation from nature's rules. And then man has added his learned confusion. For example, Death Valley National Monument contains 2,067,793 acres whereas the salt flats, the heartland of the Valley, comprise only about 320,000 acres. The rest is really some other place.

It was the forbidding salt flat or "pan" that terrorized the pioneers in their westward trek and yet the flat ranges from but five to 12 miles across, less than a day's journey even on foot. And so they named it after the death they feared and it was a misnomer. It was the seemingly cool and hospitable Panamints beyond that claimed the most lives.

Fear of death from thirst robbed these pioneers, including the Jayhawkers, of their judgement as it does some visitors today. In 1967, Park Service rangers found the bodies of two youths who had succumbed to dehydration. Beside one lay an almost full canteen of orange juice! What were they saving it for?

The pioneers wasted their substance rushing from one brine pool to another. Instead, they could more easily have found mesquite, dug to its root tips a maximum of 50 feet under the surface, and quite possibly have reached the water table.

Death Valley is not even a true valley. Technically, it's known as a "range and valley province" wherein geological eons ago a vast block of the earth's substance dropped down, causing its neighbors to lift up. Today, the floor of the Valley tilts slightly between the Panamints and the Funeral Mountains.

Perhaps it's because the Monument's staff of rangers can talk from the comfort of their air-conditioned offices and vehicles, but they feel sure that the terrors of the region have been magnified out of all proportion. The original 49'ers felt no real heat for they were there in December when ambient temperatures on the floor of the Valley seldom exceed 100 degreees.

Testimony to the moderate climate during the "season" is that 80 per cent of the Monument's winter visitors qualify as senior citizens. In summer, the Monument throngs with foreigners taking advantage of the reduced rates at the Furnace Creek Ranch and the even cheaper U.S. dollar. The Inn with its $70 and up rooms on the American Plan attracts what the rangers call the "jet set." This bunch is as seldom seen outdoors as Slim was indoors.

Four-wheelers and bikers have been eased out of top billing in the Park Service's black book by the burros. These

Old Dinah in Daylight Pass.

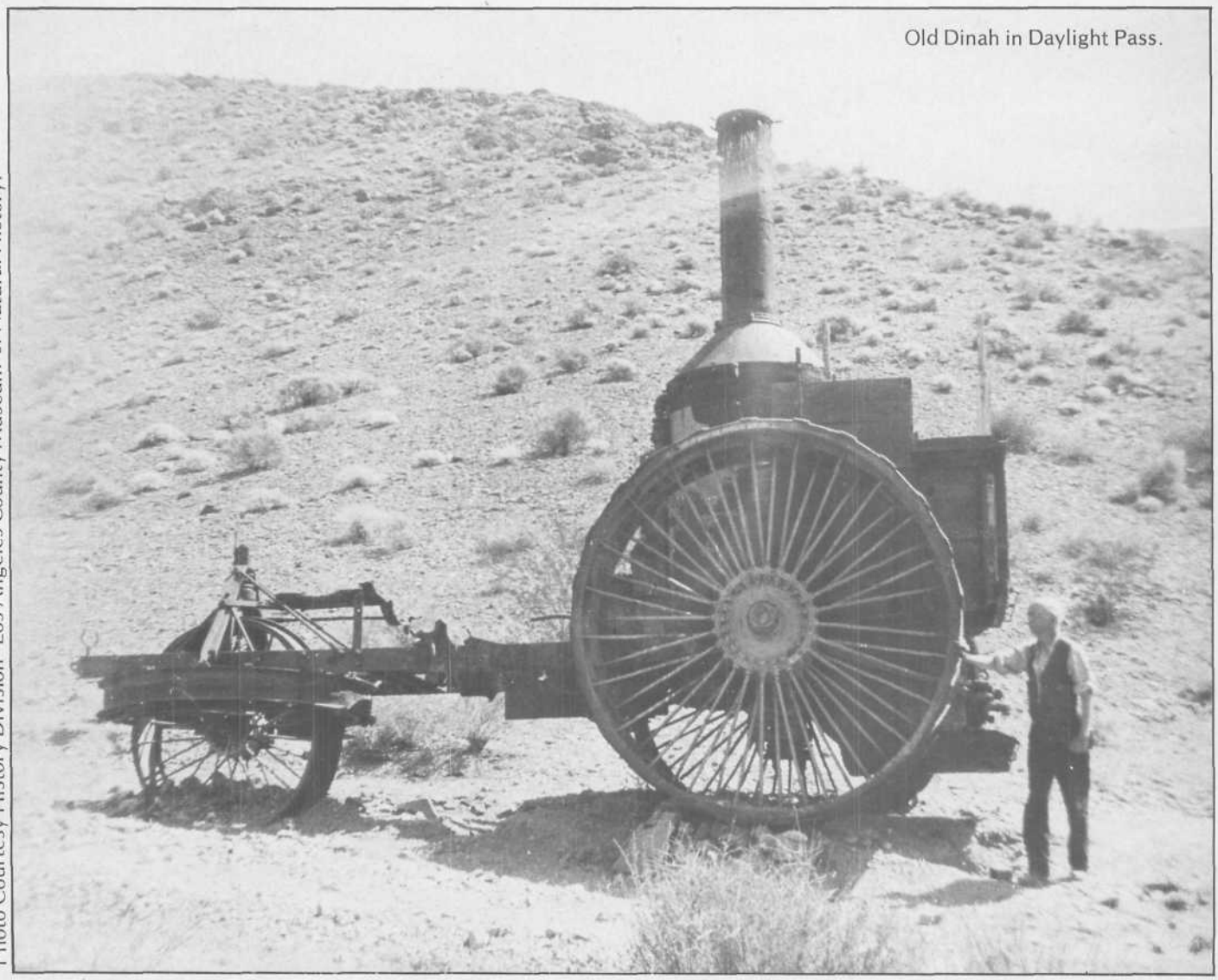


Photo Courtesy History Division Los Angeles County Museum of Natural History.

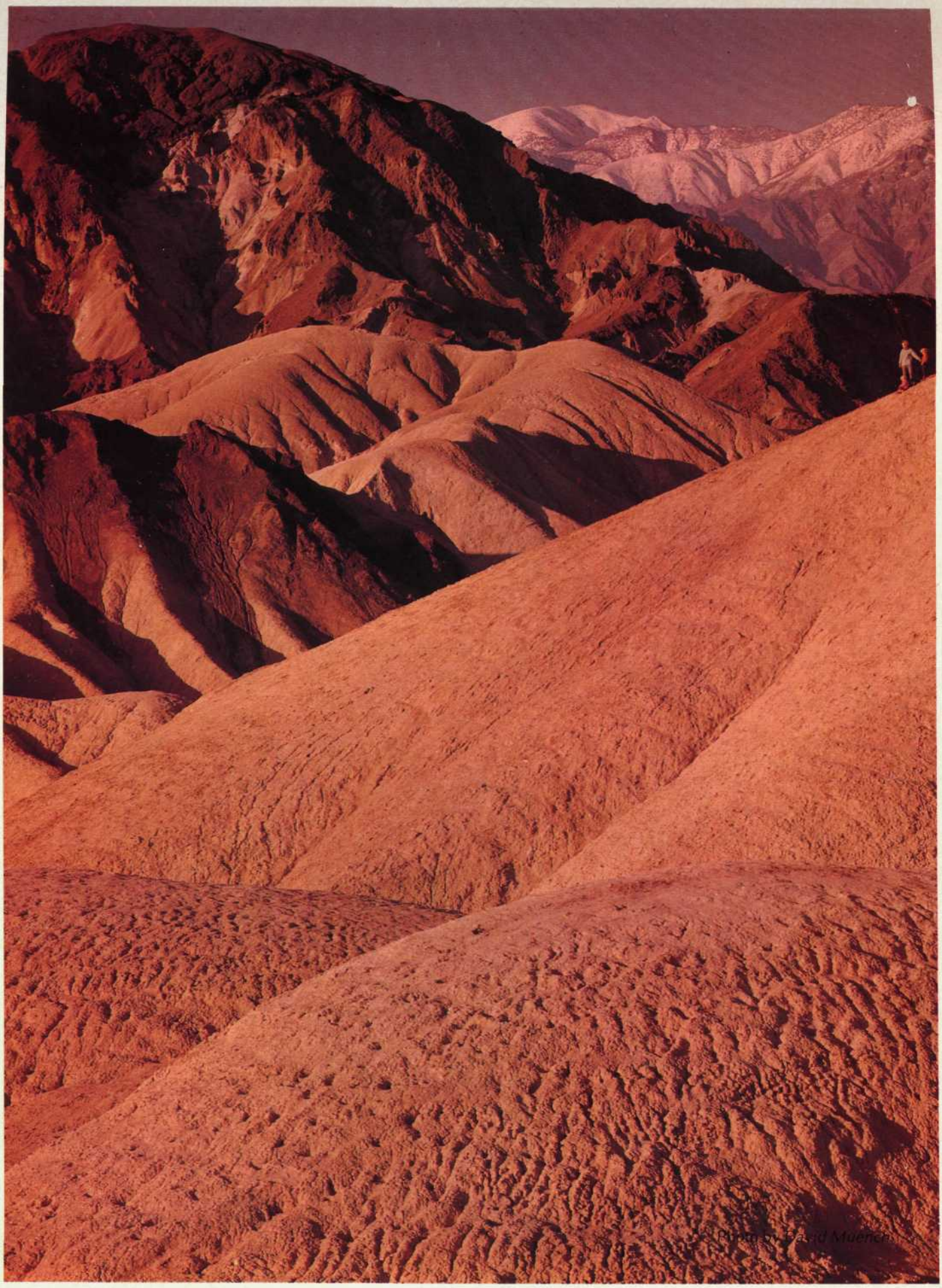


Photo by David Muench

Death Valley's burgeoning burro population loves man and that may prove their undoing. Photo by *Donald MacDonald.*

friendly, fast-multiplying animals have changed roles from the servant of man to nuisance. The only living thing accorded more disapproval by the Monument's staff is the tourist who feeds the burros.

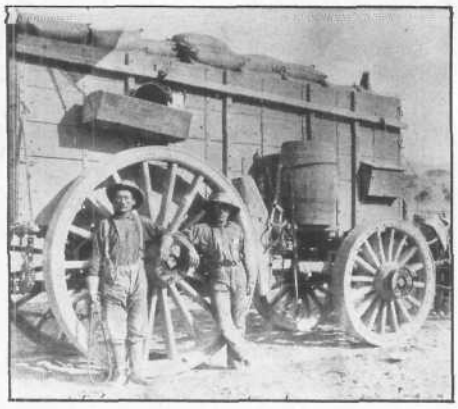
One indictment against the burro is its bad manners at watering holes. He is an exuberant drinker. He plunges right in, breaking down the banks and muddying up the waters, and in so doing, he annoys the 300 or so persnickety and pampered bighorn sheep which call the Monument home. The sheep, in fact, become so annoyed they'd rather not drink, or so the rangers say.

I can't argue. And neither can I defend the burro against the charge that he causes erosion as he criss-crosses the desert in search of sparse vegetation. It seems improbable but that's what is claimed by his peers.

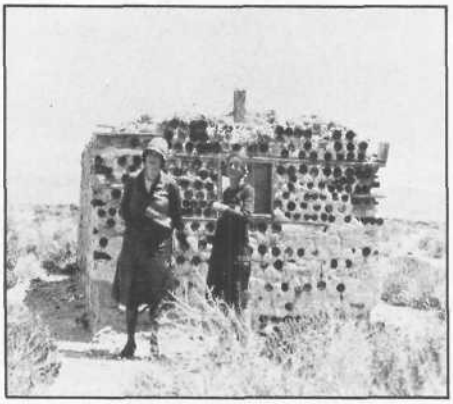
A more serious charge is brought on by the animal's love of man, or more accurately, his love of man's provender. The more daring Death Valley burros have learned to like apples and chewing gum and chocolate bars and they stand in the

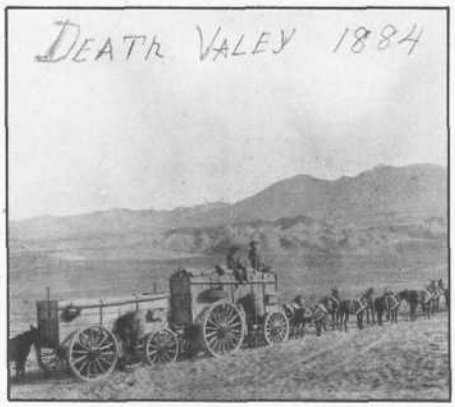
Photo by *Russell D. Butcher*

The brown "desert varnish" took many years to form on the curious salt formations known as the Devil's Golf Course.







From left to right: A. Two of these borax wagons in tandem held 20 tons. B. Ruins of borax works south of Furnace Creek. C. 20-mule-team borax wagon at Santa Fe RR. D. 1960 photo of the ghost town of Skidoo. E. Bottle house at Bonnie Clare, Nevada, in 1930. F. Chloride City as it was in 1959. G. The Old Harmony borax works as it looked in 1934. H. Note the pair of horses used in the trace spot. I. Restored wagon train can be seen at Furnace Creek Ranch.

highway waiting for man to come by in his motor car. And the burros don't seem to know the difference between day and night. They are hard to see at night, especially the black ones, and they are accused of causing those mysterious single-car accidents which the rangers say today are the chief danger to human life in Death Valley.

The burro in the highway causes much soul searching among the rangers. Some talk of declaring open season on the specie, of inviting the folks from Alpo and Skippy to come in and solve the problem forever, but that, they know, would cause a terrible outcry from the people who buy Alpo and Skippy, those people who prefer to think that dog food is made from dandelion petals.

So the rangers watch the burro multiply, and mutter about him, and poor-mouth him to visitors. You are warned of the dire consequences of feeding him but in the same breath, invited to take one home. The rangers will corral the animals to order; however, that marks but the beginning. The departments of animal regulation from the various jurisdictions involved then step in, and some unhappy owners have said their "free" burro wound up costing as much as $2,000 by the time they got him home.

Oddly, those who live and work in Death Valley do not pray for rain as you'd think they might. The run-off from even minor storms gathers above the alluvial fans and charges down onto the road system, tearing out great chunks of it. Last winter was particularly bad in this respect, repairs absorbing much of the funds that would normally be alloted to creating more trails and vista points.

The U. S. government is more forbidding to private enterprise than the terrain or climate in Death Valley. The Park Service acquired Scotty's Castle some years back and just recently took over the entire community of Stove Pipe Wells, both of which are now being operated by concessionaires. Currently, covetous bureaucratic eyes are being cast toward the Fred Harvey innkeeping operations.

Charcoal kilns near Thorndyke are well preserved.
Photo by *Donald MacDonald*.

Mining is prohibited except on claims existing prior to 1974. Those, in turn, are being invalidated one by one on technical grounds by the Service's own Division of Mining. Even the rockhound and bottle collector is thwarted by rules prohibiting the removal of anything but your own trash from the Monument.

Bureaucratic intrusion is not confined to the Monument. Some 19 miles outside its southern border, the entire town of Death Valley Junction has been closed down by state and county health inspectors. Ground seepage, it seems, has leached into the water supply to raise the coliform count just at the time when the town's new owner, Peter Simon, had nearly completed a total restoration. The motel and restaurant were to be open this season to receive bus tours, but this now will be delayed another year. The famed Amaragosa Opera House, unaffected, is open now.

Water, of course, is always a problem in Death Valley. Not a shortage of it for actually, there's a lot. It's just that it gets too hot. In summer, residents switch taps, taking their cold water out of the hot. That's because they use their insulated hot water heaters (unlit of course) to keep the water relatively cool.

The real anomaly of Death Valley is nothing that has been wrought by nature. It's that one can't "escape" to it for there's no privacy. If you seek privacy any way but on foot, you'll be violating a rule. And if you violate a rule, you probably won't escape out of the Valley. Tragically for its true grandness, it's becoming a Disneyland, differing only in that the materials from which it was created are genuine.

THEY WHO HEAR THE DESERT

By Mary Eileen Twyman

Ranger Virgil Olson's voice filled the compact car as he drove leisurely along the floor of Death Valley. A big, easy-going kind of guy, the steering wheel looked small in his hands as he and Don MacDonald were discussing the geological reasons why the mountains were lighter here, darker there, the forces of nature that brought about the formation of the flat valley and jagged cliffs, and what caused the dunes to shift. My own thoughts soon filtered through the technical conversation, and the voices faded into the background as the magnificence of the place overwhelmed me.

I had flown over Death Valley before, and been impressed, but not indelibly. Being an ocean and pine-covered mountain enthusiast, I had driven through the desert before, journeying between each but always at night to escape the heat. So I had never really seen desert, just felt it, as a warm breeze through an open car window.

We started on this tour of Death Valley early in the morning. The new sun reached out to the valley through an ethereal blueness, touching crags and forming deep pit shadows under them, and lighting to florescent brilliance the shades of green and orange gracing these crags. The sun climbed the sky slowly, an artist sure of its work, magnifying hard and rough rising from soft and smooth, highlighting contrasts and textures everywhere and always changing, following its whim.

We could deceive ourselves into thinking that we've conquered this place, I thought, safe in our high-powered vehicles skimming over blue-black highways. Maybe there are some who would believe this illusion, but those who would seek to understand Death Valley would laugh at it.

I tuned in on the conversation again, when Don asked Virgil why it was called Death Valley? And, Virgil explained that the term was probably born of the apprehension of the 49ers who believed they were traveling a short-cut to San Francisco only to find they were becoming victims of the elements. The Valley must have appeared savage and merciless to them.

At Bad Water, Virgil pointed to a sign painted about 200 feet above us, on the side of a rocky cliff, designating sea level. As my eyes followed the height of the giant rock to where its towering top was framed against flocculent breaths of clouds in vibrant blue, I was struck with a strange notion, that became the realization, that if by some quirk of nature a few mountains would move over, be re-arranged, tons of ocean could come crashing down on us.

To me the ocean is poetry, all rhythm and mood, swinging through every phase of emotion. And the pine covered mountains sing, through breeze and stream and wildlife, caught up and blending into perfect harmony. But then I learned too, in this brief encounter with Death Valley, that the desert speaks. Its voice is low and steady, tinged with calm gentleness. It's a voice of strength and character, a voice derived from seeing all, knowing all, and surviving all.

It would be hard to explain why only some can hear this voice, respond to it, and seek to understand it. Maybe those of us who do had grandparents who met, faced, and braved the desert in search of their dreams and ideals. Maybe we don't hear the hum of our fine vehicles as we glide over desert highways. Maybe we hear the creaks and groans of our ancestors' wagons, sense their agony and fear, feel the wheels binding in the ruts, the straining of lean, muscled animals braced against tortured leather harnesses. We know from our inner stirrings that the desert is not conquerable, but only allows some to survive. It picks and chooses its own people, its own animals, its own vegetation.

We passed several herds of burros, whose ability to not only survive but to multiply in Death Valley stresses their importance to the prospectors. Who knows what went through the mind of the first little burro to peer over his master's shoulder into Death Valley? Had that sturdy little fellow not been securely tethered to the end of a lead-line, he may have flicked his ears, snorted, wheeled on his heels, and followed his tracks back to from whence he came. But it was his willingness, his inherent ability to take care of himself, which made him very much a partner with man, very much a key to the survival of many of our forefathers.

Virgil turned the small sedan up-hill, tremendous mountain rising on the right of us, the tops of tamarisk trees, rooted somewhere in the bottom of the drop, brushing the sky to the left of us. He motioned to the left, toward the raven "...playing in the air currents. He sure is having fun up there."

It was evident that Virgil had come to love Death Valley. Though he had traveled those roads many times, his delight in his environment kept coming forth. Knowledgeable about the whys of Death Valley, he saw it through my new eyes too. He understood what it asks of those who challenge it, who, in turn, it challenges. Virgil would prefer to call it "Life Valley."

The desert speaks in a strong clear voice. It speaks through Death Valley. It speaks through the people who have learned they must not just live in it, but with it. And through the burros who have earned their right to be a part of it. Then there's the mesquite which wills its roots 40 to 50 feet into the ground to tap fresh water, and the insects thriving in the briny pool at Bad Water. The desert speaks, and demands respect. And, they—plant, animal, and man—who hear the desert have been chosen, and are of a select few.

Prabably no more than 1,000 years old, the "maar" craters in the Ubehebe area were formed when rising magma contacted water and exploded into steam.

High Road to Death Valley

Story and Photos by Walter Houk

Every traveler in these parts knows the awesome cleft of Death Valley lies beyond the final ridge east, the crest of the Panamints. If it didn't, that upheaval of terrain we call Inyo County, with its mighty escarpments and deep trough valleys, would attract more attention to itself than it does a western prelude to Death Valley.

You can supply some of that missing attention on a 75-mile four-wheel-drive exploration of the Inyo high road to Death Valley. As a mountainous overture to that below-sea-level sink on sometimes rough and rocky dirt tracks, it may be far more intriguing than the fast paved highway of the auto-motorist.

At first you follow the course of the legendary 36-mule-team freight wagons (two 18-mule teams hooked together for the grade) up from Keeler to the mines and town of Cerro Gordo—or rather its shaky, weathering remnants. Beyond, you drop down into surprise pinyon pine and juniper woodland, luxuriant on the far slope of the Inyo Mountains, and then down among striking Joshua trees in Lee Flat. You gaze expansively southward over the Panamint Valley dry lakes and later on, out to the west over Saline Valley, a prospect that dramatically enlarges the stature of the Inyos looming as backdrop. Finally you witness marks of wind-blown rocks that have moved unseen on the gleaming surface of a playa renowned as The Racetrack. That phenomenon is inside the Death Valley National Monument boundary, and from there the Valley itself is just 27 miles away.

Slow travel encourages the weaving of the Inyo country's spell. At a suitably leisurely pace you could take two days to cross the high road's three mountain ranges and intervening lowlands.

The route is shown on the map, as are altitudes of summits and flats to serve as an index of ambient temperatures. Also shown are alternate roads in case snow should close the higher elevations, a possibility well into spring, or in case a washout should create an impassable barrier.

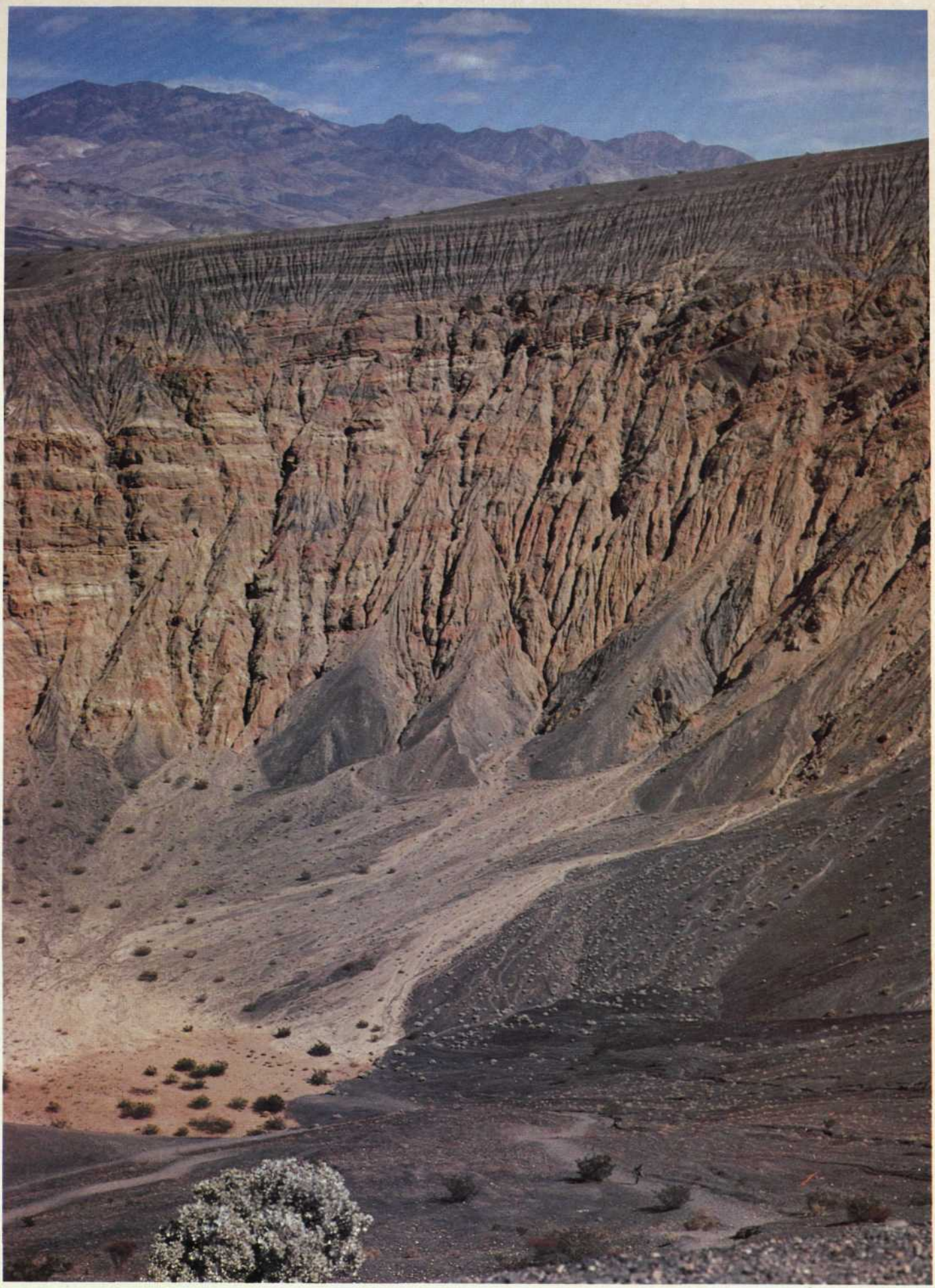
Both times I made the trip, in October and in April, snows threatened the upper end of the Cerro Gordo road but didn't reach lower ground, or tended to be short-lived if they did, while really low positions offered havens from cold. The map also notes two possible camp locations, one at 6,500 feet for benign weather, the other at 2,100 feet for almost any kind of weather.

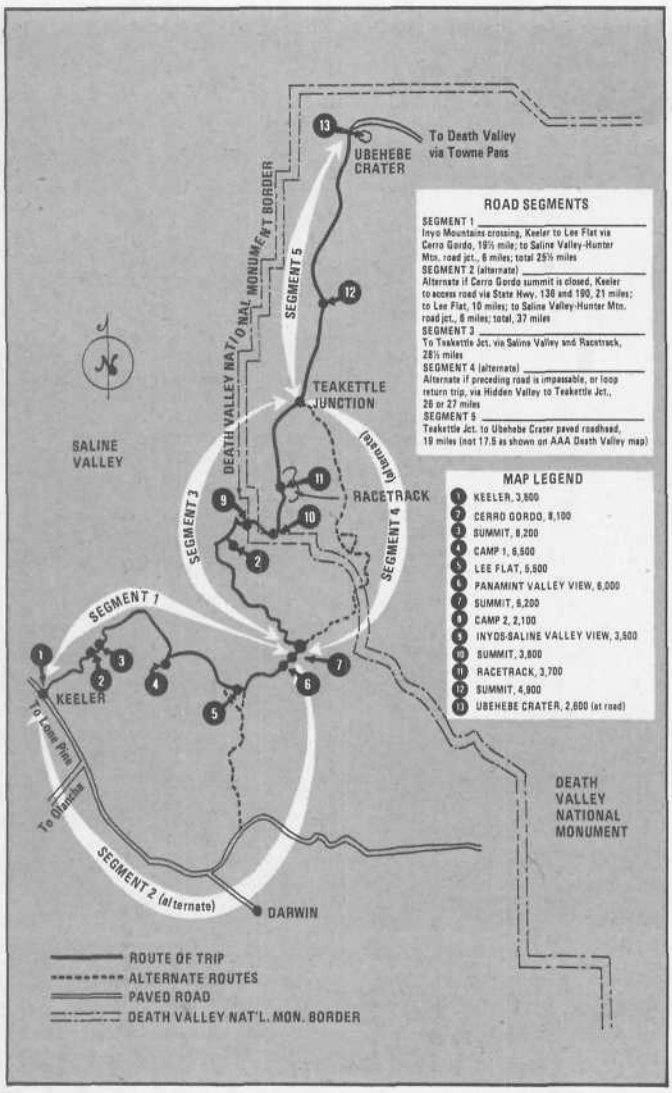
For the experience of traveling the Inyo outback, I am indebted to George Service whose Desert Expeditions out of Palm Desert is not operating just now. I hope he will resume. He provided not only machines to match these mountains, but he was the man to match the machines as well as the mountains. No mean trick, out where a breakdown (and sometimes the road) must be repaired on the spot, and help may be a long time in coming.

In other words, this is not a jaunt for beginners. But for anyone accustomed to primitive-area dry camping, to making a campfire only with deadwood—no cutting, please—and to hauling out all traces of our throwaway society, it offers respite from noise and crowds amid landscapes of half a dozen different plant communities in settings of sometimes cosmic immensity.

That largeness of scale begins beside the widest of the intermountain sinks, dusty Owens Lake, opposite the stupendous east face of the Sierra Nevada. From there the heights to be scaled are the Inyos, a relentless climb up the celebrated Yellow Grade of 4,500 feet in eight miles—so steep it can burn out car transmissions. And it can be a radiator boiler on a hot summer day.

You drive a road engineered to minimize curves—and thus sideways strain on mule-team lines—rather than gradient. A





Rocks, some weighing as much as 500 lbs., move slowly across the floor of the Racetrack, a phenomenon scientists have yet to explain. *Photo by the author.*

few relics of an ore-hauling aerial tramway are still visible beside the way. After the arid canyon of the lower half you emerge to a panoramic view of the Sierra, its apparent height having risen with your gain in altitude. Then you come out on slopes cut clear of tree cover for smelter fuel a century ago, where a scattering of pinyons is only now beginning to come back.

A satisfying number of buildings still stand, but Cerro Gordo today gives little intimation of its rowdy nineteenth-century past when its silver bonanza rivaled that of the Comstock—and helped to build Los Angeles. You are asked to pay the caretaker a modest fee, and then you may wander about among sagging structures in a landscape pock-marked with mineshafts and strewn with abandoned mining artifacts.

Any snow not visible from below may lurk just over the summit close by. If enough of it does to close the road you can go back down to Keeler, then east onto State Highway 190 and turn north on a road about 4½-miles past the Darwin road (see map) to pick up the route onward to Saline Valley.

Otherwise, from the Cerro Gordo summit go over and down, steeply at first, toward San Lucas Canyon. You pass some remarkable survivors of smelter chimneys and structures over mineshafts, in a pinyon forest nurtured by relatively moist, shady slopes. Then junipers and Joshua trees appear in sparser cover near the canyon-bottom road, almost six miles down.

This road, in San Lucas Canyon, was broad and well maintained when I saw it last, as it is used by trucks from the talc mine to the left. Turn right (southeast) and in about 4½ miles, a side road will take you back into pleasant side canyons where you may find a secluded camping place.

Or stay on the main road to the broad miniature plain of Lee Flat not far ahead, site of as fine a stand of Joshua trees as you'll see anywhere, and perhaps the northernmost large grove of this indicator plant of the Mojave Desert.

Side roads on the left are from nowhere but at a wye intersection well down into Lee Flat, turn left (east) to cross the flat, and then turn left again on Saline Valley Road.

With only a brief climb, this scales an end of the minor Nelson Range, between the Inyos and the Cottonwoods (a branch of the Panamint Range system) to the east. It affords a stunning view the length of Panamint Valley, flanked by the lofty, sometimes snow-capped Panamint massif.

Then beyond the junction with the Hunter Mountain Road (a less varied alternate route), Saline Valley Road turns northwest along the wall of Grapevine Canyon and eventually reaches down to its bottom. The desert here looks wilder and somehow more remote, its aridity emphasized in spring and summer by the occasional green of cottonwoods, grapevines, and wild clematis.

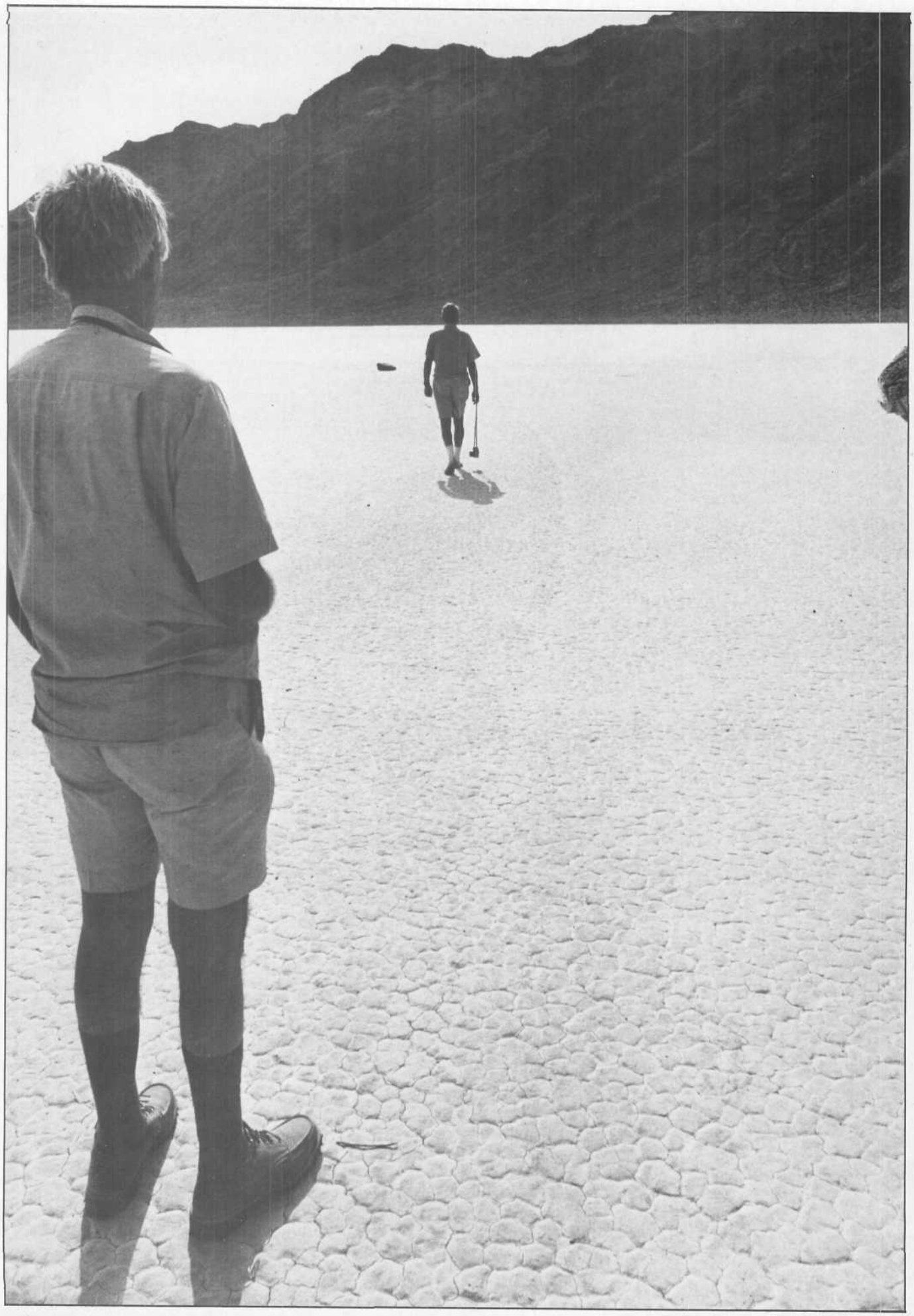
In six miles or so you leave the canyon. Just over a small rise is Saline Valley, an emptiness a third the size of Death Valley and almost unmarred by any sign of the works of man. At about five miles into the valley, turn right (northeast) at the only road junction. The road here has descended about 4,000 feet from the high point in the Nelson Range, to the lowest elevation on the trip.

If day is waning, you will find some agreeable camping locations in about 1½ miles, to the right and up the second wash crossed by the road—actually part of the watercourse down from Grapevine Canyon. Camping on the long alluvial slope at the base of mountains but overlooking a vista of such quiet grandeur was one of the memorable experiences of my desert career.

From this location up over the mountain to The Racetrack is only four miles and 1,800 feet, but this is a part of the road that has long since disappeared from the AAA Death Valley map and gets little use. Even so, relying on user maintenance, we made it in late 1977—having to rebuild only one washout with boulder fill.

Should the road not be open, you can backtrack and take the Hunter Mountain road bypass around to The Racetrack. If it is open, you will be treated to a rival of the famous Dante's View in Death Valley, a panorama across Saline Valley that on a sparkling day is worth the price of admission for the whole trip. The viewpoint is a knob just off the road about halfway up in distance but close to the top (3,560 feet) in altitude.

Not far beyond is The Racetrack. A relatively small dry lake in a setting that seems almost intimate by contrast with the three grand valleys along the way, it is one of Death Valley Monument's outlying gems. From the edge of that playa it is about eight miles to Teakettle Junction and the alternate route, then 19 gently-sloped miles (not the 17.5 shown on the AAA map) through upland desert to the paved road at Ubehebe Crater and the upper end of the Valley, your journey's end.



When your eyes become accustomed to the gloom of the hoistworks, you'll be amazed how well preserved it is. It's almost as though the miners had left for the day, only to return at dawn tomorrow. *Photos by Dennis Millard.*

Cerro Gordo

by Annis M. Cuppett
Photos by Dennis Millard

Cerro Gordo perches high atop Buena Vista Peak like an eagle's aerie. From these heights, the algae living off the soda in the far-off lakebed below glows red, and as the wind moves carelessly through the deserted buildings which once formed the heart of a boisterous wide-open town, loose boards rattle and tin sheds shake as though in murmured reminiscence with one another.

But the town was not always this still. In 1869, a population of some 1,500 worked the 700 claims located within a single square mile of the town and in a few years, the population had jumped to 3,000. These were years when the name of Cerro Gordo was known throughout the West as Fat Hill because the mountain was "fat" with silver.

The area was discovered by Captain John Fremont's exploration party in 1834, and it was he who named Owens Valley for a member of the expedition, Richard Owens. The first miner generally associated with the Inyo Mountains was Pablo Flores who, with other Mexican prospectors, worked there as early as 1862. Still it wasn't until 1867 that the town began to attract outside interest, after one of these earlier miners visited Virginia City and displayed great chunks of rich silver ore. A trickle of miners began moving into the area in earnest search of their fortunes, and they were joined by an ever-deepening tide of others as word of the riches to be found in Cerro Gordo spread through outlying communities.

Victor Beaudry, a French Canadian, was there to meet them. In 1866, he opened the first store as a result of an abiding conviction that the ore of Cerro Gordo ultimately would be acclaimed as the finest to be found in any mining camp. Through a propensity for attaching overdue accounts, he acquired various mining properties in the area as well as two ore furnaces and several prime building lots. Soon, he had parlayed his method into interests in the Union and San Felipe Mines, in addition to other, less prominent claims in the district.

If Beaudry's methods were calculating, they were soon overshadowed by the cleverness of another citizen, Mortimer Belshaw, who arrived in town in 1868. While Belshaw was impressed with the quality of the ore being taken from the mines, he was quick to realize a more important fact. The true wealth of Cerro Gordo would be built on the available deposits of galena, an ore of silver and lead. With this in mind, he soon became a part owner in the Union Mine, which happened to harbor the greatest untapped deposit of galena in Inyo County. Of course, he never considered stopping there. With the eye of businessmen of every era, he looked around and determined that certain things would be needed if the town were to prosper.

His first move was to direct the grading of the Yellow Grade road up the side of the mountain. This allowed free movement to and from the growing town, and his gatehouse located halfway up the mountain allowed him to collect tolls from every arrival and departure. In 1868, he brought the first wagon load of silver into Los Angeles where it was shipped on to San Francisco. (Naturally, Belshaw had not overlooked the fact that

You and your family can stay in Mortimer Belshaw's house for a reasonable $3 per person, but do bring your own water. *Photo by the author.*

several financial connections in that northern city would be of great value to his growing fortune.)

In 1870, he saw yet another method for developing the town and increasing his personal wealth from the additional mining interests and tolls which would result. One of the biggest problems had long been a lack of water in the arid countryside, and burro pack trains which moved between the nearby springs and the camp were too slow to meet the growing demand. So, Belshaw installed a pipeline from Cerro Gordo Springs and pumped the water into storage tanks on the mountain top. From there, with the help of gravity, the precious liquid flowed directly into the town and the water problem was solved. Suddenly, Cerro Gordo citizens were able to enjoy a water supply of 1,300 gallons per day.

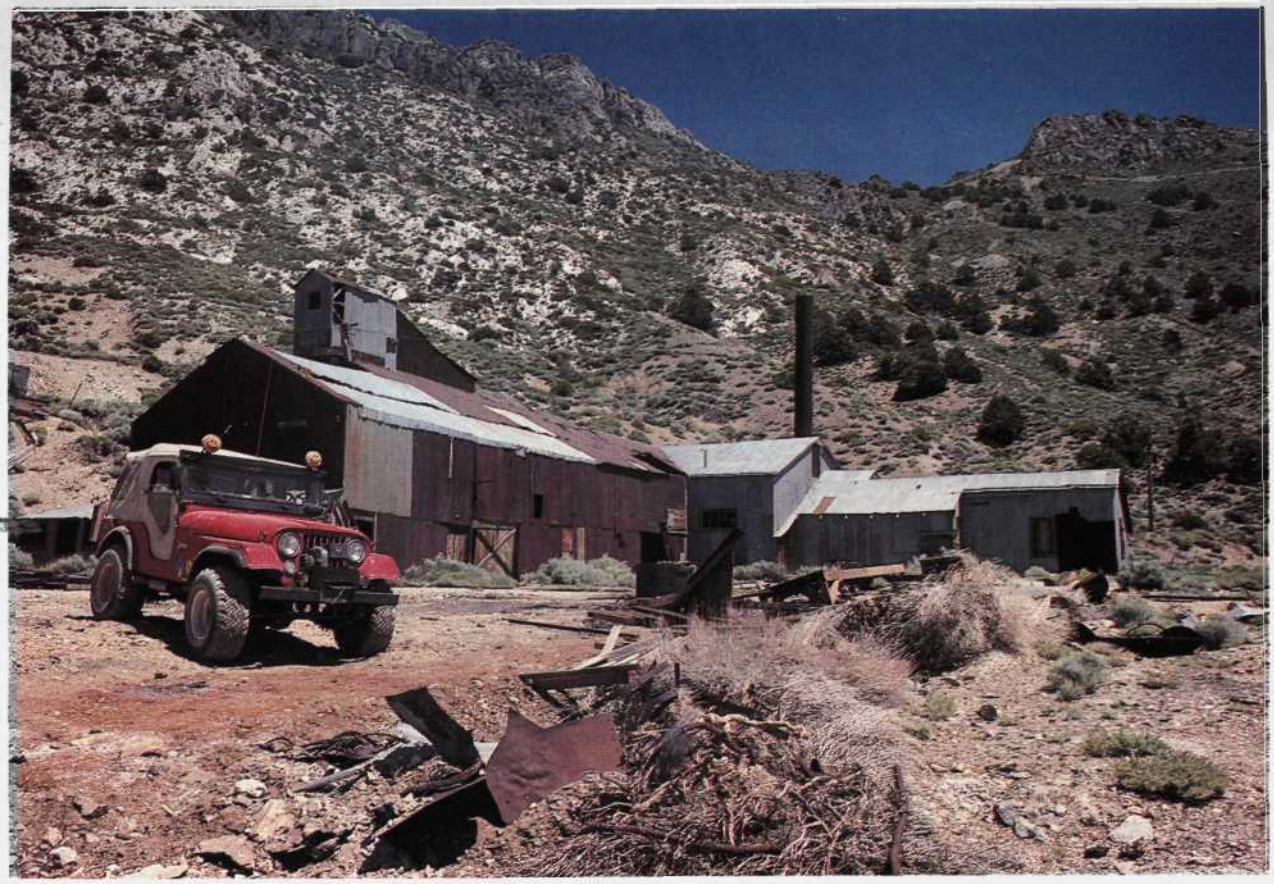
Of course, it must be said that what were financially sound business practices for Beaudry and Belshaw were also of benefit to the town. Although it didn't happen overnight as in some other mining camps, Cerro Gordo soon was able to call itself a thriving city. In the late 1860s and early 1870s, it boasted a large number of shops and offices, an ice plant, 12 saloons and two whorehouses. The latter were owned by Lola Travis and Maggie Moore and it was seldom that a night went by without the sound of gunshots from the cribs or the bars. The citizens of Cerro Gordo tended to be hot-tempered and arguments were, as often as not, settled with guns.

As the town grew, the Yellow Grade became even busier as mule-driven freight wagons hauled ore down the mountain on the first leg of the trip to Los Angeles, and then returned with such staples as baled hay, foodstuffs, and beer. In addition, two competing stage lines arrived and departed daily via the treacherous Yellow Grade which is still in use today.

Throughout Cerro Gordo's peak years, smelters turned out huge quantities of silver-lead bars, each weighing approximately 85 pounds. During the Civil War, the town's silver output was a major source of income for the Union Army, and contributed $27,000,000 in silver and lead prior to 1876. By that year, however, the ore had been nearly depleted.

In 1877 a holocaust destroyed the Union Mine, forcing Belshaw to shut down his furnace forever. The miners who had watched innumerable sunrises over the mountains began leaving for new horizons in Bodie and Darwin. In October, 1879, the final ore wagon trundled down the Yellow Grade and the last mine was abandoned. The boom had ended.

A resurgence of interest in Cerro Gordo's mining possibilities came in 1911 with the discovery of zinc in the Union Mine. The company of L.D. Gordon & Associates acquired a lease which allowed them to remove zinc from the mine and, in 1914, the company purchased the property. In the next four years before it ended, the workings at the bottom of the mine had been extended to the 1,100 foot level, 34 miles of underground tunnels had been built and over $3,000,000 in zinc had been shipped via an overhead cable tram which extended down the mountain to Keeler. But by 1915 this boom, too, had expired.



The Union Mine proved out to hold one of the richest deposits in the annals of mining history. *Photo by Dennis Millard.*

Today, Cerro Gordo is one of the best-preserved ghost towns in the West. It is reached by leaving US 395 at Olancha (south of Lone Pine) and driving east on S-190 about 15 miles to the junction of S-136. Here, you will turn north and drive almost to the town of Keeler, a distance of about six miles. Just before reaching the town, you will note a small sign by the side of the road directing you to the Cerro Gordo mines. It is important to note that the Yellow Grade is extremely steep and can cause your engine to overheat. Also, the grade is difficult in snowy or rainy weather. In just eight miles, you will climb from the desert floor to the town of Cerro Gordo which perches on its site at 8,600 feet. Once at your destination, however, you will be pleased you went to the trouble of climbing the mountain as there is something there for everyone.

Rockhounds, for example, will discover there are over 40 different minerals to be found, while photographers generally are thrilled with the century-old buildings and the 100-mile vistas spreading out in every direction. History students will find plenty to research and four-wheel-drive buffs soon discover the trails are perfect for a drive into yesteryear.

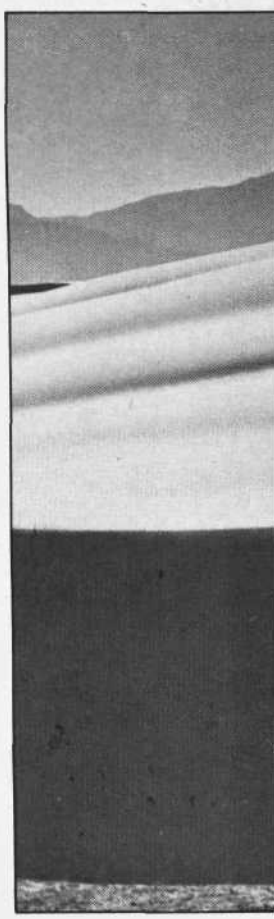
As you come into town, you'll pass the American Hotel where the original stove cowers in the shadows of the kitchen and rusty bedsprings litter the floor of the upstairs dormitories. Behind the hotel on the side of the hill are three shacks, all that remains of a once-thriving Chinatown. To the left of the hotel is the ice house where meat once hung in refrigerated plenty. Drive on by and park in the area set aside for automobiles below the home of Barbara and Jack Smith. After paying $1.00 per person and signing the register, you'll be told: "Look around and enjoy yourself. Just be careful and, please, don't shoot any guns in the area."

Before hurrying off to your explorations, ask to see Barbara's paintings. After many years spent in the whirl of Hollywood, she married Jack and, together, they acquired the town of Cerro Gordo. Now, she spends much of her time painting the sights of her beloved mining camp and answering the questions of any person interested in the history of the town.

In addition to calling at the American Hotel, you'll want to visit the red-light district (the Waterfall Gilded House of Pleasure once owned by Lola Travis is still standing), the Union Mine hoist works and mill, and the various miner's houses. With very few exceptions, everything — including the interiors of mine shafts, if you're so inclined — is open to you.

At night, you can pitch a tent beneath the stars or, if you want to taste the real flavor of history, you can stay in Mortimer Belshaw's house ($3 per person) or in the hotel or bunkhouse ($2 per person in either building). All camping spots are dry, however, so you'll want to bring plenty of water with you.

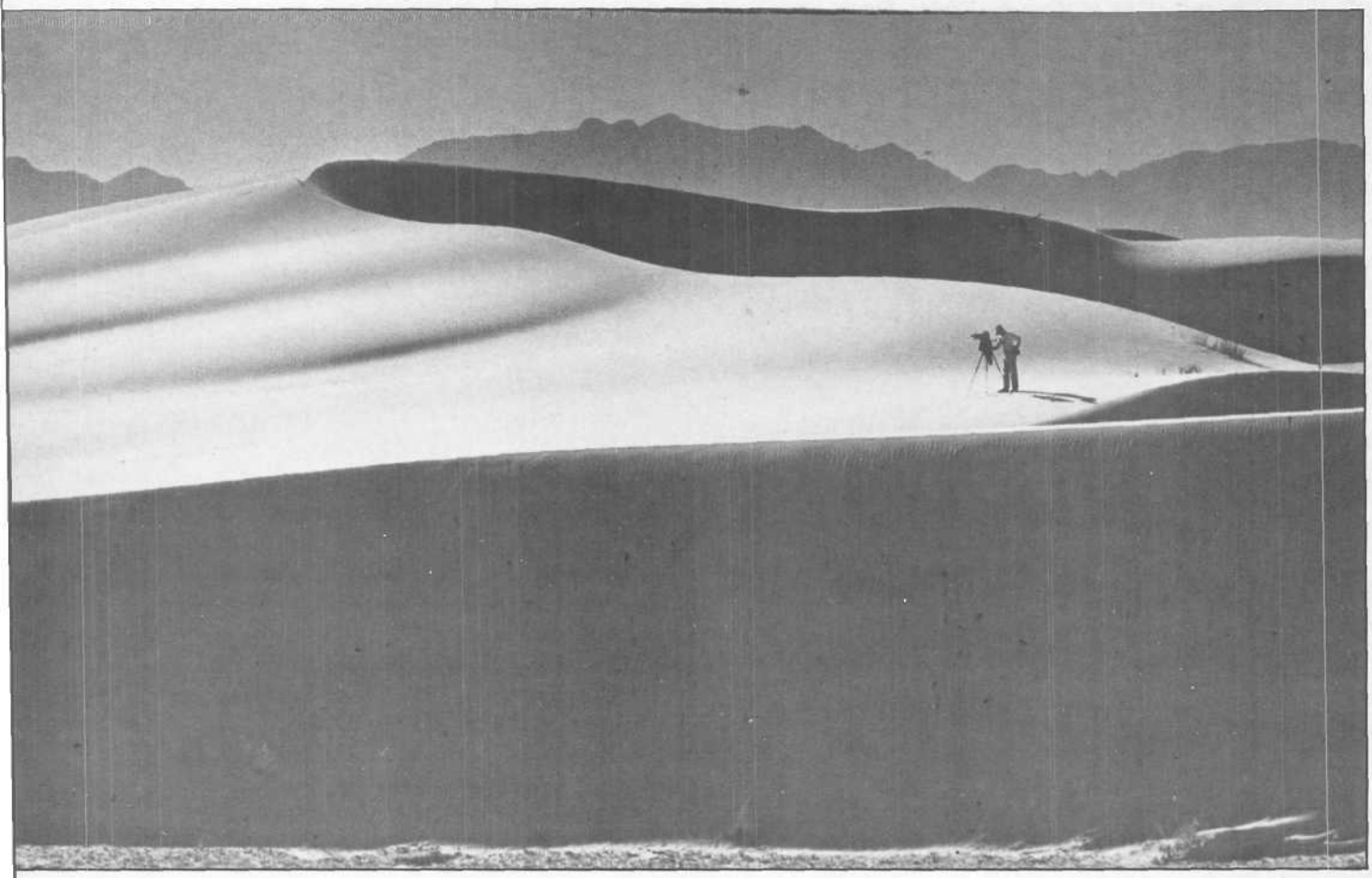
A trip to Cerro Gordo is a drive into the past. For the most part, time stopped here one hundred years ago, but you can make it live again. All you need to do is allow your imagination to run free, open your heart, and listen for the whispers of those who used to be.



THE EYE OF HARRY VROMAN

by Gary E. Squier

Much of Harry's work was done before the days of color photography. Although Black and White was his native medium, color obviously was not foreign to him. Above is a flowering Prickley Pear shot near Palm Desert, California in 1948.



Above. The solitary figure of Harry Vroman on the sweeping dunes of White Sands, N.M. *Photo by Bill Revis, 1942.*

Harry Vroman is 91 years old. For more than 70 of those 91 years, he was a photographer. One of the pioneer photographers. His eye was clear and patient. It still is, though today he sees through amazingly thick glasses that reflect light in a dream-like way; seeing through eyes that have felt the surgeon's knife.

But he looks at you long and hard. For vision is one of his gifts, and the will to see is very strong in Harry Vroman. To see and have his vision felt by others.

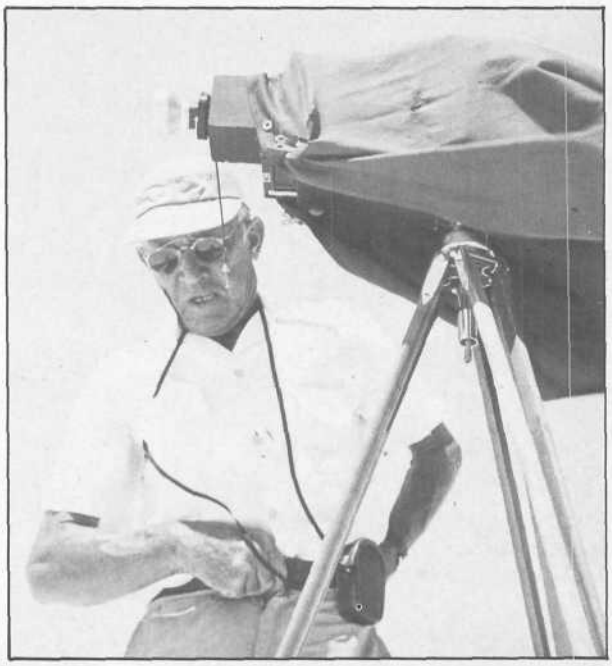
Harry has looked at the deserts of North America longer than most of us have been alive. He saw the drama of the desert through the viewfinder of his 4X5 camera. Saw it in black and white, contrasting the highlights and shadows of life, made them work against each other. Harry saw the desert as a battle between light and shadow. His sharp, crisp, classic landscapes of White Sands, New Mexico reveal his vision. The desert, where everything curves and juts and stands alone casting its own shadow, was Harry's purest subject. A subject he studied for years.

One of the tasks of photography is to isolate the subject, the process of exclusion and inclusion, the process of focus. Harry focused his attention on the dimples of sand dunes, the pattern of leaves, the simplicity of a Hopi woman and child.

As a photographer, Harry has done it all. Box camera, dry plates, baby home runs, studio work, postcard arcades, weddings, free-lancing for publications, and maybe even some fashion photographs are hidden in his files.

He made his first camera in Mankato, Minnesota when he was six. He bought his second one at Sears & Roebuck in 1908, a 4X5 Century dry plate that he carried on his bicycle while apprenticing with a photographer in Moscow, Idaho,

Below. Checking his exposure meter, Harry relied primarily on his large format 4x5 Graphic. *Photo by Bill Revis*



In 1925 while working on a Navajo Reservation in Arizona, Harry captured the feelings of this woman and child.

Desert dandelion seed pods and Senecio blossoms in Salt River Canyon, 1958.

who wanted to be a musician—not a photographer.

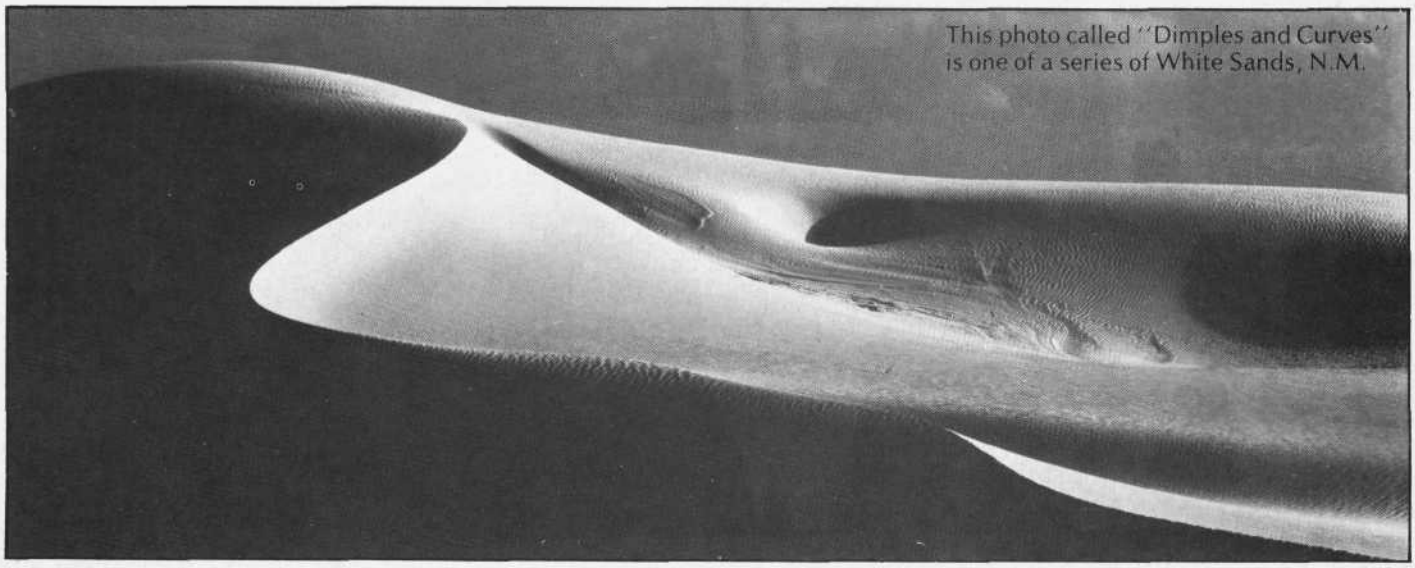
Travel has always been in Harry's blood, so after his apprenticeship he set out for South America. He got to San Francisco where he photographed dock workers on the Barbary Coast. Then on to South America. This time he got as far as Los Angeles where he ran out of money, but not out of luck. He met Edna. It was love at first sight. He followed her to Seattle, and they became man and wife. Together they traveled for over 40 years. They bought a 1936 Chevrolet in 1942 from a Japanese friend who was on his way to an internment camp. They hooked a 12-foot trailer to the sedan and continued their travels. The trailer was his traveling darkroom. They slept in the car. And they lived that way not for a weekend of vacationing, but for almost 30 years.

They spent several summers in Yosemite National Park, Harry working as a darkroom technician for Ansel Adams whose work he admires. "Ansel was always talking to me about exposure and aperture settings. Most of it was over my head," Harry recalled. Harry's photographs were always shot from the gut, not the mind. For many years he calculated his exposure by eye without the aid of a meter. He just did it.

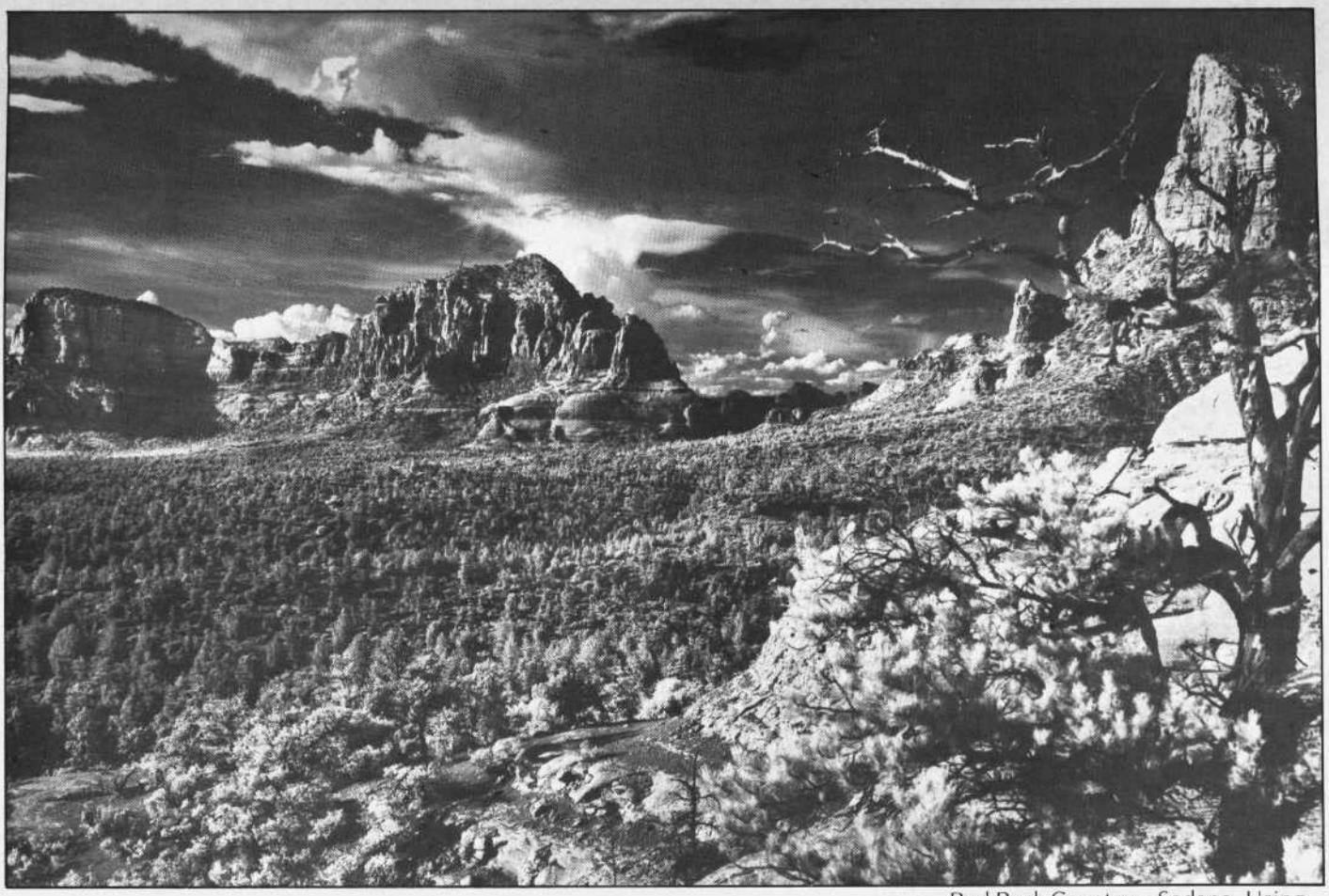
Harry and Edna Vroman did get to South America. Three times they crossed the Panama Canal on their way to the Andes. They did missionary work in Peru and later on the Hopi and Navajo reservations in Arizona, always shooting pictures, always paying attention to life around him.

Harry's name started showing up in photo credits in *National Geographic, Desert Magazine, Ideals,* and *Arizona Highways.* At the peak of his professional career he was selling work to more than 35 newspapers, magazines and calendar companies. But the most he ever made on one assignment was $750. Some photographers today get that for a half-day's work.

During a trip through Arizona's White Mountains, they stopped near Prescott. They saw some property they liked, put a down payment on it, and started working on their dream home. They worked on the house they called "Rockhaven" for 15 years, but they never lived in it. Edna died before the home was finished.



This photo called "Dimples and Curves" is one of a series of White Sands, N.M.



Red Rock Country—Sedona. Using infrared film, Harry turned this landscape into a dramatic statement.

Saguaro Boquet, Saguaro National Monument, 1955

I visited Harry recently in Mesa, Arizona. He was sleeping when I walked into his room at the Golden Mesa Home for the elderly. I waited at the foot of his bed. He eventually woke up and looked at me. He sat up and looked at me longer and harder, then waved his hand toward the door. "Go away. I'm too sick," he shouted. "I can't help you anymore."

"Can I help you?" I shouted back. He couldn't hear me, so I quickly wrote in my notebook, "You are a fine photographer, Mr. Vroman. I'd like to tell your story."

He took the notebook from me and looked at the page for several minutes, studying each word carefully. He turned to me and cupped his hands around his mouth like a cheerleader. "Can't," he yelled. "It's too long."

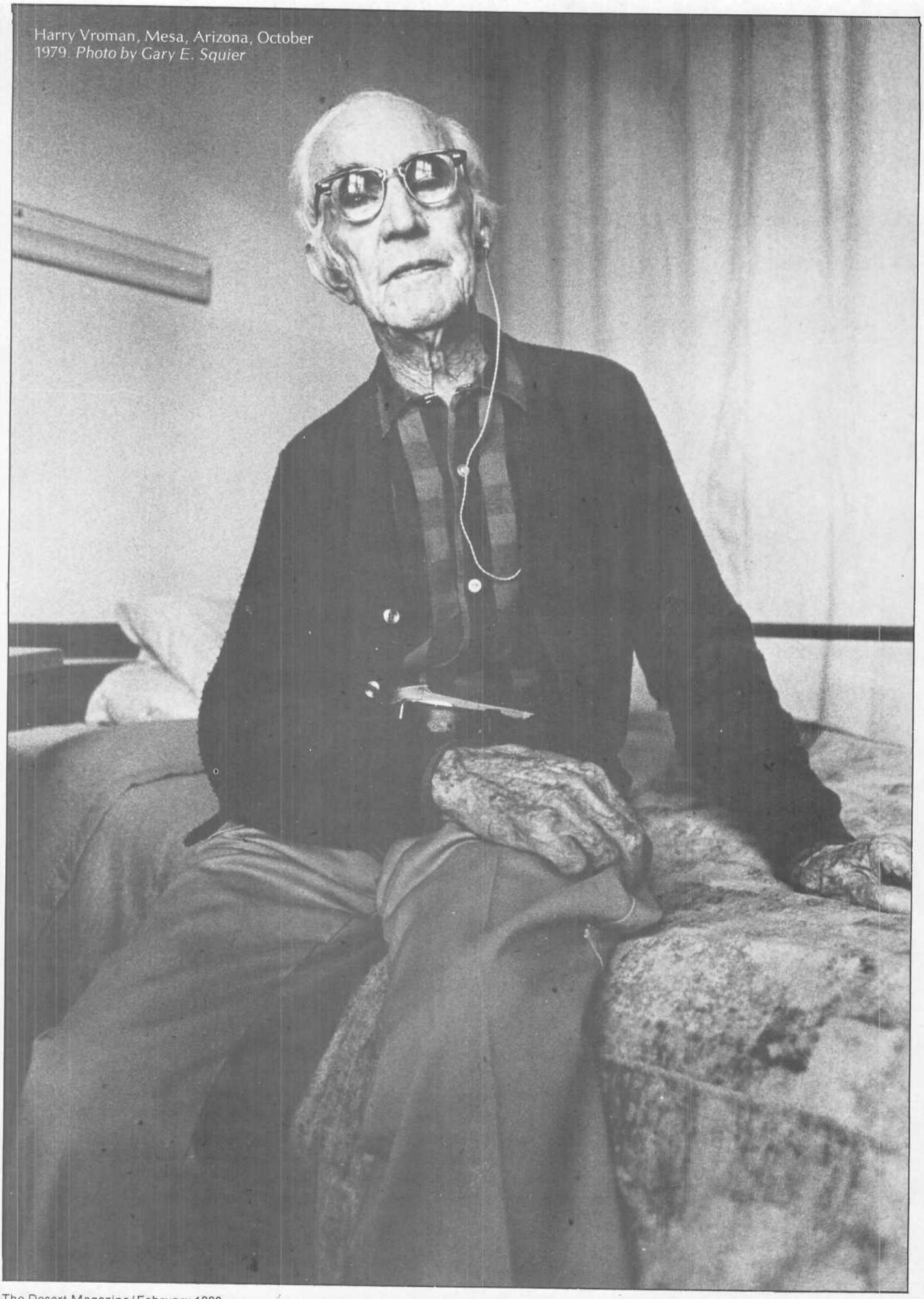
Too long? I don't think so. Too full—too full of life.

And Harry's photographs have filled us all. His vision of beauty has added something to the life of everyone who has looked. The photographs on these pages testify to that.

Thank you, Harry.

To my knowledge Harry Vroman inexplicably has never received a major photographic award, no institutional recognition or thanks.

Harry needs more than thanks. He's alone now, and loneliness can be a terrible thing. He's a proud man and would never ask for anything, but I know he'd love to hear from any of you who have been touched by his work, by his life. A very full life indeed.



Harry Vroman, Mesa, Arizona, October 1979. *Photo by Gary E. Squier*

PHOTO CONTEST

Desert Magazine has reinstituted its monthly photo contest. Back in the days when Randall Henderson was editor of *Desert*, the monthly photo contest was very popular in each issue. We think with the lighter and more versatile equipment of today and the fact that almost every family owns some kind of camera, that the contest will be twice as interesting as it was in the past. So each month for the first six months of 1980, we will award $25 for the best Black and White photograph submitted.

If you think the desert can't be shot in black and white, check out Harry Vroman's work on the preceding pages.

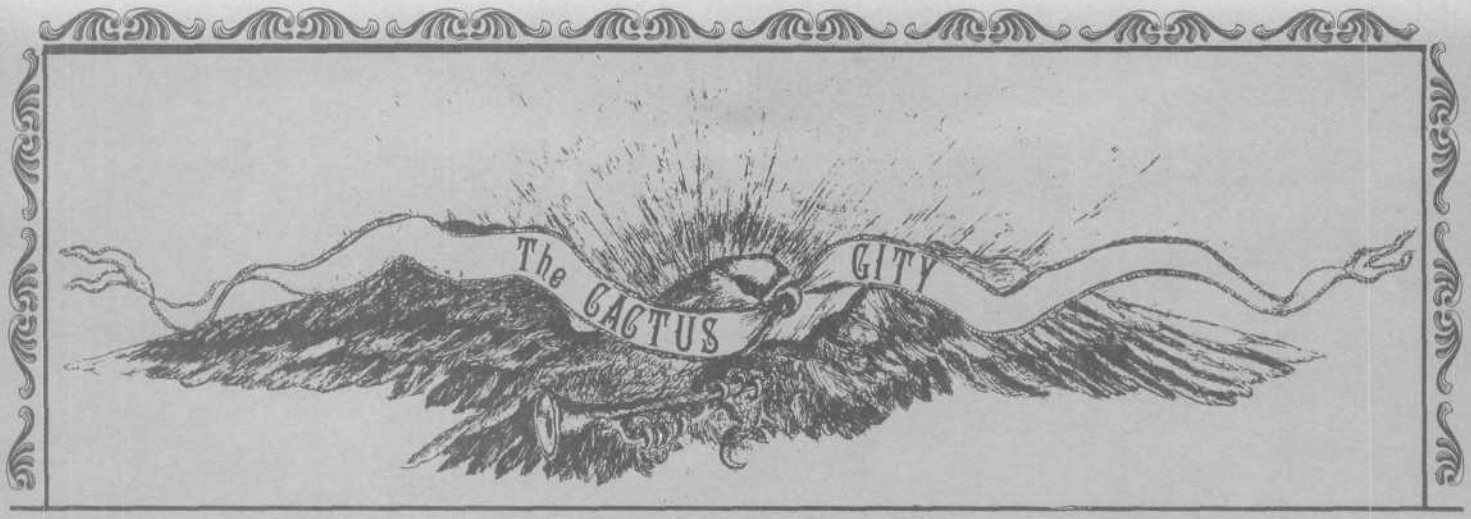
The second half of 1980 (July through December issues) will be a color contest. We'll publish the rules for that in our May 1980 issue. Confused? Don't be. It's simple. What we want now are Black and White photographs of sunrises, sunsets, desert creatures, desert people, desert plants, desert places—there is no limit on the subject matter so long as your photograph is from the desert, any desert. The winning photographs will be published monthly. ($10 will be paid for non-prize winning photographs accepted for publication.) To enter the contest, your photographs must be in our office by the first of each month.

Come on you camera buffs. Get out the Nikon, Canon, Olympus, Minolta, Haaselbladt or Graflex—or even your Instamatic. Let's get shooting!

HERE ARE THE RULES

1. Prints must be B&W, 8X10, printed on glossy paper.
2. All entries must be in the *Desert* Magazine office by the first of each month.
3. Prints will be returned if self-addressed stamped envelope is enclosed.
4. Contests are open to amateur and professional photographers. *Desert* Magazine requires first publication rights of prize-winning photographs.
5. Judges will be selected from *Desert's* editorial staff, and awards will be made immediately after the close of each contest month.
6. Each photograph submitted should be labelled (subject, time of day, place, shutter speed, film, aperture setting, and camera).

Address all entries to Photo Editor, *Desert* Magazine, P.O. Box 1318, Palm Desert, California 92261. And good shooting.



Vol. 1, No. 1
February, 1980

CLARION

"The nosiest newspaper in the West."

Argus, Monarch Plan Boost In Production

Argus Resources, Inc., recently concluded a contract with Monarch Milling Co. to process the silver dumps owned by Argus Resources at Austin. The dumps will be upgraded at the dump sites by screening out the minus quarter-inch fines, which are largely decomposed granite and of no value.

There will be approximately 400,000 tons of mill grade ore which at the start will be processed at the rate of 200 tons per day, said William R. Noack, president of Argus Resources. Then the capacity of the mill will be enlarged to more than double that figure by the completion of a second circuit.

The mill also will upgrade the ore from the True Blue mine, six miles north of Austin. This ore is scheduled to be delivered for a mill run.

With the record high price of silver, a much lower grade of silver ore can be delivered to the mill from both the True Blue mine and the Hillside shaft in Austin, so actual production from these mines will be accelerated more quickly than had been scheduled. It had been planned to keep the mill head at 15 ounces of silver per ton, but at today's prices we can produce much more tonnage profitably with a mill head of 10 ounces of silver per ton, Noack said. This higher price of silver increases the reserves in the mine very greatly.

"Work on reopening our gold property at Manhattan, planned for next spring, is progressing," he also reported. One shaft on Litigation Hill has been chosen to mine in depth. The water level now stands at 400 feet while the original depth of the

(Continued on p. 28.)

Old-Timer Hits High Prices On Gold Markets

Gold prices have never been higher in the history of the world, recently passing $440 an ounce on the London market.

But no happiness was expressed by area gold miners.

"I guess everyone thinks the miner will be happy at last to have gold climb to this remarkable price." Dick Johnson, long-time resident and gold miner from the Spider Gulch area in the Chuckwalla Mountains west of Blythe, said.

"But I don't like it at all, and neither do most of my colleagues."

Johnson has prospected in the Chuckwalla mining district since 1952, went through the last depression, and is fearful of the runaway gold prices which might trigger another depression.

Johnson said he would not be surprised if an ounce of gold went to $1,500 and looks for gold to be $650 by the end of December.

"How could anyone like it? The dollar is tied to gold. The price should have leveled off at not more than $200," he said. "I've made a lot of money when gold was $35 an ounce but now that it's $400 and better I don't

(Continued on p. 28.)

Smoky Valley Sues Nevada and Nye County Over Net Proceeds Tax

Smoky Valley Mining Company of Round Mountain has filed suit against the state and Nye county over a disputed tax bill.

The company claims that the State Tax Commission improperly computed its "net proceeds of mines" tax for 1978.

The mining company is one of the county's larger taxpayers and operates a gold operation at Round Mountain.

Tonopah TIMES—BONANZA and Goldfield NEWS

Illiterate Tells How Famous Caverns Got Named Carlsbad

This mornin, whilst supin a kup of koffee over at Klaypools. An old lady says to me. Howdy thear feller. Long time no seen. Wen in heck air your goina rite sum more tall tales in that Needles paper. I've bin lookin for it for a long time. So I says to here. Twont be long now sinc your so interested. Hear goes.

Back in them ninetys. I'm prospectin over New Mexicko way. Wen one day a frend came for to visit, and wanted to do sum prospecktin. So, I says OK. Mr. Carl Dumbkuph. (In German. Dumb head). Leave us go. We loads up my burrow wat we called Lizebeth. Digin tuls of all kinds. Fude and plenty liquids, and took off.

Trapsin along trail. Up jumps out a the ground, a pocket goffer. All loded doun with gold nugets.

Carl was shegrinned, never havin seen such stuff befor. So I says O.K. Carl. Hears your chanc to git welthy. Git the posthole digger offen Liz. And to digin down that gofer hole, and git rich.

Carl lost no time giten to work. Digin fase and furesuly. I'm gist messin round with Liz. Wen I heard a teribul yellin. Lookin doun the hole. I heard a

(Continued on p. 28.)

Anaconda to Start "Molly" Operation Here

Just 25 miles north of Tonopah, the Anaconda Mining Company has a multi-million dollar expenditure underway, preparatory to the operation of removing thousands of tons of high grade molybdenum, commonly known as "molly," and used for the hardening of steel. Mixed with the "molly" is a good deposit of gold and silver.

In all this project could represent many years of economic growth for Tonopah and surrounding areas. The money put into the preparing and operating of the mine plus the wealth taken from it in mineral deposits could very well run into the billions of dollars.

F. D. Howard
Tonopah TIMES - BONANZA and Goldfield NEWS.

ILLITERATE...

(Continued from p. 27.)

lotsa pantin and groanin. I kalls doun, sayin. Carl how be you. Why you gronin and weepin. He yells back. I'm in a heck od a beautiful cave all inpaled with stelackmites. I'm fixin to give up the gost. I hollers back down. Carl dont give up. I'll git tou yu sum atabels and drinkin stuff. So I sais to Liz. Git home and fetch back lotsa stuff for to eat. The ass layes back her ears and takes off. Comes on back in haste all loded down. I takes the stuff and slides down to wear at Carl was inpailed with ahole flock of stelackmites. So I fed Carl and drunk him sayin. Dont try to git off them stelackmites they will leave air in your karkass and you'll sakumb. So he says OK. And I left for home. Meanwhile a feller knowd as "Slicky Dick". Planted a elevater down in the shaft and charged the folks $5 bux to gow doun to visit Carl. And they wuld answer. Carls bad real bad. So it came to be called Carls Bad Kaverins. Simple as that. Huh?

Ed Lang
Needles DESERT STAR

OLD-TIMER...

(Continued from p. 27.)

seem to be able to buy anymore than I ever did.

"It's just like the Gold Rush back in 1849. The prospectors are out in the hills panning the dry washes, the promoters are all coming in from the East, and the government on the other hand is trying its best to close the miner down and take over the mines for themselves," he said.

Johnson said there's not much chance of picking up nuggets on his claims; however, he has found $50 nuggets on his diggings in the past.

He explained that exploration by large mining companies has been done near his claim and has shown extensive gold mineralization and enough tonnage to develop at least 10 large mines in the Chuckwalla mining district.

However, Johnson said, mining in the Chuckwalla Mountains is like farming in the valley — one needs a lot of land and a large capital investment to succeed.

"I believe the Palo Verde Valley will prosper thanks to the work that has been done by the hundreds of mining men that have dotted the hills and deserts in this area," he predicted. "The poor old miner has braved the heat of the desert, fought for his land, eked out a living, gave up the better things of life, and dragged his family through hardships not endured by most people in this century. Maybe now they will have a chance at the good life," he said.

Johnson does not believe the miner will become rich from digging his own claims, but rather selling or leasing his accumulating holdings to large companies.

Many of these companies have already begun extensive explorative operations in the desert and are said to be negotiating for many claims in and around the valley.

Jeanette Hyduke
Palo Verde Valley TIMES

ARGUS

(Continued from p. 27.)

shaft is 650 feet.

"Now the shaft area has been cleared of old mine workings and preparations are being made to pump out the water to the 650 foot level this winter. The Sierra Pacific Power Co. is now making a survey to bring power to the site, then the shaft will be deepened several hundred feet.

"We will make drifts in both directions, exploring for gold ore, on the White Caps formation. These drifts will be below the old workings of several former operating mines which are now all owned by Argus Resources, Inc.

"Until Argus acquired a total of eight formerly separate, contiguous mines at Manhattan, it was impossible to have a unified operation as now planned. The mines owned by Argus are the White Caps Gold Mine, the Manhattan Consolidated Gold Mines, and the Nevada Coalition Gold Mines. The White Caps Mine has proven 10,000 tons of 1½-ounce gold ore and 20,000 tons semi-proven ore between the 1,100 and 1,300 foot levels. These can be reached by a drift along the White Caps limestone formation from the new Argus shaft. Additional ore bodies are likely to be encountered before the proven ore is reached."

Tonapah Times—Bonanza and Goldfield News

Slob-of-the-Week Award Ends in Tie

Our Slob-of-the-Week award goes to the imbeciles (I know a better term but it's not printable) who after removing the fillets from their bass, dumped the remains on the floor of the men's comfort station at the boat landing at Ruby Marsh. It's difficult to understand the mentality of a humanoid who would act in this manner but perhaps a psychiatrist, skilled in working with mental disorders, could explain such behavior.

Unfortunately, we have co-winners as Slobs-of-the-Week. They are the Las Vegas hunters who threw away eight backs, 16 drumsticks, and two complete sage grouse in and along Canyon creek in O'Neil Basin. Happily, two of our personnel were able to escort them to the Wells Justice Court shortly thereafter, where they contributed to the permanent school fund of the state of Nevada.

Len Hoskins, Nev. Dept. of Wildlife
The Eureka SENTINEL

93-Year-Old Ed C. Jaeger Has 50 Palavers

by
Jack Harris

Under a clear blue October sky Dr. Edmund C. Jaeger, "dean of the southwest deserts," held his 50th Palaver at his Poorwill Sanctuary near Desert Center. The traditional ringing of the hand-made cow bell, found by Dr. Jaeger many years ago in Baja California, called together about 100 of Dr. Jaeger's friends, ex-students, college and high school professors, and their students for a week-end of palavering.

At the age of 92, Dr. Jaeger no longer leads the Saturday afternoon nature walk to point out the desert flora and fauna, but so well were they taught, his ex-students now take the lead while Dr. Jaeger leans back to observe and enjoy the product of his active and well spent career.

October of 1954 was the date of the first Palaver, held in the

(Continued on p. 32.)

Drinking, Gambling, Bank Robbery Dragged George Kirk to His Doom

Of all the troublemakers who finally came to grief on the short end of a long rope in early-day Nevada, none was more deserving than George Kirk. From what is known of him, he was a native of either Kentucky or Missouri, but rumor had it that he had murdered an uncle before leaving home for Illinois in 1855. There were also stories that he had taken up horse stealing in his new home and had shot the sheriff of Bruneau County before escaping to California.

Taking to drinking, gambling, and robbery in Sonora, Calif., he ended up in the Tuolumne county jail. Sheriff John Sedgwick took a liking to him, but was betrayed and severely wounded by Kirk in June of 1858. For that caper, Kirk was sentenced to five years in prison.

Among his other adventures following his release in 1863 was another horse stealing venture in Placer County, in the course of which he was wounded in the left leg by a charge of buckshot and partly crippled for life.

Moving on to Nevada, he took up stage robbery, but ended up with a stretch in the Nevada state prison for all his efforts. During a second sentence in the Nevada penal institution for burglary, he wounded warden Alex Hunter while attempting to escape and Hunter died in San Francisco two years later from the effects of the wounds.

Released a second time in 1870, Kirk went to work in the mines in Virginia City, but eventually quit and again took to living by his wits. He hung out with a bad crowd in Virginia City, but local law enforcement officers could not get anything on him, although he was suspect in several robberies and burglaries. At the time he was lynched in July of 1871, he was living with a local prostitute, Mary Smith, bettern known as "Dutch Mary" who worked in a D-Street brothel. In desperation, Virginia City's vigilantes had warned him on three occasions to leave town and never return. With Irish stubborness, he came back each

(Continued on p. 33.)

THE LIVING DESERT RESERVE

by
Karen Sausman, Director
Living Desert Reserve

Early in December, the Living Desert Reserve will dedicate the new Dorothy B. Underwood Animal Care Center. This 900 square-foot building will house the main animal care facilities of the Reserve. These facilities include a kitchen for food preparation, an examination room, and an isolation room for caring for injured, orphaned or ill animals. In addition, the building will also house the office for the Curator of the Animal Department and a pair of public restrooms. The Animal Care Center is located just north of the Lilian Chase Aviary in the James Irvine Gardens.

The Underwood Animal Care Center will be the focal point for maintaining the Reserve's collection of native desert animals. At this time the Living Desert Reserve exhibits over 50 species of animals ranging in size from the 175-pound desert Bighorn sheep to four-inch long banded gekkos. The Reserve displays invertebrates, fishes, amphibians, and birds as well as reptiles and mammals. To exhibit such a wide variety of animals requires a full-sized food preparation area.

Each species has its own special diet which may range from live crickets to a mixture of fresh fruits, vegetables, and dog food. Many of the food items are purchased or donated from local markets. However, there are several things which have to be brought in from outside the Coachella Valley. The Bignorn sheep eat a special type of pellet which is manufactured by Albers Milling Company in Hemet, California. The hawks, owls, and eagles have a special food known as "Bird-of-Prey Diet", which is purchased commercially in frozen blocks from Los Angeles.

The Underwood Animal Care Center will also be used in the Living Desert Reserve's wildlife rehabilitation program. Almost every day, injured and orphaned native animals are brought to the Reserve for care. Usually only desert birds-of-prey, hawks, owls, and eagles are accepted for treatment; however, the Reserve also accepts certain small mammals and songbirds on a more limited basis.

Hundreds of animals are brought to the Reserve each year. Most of them are cared for and then released back into the wild. Treatment may mean no more than giving one or two day's shelter and a few good meals to an immature hawk that has not yet learned to hunt for itself, or it may mean spending days patching an eagle that was shot from the sky. While most of the animals are released, a few are kept in the Reserve's permanent animal collection. Some individuals cannot be returned to the wild because of injuries which have made it impossible for them to fend for themselves. These are retained in the Dr. Raymond B. Cowles Medical Ward until suitable homes in other facilities like the Living Desert Reserve can be found for them.

The work of caring for these creatures is more than a full-time job. The Reserve's Animal Department has a paid staff of one and one half people. However, a great portion of the work done with the rehabilitation program, and maintaining the Reserve's collection is done by volunteers. These individuals donate their time to be trained in caring for native wildlife. Volunteers arrive almost every morning to assist in the feeding of the animals and cleaning of the cages, and occasionally become involved in the treatment of injured animals. The work is hard but exceptionally rewarding. The day is never dull. The morning may start with the arrival of an injured great-horned owl and the day may end with the setting free of a sparrow hawk or a great blue heron.

The Reserve is always looking for people who are willing to take the time to learn how to work with native animals properly. If you are interested in volunteering for the animal care program, do not hesitate to contact the Reserve for more information.

The work going on in the Underwood Animal Care Center and the Dr. Raymond B. Cowles Medical Ward can be viewed by visitors to the Reserve. The Animal Care Center has a large glass window which enables people to see some of the animals being cared for and also, view the preparation of food in the kitchen. The Medical Ward, situated just north of the Animal Care Center, is screened by a six-foot high fence. The Ward fence, however, is over eight feet tall and most of the inhabitants can be seen from above the fence line. For small visitors, peep holes have been cut into the fence so they may be able to look inside. The reason for the protective fencing is that sudden movements and loud noises from visitors, even though unintentional, are often frightening to the wild birds and other creatures housed in the Ward. The fence acts as a buffer to keep from causing them undue stress.

The Living Desert Reserve is open daily from 9 AM until 5 PM and is located at 47-900 Portola Avenue in Palm Desert, California. Please phone (714) 346-5694 for further information.

HARQUA HALA

will it rise again?

by Wayne Winters, Editor,
Western Prospector & Miner

In these days of $400-an-ounce gold, any number of early western mines are getting another going over by prospectors, miners, and promoters. All of these folks have one thing in common—the knowledge that in most instances only the high grade was dug from the bowels of the earth by those horny-handed sons of toil, the original operators of the West's few great camps.

Today they're following the old saw: "You look for a mine where there have been other mines." And in these times it is not even necessary to have more ore, for even an old dump in one of the high grade camps can be economically cyanided via pad leaching methods, providing fast capital with which to pursue the old leads while looking for previously untouched ore bodies. Indeed, old gold-silver properties with dumps of major proportions are in great demand these days.

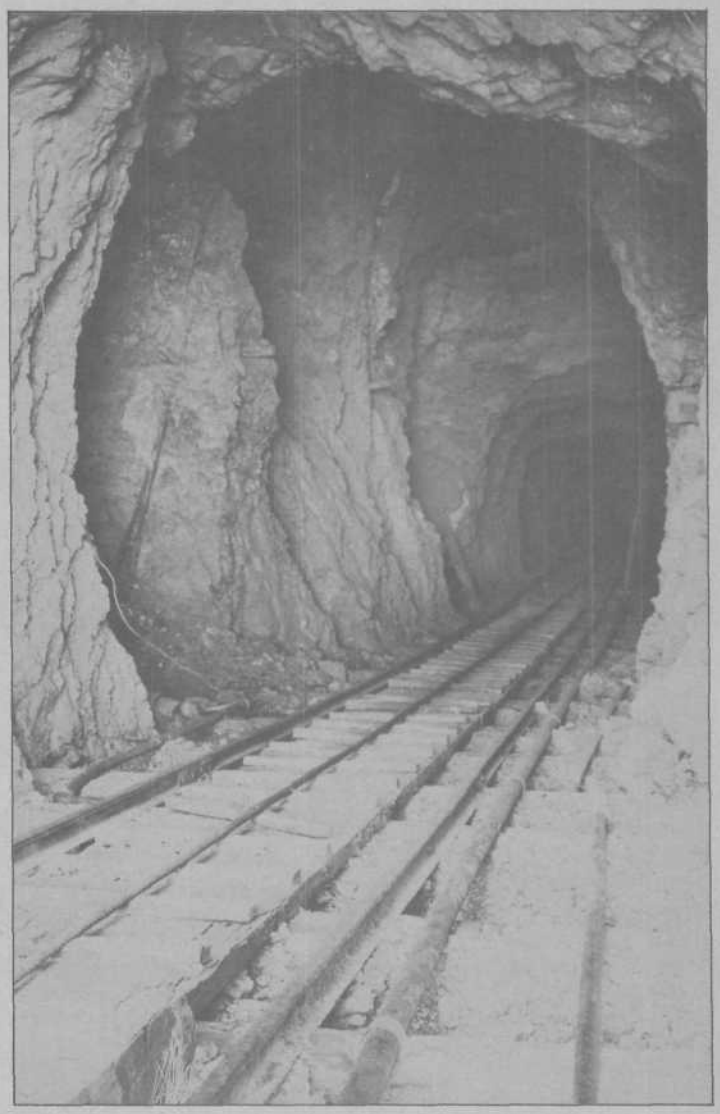
One of Arizona's better known early mines, the Harqua Hala, is such a property. First located in December 1888, it produced in the neighborhood of $4,000,000 in gold in the course of 40-odd years of intermittent working. Now it sleeps in the northern Yuma County sun, just waiting for some enterprising modern mining prince to plant the waking kiss on its golden lips, bringing the lucious princess back into bloom.

It was in the early winter of 1888 that Robert Stein and Harry Watton located several claims a few miles southwest of Harrisburg and about nine miles south of the site of today's Salome. Mike Sullivan owned adjoining claims.

The stories of Harqua Hala's discovery are, like those of most mines, varied. One version has it that no one had made any worthwhile discovery until one day when Sullivan ran into a regular nest of nuggets and proceeded to gather a hatful, only to find out that he was on ground owned by his neighbors. He made a deal to merge holdings with them, then disclosed his find. Together they set about picking up even more nuggets and also discovered a blowout in quartzite that was so rich in the precious yellow metal as to be almost beyond belief. It has been said that no other strike in Arizona equaled this in value of surface gold picked up with so little effort.

Having located the cropping, they began mining and quarrying out the ore, which continued so rich that within two months the three men working alone took out more than $100,000 and had turned down an offer of $75,000 for their property. This was the beginning of the Golden Eagle, one of nine claims that were eventually patented to comprise the Harqua Hala Group.

Like all other mines, reports were conflicting in nature in its beginning. On Jan.6, 1889, the Tombstone **Prospector** printed: "The latest reports but confirm the first stories of the rich and extensive deposits of mineral in the new district. The rush for the new camp is unprecedented since the discovery of Tombstone." It continued, "Emile Sydow left Phoenix accompanied by Miss Nellie Cashman and Keith Miller. They went by private conveyance and were three days on the journey, a distance of 145 miles. There were no accomodations and everyone is sleeping on the ground, rolled in blankets. There is no grub in camp outside of the small amount taken in by prospectors. A Mr. Sevenoaks, who formerly resided in Tombstone, offered the owners of the rich strike $50,000 down on a bond of short



The main shaft of the Harquahala or Bonanza mine is inclined slightly and leads to where large masses of gold occurred, intimately associated with quartz. Photo was taken in 1953.
Photo from Desert Magazine Archives.

duration, and $150,000 more in case his principals, George Hearst & Co., took the property. There were about 100 persons in camp at the time Mr. Sydow left there."

Three days later the paper reported, "Miss Nellie Cashman returned from the new mines yesterday, and is enthusiastic about the place, and declares that the district is one of the richest in the West. Nelliw has had considerable experience in mining camps, and is competent to speak. Nellie will return to the mines and erect a boarding house. We hope the good woman will be successful."

The same dispatch continued: "The new camp has issued an edict that Chinamen will not be permitted to do business in the district. This is a copy of the order in vogue in Bisbee, so 'John' had better give the new camp a wide berth."

On Jan. 10 another reporter wrote, "There are now about 40 or 50 people but no store, restaurant or saloon." Jan. 16th found the following account of conflicting nature as to the activity at Harqua Hala, this time quoted from the Lordsburg (N.M.) **Liberal**: "The wonderful nuggets were conspicuous for their absence. Mr. Durnil, however, saw one piece of quartz which contained free gold. It was well worn, evidentaly a piece of float. While Mr. Durnil was there, a man with a tent and a demijohn of whisky came in to start the first saloon. Up to the time he left, the tent had not been put up, the saloon keeper unable to find two men or a bush in the place."

Harqua Hala's first killing took place when on Jan. 9th, about a month after the original discovery, 22-year-old Alonzo Johnson, a native of Yuma, became drunk and abusive. After trying unsuccessfully to avoid a conflict with Johnson, P. Burns of Phoenix put a bullet through the aggressor's forehead. A coroner's jury ruled the death justifiable homicide and Harqua Hala's cemetery gained its first resident.

While Wyatt Earp supposedly never came back to Arizona after he left the Territory early in 1882 with a warrant for his arrest, the **Prospector** reported on Feb. 12, 1889, a dispatch from George Peterman saying: "A well was sunk close to the big ledge and an abundance of water struck at the depth of 30 feet. There are two mixed stores there and on the way out Peterman met Earp going in with an immense load of bar fixtures and liquors, accompanied by two women. Earp thinks it is going to be the biggest boom ever seen on the Pacific Coast and goes prepared to build a substantial building. He will locate near the mine, where the water was struck, and will endeavor to draw others to that spot and start a town there. Nellie Cashman has gone away. Jim Coyle is there watching his locations. Mrs. Coyle is with him. Bloomer is still monumenting."

Harqua Hala went on to become a great camp. Nine claims were patented, with two groups merged into the Golden Eagle and the Consolidated Bonanza turning into the two big producers of the camp. The nine claims, all of which remain to this day under a single ownership, are the Grand View, Golden Ark, Golden Eagle, Golden Belt, Summit, Gold Mountain Mine, Gold Hill, Gold Star, and the Narrow Gage.

The Golden Eagle is located about a mile northeast of the Bonanza, with the intervening ground a bone of contention between two schools of geological thought. Some "experts" believe that the mineralized material most certainly continues between the two great producers while others are doubtful. All agree that exploration drilling will be necessary but very expensive.

The claims were sold by their discoverers to Hubbard and Bowers who organized the Bonanza Mining Company. It is reported that a clean-up worth $36,000 was made from a week's run of a small amalgamation mill. A 20-stamp amalgamation mill, erected in 1891, made an estimated $1,600,000 in bullion within three years.

In 1893, The Harqua Hala Gold Mining Co., Ltd., a British syndicate, purchased the property for $1,250,000, remodeled the mill, and sank a new shaft. During 1895, a 150-ton cyanide plant was built to treat the accumulated tailings which ran from $3 to $5 per ton. The mine was sold back to Hubbard in 1899. The total production by the British firm amounted to $750,000 in bullion, of which about $125,000 was profit.

After a few months of operation, the mines remained idle until 1906 when the Harqua Hala Mining Co., was organized. By the end of 1908 this company produced about $53,000 in gold bullion. From 1913 to 1916, the Yuma Warrior Mining Co. produced $30,000 from the mines and $19,000 from tailings. From 1922 to 1933, small production was made by lessees. Early in 1934 the Bonanza Mine was under lease to the Harqua Hala Gold Mines Co., but no underground work was in progress. W.L. Hart and associates treated about 1,000 tons of tailings by leaching and cyanidation, but suspended operations in April 1934.

According to the Arizona Bureau of Mines publication, "Arizona Gold Lode Mines and Mining," the Bonanza or Harquahala [**sic**] Mine deposit occurs within a zone of faulting that strikes northward and extends through the limestone, shale, and quartzite into the basal granite. Its main shear zone dips 45 degrees west and is joined by a lesser fault that dips 45 degrees east. The ore shoots that were mined in the "Castle Garden" stope occurred within these two shear zones and ranged from a few inches to many feet in width.

The several stopes of the mine occupied an A-shaped area about 500 feet long and by some 45-feet wide on the south, all above the fifth, or water level. In this part of the mine, the gangue consists of soft red hematite with quartz, calcite, brecciated country rock, and a little gypsum. In places, large masses of gold occurred, intimately associated with quartz. Little silver was present. Below water level, the ore is pyritic. The granite which appears in the sixth and seventh levels shows intense sericization.

AGL&M continued: "Workings of the Bonanza or Harquahala Mine include an inclined shaft and many hundred feet of drifts on seven levels. The stopes are all on the first five levels.

"The Harquahala tailings dump is reported by Miles Carpenter to contain about 29,000 tons that average 0.124 ounces of gold and 0.40 ounces of silver per ton.

"The Golden Eagle Mine is about a mile northeast of the Harquahala, at the northern base of a low ridge. The main vein strikes S.20 degrees W., dips about 50 degrees SE., and occurs in quartzite. A few feet farther northeast is a parallel vein that dips about 85 degrees NW. The gangue consists largely of coarse-textured, grayish-white quartz. Iron oxide is abundant above the water or 300-foot level on the incline, below which pyrite, chalcopyrite, and galena occur.

"Workings of the Golden Eagle Mine include a 400-foot shaft inclined at 45 degrees, with about 450 feet of drifts on the lower level and stopes that extend from the surface to the 300-foot level.

"As indicated by the stopes, the ore shoots on both veins were numerous and pockety. Some of them apparently were more than 15 feet wide. Bancroft states that two samples of sulphide ore from the lower levels contained 0.25 and 4.84 per cent of copper, 1.32 and 2.88 ounces of silver and 0.48 and 1.12 ounces of gold per ton."

Harqua Hala was a typical western gold camp. It boomed to about 2,500 persons, complete with all the usual variety of business houses, schools, places of refinement and, of course the saloons and "soiled doves," and a cemetery. Little by little it went downhill until the last full-time residents were paid off in the mid-30's and the camp gained ghost status.

In the ensuing years it has experienced moments of revival. Some exploration work has taken place from time to time by different groups who held leases or options on the property. One small mill was constructed but it operated only a short time. A second attempt at cyaniding mill tailings took place, but it stopped almost before it began. For the most part the activities appear to have been poorly financed and conducted in a desultory manner. The last serious exploration work was undertaken about 10 years ago. The property, a part of an estate, is under supervision of a court appointed trustee who is currently interested in putting it in the hands of a financially sound firm under a purchase-option arrangement.

Today the ghost of Harqua Hala remains much as it has for the last half century, quietly occupying its place in the desert varnish-stained mountains of west-central Arizona. What few buildings stand are wind-ruptured, vandal-desecrated hulks. Even the gallows frame of the Great Bonanza Mine recently fell victim to the arsonist's torch. But the mountains and their golden treasure chest remain, waiting only for the drill of some "believer" to penetrate their hidden veins, unlocking the wealth that will once again make the desert ring to the music of steel rapping against rock.

DESERT CALENDAR

FEBRUARY 8-10: Gem and Mineral Society, Community Center, Wickenburg, Ariz. Free admission.

FEBRUARY 15-24: Riverside County National Date Festival, Indio, Calif.

MARCH 16: The Annual Desert Gardens Walk of the Anza-Borrego Committee will be held at 11 a.m. at Blair Valley. Several Desert Walks, some short, some long, will be led by State Park rangers after a short general talk about the area. Blair Valley is a few miles south of Scissors Crossing (Highway 78) on Highway S2 south of Earthquake valley. There will be plenty of parking. Restrooms available. For full enjoyment good walking shoes, sun-shade hat, lunch, and water (for hikes) are recommended. Information available at park office. Tel.: (714) 767-5311.

MARCH 15 & 16: Monterey Bay Mineral Society of Salinas, Inc. 33rd Annual Gem and Mineral Show, Masonic Temple, 48 San Joaquin Street, Salinas, Calif., Hours: 10-9 Saturday and 10-5 Sunday. Donation 50 cents. Under 12 Free. Chairman: Floyd Watkins, 411 La Mesa Drive, Salinas, Calif. 93901.

MARCH 15 & 16: The Northrop Recreation and Mineral Club will present its 20th annual show on Sat. 10:00 a.m. to 9:00 p.m. and Sun. 10:00 a.m. to 5:00 p.m. Parking and admission free.

MARCH 29 & 30: Santa Ana Rock & Mineral Club "Stone Age '80" show. Laborers & Hodcarriers Hall, 1532 East Chestnut, Santa Ana, Calif. Hours: 29th, 10 am to 8 pm; 30th, 10 am to 6 pm. For further information, contact: Ted Wisnewski, 724 Oak St., Santa Ana, Calif. 92701.

To Magazine Retailers:
Cactus Paperworks, Inc., is pleased to announce a "Retail Display Allowance Plan" available to retailers interested in earning a display allowance on Desert Magazine. To obtain details and a copy of the formal contract, please write to the Marketing Department, Cactus Paperworks, Inc., Box 1318, Palm Desert, Calif. 92260.

Under the retail display allowance plan in consideration for fulfilling the conditions of the agreement you will be entitled to receive a display allowance of $0.15 for each copy sold. This plan will become effective for all issues you receive subsequent to Cactus Paperworks's written acceptance on our behalf of your application.

50th PALAVER...
(Continued from p. 32.)

Lucerne Valley with 47 attending. Starting out as an annual event, the Palavers proved so popular he was soon ringing the cow bell in both the fall and spring months. Palavers were held mostly in the deserts, from the southern tip of Death Valley to the pinyon stands of Baja California. Those interested in nature at its unspoiled best camp together, sharing comradeship, ideas, and knowledge.

As one of Dr. Jaeger's ex-students, I was called upon to act as master of ceremonies for this Palaver. Another former student, Dr. Philip Savage, described Dr. Jaeger's discovery of a species of land snail in the Clark Mountains in the northern Mohave Desert that now bears the name **Helminthoghypta Californica Jaegeri** (see Desert July, 1954). Bob Sanders, from the San Bernardino County Museum, graphically described the reptilian life to be found in desert communities. And, Oscar Clarke, retired director of the herbarium at the University of California at Riverside, led the Saturday afternoon nature walk of a mile or so around a small granite mountain.

The evening program was a collection of slides contributed by fourteen Palaverites on subjects ranging from the jungles of New Guinea and the pyramids of Egypt to our own California deserts. This was followed by a film narrated by Lloyd Smith, one time director of the Palm Springs Museum, showing Dr. Jaeger and his discovery of the hibernating poorwill (see **Desert** November, 1954).

The Sunday morning program, led by Lloyd Smith, was another educational walk, this time via an old Indian trail to the discovery site of the hibernating poorwill. The rare bird is now partially protected within the confines of the Edmund C. Jaeger Poorwill Sanctuary.

While the activities for the 50th Palaver were drawing to a climax, a date and site were being selected for the 51st. And Dr. Jaeger, with 93 years of experience and wisdom, will be on hand once again to encourage and educate those who invariably will follow.

by Jack Harris
(Special to The **CLARION**)

DRINKING & GAMBLING...

(Continued from p. 28.)

time, however, and a plot was soon hatched to dispose of him once and for all.

Following his third return in early July of 1871, Kirk was closely watched by the men in on the plot and his movements about town were carefully charted. Shortly after midnight on July 15, 1871, constable Patrick McCready came upon a group of masked men on the street. Thinking they were Kirk's friends, he drew his revolver, but was quickly disarmed and told to go about his business elsewhere.

One of the men quietly told the lawman what was to transpire and McCready hurried back and informed another officer. Chief of police George Downey and a number of lawmen soon fanned out through the town in search of Kirk. The man's abductors had meanwhile put him in a buggy and had taken him to the Sierra-Nevada hoisting works north of town.

Tying him and covering his eyes with a handkerchief, they threw a rope up over an elevated car track over a gravel pit, put the noose over his head, and dispatched him to the hereafter by pushing him off a steep bank. On his chest, they had pinned a card which read, "George B. Kirk, 601 Committee."

The lawmen had meanwhile begun their search and came across Kirk's remains about an hour later. He was immediately cut down and coroner Symons later determined that death had come by strangulation, his neck being entirely intact. At the inquest, a full account of Kirk's last night on earth came out, but McCready was not reprimanded for his listless efforts to save the deceased or his inability to recognize any of those responsible, even the few who were unmasked. The coroner's jury finally came to the only verdict possible, death by hanging by parties unknown.

Other editors throughout the state took note of the lynching of Kirk and their editorial comments reflected the state of things in their own communities. Those towns where the lawless element was well under the control of the regular law enforcement agencies tended to be condemnatory, but editors in towns plagued by crime waxed enthusiastic over the initiative of Virginia City's citizens.

Nevada Historical Society Series
The Eureka SENTINAL

Sen. Laxalt Warns Nevadans Against Loss of Birthright

Our Nevada Day celebration gives me a chance to draw a parallel between the men and women who settled here in the 1800s and today's Sagebrush Rebels.

Those early Nevadans were chasing a dream across the prairies of the unsettled West, turning their backs on the expanding populations of the eastern states.

As they matched Nevada's mountains and claimed land they could call their own, these heartiest of individuals asked but one thing from the Almighty: Control of their own destinies.

Today, 115 years after statehood, Nevadans have yet to win full control of their future. Seven-eighths of our birthright land is under federal lock and key.

The sagebrush rebellion is a viable demonstration of Nevada's unhappiness with what we view as a feudal system. We should not have to be serfs in a fief controlled by the landed gentry of the federal agencies.

I think the 20,000 or so charter Nevadians of 1864 would salute our actions.

Sen. Paul Laxalt [R-Nevada]
Reese River REVEILLE

Search Is On To Find Crazy Cross-Walk Designers

Have you noticed the new crosswalk in Tonopah leading from the Rex bar to the Mazpah? By the way, the lines were painted with what looks like cans of white spray paint. We are pretty sure that the state highway department was not involved in this one. We would like to let the would-be artists of this work of questionable art know that they are liable to state law if caught. We advise those great art lovers to draw pictures on old paper. It will be much safer and less costly.

Sandy Spicer
The Eureka SENTINEL

Swatters Get West

Edward West, a Rex Club graduate, was arrested by the Tonopah swat team and held for 37 hours for doing his civic duty. The duty being performed was painting a much-needed crosswalk from the Rex Club to the Mizpah Casino. This was to keep the bar people from being picked up for jaywalking. When part way through with his patriotic endeavor, he was stopped by a cop and taken away to the Gray Bar Motel. During the night others took brushes in hand to finish Ed West's project.

If the city fathers hadn't enough sense to see the need of a straight-across crosswalk, Ed did and he's not too bright, either. In the early morning I interviewed Mr. West and learned that he was not allowed the customary one telephone call. Several people called the sheriff's department but no one was allowed to make bail. (Even a suspected murderer can get bail.)

The locals now call this masterpiece of art the "Ed West Crossing."

The Eureka SENTINEL

Sagebrush Rebellion Spreads Out From Nevada

"Every western state has its own Sagebrush Rebellion," Mr. Vernon Ravenscroft this week advised the board of directors of the Southwestern Idaho Development Association.

Ravenscroft attended the recent "Rebellion" meeting in Reno as a representative of the Association and for the Idaho Carey Act Association, of which he is the chairman.

Nevada has laid claim to all vacant federal land in their state. California has authorized a one-year study of a similar claim. Idaho has successfully carried a Carey Act land grant case through the federal circuit court. Utah has gone to court over selection rights in obtaining lieu-lands still due that state. Oklahoma has restricted the authority whereby the federal government can acquire private or state land in that state.

"Aggressive, excessive reservations and broken promises such as the pending Birds-of-prey Reserve in southwest Idaho are fueling this rebellion," Ravenscroft said.

There is something wrong when the federal government wants to set aside 900 acres for each pair of birds at the same time as they have been in court trying to confine a pair of humans to only 160 acres.

Tonopah TIMES-BONANZA and Goldfield NEWS

In Case You Didn't Read Page 33

Have you noticed the new crosswalk in Tonopah leading from the Rex bar to the Mizpah? By the way, the lines were painted with what looks like cans of white spray paint. We are pretty sure that the state highway department was not involved in this one. We would like to let the would-be artists of this work of questionable art know that they are liable to state law if caught. We advise those great art lovers to draw pictures on old paper. It will be much safer and less costly.

Sandy Spicer
The Eureka SENTINEL

Will Rogers Centennial

a tribute by Tom Murray

The scene is in an Oklahoma country schoolhouse, located in what was then called Indian Territory. The year is 1887. A small boy enters, brushing snow with tiny hands from his sheepskin coat.

"Willie!" No answer. "Willie!" The teacher, Selyn Winters, finally gets little Willie's attention. "Willie," came the exasperated question. "Why have you come to school without any books, paper or pencils? What would you think of a man going to work without any tools?"

Eight-year-old Willie gave the question some serious thought, then replied: "Why, I would think he was the boss!"

It's been 100 years since William Penn Adair Rogers, better known as Will Rogers, came into the world "halfway between Claremore and Oologah before there was a town in either place" as he was later to explain. Despite Claremore's adoption of the man, Will Rogers just claimed that town for convenience because "nobody but an Indian can pronounce Oologah."

His parents, Clement Vann and Mary Schrimpsher Rogers, were both part Cherokee which was to Will's great satisfaction in later life. He often would say: "My ancestors didn't come over on the Mayflower, they met the boat." At the age of seven, his name was entered as No. 11384 on the authenticated rolls of the Cherokee Nation.

Will was the only son of Clement and Mary to carry the Rogers name on to maturity. He grew up to become the gum chewing, lariat twirling "cowboy philosopher" revered by successive generations of Americans, a title that fitted Will as comfortably as the old blue-serge suit he wore to even the most formal of affairs. Not so well known is that he was considered by his peers on the rodeo circuit to be the world's greatest trick roper, another title he holds to this day.

Despite starring roles in numerous Hollywood productions, long years with his own network radio show, and syndication in 350 daily newspapers, Will Rogers never lost the humbleness that inspired Damon Runyon to call him "America's most complete human document." And there was always wisdom in his wit. He made his audiences think as well as laugh.

He punctured pretense and pomposity with astute but never cruel jests at politicians, appealing unerringly to the basic American distrust of politics and its practitioners. Once Will Rogers was asked if he ever read fiction. His reply: "Sure, the newspapers."

Nothing was sacred to him. On consumer finance: "One way to solve the traffic problem is to keep all the cars not paid for off the highways." On customs: "I wonder if it ain't cowardice instead of generosity that makes us tip most of the time?" On institutions: "The income tax has made more liars out of the American public than golf."

Then one day 56-year-old Will Rogers suggested a leisurely trip to Alaska, Russia, and Greenland to his pal, 36-year-old aviator Wiley Post, using Post's hybrid plane, the "Orion-Explorer." Post quickly agreed.

The scene is in Alaska. Post lands, lost, to ask directions. He takes off reassured. Seconds later, the plane crashes. It's about 7:30 PM, Pacific Standard Time, on August 15, 1935. Post may have lived about three-quarters of an hour longer for his watch stopped at 8:18 when his arm slid into the icy water.

Hours passed while a terrified Eskimo ran the 15 miles to Point Barrow with the sad news. Sgt. Stanley R. Morgan of the U.S. Army Signal Corps recovered the bodies and flashed word of the tragedy that shocked the entire world.

I was a kid in an Acme Store in Harrisburg, Pennsylvania, waiting to buy a five-cent loaf of bread. I heard a customer tell the clerk that Will Rogers had died. I don't remember if I waited for the bread but I vividly remember the stream of warm tears streaking down my skinny mug all the way home.

Harry Carr penned a tribute: "Will was as simple and as natural as a prairie wind. He wrote great stuff without realization of its importance. Like most men raised in the outdoors, he had clear vision and courage and did not believe all the noises he heard."

Will Rogers was buried at Forest Lawn Memorial Park in Glendale, California. Many, however, thought that he would have preferred Oklahoma, the country he loved so well, and a crypt was built by private subscription at the Claremore Memorial for this purpose. However, it was not until May, 1944, that Will's wife, Betty, on her own death bed, consented to have his remains removed. She joined him a month later.

In the 44 years since his untimely death, Will Rogers has faded into legend, best remembered by new generations as the man who never met another he didn't like. As he once said: "You must judge a man's greatness by how much he will be missed."

Unicorns were introduced to the Owens Valley near Ft. Independence by the Paiute Indians.

A GOURMETS GUIDE TO UNICORNS

Story and Photos
by Wayne P. Armstrong

In the October 1977 issue of *Desert* I wrote about a beautiful yellow-flowered unicorn plant found locally in the southwest deserts. Another, pink-flowered unicorn plant or "devil's claw" is perhaps even more interesting because it is used extensively in the remarkable Papago Indian baskets and has been an important ancient food crop for several tribes of southwest Indians. It is scattered throughout Arizona, plentifully enough in some locales to be considered a common wayside plant. In California it is considerably more rare, it undoubtedly having been introduced by local Indian tribes.

The common name "unicorn plant" or "devil's claw" refers to the peculiar and distinctive slender seed pod which splits into two long, curved claws resembling elephant tusks. And to whet my interest in this plant, I recently came across a related South American species that is found occasionally in the hot interior valleys of California. Its generic name *Ibicella* is appropriately named after the long, curved horns of a magnificent Himalayan mountain goat called the ibex.

The pink-flowered unicorn plant (*Proboscidea parviflora*) is a sticky, hairy, annual with spreading branches and rounded or shallowly lobed leaves about 8 to 15 cm. (3 to 6 in.) across. Each hair is tipped with a transparent resin gland that resembles a tiny glass bead on a stalk. The resinous glandular hairs provide insulation against the intense sunlight and hot dry winds of late summer, a time when these plants are often in full bloom. The glandular, sticky coating must be very effective because a small detached branch wilts very slowly in the hot sunlight. Like the brilliant yellow unicorn plant (*P. althaeifolia*) of southeastern California and adjacent Arizona, the flowers are very showy and similar in shape and size to those of jacaranda, catalpa, and desert willow (*chilopsis*). The flowers may vary from pink to cream, often dotted or blotched with red-purple and streaked with yellow. Several Indian cultivars (cultivated varieties) have larger and paler flowers, larger fruits, and are often confused with another species from the southeastern United States, *P. louisianica*. The southeastern unicorn plant is occasionally found in cultivated land and generally has broader leaves with larger, more numerous and crowded flowers. A prominent, white, two-lipped structure (stigma) in the funnel-like throat of the flower closes very quickly with the slightest touch. This apparently aids in capturing pollen carried by insects (mostly bees) from other flowers. The clammy foliage of the southeastern species also has a distinctive and rather unpleasant urinous odor! Incidentally, if you happen to find a unicorn plant growing wild around Palm Springs, California, it will probably be the latter species, introduced from the southeastern plains after 1930.

The slender fruits of the pink-flowered unicorn plant are much longer than other western species. When dried, the body

may be 5 to 10 cm. (2-4 in.) long with horns or claws up to 23 cm. (9 in.) or longer. Fresh green fruits are fleshy and similar in texture and smell to green bean pods. This species is unmistakable when you see the enormous seed pods hanging from the branches. (Some shops in southwestern Arizona have these strange pods on display.) The slender horns or claws are often coiled or contorted in various unusual shapes. The southeastern species also has very long pods; however, none of the plants I have grown produce seed pods as long as the Arizona Indian cultivars.

Although the pink-flowered unicorn plant is reportedly fairly common in some parts of southern Arizona, particularly along the Gila River, it is quite rare in California. Quite frankly, I have never found it to be common along the Gila River, at least west of Buckeye and Gila Bend, but maybe I was in the wrong place, or in the right place at the wrong time of year. It has been reported from several widely separated desert areas of Inyo County, such as Johnson Canyon west of Death Valley, the mouth of Hunter Canyon in Saline Valley, and historic Fort Independence in Owens Valley. Several excellent pressed specimens are on file at the Eastern California Museum in Independence and at the Death Valley National Monument Museum. It has also been reported from several cultivated fields of southern California, including Whittier and La Verne (Los Angeles County), near Murrieta (Riverside County), and Otay Mesa (San Diego County). Urban sprawl has undoubtedly eliminated some of the early locations in southern California. It is also possible that some of the locations might have been confused with the southeastern species (*P. louisianica*), which has been introduced into the Sacramento and San Joaquin valleys and near Palm Springs.

Immature fruits, covered with sticky hairs, hang on branch like pea pods.

Authentic Papago baskets made from yucca leaves and unicorn are proudly signed by their makers.

Certainly the most fascinating location for the pink-flowered unicorn plant in California is Johnson Canyon. Johnson Canyon is a steep canyon on the eastern side of the Panamint Range that drains into Death Valley. It can be reached from the graded West Side Road, approximately 25 miles south of Furnace Creek Inn. A steep, rocky road climbs the alluvial fan for about six miles before entering Johnson Canyon for another three miles. The road stops at a cool spring and the site of an old corral surrounded by cottonwood trees and willows. From here the canyon narrows, and a foot trail continues up the canyon to historic Hungry Bill's Ranch, and beyond to the crest of the Panamint Range.

Hungry Bill, a six-foot, four-inch Shoshone Indian with a reportedly enormous appetite, settled in Johnson Canyon after the downfall of Panamint City. Panamint City, located about five miles to the west, was a rough and wild little silver mining town with several thousand people in the mid-1870s. Prior to Hungry Bill's settlement, the upper Johnson Canyon bottom was cultivated by several Swiss immigrants who raised fresh vegetables for Panamint City's market. According to Dr. Edmund C. Jaeger, a brother of Hungry Bill visited Fort Mojave, Arizona, and found the Indians there making black designs in their baskets from unicorn plant pods. He planted seeds in Johnson Canyon where they became naturalized and apparently still flourish to this day. It is difficult to pinpoint the exact year, but the seeds were probably introduced about a century ago.

Bees are attracted to flowering Devil's Claws for the nectar and pollen. Smaller insects stick to the hairy foliage.

In addition to its beauty and magnificent vistas (especially in early morning and late afternoon) and its amazing geology, Johnson Canyon contains several historical points of interest. The trail to Hungry Bill's Ranch passes a couple of arrastras and an old rock aqueduct. The arrastra was a crude device used by miners over 100 years ago to crush and pulverize ore so the gold could be extracted. It consisted of a circular path or race of rocks with a beam pivoting on a central shaft. The beam would drag a large boulder around and around within the rock-lined path. The power to pull the heavy pivoting beam and boulder was supplied by a burro walking in a circle.

Many plants have been used extensively by native Indians, but one of the most amazing is the pink-flowered unicorn plant. Like the famous rugs and blankets of Navajo Indians, the baskets of Papago Indians are well-known for their durability, beauty, and intricate designs. The four basic colors in the baskets are white, black, green, and occasionally red. White is derived from sun-bleached and dried yucca leaves, while the green is from unbleached, dried yucca leaves. A red dye obtained from yucca roots is sometimes used to color the leaves. Narrow, fibrous strips of yucca leaves are tightly wound around slender bundles of beargrass or basketgrass (*Nolina*) leaves. Technically, the beargrass bundles are called primary coils and are held together by compact spirals of yucca leaves, called secondary coils. If you look very closely between the coils of yucca leaves you can see the primary coils of beargrass leaves. This is difficult to explain in writing; you just have to look at the baskets!

When dried the unicorn seed pods look like they were sprayed with flat black paint. The dried pods are soaked in water and the long, curved "horns" or "claws" are split into narrow strips. The pliable black strips (like leather shoe laces) are tightly coiled around bundles of beargrass leaves to produce the dark patterns. Since the black color is part of the actual pod and not a dye, it will last indefinitely and contrasts strikingly with the white yucca fibers. The closeness of the weave and the elaborate designs obtained by alternating strands of white yucca leaves with strands of black unicorn plant pods is quite remarkable.

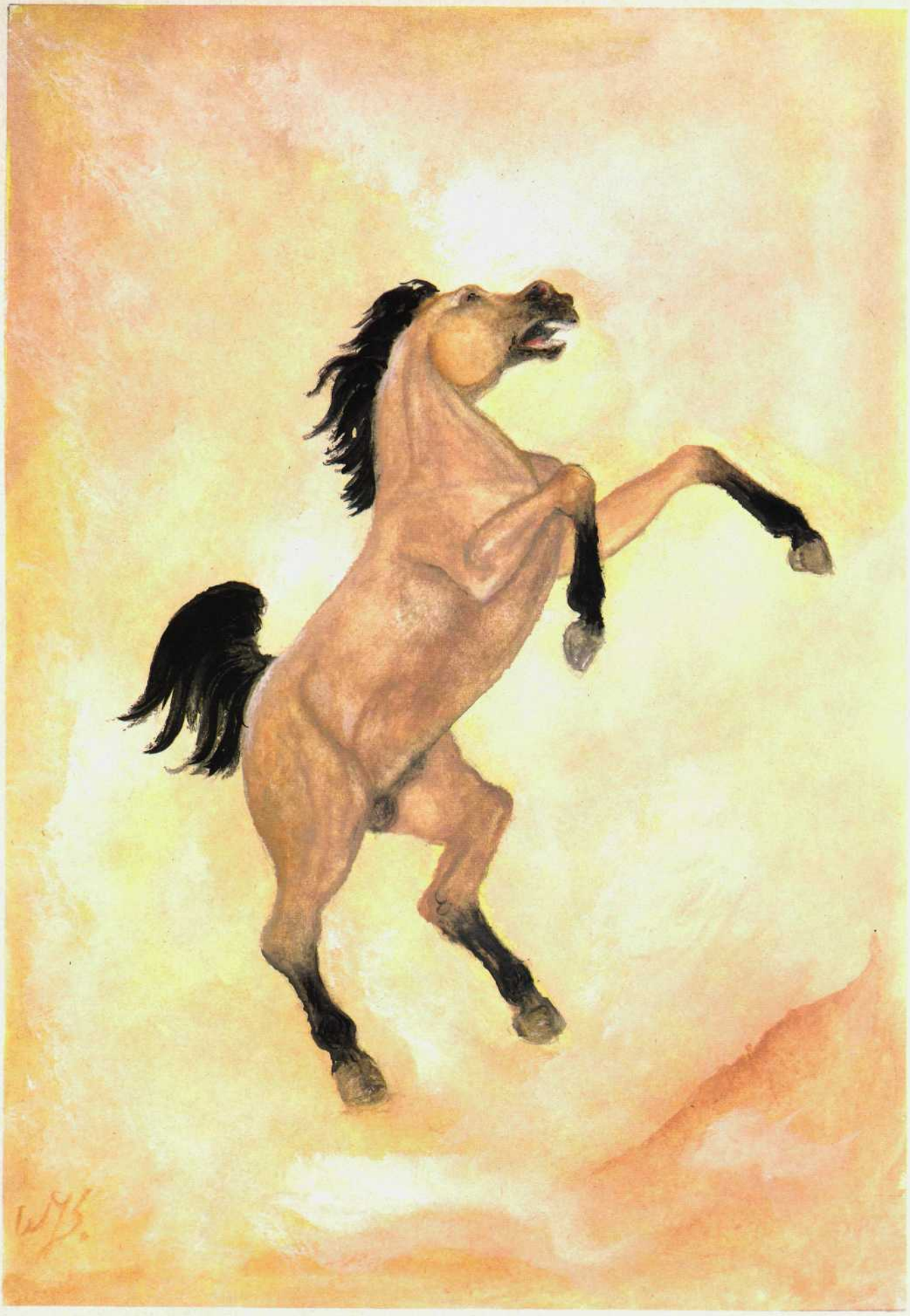
The Shoshone Indians of Death Valley also made various types of baskets from coiled grass stems, willow, and squaw bush. Some baskets were made waterproof with a coating of pinyon pine resin inside and out. According to Dr. Jaeger, they occasionally made black patterns from the unicorn plant pods or bulrushes (*Scirpus*) soaked in ashes. The Cahuilla Indians of southern California made a variety of baskets from several native plants, including squaw bush or basket weed (*Rhus trilobata*), deergrass (*Muhlenbergia rigens*), rushes (*Juncus*), and willows (*Salix*). According to Lowell Bean and Katherine Saubel (writing in "Temalpakh"), the hook-like horns of the yellow-flowered unicorn plant were used as a tool in mending baskets and broken pottery.

I can only speculate about the extremely isolated distribution of the pink-flowered unicorn plant in Inyo County, but at least some locations appear to have been introduced by local Paiute and Shoshone Indians. The plants adapt quite well to dry disturbed areas such as roadsides, riverbeds, and even plowed fields. Wild plants overwinter as seeds and then germinate the following late spring or summer. They flower throughout the summer months during the hottest season of the year, long after most other wildflowers have bloomed and gone to seed.

Seeds may be planted in well-spaced mounds or in rows, just as you would plant cucumbers or squash. You should plant the seeds in spring when the soil is warm and when there is no danger of frost. Soaking the seeds in hot tap water appears to stimulate germination and increases the percentage of young seedlings. Seeds should be covered with about an inch of soil and kept moist until germination. Unicorn plants grow in a variety of soils ranging from sandy washes and blistering hot roadsides to fertile loam soils. Although they can survive poor soils and severe drought conditions, plants grown in my garden near Escondido (San Diego County) appeared to thrive in rich loam soil with weekly watering.

The pink-flowered unicorn plant or devil's claw is an ancient and important food crop for southwestern Indians such as the Papago, Pima, and Havasupai. According to Gary P. Nabhan of the Arizona-Sonora Desert Museum, a prolific cultivated variety with longer claws has been cultivated for many generations. Some reservations have gardens of sprawling devil's claw plants that resemble squash or pumpkin plants from a distance. The young, tender, green fruits (which resemble long tapering bean pods or okra) are harvested and eaten as a vegetable. They may be boiled or pickled, and nutritious seeds from dried pods may be eaten like sunflower seeds. According to Mr. Nabhan, the seeds can be pressed to produce an oil comparable in quality to commercial salad and cooking oils.

The amazing little pink-flowered unicorn plant is a rare find in the desert areas of California. In fact, if anyone ever finds one growing wild I would greatly appreciate knowing the precise location. Some of the reported locations were probably introduced many years ago, either by Indians or early settlers. It is a potentially high quality vegetable and oil plant for parched desert lands, and the long, unusual seed pods and attractive foliage with striking pink flowers make it a very desirable ornamental for desert gardens. At least, the unicorn is guaranteed to be a conversation piece in the home or garden of any desert lover.



THE PRICE OF FREEDOM

by R.M. Lowe

It was back in 1929, just before the big stock market crash, and I was working a third trick telegraph and train order job at Shafter, Nevada. It was a joint Western Pacific-Nevada Northern stop near Steptoe Valley, known to some as the longest valley in the United States.

When I wasn't sleeping between shifts, I'd be out prowling Steptoe and one time, I saw something I'll never forget. I saw something that gave me a new slant on the price of freedom. It happened in the middle of the valley, just a few miles south of Shafter, up on a wide but not high stone sentinel with a broad, flat top. This sentinel was a favorite for harried bands of wild mustangs to gather and observe converging movements of would-be Indian captors on their horses.

Back then, wild horses delivered to chicken and egg capitols such as Petaluma in California brought the Indian much green wampum. The game included herding wild range horses to railroad cars at the stock pen in Shafter, a feat the wily Indian performed much better than the white man ever could. However, there were a few times when even the Indian struck out.

I remember very well the first time I witnessed, with much mixed feelings, this game of life and death between man, with his so-called superior brain and his well-trained horses, versus one of nature's craftiest animals—a mustang stallion.

The wild stallion I saw was a big sleek buckskin, proud and fiery and undisputed leader of his band of mares and colts. I stood fascinated on that crisp fall morning as this rare nomad of the desert paced back and forth, and around and among his charges on top of the flat little mountain.

The mustang was troubled. Civilization's threat to his lifestyle, in the form of Indians mounted on spotted ponies, encircled the bottom of his observation post. The way the Indians sat their horses and studied the terrain made the stallion very nervous. Milling around with his family, he would at times lash out at the ground with sharp hoofs or snap and bite at a mare or colt, anything to spill his pent-up emotion.

The stallion's tantrums were pardonable because, at this moment, he was a quarterback with no one to huddle with. The lives of his family depended on the play he would come up with. A right call would win back their world of freedom; a wrong one meant home in an egg crate in some supermarket. It was win or lose, no tie and no replay on that mountaintop.

As the big mustang prowled and fretted back and forth, his beady eyes watched the mounted men below deploy for the final showdown. Viewing this drama from my vantage point, I imagined the stallion replaying in his brain all the know-how handed down by his ancestors in a desperate effort to come up with a workable escape plan.

When the Indians were finally in position and set for action, the next move was up to the mustang. Suddenly the little flat mountain came alive with excited, milling horses. The big stud had seemingly lost his marbles, kicking and snapping at the mares and colts, but it was just a sort of "pep" thing to whip them into alertness. Then, without further notice, the dam broke and a veritable wall of wild horses cascaded down the hillside toward the Indians, little geysers of dust spouting up from each hoof and merging into a great cloud behind the thundering herd.

Right at the head-end of the fast-moving horseflesh was the buckskin quarterback, his legs churning like steam pistons, his beautiful mane and tail rippling in the desert air like challenging banners.

The stallion cut first one way and then another in a most bewildering manner. His family team, in tight formation, duplicated his every move like so many fighter planes. The line of Indians, standing firm, was nonetheless confused. They hadn't seen anything like this before.

Then, after what seemed like repeated attempts to break through the line had failed, the big stud pretended desperation and headed full-steam for the most heavily guarded section of the line. Was it a stupid, suicidal attempt to run through and over the opposition?

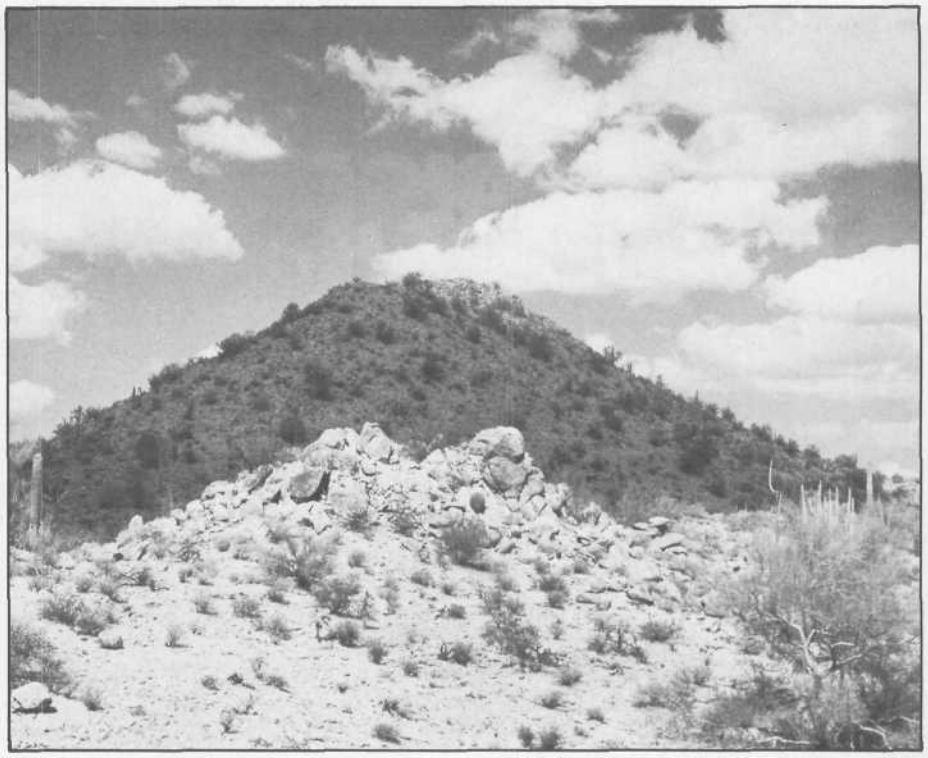
The Indians thought so. The unexpected move caused their horsemen on the wings to shift quickly to the center of their line, and that move fitted the stallion's strategy like the smooth glove that could still be made from his hide. Just before reaching the Indian main line, he slid to a stop and reared straight up on his hind legs, pivoting back into his own cloud of dust. Each mare and colt duplicated the stallion's manuever and within a split second, they were all completely obscured. Then with the speed and roar of a tornado, they emerged down the line and ran straight through the Indians' weakly-guarded flank.

Big Buckskin Daddy never let up. He kept nipping at the back ends of the mares and colts to increase their speed. The game was won and Daddy knew it. In just a few short minutes the flying band of wild horseflesh was nothing more than a plume of grey dust, moving higher and higher up a faraway mountain canyon. And with them went a thing held most precious by man and beast alike, a thing called freedom.

At that time of my life I had a fairly thick hide myself, but I looked up at the sky and thanked the Head Wrangler for His deliverance of that beautiful hunk of horseflesh. Big Buck and his folks were free, and the Indians were wiser, and those eggs in the market would be just a little smaller and scarcer. And I was grateful.

Illustration by Pat J. Williams

By night. . .



And by day.

Photos by the author.

QUITO BAQUITO PAST AND PRESENT

Story and Photos by George M. Bradt

Quitobaquito, Quito for short, is a tiny green oasis in the Arizona desert. Its ancient springs are still today, as in the distant past, a liquid lodestone in a land of drought, luring men and animals to its precious moisture. It lies just north of the international boundary in Organ Pipe Cactus National Monument and can be reached by car from Lukeville, south of Ajo.

Climb the little hill overlooking Quito. Climb over its boulders of weathered granite studded with shining feldspar, through organ pipe and cholla cactus, around brittlebush, mesquite, creosote, and palo verde to its 300-foot summit. There, high above the changing present, contemplate the enduring past — the enthralling chronology of Quitobaquito.

Look to the northeast. There, deep in the Papago Indian Reservation, 50 miles from Quito, is a great rock overhang that has sheltered human beings for double the duration of all recorded history. It is called Ventana Cave and the story of Ventana is substantially the story of prehistoric Quito.

Ventana's first recorded visitors were not men, however, but dire wolves, four-pronged antelope, horses, tapirs, and bison. When the cave was excavated under the direction of Dr. Emil W. Haury their fossilized bones were found in the lowest and oldest deposit, a pinkish conglomerate at least 10,000 years old. Since no definite evidence of man's presence was found in this layer, Ventana Cave, and possibly all of Quito Country, must have been the exclusive domain of these and other strange beasts of the late Pleistocene.

But the area was not to be theirs forever. Stone knives and projectile points, hammerstones, and scrapers found in association with the bones of extinct mammals in Ventana's second oldest deposit, the volcanic debris layer, show that men had arrived in Quito Country by 8000 B.C. These were stone-age mammoth hunters, the very first men to climb Quito's hill and look out upon the world as we are doing now.

Now look south from Quito's hill. Below is the barbed wire fence and white pylon No. 172 marking the boundary between Mexico and the United States. The paved highway runs 125 miles west from Sonoyta to San Luis on the Colorado and then on to Mexicali and the coast. Beyond the highway is the usually dry bed of the Sonoyta River overgrown with tamarisk and arrowweed. Rising above the river is the Sierra de Los Tanques. To the southeast is the Mexican town of Sonoyta, 12 miles distant. Five miles southwest is a second source of permanent water called El Carrizal or Agua Dulce, more frequently visited by travellers east and west than Quitobaquito itself.

This is Quito country. Around its rare water holes lived the pagan Papagos. To it came padres, Jesuit and Franciscan, in search of souls to save. For its minerals and land came Spaniards, Mexicans, and Anglos. And through it passed some of the most memorable and colorful protagonisists of southwestern history.

Among the first was Melchior Diaz,

one of the notable captains of the Coronado Expedition, who marched westward from Sonoyta in September, 1540. He was accompanied by 25 Spanish horsemen and a number of Indian guides. While exploring the area south of modern Mexicali and Calexico, Diaz was wounded accidentally by his own lance. For 20 days his men carried him back the way they had come, but he died en route on January 18, 1541 and was buried in an unknown grave somewhere south of Sonoyta.

Eusabio Francisco Kino, Father Kino to Arizonans, Jesuit priest, missionary, pioneer, and map-maker stopped at Quitobaquito, or San Serguio as it was called by the Spaniards, on October 8, 1698. He was on the first of his eight trips through Quito Country. Among the results of his monumental peragrinations was the conversion of over 4,000 Indians, proof that Baja was a peninsula and not an island, and the discovery of the vital land passage to California.

Jacobo Sedelmayr, Jesuit priest for 16 years at Tubutama, traversed Quito Country late in 1750 on his way to and from the Gila and the Colorado. When the Jesuits were expelled from Mexico in 1767 by order of Charles III, Sedelmayr was taken to Spain.

The quasi-peace of Spanish occupation prevailed in Quito Country until 1751. Then, in late November, the Pimas under their captain-general, Luis Oacpicagigua, began a relentless campaign against their conquerors. Missionaries and settlers, even Indian converts, were murdered and their missions and homes looted and burned all the way from Saric to San Xavier. Their depredations even reached remote Sonoyta. There, on November 22nd, at Kino's old mission of San Marcelo a dozen miles from Quitobaquito, its 33-year-old priest, Heinrich Ruhen, was clubbed to death and the mission buildings destroyed.

Padre Francisco Garces, called the "Kino of the Franciscans" by historians, crossed Quito Country to the Gila and back during August and September, 1771. In January, 1774, Garces and Father Juan Diaz accompanied Juan Bautista de Anza via Sonoyta and El Carrizal to the junction of the Gila and Colorado Rivers.

Col. Juan Bautista de Anza, Father Pedro Font, and the Yuma Indian chief Salvador Palma traveled through Quito Country via Sonoyta on their way to Mexico City late in May, 1776.

Lt. Col. Pedro Fages crossed Quito Country three times in 1781. In October, commanding some 200 soldiers and Indian allies, he marched from Hermosillo via Gila Bend to the Colorado to rescue the Spaniards held captive by the Yumas after their 1781 uprising, to recover the bodies of the four murdered priests, including Garces, and to punish Chief Palma and his accomplices. Fages ransomed 48 women and children and conducted them by way of El Carrizal to Sonoyta. Three weeks later he returned to the Colorado and ransomed the remaining captives. He also located the bodies of the martyred padres.

General Jose Castro, of Mexico's California cavalry, passed this way late in August, 1846. He and 20 others were on their way to Sonora, having left Los Angeles on August 10th, just three days before Commodore Stockton and General Fremont raised the U.S. flag over that city.

Two other prominent Mexican generals, Flores and Castro (a cousin of Jose's), crossed Quito Country from California to Sonora in January, 1847 during the final stages of the war with Mexico.

Members of a band of Indians called Arenenos or Sand Papagos settled at Quitobaquito about 1850. The entire band probably never numbered more than 200 or so. Their territory included the sand dunes of the Gulf, the lavas and craters of the Pinacates, and the water holes along the border. Their depredations against gold seekers bound for California in the 1850s resulted in the death, capture or dispersal of most of them.

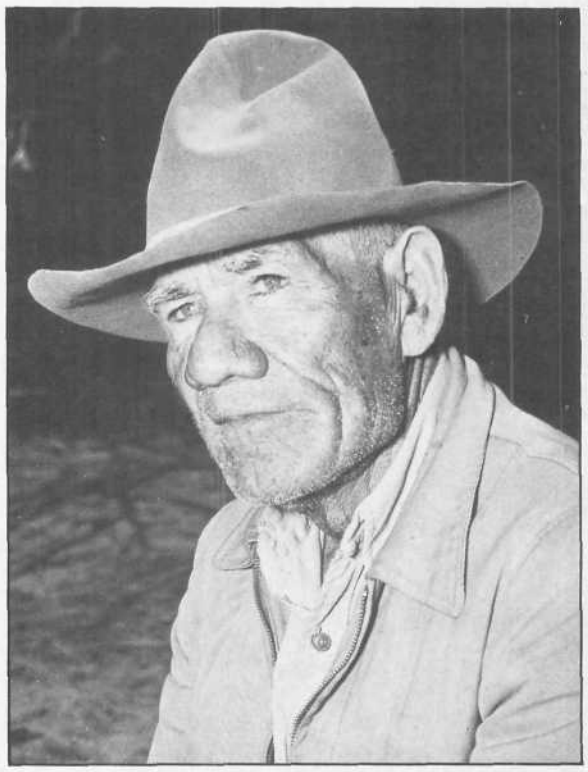
A. B. Gray, in charge of the survey for a possible railroad route along the 32nd parallel, visited Quitobaquito in May, 1854. He was seeking a direct route between the Santa Cruz River and Fort Yuma, or, at least a shortcut to avoid the great bend of the Gila.

Lt. Nathaniel Michler and Don Francisco Jimenez of the American and Mexican Boundary Survey camped at Quitobaquito in the summer of 1855. They were running the western section of the line marking the international boundary according to the Gadsden Treaty of 1853, which gave the U.S. the land south of the Gila.

Louis J. F. Jaeger, ferryman at the Yuma crossing of the Colorado from 1850 to 1877, spent the night of September 29, 1856 at Quitobaquito. He was on his way from Sonora to Yuma with a wagon load of supplies for the fort. Part of an unsigned diary, but undoubtedly Jaeger's, describes this trip and another one made the same year into Sonora via Quitobaquito for parched corn, flour, cornmeal, raw sugar, and cheese for the thousands of hungry residents, permanent and transient, of the Yuma crossing.

Henry Alexander Crabb and 69 fellow filibusterers crossed Quito Country in late March, 1857. They were on their way from California to conquer the Mexican state of Sonora. At Caborca they were attacked by Mexican soldiers and civilians and forced to surrender. All but one 16-year-old boy were summarily executed.

Charles Debrille Poston, "Father of



Alberto Celaya (1885-1962) was guide and companion to Carl Lumholtz during his exploration of northwestern Mexico in 1909-1910. This photograph was taken in 1948 by the author.

Arizona," and Raphael Pumpelly, Harvard professor and mining engineer, traversed Quito Country together in August, 1861. The two men had been forced to abandon their mines in the Santa Cruz valley by the Apaches who felt free to raid and murder when Federal troops were withdrawn at the outbreak of the Civil War. The two men traveled to Caborca, then north through Santo Domingo to "the last watering place before entering upon the desert" (Quitobaquito?), and on to Yuma and Los Angeles.

Various Americans and Mexicans occupied Quitobaquito from the 1860s on. The first was Andrew Dorsey. He built the pond and dug the ditches leading from the spring. Others came and went leaving little evidence of their existence. But to this day, below the pond, hidden by the dense mesquites lining the road to Rincon Springs, ancient pomegranate and fig trees grow and flower and bear fruit to remind the living of Quitobaquito's long-dead settlers.

Jeff Milton, son of the Civil War governor of Florida, Texas Ranger at 18, Wells Fargo messenger, and mounted customs inspector was at Quitobaquito in 1887. His district was the area between Sasabe and Yuma — Sonoyta, Quitobaquito, and the old Caborca-Yuma Trail sometimes called the *Camino del Diablo*. Twenty years later, in 1907, Milton had a base camp at Quitobaquito while patrolling the border in search of Chinese being smuggled into the United States. In 1930 he was once again at Quito, but this time in a car, an innovation that almost cost him his life when it became stuck in the sand, something his horse had never done.

Members of the United States section of the boundary commission surveying the boundary for the second time erected monument No. 72 "at the old village of Quitobaquito, and near and south of the valuable springs of that name" in June, 1893. They found no traces of Michler's 1855 monuments but did locate a camel skeleton to the west of Quito!

W. J. McGee, noted geologist and anthropologist and author of *The Seri Indians*, visited Quitobaquito on November 16, 1900. With him was Professor R. H. Forbes, author of *Crabb's Filibustering Expedition into Sonora, 1857*. At Quitobaquito, "a Papago village with five centuries behind it, and a half dozen native huts within it," they found the entire white population to be one M. G. Levy, "merchant, mine owner, justice of the peace, and deputy sheriff." Also in evidence were the wheel ruts, mule tracks, tent pegs, half-rusted cans, and empty bottles left by the boundary surveyors in 1893.

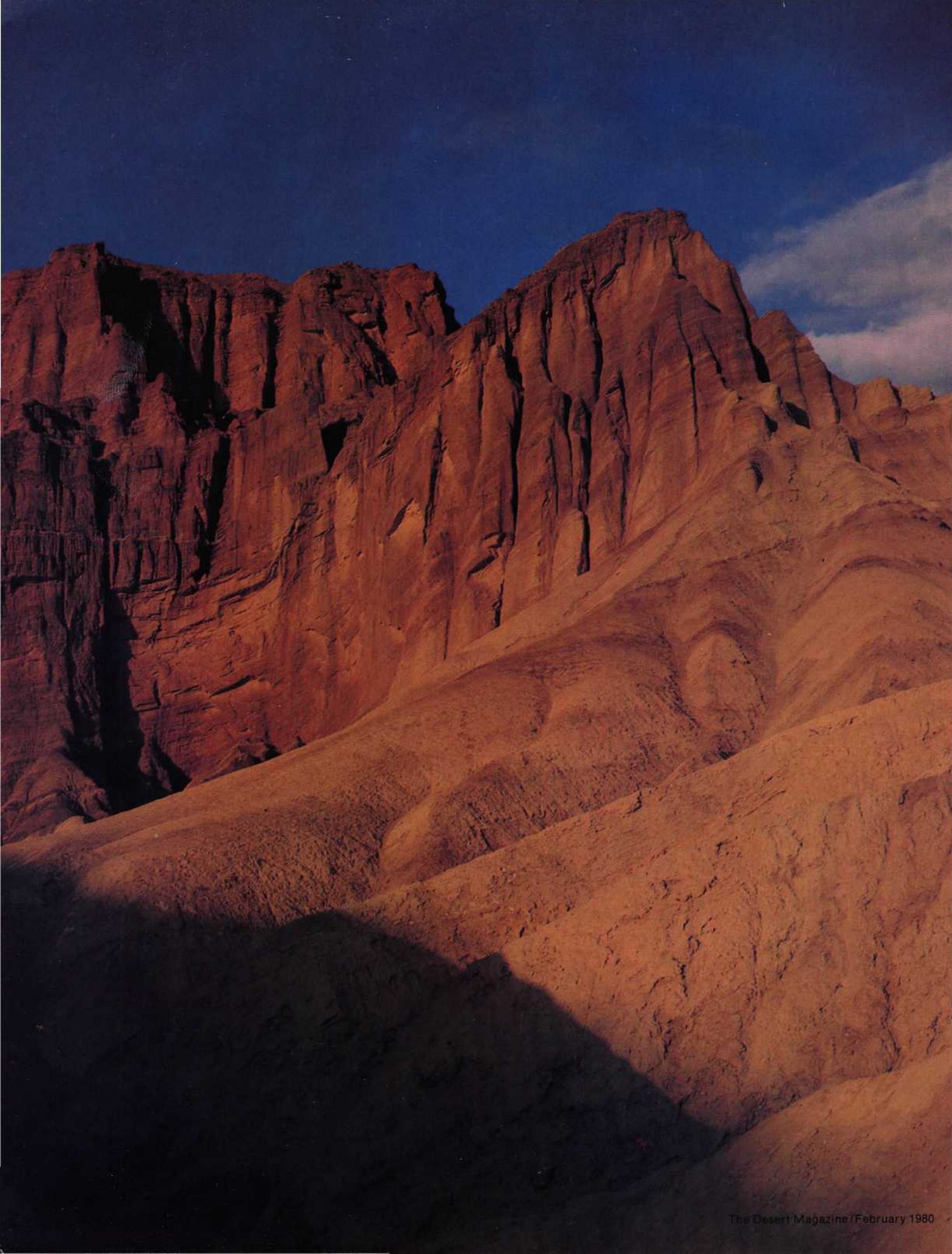
Tom Childs, Jr., Arizona pioneer, miner, and rancher was at Quitobaquito in 1904. He had married two years earlier and eventually had 15 children. Tom Childs died in 1951 at the age of 81 and is buried at his Ten Mile Ranch north of Ajo.

Dr. William T. Hornaday and his expedition to the Pinacates passed through Quitobaquito on November 10, 1907. He found eight houses at the pond, four of them occupied. Tom Childs was living in one of them. With Hornaday were Dr. D. T. MacDougal and Godfrey Sykes of the Carnegie Institution department of plant research, and Jeff Milton.

Carl Lumholtz, noted Norwegian explorer, visited Quitobaquito on the day after Christmas, 1909, and twice early in 1910. His notes on the Papago are to be found in his *New Trails in Mexico*. Although Lumholtz died in 1922, his guide to Quitobaquito and the desert, Alberto Celaya, lived on in Sonoyta providing hospitality and help to countless scientists, writers, and friends until his death in 1962.

Quito's past ends with Lumholtz. Its chronology since 1910 pertains to the present. So, climb the little hill above the ancient springs at Quitobaquito and from its stony summit look down on the lost years of Quito Country's chronology.

QuitoBaquito Today: Pond and parking lot (A); dirt road to Rincon Springs (B); paved highway from Sonoyta to San Luis (C); dry bed of the Sonoyta River (D); Sierra de Los Tanques (E); hazy outline of the Pinacates (F).



THE DESERT IN THE BIBLE

by Dr. Robert T. Fisher

The desert has always intrigued man. No writer of prose or poetry has ever been able to describe this power of the desert to hold, capture, and influence mankind. Yet its mysterious power is there, pervasive and compelling. And what is even more fascinating is that three major religions are a product, in part, of their founders' close relationships with the desert. Certainly the desert is conducive to meditation; its very vastness, isolation, stillness, and free vistas inspire meditation and contemplation. But while the Old Testament writers, Christ, and Muhammad went to the desert to think, the desert is more. The desert is where St. Teresa found God. She asked God: "Where shall I find Thee O my God?" He answered: "In the desert."

It is true that other major religions or moralistic movements such as Buddhism are not related to the desert, simply because there were no deserts where their founders lived. Still, the incredible power of Judaic-Christianity as evidenced in the Bible is motivated by the power and mysticism of the desert. In part, the desert acted as a restriction upon Biblical writers, being a barrier to cross-cultural invasions. But this resulted in the writers learning from the desert and also becoming more introspective. The desert was a source of strength, for example, to John the Baptist, and a source of refuge to such fugitives as David.

In the Old Testament the desert was important, first of all, because it was the place where man first encountered God. This theme is rampant throughout the Bible, that man encountered God in the desert. Israel would not have survived and improved if it had not been for this encounter with God in the desert. Deuteronomy 8 states that it was "God who brought you out of Egypt, out of the land of slavery." However, Deuteronomy describes the desert not as benevolent, but as a place of trial and trouble. It states: "He led you through the vast and terrible wilderness infested with poisonous snakes and scorpions, a thirsty, waterless land."

But as desolate and uninviting as the desert is, as described in Deuteronomy, it is still the place to find God and to secure His comfort, as described in Hosea 2: "I will go with her into the wilderness and comfort her." What does this comfort consist of? The Bible states this in the majestic language of Isaiah 35: "Let the wilderness and the thirsty land be glad, let the desert rejoice and burst into flower. Let it flower with fields of asphodel, let it rejoice and shout for joy. The glory of Lebanon is given to it, the splendour too of Carmel and Sharon; these shall be the glory of the Lord, the splendour of our God. Strengthen the feeble arms, steady the tottering knees; say to the anxious, be strong and fear not."

Such Biblical personages as Elijah met God in the desert. See for example I Kings 19, where Elijah spoke with God after being on the desert for 40 days and 40 nights, a forerunner of Christ's 40 days and 40 nights in retreat on the desert to prepare for his public ministry. Paul also sought refuge in the desert. In Galatians I, immediately after his conversion, Paul went to the desert to meditate and pray. And in Revelation 12, the woman robed with the sun fled to the desert "...where she had a place prepared for her by God, there to be sustained for 1,260 days."

Also, it was in the desert that the people of Israel were tested, accepted, and were met with favor by God. The Acts of Apostles 7 state that the Israelites spent 40 years in the desert, and it was there that "...when they were assembled there in the desert, he conversed with the angel who spoke to him (Moses) on Mount Sinai, he received the living utterances of God." The Acts 13 go on to state "...for some 40 years He (God) bore with their conduct in the desert. Then in the Canaanite country He overthrew seven nations, whose lands He gave them to be their heritage."

The first mention of the desert in the New Testament is in Matthew 3. Here, John the Baptist carried on his preaching in the desert. John the Baptist, describing himself as "a voice crying in the wilderness," quoted Isaiah: "In the desert make ready the way of the Lord, make his paths straight."

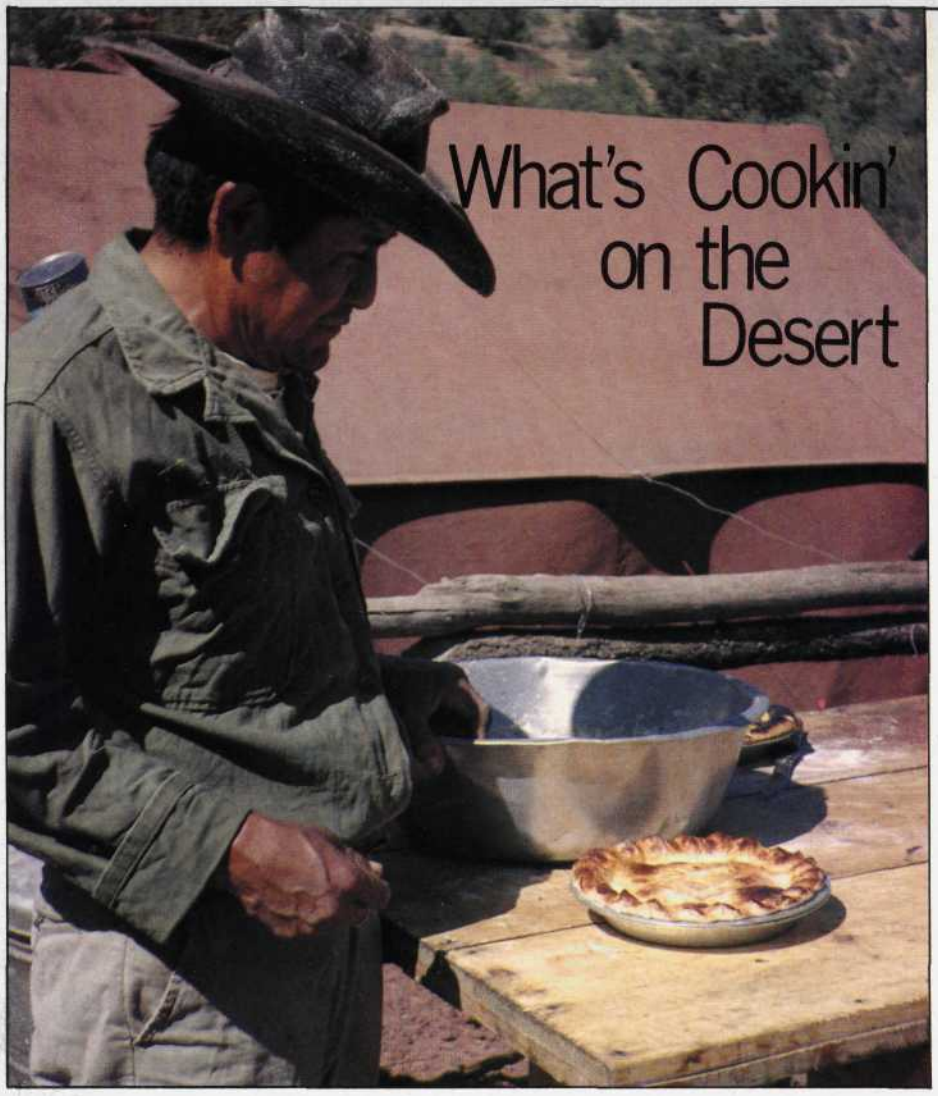
Christ went out to the desert to be baptized by John. Luke 3 states that this was the first act of Christ, to be baptized in the desert, where He remained for 40 days and 40 nights. In the desert Christ was tempted, but here He also fasted and prayed in preparation for what was to come.

The Qumram Essenes used the text stated by John the Baptist, "in the desert make ready the way of the Lord," as the basis for the reason they lived in the desert. They were in the desert to prepare the way for the Lord and to study and observe the Law.

Many other sects and religious communities followed the precept that the desert was the proper place to make ready for the Lord, including the Anchorite's monasteries and nunneries. However, the desert was also a testing place, for as pointed out in I Corinthians 10, "...most of the Israelites were not accepted by God, for the desert was strewn with their corpses."

Perhaps today the steady influx of campers, recreational vehicles, and visitors to the desert is an unconscious emulation of the early Biblical writers' attempt to find God in the desert. The mysterious attraction of the desert, its calmness, serenity, peace, and beauty draw man to it, and away from the stress, noise, and confusion of the city. Perhaps the Bible again points, as it has for centuries, the way to a fuller life.

"The Cathedral" in Death Valley's Golden Canyon. Photo by *Russell Butcher*.



Apache Cook at Sycamore with Dutch oven pie. Photo by *Stella Hughes*.

SPUDS

In the 30 years I lived on the San Carlos Apache Indian Reservation in Arizona, I can't ever remember hearing an Apache calling potatoes anything except spuds. Of the thousands of grocery lists handed to me by roundup cooks, I always knew I'd find 100 lbs of spuds along with other needed items. The Apaches are great beef eaters, and after beef comes spuds. And why not? Spuds are native Americans, too.

The Apaches like their spuds fried. Then fried and fried. Once in a blue moon a cook will make mashed potatoes, using canned milk and bacon drippings. Salt is used sparingly in reservation cooking, as the Apaches are in the habit of adding salt in huge amounts to their food after it's on their plates. And some of the roundup cooks are great ones for making soup, theirs being more of a thin stew with chunks of beef, canned peas or beans, lots of canned tomatoes, and chockfull of diced spuds.

Boiling potatoes in their jackets is considered the lazy method of preparing spuds. These aren't very popular, as roundups never have butter, and the only other thing that would make them palatable is good cream gravy, and I never saw good gravy made by an Apache cook, period.

Potato salad is seldom made in a roundup camp. Occasionally during shipping time at the stockyards, a cook would boil spuds, cut them in chunks, and add a dozen or so boiled eggs. Maybe he'd mix with mayonnaise, and maybe he wouldn't. If he did have mayonnaise, he was apt to use all he had, even if it was a gallon-jar full. My type of potato salad, made with everything I could lay my hands on, was a wonder to the Apaches. I used pickeles, olives, celery, radishes, pimento, and onions, this all seasoned with paprika, garlic powder, pepper, vinegar, mustard, sugar, and salt. The gooier the dressing, the better they liked it.

When visiting a roundup camp, intending to help if needed, I always carried my seasonings with me in a flour sack. The Apaches called it my medicine bag. I'd have fresh garlic which the Apaches never used, bay leaves, bottled smoke, oregano, fresh ground red chilis and Accent. I never had to worry about vanilla, as all roundup cooks kept a good supply. They were firm believers in using lots of vanilla in rice or bread puddings, and an occasional cake would have so may brown streaks of vanilla, it resembled a marble cake. In fact, some cooks were so fond of vanilla they drank it by the bottle, mixed with strong black coffee. These didn't last long, either as cooks or live Apaches.

Left-over mashed potatoes are wonderful to have on hand. There's never any left-over-anything in a roundup camp. Young cowboys, be they red or white, work hard and long, and a great big graniteware kettle of mashed (they call'em "smashed") potatoes lasts about as long as a snowball in you-know-where.

My favorite recipe for left-over mashed potatoes is to add a beaten egg or so, grated cheese (not too much) and a spoon or so of flour, enough to make patties that can be formed by hand without sticking to the fingers. We love whole kernel corn added, but I wouldn't open a can of corn just to make potato patties.

Another way to make potato patties is to grind, or chop fine, any left-over roast beef or pork. Add to mashed potatoes along with some onion chopped very fine. Add an egg, a small amount of flour, and mix well. Form into cakes and drop by spoonfuls in small amount of hot fat and fry until brown, turning once.

The Apaches are past masters at cooking with Dutch ovens. All their camp cooking is done over oak or mesquite coals, using the heavy iron ovens for their bread baking, roasting, frying and stewing their good beef, and frying their everlasting spuds. Only *frijoles* (pinto

beans) are boiled in graniteware pots.

Oddly enough, the Apaches never bake potatoes placed in the hot coals of their cooking fires. All winter long, I bake potatoes, greased and wrapped in heavy foil, by burying them in the fireplace ashes. It saves precious gas, and the spuds are, oh, so good.

Potato Chips

Way back in 1885 a cook named George Crum in Saratoga Springs, New York, fried up a batch of potatoes sliced paper thin for a fussy patron. Well, I bet ol' George didn't have the foggiest idea he was starting a multi-billion dollar industry, but his boss was smart enough to cash in on the instant success of the crisply fried spuds, and promptly named them Saratoga Chips. Last year 12 per cent of the nation's potato crop was turned into potato chips.

Potato chips are probably the most popular snack food in America today. It's become so convenient to open a bag of crunchy chips and start munching that no one ever considers making their own but, it can be fun.

Start with scrubbing medium-sized potatoes. Remove eyes and any blemishes. Don't bother to peel. Slice as thin as you can with a very sharp knife and place them in a bowl of ice water at once. Leave for at least 30 minutes. Be sure there's ice in the water the whole time as just cold water isn't enough. Then dry slices with paper toweling. Have your favorite cooking oil in deep fryer, hot, from 375 to 400. Don't fry too many at a time, and stir constantly. It takes about four minutes to turn them golden brown. Don't burn them. The moment they are done, dip them out with a slotted spoon or spatula. Drain on paper towels and season with salt. Popcorn salt works well for this as it is almost powder fine and sticks to warm chips. You can make your own seasoning by adding some garlic powder, chili, and maybe some barbecue salt.

I receive quite a bit of mail from *Desert Magazine* readers who are anxious to share with me their favorite recipes. Robert W. Densmore of Santa Barbara, California, has been editor of a recipe newsletter, and he sent along an easy potato and sausage recipe.

Pigs in Blankets

Wash and pare medium sized potatoes. Make a hole through each with an apple corer and force a link of sausage into each cavity. Place potatoes in a baking dish and bake in hot oven (425) for 45 minutes or until tender, basting with sausage drippings several times during baking. A slice of salt pork or bacon may be placed over each potato. If needed, extra sausages may be placed in dish after potatoes are nearly done.

Robert A. Sjoberg of Fountain Valley, California, not only sent me a recipe for a sumptuous coconut cream pie, he sent a package of coconut as well. (He must have known how remote our Needmore Land & Cattle Co. is.) Bob has also been a wonderful source of material, sending me dozens of clippings from the Los Angeles papers. Right here I want to thank him, and the many others who have taken time to write words of encouragement, shared their recipes, and gave me good advice. A tip of the old sombrero to you-all. Keep it up, even though I may have to build a new file from orange crates.

Potato Pie

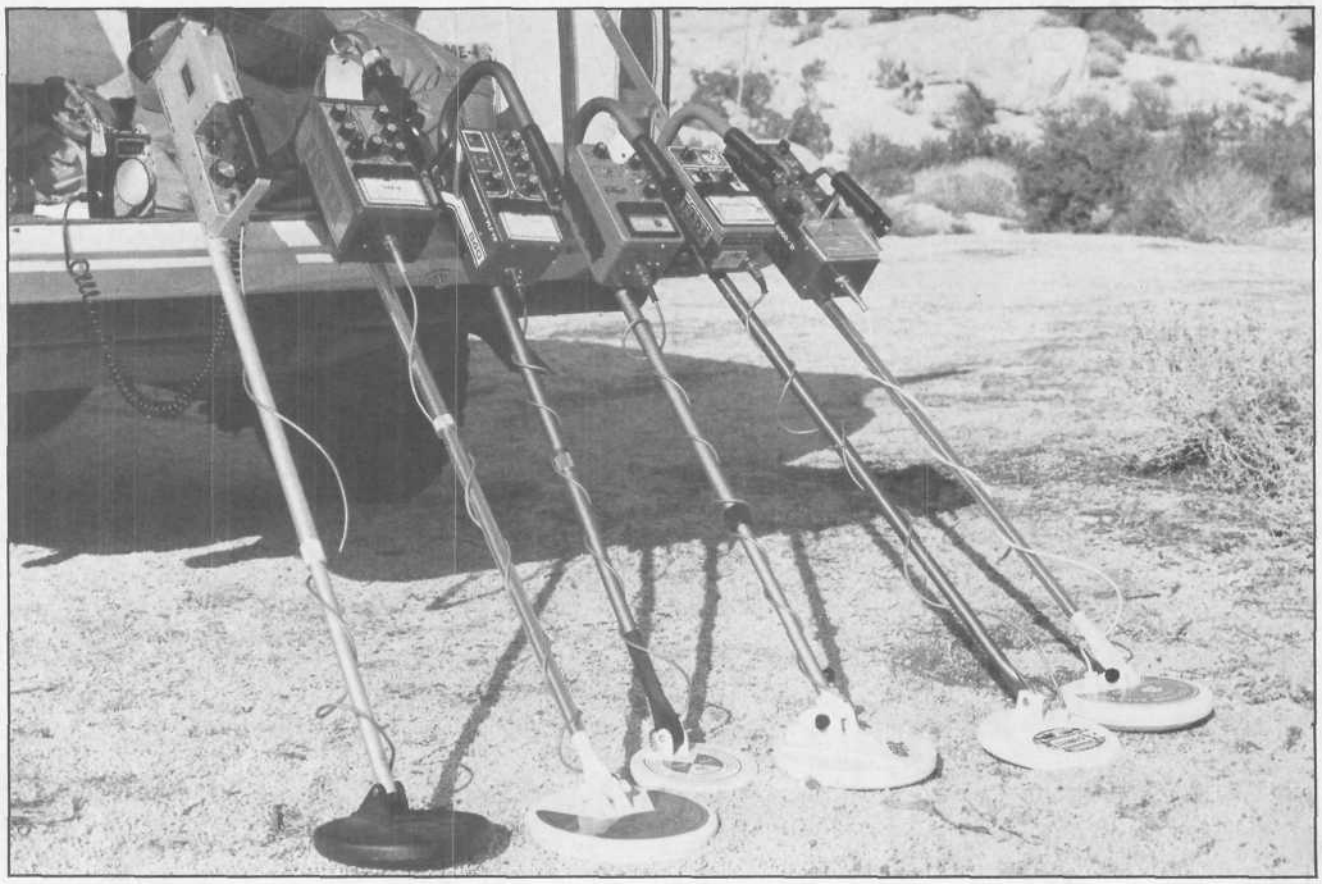
3 or 4 cups of sliced *cooked* potatoes
4 hard boiled eggs
4 or 5 slices of bacon
1 cup grated cheese
3 tablespoons flour
3 tablespoons butter
½ teaspoon celery salt
2 cups milk
1½ cups bread crumbs and bacon drippings (about 2 tablespoons)

Slice boiled potatoes, chop hardboiled eggs, and fry bacon until done but not crisp. In a separate saucepan melt butter, add flour, salt, and pepper. Mix well, add milk slowly, bringing to a slow boil. In a cassarole, place half the slices of potatoes; add half the eggs, crumbled bacon and cheese. Cover with half the hot sauce. Then repeat with remaining ingredients.

To make buttered crumbs for topping, melt 2 tablespoons butter with 2 tablespoons bacon drippings, and toss crumbs in it. Sprinkle on top; bake at 375 about 45 minutes. Serve hot.

A *Desert* BUYER'S GUIDE

Compiled by Ernie Cowan
All Photos by Author



It was a warm, peaceful afternoon and my thoughts drifted with the wind. But soon, I was snapped back to attention when my metal detector sounded off with the sharp beep-beep that meant I'd found treasure. I was on assignment for *Desert Magazine*, learning how to use six detectors supplied by their manufacturers for evaluation.

With anticipation I stooped in the grass and probed with my coin location tool, which looks much like an ice pick. About two inches below the surface, I struck my treasure and began to work it out of the ground.

I was in a city park where I'd found many coins before, mostly pennies, but a few dimes, quarters, and nickels, and even a silver dollar. But as this one popped from the ground I could see it was something different. The coin had a hole in the middle.

After a few moments of rubbing to remove the dirt, I was surprised to discover my half dollar-sized find was a 1934 East African penny.

This was just one of many unusual "treasures" that partner Jim Huie and I would find during the six months we spent testing the six detectors for this article. While we made no "get rich" discoveries during our searches, we did have tremendous fun and found new adventure at many of our old haunts.

The modern metal detector can give your outdoor interests new perspective, too. Detectors can help fill those quiet hours around camp, they can add excitement to an afternoon at the beach or in the local park, or open a whole new field of study for the history buff who thrills at research as much as the hunt.

This is the first of a two-part series designed to introduce you to metal detectors and the hobby of treasure hunting, also known as "TH'ing." This month we'll deal primarily with what detectors are, how they work, what they cost, and take a look at the six models we tested.

Next month we'll tell you more about the hobby of treasure hunting, coin shooting (looking for coins), where to hunt and how, some of the laws to observe, and get to know one of the most successful treasure hunters in the West.

This will not be a consumer's report-type article on the six detectors tested. We are not electronics experts, and not qualified to comment on that aspect of the units. We *will* report on how they performed in the field, however.

I had given myself a month or so to test the various units, but it was not that easy. It is true that just about anyone can pick up a detector and in a few minutes be finding coins in his front lawn or local park. But each detector is different in design, operation, and style, and it takes

Six Metal Detectors Compared

a substantial amount of time to learn to get the "feel" of a particular unit. In fact, our scheduled testing period of one month actually extended into six, but after it was over, we knew we had the makings of a truly objective report.

We did find that all of the detectors tested worked. By that I mean they did what they were advertised to do. And all of the models tested can be successfully used by persons interested in locating coins or relics. So why a price range of $160 to $440?

Higher prices do not mean a more sensitive machine. As the models increase in price they offer the TH'er refinements and additions to help him locate and identify targets as well as identify things he does not want to find such as metal trash, pull tabs, and bottle caps.

On this basis, we would recommend any of the six detectors we tested. Your choice should be dictated by price and the kind of TH'ing you plan to do.

The six units tested by *Desert Magazine* included the Bounty Hunter 840 Automatic ($160), Compass Judge 1 ($250). Fisher VLF 555 ($400), Garrett's ADS Groundhog ($350), White's 6000D ($440), and the Wilson Neuman Daytona ($200). Before looking closer at each of the units, however, we should take time here to define a few terms:

Metal detectors are used to locate either metals or minerals. A detector will locate any highly conductive metal such as gold, silver, copper, and aluminum. It will also locate minerals such as magnetic iron oxides (black sand), rusted iron objects, and magnetic iron ores.

Most detectors will react to both substances, but in a different way. If the detector has metal/mineral tuning and is tuned for metal, it will emit a positive or increased signal when passing over metal, and a negative or decreased signal when passing over mineral. Tuned to mineral, the reaction will be the opposite.

While various manufacturers have all sorts of trade names for their detectors, there are basically only two types being used popularly by TH'ing enthusiasts. These two broad types include the BFO or Beat Frequency Oscillator type and the TR or Transmitter-Receiver type.

You will also see on the market detectors called Discriminators and VLF

Bounty Hunter 840 Automatic

or Very Low Frequency types. They are not separate types, but just include different electronic circuitry to allow the hunter to do more.

Discriminator-type detectors allow the operator to tell the difference between junk items such as trash or pull tabs and coins or jewelry.

The VLF detectors are the newest innovation using improved TR design for greater depth, compensation for ground minerals, and more critical detection of iron objects. The latter feature is something the relic hunter really wants but which the coin hunter may not want. Of course, these units cost more because they are more effective and include more electronics.

The BFO detectors work at a constant volume. When a target is located, the tone will change in frequency. Because of the nature of these detectors, they are most popular with nugget hunters and are most valuable in mineral identification. They are also the most difficult to learn to use.

The TR-style detectors are probably being sold in the greatest numbers today because they are the simplest to use. They are tuned until a slight tone is heard. This is their most sensitive point. Then, as the detector is moved over the search area, the volume of the tone will increase if passed over metal and decrease if passed over mineral.

Some manufacturers (including some whose products we tested) have combined standard TR circuitry with VLF detection to give the user a choice of modes. This combination allows you the deep-seeking quality of VLF and the metal/mineral selectivity of the TR. Most of these kind of units also include a discriminate capability that allows you to adjust sensitivity in the TR mode so you can reject unwanted metal trash when searching for coins in the park or at the beach.

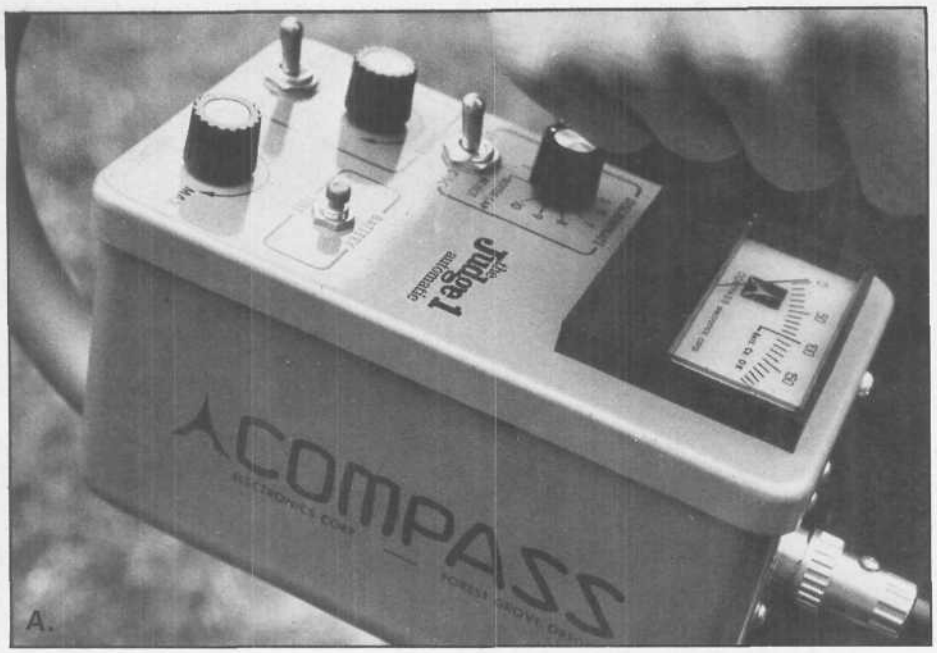
One caution about discrimination: When most of the units are adjusted to eliminate junk items, they will also not detect nickels and some thin gold rings.

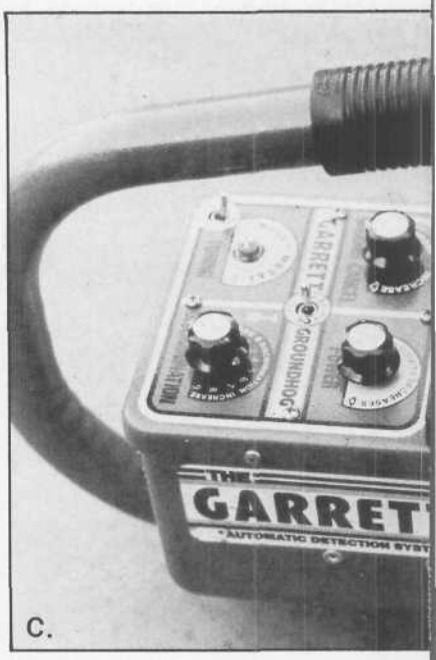
The way to ensure the best results in the use of a detector is to purchase the kind you want and then practice and practice with it until you learn its peculiarities. It takes time to master any detector. The instruction manuals we worked with alone ranged from seven to 23 pages in length.

To help you decide which type to buy, here is what we learned about the detectors we tested. Remember, these are our opinions only, and not facts based upon scientific or controlled testing.

BOUNTY HUNTER 840 AUTOMATIC: at $160, this was the least expensive of the units we tested. And while a little rough in workmanship, it did perform well. This lightweight unit is a VLF/TR type which includes both normal and discriminate modes.

Used side-by-side with the other detectors we tested, it did not seem to have





A.

Compass Judge I Automatic (top) is a well-constructed unit with push button tuning. Switch at the front kills hum.

B.

Fisher 555VLF (above) features both an all metals and discriminate mode.

quite the depth sensitivity that the other units had, possibly because of its smaller "pinpoint" search coil. The six-inch detector coil in this unit was effective in coin hunting both at parks and in heavily mineralized beach sand. The pushbutton tuning in the handle was also a quick and easy way to keep the detector in tune when changing modes or adjusting to changing ground conditions. The Bounty Hunter is powered by three nine-volt batteries, and we did not have to change batteries during our six months of use.

For the coin hunter or new TH'er who wants to get into the hobby for relatively little money, the Bounty Hunter 840 Automatic would be a good choice.

COMPASS JUDGE 1: This compact and well constructed unit is of the TR/Discriminate type, with push button tuning. It performed well in coin hunting, exhibiting a very quick and sharp response on coin targets. Coins could also be accurately pinpointed below the center of the search coil with this machine.

We found the depth of detection to be a fraction less than with the VLF detectors we tried, but that may have been due to ground conditions, coil size, or design. It would have been nice if this unit had had a fine tuning control, since the tuning control knob was very coarse and difficult to critically adjust. The Judge uses eight penlight batteries and exhibited good battery life.

The balance and weight of this machine made it very easy to use for long periods of time. It also had a unique feature that we enjoyed. There is a switch at the front of the unit that, when activated, will quiet the tone of the machine when it is placed on the ground. Other detectors continue to hum unless turned off, sometimes an annoying problem when digging a target.

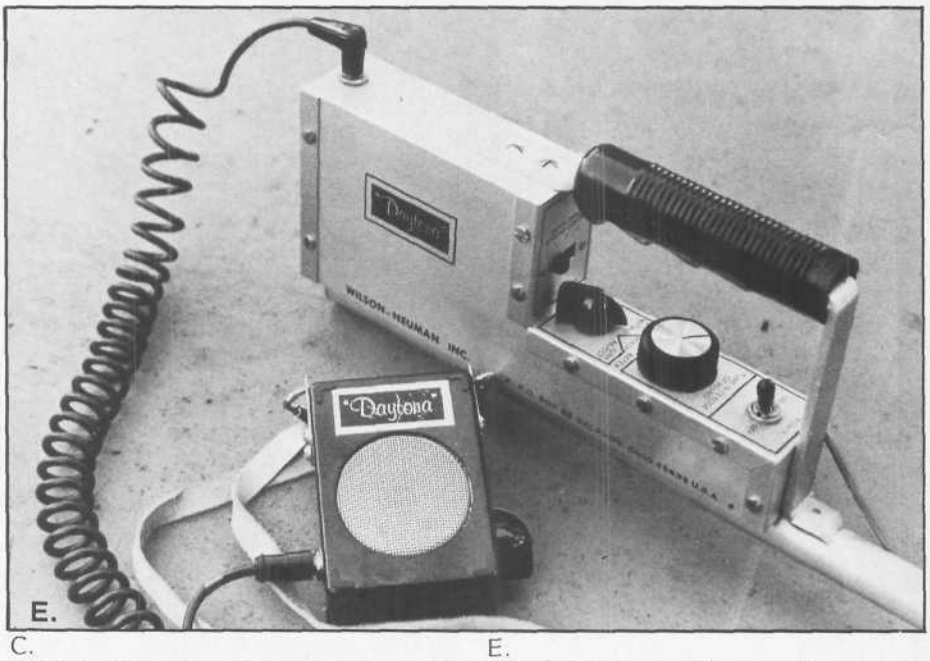
The Judge 1 is a well-made unit worth its price of $250.

FISHER 555VLF: This VLF/TR/ Discriminator detector is a very rugged, well-built unit of anodized aluminum and plastic. While somewhat heavier than other units we tested, it is compact and well balanced for long-time field use.

The Fisher unit came equipped with an eight-inch search coil, but can be fitted with an 11-inch coil for greater depth. It uses 12 penlight batteries, and did not require battery replacement during our testing period.

The adjustments for shaft and handle length were the best of the units we tested, permitting minute changes for perfect balance.

This unit, the newest in the Fisher line, proved to be extremely sensitive, but the signal over a good target was not as sharp and well defined as with some of the others. The tuning controls



C.
Garrett ADS Groundhog is compact and light, features large, readable meter.
D.
White's 6000D was the best quarter finder, has rechargable batteries.

E.
Wilson Neuman "Daytona" was the lightest weight, most compact of detectors tested.

include both coarse and fine tuning, allowing the user to critically adjust for the most sensitive use.

A toggle switch on the handle permits quick mode changes from normal to discriminate to confirm if a target is worth digging after being located. For some reason this machine was our dime finder, producing considerably more dimes than the others.

The 555 VLF is a quick and easy detector to use in coin hunting. With a flick of the toggle switch at the tip of the handle, you can switch from the normal "all metals" mode to a pre-tuned discriminate mode. This makes target identification easier since after you locate a metal target, you can switch to discriminate and tell if it is the real thing or junk. This feature is a great timesaver when coin hunting in a park or on a beach where there is tons of trash.

GARRETT ADS GROUNDHOG: This compact little VLF/Discriminate machine was my personal favorite. It is small and lightweight, but packed with the best features of all the machines we tried. Like the Fisher, it has the toggle switch mode change in the handle and after proper tuning, I was 100 percent successful in discriminating between coins and junk. It is a very quick machine to use for the coin hunter who does not want to spend time digging for junk.

Despite the small size of this unit, it has the largest and most readable meter. Controls are well marked, and easy to read and locate for operation. The tuning control was coarse, however, and would be easier to use if it included a fine-tuning adjustment.

The Groundhog came equipped with two waterproof search coils, a 7½-inch coin hunting coil, and a 10½-inch cache or relic coil. Garrett also offers a 10½-inch underwater detection coil on a 50-foot cable for $100.

The Groundhog is powered by four nine-volt transistor radio-type batteries in a plug-in module that is easy to change, requiring no wires to connect or perhaps break. Battery life was excellent, no replacement being required during our testing period.

We found this unit to be at least as deepseeking as the others we tested. It produced clear, sharp signals when over a metal target and was accurate in the location of coins.

The light weight and good balance of the Groundhog made it easy to use for long hours at a time, and it breaks down into small enough pieces to fit into a backpack if you are hiking in to those isolated treasure locations, or to remote ghost town sites.

WHITE'S COINMASTER 6000-D: This is a machine that looks as impressive as

it functions. It is well made and attractively packaged in an all-metal case with a large meter and easy to use controls. The 6000-D was Jim's favorite and seemed to be our best quarter finder. It is larger and heavier than all of the others we tested, but every ounce is packed with quality performance.

Depth sensitivity was equal to all others we tested, and in some cases perhaps a bit deeper than the others. One of the most attractive features of the White's detector was the rechargable batteries, the long-term savings and convenience makes this feature a plus.

The Coinmaster featuresVLFdetection known as G.E.B., or ground exclusion batteries. While battery life is somewhat shorter with rechargable batteries, the long-term savings and convenience makes this feature a plus.

The Coinmaster features VLF detection known as G.E.B., or ground exclusion balance, discriminate in the G.E.B. mode, and normal discriminate.

These mode ranges give the operator control to work in different soil conditions and to search for various items and still maintain the ability to identify good or bad.

While this machine was not as quick in mode change as the Fisher or the Groundhog, it did perform very well and could be classed as a professional level machine.

WILSON NEUMAN "DAYTONA": This was the lightest weight, most compact and easiest to use of the six detectors we used. You might call it a slim-line machine, since it measures only one and three-quarters inches in width. There is no meter and only one dial for tuning.

Depth of detection and level of discrimination are controlled by two switches that each have three positions. One knob is turned to tune the detector until it just hums. Then you select either all metals, junk reject, or salt water beach with one switch and a depth range of 1, 2 or 3 with the other.

Despite its simplicity, the Daytona performed well. However, it seemed to lack some sensitivity, probably due to the fact that it cannot be "fine-tuned" like the other instruments tested.

Because of the compact size of this unit, it did not have a built-in speaker. Instead it has an external speaker which plugs into the unit. I found this to be a minus, since it was always getting tangled.

The Daytona is a TR/Discriminate-type detector. It is well made and rugged, and would be an excellent choice where weight and bulk are a problem. The single Eveready 216 battery in this detector is good for up to 200 hours of use.

My wife enjoyed the Daytona and seems to prefer it to others we used because of its simplicity. And her success rate at finding coins was as good as anyone's.

Each of the six detectors we tested came equipped with a jack to accept plug-in earphones. While we did not test any of the units with earphones, they are undoubtedly an important addition to the serious treasure hunter's list of options. Traffic noise, wind, birds, or a stream can all bring the noise level up to a point where you might miss a weak signal if you are not using earphones.

Next month we'll tell you a little about the hobby of metal detecting, what to look for and where, the laws that apply, and something about the techniques used by one of the nation's most successful treasure hunters.

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OUR READERS WRITE

TRADE SLIDES PLEASE

Sirs: I am no longer able to travel as I used to and see my favorite areas — the U.S. Southwest and Baja California. So do you think you could print my letter as a request to your readers to share some of their pictures with me?

I would be most happy to receive any old, extra or unwanted 35mm slides, color or black and white, of the desert and desert or western subjects. Perhaps someone would like to start an exchange system with me. I have an abundance of slides I no longer want of Vancouver, the British Columbia countryside, the Canadian Rockies, and of all kinds of plants and birds native to my area. Please indicate your preference and I'd be happy to exchange these slides on a box-per-box basis.

Yes, I subscribe to your fine magazine and read every page of it. You have a wonderful region of this earth to be living in. Do try to see that it is well taken care of so that our children and grandchildren may have the chance to explore it too. Thank you very much.

Mrs. Elliott E. Bold
Vancouver, B.C., Canada

Please send your slides to Mrs. Bold at P.O. Box 24732. She'd love to have some letters, too. Ed.

KEEP THE DESERT CLEAN

Sirs: I became a desert rat in an unusual manner. I've been collecting beer cans since 1974 and realized that occasionally, very old and rare ones could be found in desert dump sites. So, I began searching these sites on weekends.

Beer can collecting is America's fastest growing hobby (10,000 members nationally) but still it's hard for me to convince people what I'm looking for on a deserted road in Bell Mountain or Goldfield, Nevada. My hobby has taken me to these places and many more. I've found 40-year-old beer cans that were not only rare but in good shape. I love the desert for its beauty but I love it for its old beer cans too.

Dan Andrews
Redondo Beach, Calif.

If I were an empty beer can collector, I'd get a job with the clean-up crew on I-10 between Needles and Blythe. Astute beer drinkers stay off deserted roads unless they want to go on the wagon. Ed.

THOUGHTS FROM A NATIVE AMERICAN

Sirs: The publisher of "Native American Earth Awareness" Magazine, an Indian friend of mine named Sun Bear, said in a recent editorial: "We must learn to love our Earth Mother and the other beings who dwell with us on Her with the emotional force we usually reserve for loving our dearest human friends. When you learn to do this you will transform yourself, and help the transformation of the Earth....It is helpful to find an area that feels really good to you; one in which you feel safe, protected, and loved. Go to visit this area whenever your heart tells you to. Always thank the area for giving you such good feelings. Take the area presents of tobacco or corn meal. Pray there. Sing there. Dance there. Feel yourself merging with this part of the Earth Mother. Feel her merging with you. Be patient. Don't resist your feelings. If it is meant to happen, one day you will feel your heart fill with that place. You will yearn to see it, as you once yearned to see a loved one's face. You will know that you've taken the first step to really love Mother Earth, and the rest will come."

George T. Appleton
Las Vegas, Nev.

I wish we'd said that! Ed.

VOICE FROM THE PAST

Sirs: I just read through your 42nd Anniversary issue (Nov. '79) and liked what I saw. It has been about 13 years since I was an owner and editor of *Desert* and I don't know how I would go about editing it today. When I returned to Palm Desert a year ago after a long absence, much of the community was unrecognizable. The same is true of Baja California which I used to explore with the late Earl Stanley Gardner before the highway was constructed. With all the restrictions on back-country travel, the enormous expansion of private property, and the emphasis on personal security, it is a challenge to even get out into the natural desert without becoming part of a convoy of vehicles.

Incidentally, the "Man Who Found the Pegleg Gold" never did identify himself to us. Now that gold is hitting the $400 high, it would be interesting to hear from him again. Perhaps if he reads this, you will hear from him.

Choral Pepper
Palm Desert, Calif.

Pegleg, where are you? Ed.

THE TUNNEL-DRIVING WILHELMS

Sirs: The article on the "Lost Bullhide" treasure in your August 1979 issue fascinated me and brought back many memories because from 1928 to 1930 I worked in the Lucky Jim Mine in the Old Woman Mountains. I was told the mine was first developed around the turn of the century by the Wilhelm family.

The outstanding thing about the Lucky Jim was the engineering of its adit, or tunnel, which was driven over 500 feet into the side of a high spur. Many times I pushed a one-ton ore cart into the tunnel, loaded it with ore or rock, and started to push the cart out. I soon found it took very little effort to push the loaded cart. There were times when I could get a good start, hop aboard, and ride it for 100 feet or more without any pushing. Even the professionals marvelled at the superb job the Wilhelm brothers did in driving that tunnel.

Thomas M. Cooper
Los Angeles, Calif.

Mr. Cooper asks that anyone knowing anything about the Wilhelm brothers or their descendents please write him at 621 So. Gramercy Place, Los Angeles, CA 90005. Ed.

HIGH-PRICED SUBSCRIPTION

Sirs: I'm a retired motorcycle mechanic (over 50 years of it) and do a lot of my own lapidary tool building as I'm a fair machinist and welder. We've been taking Desert Magazine since June 1975, after looking at two copies loaned to us by a man named Nathan Cherry who has since passed on. Nate was an avid rockhounder and died after getting his car stuck. The over-exertion digging it out of the sand brought on a fatal heart attack. So when I go in that kind of terrain, I ride my bike.

H. C. Larson
Huntington Beach, Calif.

That's why we put "4WD only" warnings when needed on all our maps and logs. Ed.

TREAD LIGHTLY PLEASE

Sirs: After reading "There Are Two Deserts" and "Now There Are Three" in your November 1979 issue, the ideas that deserts are destined to be populated by more permanent and semi-permanent residents and that the deserts are also destined to be visited by larger numbers of other citizens come across very clearly.

An individual can damage or destroy in an instant something that might have been a millenia in its formation and, in damaging or destroying the object, does nothing but fleetingly and speciously enhance his own ego.

It makes no difference whether a person enters the desert on foot, on horseback, on a bike, in a 4WD or in a motorhome. I've been there every way possible and can tell you that it's not the mode of transportation that's important but the interest and willingness of the individual to preserve the environment. I don't know who originated the aphorism, but if we all "would leave only footprints and take only pictures," many of the ecological problems in the desert would disappear.

E. G. Troutman, M.D.
Fort Worth, Texas

So simple, yet so unattainable, human nature being what it is. Ed.

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OUR BEST

TREASURES

BURIED TREASURE & LOST MINES by Fr: Fish. One of the original treasure hunters p vides data on 93 lost bonanzas, many of which personally searched for. He died under myst ious circumstances in 1968 after leading an a venturous life. Illustrated with photos and maps. Paperback, 68 pages, $2.00.

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DEATH VALLEY SCOTTY TOLD ME by Eleanor Jordan Houston. A fascinating and unusual recount of famous Death Valley Scotty's adventures as told to the author while she and her ranger husband were Scotty's nearest neighbors in 1948. Some of these escapades have never been told before. Illustrated, 116 pages, $2.50.

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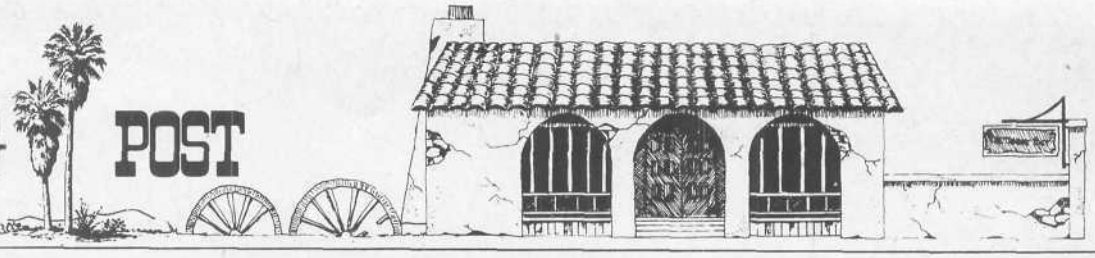

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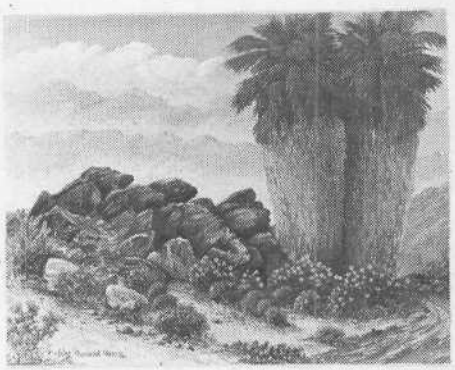

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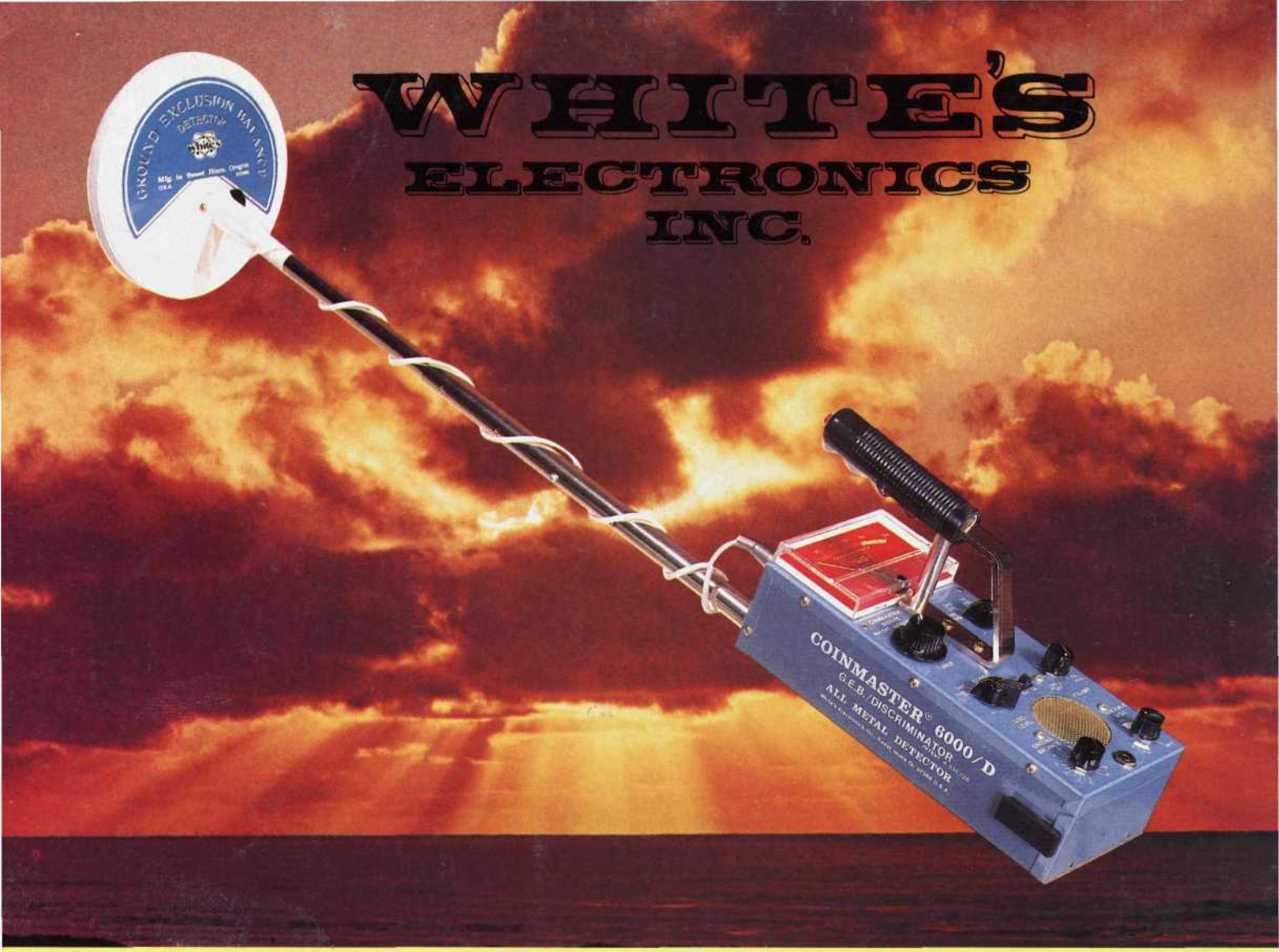

CONGRATULATIONS TO WHITE'S ELECTRONICS!

I have been metal detecting for the past 10 years and presently own four detectors. The first three detectors have all found their share of coins and valuables, but the White's 6000/D has changed the old fashion method and put new light on detectors, because my area is about depleted of coins. Heavy junk accumulations make it more like work than fun. Out of state relic and coin shooting on my vacations is the only enjoyment left.

I have tried three new models of Discriminators. Testing these detectors on my coin garden, I found they all had the same fault. The scaning head had to be held at a given height above the ground. This makes swinging the detector very tiresome and should you raise or lower the head even one inch, you would lose a coin even if it was lying on top of the ground. I gave up on Discriminators, as I would rather dig more than to miss a valuable find. A friend of mine who use to sell detectors showed me White's new pamphlet on the 6000/D. I read only 10 lines and I knew this was the detector I had been looking for. The line that convinced me was: "DOES NOT HAVE TO BE HELD AT A CONSTANT HEIGHT ABOVE THE GROUND."

All I can say about the 6000/D is that it is a "SUPER FANTASTIC" piece of equipment. The greatest advancement in circuitry is something I never thought possible. 95% of all my detecting now is done in the Discriminate Mode. No one, but no one finds anything after I make a thorough search of an area. I have found a large coffee can of coins and valuables in the 8 weekends that I have had this detector. I average 5 to 6 times as many coins a day (in areas already searched by many others than I ever have before.)

As I get more familiar with the 6000/D and learn to analyze what it is trying to tell me, my confidence builds and builds. I have found things the 6000/D will do that your instructions do not even mention. I can not describe all of them in words. Most are just a feeling I get as I get more familiarized to the different sounds and pitch intensity of various finds. For instance, I can tell a dime 9 out of 10 times and between you and I, I have been finding 1 dime to every 5 pennies which is many times better than I used to do as I consider dimes the hardest coin to find.

I am thinking of retiring in another few years, with the possibility of starting a Treasure Hunting Store. Congratulations to White's on the greatest advancement in circuitry.

George Steiniger
Wallingford, Connecticut

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