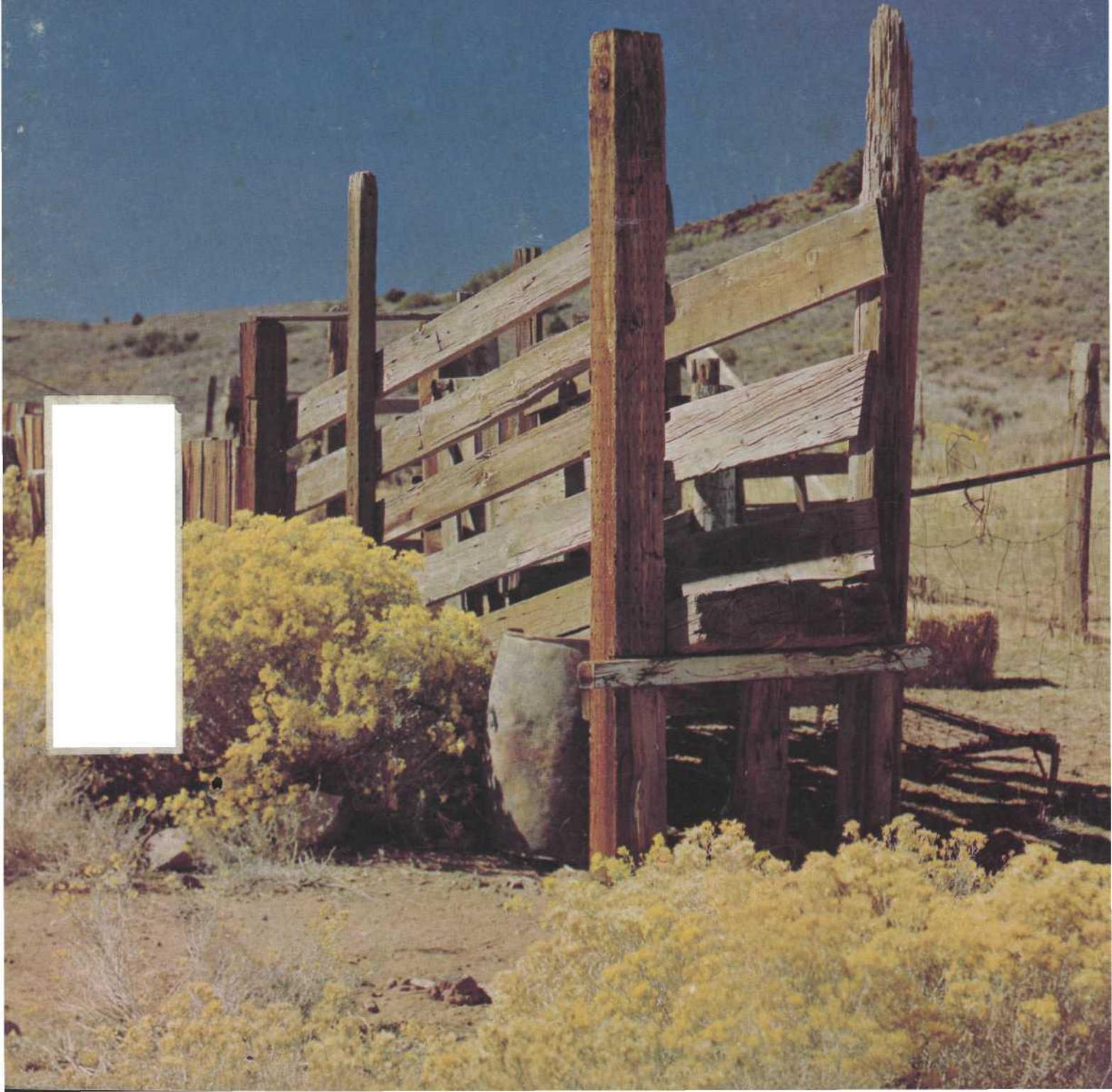


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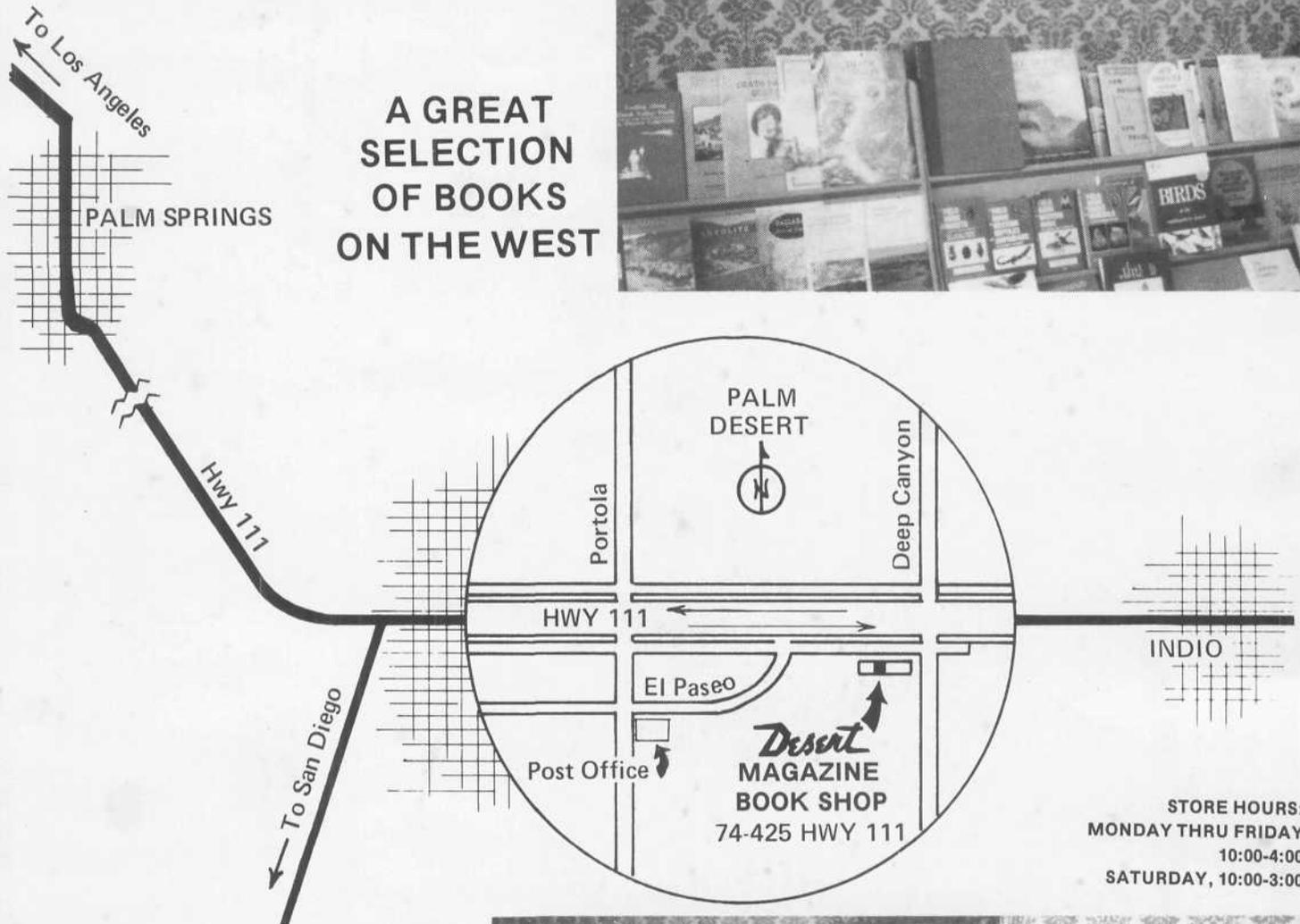
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THE COVER:
Weathered old cattle chute
and colorful rabbitbrush in
the Nelson Range north of
Panamint Valley, Calif.
Photo by George Service,
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A Peek in the Publisher's Poke

IT IS always nice to start a new year on a cheerful note, which was exactly the message I received from a recent meeting of the Desert Fishes Council.

The Devil's Hole pupfish has doubled its population in the past year and prospects for its survival have brightened, according to Dr. James Deacon of the University of Nevada Las Vegas. Deacon attributes the resurgence of the pupfish to a U.S. Supreme Court ruling in June, 1976, that limited the amount of water that could be taken from underground basins in the Ash Meadows section of Nevada, a detached part of the Death Valley National Monument.

Ash Meadows is the site of Devil's Hole, a water-filled limestone cavern and the only place where the inch-long pupfish, *Cyprinodon diabolis*, is found. The population of the Devil's Hole pupfish is now estimated at more than 400.

The water level in Devil's Hole has risen about three inches during the past year, probably because of the limitation on pumping. The additional water in the cave increases the pupfish spawning area on a critically placed limestone ledge and also increases the area for algae to grow. The pupfish, which live close to the surface at the top of the cavern, are dependent on the algae for survival.

It is hoped that the pupfish population will build up to about 700 or 800 which was the level before pumping lowered the water table in the cavern and threatened the continued existence of the tiny fish.

Now, if things are looking up for the pupfish after all this time, surely there's hope for Man! □

William Kupfer



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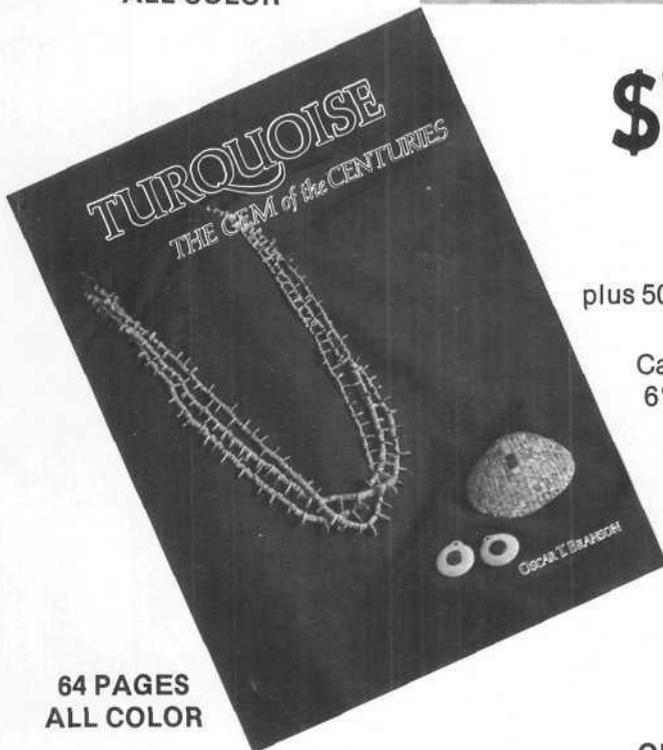


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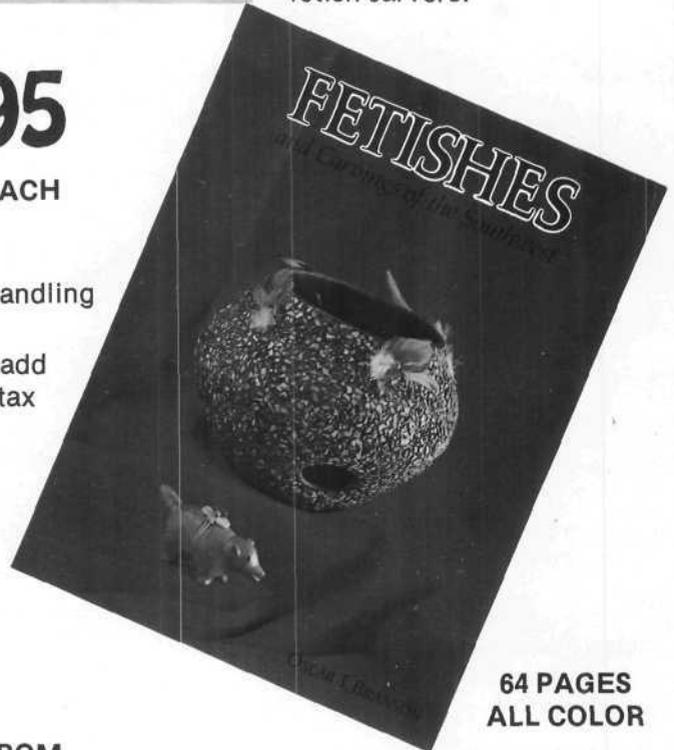


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Books for Desert Readers

All books reviewed are available through the Desert Magazine Book Shop. Please add 50c per total order for handling and California residents must include 6% state sales tax.



CHUCK WAGON COOKIN'

By Stella Hughes

Hughes is an old name in western ranching circles. Stella Hughes, born and reared in the Southwest, a horse-woman, married to an Arizona cowboy, has collected these recipes straight from the source—cowboy cooks, themselves. In fact, she has served as "cookie" (in the ranch-hand meaning of the word) beginning the first year of her married life, on a ranch where the owner was so "stingy with grub . . . his idea of a well-stocked larder was a slab of salt-crusted,

half-rancid sowbelly, pinto beans and canned green chili."

Here are Mexican recipes, instructions for deep-pit barbecue and the art of using Dutch ovens for cooking everything from sourdough biscuits to Son-of-a-gun stew. There are home remedies, for both man and horse and helpful hints on storing and preserving food.

Western history buffs would want this book for its salty true stories of the intrepid round-up cooks, or "Ole Slick and Greasy" as Mrs. Hughes calls them. Her tales capture the spirit of all the pot wrestlers who ever built a batch of biscuits or boiled a pot of frijoles. Laced with humor and brimming with cowboy lingo, here is a thoroughly entertaining glance at roundups and cattle drives.

Includes 112 recipes for such Southwestern favorites as Spanish Beef Hash, Cowboy Stew, Indian Pudding, Mock Cherry Pie, Cattle Drivers' Mince-meat and instructions on how to prepare Mountain Oysters and Beef Guts.

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[Be sure to read Stella Hughes' article on Dutch Oven Cookery in this issue.]



THE PACIFIC CREST TRAIL VOLUME 1: CALIFORNIA

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This revised hiking guide should set a new, high standard in trail guides. The authors collectively hiked the 1650-mile trail in 1976 after having hiked it all in 1972 for the first edition of the book, and for some parts of their sections, the authors hiked as many as six times.

These field surveys have resulted in accurate maps of the entire trail. The book's maps are more accurate than the government maps that show the Pacific Crest Trail because the publishers made more than 8000 changes on the government maps to correct and update them before printing. The 242 maps also show all the lakes and streams in blue ink, so they are easy to see, and they are printed at a generous scale that makes for easy reading and use. The maps are spread throughout the book so that each map is near the text that refer to it.

The book divides the trail into 18 sections, and devotes a chapter to each. Besides the actual trail descriptions and maps in a chapter, there is information about the outstanding attractions along the trail section, the places to resupply, any special problems that might be encountered, and the exact mileages between points, listed north to south and south to north.

The book contains chapters on logistical planning of one's trek, based on the experience of people who have hiked the Trail, and it contains chapters on the geological, botanical and biological treats to be found. For example, the book contains an original list of the 16 different plant communities the hiker will pass through along the trail, and the most typical plants and animals he may see in each one.

Well illustrated with black and white photographs; the cover is a water-repellent durable plastic material. \$9.95.

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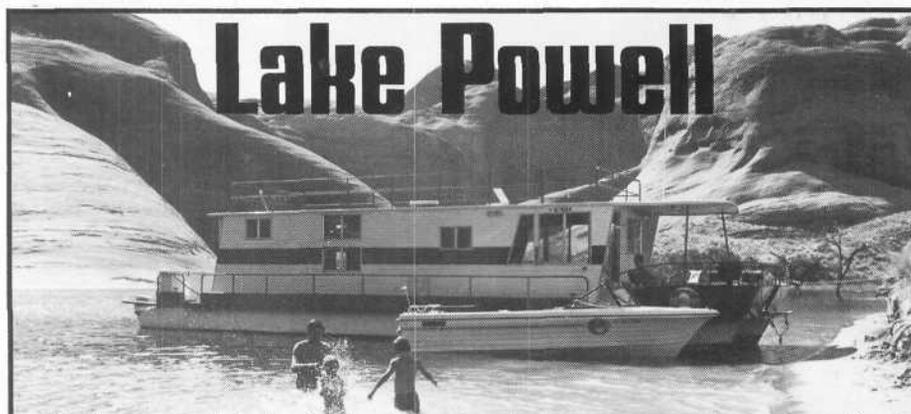
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The preponderance of fossil collecting has been done at Trilobite Cove, as indicated by arrow. It is a short hike west from road's end where parking is limited to a couple of vehicles. This road also provided access to the Vaughan Marble Quarry which is on the east side of Trilobite Hill.

TRILOBITES &



WEATHER HAS always been a deterrent when we have tried to wrest trilobites from their burial grounds in California's Marble Mountains, two miles east of Cadiz Siding. On numerous occasions, the wind has blown so hard it seemed our trailer couldn't remain upright. At other times, it joined forces with bitter cold (two degrees), giving us an idea of what it must be like to try collecting at the North Pole.

Another visit found the weather calm and clear while the thermometer hovered at 118 degrees. Somehow, we didn't feel like digging on that trip. In spite of the inclement weather, Old Mother Nature has always thrown at us, we have

Trilobite fossils occur in a horizon of this Cambrian shale about mid-center of the photograph.

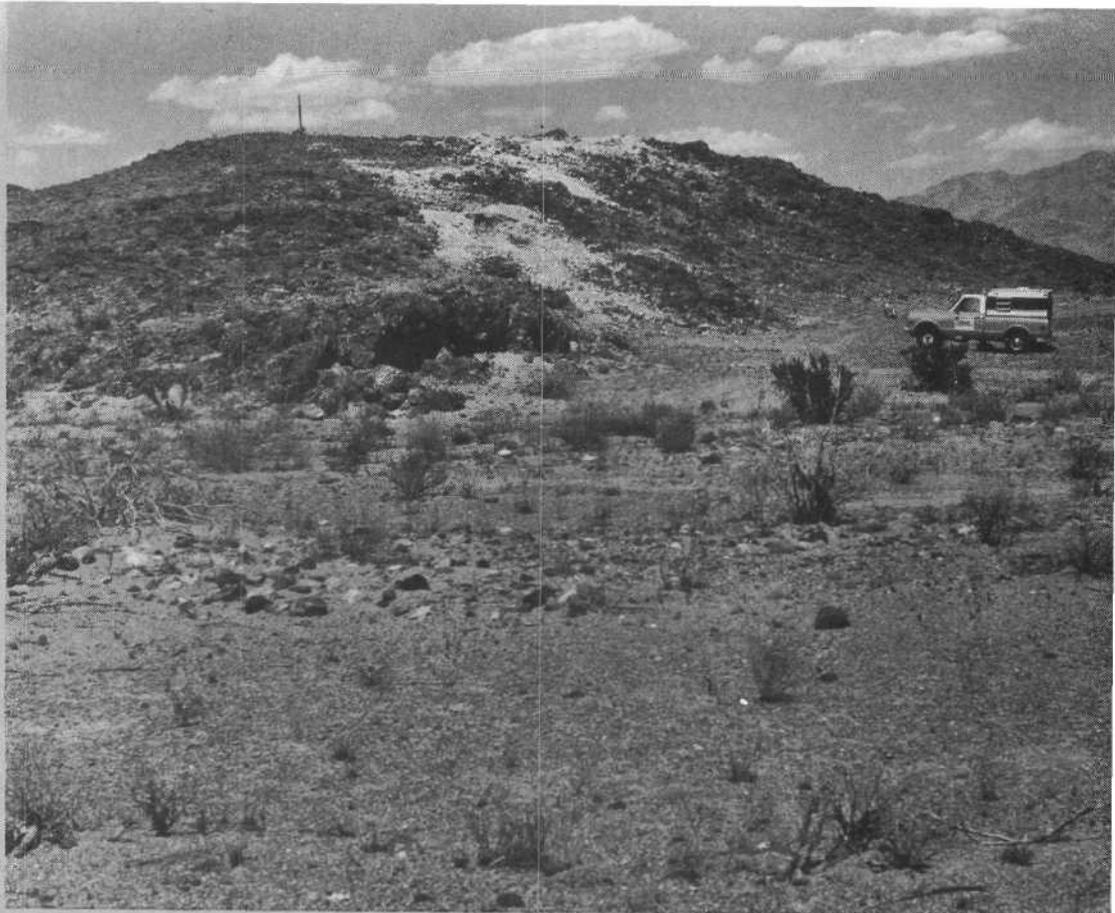
managed to find a few nice fossils.

May 1977 found us once again headed for the Marble Mountains. Our trip was two-fold. We planned to visit the trilobite location but hoped we could "confuse the elements" by ignoring the turn-off and proceeding northeasterly to a travertine deposit that was new to us. It was a perfect day for collecting—deep blue sky, a gentle breeze and the temperature at 80 degrees. It seemed as if Old Mother Nature had decided to smile on us at last.

A letter from Howard Thayer of Sacramento, California was responsible for our renewed interest in this area. He had told us about the large number of exceptionally fine trilobite specimens he had found and even enclosed a map indicating his "new digs." He also mentioned he would soon be in the area to spend several weeks digging "those Cambrian critters."

The upshot of our several-letter exchange led Howard and his wife Buelah to stop by the "Stronghold." We had a

Travertine Hill is easily reached via typical desert road and may be discerned by the many excavations that punctuate the terrain.



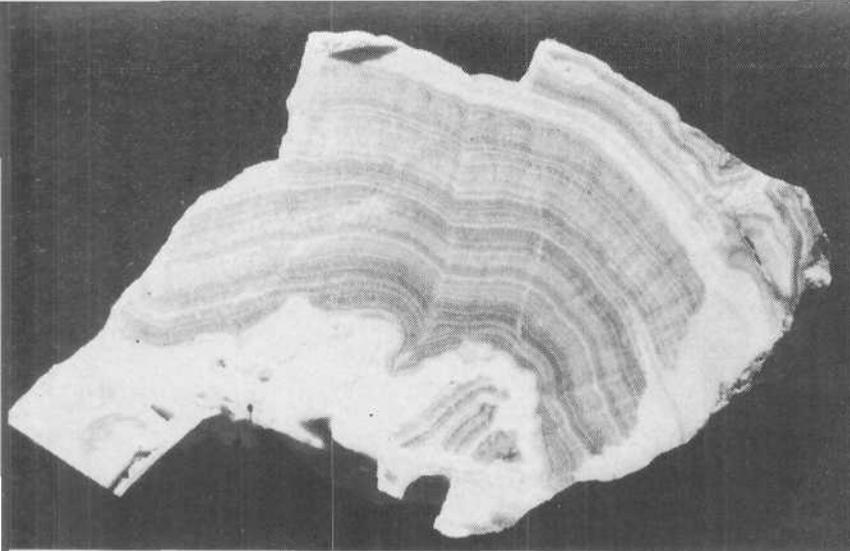
TRAVERTINE

by **MARY FRANCES
STRONG**

photos by
Jerry Strong

Many excavations occur where collectors have pursued veins of travertine. The host rock is a dark limestone with typical, rough, black, weathered surface commonly found in desert regions.





This travertine specimen reveals alternate bands of brown, beige and white, while other material has shades of pink and white.

great time discussing trilobite collecting and looking over some of their beautiful specimens. When it comes to trilobites—the Thayers have hit the “jackpot.”

During the course of our conversation, Howard inquired, “Have you ever visited the travertine deposit a few miles east of the trilobites?” “No,” was my reply as the adrenalin started pumping uncontrollably at the mere thought of a new locale to visit. Howard quickly provided the details and sketch map.

The directions were easy to follow. A mile and a half of additional travel brought us to the southernmost tip of the Marble Mountains and a hillside of limestone hills punctuated with diggings.

While the travertine was plentiful, it took some hard rock mining to obtain the best specimens. There is a great deal of vuggy material which seemed to surround the solid chunks. Material of cutting quality contained well-developed banding and patterns. Colors were on the light side—white, pinkish, pale yellow, honey, beige and tan. The travertine was probably deposited into the fissures of the main limestone mass by percolating waters.

Weathered, black limestone boulders cover the hills. They are well-rounded and some have a rusty-iron crust covered with “leopard spots.” They were fascinating and I took one home to cut. Its center turned out to be a mottled black and rust color with a stringer of white travertine around one side. The quality was very good and the saw-cut gave a semi-polish. In retrospect, I wish I had brought home several of them. If specimens containing a “network” of stringers could be found, they would make into attractive pen stands, bookends, etc.

Allow at least a couple of days for col-

lecting and you will be rewarded with some fine material. The following equipment will prove very handy—shovel, pick, bar, chisel and sledge hammer.

Access is via typical desert roads. Those which were originally graded have deteriorated somewhat. However, stock cars—even those pulling trailers—shouldn’t encounter any problems. A cove in the hills provides a nice camping area and is indicated on the map. Gasoline, groceries and fresh meat are available at the Cadiz store.

Leaving the main travertine deposit, we decided to explore a little further. We drove out to the pole line road, turned right then drove north only a short distance before we were lured into following dirt tracks leading along the eastern base of the mountains. In just two-tenths of a mile, we came to a small diggings on a hill. It proved to be a second travertine deposit. Continuing on, another two-tenths of a mile led us to a third outcrop of travertine.

The material in these deposits is similar in color and pattern to that found at the first locale. We didn’t do any digging—just checked the float and ledge. There has been very little digging at either locale. It seems possible that there could be other deposits still awaiting discovery. Interested collectors should fully explore the eastern side of the Marbles. It might also pay to check any shale deposits for a new fossil location.

The beautiful weather held and the next day we went “trilobite hunting.” We parked at the road’s end and found erosion was beginning to narrow at this point—barely room for two cars to park. Stock cars should park as indicated on the map. A level area, just north of the pole line road at the turnoff to the trilo-

bites, offers a good camp site for one or fifty.

While Jerry headed up the trail to “trilobite cove,” I elected to check out the old Vaughan Marble Quarry. It was unchanged—as if no one had been there since my last visit. However, I knew this wasn’t true. Howard Thayer had told us he hiked north from the quarry to the top of the hill—a distance of about six city blocks. What did he find? A trilobite measuring three inches long! “Scout’s honor,” said Howard. Since he had presented Jerry and me with a fine two and a half-inch specimen—we believed.

The Vaughan Marble quarry was active from 1937 to 1939. This small quarry was only one of several that was developed along a two-mile belt in the Marble Mountains. Large blocks of highly-colored, variegated marble were shipped to Los Angeles for cutting and polishing. It was used as decorative stone in many buildings including the Gardena Post Office in Southern California and the United States Mint in San Francisco.

As I sat on a chunk of marble and enjoyed the panoramic view, I was reminded of my first trip for trilobites. It was as a member of a geology class field trip led by Dr. Marion Dunkle of Long Beach City College. It had been great fun and I had even found several nice specimens. The Marble Mountains were a favorite haunt of Dr. Dunkle and he had explored their every nook and cranny. “You can find a marble in every color of the rainbow in those mountains,” he had once told me. We haven’t fully explored the Marbles but over the years we have visited several locales at which marble of distinctive color occurred.

Jerry was busy digging out shale when I joined him. We worked as a team—he split the shale and I inspected for trilobites, then wrapped any specimens we wished to keep. The greenish, rusty-stained shale splits easily but a great deal of it must be inspected to obtain a few really good specimens. A bar, small chisel and whisk broom are the tools needed for collecting. Be sure to have paper for wrapping and a box for transporting your finds.

Five hundred million years ago, in the dawn of the Cambrian Period, the great seas teemed with invertebrate life. The lands lay naked and foreboding. As yet, marine animals had not evolved to breathe air. Nor would they appear on

land until the Devonian Period—some two hundred million years hence.

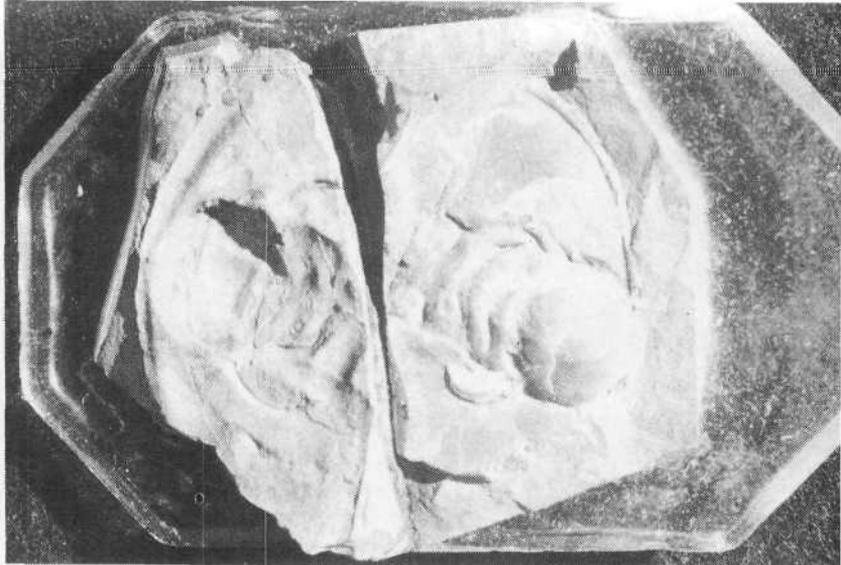
Trilobites (*Trilobita*) were the dominant creatures of the Cambrian seas. A successful swimming and groveling arthropod, they made up 60 percent of the known fauna. At the time, they were the largest animals on earth—generally one to four inches long, though one species, *Paradoxides harlani*, obtained a length of 16 to 18 inches.

“Readily adaptable to various environments” well describes the trilobites. There were bottom dwellers, near-the-surface dwellers, mud dwellers, swimmers, crawlers and drifters—to name but a few. Some preferred shallow waters while others called the ancient sargossa seas “home.”

Reproduction was similar to that of many present day fish. A nest was scooped out on the sand; the female deposited her eggs and the male quickly fertilized them. They than swam off and left the drifting sand to cover and protect their progeny.

Trilobites were the dominant creatures on earth for a period of time that makes man’s existence seem like a week

Trilobite specimens can be attractively displayed by casting them in plastic, as Howard Thayer, Sacramento California, has done with this one.

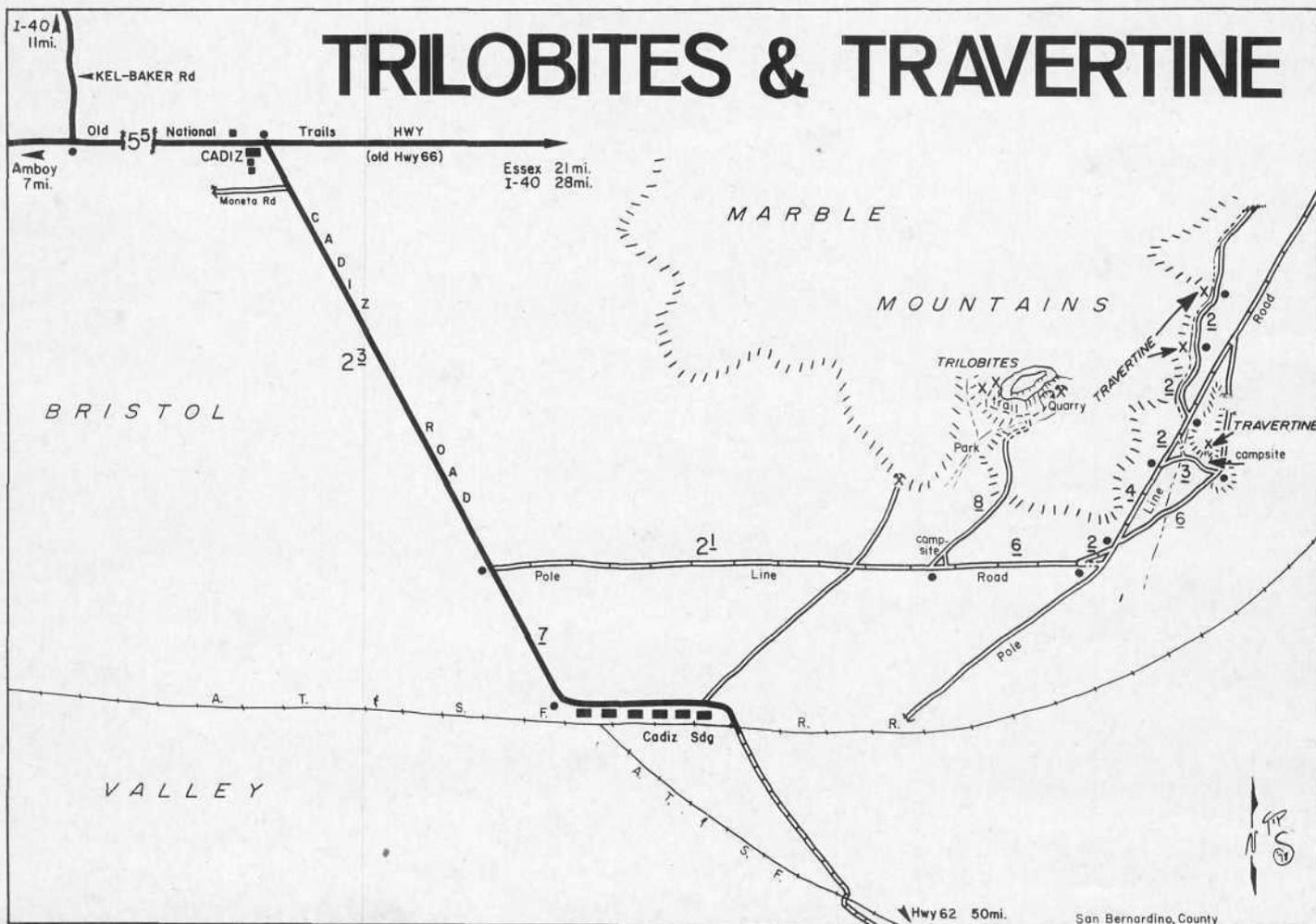


when compared to the trilobite’s year. Their long reign and adaptability to changing environments has helped scientists study the processes of evolution.

In the September, 1955 issue of *Desert*, Harold Weight told of his trip to this trilobite locale. He mentioned that in 1930, John C. Hazzard spent the summer mapping and studying the Marble Mountains for his master’s thesis. In the process, Hazzard discovered a brand new trilobite, *Paedumias mohavensis*—

a true, desert denizen of the deep.

It is fun to try and find the little critters in their Marble Mountain burial grounds. It is also a thrill to hold one of the small creatures that once roamed our seas so many eons ago. I won’t guarantee you will find “Paddy,” as the new trilobite is now affectionately called, but you are certain to find a few of his relatives. If this is not enough, there is an added bonus for those who visit the Marbles—beautiful pieces of travertine to cut and polish. □



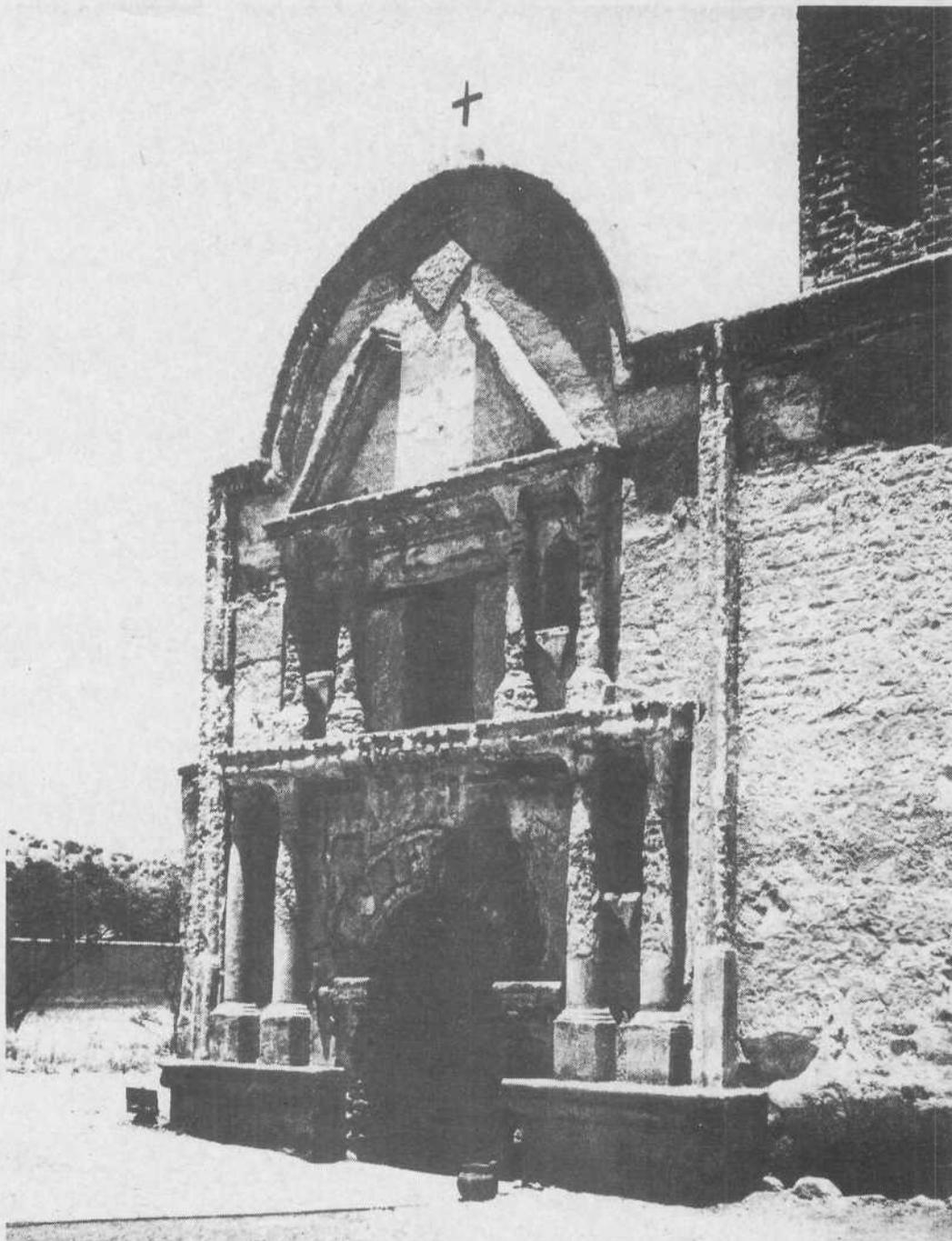
Tubac and Tumacacori, Arizona

IT WAS more than 225 years ago that the first Spanish settlers arrived in Arizona. They arrived on the heels of a company of some 50 soldiers. Those few soldiers had an awesome assignment. They were to build a presidio. Then they were to defend it, and the nearby missions, against Indian attack.

The place was in the Santa Cruz River valley of what is now southern Arizona. It was called Tubac, and was adjacent to the Mission San Jose de Tumacacori. The year was 1752.

Missionaries had been in the valley since 1691, when Father Eusebio Francisco Kino first held Mass at Tumacacori. The mission had been established in 1696. In 1751, though, Tumacacori, and the other missions in the area, had been abandoned. The Pima Indians had rebelled and had sacked Mission San Xavier del Bac, to the north. In the face of the Pima uprising and the constant threat of Apache attack, the missionaries had withdrawn to Sonora. They returned only with the assurance of a garrison at Tubac.

The fort was built at Tubac, and for 25 years it was Spain's main military base in Arizona. Settlers quickly followed the soldiers and Tubac became a Spanish village. Both the village and the mission, though, were regularly raided by the Apaches. So Tubac seemed more as if it were an armed



camp than a town in which life could be pursued normally.

During Tubac's first quarter century, it became famous as more than an isolated outpost in New

A traveler, passing Tumacacori in 1849, described the mission . . . "The fruit has fallen and none to gather it. Corrals still standing—not a living thing seen. It has a melancholy appearance. The walls of the church still stand, no roof, and only the upright piece of the cross. It looks desolate indeed . . . "
Tumacacori and nearby Tubac were abandoned in the 1840s.

Spain. It was from this small presidio that its commander, Captain Juan Bautista de Anza, rode forth with fewer than 40 of his men to find the first overland route, through northern Sonora and the Colorado Desert, to the Pacific Ocean and the missions of California. That treacherous journey took place in 1774. The following year, de Anza led more than 200 colonists over the same route to a new settlement by the bay at San Francisco. Most of the original "San Franciscans" came from Tubac.

By 1776 it had become obvious that the garrison at Tubac was inadequate to meet the Apache menace. The Indian raids seemed to come, primarily, from the north. San Xavier del Bac, 45 miles north of Tubac, had really been left without protection. So, in that year, the military base was moved nine miles north of San Xavier to a place called Tucson.

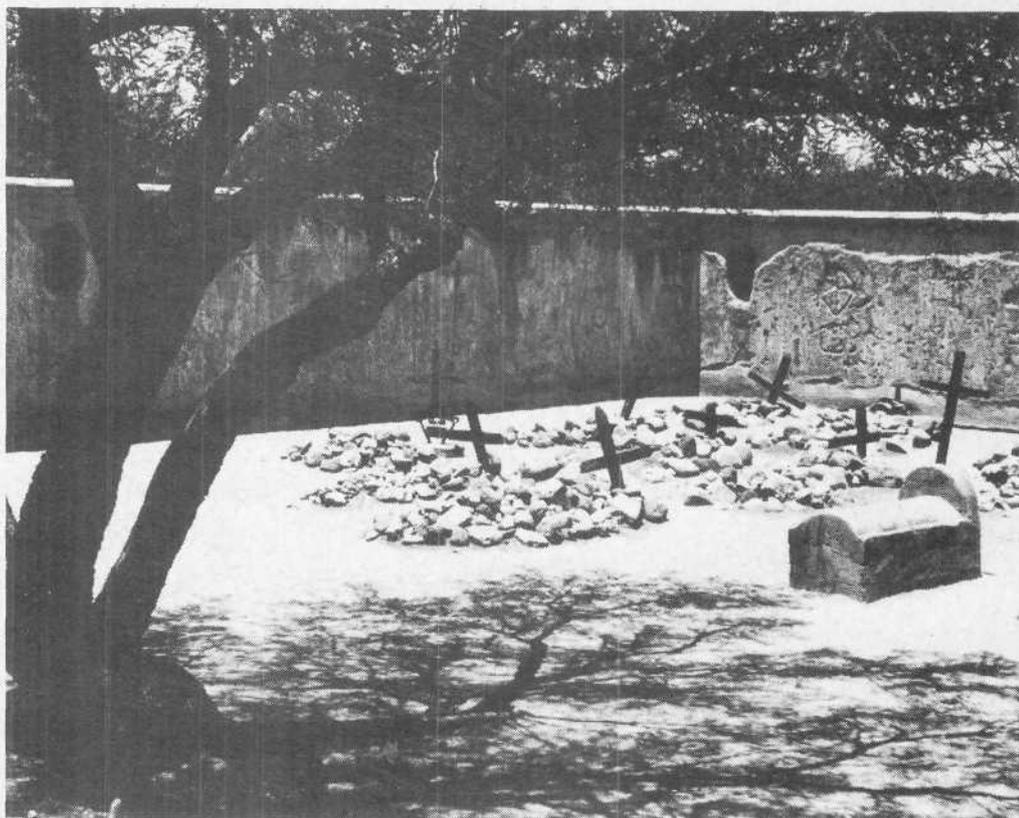
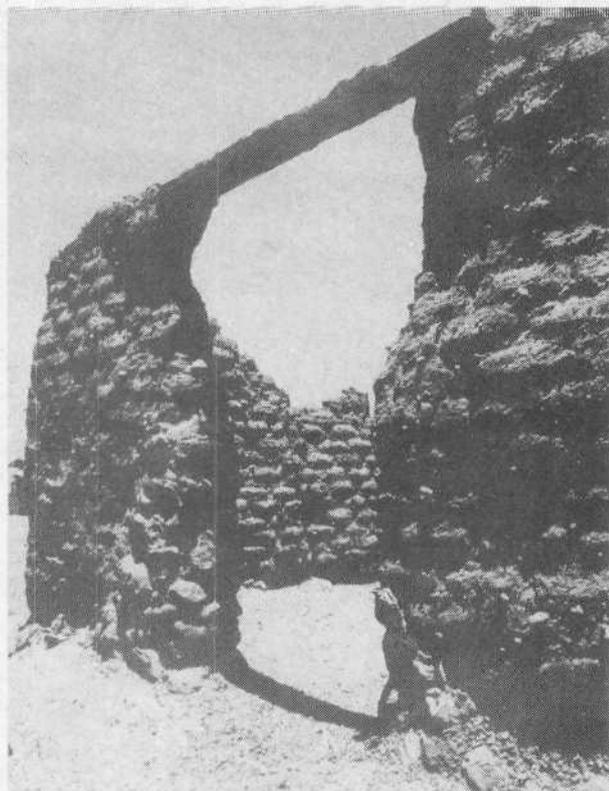
The exodus of the soldiers rang the death knell for both Tubac and Tumacacori. It took some time, nearly 75 years, but life in Apache land without a military presence became intolerable. In 1844 the Tumacacori mission lands were sold by the Mexican Government to a private citizen. In 1849, goldseekers traveling west to California described Tubac as "recently deserted."

Tubac saw life again. In fact, one travel guide indicates that the town had population only to again become a ghost some eight times. Perhaps the most important revival was during the late 1850s following the Gadsden Purchase, America's acquisition of southern Arizona. The population is said to have approached 1,000 as Tubac

Right: Weathered adobe walls, on the grounds of the Tubac Presidio State Historical Park, remind visitors that they are standing on the site of the original Spanish settlement in Arizona.

Although the walls are of more recent vintage, an archeological display at the Park Museum reveals the original foundation and walls of the 1752 presidio.

Below: The Tumacacori cemetery stands within the original mission walls north of the partially collapsing church. The present mission structures were built approximately between 1800 and 1822. The church was never fully completed because of frequent Apache raids. Photographs by Howard Neal.



became a mining camp following the relocation of several of the old Spanish silver mines. Again, though, the military departed. This time it was the U. S. Army which had to move east because of the Civil War. Once more, Tubac became a

ghost.

Today, Tubac is enjoying another revival. The old village has attracted a colony of artists and writers. Arizona has designated the presidio site as a State Park and opened a museum. Tubacacori has been a

National Monument since 1906.

Tubac is located approximately 50 miles south of Tucson, Arizona, on U. S. Highway 89 (I-19). Tumacacori National Monument is three miles south of Tubac. □

TRUE GREASEWOOD IS FULL OF GREASE

by FRANK McWHORTER

THE OREGON Trailers and later '49ers observed no familiar plants after leaving the Fort Bridger area. Thus, supplying names, they called bushes that smelled like sage "sagebrushes," plants in salt flats "salt bushes" and the large bush that burnt best "greasewood." That plant, observed in the Great Basin desert, was true greasewood, *Sarcobatus vermiculatus*. Unfortunately, during the settling of the West, other flammable plants were also called "greasewood." Such plants include creosote bushes in the Mojave area and coyote bushes in the California coastal mountains.

The two desert plants noted for burning spectacularly are old Joshua trees and true greasewood. The dry thorny foliage and the green leaves of greasewood shrubs burn furiously. Our illustration shows the appearance of a vigorous green shrub about four minutes after it was ignited at the base. The above ground parts of the plant burned completely in about 10 minutes leaving only short charred sticks. Do not conclude the subject of our illustration was sacrificed for "science." The plant will recover and send up new shoots from the charred crown, a recovery pattern typical of flammable shrubs that have extensive

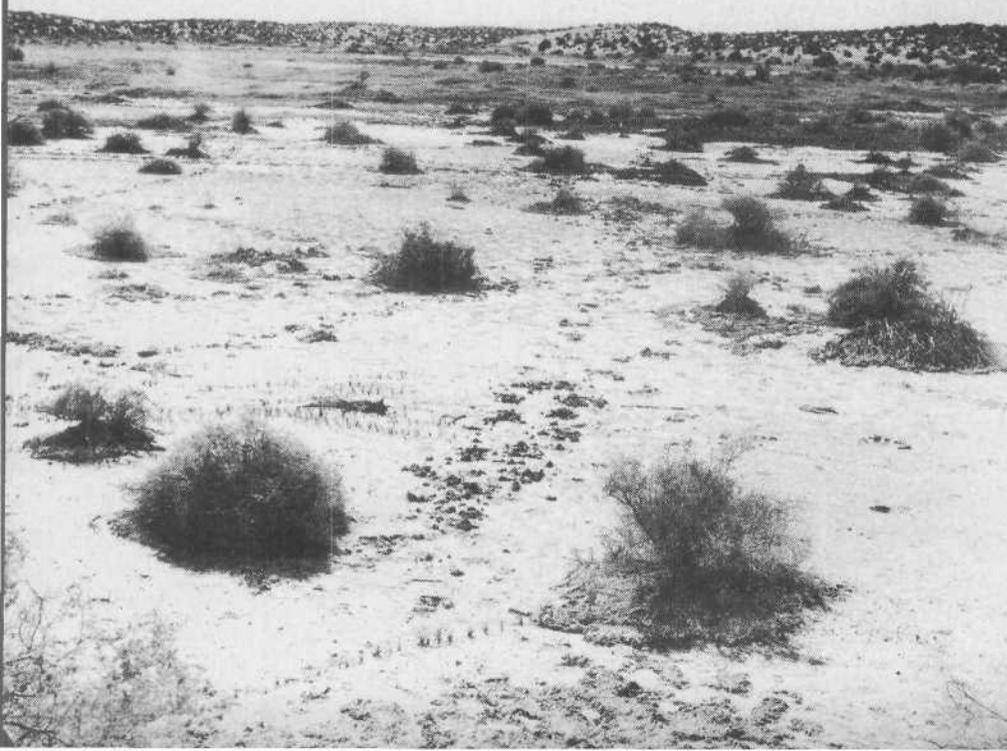
root systems. The foliage of greasewood burns completely because many of the cells, including those of the green leaves, contain oily compounds. True greasewood is full of "grease."

David Douglas, for whom Douglas Fir was named, hunted plants "new to science" in the Columbia River Basin during the 1820s. True greasewood was among the thousands he collected. He sent his sample to London, England, where, in 1828, Sir William Hooker of the Horticultural Society of London, named it *Batis vermiculata*, thus establishing the species name. Years later, John Torrey, a distinguished professor of botany and chemistry in New York City, placed the plant in the genus *Sarcobatus*, and ever since the scientific name of true greasewood has been *Sarcobatus vermiculatus*. The genus name means "fleshy bush," an appropriate connotation for the flesh-like feel of the leaves; the species name means "wormy," a designation chosen apparently to record the occasional swarming of caterpillars on the plants.

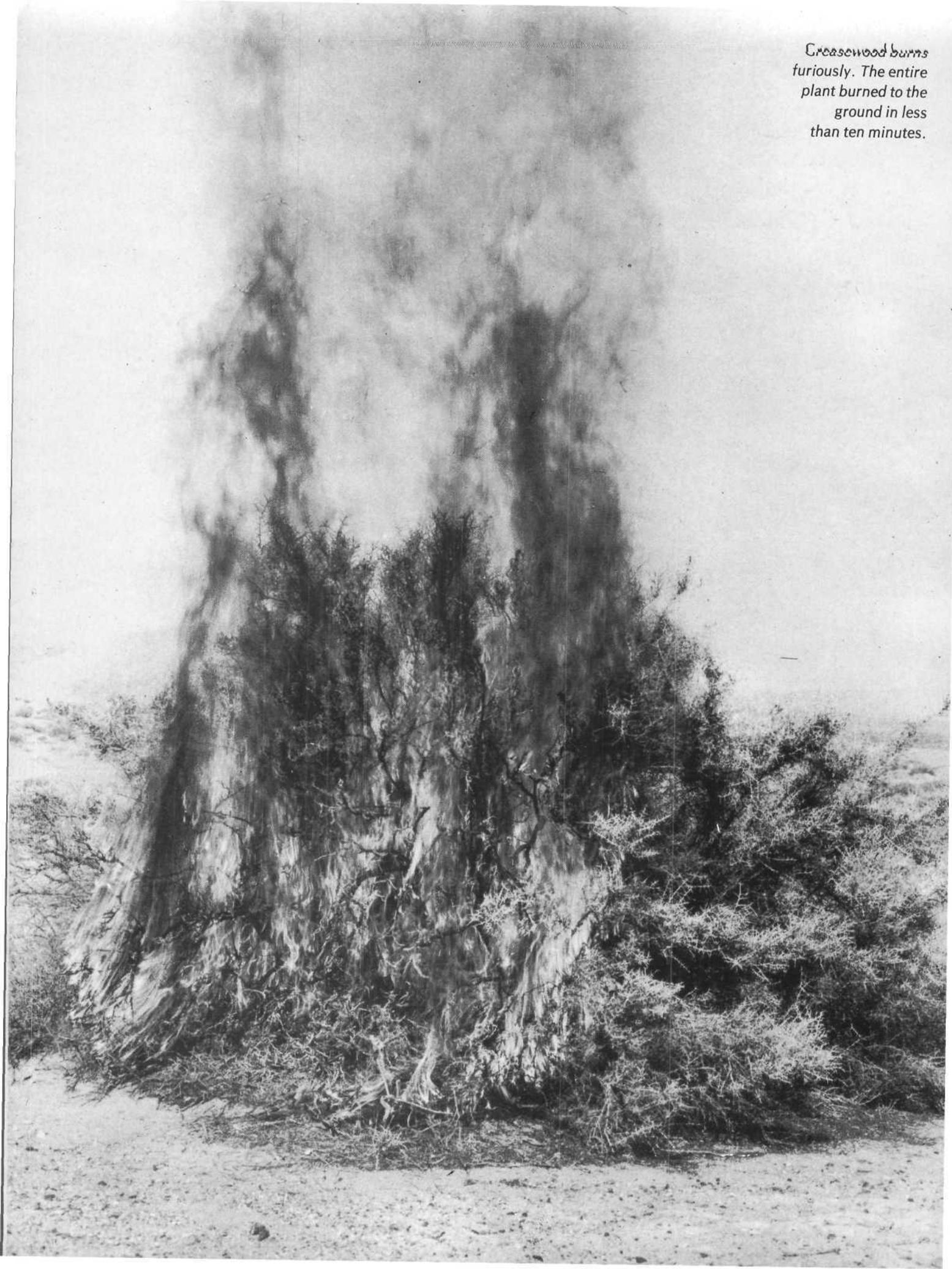
As mentioned above, David Douglas made the first scientific collection of greasewood somewhere in the Columbia River Basin and thus established what taxonomists call "the type specimen."

Continued on Page 46

Typical greasewood shrub growing happily in white alkali. The plants grow to six feet or higher in alkaline sinks but higher and larger in less alkaline locations.



*Greasewood burns
furiously. The entire
plant burned to the
ground in less
than ten minutes.*



The Tufa Towers of Mono Lake

*Dense clusters
of tufa towers and
spires might well be
models for some
fantastic city of the
future—or perhaps
a remnant left
by invaders from
another world.*

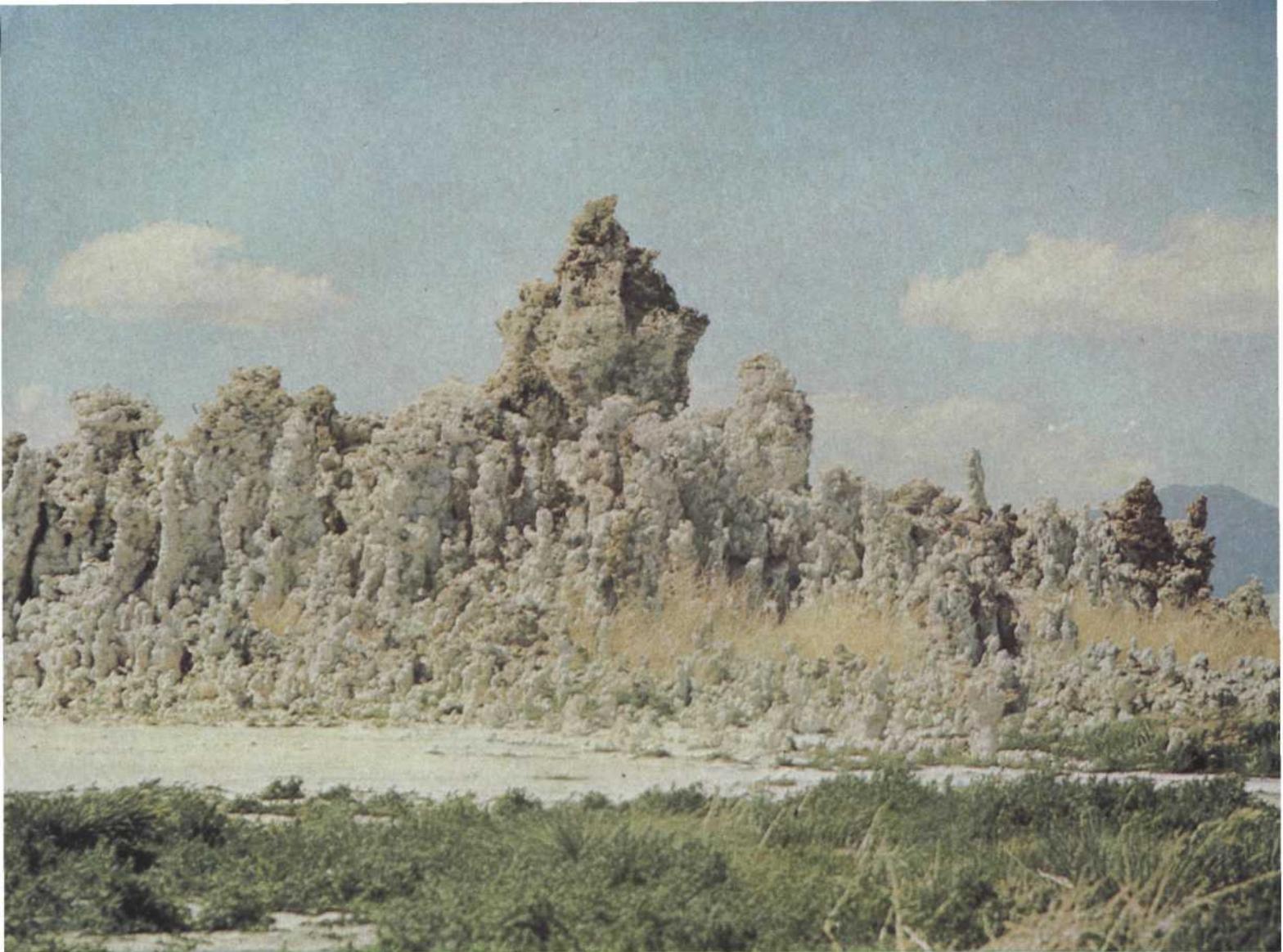
by
**BRUCE
FINSON**

*As the calcium
and carbonate
ions crystallized
underwater
into tufa, some
formations
grew up to the
surface of Mono
Lake, then
extended
shelves of tufa
out along
the water.*

MAYBE YOU can't squeeze water out of a stone, but there's one place where the opposite is true—you can squeeze stones out of water. Actually, the water does its own squeezing, and grows its own stones, crystal by spiny crystal, into fantastic convoluted towers of rock. Mono Lake, one of the most mineralized bodies of water in the West, is soup-thick with enough dissolved alkali to wash your hair, cleanse your gut, cauterize your wounds—and make rocks by the acre.

The rocks are tufa—a porous form of calcium carbonate that solidifies out of the mineral-bearing water. These rocks have developed into spires, towers, domes, clusters and rows of pitted white stone. They grew up from the lake bottom wherever mountain-fed springs oozed. In recent years the towers have been exposed along the south, west and north shores of the lake as the water





level has dropped. Some of the rocks look like petrified tree stumps, many appear much like old termite hills, and the larger aggregations of tufa towers resemble nothing so much, from a distance, as limestone cities half as old as time, crumbled and eroded by centuries of exposure into abstract sculptures of textured stone.

These starkly beautiful white towers have developed as a result of the particular location and history of the lake. There are alkali lakes in other parts of the Great Basin—which includes almost all of Nevada as well as parts of California, Oregon and Utah. But few have tufa formations, and none has the variety of shapes, textures and crystal-forms found in and around Mono Lake.

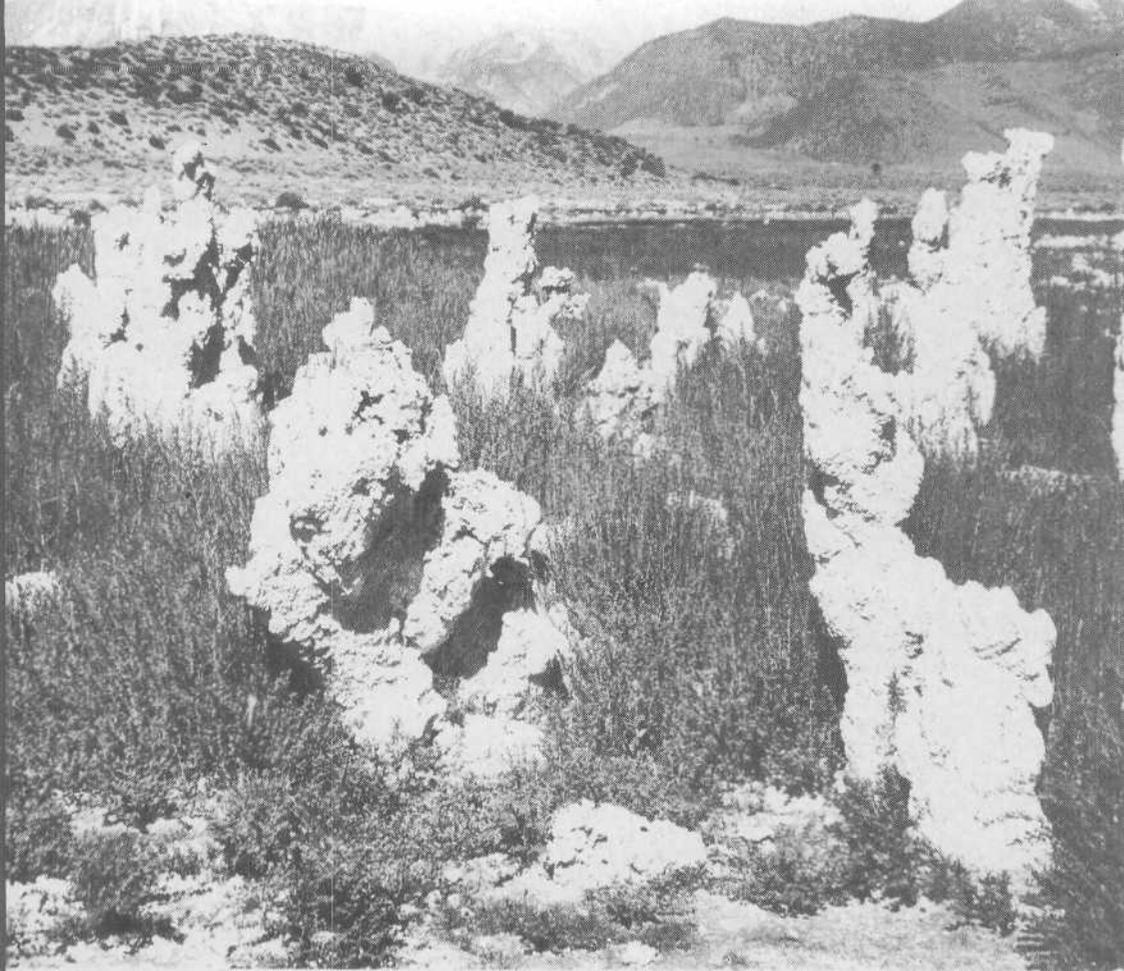
The lake is located in Mono Basin, a closed valley high in the mountains. This valley is about 50 miles long and up to 25 miles wide. It extends from the east

slope of the Sierra Nevada, just across the peaks from Yosemite, northeast into Nevada. All the rain that falls in this region drains inward into the lake. Several thousands of years ago, Mono Lake was twice as wide, three times as long and four times as deep as it is today. With the drying up of the West since the Ice Age, Mono Lake has shrunk to a still-sizeable nine by twelve miles and 150-foot depth. As the lake has shrunk, all the dissolved salts present in the Ice-Age lake (mostly sodium chloride and sodium carbonate) have been concentrated the way sap thickens to form maple syrup as the water is boiled off. Today Mono Lake is twice as salty as the ocean, and far more alkaline. Not a single fish swims in this overspiced mineral chowder. It's a thick witch's brew, just right for cooking up rocks and conjuring them out of the water.

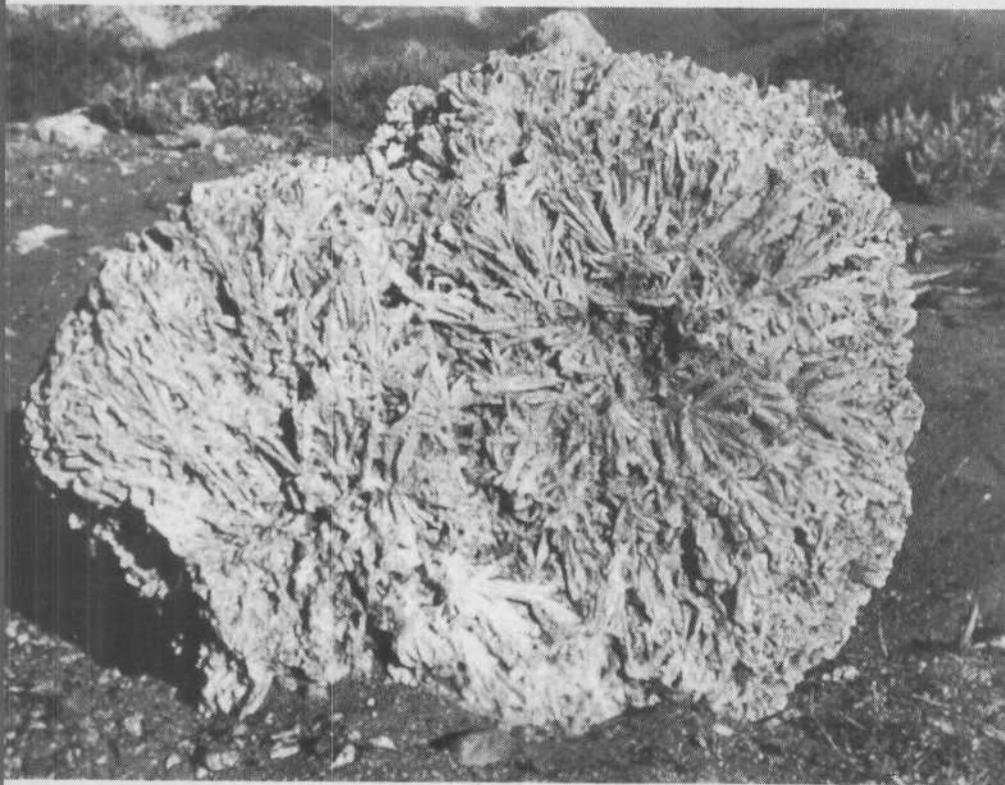
The valley that enclosed this broth of a

lake has a peculiar origin. It formed when the bottom fell out. Almost the entire east-of-the Sierra region is made up of volcanic rocks. As the ancient volcanoes spewed forth lava over the land, emptying their underground magma chambers, the ground cracked and faulted. Four main faults outlined what is now Mono Basin. The land bounded by these faults settled downward, filling the subterranean spaces formerly occupied by molten rock, and forming a deep, closed-in valley. This valley gradually filled part way with sediment and eventually with Mono Lake. It is the lake's special situation within a closed volcanic basin that provides the origin of the raw material that make tufa.

Two kinds of mineral water, both derived from the surrounding rocks, meet at the bottom of the lake. Here, their minerals coalesce into rock. From the volcanic rocks that enclose the lake, rain-



Above: Scattered in the grass fields south of Mono Lake are tufa towers that resemble termite hills. In the distance is the east slope of the Sierra Nevada, source of the calcium in the tufa. Above right: As Mono Lake gradually dries up, on account of the diverting of water from its feeder streams to supply Los Angeles, the stark white tufa formations emerge along the shoreline. Below: This boulder of tufa, lying on its side, shows the dendritic pattern of long, spiny tufa crystals radiating outward from the opening of the lake-bottom spring that fed it with minerals.



water has for thousands of years been dissolving the sodium carbonate and carrying it down into the lake where it has become concentrated. And from the rocks of the Sierra Nevada, just to the west of the lake, groundwater continuously leaches out the calcium from ancient fossil marine deposits of limestone. This groundwater percolates down from the Sierra, then upward into Mono Lake as underwater springs. Where spring water meets the lake's, tufa forms. Algae grow in these springs, and they extract carbon dioxide from the water. Carbon dioxide helps water hold minerals in solution. Without it, the minerals—calcium and carbonate ions—precipitate into a new compound, calcium carbonate. Depending on the local conditions when it is formed, the calcium carbonate develops as porous, crystalline or lumpy masses of tufa. This is the same material that forms stalactites in caves, and the travertine of hot springs.

Every tufa tower thus represents an underground spring. Rows of towers, up to 20 feet tall, have formed along fault lines. Some towers still have potable water bubbling up to form natural drinking fountains. A few even have hot-water springs. An island in the lake, that some-



times sends up plumes of steam from its hot springs, was named "Paoha" by the Indians after their erotically elusive nature spirits, the Daughters of the Mist. However, although the water from the springs makes a passable mineral tonic, the water of the lake is definitely undrinkable, and even mildly hazardous. When Mark Twain camped on one of the islands in the lake he learned the hard way—by falling out of a rowboat—just how hard, and hard on his skin, that water could be. "The agony that alkali water inflicts on bruises, chafes, and blistered hands, is unspeakable, and nothing but greasing all over will modify it . . . A white man cannot drink the water of Mono Lake, for it is nearly pure lye. It is said that the Indians in the vicinity drink it sometimes, though. It is not improbable, for they are among the purest liars I ever saw."

To visit this rock-making lake, go over the Sierra at Yosemite, or drive on U.S. 395 south from Reno or north from Los Angeles. The nearest town, at the base of the Sierra, is Lee Vining. Although the tufa towers on the north and west shores of Mono can be seen from the highway, they are on private land. The south shore tufa, which is perhaps the most exten-

sive and spectacular, is on public land and is easily reached. Five miles south of Lee Vining along 395, turn east on California 120. Drive about five miles, just past Panum, the northernmost of the Mono Craters, and turn left on the dirt road that runs past the east side of the crater. The road soon leads to a parking area near the fields, forests and neighborhoods of tufa. Route 395 is open all year, and just west of Lee Vining along Route 120 are plenty of national forest campsites.

As you wander among the tufa stumps, towers and spires, their resemblance to ancient human structures becomes apparent. With only a little imagination you can see eroded skyscrapers, bombed-out cities, decaying temples, crumbling monuments. Some tufa-clusters resemble cityscapes of the far future, the deep past, or perhaps the lost cities of an alien species from some distant planet. But aside from their resemblance to almost any structures you might fancy, the tufa towers of Mono Lake are beautiful in their own right, both as abstract organic sculptures, and as monuments of an unusual but entirely natural process whereby solid rock can crystallize directly out of water. □

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San Felipe Hills Tell A Tale of Black Gold

IMPERIAL COUNTY BADLANDS
SITE OF ILL-FATED
PETROLEUM EXPLORATIONS

by BILL JENNINGS



This improvised livestock watering tank at Route Well was established shortly after World War II, utilizing a fighter-plane wing tank. The water is barely palatable.



Roy Kittle, veteran jeeper from Hemet, examines the old drilling platform at Routhe Well in the San Felipe Hills. Most of the old planks have long since disappeared as campfire wood.

reach their highest elevation, only 301 feet, a half-mile northwest of the well.

On my last visit, several years ago, Routhe Well was still a fitful performer, able to belch forth a combination of bad-tasting hot water and vapor on an irregular schedule through a corroded valve. Now, I understand, the well and its identifying oil-well drilling platform are less recognizable. Topo maps identi-

fy the site as "artesian well," some two miles east of the powerline road that heads north from Highway 78 about seven miles west of the Highway 86 junction near Kane Springs.

The San Felipe Hills occupy an uncertain "special design" status in the U.S. Bureau of Land Management's Desert Plan—the interim guide for use of more than 12 million acres of federally owned California desert from the Yuha district on the Mexican border north to the Inyo Mountains northwest of Death Valley.

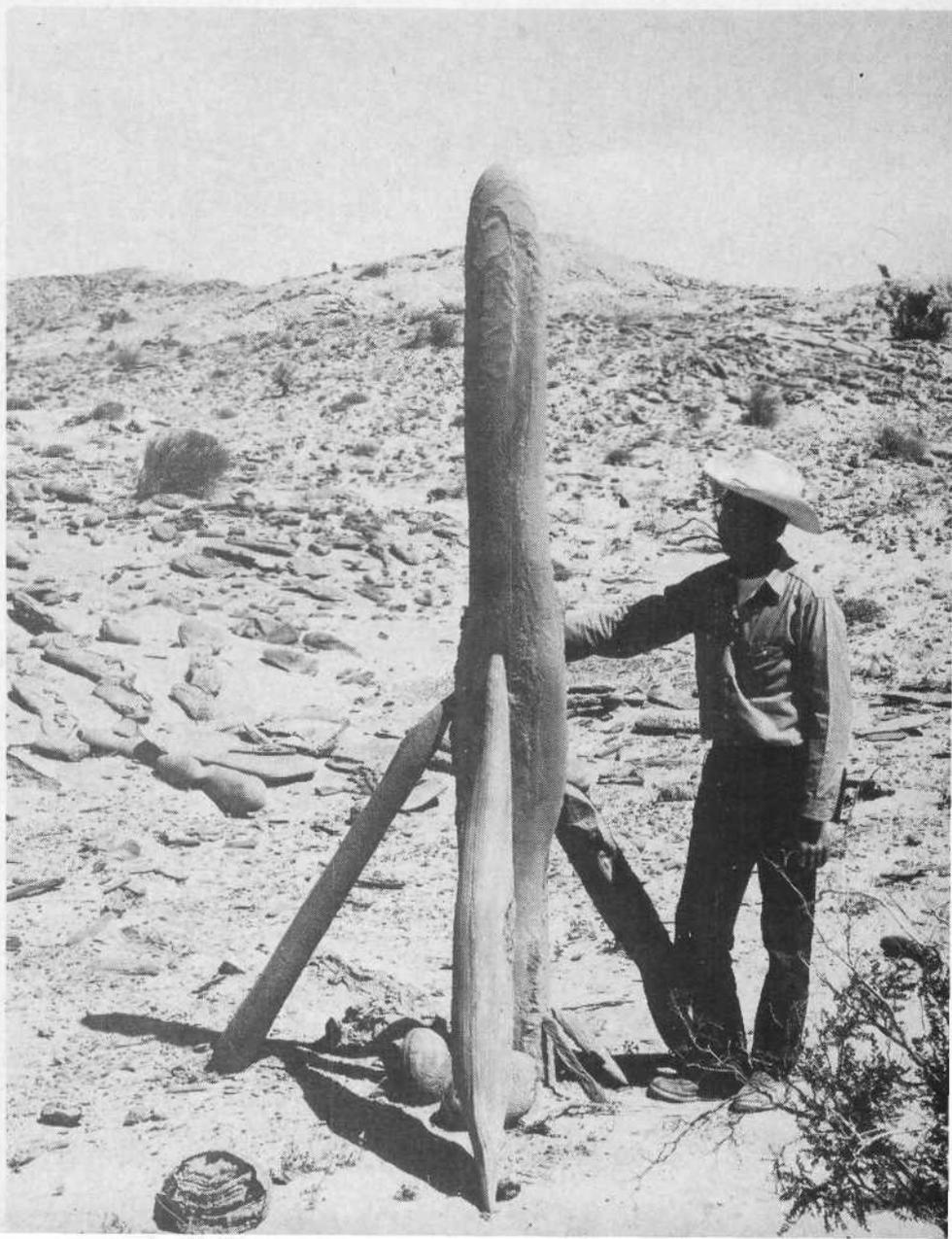
The area is partially included in the new Ocotillo Wells off-road recreation area administered by Anza-Borrego

Paleontologist Harley Garbani stands by a gorgeous concretion monument erected by Routhe Well visitors to show the way to the old gas well in the San Felipe Hills. Concretions on the hillside in the background denote a major mammal fossil study area worked years ago. Walt Frisbie photo.

IN THE first echelon of guardian ramparts west of Southern California's Salton Sea, a maze of mud hills, playas, bajadas, arroyos and the ancient shore line of Blake's Sea, may lie an answer to the nation's oil problem—but don't count on it.

From Mt. Signal north to Travertine Point, the Riverside County boundary, this barren sector of Imperial County has been the site of extensive oil and natural gas exploration since the turn of the century, but all they've come up with so far is a series of dry holes and a bad-tempered hot well that still belches fitfully a mixture of mineralized water, steam and odious gases on occasion.

This is Routhe Well, named for its original promoter, Judge Clarence Routhe, early-day developer of the Imperial Valley and Borrego country. His exploration site is in the scenic, if mis-named, San Felipe Hills, a low-lying jumble of concretions, washes and sandstone outcroppings just northwest of the junction of State Highways 86 (Old U.S. 99) and 78, 25 miles southeast of Borrego Springs. Mis-named because the so-called hills are partially below sea level and



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Desert State Park. This means at least the westerly area of the San Felipe Hills is open to off-road use. Check the signs and make local inquiry to be certain.

Access to the Hills area is along several primitive roads, from both the south side, along State Highway 78; the east, via Route 86, and from the north through Arroyo Salada, over the same pole line road and several jeep trails southerly from 17 Palms Oasis in Anza Borrego Desert State Park.

Tule Wash, southeasterly from 17 Palms, extends through the famous Pumpkin Patch area of unusual sandstone concretions to the northern escarpment of San Felipe Hills. All of these routes are suitable only for four-wheel-drive or dune buggy type vehicles due to repeated flooding and extensive blowsand dunes.

While Route Well is the only west-side oil well site that left anything more than a bitter memory for the drillers, it is only one of the many old abandoned exploration holes still visible. Others include the Mesquite drill hole, south of Highway 78 and sometimes confused with Harper's Well just west of the San Sebastian Marsh, where San Felipe and Carrizo washes merge. Actually, Mesquite and Harper's Well are separate sites. Mesquite is distinguished by a 12-inch steel casing that sticks up out of the sand some distance southwest of Harper's Well. Another is nearby Wolfe Well, north of Highway 78 right on the Imperial-San Diego counties boundary. Wolfe Well is in the new Ocotillo Wells off-road area just south of the distinctive Shell Reef.

Shell Reef is an indication of the ancient status of the entire San Felipe region. Here, just above the old shoreline of Blake's Sea or Lake Cahuilla, is a bed of fossilized shellfish. Further east, near Route Well, many fossilized bones of ancient mammals have been found in recent years, including a camel vertebra rolled into a sandstone concretion that is on display at the Malki Indian Museum near Banning, California.

The Hills are characterized by a series of wide, shallow and sandy washes that offer ideal wind-protected camping sites for small parties or large groups. One of the frequently-used rendezvous points for the old Hemet-Borrego Jeep Cavalcade was along the pole line road two miles north of Highway 78.

World War II-vintage military jeep, driven by Roy Kittle, veteran Hemet jeeper, pauses on sandstone and mud ridge in San Felipe Hills. Small concretions in foreground attest to the continual erosive forces of wind and water that forms these strange sandstone rolls and balls.



There is no water and very little campfire wood available in the Hills so overnight visitors are urged to bring their own. An old spring, shown on early-edition 15-minute topographical maps of the Salton Sea region, is no longer visible.

Known as McCain Spring, this was the fresh water point for the drillers' camp at Route Well, which was drilled in 1919.

Route, who spent his later years at Cardiff-by-the-Sea in San Diego County, near Encinitas, supplied valuable data on the San Felipe Hills region to Horace Parker for the preparation of his Anza-Borrego Desert Guide Book series, which is now being revised by Ranger George Leetch of the state park staff for the Anza-Borrego Natural History Association.

Route said the well was drilled to a depth of 3,600 feet by steam power. Water for the boilers came from the McCain Spring, about two miles northwest of the drilling site. This old seep is sometimes called Tule Spring and if it is the same, its remnants can still be found as damp sand, alkali outcroppings and some tule growth in Tule Wash about five miles southwest—upstream—from State Route 86. The 1940 series topo map also shows a "Diamond Bar Test Well" at this location.



If some reader has information about Diamond Bar a note to the writer in care of *Desert Magazine* would be appreciated.

Parker notes that the nearby Mesquite oil well was perhaps the first of the Imperial County drilling experiments. Routhe provided Parker with a clipping from the *Brawley News* in 1901 describing the drilling of this well. Instead of oil, alkali water was found and the well later provided lifesaving services for early-day wagon teams along the Kane Springs county road.

This road was the main highway between Julian and Brawley until World War I and sections of it are still discernible from Ocotillo Wells southeasterly. The deadly floods of 1916 washed out much of the old road.

Routhe told Parker there were sporadic oil drilling attempts as early as 1891, although only minor geothermal activity resulted. Ironically, most of the geothermal sites now being developed as an alternative energy source are in the Niland-Salton Beach area on the opposite side of the Salton Sea.

The land developing efforts of Routhe and his Imperial Valley associates later turned to Borrego Valley and he was credited with developing the first town-

site there in 1922 when his Borrego Valley Land Company was incorporated. This firm persisted until the end of World War II when it was bought out by later-day land interests.

Despite their dismal batting average, the major oil companies persist in spasmodic drilling efforts along both east and west sides of the Salton Sea. At least, those efforts around Niland now appear to be bearing useful results, but the drilling sites in the San Felipe Hills have never produced more than the aromatic vapors and bitter warm waters of Routhe Well.

The Hills are still an inviting camping and exploring area for off-roaders and access seems assured due to the state's designation of the area as an off-road recreational area.

Parker notes one access road, called the "Standard Oil" well road, reaches into the area from Highway 78 just a half-mile east of the San Felipe Creek bridge. This route is hard to find nowadays due to flooding and blowing sand. Another, the "Texaco" trail, actually is identifiable now as the pole line road, 2.5 miles to the east, or about seven miles west of the 78-86 junction. This is the best southern access to the San Felipe Hills. □



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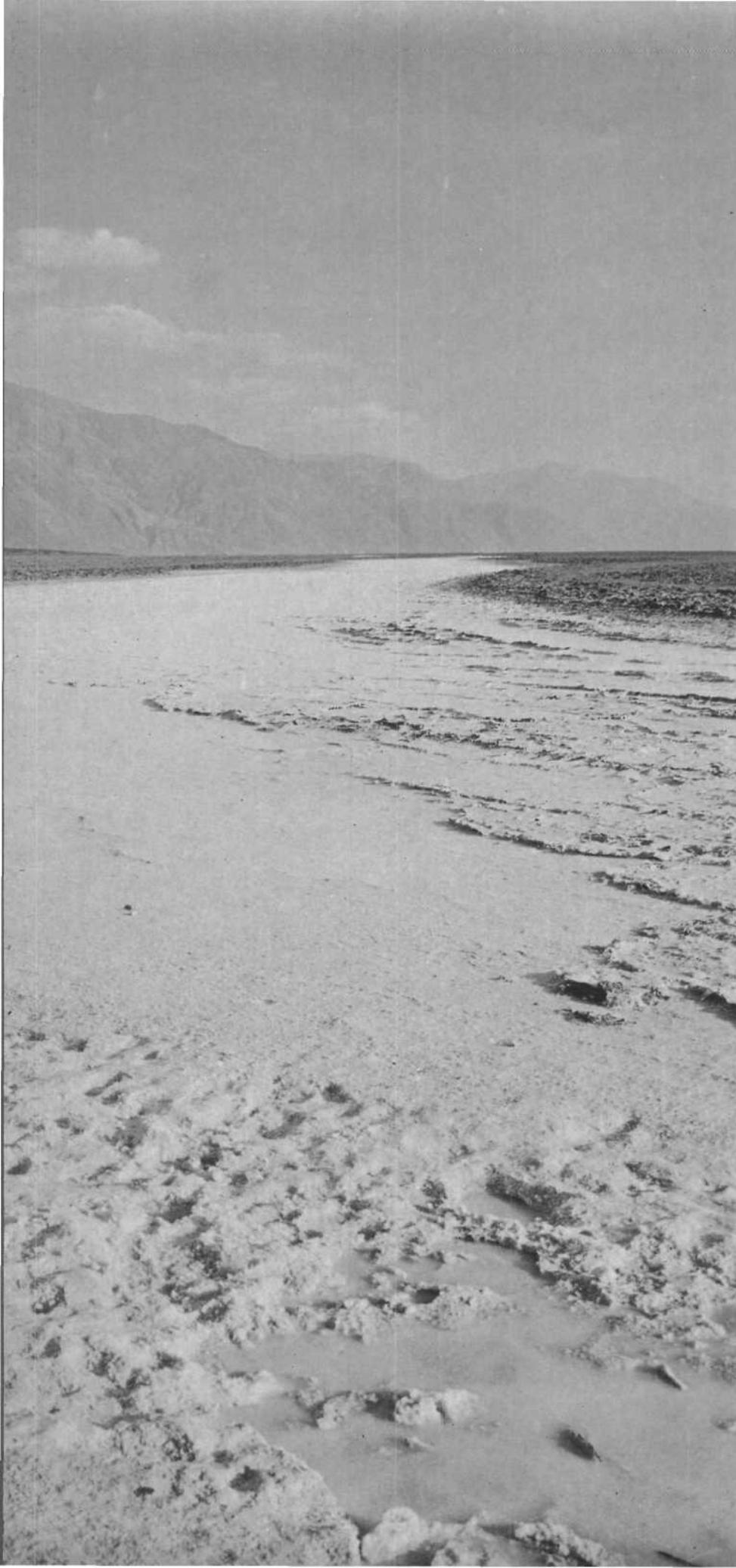
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**Getting
to know
Death
Valley
with**

**A WALK
ON
THE
WILD
SIDE**

by BETTY TUCKER-BRYAN





THE DESERT is like a fascinating woman—soft, loving, beautiful, and often harsh and spiteful. Yet, just when you're ready to tell her to go to hell she hands you a wildflower, breathes softly in your ear, and you're back for more.

And of all the desert mesdames, Death Valley is the most famous. She acquired dubious fame when the '49ers tried to conquer her with their clumsy ways, then ran from her in fear. But as with the sea, there were men, and women, too, who saw beneath her surface and came back for more.

Death Valley isn't pretty, at least not in the stereotyped green glade, tall tree sort of way. She wears a flinty perfume before rain storms and huddles under a shabby splotched brown coat in the wintery cold. During the summer months she lies between dark mountains, forbidding and feverish as her temperature climbs. In the spring she comes "in season." Then people from all over the world arrive to admire her display of poppies, desertgold, paintbrush and mallow.

But seeing Death Valley in just the spring is like seeing a beautiful actress on stage. To know the real woman you must see her without makeup, grumpy, sloppy, happy and in all sorts of moods. You've got to learn what makes her tick.

Walking is the very best to know her. Any other way is too fast and too loud. By walking you can hear the ricocheting wails of hunting coyotes and the defiant brays of burros. Even the scurrying of lizards makes noises that sound like galloping horses in the dense silence. In a shaded oasis frogs, chirping birds and zinging insects create a steamy jungle cacophony of sound.

Besides sounds that tantalize, she also has her motherly side. In her lap she cradles spawning pupfish, horned toads and the newly-born geckos who squeak for attention. Fuzzy brown tarantulas fumble across her desert pavement with long coltish legs. The majestic Bighorn, pale ghosts of the desert, inhabit her

Salt Creek lives up to its name near the Devil's Golf Course. Photo by Richard Denning, Littlerock, California.

upper reaches while below on her wind-swept flats the creamy horned side-winder basks in sandy warmth.

She has been loved and plundered, taken advantage of and protected. But through it all this famous madam proudly holds her own. Follow her rules and you will have a friend for life. Those who forget the rules often die.

To get to know this desert mistress a bit more intimately, here are a few short walks and wanderings I think you will enjoy.

Keep in mind Death Valley's changeable personality and always tell someone where you are going and when you expect to return. Carry a canteen of water and wear a hat. Don't walk out into the desert in the summer—even she gets feverish then!

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Ubehebe Crater and Little Hebe

In the northern end of the valley, 2600 feet above sea level, is a deep explosion crater. Created much the same as steam escaping from boiling gravy, underground gases surfaced leaving a gaping hole. Several smaller craters were created a bit later in geologic time. This crater is just a little over 3,000 years old.

Known to the old Shoshone Indians as Duh-vee-tah Wash-sah or Duhveetah's Carrying Basket, the present-day name was derived from a woman named Ubehebe who once lived nearby.

Late afternoon is the best time to enjoy the red and yellow shading of Ubehebe. As your approach the crater notice the black lava primly studded with soft gray desert holly. Park at the rim and then walk down into the 800-foot bowl. Later you can climb to the high point of the rim and walk south along the series of small craters to little Hebe just a half a mile away.

Zabriskie Point to Golden Canyon

Arrange for a car pickup at Golden Canyon or plan on a round trip. Be forewarned that the return trip is not as easy as the outbound one. Beginning at the point named for Christian Brevoort Zabriskie, once head of the early-day borax operations, follow the three-mile trail through this ancient lake bed that has upended into yellowish mud hills. Take time to stand on top of one of these hills where true desolation and barrenness are in your grasp. Listen for the sounds

of expanding and contracting earth as the temperature changes.

Even here, in seeming nothingness, is life and stark beauty. Sit on a rock that has come to rest after a watery rush down the wash and get to know your surroundings. This is wilderness. So wild it has been used to depict moon shots in science fiction movies.

As your approach Golden Canyon the color deepens. It is here that the Indians found pigment for ceremonial face and body painting. As you leave the canyon the twisting downhill road breaks into the open and the deep shimmering valley with the Panamints as a backdrop is overwhelming.

Incidentally, don't try this hike in sandals, wear athletic shoes or boots.

The Sand Dunes

Almost everyone who visits Death Valley drives out to see the sand dunes, but not so many venture out to see them. This is probably just as well as it is disappointing to see the dunes' pristine beauty spoiled by human footprints. However, it is possible to keep most of the esthetic beauty intact and still get to know the dunes.

Park at Stove Pipe Wells or any of the pull-offs along the highway. Early morning is the best time for dune wandering as the night winds will have smoothed out most human footprints. But what you will find are the tracks of the night prowlers. By walking around the base of the dunes instead of tromping over them you will preserve these tracks for the next person who comes through. You also stand less chance of caving in some little desert dweller's home.

Learn to read the signs. Soon you will be able to tell where the Kangaroo rat came out in search of seeds. Perhaps a couple of them had a play fight, kicking each other with their huge back feet. Or perhaps a coyote picked one off for dinner. The scorpions and big black beetles leave intricate tracks as do the centipedes.

The morning sun shining through the creosote bushes creates lovely patterns and where a branch touches the sand it makes a windblown design.

The dunes are modified or sub-barhan dunes. These crescent-shaped sand piles are common in areas where the wind direction is fairly constant and there is a barrier (Tucki mountain) to



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cause a backdraft of sand-laden winds. If you camp at Stove Pipe Wells you'll soon find that the wind almost always blows from the north, often depositing *unformed dunes in your soup.*

Salt Creek

Park at the space provided and walk along the narrow creek. Stay on the right side and after a bit you will come to a well-defined trail. The trail will take you deep into an area inhabited by very rare fish. This tiny member of the killifish family somehow managed to adapt itself to the extreme alkalinity of the drying desert streams. Known as the pupfish or *Cyprinodon salinus*, this minnow-like creature has been the subject of intense concern and has inspired numerous *Save the Pupfish* endeavors.

Seemingly unimportant, the pupfish is in reality one of the most striking examples of evolutionary change to be found on our planet. They have adapted and lived through geologic changes that killed off mastodons, ground sloths, sabre-toothed tigers and even dire wolves.

Oddly the pupfish are either seen en masse or lurking in small groups about the side of shading rocks. Then again they seem to disappear and it might well be difficult to find even one.

This narrow trail leads along an ever-widening stream that virtually seems to turn into a river. Huge ponds have formed. Near trails-end is a small waterfall, the only one to be found below sea level.

This is an easy hike and can last an hour or a few days. The water is not drinkable.

Mosaic Canyon

Located near Stove Pipe Wells, the entrance climbs high up the alluvial fan and stops at the canyon entrance. This is one of the most beautiful walks in the valley.

The lower canyon, near the entrance, is a vast mosaic of water-polished breccia in white, black and gray rock. As you go a bit further the walls are carved and marbled by eons of rushing water.

It is pleasure to run your hands over the wonderfully smooth walls. The canyon towers high on each side of the narrow pathway. There are spots where you must climb up, though it is easy.

Follow the narrows for about a half a mile and then the wash widens. You can progress for a couple more miles before



Death Valley, viewed from Zabriskie Point. Photo by Hubert A. Lowman.

the going gets rough or if you're really ambitious you could go on to the canyon head that is nine miles further, but this takes it out of the day-hike category.

Death Valley Mountain Hiking

This is another cup of tea, but still in the category of day hikes. Just as you shouldn't tackle the hikes located in the valley during the summer, it is unwise for any but the well-equipped climber to take on mountain hikes during the winter months. The best months for taking hikes in the Panamints are May, June, September and October. July and August could be too hot for comfort.

Telescope Peak

At 11,049 feet this is the highest point in Death Valley National Monument. It is a good idea to check at the Wildrose Ranger Station before venturing up the road to the Mahogany Flat campground. This is a steep, narrow gravel road that often requires first gear as you near the top.

Be sure to take plenty of water as this campground doesn't have any and there is none along the trail, either. Hiking boots are recommended.

Most hikers leave the campground, climb to the top, sign the register and

return the same day. It takes six to eight hours to reach the summit. The altitude gain is 2,916 feet in seven miles. However, for those who prefer taking their time and really seeing things, and who have the proper equipment, a slow hike to the top is more fun.

The views along the trail are fantastic. You will be able to see Mt. Whitney, the long stretch of high Sierras, the White Mountains and the Panamint Valley to the west. To the east is the Valley of Death and the Charleston Peak. The trail wanders through forests of pinyon and limber pine. Near the summit are members of the oldest living thing on earth, the bristlecone pines.

After a leisurely evening meal, pull out your sleeping bag and crawl in. The stars will seem brighter than any you've ever seen and the wind will sing softly through the pines. The next thing you know it will be morning and the whole world is below for you to enjoy.

This is only a sampling of the lady's offerings, but if you have a "desert tooth" it is enough to titillate your taste buds. You'll soon go looking for another helping from this most famous romancer of all. □

Nevada's Oldest Graveyard

by GENE SEGERBLOM



photos by
Cliff Segerblom



*Fossil shelter
protects exposed
Ichthyosaur
bones and is the
center for a
guided tour.*



Visitors are free to roam but are reminded that it is a Nevada Park System area.

WHEN EXPLORING the hills and deserts of Nevada, you expect to find ghost towns and Indian artifacts, but you'd not expect to find a graveyard of giants. And the giants were sea monsters.

In the mountains of Central Nevada, far from an ocean shore today, lies the tomb of the world's first giants, the Ichthyosaurs (fish lizards). They swam in warm oceans that extended over Western Nevada some 181 million years ago, becoming extinct about 70 million years back and are not found elsewhere.

Incorporating this Ichthyosaur graveyard with the nearby remains of Berlin, a turn of the century company mining town, the Nevada State Park System has created its most unique state park.

Slightly off the beaten path, more and more visitors are taking the cut-off to the area making use of its excellent campground and picnic area while soaking in

a little ancient history. Easiest route to visit the park, if you are traveling cross country through Nevada on U.S. 50, is to take the turnoff (Nevada State Route 23) to Gabbs. The Park is located 23 miles east of Gabbs via Route 91 which is paved except for the last seven miles. And, if you like back roads, an alternate route is from Austin via Route 21 (55 miles all unpaved). You will pass through some great desert and ranch country either way.

How were these sea monsters buried here?

Ichthyosaurs, ranging in length from two to about 60 feet, were similar in body form and habits to some of the whales and porpoises of today. They cruised in what was then a warm tropical sea, along with sharks, prehistoric fish and nothosaurs, and probably fed on floating shell-fish and fishes. The tail was long in early Ichthyosaurs such as these and

probably had a small fin about its tip. In later ones, the tail became short and the shape of the great crescent-shaped tail fin is often accurately preserved in the fine specimens from southern Germany.

Like whales, the Ichthyosaur had no gills and came to the surface to blow and breathe. The great size of the body, eight feet in diameter, and the long thin ribs (nine feet long) would have prevented the fish-lizard from hauling itself out on land. The weight of the chest would have hindered breathing as in stranded whales today.

Years ago on this muddy shore the big clumsy Ichthyosaurs ran aground and were trapped by rapidly receding tides. In a futile attempt to dislodge themselves, they thrashed about and dropped deeper into the ooze. As the shore sank, the muds encased stranded members of the fish-lizard family, small and large species alike, until they were scattered

through some 500 feet of hardened mud and limestone and buried for millions of years.

Later upheavals lifted the area to become part of the present-day mountains of west central Nevada. Erosion eventually exposed portions of the petrified remains.

How were the remains discovered?

In the late 1800s, early miners of Union Canyon, where the best examples are located, noticed the fossils and used some of the bones in their hearths. About the turn of the century, school boys in Union Canyon used the spherical clam shells in their sling shots. They called them "lizard heads."

But it wasn't until 1928 that the first specimens to be identified as giant Ichthyosaurs were discovered by Professor S. W. Muller of Stanford University who was studying the geology of the region. Some of Professor Muller's finds in Union Canyon were further exposed by Margaret Wheat, of Carson City, Nevada, a former member of the Nevada State Park Commission, She in turn interested Dr. Charles L. Camp, a distinguished paleontologist, in the possibilities of an extensive excavation which was undertaken with the help of university and high school students as well as friends and visitors.

Digging began on the hillside above and behind the surface specimens that had been weathered out years before. Excavation by bulldozer removed the earth down to within less than a foot of the bone layer, with the remaining overburden being removed by hand tools. Final sandblasting of the bones brought out the bluish color of the hard, heavy limestone that has replaced the original bones. Dr. Camp worked from 1954 through 1957 and uncovered the fossil remains of 37 giant Ichthyosaurs.

One of the quarries has been fenced in

as an interpretive center for visitors to begin their guided tour. The original floor of the visitor's center has not been altered, except for the replacement of a slipped section of ribs along the north-eastern faulted zone. The quarry floor, with its hundreds of exposed bones, is a sample of the actual sea floor consisting of tidal mud, now solidified, as it appeared when laid down some 200 million years ago.

Here at the fossil shelter a Park ranger talks three times a day about the geology, natural history and history of local mining.

Nearby is a life-sized relief model of Ichthyosaur, 56 feet long, who appears to be swimming right out of ancient waters that once covered most of the area. Located on a concrete wall, this reproduction is there to help orient visitors. Nevada Park Ichthyosaurs reached a length of more than 60 feet. The huge head was ten feet in length with a long pointed snout having rows of conical teeth. The great eye was a foot in diameter, probably to permit the creatures to find their prey in deep waters. A thin ring of overlapping bones, similar to the iris diaphragm of a camera, lay around the great eyeball and prevented its collapse under water pressure.

The fossil shelter, picnic area and campground are located in Union Canyon which itself was the scene of a silver boom town of the 1860s. It was one of Nevada's smallest mining camps with a 10-stamp mill built at the mouth of the canyon. A clay deposit led to the building of a brick factory which turned the clay into gold.

The 25 families who settled in the canyon built a log school house and furnished it with 12 desks and a pot-bellied stove. Residents even had the services of two saloons. But its short life ended in 1885 with nearby Berlin becoming the boom town. Today the foundations of the schoolhouse and a mill are still visible as well as the remains of one adobe house and a fireplace of one of the miners' cabins. Both of these are posted with Park System markers describing the Union Canyon of some 100 years ago.

But in Berlin where you register to visit the park and must pass through to reach the interpretive center, picnic area and campground, there is the elegant remains of a 30-stamp mill which the NSP System is maintaining in a state of "ar-

rested decay." The mill has been silent for more than 60 years. Here also is a dozen other weathered buildings in various stages of disrepair which are posted identifying them historically. It is a genuine Nevada ghost town.

Berlin's boom life span was 13 years—1897 to 1910. The first activity reported in Berlin Canyon, however, appeared in the assessor's returns for 1869. The report showed that the Berlin Mine had produced four tons of silver that year.

Its growth was slow. By 1900 the town had a population of 250 people, with a general store, an assay office, several boarding houses, a union hall, a stage coach station, livery stable, barber shop, medical clinic, machine shop and at least 20 homes. It was a company town so no bars were permitted. But a tent saloon just off company land served the residents as did two other saloons just south of town.

The Nevada Company, who owned the mines and town, operated the general store and fourth class post office for residents of Berlin and Union Canyon. Indians and a few wandering prospectors were the store's main outside customers. In 1909 the mill shut down, the people moved on to other mining camps and Berlin went into mothballs. Of the original 20 houses, seven are still standing along with the mill, machine shop, assay office, warehouse and stagecoach stop. A small cemetery lies below the town.

You are welcome to roam through the townsite and mining area, photographing at will, but NSP signs remind you not to dig or remove artifacts or fossils.

Park System plans, in the drawing board stage, call for restoration or reconstruction of the most prominent structures with an interpretive center at Berlin as well as at the graveyard. Long range plans call for a horse-drawn interpretive shuttle from Berlin to the Ichthyosaur area.

Operating today is a 14-unit campground with fireplaces, tables, grills and drinking water. There are no trailer hookups. Fee is \$2 per day for camping. A day-use area is located in Union Canyon and provides tables, cooking grills, drinking water and pit toilets. Signs and displays which describe the natural history and historical features of the area are found throughout the park. Several signs describing wildlife and ecological

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Pieces of Ichthyosaur jaw is reassembled by park ranger.

features are placed along the trail between the campground and the fossil shelter.

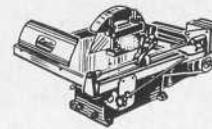
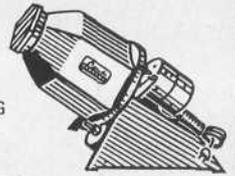
From Memorial Day through Labor Day, rangers talk at the shelter at 10 A.M., 2 P.M. and 4 P.M. During the remainder of the year talks are generally presented at the same hours Thursday through Monday. Because of snow, mud, weather and emergency conditions, a ranger may not be available at all times.

Although the park is open all year round, it is really a spot for a summer visit (Memorial Day through Labor Day). To avoid disappointment, the NPS suggests you not venture out during severe winter weather. Remember this is a remote area and telephone service is not available. The nearest town with gasoline and limited groceries available is lone, a revived mining town, seven miles north on a dirt road.

About 10,000 travelers a year do visit the area, according to Park System estimates, but only about 10 percent are from states other than Nevada and California. But for those who treasure the old days that built Nevada, with the added attraction of giant fish-lizards, a visit to this remote area assures a rare treat. □

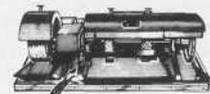
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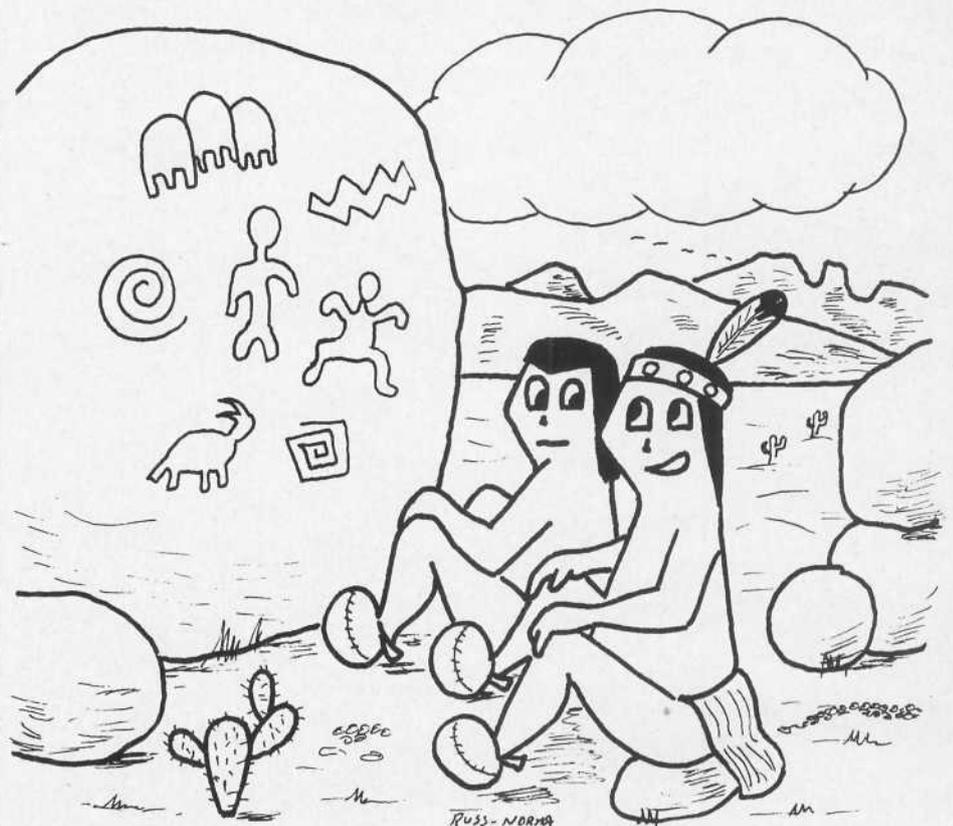
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"IT'S A CATCHY STYLE, BUT WILL IT BE READ A HUNDRED YEARS FROM NOW?"

Dolls in the DESERT

by ALVIN McLANE

TUNNEL CAMP bloomed in the desert during late 1926. It is located at the east base of the Seven Troughs Range, 27 miles northwest of Lovelock in Pershing County, Nevada. By 1972 the camp had a lively population of three.

One couldn't think of a more unlikely place to find a house full of dolls—no, not china dolls, but miniature dolls made of porcelain. Mr. and Mrs. Leighton have picked this isolated spot to pursue their avocation of making figurines. These include dolls, bells, rabbits, slippers, baby booties, deer, eagles, books, clocks, TV lamps, Madonnas, vases, cups and saucers and plates.

Arthur Harry Leighton (Harry, as he is called) and his wife, Lula Clay got start-

ed in ceramics back in 1951 while living in Southern California. The hobby was taken with them when they moved to Reno, Nevada. Mrs. Leighton has also been a former Salvation Army officer. Over the years, Harry has developed a "secret" formula for his porcelain. Persons have tried to buy the recipe, but the Leightons refuse to sell.

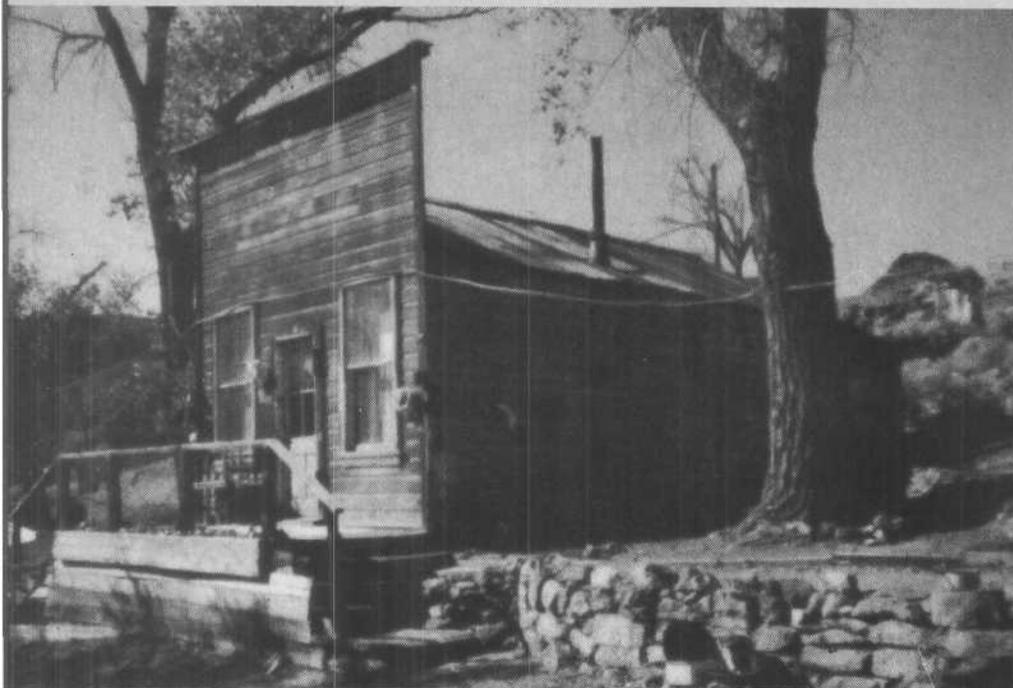
Eventually, Harry leased property in the Seven Troughs District where he works the old dumps for gold. He demonstrated how to extract the metal. A quantity of plain-looking dirt covered the bottom of his gold pan. Water was dumped in. A few deft, swirling shakes of the receptacle followed. The pan was quickly tilted. Water flowed out and the lighter sediments slid to the lower side of the container. There, at the top of the

pan, remained the shiny, heavy, flour-like gold. Harry went through this procedure much quicker than it took the author to describe the process!

To this isolated spot in the desert, the Leightons brought their molds, kilns and generator. Their molds are commercial, some being quite old. They have two kilns for baking their wares and a much smaller one to test small pieces. The kilns use a large amount of energy. Lula explained that one of the reasons for their isolation is that their diesel generator is less expensive to use than commercial power.

Harry has experimented with a variety of clays. A bible has been made from Nevada material. However, these artists prefer the commercial clay from Georgia—prized for its whiteness. Some of their pieces are plated with palladium. Other pieces are covered with liquid gold. After being kiln-treated, the liquid in the gold is vaporized and a shiny coated figure is the result.

If any of the readers takes the dirt road into the desert to see or buy the Leightons' wares, they will be surprised to find this hidden art spot. First, though, one may become bewildered as to how to find Tunnel Camp. Ask for directions in Lovelock. As the camp is approached from Sage Valley, the growth of cottonwood trees, planted over the years, leads one to the spot. You would suspect a sizable population with all the trees and buildings on the property, however, upon closer examination the place may seem deserted. But soon a person will appear and you'll be treated to fine cordiality. You'll be amazed to see the finished porcelain displayed in an old house—unbelievably beautiful handicrafts made in the desert. You'll be even more



Tunnel Camp, home of porcelain craftsmanship.



A close-up view of a porcelain doll emphasizes the intricate detail.

amazed to find the workshop is in a tarpapered, nondescript building. Inside you can watch manly fingers fashion tiny roses; watch delicate hands brush colors on miniature images.

You may purchase pieces that are already finished or possibly have one made to order and freighted. Prices

range, depending on the piece, from a modest \$2.00 to more than \$100.00. The Leightons can also be reached by addressing Lu Arts, P. O. Box 438, Lovelock, Nevada 89419. The talented couple plan to move out in 1979. If so, they hope to acquire an out-of-the-way place near Carson City, Nevada and continue their

profession. Lula has been asked to take her skills to the University of Reno. Upon moving to Carson City, Mrs. Leighton should pursue this idea. The Tunnel Camp may become quiet and forgotten to the wind, but imagine the younger generation maintaining an art that may also pass away with the wind. □

Sheep Hole Palms

by DICK BLOOMQUIST

*Sheep Hole
Palms as it
appeared in
the early '40s.*

which we visited earlier in this series. The well served travelers passing through Box Canyon, an important route long before the advent of the motor car. Later on, during the 1930s, U.S. Highway 60 curved between the canyon's sculptured walls.

The trail to Sheep Hole Palms climbs steeply for a short distance, but the hiker is soon rewarded by two expansive views of much of the Colorado Desert. The first embraces San Geronio and San Jacinto peaks, the Santa Rosa and Fish Creek ranges, the Salton Sea, and, if the air is clear, Signal Mountain on the Mexican line. The second overlooks Sheep Hole oasis itself—six small *Washingtonias* near the head of a barren arroyo.

Our pathway—probably of Cahuilla Indian origin—descends abruptly to the palms, which stand in two groups of three trees each. Only 15 or 20 minutes are needed to reach the oasis from Box Canyon. Short-skirted, fire-branded veterans a bit over 20 feet tall make up the upper triad. A few yards down the wash there are two more adults of comparable

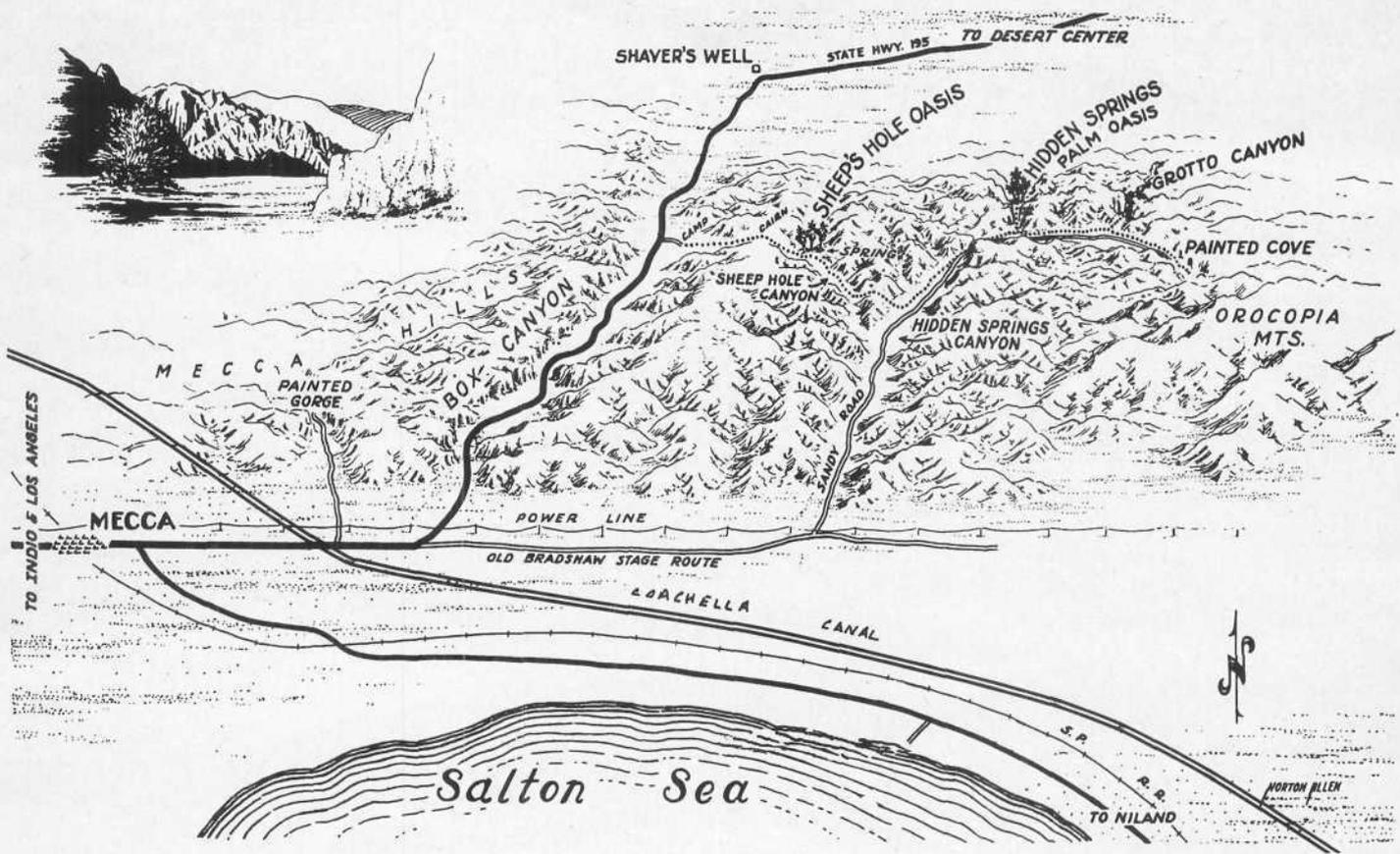
ALTHOUGH SHEEP HOLE oasis is less than a mile from a state highway, few motorists are aware of its existence. The palms are tucked away in a fold of the badlands on the south side of Highway 195, that scenic byroad which links the Coachella Valley with Interstate 10. For much of this distance the highway follows spectacular Box Canyon, a long and sinuous cleft separating the Mecca Hills on the north from the foothills of the Orocopia Mountains on the south. Well within Box Canyon, and ten miles from the town of Mecca, an unsigned dirt road forks to the right, leading to the mouth of a small tributary. The Sheep Hole trail works its way up the right slope of this side canyon.

For those coming from Monsen and Lost Palms canyons to the east, the road fork is two and three-tenths miles west of the site of Shaver's Well, identified by a historical marker and a few tamarisks.

John Shaver was a Riverside County supervisor who also gave his name to Shaver's — now Chiriaco — Summit,

Mileage Log

- 0.0 Junction of State Highways 111 and 195 near Mecca a few miles north of the Salton Sea. Drive east on 195 toward Box Canyon.
- 4.7 Cross Coachella Canal. The highway enters Box Canyon a short distance beyond the canal.
- 10.1 Junction. Turn right off Highway 195 onto dirt road. (For those coming from the opposite direction on 195, the turn is two and three-tenths miles west of Shaver's Well, which is identified by a Riverside County historical marker and a clump of tamarisk trees.)
- 10.2 + Dirt road ends near two large ironwood trees at mouth of a small Box Canyon tributary wash. The trail to Sheep Hole Palms—less than a mile in length—climbs the right slope of this tributary. Elevation at oasis about 580 feet.



size and a youngster about 12 feet in height. One fallen trunk lies near the lower group.

Extreme sparseness of vegetation characterizes Sheep Hole Palms in its setting of badland hills and washes. A scattering of desert holly and stunted mesquites, some tufts of grass by the lower palms, and a handful of stalwart ironwoods downstream are among the few plants which have gained a foothold here. Sheep Hole is unusual in this regard, for generally the moisture which nourishes *Washingtonias* sustains many other forms of plant life as well.

No water surfaces at the oasis today, but two shallow depressions by the lower cluster would yield water if they were deepened. These are the "sheep holes" where bighorn sheep and other wildlife sometimes come to drink, digging their way down to the moisture supplied by a branch of the great San Andreas fault.

From gaunt but intriguing Sheep Hole Palms the badlands trail leads downstream into Hidden Spring Canyon. In a tributary of the main canyon we shall suddenly come upon one of the most striking of California's desert oases and the subject of our next field trip in this series—Hidden Spring Palms. □

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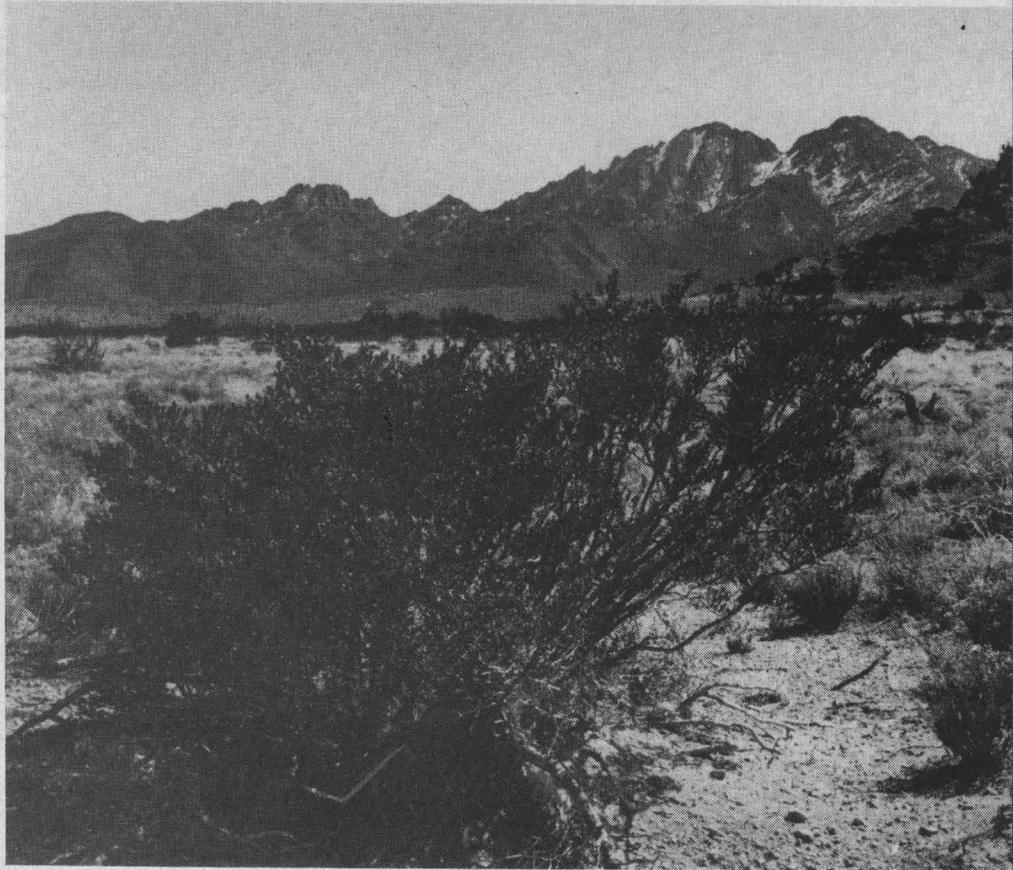
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MOUNTAIN OF TH

MOST TREASURES of gold, a Spanish chest containing 16th Century books, hideouts of Indian horse thieves and American rustlers, and an Apache ambush of a troop of cavalry are just a small segment of the ghost town history of Riley, New Mexico and the nearby Ladron Mountains.

Ladron Mountain has been known to the Spanish as the Mountain of Thieves since 1692. Beginning with the earliest periods of colonization, this extremely rugged and rocky mountain became a hideout for army deserters and other Spanish on the lam. El Camino Real (Royal Highway) passed under the shadow of the peak, guiding travelers headed north with their worldly goods to Santa Fe, or pack trains journeying south with produce or even gold and silver. The thieves hiding in the Ladrones, as legend has it, could observe the dust of the approaching parties miles away. Soldiers and robbery victims were leery of following the bandits into the jumble of rocks as every boulder suggested ambush.



by
**JON
WESLEY
SERING**

*Above: Sierra de Ladrones, the Mountain of Thieves.
Left: One of nearly two dozen adobe ruins which once housed the residents of Riley.*

THIEVES



Imagine the surprise, excitement and visions of riches which filled the minds of a New Mexican farmhand who in 1916 was poking among the rocks of the Ladrones and discovered a Spanish chest hidden in the recesses of a cave. His hands must have trembled as he lifted the lid of the chest. Suddenly his dreams were shattered. The contents consisted of only six old books.

Although the discovery wasn't gold or jewels, it was indeed a treasure. All of the books were printed before 1600 and were believed to have belonged to a missionary named Fray Diego Jimenez, who wandered throughout northern New Mexico between 1632 and 1678. It is assumed that robbers raided a convent and returned to their hideout with the "valuables." The books, considered worthless to the highwaymen, were left behind.

Professor Edgar J. Goodspeed, of the University of Chicago, who purchased the chest and books, described them as, "a well chosen little collection—a twelve inch library of Sixteenth Century; bibli-



Church services are held here once a year during the Feast of Santa Rita.

cal and secular, classical and humanist, poetry and prose."

Apache and Navajo Indians often hid in the Ladrones after a horse thieving raid on the nearby ranches. Later, American rustlers disappeared from sight in the numerous canyons or in La Cueva de Ladrones (Cave of Thieves).

The Cave of Thieves, located about two and one-half miles from Riley, contains many passageways and small rooms. While past amateur historians have found old .45 caliber cartridge shells, it is now more common to find modern .22 caliber long rifle shells and spray painted names on the walls. Today's "robbers" have also stolen and

destroyed many of the beautiful white, clear gypsum (selenite) crystals.

Both Spanish soldiers, and later American troops, tried to rid the area of thieves. An army cavalry troop was pursuing a band of Apaches in 1862, but situations became reversed when, in a nearby box canyon, the cavalry became the pursued. Little is presently known about this ambush because Confederate troops were mounting an attack that same year on the Union Fort Craig, south of Socorro.

But even with the threat of Indians, prospectors still roamed the desert mountains in search of precious minerals. A man named Hanson discovered

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gold in the Ladrones in 1868. Because of the rugged character of the terrain, abundance of rattlesnakes and lack of water, however, very few miners ventured into the area.

In the 1905 edition of *New Mexico Mines and Minerals*, Fayette Jones wrote:

"Prospectors have oftentimes reported rich gold discoveries in the Sierra Ladrone, but were never able afterward to return to the coveted spot, after once leaving it for water and supplies.

"Since the only inducements held out to those who dared enter this enchanted region were disappointments and death, no one cared to take chances against such odds."

The Spanish-American colony of Santa Rita began in 1880, and was located along the Rio Salado (Salty River). When a post office was established 10 years later, the small farming and mining community was renamed Riley, after a local sheep rancher.

Prior to 1900, Riley boasted a population of 150 and reported mining as its

Above: The Cave
of Thieves,
where highwaymen
and rustlers hid
from the law.
Right: Box Canyon.
Some historians
think this may be
where an army
cavalry troop
was ambushed by
Apaches in 1862.

chief livelihood. The town was made up of approximately two dozen houses, two general stores, the church of Santa Rita and a stone schoolhouse. The four producing mines paid workers \$1.75 per day.

While the town was prospering, a survey was conducted which revealed that the community had homesteaded, not on government land, but on property owned by the Santa Fe Railroad. Tenseness hovered over the adobe buildings and fields where corn, chilies and frijoles were growing. A land war was averted when the government stepped in and made a land exchange with the railroad, allowing the people to keep their farms.

It was the Rio Salado that killed Riley. When the river level dropped due to floods, irrigation ditches could no longer bring water to the fields, causing the population to drop as a result. By 1931, Riley became a town of ghosts.

Once a year, however, on May 22nd, the town of Riley comes "alive" during the Feast of Santa Rita, when descendants of the original citizenry return for a day of worship and fiesta.

Riley, the Ladron Mountains and the

Cave of Thieves can be reached from either the Bernardo turnoff (50 miles south of Albuquerque on I-25), or from Magdalena. One of the local ranchers said, "We don't mind sightseers in the town, but please remember to close the gate to the churchyard. The cows get in there and knock over the grave markers." The church is locked, but you are free to wander among the old adobe ruins and the stone schoolhouse.

The Cave of Thieves is near Riley, on the west side of the dirt road. Located near a small knoll and rock dike, 100 feet from the road, is the four-foot by ten-foot cave entrance.

If your desire is to climb the Ladron Mountains (presently under consideration as a Bureau of Land Management Primitive Area), or search for Spanish chests, remember there are no streams, only infrequent springs in these mountains. The ridge is made up of sharp rocks and sheer cliffs. But once on top the 9,176-foot-high peak, you look down on the Rio Grande Valley. In fact, you can almost swear that you see the dust of approaching travelers carrying riches to Santa Fe. □

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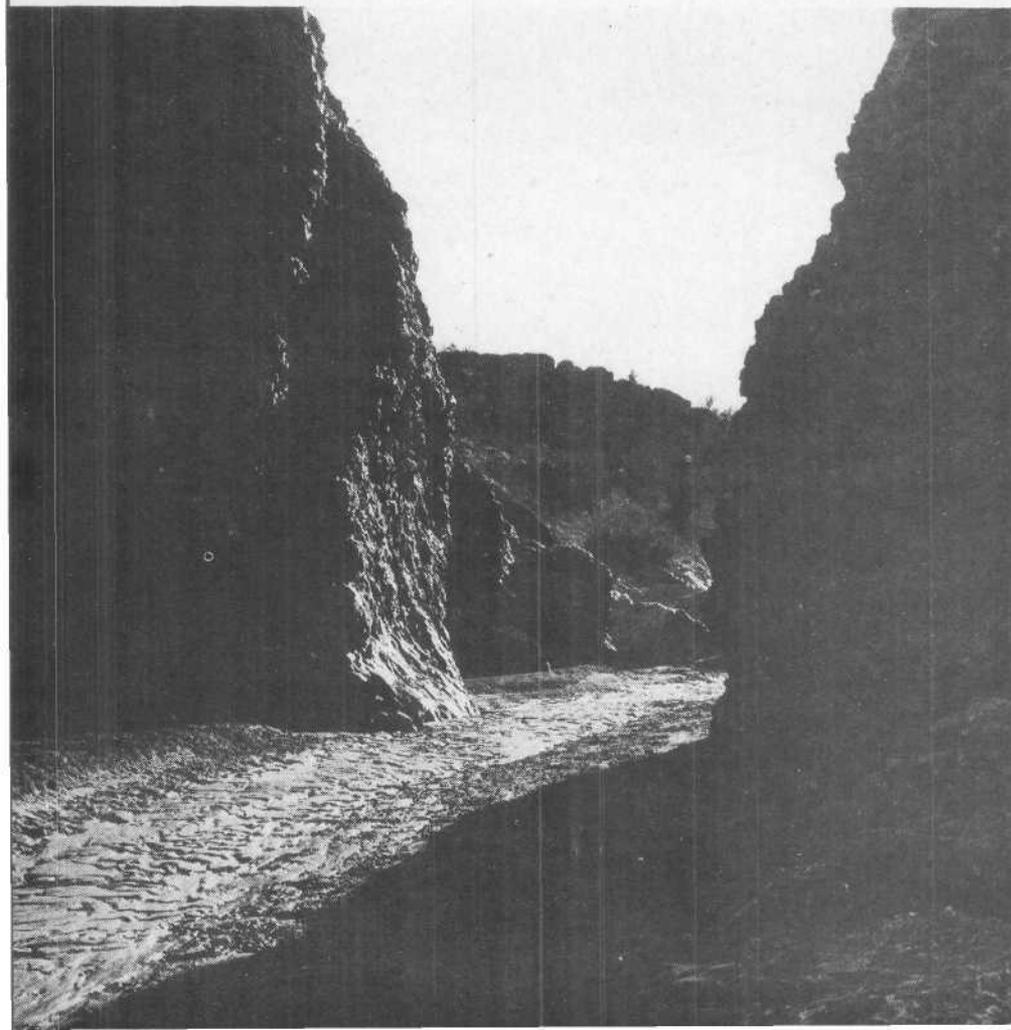
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Modern day cook, Raymond Dosela, still uses Dutch ovens on oak coals. Picture was taken on a 1970 cattle drive.

three stubby legs and a free-swinging bail. The lid is tight fitting and made of the same heavy metal and has a flange of an inch or so for holding hot coals. A small handle in the slightly domed lid enables the cook to lift the lid with his fire hook. In the Southwest this fire hook is called a gonch-hook or goncho.

Shallow Dutch ovens with sides of four or five inches are best for frying foods or sides up to 10 inches or more are used for roasts. Dutch oven cooks call these either "bread" ovens or "meat" ovens. The cast iron, legless oven, usually with a glass lid, found in modern department stores in the houseware department, is not a real Dutch oven and is useless for baking with coals.

Old time trading posts in the western United States still carry Dutch ovens for sale. Many well-stocked sporting goods stores now sell genuine Dutch ovens. Good old-fashioned hardware stores are good bets for locating one. Zork Hardware wholesalers in El Paso, Texas, supply a very wide area with Dutch ovens.

Cast iron ovens, being heavy, are useless for backpackers, but those making pack-mule trips or four-wheel-drive enthusiasts will find them a joy to use.

After you get your Dutch oven, the next most important thing is the proper kind of fire. For an hour before ready to bake, build your fire of good hardwood—and don't be stingy! There's nothing as frustrating as lack of enough coals when ready to bake biscuits. So pile on the mesquite or oak, both excellent woods for making fine coals. Whatever you do, don't try to use soft woods such as pine, fir, juniper, cedar, spruce, cottonwood or aspen. You can fry foods with soft resinous woods, but none will hold heat or make good red coals for baking in a Dutch oven. About all a conifer log is good for is its pungent odor and an abundance of miserable black smoke.

I like to build my fire in a fire hole—probably because I learned to do my outdoor cooking in the windy part of Northern Arizona, where a person soon learns if they build their fire flat on the ground, it's liable to be in the next county by the time you have your biscuits ready for the oven. So I dig a trench three to five feet in length and about 18 inches deep. I slant it out in front so it is easy to use the shovel to remove coals.

Dutch Oven Cooking Is Not A Lost Art!

by STELLA HUGHES

ONE OF the most efficient devices ever invented for outdoor cooking is the Dutch oven. The immigrants settling the American West brought this portable and versatile kettle with them and everything was cooked in it from bread, puddings, stews, roasts and fruit cobblers.

In it they fried their fresh brook trout and roasted rumps of buffalo and venison to tender perfection. The Mexicans used it for making their tortillas and in it

the lonely shepherd baked his round loaves of Basque bread. The intrepid chuckwagon cook used it to bake his sourdough biscuits, simmer his famous Son-of-a-gun stew, fry beef steaks or concock, delicious tallow puddings made from fried fruits.

The Dutch oven is made of heavy cast iron and comes in sizes ranging from the tiny eight-inch "two serving" oven to the large 16-inch size, which will hold up to 40 biscuits. It's flat bottomed and has

I like to use two pipes laid lengthwise for fireirons. Pipe must be heavy galvanized iron or after too much heat they will bend. Two-inch pipe serves best and I block the ends with dirt so they cannot roll. On these rods go the Dutch ovens and lids for heating. Very little cooking is done on the open flame. We use coals to cook with and these are scooped from the fire hole with a long-handled, flat-bottomed shovel, and put to one side. Arranged in neat piles just slightly larger than your oven, you can have as many "stoves" as you have piles of coals.

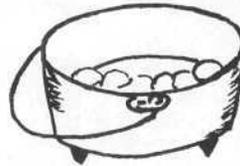
Mix your biscuits while the fire is burning down to nice red coals. Meanwhile, 10 minutes beforehand, put the oven lid on the fire irons to heat. Then just before baking time, put the Dutch oven on to warm. Oven should be warm enough to melt grease, so leave it on the fire for only a few moments. When greasing bottom and sides, if it hisses and smokes, it's too darned hot! Let it cool a little before crowding in your biscuits. Put the hot lid on at once.

From the fire hole take at least two shovels of red coals. Put them off to one side so you won't be stepping in them. Break up the larger coals with the bottom of your shovel. Arrange them evenly on the ground and put the Dutch oven squarely on them. Be sure oven is as level as possible. Then place good, live coals on the lid, filling to the brim of the flange. Break the coals up and distribute evenly. If the wind is blowing, the coals can get too hot. You can tone the coals down a bit by adding ashes, but don't kill your heat by putting on too many ashes at once. When the wind is blowing enough to fan the coals, it's best to put up a good windbreak.

If you are a worrywart you will begin peeking every few minutes. Try not to do this, as each time you sneak a peek you are letting the heat out and the cold air in. When lifting the lid with your gonch hook be sure to lift straight up so that lid does not tilt and spill ashes onto the bread. If a few ashes do fall in, no great tragedy, as they really don't taste so bad and can be brushed off after biscuits are done.

After the bread has been cooking for a few minutes take the gonch hook, and by the bail, lift the entire oven, lid and all, and rotate it by quarter turns on the coals. Then lift the lid and give it quarter

USE ONLY HARDWOOD COALS — OAK OR MESQUITE. SOFT WOOD SUCH AS PINE, CEDAR, JUNIPER OR COTTONWOOD WILL NOT MAKE PROPER COALS FOR BAKING.



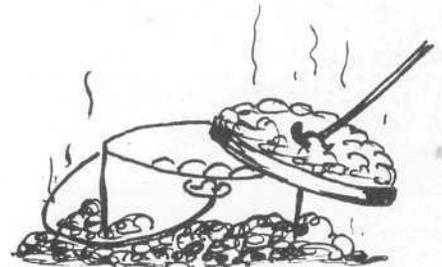
WARM DUTCH OVEN — ADD GREASE AND START PINCHING OFF BISCUITS AND CROWD 'EM IN UNTIL BOTTOM IS COVERED



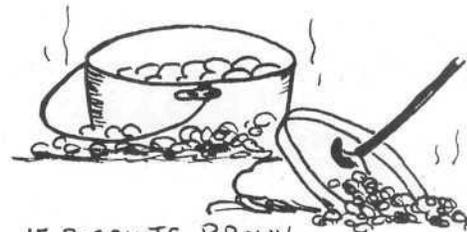
PRE-HEAT LID — EVENLY — HOT, BUT NOT RED-HOT.



SET OVEN ON LEVEL BED OF COALS (LIVE AND RED). PILE UP ALONG SIDES OF OVEN. THEN PUT ON HOT LID AND FILL TO RIM WITH HOT COALS.



WHEN PEEKIN' BE CAREFUL NOT TO SPILL ASHES ON BISCUITS.



IF BISCUITS BROWN FASTER ON TOP — REMOVE LID, DUMP COALS, PUT LID BACK ON OVEN.

IF BISCUITS BROWN TOO FAST ON THE BOTTOM REMOVE OVEN FROM COALS. BISCUITS WILL FINISH BAKING IN HOT OVEN.

WHILE BAKING, LIFT ENTIRE DUTCH OVEN AND ROTATE BY QUARTER TURNS TO ASSURE COOKING EVENLY —



LIFT LID AND ROTATE SEVERAL TIMES

STELLA HUGHES

turns. This assures the biscuits baking evenly. There are bound to be a few hot spots. If coals are too hot on one side, remove the oven and take the shovel and rearrange the coals evenly. If the biscuits brown too fast on top, remove lid, dump ashes and return lid to oven at once. If the biscuits seem to be browning too fast on the bottom you can remove oven and set to one side. The biscuits will finish baking from the heat of the oven.

When the biscuits look done, test by taking a fork and gently lifting a biscuit from the center. If they are thoroughly done, and top and bottom are a golden brown, remove from the coals at once. You can move the lid a few inches off center so bread will not "sweat," or

remove the biscuits to another pan to keep warm and the oven can be used to cook something else.

A good camp cook can cook anything in a Dutch oven. Cookies, cakes and pies can be baked in the oven itself or put in pans and placed on inverted pie tins in the oven. Stews, roasts or deep-dish cobblers can be buried in coals and made airtight by covering with dirt. All kinds of fowl or fish are roasted by placing a small amount of water in the oven and letting them do their own basting. Steaks, pounded and floured, can be fried in fat and after removing the steaks, mild gravy made from the drippings. When served with hot biscuits, you have a meal fit for a king.

So get a Dutch oven and have fun! □

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THE WEST

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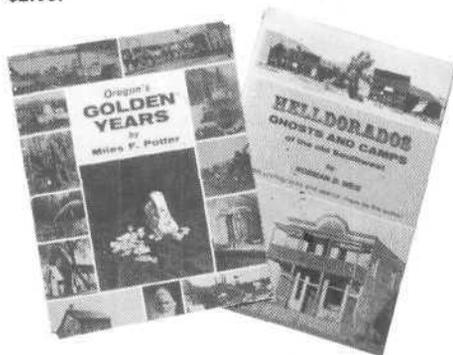
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Greasewood plants at home in the Carson Sink of Nevada.

True Greasewood

Continued from Page 14

But just where did he find it? His journal, although never completed, is a fascinating book about the exploration of the "far West." In that account he tells about the collecting of hundreds of plants, many of which he named, but greasewood is not mentioned probably because he never finished the journal. It was not finished because he left his Columbia River headquarters to visit the Hawaiian Islands, and there under mys-

terious circumstances fell into a bulltrap and was trampled to death by a bull. Thus, the exact location where the type specimen of greasewood was collected has never been learned.

Greasewood is a member of the pigweed family which includes many other desert shrubs such as hop sage and shad scale often associated with it in saline areas. To distinguish true greasewood from other desert plants, look first for conspicuous leafless gray-white spiny branches extending out from the inner green foliage. These spiny shoots give the shrubs a vicious appearance. The terminal long spines are modified shoots but the short, very sharp lateral spines are true spines. The linear, somewhat cylindrical leaves (see illustration) distinguish greasewood from other pigweed species in the same environment because the leaves of the others are oval and flat. The leaves seem to occur in pairs, are irregularly placed, and are always so oriented that they seem to point to the sun. Indeed, the pointing of leaves to the sun as a protection against excess illumination is characteristic of many desert shrubs.

The flowers of greasewood are even more irregular than the leaves. Like

those of other members of the pigweed family, individual flowers are inconspicuous, have no petals, and are not objects of beauty. The flowers occur in inflorescences called "spikes," are either male or female or both, and vary in size from tiny bodies to conspicuous structures over two inches long. When the spikes are large, they superficially resemble the catkins of a poplar tree. The presence of such spikes certainly identifies true greasewood, but recognition must depend usually on finding the characteristic leaves and spines.

True greasewood is abundant in the Great Basin desert, especially in southwestern Utah, occurs prominently in the alkaline sinks and saline playas of Nevada, but is rare in California. Indeed, the saline shores of Owens Lake are one of the few California locations where it is abundant. It is not a plant typical of the Mojave Desert because there, creosote bushes grow in locations one might expect it to occur. The relative distribution of greasewood and creosote bushes is a function of resistance to cold and ability to compete with other plants. Greasewood bushes tolerate very cold weather; creosote bushes do not, but creosote bushes are great competitors. Indeed, creosote bushes, common in vast areas of the Mojave and Sonoran deserts, are thought to exude poisonous substances into the soil that literally keep other plants away.

Thus, greasewood grows only in northern alkaline areas of the Mojave desert where winters are too severe for creosote bushes to thrive. Greasewood is very much at home in northern Nevada, especially in the various Humboldt sinks where it forms green hummocks far out in the alkali where one would think no plant could be. Only pickleweed grows further out into the white alkali. The roots of greasewood penetrate deeply through the alkali and reach water the plants can use. They require "drinking water" and that is why oldtimers claimed their presence was a sure sign of usable ground water.

In conclusion, I wish to thank the personnel of the Newell Experiment Station, Fallon, Nevada for furnishing helpful data and for providing facilities for pictures. Also, I wish to suggest that the bush Moses saw burning on Mount Sinai was probably an Arabian species of *Sarcobatus*! □

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Letters to the Editor

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The Conenosed Whatever . . .

Recently, while systematically leafing through back issue in search of everything which *Desert* contains for the last 20 years concerning certain sections of Baja, I happened across Sylvia Kircher's article, "Beware the Conenosed Bloodsucker," in the September, 1967 issue. Since I had just seen the depicted insect the prior weekend, I interrupted my research to reread the article.

We had camped in a sagebrush-filled valley at about 8,000 feet southwest of Gunnison, Colorado. The area is very dry, but several springs feed a small stream near where we were camping. The area is also replete with marmots, pack rats, prairie dogs, ground squirrels, mice and other small rodents. We were spending the night in an old log cabin and the fire in the potbelly stove had already reached the "dying embers" stage when what sounded like a small airplane zoomed in out of the cold, wet night air. At the time, it seemed more important to sleep than investigate the buzzing sound.

The next morning it was quite damp and early expeditions on foot resulted in soaked tennis shoes. Accordingly, as breakfast was simmering, the wet shoes were toasting near the fire. Suddenly, an excited "Come look at this ugly beast!" finally aroused me from my sleeping bag. There, on the toe of a shoe nearest to the fire, was a large black bug,

which at first blush looked like a beetle, slightly roasted, yet still standing on the shoe. Hard to tell how the "beast" got there. On the shoe, however, it was still anatomically intact. While we can't now make a positive identification because the specimen is no longer available, and because we enjoyed the good fortune of *not* having been bitten by it, I am absolutely convinced that it was the Conenosed Bloodsucker.

Frankly, I am glad that the thing didn't bite any of us because I am certain there was not a doctor within 20 miles, and we sure weren't packing any of the Kircher prescription hot Epsom salts.

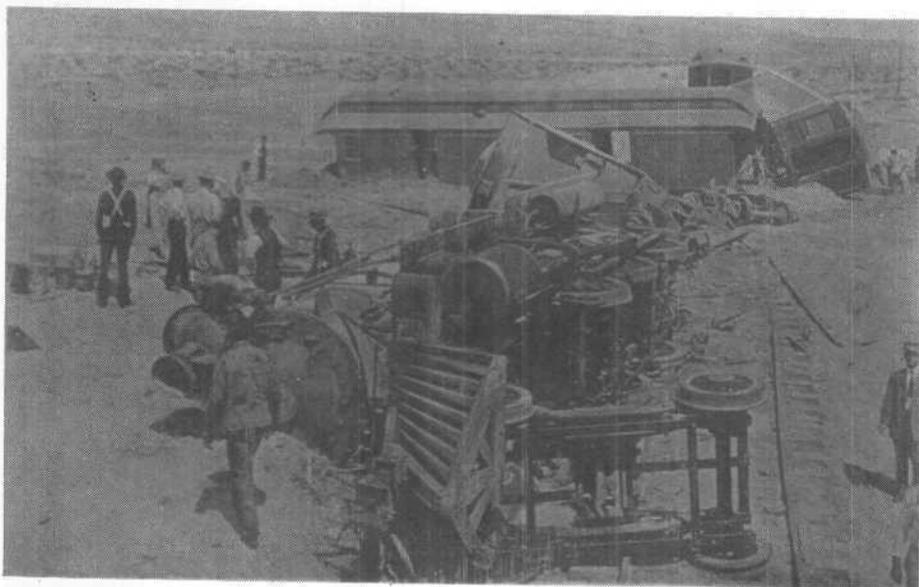
The specimen was about an inch and a half long, which would indicate a larger than average Conenose, if the Kircher three-quarter inch example was anywhere near average. It also appears that the Western Conenosed Bloodsucker has extended his territory eastward, since the Kircher article indicates an eastside perimeter in Utah. It looks to us as if it is only a short time until the folks east of the Continental Divide will be getting a view, periodically of *Triatoma Trotracta*, or Kissing Bug, or Assassin Bug, or Bellow Bug, or whatever this ugly beast is called.

ARTHUR R. HAUVER,
Littleton, Colorado.

Railroad Tragedy . . .

Regarding the Cooks' story in the September, 1977 issue "Retracing the Tonopah and Tidewater Railroad," I thought your readers might like to see this old photo that was sent to my grandmother, Mrs. A. B. Thornbury, of Spearfish, South Dakota. Who sent it to her I do not know, but on the back of the photo it tells that a Mr. Hamilton was killed on the Tonopah & Tidewater Railroad 10 miles below Death Valley. Evidently there was a cloudburst which washed out 100 feet of track on August 9, 1908.

HERBERT W. JONES,
Ramona, California.



Desert/January 1978

Calendar of Events

This column is a public service and there is no charge for listing your event or meeting—so take advantage of the space by sending in your announcement. We must receive the information at least three months prior to the event.

JANUARY 28 & 29, 29th annual gem show, "Prospectors Paradise," Santa Ana Armory, 612 E. Warner, National Guard Armory, Santa Ana, Calif. Free admission and parking.

JANUARY 28 & 29, Antique Barbed Wire and Collectable Show sponsored by the California Barbed Wire Collectors Assoc., Exhibit Building, Merced County Fair Grounds, Los Banos, California. Free admission. Contact: Charles Sawyer, 1511 Sierra Lane, Los Banos, California 93635.

FEBRUARY 4 & 5, the Everett Rock and Gem Club's 25th Annual "Silver Commemoration" Rock and Gem Show, Everett Masonic Temple, Everett, Washington. Admission free.

FEBRUARY 10-12, Wickenburg Gem & Mineral Society's Annual Gold Rush Days Show and Sale, Community Center, Wickenburg, Arizona. Free admission. Chairman: Virgil Davis, Star Route Box 11A, Morristown, Arizona 85342.

FEBRUARY 11 & 12, "Fiesta of Gems" show sponsored by the American River Gem and Mineral Society, Inc. Mills Jr. High School, 10439 Coloma Rd., Rancho Cordova, Calif. Free admission.

FEBRUARY 25 & 26, 23rd Annual Gem & Mineral Show sponsored by the Santa Clara Valley Gem & Mineral Society, Santa Clara Co. Fairgrounds, Tully Road, San Jose, California. \$1 donation, children under 12 free with an adult. Dealer spaces full. Camping available. Contact: Jim Fawnsworth, 684 Lakewood Dr., Sunnyvale, Calif. 94086.

MARCH 3-5, Maricopa Lapidary Society's 29th Annual Show, "Rockhound's Paradise," North Exhibit Hall, Coliseum, State Fairgrounds, Phoenix, Arizona. Camper parking at Fairgrounds.

MARCH 3-12, Imperial Valley Gem and Mineral Society presents their 31st annual show as part of the California Mid-winter Fair at Imperial, California. Guided 45-mile field trip into Mexico on March 11th for Rhyolite. Admission charged to Fairgrounds.

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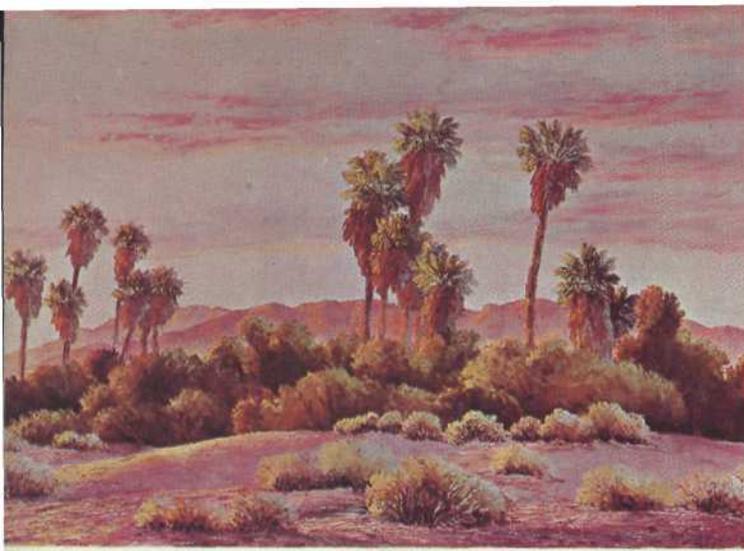
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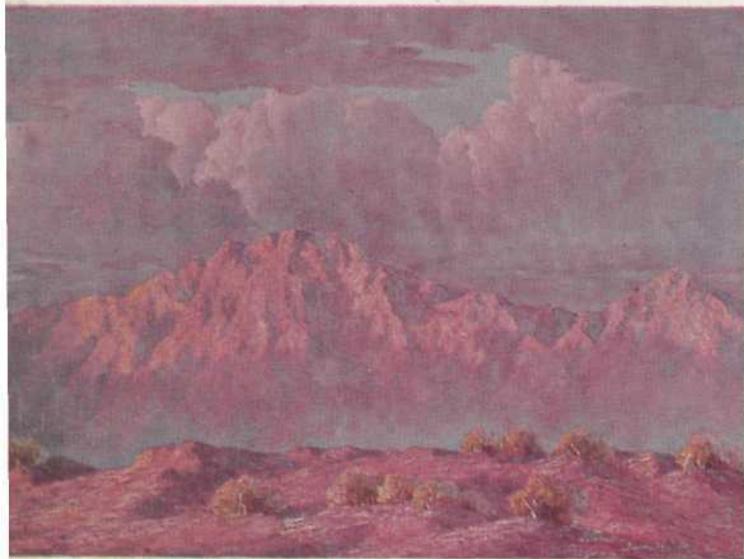
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